

# Assessing Progress in Deer Management - report to Scottish Government from Scottish Natural Heritage September 2019



Scottish Natural Heritage  
Dualchas Nàdair na h-Alba  
**nature.scot**



# Contents

|   |    |
|---|----|
| 1. Executive summary.....   | 3  |
| 2. Scope and approach .....   | 6  |
| 3. Introduction .....   | 8  |
| 3.1 Background to this progress report.....   | 8  |
| 3.2 Significant action relevant to deer management since 2016 .....                                 | 9  |
| 3.3 Significant policy developments relevant to deer management since 2016.....                     | 9  |
| 4. Update on progress in deer management .....  | 11 |
| 4.1 In upland areas covered by Deer Management Groups.....  | 11 |
| Summary of key findings and further work required .....   | 11 |
| 4.1.1 Updates to Deer Management Groups.....  | 12 |
| 4.1.2 Update on upland red deer population trends.....  | 13 |
| 4.1.3 Habitat impacts – Protected Area feature condition.....                                       | 16 |
| 4.1.4 Herbivore Impact Assessment - HIA.....  | 18 |
| 4.1.5 Assessment of Deer Management Group performance 2019 .....                                    | 19 |
| 4.2 Deer management in lowland deer areas .....   | 30 |
| Summary of key findings and further work required. ....   | 30 |
| 4.2.1 Understanding and defining the lowlands .....   | 31 |
| 4.2.2 Lowland Deer Panel.....   | 31 |
| 4.2.3 Updates to deer management structures and deer groups in lowland areas .....                  | 34 |
| 4.2.4 Update on lowland deer trends - populations and impacts .....                                 | 35 |
| 4.2.5 Impacts on lowland Protected Area feature condition (SCM).....                                | 35 |
| 4.2.6 Deer Vehicle Collisions .....   | 36 |
| 4.2.7 Lowland Deer Management Project - Assessing delivery of public interests in the lowlands..... | 37 |
| 4.2.8 Our work with Local Authorities on deer management .....                                      | 38 |
| 4.2.9 Lowland Deer Network Scotland (LDNS) .....  | 39 |
| 4.3 Deer management in woodlands .....  | 40 |
| Summary of key findings.....  | 40 |
| 4.3.1 Native woodland creation .....  | 40 |
| 4.3.2 Native woodland condition .....   | 41 |
| 4.3.3 Native woodland restoration.....  | 43 |
| 5. SNH's role and our use of regulatory provisions.....   | 45 |
| Summary of key findings and further work required .....   | 45 |
| 5.1 Update on SNH's use of regulatory provisions.....   | 46 |
| 5.2 Other forms of support and advice.....  | 54 |
| 5.2.1 Developing local collaborative approaches.....  | 54 |

|  |     |
|--|-----|
| 5.2.2 Direct support.....  | 55  |
| 5.2.3 Financial support.....   | 55  |
| 5.2.4 Advice, support and guidance .....   | 58  |
| 6. Review of compliance with the Deer Code .....   | 60  |
| Summary of key findings.....   | 60  |
| 6.1 On-line questionnaire background .....   | 61  |
| 6.2 Questionnaire information for assessing compliance .....   | 61  |
| 6.2.1 Deer Code actions which ‘should’ be carried out.....   | 61  |
| 6.2.2 Deer Code actions which demonstrate good practice – ‘the could actions’ .....  | 62  |
| 6.2.3 Other evidence that supports the delivery of sustainable deer management.....  | 63  |
| 6.3 Questionnaire information on the effectiveness of the deer code in promoting sustainable deer management .....                           | 63  |
| 7. Evaluation and conclusions on progress .....  | 65  |
| 7.1 Our view of progress in deer management.....   | 65  |
| 7.2 Our view on Deer Code compliance and effectiveness .....   | 67  |
| 7.3 SNH’s leadership role in protecting the public interest.....   | 68  |
| Annex 1 Lowland deer areas definition .....  | 71  |
| Annex 2 Stand-alone account of SNHs review of the Deer Code.....   | 72  |
| Annex 3 Public policy targets relevant to deer management.....   | 79  |
| Annex 4 Site Condition Monitoring - supplementary details .....  | 80  |
| Annex 5 DMG assessment results tables .....  | 81  |
| Annex 6 Lowland deer management structures and priorities in 2019. ....  | 87  |
| Annex 7 Lowland census since 2016 in support of local case work. ....  | 89  |
| Annex 8 DVCs trend maps and charts.....  | 90  |
| Annex 9 Summary of deer management delivery models in lowland deer areas .....   | 94  |
| Annex 10 Status of Local Authority deer plans .....  | 95  |
| Annex 11 Scottish Forestry Grant Scheme grants contributing to native woodland SBS condition targets between April 2016 and March 2019. .... | 96  |
| Annex 12 Summary of SNH provisions under Deer (Scotland) Act 1996 as amended.....  | 99  |
| Annex 13 SNH response to Deer Panel Review of Authorisations 2016 recommendations .....  | 100 |
| Annex 14 Site accounts in relation to voluntary control agreements (Section 7). ....   | 102 |
| Annex 15 Examples of developing local collaborative approaches .....   | 111 |
| Annex 16 List of SNH research reports.....   | 114 |

# 1. Executive summary

This report provides an update to the review of deer management in Scotland carried out by Scottish Natural Heritage (SNH) in 2016. It specifically addresses the challenges highlighted by the Cabinet Secretary in 2017 with a focus on efforts to ensure that deer management takes account of public interests.

The report pulls together evidence that has been commissioned specifically for this report<sup>1</sup>, information from ongoing programmes of work<sup>2</sup> and reports on the assessment of Deer Management Group (DMG) performance in 2019 carried out by SNH in conjunction with the Association of Deer Management Groups (ADMG). We recognise the limitations of some of the evidence presented, but consider it collectively provides a credible picture of progress.

The report presents the Lowland Deer Panel findings and sets out SNH's response to their recommendations. We report on our view of compliance with the Deer Code and its effectiveness in promoting sustainable deer management.

The overall impression is of an improving picture of deer management in Scotland. Red deer populations have been stable since 2000 and there are early indications of an overall decrease in population density with marked reductions in some regions. In the uplands DMGs now cover a greater proportion of the red deer range, with significantly improved management plans and associated improvements in DMG performance. We note that progress has largely taken the form of stronger governance and more effective planning, while the evidence for implementation is still developing. We welcome this progress and consider SNH has had a key role in driving this change, particularly through supporting all groups, with a particular focus on those that performed poorly in 2016.

In lowland deer areas, we welcome the focus brought by the Lowland Deer Panel. We agree with the conclusion that existing lowland deer management structures are appropriate and that the need for collaboration varies with circumstances. Hence some of the developing lowland collaborative structures serve largely to share experience, promote Best Practice Guidance, improve communications and engage with the wider public.

Meanwhile, we conclude that three of the five Scottish Biodiversity Strategy 2020 Route Map targets<sup>3</sup> in which effective deer management can contribute are unlikely to be delivered by 2020, but nonetheless progress is being made. The view of an improving picture of deer management does not necessarily conflict with these findings in relation to the condition of Protected Areas or the delivery of improvements in native woodland condition as these can take time to evidence and these remain the areas where more evidence of progress is needed on the ground.

There is evidence of improving implementation that can be gleaned from the national and regional population trends. The overall red deer population trend over the last 20 years highlights that culling rates have been sufficient to stop population increase and potentially reduce the population. However, we caveat this against the backdrop of densities being higher than historic levels and also with marked regional variation in densities and culling effort.

---

<sup>1</sup> Questionnaire survey on the Deer Code and an update on red deer population trends

<sup>2</sup> Site Condition Monitoring, Deer Vehicle Collisions reporting, Scottish Forestry Grant and Agri-Environment Grants allocations

<sup>3</sup> 3<sup>rd</sup> SBS 2020 Route Map report currently in review

Red deer census is necessary for managing populations and could be viewed as a barometer as to where issues are likely to arise. However, our primary interest is with respect to addressing local deer impacts, whether on the natural heritage, on public safety, agriculture or forestry, rather than concern for deer numbers *per se*.

We provide an account of SNH's use of the range of regulatory powers and describe the approach we have taken to support the voluntary system of deer management. We think the evidence supports that SNH has been responsible for driving changes in both upland and lowland deer management, but we recognise that finite resources, combined with challenging socio-economic circumstances have limited progress on some sites. We have deliberately focussed on supporting DMGs within the voluntary system given the relative biodiversity gains to be had from across the upland DMG range as opposed to a narrower focus on regulating a limited number of Protected Areas. We think this investment has been beneficial and is well reflected in the uplift in DMG performance.

This 2019 report demonstrates progress against criteria that were set out in the Code of Practice for Deer Management in 2012. However we are conscious of the evolving picture in terms of public policies that relate to land use, in particular the declared climate emergency and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) global assessment of nature. Hence we feel the view of good progress to date also needs to be seen in the context of future challenges about land use more widely and recognise the ongoing pace of change required. We highlight the essential role that deer management needs to play in progressing and responding to these challenges. Through the improvements in group governance and planning we have seen, we consider the sector is now better positioned to respond accordingly.

## Conclusions

- I. *There has been significant progress in the deer management planning process across the upland Deer Management Group (DMG) range. We note the progress made and where there are still improvements to be made.*
- II. *The current evidence for Deer Management Plan (DMP) implementation in the form of action on the ground is still at a relatively early stage. Delivery of tangible benefits will take longer to emerge, although there is some evidence for a recent overall decline in deer numbers and for marked reductions in some regions due to management intervention.*
- III. *Three of the five Scottish Biodiversity Strategy (SBS) Route map 2020 targets in which deer management has a role are unlikely to be delivered. The native woodland condition and restoration targets show insufficient progress and should be a priority for future focus.*
- IV. *The Lowland Deer Management Project findings and the online questionnaire results support our conclusion that the majority of lowland deer managers are taking responsibility for managing deer on their land.*
- V. *Specific action has been taken with respect to Deer Vehicle Collision (DVC) risks in certain areas and we continue to develop our understanding of the risks to help reduce impacts on public safety and deer welfare.*
- VI. *The majority of land managers are complying with the letter and spirit of the Deer Code, but we note there are areas where more work is needed.*

- VII. *The Deer Code has been effective in promoting sustainable deer management by helping to clarify 'the ask' of deer managers and public bodies.*
- VIII. *The evidence presented demonstrates SNHs proactive leadership role in deer management within a voluntary system. We have balanced our use of support, intervention and regulation to promote sustainable deer management and the protection of public interests. We have prioritised and targeted finite resources and have secured a significant improvement in deer management planning across the uplands with the potential for greater natural heritage benefit than could be achieved by a narrower focus on preventing damage on a selection of sites through regulatory provisions.*
- IX. *Balancing natural heritage and socio-economic objectives is challenging; voluntary control agreements can be made to work, but they can take time and be resource intensive.*
- X. *Future challenges remain to ensure delivery of sustainable deer management in Scotland, with the benefits clearly evidenced on the ground. The sector is making progress, but momentum needs to be maintained if we are to meet the emerging priorities associated with climate change and biodiversity loss. This report illustrates that the deer sector is now in a better position to respond to these emerging challenges.*

## 2. Scope and approach

As requested by Scottish Government, this update focuses on public interest issues<sup>4</sup> and specifically does not examine some of the wider issues around deer management included in the 2016 review. Our approach has been to provide an up to date summary and we have carried out a like-for-like assessment in so far as is possible.

Where new work has been commissioned as SNH research reports these have been reviewed through an external (peer review) quality assurance process. Any work that uses the same methodology as in 2016 was reviewed by our Scientific Advisory Committee at the time. Our general approach has been to increase the availability of [deer management data](#) via our website and to ensure our deer data is gathered, checked and analysed in a rigorous way.

Our report in 2016 described current approaches to deer management in Scotland. It grouped these into areas covered by DMGs within the upland red deer range and lowland deer management; typically at lower altitudes in South Scotland, Central Scotland and East and North East Scotland, where roe deer are the primary species. We have retained this rough split of deer management structures in this report, but note that the situation in reality is more complex. [Annex 1](#) explores in more detail definitions of upland and lowland deer management.

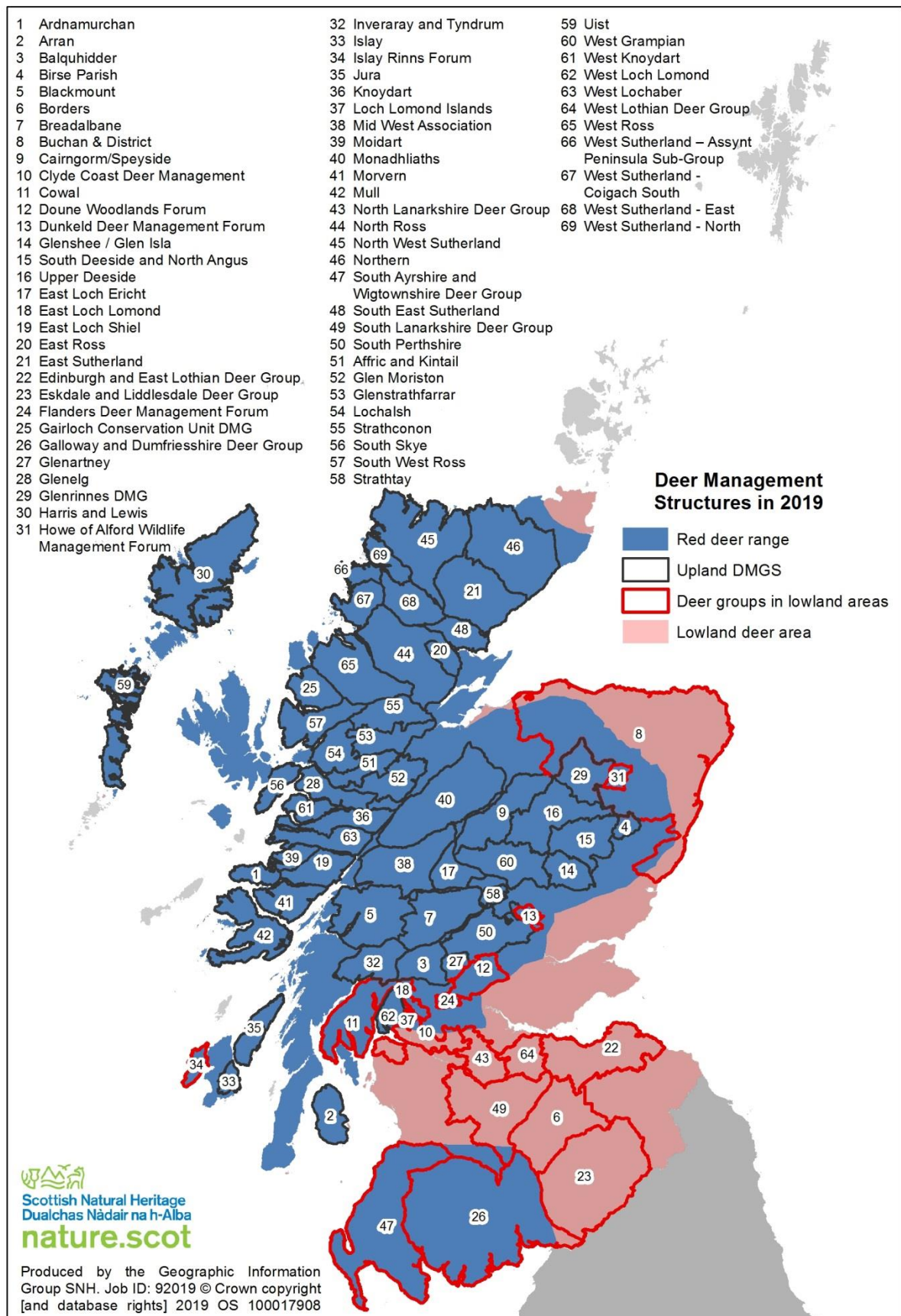
Figure 1 illustrates the geographical distribution of upland and lowland areas referred to in this report and the presence of deer management structures as of September 2019.

---

<sup>4</sup> Deer Code definition - Public Interest refers to something in which the people of Scotland as a whole have an interest. Parliament and public bodies often produce policy statements or laws that describe the public interest in specific issues such as rural development, increasing biodiversity, protecting animal welfare, supporting public access and safeguarding public safety.



Figure 1 Deer management structures in 2019





## 3. Introduction

### 3.1 Background to this progress report

The current frame of reference stems from the Rural Affairs, Climate Change and Environment (RACCE) Committee's inquiry into deer management in 2013. The first assessment of DMG performance by SNH against the criteria set out in [Scotland's Wild Deer: A National Approach](#) (WDNA) was carried out in 2014. At that time the RACCE Committee was of the view that the pace of movement towards all DMGs having demonstrably effective and environmentally responsible management plans in place was too slow. The Scottish Government agreed a number of actions and tasked SNH with carrying a further review in 2016. The SNH Review of deer management in Scotland (SNH [Nov 2016](#); and [annexes](#)) was published in September 2016. The then Environment, Climate Change and Land Reform Committee (ECCLR) considered SNH's report over five committee sessions in 2016/17. The ECCLR report ([3 April 2017](#)), expressed concerns about the suitability of present approaches to sustain and deliver improvements to the natural heritage and emphasised the urgency of taking further action to address the specific challenges outlined in the Scottish Biodiversity Strategy (SBS) Route Map to 2020<sup>5</sup>.

*'what is needed is a deer management system that covers the whole of Scotland, that is based on a clear expression, and spatial articulation, of the public interest, particularly in relation to biodiversity and climate change, and that has been developed collaboratively'.*

In response to the ECCLR report [the Cabinet Secretary in June 2017](#), set out four areas of work to be overseen by Scottish Government with the request that SNH reports on progress by 2019.

***We will:***

- a. look to all deer managers to ensure that the public interest is properly taken into account in deer management planning. The Scottish Government will also look to SNH to be proactive in ensuring the public interest is protected and to use the full range of enforcement powers under the Deer (Scotland) Act 1996 where appropriate;***
- b. set up an independent expert group to examine and develop solutions to barriers to effective deer management in the uplands and a separate panel under the Deer (Scotland) Act 1996 to look at lowland deer management;***
- c. be looking to see effective deer management that protects the public interest embedded across the upland deer range, with appropriate deer management plans in place and commensurate action being taken on the ground;***
- d. in the lowlands, we will be looking to see all those who own or manage significant areas of land taking responsibility for deer management, and in particular taking action to reduce the risk of collisions between deer and road traffic.***

This report provides an update on progress against these objectives with a focus on the elements detailed by the Cabinet Secretary. We have specifically not sought to reflect on

---

<sup>5</sup> Further details on the challenges for deer management raised in the ECCLR report (2017) are explored in more detail in the subsequent sections of this report relevant to the points raised.

ECCLR recommendations in relation to legislative change, as the Deer Working Group (DWG) has been tasked with this remit.

### 3.2 Significant action relevant to deer management since 2016

[Deer Working Group](#) – Ministers appointed an independent working group in October 2017. The role of the group is to examine the current issues over standards of deer management in Scotland and recommend changes to ensure public interests are safeguarded and the sustainable management of wild deer promoted. The scope includes all deer species and upland and lowland circumstances. The group is expected to report in November 2019, hence their report will be considered in parallel with this SNH report. Whilst there has been regular liaison with SNH in gathering information to inform the DWG's report and to keep us updated on their progress, we have not attempted to pre-empt their findings and hence do not speculate on recommendations likely to arise from the DWG report in this report.

[Lowland Deer Panel](#) - Under section 4 of the Deer (Scotland) Act 1996 SNH established a Deer Panel in January 2018 to consider deer management in lowland Scotland. The panel sought to explore concerns expressed by the ECCLR Committee regarding perceived negative impacts of deer in the lowlands, the amount of information available on lowland deer, and the effectiveness of current deer management approaches. The Lowland Deer Panel reported in early 2019. Their report can be [read in full](#) and the recommendations are explored in more detail alongside our account of ongoing work in lowland deer areas in Section 4.2.2.

The [Code of Practice on Deer Management](#) (the Deer Code) was published by SNH in January 2012. It provides guidance to land managers to help deliver sustainable deer management in Scotland. SNH has a statutory obligation, through the Deer (Scotland) Act 1996 (as amended), to carry out a review into the extent to which the Deer Code a) is being complied with by owners and occupiers of land, and b) is effective in promoting sustainable deer management and must submit a report to Scottish Ministers every three years. The first review is due in 2019 and Sections 6 and 7 form the substance of our review (see [Annex 2](#) for a stand-alone summary). This is submitted to Scottish Ministers for the information of the Scottish Parliament and is included in this report to help set it within the context of the wider body of evidence that supports our assessment.

### 3.3 Significant policy developments relevant to deer management since 2016

The Scottish Biodiversity Strategy (SBS) is Scotland's response to international (Aichi) targets to halt the loss of biodiversity. The [Scotland's Biodiversity: A Route Map to 2020](#) was launched in 2015 to help direct priorities for action and sets out priority projects and targets. The targets for which sustainable deer management is of most relevance are detailed in [Annex 3](#). These targets are listed under SBS Priority project 1 - restoration of peatlands, Priority project 2 - the restoration of native woodland, and Priority project 8 - Protected Areas in good condition. SNH has published two annual reports on the Route Map delivery with the third report on delivery between July 2017 and March 2019 currently in review. We examine the evidence supporting the relevant targets in this report (sections 4.1.3, 4.3.2, 7.1).

Work is in progress to develop the SBS beyond 2020 and this has been given added profile since the publication of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) [global assessment of nature](#).

Concerns relating to the impacts of climate change have also heightened since our report in 2016, with Scottish Government declaring a climate emergency in May this year. The Climate Change Plan published in March 2018 recognises our natural capital as key component of climate change mitigation and adaptation. WDNA and the Deer Code already

propose actions for deer managers to contribute through improving ecosystem resilience and reducing impacts. These actions are examined through the DMG assessments and progress is reported in section 4.1.5. The DMG assessments are based on criteria established in 2014 and we are cognisant of the expectation that all of us will do more to tackle these challenges going forward in order to meet Scottish Government targets of being carbon neutral by 2045. We briefly explore what this might mean for deer management in our conclusions (section 7.3).

Scotland's Forestry Strategy 2019 - 2029 was published in February and represents a 50 year vision, with high level objectives. The Strategy recognises deer as a valuable part of forest and woodland ecosystems and the need for sustainable management of wild deer as a key component of sustainable forest management.

The publication by Scottish Government of a statement on [land rights and responsibilities](#) is also an extension of an existing direction of travel. This sets a vision for greater involvement of communities in land management decisions and greater transparency. These aspirations are already reflected in WDNA and the Deer Code. DMG assessments against these criteria are reported on in section 4.1.5.



## 4. Update on progress in deer management

In this section we provide updates on actions to deliver sustainable deer management in the uplands (4.1); in lowland deer areas (4.2) and in a woodland setting (4.3).

### 4.1 In upland areas covered by Deer Management Groups

#### *Summary of key findings and further work required*

- Between 2016 – 2019 we have seen an increase in Deer Management Group (DMG) coverage and areas with Deer Management Plans (DMPs).
- Upland red deer populations have been stable since 2000 as a result of culling effort; albeit at higher densities than prior to 2000. There is some evidence for a recent overall decline and for marked reductions in some regions due to management intervention.
- On the evidence available from Site Condition Monitoring (SCM), there appears to be little overall change in the condition of Protected Area features potentially affected by herbivores, nationally or within DMG areas in the last three years. Within upland DMGs the proportion of features potentially affected by herbivores that are favourable or recovering is 72.9%.
- Based on the evidence presented by DMGs in the 2019 assessments, there has been a statistically significant improvement in DMG performance across the Benchmark criteria<sup>6</sup>. The most notable improvements from this analysis result from the shift in worst performing DMGs in 2016 improving across a wide-range of criteria.
- There is considerable variability in the scope for and amount of improvement and progress made across the range of Benchmark criteria, but all categories with the exception of one (Category 11 – Data and Evidence Gathering Habitat Monitoring) scored above 80% green.
- Based on the evidence presented by DMGs in the 2019 assessments, there has been a significant improvement across the Public Interest criteria<sup>7</sup> as demonstrated by the proportion of plans and criteria improving and by the statistical test of change. As with the Benchmark, the most notable improvements overall are where the poorer performing DMGs in 2016 have improved across a number of criteria.
- Across the Public Interest categories all scored above 80% green with the exception of two categories (Category 2 - Delivering Favourable Condition and Category 5 - Wider Countryside).
- While progress has been made in the natural heritage related categories, these categories remain those where most progress is still to be made.
- Variability in DMG performance is much less pronounced than in 2016. These improvements reflect the support given to poorer performing DMGs.
- We note the good progress made against many of the priority criteria established for the 2019 DMG assessments, but that not all targets have been fully met across the range of DMGs.
- Delivery of some of the natural heritage criteria is slower than we might have hoped for with evidence of action on the ground being at a relatively early stage.
- Since 2016 there has been greater recognition of those DMGs performing well and the promotion and sharing of Best Practice examples of deer management.

---

<sup>6</sup> See Annex 5 a)

<sup>7</sup> See Annex 5 c)

## ***The Challenge***

***The key challenge for upland deer management outlined by the ECCLR committee in 2017 relates to the variable performance of DMGs to address public interests, evidence of positive progress on the ground, the pace of progress and the adequacy of measures to support delivery.***

***The Cabinet Secretary's response set out an expectation for all deer managers to ensure that the public interest is properly taken into account in their deer management planning. In particular there is an expectation that effective deer management that protects the public interest is embedded across the upland deer range, with appropriate deer management plans in place and commensurate action being taken on the ground.***

### ***4.1.1 Updates to Deer Management Groups***

DMGs are the principal mechanism for managing deer in upland Scotland on a voluntary collaborative basis. DMGs seek to coordinate deer management between neighbouring landholdings and deliver wider public interest objectives on a voluntary basis.

The number of established DMGs across the upland red deer range has increased from 44 in 2016 to 48 and now covers some 3,138,954 ha (40% of Scotland) (Figure 1). Three new groups; Jura, West Loch Lomond and the Uists have become constituted and have developed Deer Management Plans (DMPs). The Glen Isla / Glen Shee (sub Area 1) group in the East Grampian area has also re-established after some years in abeyance. These additional groups have increased the area of land covered by DMGs by some 170,622 ha. Further work is ongoing to develop new groups in Skye (26,791ha), South East Sutherland (36,489 ha) and the Glenrinnes/ Cabrach Deer Management Group (60,116 ha).

The focus for upland DMGs has been on the development and delivery of DMPs and actions that are focussed on delivering their objectives; taking into account the public interests of environment, socio economic, welfare and public safety as set out in WDNA and the Deer Code. Many groups have, on the back of the 2016 DMG assessment, developed annual action plans which are used to identify priorities and tasks; with progress reviewed against these actions.

There has been a focus on better understanding what is meant by protecting the public interest and how the practicalities of managing deer contribute to this. Making this link more explicit has involved SNH; in supporting groups in developing or updating their DMPs, focussing targets and actions, facilitating local solutions to impacts and improving the openness and transparency of how DMGs operate.

The 2016 review and response pointed to the need to further develop DMG approaches to monitoring and managing deer impacts on habitats. There has been a particular focus on groups undertaking herbivore impact assessments (HIA), identifying and working to deliver agreed impacts and embedding this within deer management planning. SNH provided funding to support this within DMGs with grants given to prepare, undertake and analyse herbivore impact data. This grant funding was made available to all DMGs and 45 groups received funding.

ADMG have led and SNH has supported seminars with DMG chairs and secretaries to build capacity and resource, share experience and better support individuals taking on this role.

In the uplands SNH has prioritised and focussed resources and efforts on natural heritage impacts, on poorer performing DMGs, areas of red deer range with no existing collaborative structures, and on addressing impacts, principally to agricultural interests on the edge of red deer range. There has been more promotion and recognition of those DMGs performing well and in the sharing of Best Practice across DMG areas. We have had regular discussion with the ADMG executive and local representatives to align the support that SNH and ADMG offer to groups.

*Key findings:*

- There has been an increase in the coverage of upland DMGs since 2016.
- Since 2016 there has been greater recognition of those DMGs performing well and the promotion and sharing of Best Practice examples of deer management.

#### *4.1.2 Update on upland red deer population trends*

SNH has maintained a significant programme of census over the upland red deer range between 2016 – 2019, with further details available [on our website](#). This work provides population data for local management and underpins work in establishing trends in populations on a regional and national basis. Over the three year period the SNH count programme covered 1.5 million ha and SNH staff supported census work over an additional 400,000 ha. The focus of this work was on groups which were currently undertaking, or had undertaken reduction culls and those DMGs where SNH had not undertaken census work for some time.

We have commissioned and completed an update to the analysis of national trends and regional densities carried out in 2016 (Albon *et al.* 2019)<sup>8</sup>. Essentially this adds three years of count and cull data to that previously analysed. This work confirms that over the last 20 years red deer densities have been relatively stable at c. 10 deer per km<sup>2</sup> (Figure 2)<sup>9</sup>. The estimate for 2019 is 9.35 (with a confidence interval (CI) of 8.01 – 10.69) which suggests there may have been a slight decline (9%) since 2000, although the estimate remains within the 95% CI for the estimated density in 2000 (8.96 - 11.53).

The revised estimates for 52 Deer Management Areas (DMAs) confirms regional variation remains of the order of 20 fold between the lowest (Trossachs 1.65 deer per km<sup>2</sup>) and highest density (Glenartney 31.4 deer per km<sup>2</sup>) DMAs, but there are now more groups around the national average density (8 - 11 deer per km<sup>2</sup>) (see Figure 3). This is due to some large DMAs in the western part of the Grampian Mountains declining (Monadhliaths, Mid-West Association and Breadalbane), while others adjacent and contiguous to this have increased (Blackmount, Inverary/Tyndrum and Balquidder). In 2000 there were ten DMAs with estimated densities of greater than 15 deer per km<sup>2</sup> and in 2019 there are eight, which represents a 1% reduction in the area of deer range with greater than 15 deer per km<sup>2</sup> (Figure 3).

---

<sup>8</sup> Albon, S. D., McLeod, J., Potts, J., Irvine, J., Fraser, D. & Newey, S. 2019. Updating the estimates of national trends and regional differences in red deer densities on open-hill ground in Scotland. *Scottish Natural Heritage Commissioned Report No. 1149 (in prep)*.

<sup>9</sup> This is a slightly lower estimate (c. 0.5 deer km<sup>2</sup> or 5%) than in the previous analysis using data up to, and, including 2016 (Albon *et al.* 2017) although within the confidence intervals. The current estimates are more robust with 30 DMAs re-counted in the last three years, 21 SNH staff-assisted partial counts added, summer counts excluded (which may have inflated the densities) and areas with zero counts not excluded from the area figures used to estimate densities.



Over the last 20 years there have been both increases and decreases at a regional level (Albon *et al.* 2019). Of note, the counts support that there have been regional reductions (of >35%) in density that reflect management interventions in Breadalbane, Cairngorm/Speyside, East Grampian - Upper Deeside - Glen Isla/Glen Shee - Birse, Monadhliath, NW Sutherland, Rum, The Trossachs and Wester Ross.

As was established in the 2016 report, a significant proportion (15%) of the variation in changing deer densities can be attributed to differences in culling effort. Spatial variation in population growth can also be attributed to differences in deer density (together with culling, density explained 32% of variation). Modelling indicates that nationally culling less than 22% of the population will tend to result in a population increase and culling more than 22%, a decrease. However the culling rate required will vary regionally with productivity.

Figure 2 The overall trend in red deer (stags, hinds, calves) density (deer per km<sup>2</sup>) estimated across the Highlands and Islands, since records began in 1961 until 2019 (from Albon *et al.* 2019).

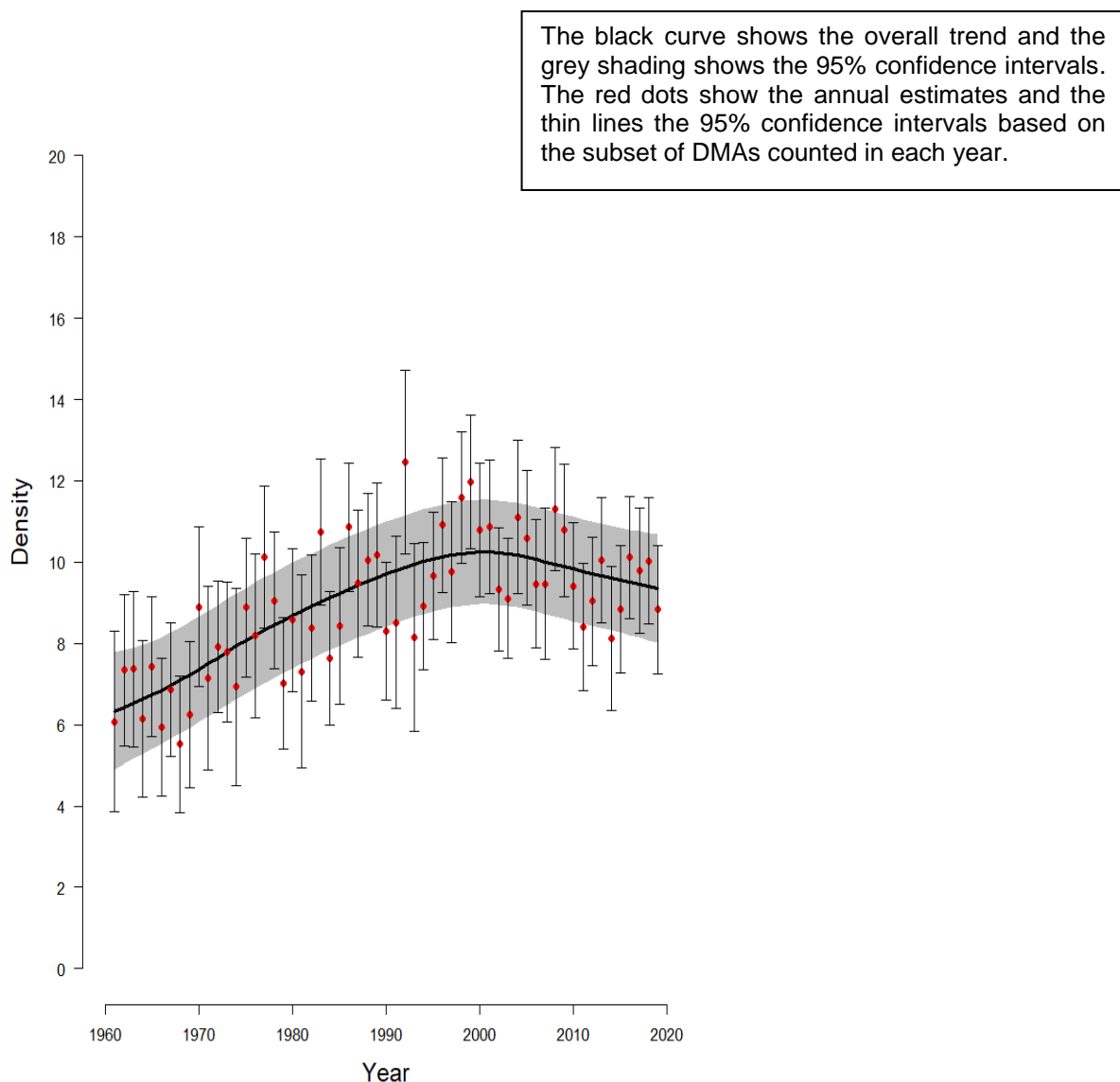
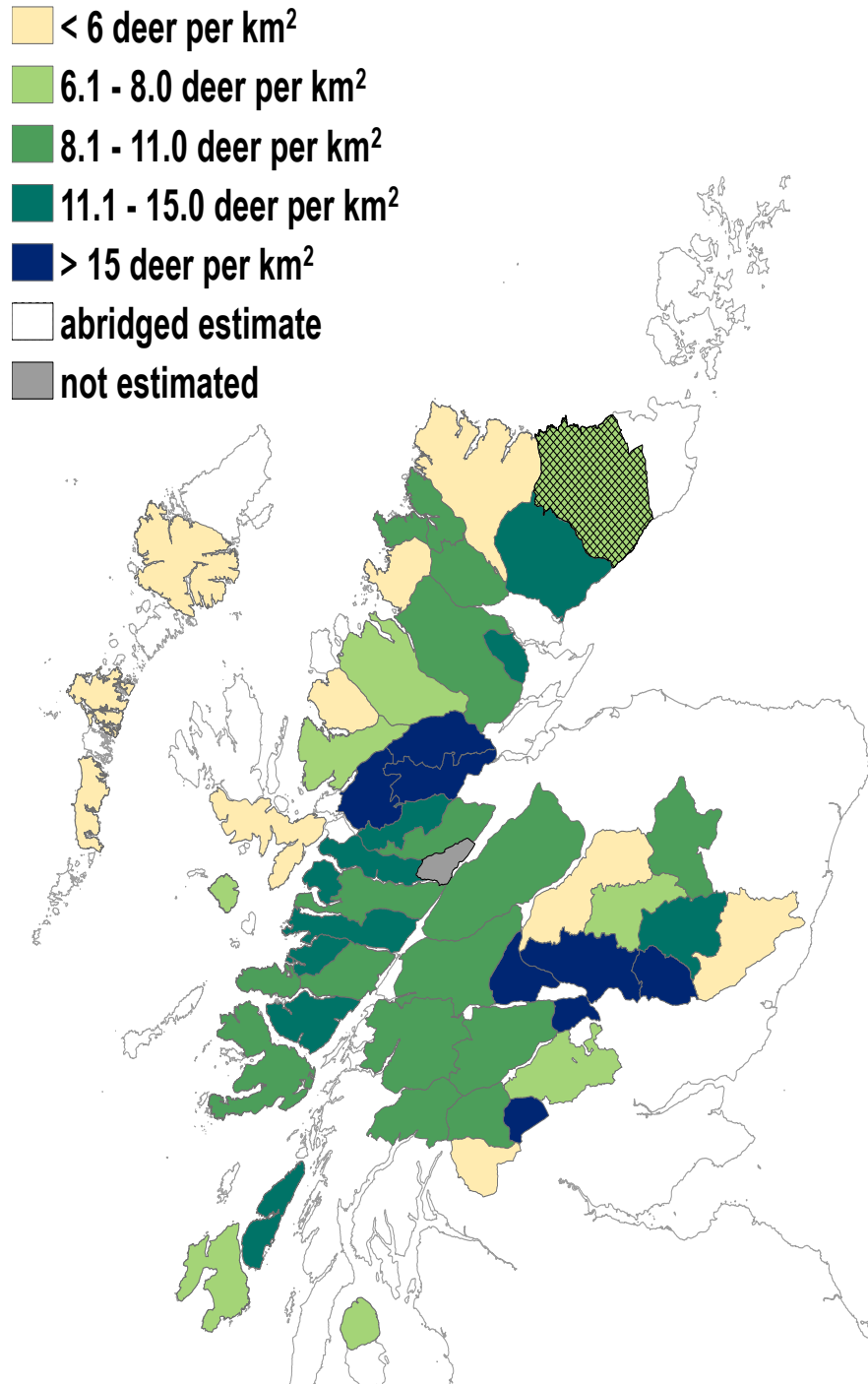


Figure 3 The spatial variation in red deer (stags, hinds, calves) density in 2019 between DMAs with at least one count in last five years; estimated from the temporal trends (smoothing splines) (from Albon *et al.* 2019).

### Red Deer (Stags/Hinds/Calves) Densities in 2019



\* Ardochy/Port Clair (last counted 1998) is grey shade and Northern (last counted in 2013) is hatched, where the extrapolation of density to 2019 needs to be treated with caution.

We have not updated our analysis of the abundance of woodland deer since 2016<sup>10</sup>. Over the last 3 years, Forest and Land Scotland have carried out deer density surveys in 26 of their Deer Management Units/ Forest Blocks, totalling 140,000 ha. Over the past three years, FLS has averaged a total annual cull of around 35,000 deer.

2017 - 2018 saw the highest reported [deer cull](#) of red deer in Scotland. The national reported cull of all species was up by 19% on the previous year, but the most substantive increase in numbers culled was in red deer where 79,568 deer were reported. This is an increase of 26% (+16,658) from the previous year and a 28% increase on the five, 10 and 20 year average which has been consistent at around 62,000. This increase was not unexpected and largely comes from within upland DMGs where DMPs sought to effect reductions in a number of areas, most notably in South Ross (Affric, Strathfarrar and Lochalsh), Monadhliaths, North Ross, Mid-West, East Sutherland, East Grampian, West Grampian and Glen Artney. National culls are not expected to be as high in 2018 - 2019 with a number of reduction culls having been completed and maintenance culls now being taken.

Although a record number of deer were culled in 2017/18, over the previous 20 years there has been a slight but significant decline in the culling rate (deer per km<sup>2</sup>) (Albon *et al.* 2019). Given the mean density of deer nationally is currently estimated to be about 9.35 deer km<sup>2</sup>, and culling rate is c.2.25 deer km<sup>2</sup>, the proportion being culled is slightly higher than the 22%. This in general across DMAs tends to drive towards a population decline; which may account for the national population stabilising and possibly the emerging downward population trend over the last 20 years.

*Key finding:* Upland red deer populations have been stable since 2000 as a result of culling effort; albeit at higher densities than prior to 2000. There is some evidence for a recent overall decline and for significant reductions in some regions due to management intervention.

#### 4.1.3 Habitat impacts – Protected Area feature condition

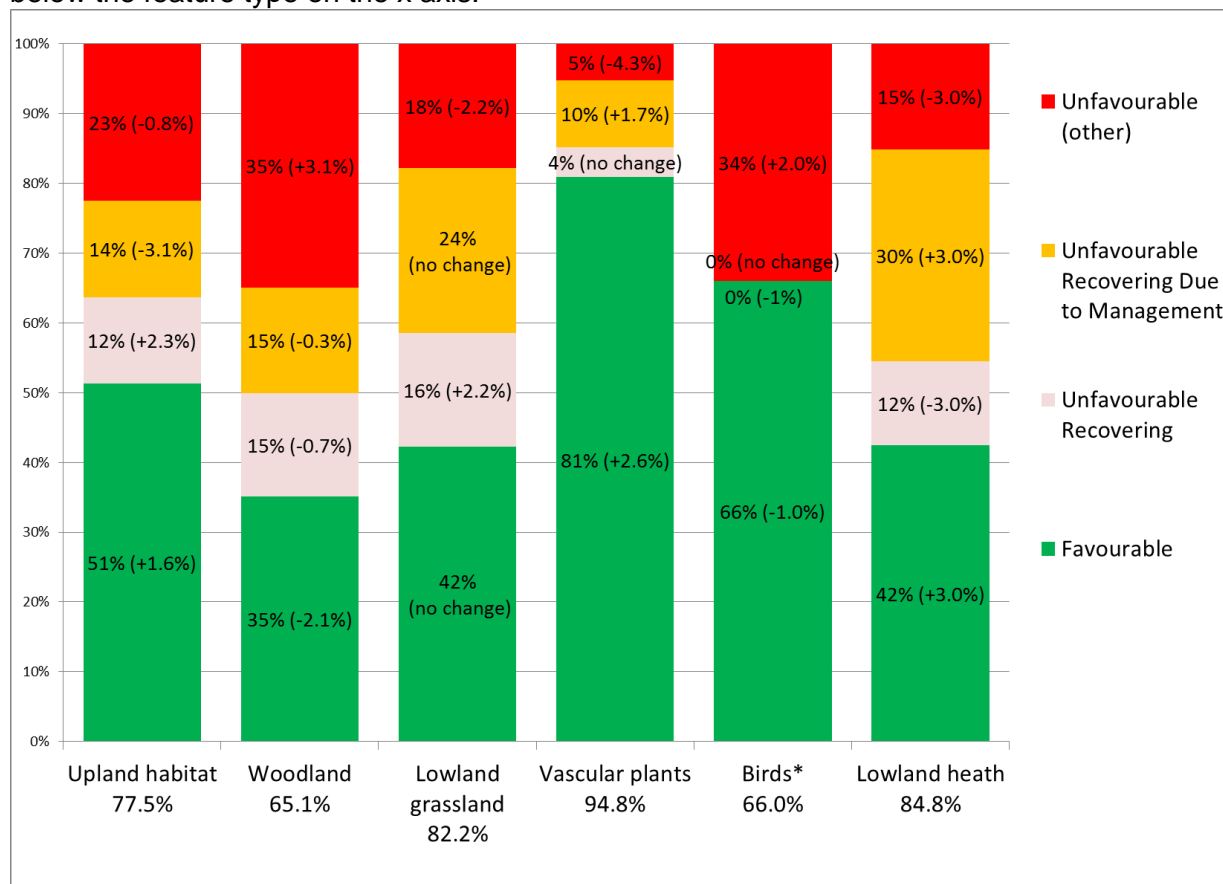
SNH [reports annually](#) on Site Condition Monitoring (SCM) statistics using Common Standards. In 2016 we reported on those special features within Protected Areas which are potentially affected by herbivores (FPABH). Between 2016 and 2019 19% of these 1606 features were reassessed with a resulting decline of 0.2% in favourable or recovering feature condition from 75.0% in March 2016 to 74.8% in 2019. This however compares favourably to an equivalent drop of 1.5% over the same period for all features in Scotland<sup>11</sup>. A total of 136 changes in feature condition are recorded for these 1606 features, see [Annex 4](#) table a) for a summary of changes.

<sup>10</sup> [SNH Commissioned Report 948 - Trends in woodland deer abundance across Scotland 2001-2016](#)

<sup>11</sup> This SBS Protected Areas target was considered to have been met in March 2016 when 80.4% of all features were assessed as favourable or recovering. However, there has been an overall decline such that in March 2019 78.9% was classed as favourable or recovering. As a consequence the SBS reporting has dropped from a 'green' to an 'amber' rating in the report to March 2019 (in review). The main causes of the national decline include; more unfavourable repeat SCM assessments than favourable (largely seabirds and waders); a gradual loss of 'Unfavourable Recovering due to management' (URDTM) back to unfavourable condition and a reduction in the rate of converting features to URDTM.



Figure 4 summarises the breakdown of results (upland and lowland) in 2019 for the six different feature types identified as being potentially affected by herbivores (% change from 2016 shown in brackets). The overall proportion that is favourable or recovering is shown below the feature type on the x axis.

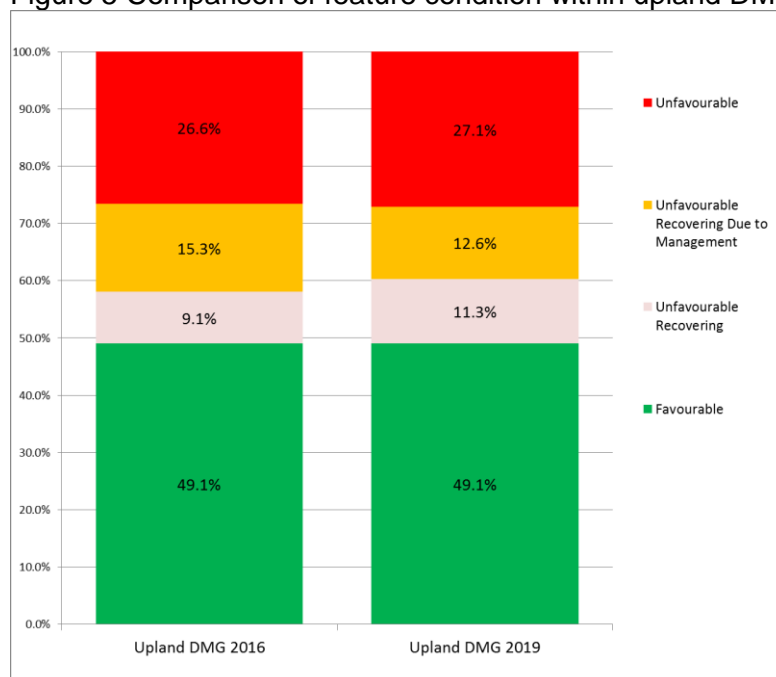


\* The analysis only includes the 100 bird features viewed as potentially affected by herbivores; which relates to woodland and moorland birds and assemblages.

The variation in the proportion of features in favourable and recovering condition across feature types observed in 2016 remains in 2019 (Figure 4), with woodland features having the lowest proportion in favourable condition and vascular plants the highest.

There has been a decline in reported woodland condition with 35% features now assessed as unfavourable, an increase in the proportion unfavourable of 3.1% from 2016. There has also been a decline in the condition of bird features. This relates to 10 feature changes since 2016 (six negative and four positive changes) only one of which is noted to relate to herbivore impacts ([Annex 4](#) Table a). Vascular plants show some improvements due to improved condition assessments and more features now classed as 'Unfavourable recovering due to management' (URDTM). Upland habitats with the largest number of features, shows little net change, with some positive and some negative changes. As in 2016, there has been more success putting in place remedial management for lowland features (grasslands and heaths) than for uplands or woodlands.

Figure 5 Comparison of feature condition within upland DMGs between 2016 and 2019.



Changes in the number of features categorised as being in the upland DMG range since 2016<sup>12</sup> complicate a direct comparison, however, there has been little change in proportions of favourable and unfavourable features since 2016 (Figure 5). The proportion of features within DMGs that are favourable or recovering in 2019 is 72.9%. The URDTM proportion has declined slightly since 2016 with more features now classed as unfavourable recovering, which may suggest there has been some progress towards recovery.

*Key finding:* On the evidence available from SCM, there appears to be little overall change in the condition of Protected Area features potentially affected by herbivores, nationally or within DMG areas in the last 3 years. Within upland DMGs the proportion of features potentially affected by herbivores that are favourable or recovering is 72.9%.

#### 4.1.4 Herbivore Impact Assessment - HIA

SNH commissions HIA to gather more information on the nature and extent of impacts, where negative herbivore impacts have been highlighted by SCM. HIA is also carried out as part of monitoring a voluntary control agreement. Since 2016 SNH has commissioned nine HIAs<sup>13</sup>.

Historical HIA data are now available through [Natural Spaces](#). The site specific assessments of progress on sites subject to Section 7 control agreements are discussed in section 5.1. Because of the limited coverage, we do not draw on HIA evidence in our assessment of progress, beyond these site specifics.

<sup>12</sup> The numbers of features classed as in the upland DMG range has changed from 1005 in 2016 to 923 in 2019. The changes are in part due to changes in the DMG boundaries with the formation of new groups, but also the misclassification of some lowland features as upland in 2016. The current figures reflect the mapped areas as shown in Figure 1.

<sup>13</sup> 2016 - Strathglass SAC 2016, 2017 - Rum NNR 2017, 2018 - East Loch Shiel DMG; Ardnamurchan DMG, Caenlochan Section 7 area, Creag Meagaidh NNR, Beinn Eighe NNR; 2019 - Ben Wyvis SAC, Fannich Hills SAC.

#### 4.1.5 Assessment of Deer Management Group performance 2019

This section describes the progress that DMGs have made since the last review in 2016 in delivering and implementing effective Deer Management Plans. In 2016 we noted good progress in relation to the Deer Management Planning process, but found progress less positive linking planning with implementation. Hence as per the Minister's request, we had a greater expectation of seeing evidence of action on the ground in 2019.

In August 2018 SNH wrote to all DMGs to clarify expectations for the review in 2019. This included details of the process and also a sub-set of (n= 37) priority criteria that SNH planned to use to gauge progress. Guidance was provided on the evidence required for a 'green' assessment for each of these priority criteria and a target set for the level of attainment across groups. Specific feedback on performance against the priority criteria was provided to all DMGs after every meeting in the build-up to 2019. Otherwise the DMG assessments used the same methodology and proforma as in 2014 and 2016. The full suite of Benchmark<sup>14</sup> and Public Interest criteria were assessed (See [Annex 5](#) Table a) for the list of Benchmark criteria and Table c) for the list of Public Interest criteria). As in 2016, we have given greater focus to the seven Public Interest categories relating to the natural heritage.

Forty eight DMGs were assessed between 1<sup>st</sup> April and 15<sup>th</sup> May 2019. Where a comparison has been made with 2016 data, only those groups also included in 2016 have been included (n=44). As in previous years, all assessments were undertaken by SNH staff in discussion with DMG chairs and secretaries.

SNH staff assessed the evidence provided by DMGs to demonstrate delivery against each criterion<sup>15</sup>. Consistent judgements were ensured through pre-assessment training and quality assurance undertaken by SNH Area and project staff. SNH staff involved reported that the DMG engagement was very positive and that assessment meetings were challenging and robust, but constructive. Across 48 assessments SNH received one request for review from a DMG, and this resulted in a change to the assessment of one criterion.

The same analytical methods<sup>16</sup> as used in 2016 we repeated to address the questions:

1. How has the delivery of the Benchmark and Public Interest criteria changed over time?
2. Do the changes identified between 2016 and 2019 represent an overall improvement?

##### 4.1.5.1 Progress in ADMG Benchmark criteria

Figure 6 shows the breakdown of red, amber, green scoring across 2014, 2016 and 2019 for all Benchmark criteria. Overall, the average percentage score on the Benchmark in 2019 was 90%, compared with 73% in 2016. To further explore the changes over time, a summary of the number of green rated DMGs across assessment years for each of the individual Benchmark criteria and categories can be found in [Annex 5](#) Table a) and b). Figure 7 shows the 2019 assessments for all 48 groups for the Benchmark criteria.

---

<sup>14</sup> The Benchmark criteria were developed by ADMG and were developed separately to the SNH public interest criteria, hence there is some overlap between them.

<sup>15</sup> **Red** signifies that the DMG plan is not meeting that specific criterion

**Amber** means that delivery is only partial or variable in quality

**Green** performance is good

<sup>16</sup> This included largely descriptive statistics and a statistical multivariate analysis; a non-linear principal component analysis followed by a paired t-test to test the difference between 2016 and 2019.



Figure 6 – The percentage of each RAG rating across all 44 DMGs for the Benchmark criteria in each year.

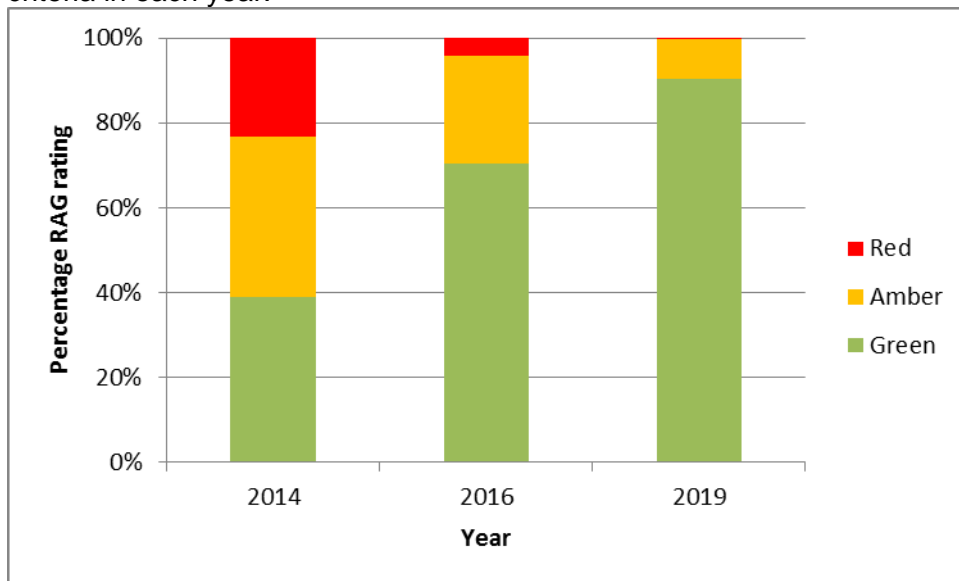


Figure 7 Percentage RAG ratings for the Benchmark criteria for all 48 DMGs in 2019.



Analysis shows that, overall in 2019, out of a possible 1980 records (44 DMG plans<sup>17</sup> x 45 criteria) for the Benchmark criteria:

- 72% remained the same;
  - 24% improved between 2016 and 2019;
  - 3% deteriorated.
- Significantly, of the records that remained the same, 93% are attributable to green and only one has remained red.
  - Seven criteria were ranked green across all DMGs. However, this is not where the greatest improvements have been made given these criteria were relatively well met in 2016 on the basis that they are largely planning/group operation focused.
  - Category 11 (Data & Evidence Gathering – Habitat Monitoring) is the category where greatest improvement has been made between 2016 and 2019. However, it remains the lowest scoring (67% rated green), and hence is also the category with the greatest improvement still to make ([Annex 5](#), Table a).
  - The next lowest category is Category 10 (Data and evidence gathering – Culls) with 83% rated green. Category 9 (Data and Evidence Gathering – Deer Counts) which is clearly related to Category 10 was the 4<sup>th</sup> lowest ranked Benchmark category overall.
  - While there were few categories for which plans had deteriorated since 2016, Category 11 (Data and Evidence Gathering) showed the greatest deterioration (6%), closely followed by the Meetings category (5.5%).

*Key findings:*

- Based on the evidence presented by DMGs in the 2019 assessments, there has been a statistically significant improvement in DMG performance across the Benchmark criteria. The most notable improvements from this analysis result from the shift in worst performing DMGs in 2016 improving across a wide range of criteria.
- There is considerable variability in the scope for and amount of improvement and progress made across the range of Benchmark criteria, but all categories with the exception of one (Category 11 – Data and evidence gathering Habitat monitoring) scored above 80% green.

#### *4.1.5.2 Progress in Public Interest criteria*

Figure 8 shows the breakdown of red, amber, green rating across 2014, 2016 and 2019 for all Public Interest criteria. The average percentage score on Public Interest criteria in 2019 was 86% compared with 58% in 2016. [Annex 5](#), Table c) summarises progress within each Public Interest criteria by summarising the number of green rated DMGs across the assessment years. [Annex 5](#), Table d) summarises the data at the category level. Figure 9 shows the 2019 assessments for all 48 groups for all Public Interest criteria.

---

<sup>17</sup> To enable comparison with 2016

Figure 8 – The percentage of each RAG rating for the Public Interest criteria in each year.

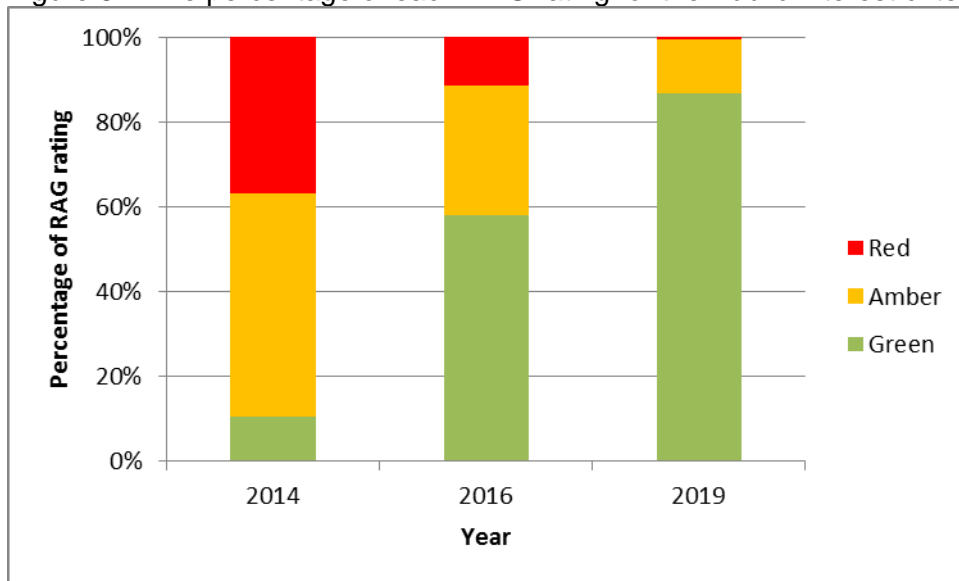
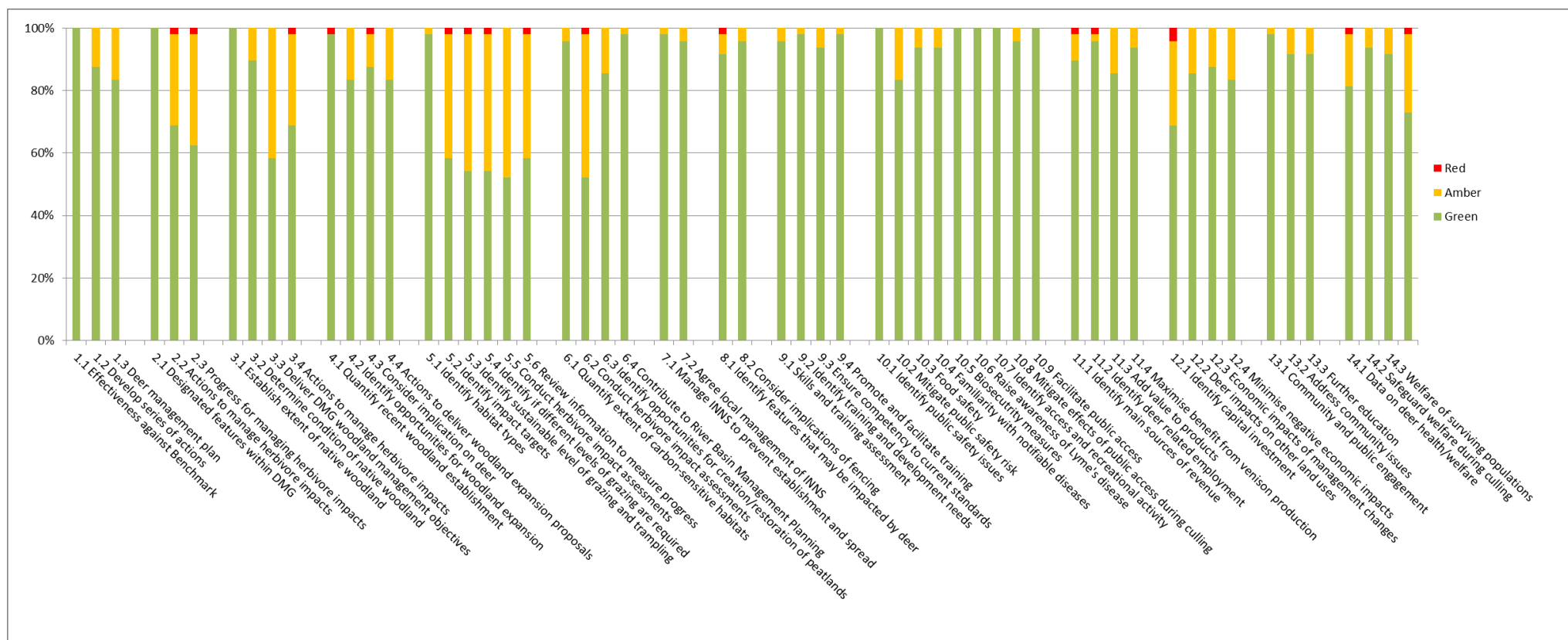


Figure 9 Percentage RAG ratings for the Public Interest criteria for all 48 DMGs in 2019.





Overall, out of a possible 2464 records (44 DMG plans x 56 criteria) for the Public Interest criteria:

- 35% have improved between 2016 and 2019;
- 62% have stayed the same;
- 3% have deteriorated.

Of the records that have remained the same, 90% have retained their green rating and six records have remained red. Eight criteria were ranked green across all DMGs. As with the Benchmark, these eight criteria were relatively well met in 2016 meaning they are not where the biggest improvements have been made.

The three criteria with the largest number of plans improving were from different categories:

- 12.4 'Formulate a strategy to minimise the negative economic impacts in an equitable way' (25% green in 2016 to 84% in 2019)
- 4.4 'Implement actions to deliver the woodland expansion proposals and review progress' (27% green in 2016 to 86% in 2019).
- 6.3 'Identify opportunities for the creation/restoration of peatlands' (32% green in 2016 to 89% in 2019)

These criteria, along with 'Actions to monitor and manage deer impacts in the wider countryside' (27% green in 2016 to 55% in 2019) are the four categories with the highest number of plans improving. However, these categories also have amongst the lowest proportion of plans rated green in 2019 and so there is still more improvement to make in these categories.

The three criteria with the largest number of plans deteriorating were again from three different categories (14, 3 and 5), all of which require some degree of information review and collaborative decision making.

The seven natural heritage related categories sit towards the bottom of the overall ranking of categories in 2019 (Categories 1 - 7 in Figure 9). While progress has been made within all of these categories, these remain those where most progress is still to be made. Actions to monitor and manage deer impacts in the wider countryside is both the most improved, and the where most improvement is still required<sup>18</sup>.

#### *Key findings:*

- Based on the evidence presented by DMGs in the 2019 assessments, there has been a significant improvement across the Public Interest criteria as demonstrated by the proportion of plans and criteria improving and by the statistical test of change. As with the Benchmark, the most notable improvements overall are where the poorer performing DMGs in 2016 have improved across a number of criteria.
- Across the Public Interest categories all scored above 80% green with the exception of two categories (Category 2 - Delivering Favourable Condition and Category 5 - Wider Countryside).
- While progress has been made in the natural heritage related categories, these categories remain those where most progress is still to be made.

---

<sup>18</sup> A green rating has not been assigned unless there is evidence of interpreting and using monitoring results at the DMG-scale or adequate coverage of the collaborative DMG range within a monitoring programme.

#### *4.1.5.3 DMG assessment results – by DMG*

Nine DMGs scored green for all the Benchmark criteria and six for the Public Interest criteria. Five groups are fully rated green for both sets of criteria; Affric and Kintail, East Knoydart, Glen Strathfarrar, Strathconon, Upper Deeside and Donside (previously East Grampian DMG sub-area 5). All groups are rated green for more than 50% of both sets of criteria.

Whilst there is still some variation between DMGs, the statistical analysis used to explore the change between assessments showed that they are more similar to each other in 2019 than they were in 2016 as illustrated in [Annex 5](#) Figure 1 by a more clustered grouping. This is due to more DMG plans achieving green ratings for more criteria and fewer red ratings, especially the three groups that had the highest number of red ratings in 2016 (the outliers in Annex 5 Figure 1 a) and b). These three DMGs, whilst still having amongst the lowest number of green ratings, are now more in line with the other DMGs. The positioning of individual DMGs has changed significantly since 2016 as some have raised their performance, others have stayed the same and others have deteriorated. [Annex 5](#) Figure 2 illustrates that there appears to be some geographical grouping of similar levels of DMG performance. There are a number of possible explanations for this such as complexity of land management objectives, resources for support, engagement with ADMG, remoteness and distance. Further consideration of the reasons for this is needed.

#### *4.1.5.4 Reflections on the DMG assessment process*

Since 2016 both SNH and ADMG have invested significant resources in articulating the nature and extent of progress sought by 2019. On the whole, progress is demonstrated across the majority of criteria, with DMGs responding to the focus provided by the assessments. Without detracting from the progress made, there is little doubt that the focus of the assessments has galvanized efforts and that without it we would not see the extent of progress reported above. The intensity of reporting and evidence gathering by DMGs in spring 2019 between draft and final assessments is testimony to this, and emphasises the importance of measuring sustained progress and delivery over the longer term, rather than simply at this point in time.

The detailed feedback provided by SNH and ADMG to individual DMGs, since 2016, has enabled them to focus their efforts and resourcing where it has been most needed. We would like to highlight the role SNH staff have played in bringing about these improvements including evaluating significant amounts of new evidence provided by DMGs between draft and final assessments. It follows that the highest scoring criteria are the most easily achievable criteria as DMGs have focussed on where quickest progress can be made and evidenced (e.g. general governance and structure, group/meeting function, quantifying and auditing information). This includes continued progress to improve communications both amongst members and with local communities and wider communities of interest as the importance of openness and transparency is recognised.

Table 1 - Summary of the priority criteria delivery against targets set out for the sector. Green shading indicates where targets are met or nearly met (within 5%). Priority criteria are ordered by ranking of the proportion of plans that were green rated in 2019 based on all 48 DMGs.

| Benchmark Criteria (Numbering as per Annex 5 a)                  | % of DMPs rating Green | Target rating for DMPs (% green or otherwise specified) |
|--|------------------------|---|
| 15.3 DMP accessible and publicly available                       | 96                     | 100%  |
| 12.2 "Trained hunter" status                                     | 92                     | 100%  |
| 9.1 Accurate counts inform population models                     | 90                     | 100%  |
| 9.2 Coordinated foot counts                                      | 90                     | 100%  |
| 10.3 Review cull targets annually                                | 88                     | 100%  |
| 10.2 Cull apportioned among members                              | 83                     | 100%  |
| 9.3 Recruitment and mortality counts                             | 79                     | 100%  |
| 10.1 Agree target population                                     | 77                     | 100%  |
| 11.1 Habitat impact assessments                                  | 48                     | 75%   |
| Public Interest Criteria (numbering as per annex 5c)             |                        |   |
| 2.1 Designated features within DMG                               | 100                    | 100%  |
| 3.1 Establish extent of native woodland                          | 100                    | 100%  |
| 10.5 Biosecurity measures  | 100                    | 100%  |
| 10.9 Facilitate public access                                    | 100                    | 100%  |
| 4.1 Quantify recent woodland establishment                       | 98                     | 100%  |
| 5.1 Identify habitat types                                       | 98                     | 100%  |
| 11.2 Identify deer related employment                            | 96                     | 70%   |
| 9.3 Ensure competency to current standards                       | 94                     | 100%  |
| 10.3 Food safety   | 94                     | 100%  |
| 10.4 Familiarity with notifiable diseases                        | 94                     | 100%  |
| 14.2 Safeguard welfare during culling                            | 94                     | 100%  |
| 13.2 Address community issues                                    | 92                     | 100%  |
| 14.3 Welfare of surviving populations                            | 92                     | 100%  |
| 3.2 Determine condition of native woodland                       | 90                     | 100%  |
| 4.3 Consider implication on deer                                 | 88                     | 100%  |
| 6.3 Identify opportunities for creation/restoration of peatlands | 85                     | 100%  |
| 12.2 Deer impacts on other land uses                             | 85                     | 50%   |
| 1.3 Deer management plan   | 83                     | 100%  |
| 4.2 Identify opportunities for woodland expansion                | 83                     | 60%   |
| 4.4 Actions to deliver woodland expansion proposals              | 83                     | 100%  |
| 14.4 Review actions to safeguard welfare                         | 73                     | 100%  |
| 2.2 Actions to manage herbivore impacts                          | 69                     | 80%   |
| 2.3 Progress for managing herbivore impacts                      | 63                     | 80% of 2.2  |
| 3.3 Deliver DMG woodland management objectives                   | 58                     | No red  |
| 5.2 Identify impact targets                                      | 58                     | 66%   |
| 5.3 Identify sustainable level of grazing and trampling          | 54                     | 30% No red  |
| 5.4 Identify if different levels of grazing are required         | 54                     | 30% No red  |
| 5.5 Conduct herbivore impact assessments                         | 52                     | 30% No red  |

Acknowledging this progress overall, not all the targets for the priority criteria (Table 1) have been met. In some instances this is by small margins, in others the shortfall is more significant. SNH recognise that the targets set were ambitious (often 100% green) with a view to promoting a widespread response from DMGs and to engender some pace into the process. Lower thresholds were set for the natural heritage criteria that were recognised as more challenging. This included; actions for the delivery of Protected Area feature condition, actions to maintain and improve native woodland cover and condition and actions to monitor

and manage deer impacts in the wider countryside. Several of these targets were met in so much as no plans were assessed as red; however, they are still the criteria where greatest progress remains to be made.

Some common themes emerge where progress has been slower which aids interpretation and should help to identify priorities for DMGs moving forwards.

#### *Information management and use: evidence based decision-making*

Progress is least pronounced against those criteria which require DMGs to use information to monitor delivery towards agreed objectives and review management. Demonstrating ongoing evidence-lead decision making informed by group data remains challenging for some DMGs. Groups have effectively delivered the 'quick wins' in terms of quantifying and auditing, with the remaining amber and red scores largely relating to identifying specific actions to resolve management issues. Arguably, by their very nature, the residual ambers and reds also reflect the most difficult issues to find and agree solutions for, also resulting in a slower pace of progress.

#### *Herbivore Impact Assessment*

Across both the Benchmark and Public Interest categories there has been a notable increase in the uptake of monitoring between 2016 and 2019. Progress in planning and undertaking monitoring on the ground has not yet been matched by progress in linking monitoring results with cull planning and wider management prescriptions. As in 2016, reviewing/ identifying actions in the context of monitoring results remains a weaker area that would benefit from further support, training and capacity building.

This said, there are examples of pace-setting by DMGs where monitoring results are being reviewed against target impact ranges and management adjusted accordingly. SNH grant support for HIA training has enabled many groups to begin mapping results and to begin considering them as management decision-making tools. For many other groups the focus remains on collating data in the first instance, making the next few years critical for those DMGs to demonstrate their evidence-lead approach. There will be challenges for some DMGs to do this and the key test for all DMGs will be to apply a truly adaptive management approach using the information effectively to inform planning in a responsive way.

#### *Population modelling and data*

When ranked, a number of the criteria which relate to data and evidence for cull setting sit towards the bottom of the table. In some instances these are related to the collation of information itself, but for the most part it is using this information to inform management actions at the collaborative scale which is as yet lacking evidence.

#### *Priorities, timescales and resources*

Some of the narrative above points to the time-lag that is inherent in adaptive management as DMGs deliver their five year plan, with a commitment to review progress towards objectives at set junctures. Some DMGs are not sufficiently through their HIA programme to have reviewed results against targets.

With increased data management comes an increased need for resources, both in administrative and technical capacity. Refining the assessment process continues to provide DMGs with a clearer understanding of how they can deliver public benefit more widely. Some groups continue to struggle to meet the associated resource requirements for this. Demonstrating progress between 2016 and 2019 has therefore required an element of triaging and prioritising within DMGs and performance to some extent reflects the groups' different starting points.

### *Leadership*

A key theme which has emerged strongly from the assessments is the importance of leadership in driving DMG effectiveness and performance. The importance of an effective chair and other office bearers cannot be overstated. Similarly, increasing capacity through the services of an advisor/contractor results in more effective information management and evidence-lead decision making. The resource implications for a DMG have multiplied as they work to demonstrate positive outcomes for deer populations, natural heritage and wider public benefits. Managing this means DMGs are having to develop new approaches to managing tasks and the resources to deliver them, quite often involving buying in external services.

### *Key findings:*

- Variability in DMG performance is much less pronounced than in 2016. These improvements reflect the support given to poorer performing DMGs.
- We note the good progress made against many of the priority criteria established for the 2019 DMG assessments, but that not all targets have been fully met across the range of DMGs.
- Delivery of some of the natural heritage criteria is slower than we might have hoped for with evidence of action on the ground being at a relatively early stage.



## 4.2 Deer management in lowland deer areas

### *Summary of key findings and further work required*

- The Lowland Deer Panel was established and has reported, bringing a welcome focus to lowland deer issues.
- The deer management structures in the lowlands are appropriate for managing deer and the public interest in the lowlands.
- Supported by the Lowland Deer Panel findings, SNH does not consider there are widespread problems with deer management in lowland areas. The small number of situations where SNH intervention is sought suggests that current mechanisms for managing deer in the lowlands are sufficient.
- Coverage of deer groups in lowland areas has increased since 2016.
- On the evidence available from SCM, there appears to be little overall change in the condition of Protected Area features potentially affected by herbivores within lowland deer areas; with the proportion of features that are favourable or recovering at 77.4% in 2019.
- The data gathered on Deer Vehicle Collisions (DVCs) suggest they continue to be significant both for public safety and deer welfare; it is unclear if the number of DVCs has changed, or if the number reported reflects variation in reporting effort.
- Specific action has been taken with respect to DVC risks in certain areas and we continue to develop our understanding of the risks to help reduce impacts on public safety and deer welfare.
- Data in relation to the delivery of public interests are not as readily available to deer managers in lowland areas as in the uplands.
- The Lowland Deer Management Project supports that main drivers for land managers managing deer in lowland areas are; protecting forest and agricultural crops, recreational stalking and venison for consumption. By default this management provides benefits to public interests.
- Twenty three percent of features potentially affected by herbivores in lowland Protected Areas are unfavourable and not recovering. Although this is a lower proportion than in upland DMGs (at 27%), it suggests further work is required to explore the issues around natural heritage impacts in lowland areas on Protected Areas and in the wider countryside.
- Good progress has been made with Local Authorities in developing their deer management policies, although further work is required to ensure all Local Authorities are properly taking responsibility for deer as managers and in terms of their wider policies.

## ***The Challenge***

***The discussions arising from the 2016 review highlighted a confused picture of what delivery of deer management actions in lowland areas looks like and to what extent public interests are being delivered by existing deer management models. Specifically there was confusion over whether delivery models appropriate for the uplands could be replicated in the lowlands. In addition there were questions asked about why regulatory action had not been advanced so readily.***

***The Cabinet Secretary's response underlined the expectation that all those who own or manage significant areas of land in the lowlands should take responsibility for deer management, particularly highlighting the risk of deer vehicle collisions.***

Here we report on the range of work SNH has initiated in lowland areas; how we have sought to collate existing information and clarify the expectations on deer managers.

### ***4.2.1 Understanding and defining the lowlands***

Defining the exact 'lowland area' is not straight-forward, but the scale of landholding and land use is a good starting point in helping to provide a definition. Key to the distinction from upland areas are factors that diminish the need for and practicalities of collaborative deer management (See [Annex 1](#) for a more detailed definition). We recognise that these descriptions do not neatly match the range of circumstances across the area outlined on the map as lowland deer areas (Figure 1). Hence a more nuanced range of drivers for collaboration in management is apparent on the ground.

### ***4.2.2 Lowland Deer Panel***

In January 2018 SNH established a panel of independent experts to explore existing approaches to deer management in the Scottish lowlands. The [Terms of Reference](#) for the Panel were framed around the concerns expressed by the ECCLR committee regarding lowland deer management.

The Panel, chaired by Peter Watson, submitted its [report to SNH](#) in early 2019. SNH welcomed the full consideration of lowland deer issues given by the Panel. We recognised the Panel did not reach complete agreement on its recommendations. This to some extent reflects the complexity of deer management issues in the lowlands and the diversity of views amongst wider stakeholders. We have however, taken all these views on board in considering our response.

In general the panel recognised the current approach to managing deer in the lowlands is appropriate. It recognised that much of the work that SNH is undertaking is proportionate to the issues lowland deer pose. Data gathering and gaps in relation to annual cull returns were identified, but the resource implications and value of pursuing this information nationally were also acknowledged (alongside the usefulness of this information beyond simply providing more complete information on national deer culls). The panel highlighted, particularly in relation to roe deer, that decisions should be impact based using locally sourced information. Local initiatives to fit local circumstances tend to be the best fit and detailed deer management cull planning and population assessment at a landscape scale is not necessarily required.

The questions posed to the Lowland Deer Panel and their recommendations are detailed below, these are in turn followed by a brief SNH response to these findings.

*Question 1: Do lowland deer managers need to collaborate to achieve sustainable deer management, and; if so, at what scale does this need to take place, and what is the most efficient and effective approach?*

**Panel recommendations:**

- The panel encourages the wider use of the current range of collaborative deer management approaches that are in place in the lowlands.
- The panel recognises that various approaches are appropriate depending on the habitat, species and landholding patterns, and recommends that the application of these approaches should be described in 'Best Practice' guidance.
- The panel suggests that SNH support relevant stakeholder engagement fora, which include Local Authorities, NGOs and others, where specific issues are identified, to deliver local deer management planning, actions and solutions.

**SNH response: *Recommendations accepted***

- SNH supports the finding that collaboration can take many forms and will continue to support existing lowland deer groups and encourage fit for purpose and proportionate collaboration to address any localised issues that emerge.
- We will continue to work to better articulate and develop criteria on public interests for the lowlands. Phase 3 of the Lowland Deer Management Project will review and assess the different models of delivery and how the delivery of public interests could be enhanced in the lowlands. We support that new thinking on lowland deer management should be reflected in Best Practice guidance.
- SNH believes that the Lowland Deer Network Scotland (LDNS) is the appropriate forum to bring together the wide range of stakeholders to discuss local deer management planning, actions and solutions. SNH will encourage LDNS to take a more proactive approach in supporting local approaches to collaboration.
- We will continue to work with our partners of Scottish Forestry and Transport Scotland, the LDNS chairman and secretary and Executive Committee, to identify key issues, information gaps and training requirements which need to be met.
- Through the WDNA partnership we will seek to increase collaboration with other agencies to ensure policy and actions are aligned.

*Question 2: What knowledge and information are needed to support this process, and to determine whether the public interest is being met?*

**Panel recommendation:**

- The panel supports the findings of the recent report on Lowland Deer Management: Assessing the Delivery of Public Interests (McMorran *et al.* 2018)<sup>19</sup>, and encourages SNH to work more closely with other agencies to harmonise existing spatial data, and where possible fill gaps on culls, as well as collect stalker effort, through collaboration with hunting bodies. Combined with local expert knowledge on both deer numbers and habitat impacts, these data can be incorporated into an updated Impact Indicator Matrix (Putman *et al.* 2011) of public interests and could, in future, form a basis for multi-criteria decision support models.

**SNH response: *Recommendation partially accepted***

- SNH's current understanding of where problems are arising is largely based on issues brought to our attention. We then use a risk-based approach to prioritise action.

---

<sup>19</sup> [SNH Research Report 1069 - Lowland deer management - assessing the delivery of public interests](#)

- We will continue to refine and improve on the data that are required through the targeted use of Deer (Scotland) Act Section 6a, 40a and 40 to address the local priorities. SNH plans to continue the trajectory of making more of the information we currently gather available spatially with a view to informing where there is an elevated risk to public interests in lowland areas. Whilst not a fully-fledged 'impact indicator matrix', this approach will allow local deer managers to better assess the risks and plan and respond accordingly.
- Systematic approaches can be further improved, especially in relation to social and economic public interest. We intend to carry out a periodic review of our risk-based approach to ensure it uses the most up to date information.
- Whilst more information is always desirable, SNH prioritises action across a range of wildlife management requirements within finite resources. At present we are not looking to initiate additional systematic information gathering in lowland areas such as census work or gathering information on stalker effort. We consider local deer management planning, particularly for roe deer is best directed by local information in an adaptive manner. We will continue to keep this under review.

*Question 3: What are the practical implications of public perceptions of deer and deer management in the lowlands?*

Panel recommendation:

- The Panel recommends that SNH should work more extensively with Local Authorities and other stakeholders to provide guidance on the need for deer management and to make them aware of their obligations under the 'Deer Code', through education and direct help in deer management planning and implementation.

SNH Response: *Recommendation accepted*

- As outlined in 4.2.8 we have increased our engagement with Local Authorities and more Local Authorities have now given consideration to their deer management responsibilities. SNH recognises Local Authorities do have responsibility over the land they own and manage, but also in informing policy; particularly in relation to greenspace planning with implications for deer. We note that Local Authority land ownership is around 1% of the total land area of Scotland (~80,000 ha compared to the overall land area in Scotland of 8M ha) and hence we need to ensure our focus on Local Authorities is proportionate.
- We will continue to promote and raise awareness of the Deer Code with key stakeholder groups.

*Question 4: What further action could SNH take in the context of the existing legislative and policy framework?*

Panel recommendations:

- The panel recommends that SNH encourages the wide use of the Impact Indicator Matrix of public interests, and establishes a systematic approach to reviewing the evidence across the lowlands, in order to identify areas where a regulatory approach may be necessary (prioritising the herding species, but where appropriate also roe deer).
- SNH should support the provision of venison storage and processing facilities where lack of such facilities are a barrier to sustainable deer management and consider using such support as a lever for better reporting of cull returns by groups or individuals.

SNH response: *Recommendation partially accepted*

- As per our response to Q 2 - recommendations on systematic approaches to prioritising action. SNH currently provides support where issues are highlighted. We will continue to work with our partner agencies to further identify risks and prioritise action. This includes

addressing negative impacts through our relationships with stakeholders, local deer groups and LDNS.

- We recognise that there are issues around the provision of venison storage, but need to be clear that SNH's role is not to lead or directly fund these initiatives; our role is around support and advice. SNH supports the Venison Strategy and the actions that were identified within it to consider and pilot different larder facilities. The Venison Group of which SNH is a member have taken this forward and have presented a case for funding to the Scottish Government.

*Key findings:*

- The Lowland Deer Panel was established and has reported, bringing a welcome focus to lowland deer issues.
- The deer management structures in the lowlands are appropriate for managing deer and the public interest in the lowlands.
- Supported by the Lowland Deer Panel findings, SNH does not consider there are widespread problems with deer management in lowland areas. The small number of situations where SNH intervention is sought suggests that current mechanisms for managing deer in the lowlands are sufficient.

#### *4.2.3 Updates to deer management structures and deer groups in lowland areas*

The main existing structures can be characterised as below:

- Managers of commercial forest comprising public and private forestry companies who have common objectives in terms of timber production, deer damage mitigation with elements of recreational stalking and subsequent income. Membership represented by forest owners, management companies and professional and vocational stalkers.
- Mixed forestry /agricultural /sporting land holdings with objectives of timber, agricultural crop production, deer damage mitigation, but also with elements of recreational stalking represented by owners /managers, professional and vocational stalkers.
- Stalker led membership groups operating over defined areas linked with Local Authority boundaries delivering deer management on a variety of land holding types for both crop protection and sporting purposes. Represented by vocational stalkers.

There are currently 18 lowland deer groups covering lowland areas. Nine groups have formed or restructured since our review in 2016; with deer groups now covering - Clyde Coast, Eskdalemuir and Liddesdale, Cowal, Galloway and Dumfriesshire; and deer forums for - Dunkeld, Doune Woodlands, Flanders Moss, Howe of Alford and East Loch Lomond Land Management Forum. [Annex 6](#), Table a) highlights how lowland deer groups differ in their constitution, the species they are dealing with and their management priorities. See Figure 1 for the distribution of lowland deer groups and [Annex 15](#) for further details of how collaborative approaches have been supported.

The Lowland Deer Panel has confirmed that different delivery models of deer management that have developed in the low ground are logical and they considered that extensive collaboration in the form required of the upland DMGs is not generally essential for many of the groups, and particularly the central belt groups, as roe deer are the primary species<sup>20</sup>. Therefore the requirement to collaborate purely from a practical deer management perspective is less critical. In these areas, more value is placed on collaboration to help

---

<sup>20</sup> As a territorial, non-herding species, significant movements across land holdings is not a characteristic and impacts are predominately more localised.



share experience, promote Best Practice Guidance, improve communications and engage with the wider public.

There are some groups however, where there is a requirement to deal with increasing challenges around herding species such as fallow deer in the Dunkeld area and red deer impacting on agricultural land in the context of the Flanders Moss and Howe of Alford Forums. Some groups are more closely aligned with a true upland group such as South East Sutherland and East Loch Lomond and span the area between the lowlands and the open hill. The Lowland Deer Panel highlighted that attention should be given to the increasing reports of red deer expanding into lowland areas and therefore the need to keep under review the type and form of group required to deal with potential impacts.

*Key finding: Coverage of deer groups in lowland areas has increased since 2016.*

#### *4.2.4 Update on lowland deer trends - populations and impacts*

SNH collects various types of information on deer populations and impacts in lowland areas. This includes SNH census work on specific sites, cull returns, Site Condition Monitoring, the number of authorisations issued and data on Deer Vehicle Collisions. The focus of our information gathering in the lowlands is with respect to addressing local management issues, rather than informing population trends. However, we note that Scottish Government woodland expansion ambitions and greenspace initiatives are likely to continue the trend of increasing roe deer distribution and abundance.

SNH carries out deer presence monitoring directly in the lowlands to support local information gathering and decision making. This is done using thermal imaging (TI) cameras from a vehicle /on foot covering a pre-defined area. These are minimum counts based on what can be visually seen and counted and cannot be used to derive deer densities. Data gathered help inform a basic understanding of the distribution and approximate numbers of deer present in the area. As such population models and population density targets have limited value in this setting. Instead a continuous adaptive management approach of assessing impacts and adjusting cull effort is critical. SNH has carried out 20 counts covering 14 different lowland areas since 2016 ([Annex 7](#)) for details).

#### *4.2.5 Impacts on lowland Protected Area feature condition (SCM)*

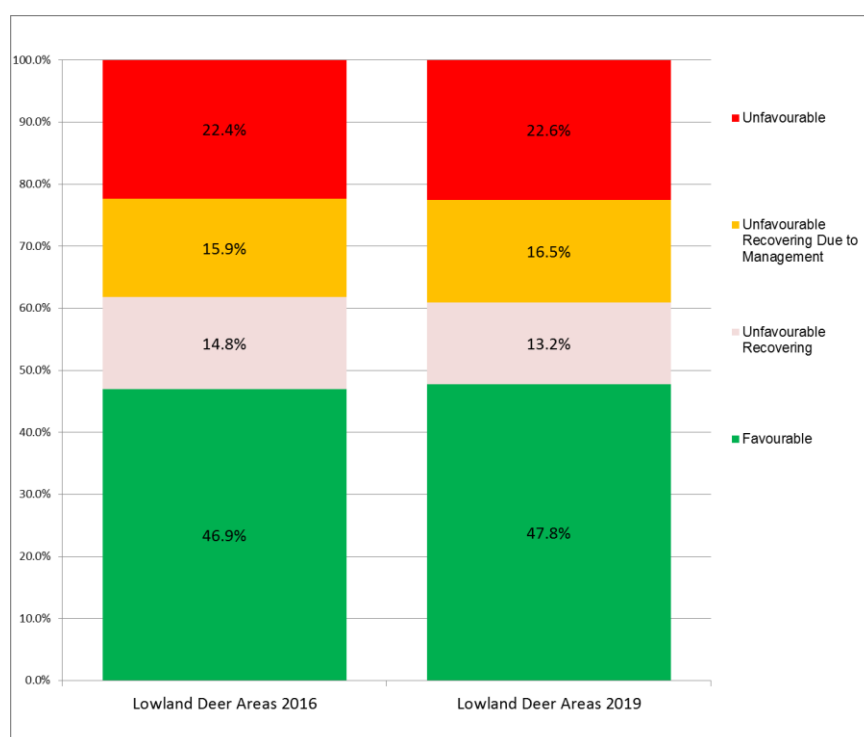
The national picture with respect to changes in Protected Area feature condition is reported in section 4.1.3. Figure 10 provides analysis of changes and the distribution of feature condition in the lowlands.

In lowland deer areas there has been some change in the proportion of features in different condition classes since 2016, but with little change in the overall proportion that is classed as favourable or recovering due to management; currently at 77.4%.<sup>21</sup>

---

<sup>21</sup> There has been a change in the number of features classed as in lowland deer areas since 2016 with 586 reported in (LDGS and the rest of Scotland) in 2016 and 674 reported in 2019. These changes can partly be accounted for by changes in the DMG boundaries, but also the misclassification of some lowland features as upland in 2016. The features reported in 2019 are based on the mapping in Figure 1.

Figure 10 Comparison of feature condition in lowland deer areas between 2016 and 2019



**Key finding:** On the evidence available from SCM, there appears to be little overall change in the condition of Protected Area features potentially affected by herbivores within lowland deer areas; with the proportion of features that are favourable or recovering at 77.4% in 2019.

#### 4.2.6 Deer Vehicle Collisions

The primary purpose of our work on DVCs is to provide further information to SNH, Transport Scotland, Trunk Road Operating Companies, Local Authorities and deer managers on the level of reported DVCs in different parts of the country ([Annex 8](#), Figure 1). This helps prioritise allocation of resources and action to reduce risks to public safety and safeguard deer welfare. DVCs are relevant to the whole of Scotland for both upland and lowland deer areas. We have included an update in the lowland section of this report largely for convenience.

SNH has engaged with or supported local managers to take a proactive role in addressing DVC risks in relation to eight sections of A-class road with a high DVC risk between 2016 and 2019. Further details of the sites and actions taken is provided in [Annex 8](#) Table a).

The latest DVC report<sup>22</sup> presents findings from the two-year data collection project for January 2016 to December 2018, along with comparison of results from earlier years. In summary:

- There has been an increase in annual numbers of reported DVCs records from the Scottish Society for the Prevention of Cruelty to Animals (SSPCA). This may reflect the overall expansion in range of deer especially in the Scottish lowlands and urban fringes in

<sup>22</sup> Langbein, J. 2019. Deer-Vehicle Collision (DVC) Data Collection and Analysis to end 2018. *Scottish Natural Heritage Research Report No. (in prep)*.

recent years, but increased levels of reporting of injured animals is also a factor in the increase in the number of reports.

- Incidents reported by trunk road operating companies ([Annex 8](#) Figure 2) by contrast have fallen by close to 10% during 2017 and 2018 compared to the previous three years, despite data recording procedures appearing to have remained relatively consistent.
- The divergent trends among data from the two largest data sources emphasise that the above trends need to be interpreted with caution and it is currently unclear if there has been any change in the incidence of DVCs.
- Re-evaluation of seasonal and diurnal patterns continue to show the same most prominent peak in DVCs across Scotland during May and into early June. This justifies the ongoing awareness campaign that SNH organises in conjunction with Transport Scotland to raise awareness of the higher risks of deer on road during this period.
- The latest project included DVC risk maps based on a re-analysis of trunk road DVC data (2008 to 2016). A risk index has been calculated for different road segments that takes account of differences in traffic flow. These risk index maps together with those based purely on rates of DVC per kilometre ([Annex 8](#), Figures 3 and 4 respectively); offer an improved way of identifying areas of greatest risk to drivers, as well as for objective monitoring of future changes.
- Based on the sample data gathered as part of the 2018 report, latest figures estimate the true total of deer hit by vehicles could be as many as 12,000 per annum.

#### *Key findings:*

- The data gathered on DVCs suggest they continue to be significant both for public safety and deer welfare; it is unclear if the number of DVCs has changed, or if the number reported reflects variation in reporting effort.
- Specific action has been taken with respect to DVC risks in certain areas and we continue to develop our understanding of the risks to help reduce impacts on public safety and deer welfare.

#### *4.2.7 Lowland Deer Management Project - Assessing delivery of public interests in the lowlands*

The Lowland Deer Management Project is jointly supported by SNH and Scottish Forestry and seeks to support delivery of sustainable deer management in lowland areas in relation to WDNA, the Deer Code and SBS outcomes. Phase 1 of the study sought to identify the availability and utility of spatial data of relevance to public interests impacted by deer and deer management issues. A representative project area that included a typical range of lowland Scotland land uses and issues was selected for study to the north of Glasgow and west of Stirling. The Project was conducted by SRUC and the [Research report](#) and compiled data are available in full. The findings identified data gaps for example, in relation to deer populations, habitat impacts, socio-economics related to deer management, cull data and information on stalker activity. The development of modelling approaches to support decisions was recognised to be challenging, due to the data gaps. However it was proposed that multiple layers of spatial data (Multi-Criteria Decision Analysis) could be used to identify areas of susceptibility to deer impacts (as reiterated by the Lowland Deer Panel 4.2.2).

Phase 2 was carried out on behalf of SNH/Scottish Forestry by Chetwynd Rural and directly engaged stakeholders to better quantify how, where and why practical deer management is carried out within the project area. The work highlighted that there were different models of delivery which were dependent on the specific, diverse land uses. As such the upland red deer range model is unlikely to be an effective delivery mechanism in most lowland areas. The exception to this would be where red deer are the focus of management. Specifically the

work highlighted the extent of the deer cull being delivered across the different models ([Annex 9](#), Table a).

The workshops and the survey indicated that while the deer management undertaken by landowners, stalking tenants, deer controllers and contractors will be leading to a reduction in impacts and economic costs (as well as economic benefits in terms of stalking lets and venison sales), many had difficulty articulating how their management helped to contribute to and deliver associated public benefits. Protecting natural heritage interests appears to be less of a driver for deer management in some lowland areas possibly due to i) the perception that roe deer impacts are less significant than red deer, ii) Protected Areas are relevant to proportionately fewer managers and iii) where herbivore impacts are identified, there remains uncertainty as to which herbivores are involved.

A third phase of the Lowland Deer Management Project is proposed which aims to assess whether different models could deliver public interest more effectively and efficiently.

*Key findings:*

- Data in relation to the delivery of public interests are not as readily available to deer managers in lowland areas as in the uplands.
- The Lowland Deer Management Project supports that main drivers for land managers managing deer in lowland areas are; protecting forest and agricultural crops, recreational stalking and venison for consumption. By default this management provides benefits to public interests.
- Twenty three percent of features potentially affected by herbivores in lowland Protected Areas are unfavourable and not recovering. Although this is a lower proportion than in upland DMGs (at 27%), it suggests further work is required to explore the issues around natural heritage impacts in lowland areas on Protected Areas and in the wider countryside.

#### *4.2.8 Our work with Local Authorities on deer management*

SNH contacted all Local Authorities with deer present (n = 29) in February 2016 asking them to explain how they were following the Deer Code. The responses revealed that some Local Authorities had a dedicated deer management plan and were following the Deer Code, others were keen to consider deer management further but lacked resources, and some did not consider that deer were an issue for them. Common themes from the responses were:

- a perceived lack of knowledge on deer within their property ownership
- fear over negative PR in relation to deer culling
- deer management being a lower priority compared to other issues
- concern over a lack of funding to implement any action.

Since 2016 SNH has been providing additional support and encouragement to help them meet their obligations under the 'Deer Code,' by engendering a greater understanding of the need to undertake deer management and an appreciation of the value of deer. This has included a Sharing Good Practice Event held in 2017 with another scheduled for October 2019 developed in partnership with Aberdeen City Council.

In addition SNH has supported seven Local Authorities to start the deer management planning process. This has included development of Deer Position Statements in the first instance which has involved information gathering through to more detailed plans involving more prescriptive actions. The status of all Local Authority plans can be reviewed in [Annex 10](#). As of 2019, of those Local Authorities with deer present, 11 now have a statement or plan in place.

*Key finding:* Good progress has been made with Local Authorities in developing their deer management policies, although further work is required to ensure all Local Authorities are properly taking responsibility for deer as managers and in terms of their wider policies.

#### *4.2.9 Lowland Deer Network Scotland (LDNS)*

LDNS offers a platform for discussion for individuals and organisation with an interest in deer management, deer welfare or the interaction between deer and people<sup>23</sup>. LDNS does not attempt to be a lowland version of ADMG; its value is bringing together a range of interests and provides a hub to exchange views, identify problems and consider local solutions for respective members and organisations to take forward. Work is underway in summer 2019 to refocus LDNS objectives, confirm agency support for local initiatives and ensure delivery of these going forward.

The current LDNS work programme includes:

- supporting Deer Stalking Certificate 1 and First Aid training courses for lowland deer managers
- Herbivore Impact Assessment training for woodland and deer managers
- awareness raising days on Deer Vehicle Collisions, Urban Deer management, venison processing
- attendance at regional shows and events along with the 'Deer on your doorstep' initiative to help promote education and awareness around lowland deer management.

---

<sup>23</sup> Members include SNH, Scottish Gamekeepers Association, British Association for Shooting and Conservation, British Deer Society, Scottish Forestry, Forest and Land Scotland, Scottish Land & Estates, National Farmers Union Scotland, Local Authorities, Police Scotland, SSPCA, Transport Scotland and vocational stalkers.



## 4.3 Deer management in woodlands

### Summary of key findings

- The SBS native woodland creation target is on track with an average delivery of c.3,300 ha of new native woodland each year (2014 - 2019) and we are confident that by the end of the SBS Routemap period, it will have been met.
- We do not have updated survey information on condition across the native woodland resource. We consider the SBS native woodland condition target is unlikely to be met on the basis of the 3% decline in the condition of Protected Area woodland features. This target is rated 'amber' in the 2018 SBS<sup>24</sup> reporting. In 2019 65.1% of woodland features are in favourable or recovering condition.
- We have not quantified the restoration of native woodlands that has been achieved through DMG plans as part of the assessment process. All DMP criteria relating to native woodland condition improved between 2016 and 2019, but there has yet to be good progress on delivery across all groups. On the basis of the DMG assessments and supporting information from Scottish Forestry Grants, we consider it unlikely that the restoration of 10,000 ha of native woodland will have been achieved by 2020. This target is rated 'amber' in the 2018 SBS<sup>24</sup> reporting.

### The challenge

*In 2016 SNH noted the Native Woodland Survey of Scotland found that more than a third of all native woodlands were in unsatisfactory condition due to herbivore impacts. We concluded that evidence supports the view that deer are a major factor in limiting woodland condition recovery; and that we are not confident that present approaches to deer management will be effective in sustaining and improving the natural heritage in a reasonable timescale, particularly in time to contribute significantly to the specific challenges outlined in the Scottish Biodiversity Route Map to 2020.*

The Scottish Biodiversity Strategy (SBS) targets as relate to native woodlands have three components. To:

- create 3,000 to 5,000 ha of new native woodland per year.
- increase the amount of native woodland in good condition (upwards from 46% as identified by the Native Woodland Survey of Scotland).
- restore approximately 10,000 ha of native woodland into satisfactory condition in partnership with private woodland owners through Deer Management Plans.

#### 4.3.1 Native woodland creation

Official Scottish Forestry statistics report the extent of new native woodland between April 2014 and April 2017 was 8,981 ha and in the period March 2017 – March 2018 was 3,040 ha nationally. Added to this Scottish Forestry statistics indicate the 2018/19 native woodland creation figures are 4,436 ha (39.6% of all new planting in Scotland that year). Hence over the period April 2014 - March 2019, there has been on average 3,291 ha of new native woodland created each year.

---

<sup>24</sup> 3<sup>rd</sup> SBS 2020 Route Map report currently in review.

Scottish Forestry does not capture information on fencing spatially and hence it is not possible to say what proportion of native woodland creation has been supported by deer fencing and where other deer management and or tree protection has helped to contribute to these establishment figures. However we note, Scottish Forestry Grant Scheme (FGS) costs between April 2015 and March 2019 for capital items associated with deer fencing totalled £12.8M and for tree protection £2.2M. We have included a breakdown of Scottish Forestry Grant contributions to the Sustainable Management of Forests and Woodland Improvement Grants relating to deer management in section 5.2.3 which over the same period total £2M.

In our 2016 review we highlighted the legacy issues associated with an ageing fencing infrastructure (maintenance and replacement costs, deer welfare and biodiversity impacts). SNH welcomes the progress in woodland creation, however, while these legacy issues remain, we note caution in an over-reliance on deer fencing to support an expanded programme of woodland creation<sup>25</sup>.

*Key finding:* The SBS native woodland creation target is on track with an average delivery of c.3,300 ha of new native woodland each year (2014 - 2019) and we are confident that by the end of the SBS Route map period, it will have been met.

#### 4.3.2 Native woodland condition

In 2016 we reported that the most important source of information on herbivore impacts on native woodland was the Native Woodland Survey of Scotland (NWSS) carried out by Forestry Commission Scotland between 2006 and 2013. All woodlands were surveyed and herbivore impacts scored in one of four categories from Low to Very High. The SBS target was derived from NWSS analysis and refers to 'satisfactory' condition rather than to a specific desirable herbivore impact class (the term satisfactory refers to a range of 'pressures' on native woodland, including non-native invasive species). The NWSS 'satisfactory' condition in terms of herbivore impact was defined by Forestry Commission Scotland in 2005 as 'Low or Moderate' and is based on the Woodland Herbivore Impact Assessment methodology used in the Grazing Toolbox<sup>26</sup>. Given the importance of NWSS data in supporting the SBS process, this assessment of herbivore impacts was accepted as the baseline from which to measure any future improvement. The 'Moderate' herbivore impact category within the NWSS included a range of impacts: some tree regeneration will be able to occur but the more vulnerable tree species and ground flora are unlikely to regenerate, grow, flower or fruit<sup>27</sup>. However, we do not have an updated picture of herbivore impacts across the native woodland resource<sup>28</sup> since 2013.

Within the DMG assessment there are criteria relating to determining the extent and condition of native woodland (3.1 and 3.2) in DMG plans, 3.3 'Identify actions to deliver DMG woodland management objectives' and 3.4 'Monitoring progress and reviewing actions to manage herbivore impacts'. To be green rated for 3.3, a DMG has to as a group have

<sup>25</sup> Scottish Government Climate Change Plan 3<sup>rd</sup> report February 2018 - sets out the ambition to increase our annual woodland creation targets from the current target of 10,000 hectares per year to, 12,000 hectares per year from 2020 - 2021, 14,000 hectares per year from 2022 - 2023, 15,000 hectares per year from 2024 - 2025.

<sup>26</sup> <https://forestry.gov.scot/woodland-grazing-toolbox>

<sup>27</sup> With the benefit of further research and experience SNH now consider that Low herbivore impacts are required to deliver favourable or acceptable native woodland condition.

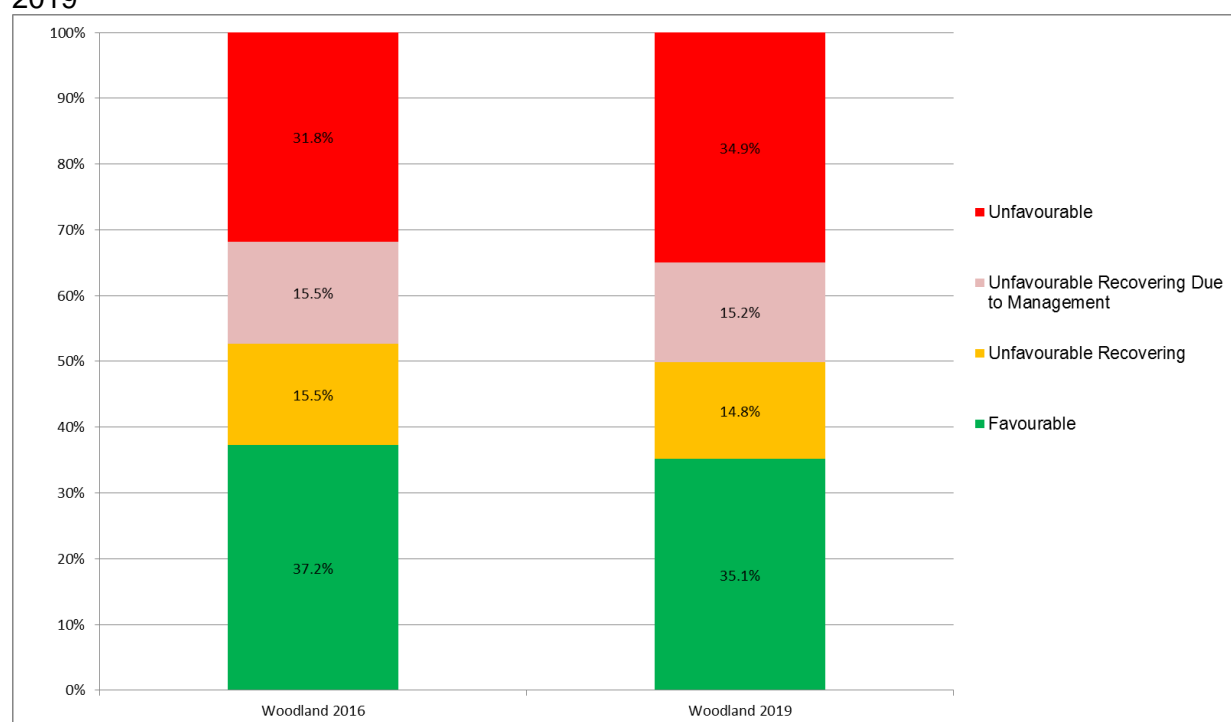
<sup>28</sup> An analysis of all SNH land ownership indicates that 70% by area was classified as being in satisfactory condition (Low or Moderate herbivore impacts) by NWSS. Since 2016 new management plans have been put in place, such that assured management of 6% of the unsatisfactory woodland remains to be put in place, the most significant area of which is within Sunart Woodlands SAC.

considered actions to improve woodland condition; evidenced through their DMP or meeting minutes i.e. the assessment is focused on the group process rather than the contribution towards SBS targets. There was an expectation that the groups with a greater proportion of woodland experiencing higher impacts (NWSS baseline) would prioritise this action. Due to the scale of the task in collating information on the objectives and actions taken for individual native woodlands we did not attempt to quantify improvements to native woodland condition through the DMG assessment process. In addition, the SBS native woodland condition target is not restricted to the upland red deer range.

Instead the narrower dataset on the condition of woodland features on Protected Areas through SCM, for which we do have some updated information, is being used as a barometer for the condition of the wider native woodland resource. Updated information on the level of herbivore impacts in native woodlands is now being collated as a condition of specific Scottish Forestry grants related to reducing herbivore impacts in native woodlands and hence we expect to be able to monitor some progress on delivery going forward.

As noted in section 4.1.3, there has been an overall decline in woodland condition with 35% of features now assessed as unfavourable, an increase of 3.1% from 2016 (Figure 11)<sup>29</sup>. 45 woodland features have recorded a change in condition status since 2016; 15 positive and 30 negative (Annex 4 Table a). Evidence from SCM shows that herbivores are at least partially the cause for 28 of the 30 declining woodland features.

Figure 11 Comparison of Protected Area woodland feature condition between 2016 and 2019



The 2019 figures for lowland deer areas are; of 244 woodland features assessed, 68% are favourable or recovering, i.e. 32% or 79 features are unfavourable and not recovering.

For upland DMGs in 2019, of the 237 woodland features assessed, 62% are favourable or recovering, i.e. 38% or 89 features are unfavourable and not recovering.

<sup>29</sup> There has been a slight change in the number of woodland features since 2016 with three woodland features being assessed for the first time. Hence the total number of woodland features in 2016 was 478 and in the current assessment is based in 481 features.

An example of where assured woodland management has been put in place is:

- The owner and land managers of Amat Wood Protected Area, in North Ross DMG, have improved this site to “recovering” status following the actions under an approved Long Term Forest Plan and Forestry Grant contracts (SMF) which included fencing, deer management and INNS removal.

An example of where a ‘recovering due to management’ assessment has reverted to unfavourable:

- Pollochro Woods SSSI woodlands in Balquhider DMG area was previously considered to be URDTM (due to the assurance of management set out in the RSPB management plan). More recent assessments indicate herbivore impacts (mostly goats) are continuing to impact negatively on the woodland. We have therefore re-classified the site as unfavourable.

*Key finding:* We do not have updated survey information on condition across the native woodland resource. We consider the SBS native woodland condition target is unlikely to be met on the basis of the 3% decline in the condition of Protected Area woodland features. This target is rated ‘amber’ in the 2018 SBS<sup>30</sup> reporting. In 2019 65.1% of woodland features in Protected Areas are in favourable or recovering condition.

#### 4.3.3 Native woodland restoration

The SBS restoration target relates to restoring native woodland in partnership with private woodland owners through Deer Management Plans. As set out in 4.3.2, we have not quantified the restoration of native woodlands that has been achieved through the DMG assessment process. The key DMG assessment criteria 3.3 ‘Deliver DMG woodland management objectives’ increased from 36% green rated in 2016 to 59% green rated in 2019 and 3.4 ‘Monitoring progress and reviewing actions to manage herbivore impacts’ increased from 25% in 2016 to 70% in 2019. Hence it is evident that more DMGs are now setting objectives relating to native woodland condition and are actively considering how to deliver on these objectives, for example by exploring grant availability. Nonetheless, performance against this Public Interest category remains one of the lowest ranking ([Annex 5](#), Table d).

Scottish Forestry (SF) supports this target through provision of SRDP grant for operational work to manage deer for the benefit of native and non-native woodlands. To enable some reporting under this target, SF has provided information on the area that has received grant aid for options that relate specifically to native woodland condition or deer management ([Annex 11](#), Table a). However, some of the scheme options are eligible to both native and non-native woodland and it has not been possible to derive a figure for the proportion that is solely native. Whilst other scheme options relate to deer management in woodlands, they are not intended to ensure the management delivered would be equivalent to ‘satisfactory’ condition. Hence the figures provided in [Annex 11](#) Table a) are described as ‘meeting’ or ‘partially meeting’ the SBS targets. The main grant for the delivery of deer management in native woodland is the ‘Sustainable Management of Forests – native woodlands’ with respect to the delivery of the restoration target. Between April 2016 and March 2019 28 contracts were approved under the ‘SFM – native woodlands’ option. In each year on average 6,384 ha were under approved management in the period April 2016 to March 2019<sup>31</sup>.

<sup>30</sup> 3<sup>rd</sup> SBS 2020 Route Map report currently in review.

<sup>31</sup> Not all contracts were in place for all three years, hence the figure quoted is an average rather than a total.

Landowners in this scheme are expected to maintain boundary fences to ensure that deer are excluded from the woodland, and must make an annual submission detailing deer control activities and ecological recovery each year to enable re-payment. This submission must include evidence of the habitat monitoring results using the herbivore impact assessment method, a map of the claim area and cull records.

It is worth highlighting that Scottish Forestry Grants are regarded as a supporting mechanism to DMP delivery and were never intended as the sole mechanism for target delivery.

Our interpretation of progress against the restoration target, which takes account of progress in DMG assessments but includes uptake of Scottish Forestry Grants as an indicator of delivery progress, is that the area of native woodland under assured management is unlikely to reach the SBS target by 2020.

*Key finding:* We have not quantified the restoration of native woodlands that has been achieved through DMG plans as part of the assessment process. All DMP criteria relating to native woodland condition improved between 2016 and 2019, but there has yet to be good progress on delivery across all groups. On the basis of the DMG assessments and supporting information from Scottish Forestry Grants, we consider it unlikely that the restoration of 10,000 ha of native woodland will have been achieved by 2020. This target is rated 'amber' in the 2018 SBS<sup>32</sup> reporting.

---

<sup>32</sup> 3<sup>rd</sup> SBS 2020 Route Map report currently in review

## 5. SNH's role and our use of regulatory provisions

### *Summary of key findings and further work required*

Between 2016 - 2019 SNH has reviewed our approach to using regulatory powers to better deliver public interests, focussing on a number of priority areas particularly the performance of deer management groups, preventing damage to Protected Areas and in addressing agricultural impacts.

- We have demonstrated the use of a wide range of existing regulatory provisions. Three Section 7 agreements have been concluded and the five current Section 7 agreements have all been monitored and reviewed. SNH have considered the need to use Section 8 Control Schemes in a range of casework, but have concluded not to use these powers to date.
- Of the five current S7 Control Agreements, four have met cull targets, and two are considered on track to deliver habitat targets (one further site with survey results pending).
- Progress on the current suite of S7 Control Agreements and our ability to initiate new agreements reflects SNH's finite resources and the need for us to balance actions across a broad spectrum of provisions (support, advice and regulation) and the challenges of balancing natural heritage and socio-economic impacts.
- SNH has provided a wide range of direct assistance in support of delivering sustainable deer management. We have: supported and monitored progress within 48 upland DMGs through assessments in spring 2019; assisted the establishment of new collaborative structures; provided funding for 45 DMGs and for seven Local Authority plans; carried out an extensive programme of census work in the upland red deer range; supported specific culling operations and have provided casework support for AECS applications.
- Across the SRDP programme (2014 - 2019) £7.1M of support has been approved relating to deer management, with a further £2.36 M for peatland restoration.
- Since 2012 Peatland ACTION has delivered restoration activities on over 19,000 hectares investing £21.1M; including developing site based projects led by seven DMGs.
- SNH has continued to provide a wide range of advice, support and guidance for deer managers. This has included our involvement with the Best Practice Partnership, publishing five new research reports, supporting the development of decisions support tools and publishing deer management data on our website.



## ***The Challenge***

***In 2017 the ECCLR Committee expressed concerns that the currently available suite of powers is insufficient; noting that some Section 7 agreements are not fulfilling their purpose and that Section 8 powers had not been used. Misgivings were also directed at SNH leadership in deer management; expressed as a failure to adequately set expectations for deer management and an unwillingness to use the enforcement aspects of the legislation. They called for a review of the adequacy of resourcing and the provisions.***

***In response the Cabinet Secretary announced that Scottish Government would establish an independent working group to examine the current issues over the standards of deer management in Scotland and recommend changes to help resolve these issues in ways that promote sustainable deer management.***

The remit of the Deer Working Group appointed by Ministers in October 2017 is to make recommendations for changes to ensure effective deer management in Scotland that safeguards public interests and promotes the sustainable management of wild deer. The DWG report is expected in November 2019. We have deliberately not commented on legislative provisions, but in this section aim to set out the scale and ambition of SNH's work in relation to deer management since 2016.

### **5.1 Update on SNH's use of regulatory provisions**

WDNA and the Deer Code set out how SNH supports the voluntary approach in carrying out its deer functions. This is done through the provision of advice, intervention where there is a threat to public interest, and where required, the use of regulatory powers to prevent damage. In line with the better regulation agenda we have sought to improve the way our regulation of deer management is developed, applied and delivered in a consistent and proportionate way.

A number of the regulatory functions are used on a frequent and well established basis such as the authorisation of deer culling out of season and at night and requests for statutory cull returns. Other provisions are used on a less regular basis dependant on the need for, and nature of the intervention required.

Regulatory powers are used to underpin the voluntary and collaborative approach to deer management. The threat of compulsory powers has been important and can act as catalyst to get the necessary deer management action delivered.

Figure 12 Map of sites where we have used or have considered use of specific regulatory provisions

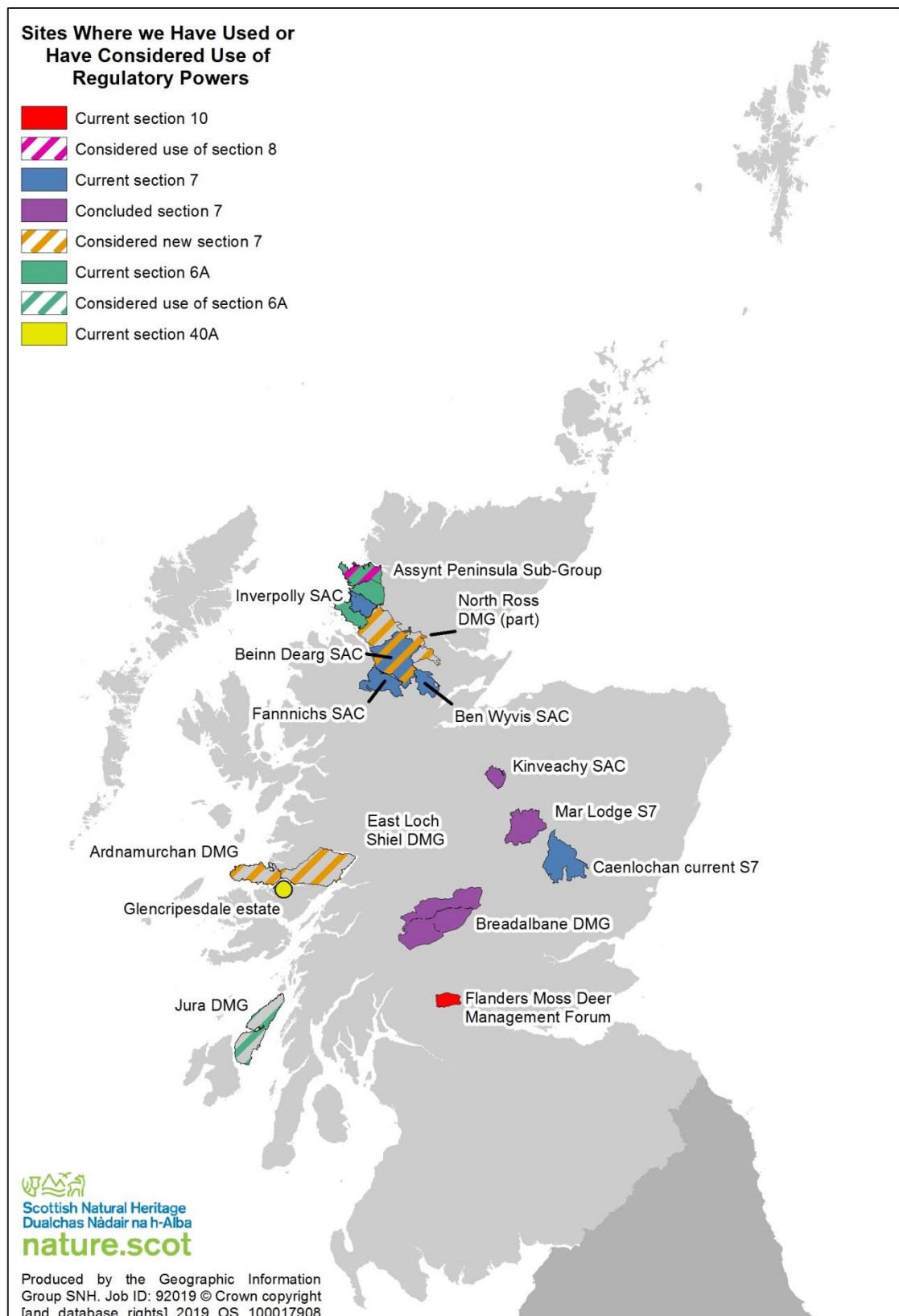


Figure 12 illustrates where we have considered use of different provisions. A summary of SNH provisions and their purpose is included as [Annex 12](#).

#### *Section 4 Panel*

Section 4 powers were used to explore SNH's approach to the issues surrounding the management of lowland deer. The questions posed and the recommendations arising are discussed in Section 4.2.2.

A Section 4 panel reviewed SNH's use of authorisations in 2016 (See [Annex 13](#) for detailed summary). In response we have reviewed and published guidance for staff and applicants which have incorporated a number of the panel recommendations. The other recommendations are being taken forward through the Best Practice Steering Group or through particular projects.

#### *Section 5(6) Out of season*

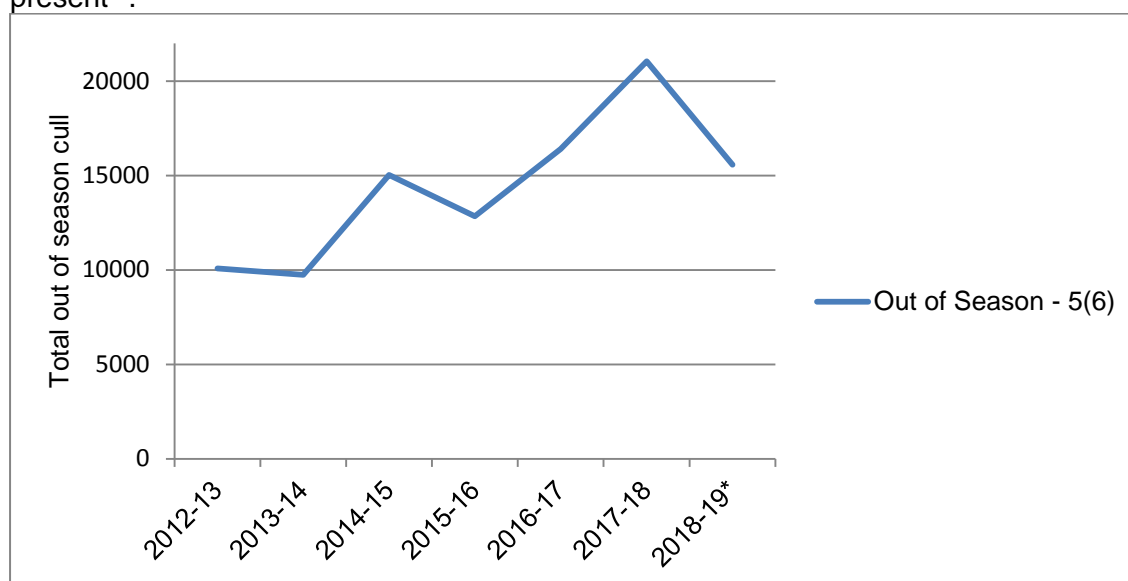
General Authorisations have been used to permit the culling of deer out of season during the day to prevent damage to improved agricultural land or enclosed woodland. There is no requirement to apply for the General Authorisation, but a user must ensure that they comply with its terms and conditions.

A specific 5(6) Out of Season Authorisation is required to shoot deer out of season during the day to prevent damage to unenclosed woodland, the natural heritage or in the interests of public safety.

A specific Out of Season (Female) Authorisation is required to shoot female deer over 1 year old between 1st April and 31st August in any circumstance.

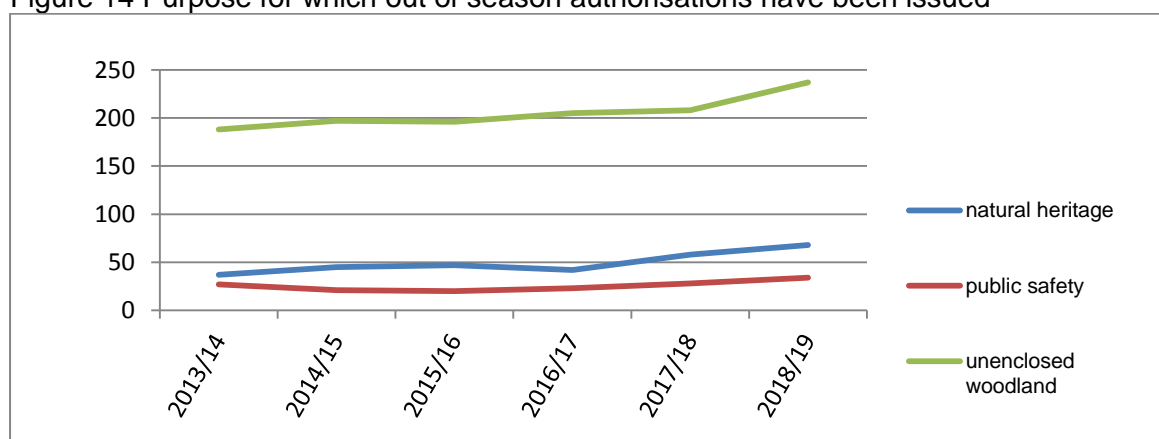
The number of deer shot out of season has increased since 2016 (Figure 13) and number of authorisations issued has also increased. Figure 14 illustrates the purpose for which authorisations have been issued. Details of authorisations issued can be found on our [website](#). The overall proportion of cull taken out of season has remained fairly stable, particularly for roe (13%) and sika (30%), with a slight increase in red deer at 16%. Due to the relatively small numbers of fallow deer shot overall and the reduction culls that have periodically taken place, the proportion shot out of season has fluctuated (8-18%).

Figure 13 Number of deer culled under out of season authorisations issued 2012/13 to present<sup>33</sup>.



\* Figures incomplete for 2018/19.

Figure 14 Purpose for which out of season authorisations have been issued



### Section 6(A) Requests for deer management plan

Section 6(A) allows SNH to require owners and occupiers to prepare a deer management plan to address or prevent damage occurring. It is primarily used to address local impacts, ensure there are mechanisms for managing deer; encourage a collaborative approach to deer management decisions and in developing an effective network of plans across the deer range.

In 2018 a Section 6(A) notice was served on the West Sutherland – Assynt - Coigach DMG requiring them to develop a deer management plan which took into consideration public interest. This followed a lack of progress in developing and agreeing a group plan in the lead up to the 2016 DMG assessment. The group responded by commissioning a contractor to develop a plan which was completed and agreed within the required timescale. The group is

<sup>33</sup> Excludes numbers of deer culled under specific Out of Season (Female) Authorisations, for which there was a peak of 28 in 2017/18 and a total of 49 over the period 2012-19.

now taking forward actions set out in the plan and was assessed as part of the 2019 DMG assessment process.

In April 2018 seven properties on the Isle of Jura agreed to formalise the existing DMG structure which had existed on the island for a number of decades. The meeting was attended by SNH staff and representatives of the properties which cover all of the upland deer range on Jura. A chair and secretary were appointed and there was agreement from all parties that they would aim to have a DMP in place for the next round of DMG assessments and this was finalised in April 2019. Given the voluntary development of the group there was no requirement to use Section 6(A) powers in this case. The DMG now operate on a similar basis to other DMGs across Scotland and have set about delivering the plan actions.

### *Section 7 Control Agreements*

Section 7 Control Agreements are primarily designed to be enabling; providing clarification of what deer management actions are required to be implemented in a defined area and over a specific period in order to address negative deer impacts. Three of the eight Section 7 Control Agreements that were in place in 2016 have satisfactorily concluded and five remain in place (Table 2).

Table 2 Status of Section 7 control agreements reported in 2016

| Control Agreement | Status    |
|-------------------|-----------|
| Ben Wyvis         | Current   |
| Fannich Hills     | Current   |
| Beinn Dearg       | Current   |
| Inverpolly        | Current   |
| Caenlochan        | Current   |
| Mar Lodge         | Concluded |
| Kinveachy         | Concluded |
| Breadalbane       | Concluded |

Further details of the concluded agreements are included in [Annex 14.1](#).

Table 3 provides a summary of progress in the current suite of Section 7 sites. Fuller accounts of the progress made on each of the five current Section 7 Control Agreements is provided in [Annex 14.2](#).

Table 3 Summary of target status for current Section 7 Control Agreements

| Control Agreement | Latest Density | Habitat Target | Cull target                    | Population Target | Additional information  |
|-------------------|----------------|----------------|--------------------------------|-------------------|---|
| Ben Wyvis         | 8.16 (2019)    | On track       | Exceeded                       | Met               | Repeat HIA fieldwork during Summer 2019 – report due Autumn 2019 and follow up meetings scheduled   |
| Fannich Hills     | 8.6 (2018)     | Not met (2015) | Met over 2 years               | Met               | Repeat HIA fieldwork during Summer 2019 – report due Autumn 2019 and follow up meetings scheduled   |
| Beinn Dearg       | 11 (2019)      | Not met (2015) | Not Met                        | Met               | New expanded control area proposed to address population level control over a wider area. A revised Section 7 has been offered to land owners and progress is being made to finalise the agreement and obtain sign up   |
| Inverpolly        | 4.72 (2016)    | On track       | On track                       | Met               | Upland features considered addressed. Review underway as to whether the Section 7 will be required by Scottish Forestry in order to deliver improved feature condition for designated woodlands   |
| Caenlochan        | 23 (Jan 2018)  | Not Met (2018) | Met over last two cull seasons | Not met*          | Census, HIA, occupancy surveys, population and cull modelling was carried out in 2018 and with a draft report received in June 2019. An independent chair has been elected and a new group has formed so there is improved governance to deliver future management. Significant reduction culls were successfully coordinated in 2017/18 and 18/19. Discussions have commenced with the DMG with regard to the production of a new management plan which would provide a longer term and sustainable solution. As an interim measure, a shorter term more focussed section 7 agreement is being developed to ensure continued reduction in overall population size in 2019/20 |

\*The current Section 7 relies on habitat rather than population targets. The DMP has a target summer density of 19 deer per km<sup>2</sup>.

Control Agreements, using Section 7 of the Act, formalise the setting and agreement of targets and provide a mechanism to monitor progress and adapt accordingly. The rate of progress on the current suite of sites has been variable depending partly on the scale of deer reductions required and the capacity of groups and members to deliver the management required. Our understanding of deer movements and population dynamics on a number of these large upland sites is still developing and hence a number of agreements have been re-set to reflect a wider area or revised population/cull targets. Progress has taken longer than anticipated at Caenlochan and Beinn Dearg. Typically these are difficult sites to resolve involving large upland sites, multiple habitats and owners and the greatest challenges in terms of balancing natural heritage outcomes and socio-economic impacts.



Where progress towards targets is not made or is slow, we have to consider the alternative options and make a judgement as to whether progression to Section 8 would better deliver the outcomes sought. Where we are able to work collaboratively and are able to see adequate progress, we will continue to support groups to move towards the targets set. The option to use Section 8 to prevent damage remains where we cannot get agreement on measures or if agreements are not being delivered.

In 2016 we set the ambition of initiating a number of new control agreements with a focus on the poorer performing groups from the DMG assessments. We have initiated work in Ardnamurchan and East Loch Sheil DMGs in addition to the North Ross group (where we are already engaged in relation to Beinn Dearg Section 7). An account of our work with these groups is provided in [Annex 14.3](#). As yet no further Section 7 agreements have been put in place, but these provisions may be required to further support these groups to deliver on the natural heritage aspects of their DMPs.

### *Section 8 Control schemes*

Section 8 of the Deer (Scotland) Act 1996 makes provision for the establishment of Control Schemes. Control Schemes allow SNH to give formal notification of the requirement for specific deer management measures to be carried out by particular owners or occupiers to prevent serious damage. If the owners and occupiers fail to carry out the required deer management measures, SNH has powers to carry out the required deer management measures.

SNH has considered the need to use Section 8 Control Schemes in a range of casework, but has concluded not to use these powers to date. Risk assessments are undertaken on an ongoing basis to test whether specific conditions are being met that would necessitate the use of Section 8.

At a meeting in June 2017, SNH's Board considered use of a Control Scheme under Section 8 (Deer Scotland Act) over the Assynt Peninsula Sub-Group<sup>34</sup>, in West Sutherland. The Board agreed to the use of a Control Scheme to address high grazing pressure from deer on the protected (SSSI & SAC) woodlands at Ardvar, should agreement over a further Control Agreement under Section 7 (Deer Scotland Act) not be reached. Over the following months SNH led a series of discussions with the principal landowners of the woodlands at Ardvar to see if an alternative solution could be met. Agreement over such an alternative was reached in September 2017, with an emphasis placed on securing the necessary management to the protected woodlands through a DMP and finalising contracts with Scottish Forestry over enclosing some of the most threatened areas of woodland.

Since those discussions have concluded, an improved DMP has been produced. A number of specific agreed actions have been followed up including the erection of a series of fenced enclosures on two of the three key properties. Monitoring is now undertaken annually to assess the grazing pressure on these woodlands. At present impacts within the woodlands continue to be in the range of medium to high. A review of progress will be undertaken in year 3 of current plan i.e. 2020/21.

Section 8 remains to be an important tool for underpinning negotiations with land managers.

---

<sup>34</sup>The Assynt Peninsula Deer Management Group is a sub-group of the over-arching West Sutherland Deer Management Group.

## Section 10 Emergency measures

Section 10 Emergency Measures can be used where damage is occurring to agriculture; woodland; the natural heritage, public safety or deer welfare. It allows SNH to authorise individual/s to follow and kill deer (over prescribed land) that are causing the damage or are posing the threat to public safety. In effect it provides a short term remedy where no other regulatory powers are adequate to deal with the issue.

Section 10 provisions have been used in the Flanders Moss Deer Forum area in an enabling manner, to help land managers reduce an expanding red deer population. Increased culling efforts by land managers and stalkers over the past three years has not succeeded in reducing the population, with damage to agricultural crops, forestry and the natural heritage increasing.

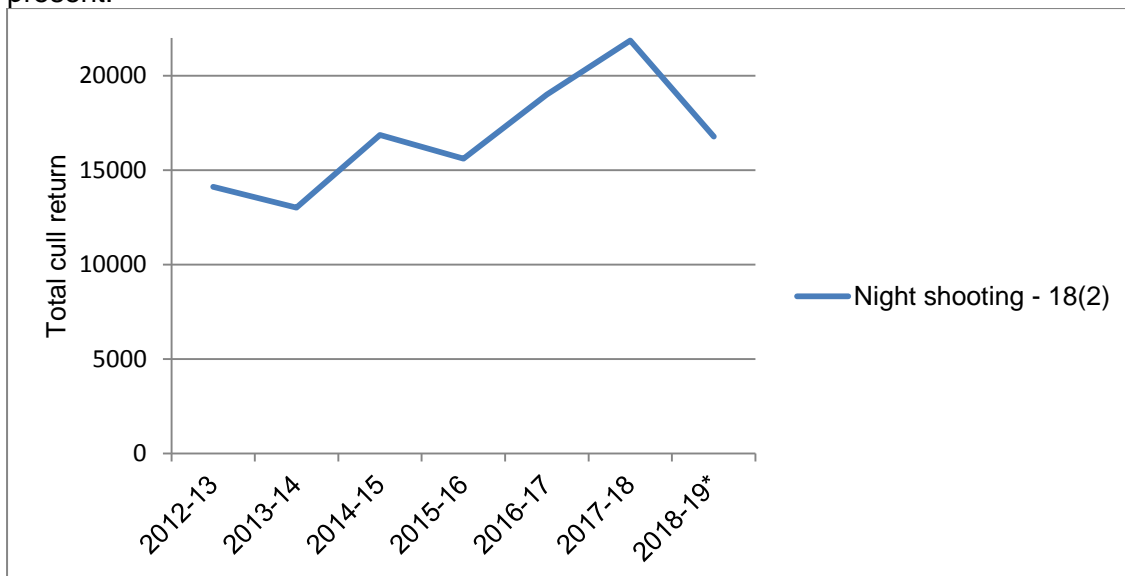
An SNH co-ordinator has been on the ground since October 2018 working with land managers and stalkers in pre-determined areas to facilitate cross-boundary, out-of-season and night shooting. The aim is to achieve a significant increase in coordinated deer control across the area to reduce deer numbers to a more manageable level.

SNH support for more collaborative approaches to culling has delivered a 50% increase in culling compared to the 2017 - 2018 season.

## Section 18(2) Night shooting

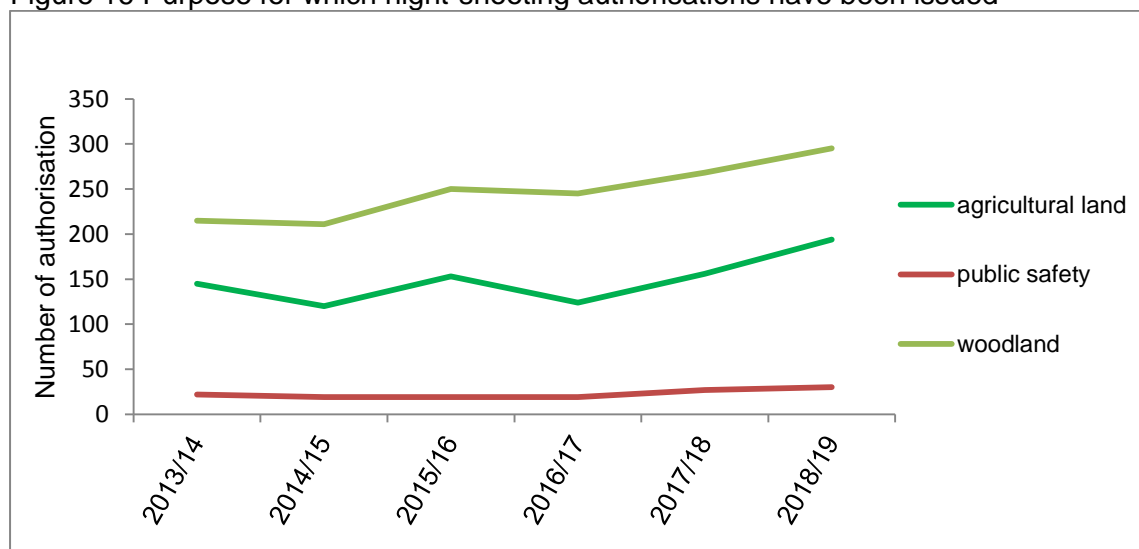
The number of deer shot at night has increased over the period of 2016 - 18 (Figure 15). The number of night shooting authorisations issued has correspondingly increased predominantly for preventing damage to woodland interest and associated agricultural impacts (Figure 16). Further details can be found on our [website](#).

Figure 15 Number of deer culled under night shooting authorisations issued 2012/13 to present.



\* Figures incomplete for 2018/19.

Figure 16 Purpose for which night-shooting authorisations have been issued



\*N.B. some authorisations are issued for multiple purposes

### *Section 40/40(A) Request for cull returns and future culls*

These Sections of the Act provide a mechanism for SNH to secure cull returns and cull plans to inform deer management planning. A Section 40/40A notice was served on Glencripesdale Estate in March 2019 requesting provision of five years' cull data and plans for culls in 2019/20 seasons. This information was requested as a statutory requirement to inform the DMG in their planning and reporting functions.

#### *Key findings:*

- We have demonstrated the use of a wide range of existing regulatory provisions. Three Section 7 agreements have been concluded and the five current Section 7 agreements have all been monitored and reviewed. SNH have considered the need to use Section 8 Control Schemes in a range of casework, but have concluded not to use these powers to date.
- Of the five current S7 Control Agreements, four have met cull targets, and two are considered on track to deliver habitat targets (one further site with survey results pending).
- Progress on the current suite of S7 Control Agreements and our ability to initiate new agreements reflects SNH's finite resources and the need for us to balance actions across a broad spectrum of provisions (support, advice and regulation) and the challenges of balancing natural heritage and socio-economic impacts.

## **5.2 Other forms of support and advice**

### *5.2.1 Developing local collaborative approaches*

In section 4.1.1 and section 4.2.3 we have set out where there have been changes to upland and lowland deer management structures since 2016. In [Annex 15](#) we provide accounts of where SNH has supported work to promote and foster collaborative approaches to management with a view to ensuring there is effective deer management across a range of settings. This has focussed on gaps within the current upland DMG network, developing approaches on the fringe of DMG areas and in supporting new and developing landscape-scale approaches to managing deer impacts.

*For example, Sleat Deer Management Group* (see [Annex 15](#) for other examples)

SNH received a number of complaints from crofters and private residences in the Sleat peninsula, South Skye in early 2015 regarding increases in deer damage to gardens and farming/crofting interests. Following a meeting of all interested parties, land managers in the area agreed to form a Sleat Deer Management Group and set out to address the concerns. The group initiated effective control of red deer reducing negative impacts to acceptable levels. The group elected to develop a DMP using their own resources. The group has evolved to deliver and achieve common aims. No complaints have been received from this area since the group started working together.

### *5.2.2 Direct support*

Details of our [upland census programme](#) are available on the SNH website and lowland monitoring in [Annex 7](#). Between 2013/17 and 2018/19 SNH carried out 26 helicopter counts covering more than 1.5 M ha and costing £670,000. This works out at an average of £0.51/ha. Staff assisted a further 14 upland counts (400,000 ha).

We have supported culling operations in specific DMGs to achieve the reduction culls set out in their DMPs; North Ross, Affric and Kintail and Lochalsh DMGs. This involved local stalkers and SNH staff working together and using helicopter support to access remote areas and retrieve deer carcasses. This work was developed in consultation with the ADMG and members of the Deer Management Round Table (DMRT) and in partnership with the DMG members involved. It helped to demonstrate collaborative working approaches and to raise understanding of the need to consider the use of 'non-traditional' approaches. The majority of deer were culled by estate staff and all of the carcasses went through the normal carcass handling processes, through a game dealer and into the food chain.

The direct support provided by SNH staff in the Flanders Moss Deer Forum area is detailed in section 5.1.

Between 2017 and 2018 SNH directly contributed £78,000 grant aid to 45 DMGs to support Herbivore Impact Assessments being carried out and £2,400 to the development of one upland Deer Management Plan. We also contributed £20,500 towards the development of Local Authority plans.

*Key findings:* SNH has provided a wide range of direct assistance in support of delivering sustainable deer management. We have: supported and monitored progress within 48 upland DMGs through assessments in spring 2019; assisted the establishment of new collaborative structures; provided funding for 45 DMGs and for seven Local Authority plans; carried out an extensive programme of census work in the upland red deer range; supported specific culling operations and have provided casework support for AECS applications.

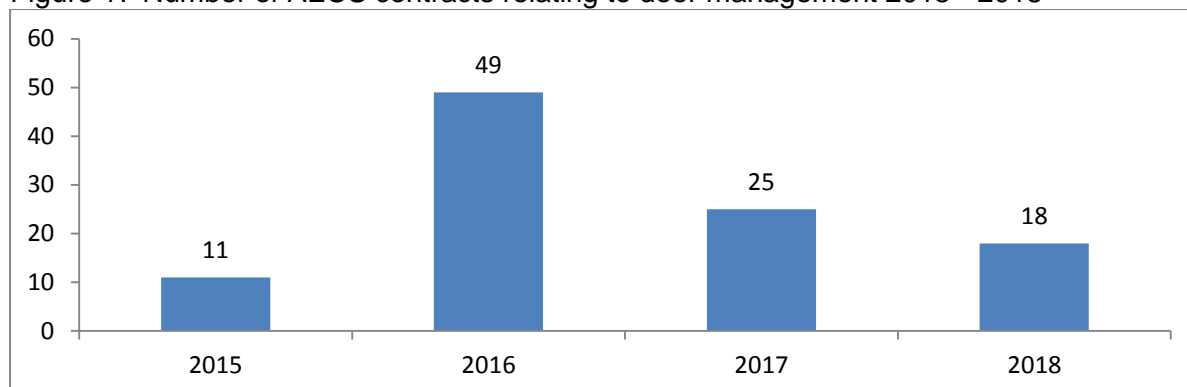
### *5.2.3 Financial support*

The Scottish Rural Development Programme has been the main source of public support through the Agri-Environment and Climate Scheme (AECS), along with the Forestry Grant Scheme and Forest Co-operation Grant. This has been supplemented by funding through Peatland ACTION and grant support from SNH for herbivore impacts assessment.

Payments through AECS are available under Moorland management options to assist with the costs of deer and livestock management with a view to improving upland habitats ([see map for eligible upland areas](#)). Support is dependent upon the preparation and implementation of a moorland management plan aimed at delivering sustainable grazing

levels. Figure 17 illustrates the number of approved deer related contracts per annum has been relatively modest, with a peak in 2016.

Figure 17 Number of AECS contracts relating to deer management 2015 - 2018<sup>35</sup>



The total value of contracts approved has followed a similar pattern to the number of contracts, with a total value of contracts (2015 - 2018) in excess of £5M. Of the capital items<sup>36</sup> supported, there has been modest uptake of Open-range deer management options (n=5), Upland habitat impact assessment (n=6) and Deer helicopter census (n=1). The open range deer management capital item aims to reduce grazing or trampling pressure through additional culling; with the payment rate dependent upon the size of the reduction cull required (within the range 2 - 5 deer per 100 hectares).

AECS moorland options also include payments for peatland restoration. Over the period 2015 - 2018 there are 214 contracts committed to a value of £2.36M for peatland restoration in addition to deer related contracts.

Details of the Forestry Grant Scheme options that are deer related are described in [Annex 11](#). The associated costs of the main deer related options are provided in Table 4 and amount to £2M of public support approved for grazing management.

<sup>35</sup> [Options included in the analysis are:](#) Moorland Management (deer and livestock) and Moorland Management (deer only). Deer specific capital items; Open-range Deer Management (available to carry out reduction culls on designated sites), Upland Habitat Impact Assessment for Deer Management (on designated sites), Deer Census – Helicopter Counts (on designated sites), Deer fences/ Gates; plus the above deer related capital items where included under other scheme options (relatively few and largely deer fencing).

<sup>36</sup> The availability of open range deer management payments and assistance with upland HIA assessments and helicopter counts is restricted to designated sites. Applications have not been limited by budgetary constraints, but all costs must be eligible and justified.

Table 4. FGS Grant contributions on Sustainable Management of Forests and Woodland Improvement Grants by financial year.

| Options   | Grant Type | April 2016 – March 2017 | April 2017 – March 2018 | April 2018 – March 2019 | Total [cumulative] |
|---|------------|-------------------------|-------------------------|-------------------------|--------------------|
| Sustainable Management of Forests - Low Impact Silvicultural Systems            | Delivery   |                         |                         | £327                    | £327               |
| Sustainable Management of Forests - Native Woodlands                            | Delivery   | £653,600                | £586,138                | £614,579                | £1,854,317         |
| Sustainable Management of Forests - Species Conservation - Reducing Deer Impact | Delivery   |                         |                         | £18,792                 | £18,792            |
| Forestry Co-operation   | Planning   | £32,250                 | £41,250                 | £48,750                 | £122,250           |
| Woodland Improvement Grant – Deer Management Plan                               | Planning   |                         | £13,659                 | £24,345                 | £38,004            |
| Woodland Improvement Grant - Woodland Grazing Management Plan                   | Delivery   | £9,600                  | £6,000                  | £6,000                  | £21,600            |
|   |            |                         |                         |                         | £2,055,290         |

Peatland ACTION is a Scottish Natural Heritage initiative, funded by Scottish Government. Since the project started in 2012 Peatland ACTION has delivered restoration activities on over 19,000 hectares of peatland habitat (figure as of end of March 2019), investing £21.1M. Planned investment in Peatland ACTION in 2019/20 is currently £12M.

Figure 18 illustrates the distribution of projects and it is evident that they are well represented in both upland and lowland deer areas. The types of work supported includes installing peat dams in drainage ditches in order to re-wet peatland habitats, re-profiling the steep sides of hags and gullies, as well as re-vegetating areas of bare peat by spreading mulch from adjacent donor sites to re-establish peat-forming vegetation.

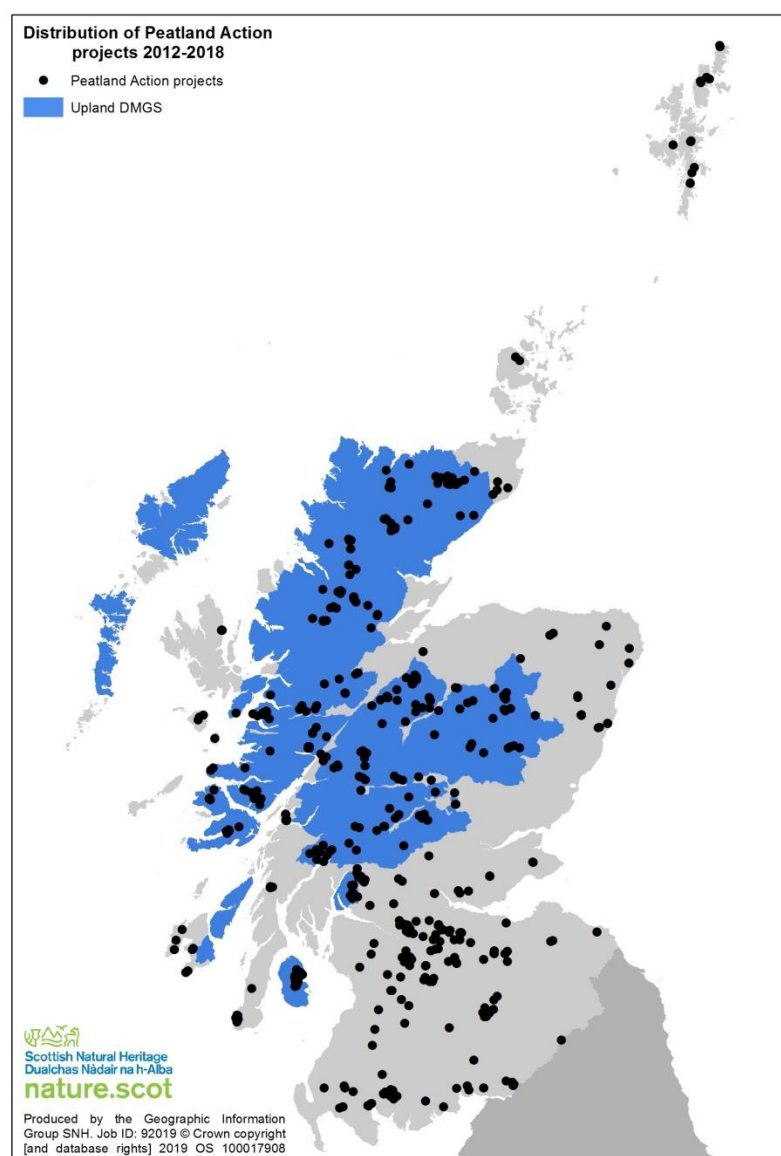
One of the DMG assessment criteria is 6.3 Identify opportunities for creation /restoration of peatlands. Forty one of 48 DMGs were green rated for this criterion in 2019 (89%), with the remaining seven DMGs being amber. This was one of the criteria that showed greatest improvement in 2019 and a vast improvement from a very low starting point of one green rated DMG in 2014.

Many of the Peatland ACTION projects are within DMG areas and to date there have been site based projects led by seven DMGs<sup>37</sup> (4 involving feasibility studies and three involving restoration works). These DMG led projects have been highly successful and we see much potential in DMG led projects as Peatland ACTION funding increases.

<sup>37</sup> Monadhliath DMG, West Knoydart DMG, Glenelg DMG, Northern DMG, West Ross DMG, Affric and Kintail DMG and Inveraray and Tyndrum DMG.



Figure 18 Peatland ACTION projects 2012 - 2018 – points represent centres of activity.



#### Key findings:

- Across the SRDP programme (2014 - 2019) £7.1M of support has been approved relating to deer management, with a further £2.36 M for peatland restoration.
- Since 2012 Peatland ACTION has delivered restoration activities on over 19,000 hectares investing £21.1M; including developing site based projects led by seven DMGs.

#### 5.2.4 Advice, support and guidance

Since 2016, work has been taken forward to strengthen links with and relationships between key stakeholders in the uplands particularly the Association of Deer Management Groups (ADMG) and the Scottish Environment LINK (SE LINK) deer task force. The DMRT continues to be the main forum for discussing challenges and emerging issues as well as sharing good practice in deer management. Forest and Land Scotland, Scottish Forestry, Transport Scotland and other public agencies have all contributed and been actively

involved at a policy and operational level in work to integrate deer management and deliver a wide range of public benefits.

We have reinvigorated the Best Practice Partnership programme of work equivalent to ensure the partnership maintains; oversight of consistency of the suite of guides; the development of new guides and support relating to the website and promotion. SNH has also continued to host an annual Best Practice Demonstration day at Creag Meagaidh NNR for students from the three rural colleges – Borders, SRUC Elmwood and UHI North Highland. Wild Deer Best Practice remains a strong brand that presents the skills and knowledge required to manage deer. The challenge for Best Practice remains how best to broaden out ownership to ensure that it becomes a true industry-led initiative.

In 2017/18 we carried out a review of SNH's responsibilities for managing deer data. As part of this project we considered what data we collect and the internal system and process improvements required to support our functions and reporting needs. The Deerline system used for hosting data in relation to deer authorisations and Fit and Competent registrations is currently being aligned with SNH's licensing system and replaced. Further work is required to make more data available spatially and align data between systems. This work is ongoing with follow up actions identified for 2019/20.

SNH has published five deer related Research reports since 2016 and further publications are in development. The published reports are listed in [Annex 16](#). The [Wild Deer Resource Scotland](#) website was created in 2016 to improve access to published research. The report and website recognise that in many cases there is published information available and that a greater focus on knowledge exchange is required.

*Key findings:* SNH has continued to provide a wide range of advice, support and guidance for deer managers. This has included our involvement with the Best Practice Partnership, publishing five new research reports, supporting the development of decisions support tools and publishing deer management data on our website.

## 6. Review of compliance with the Deer Code

### *Summary of key findings*

- The questionnaire findings indicate that a majority of owner–occupier respondents collaborate on deer management; have a Deer Management Plan and have undertaken relevant actions to deliver sustainable deer management as set out in Chapter 3 of the Deer Code. However, we note some caution in our interpretation due to the small sample size and potential for bias in self-selecting responses.
- Just over a half of questionnaire respondents think that the Deer Code is effective and believe it has brought about positive changes. Results suggest a small proportion of deer managers are not using the Deer Code as a tool to inform their deer management.

### *The challenge*

*In 2016 ECCLR members expressed concern that the Deer Code has not been sufficient in influencing all DMGs.*

*Under the Land Reform (Scotland) Act 2016 it is a requirement that SNH reviews compliance with the code and whether it is effective in promoting sustainable deer management.*

The Deer Code provides guidance to land managers to help deliver sustainable deer management in Scotland. It applies to all species of wild deer and all people who own or manage land where wild deer occur. Public bodies are required to take account of the Deer Code ‘when carrying out any of their functions which could impact on deer’ but there is no statutory requirement for private and other non-public bodies to follow the Code. SNH takes relevant aspects of the Deer Code into account in determining whether intervention is necessary.

SNH has a statutory obligation, through the Deer (Scotland) Act 1996 (as amended), to assess the extent of compliance with the Deer Code and its effectiveness in promoting sustainable deer management. The Act requires SNH to submit a report to Scottish Ministers every three years setting out its views and recommendations on this assessment.

SNH can look across the broad spectrum of information available to us to inform our view of compliance with the Code and the extent to which it has been effective at delivering sustainable deer management. Key sources of evidence are DMG Assessments, SNH’s use of regulatory powers, information collated from Local Authorities over recent years on their progress with deer management and recent reports pertaining to lowland deer management (specifically the Lowland Deer Management Project and Lowland Deer Panel). In addition SNH commissioned an online questionnaire specifically designed to gather information on compliance with and perceptions of the Deer Code. This section of the report focuses on the results of this questionnaire which can be read in full in [Research Report 1095](#). In section 7 we look across the other stands of evidence relating to compliance and the delivery of sustainable deer management from across this report and present our views with respect to the effectiveness of the Deer Code. A stand-alone account of our review of the Deer Code is provided in [Annex 2](#).

## 6.1 On-line questionnaire background

A questionnaire approach was chosen in order to provide a fair, consistent, transparent and repeatable method for collating information on the Deer Code. Social research consultancy 'Why Research Ltd' was commissioned in May 2018, to carry out this work.

SNH invited a range of stakeholders to participate in the on-line questionnaire via the DMRT. The majority of the questionnaire focused on actions to deliver sustainable deer management as set out in Chapter 3 of the Deer Code. These were divided into those that *should* be carried out to avoid risk of regulation and those that *could* be carried out to follow good practice. The questionnaire did not ask about actions which *must* be undertaken to avoid a risk of prosecution as it was not considered an appropriate way of gathering this type of information. The questionnaire further divided actions relating to the environment, social well-being, deer welfare and sustainable economic development and asked respondents to provide evidence of their actions by indicating relevant plans, policies and strategies that they had in place.

One hundred and sixty completed questionnaires were received; 100 from owner-occupiers and 60 from representatives of organisations<sup>38</sup>. While this represents a relatively small sample of deer managers<sup>39</sup>, the response rate is considered to be good for this type of survey (WHY Research). The majority of respondents indicated they were responsible for managing roe (68%) and red deer (66%). Almost one third said they managed Sika and one tenth managed fallow. Fourteen per cent of owner-occupiers and twenty three per cent of representative bodies claimed not to be responsible for managing deer. This meant that 86 (out of 100) owner-occupiers answered questions about the actions they carried out.

There are a number of caveats associated with the information collected through the questionnaire, relating in particular to the small sample size; the potentially 'self-selecting' nature of the respondents and the anonymity of the responses.

## 6.2 Questionnaire information for assessing compliance

Tick box questions, based on the actions in Chapter 3 of the Deer Code and directed at owner-occupiers, provided the majority of information on compliance.

### 6.2.1 Deer Code actions which 'should' be carried out

The Deer Code includes 14 actions which *should* be carried out to avoid the risk of regulatory action. These actions relate to the protection and enhancement of the environment, supporting sustainable economic development, supporting social well-being and safeguarding wild deer welfare.

Actions to protect and enhance the environment - Most (above 80%) of the respondents either complied with the environmental actions or indicated they were not relevant to them. Only a small proportion (between 5 – 16%) indicated that they did not carry out some or all of the actions relating to the environment. Most notably:

---

<sup>38</sup> The representation of respondents was as follows: private sector (68%), public sector (21%), third sector/charity (3%), environmental, NGOs (2%), other (7%). By land management category: 27% were from 'estate management and Deer Management Groups', 21% were in the agricultural, crofting and farming sector, 14% were in the environment and conservation sector, 8% were from Local Authorities and 8% were in forestry.

<sup>39</sup> For example around 4000 properties are registered on the SNH Deerline database to which requests for annual cull return are made.

- The majority (95%) of respondents claimed they had undertaken actions to manage levels of grazing, trampling and browsing on designated sites or have no designated sites on the land which they manage or own;
- The majority (84%) of respondents claimed they had taken actions to manage grazing levels designed to prevent loss or damage to Scotland's biodiversity and wider ecosystems;
- Almost all respondents (97%) follow the Invasive Non-native Species Code to prevent further establishment of non-native species by reporting any sightings of muntjac.

Actions to support sustainable economic development - The majority (87%) of respondents claimed to take account of other economic activities when managing wild deer. A small number of respondents (13%) claimed not to carry out any actions. The reasons for not taking action included that other economic activities were not relevant to their situation. Actions undertaken included; controlling deer populations to minimise the impact on forestry and erecting fencing to prevent deer intrusion.

Actions to support social well-being - The majority of respondents (above 80%) claimed to carry out actions to support social well-being. This included taking action to reduce deer vehicle collisions and holding a Deer Stalking Certificate Level 1 or Deer Stalking Certificate Level 2 qualification to demonstrate appropriate training in deer management. The minority of respondents (between 6% and 21%) who did not carry out actions included some who had no training, claiming this was because it was too expensive or the qualifications were not fit for purpose. Almost all respondents (94%) said that they followed the Scottish Outdoor Access Code.

#### Actions to ensure that wild deer welfare is safeguarded

The majority of respondents (79%) have taken account of the impacts of management activities on the welfare of deer (e.g. the effect of tree planting and new fencing on deer movements and feeding was considered). About one fifth claimed they have no management activities which have an impact on the welfare of deer. A very small proportion of respondents (2%) claimed to have not taken account of the impacts of management activities on the welfare of deer; the reasons they gave were that they were not interested or that the cull was too small.

### *6.2.2 Deer Code actions which demonstrate good practice – ‘the could actions’*

The Deer Code lists 17 actions which are encouraged because they demonstrate good practice in deer management.

Nearly all owner-occupier respondents (91%) carried out actions demonstrating environmental good practice in relation to deer management. The most popular action was support of ecosystem services e.g. flood reduction schemes, riverbank restoration or creation of forest habitat networks. Just under half indicated they contributed to reducing the effects of climate change.

A majority of the owner-occupier respondents (90%) claimed to have carried out actions following good practice in relation to sustainable economic development.

All 86 of the owner-occupier respondents who acknowledged a responsibility for managing deer claimed to have carried out actions following good practice in relation to social well-being.

### 6.2.3 Other evidence that supports the delivery of sustainable deer management

The Deer Code encourages collaboration and sets out different forms this collaboration may take. The questionnaire included two questions on collaboration: one on whether the respondents collaborated and one on whether they collaborated more or less since the introduction of the Deer Code.

- The majority of owner–occupiers (77%) indicated that they collaborated with others to deliver actions in the Deer Code;
- Almost two thirds said that their level of collaboration had remained the same since the introduction of the Deer Code and one third said that it had increased.

There was also a related question on sources of advice. SNH and DMGs were cited the most often with just over half of respondents liaising with one or both organisations.

The Deer Code encourages deer management planning at an appropriate scale. According to the questionnaire, the majority of owner-occupiers have a Deer Management Plan. For those that did not have a Deer Management Plan, two thirds said that they nevertheless considered deer management planning in their work.

The questionnaire asked respondents to indicate plans, policies and guidance that they had in relation to their deer management. These documents are not a requirement of the Code, hence this request was principally to help substantiate some of the tick-box responses and provide an extra level of detail. The feedback revealed that:

- the key activity, plan or policy in place was a Deer Management Plan;
- just over half of respondents had undertaken a Herbivore Impact Assessment;
- just under half of respondents had a Habitat Management Plan which took account of deer and/ or Long Term Forest Plans.
- a third of respondents referred to Land Use Plans which took account of deer;
- a small number of respondents (17%) had a Scottish Government AECS contract which included moorland management options for deer only and/ or for deer and livestock.

*Key finding:* The questionnaire findings indicate that a majority of owner–occupier respondents collaborate on deer management; have a Deer Management Plan and have undertaken relevant actions to deliver sustainable deer management as set out in Chapter 3 of the Deer Code. However, we note some caution in our interpretation due to the small sample size and potential for bias in self-selecting responses.

### 6.3 Questionnaire information on the effectiveness of the deer code in promoting sustainable deer management

The questionnaire collated information on the effectiveness of the Deer Code in promoting sustainable deer management through questions on awareness of the Deer Code, how effective respondents thought the Deer Code was and whether they thought it had had an impact on behaviours.

- Almost all respondents (98%) claimed to be aware of the Deer Code and the majority of respondents (88%) claimed to use it, with over a quarter of those claiming to use it regularly;
- Just over half of respondents think the Deer Code is effective (30% were not sure);
- A small proportion of respondents (15%) felt that the Deer Code was not effective;



- Just under a half of respondents think that the Deer Code has brought about changes in the way in which they or their organisations manage deer;
- Very few respondents (8%) claimed not to use the Deer Code.

Respondents' key reasons for thinking the Deer Code was effective were that it provides a good framework and clarity on what deer managers should be doing and that it has encouraged collaboration. Of those that did not think the Deer Code is effective their prime reason was that they do not consider it is followed properly. This would imply their concern is about compliance rather than effectiveness of the Deer Code *per se*.

*Key findings:* Just over a half of questionnaire respondents think that the Deer Code is effective and believe it has brought about positive changes. Results suggest a small proportion of deer managers are not using the Deer Code as a tool to inform their deer management.

## 7. Evaluation and conclusions on progress

### 7.1 Our view of progress in deer management

Our view of progress has been informed by: the 2019 DMG assessments with a particular focus on the priority criteria highlighted in 2018 and the seven natural heritage criteria assessed in 2016; by census information on red deer populations, the conclusions of the Lowland Deer Panel and Lowland Deer Management Project; our work assessing compliance with the Deer Code; progress on SBS targets and SNH's involvement in local deer management casework and our use of regulatory provisions.

The DMG assessment results in 2019 for both the Benchmark and Public Interest criteria are a (statistically significant) improvement on the 2016 results. We note particular improvements in the DMP process; now covering more or less the full range of public interests. In line with our commitment to recognise good performance, we would like to congratulate the DMGs on their efforts which have achieved a greatly improved overall assessment. While there is still some variability in DMG performance, this is less pronounced than in 2016 as lower performing DMGs have improved to narrow the gap with stronger performing DMGs.

We note the good progress made against many of the priority criteria established for the 2019 DMG assessments, but that not all targets have been fully met across the range of DMGs. Lower thresholds were set for the natural heritage criteria that were recognised as more challenging. This included; actions for the delivery of Protected Area feature condition, actions to maintain and improve native woodland cover and condition and actions to monitor and manage deer impacts in the wider countryside. Some of these targets were met in so much as no plans were assessed as 'red'; however, the natural heritage criteria are still those with the greatest potential for further improvement. For example, fewer than 60% of DMGs were rated green on priority criteria relating to: carrying out HIAs, identifying appropriate grazing levels and the delivery of DMG woodland management objectives.

*There has been significant progress in the deer management planning process across the upland DMG range. We note the progress made and where there are still improvements to be made.*

DMG assessments are not designed to quantify action on the ground and hence the process does not provide a comprehensive picture of where there is or is not commensurate action taking place. The assessments do provide an indication of how public interest objectives are reflected in DMPs. We can also look to other sources of information for evidence of action on the ground or support for delivering action e.g. SCM, AECS contracts, Forestry Grants or Peatland Action projects.

We recognise there are some barriers to the uptake of grants whether through scheme availability, payment structures or attractiveness. Moreover, not all action may be reflected in formal contracts, but rather through adjusting ongoing management approaches. Given the uplift in DMG performance leading up to the assessment process (often in the last 6 months), it has yet to be demonstrated if this progress will be sustained. However, we anticipate that the newly developed DMPs will lead to further evidence of action on the ground and recognise there may be some time-lag before there is evidence of adaptive cull planning and the emergence of tangible habitat improvements on the ground. We expect DMPs to be reviewed annually and progress to be assessed at the mid-way point in the plan.

There is evidence from the assessment of regional population trends in the red deer range that densities have been reduced (by > 35% relative to 2000 densities) in several large DMAs that can be attributed to management interventions. Although regional variation persists in both red deer densities and culling rates, the national population trend supports that culling rates can account for the population stabilising or showing a slight downward trend.

*The current evidence for DMP implementation in the form of action on the ground is still at a relatively early stage. Delivery of tangible benefits will take longer to emerge, although there is some evidence for a recent overall decline in deer numbers and for marked reductions in some regions due to management intervention.*

In SNH's view we are continuing to make progress in protecting public interest in an adaptive way, although progress is slower than anticipated on some sites and features.

Our confidence with respect to the delivery of SBS remains somewhat mixed, with ongoing concerns regarding delivery of three of the five targets.

- The Protected Areas condition targets overall have experienced a slight decline and are now 'amber' rated, however for the sub-set of features potentially affected by herbivores, the decline is negligible (0.2%). Progress on Delivering Favourable Condition has slowed slightly since 2016 and there has been some revocation of URDTM status back to unfavourable condition, balanced by some features moving in to recovering condition.
- These factors appear to have contributed to some slippage of Protected Area condition, but specifically for native woodland features which are used as a barometer for the condition of the wider native woodland resource. Hence we consider the SBS target to increase the amount of native woodland in good condition by 2020 is unlikely to be met.
- We have not quantified the restoration of native woodlands that has been achieved through DMG plans as part of the assessment process. All DMP criteria relating to native woodland condition improved between 2016 and 2019, but there has yet to be good progress on delivery across all groups. On the basis of the DMG assessments and supporting information from Scottish Forestry Grants, we consider it unlikely that the restoration of 10,000 ha of native woodland will have been achieved by 2020. This target is rated 'amber' in the 2018 SBS reporting.
- The SBS native woodland creation target is on track with an average delivery of c.3,300 ha of new native woodland each year (2014 - 2019) and we are confident that by the end of the SBS Routemap period, it will have been met.
- The SBS peatland restoration targets are not quantified in the same way as for woodland targets, but reporting records what has been achieved. Information from Peatland ACTION and AECS indicates that good progress has been made. The announcement of additional funding will undoubtedly further accelerate action. From the 2019 assessments, DMGs appear to be well positioned to follow up their plans and contribute to climate change measures.

*We consider that three of the five SBS 2020 targets in which deer management has a role are unlikely to be delivered. The native woodland condition and restoration targets show insufficient progress and should be a priority for future focus.*

Supported by the Lowland Deer Panel findings, SNH does not consider there are widespread problems with deer management in lowland areas and that a range of delivery models are appropriate in this setting. Work is ongoing to better articulate what management is required to protect public interest in the lowlands and develop criteria for assessing delivery.

SNH currently provides support and helps to mitigate impacts in lowland deer areas through our relationships with stakeholders, local deer groups and LDNS, for example our recent involvement in the Flanders Moss Deer Forum area. Our engagement with Local Authorities has increased with 11 now having a deer statement or plan in place. This work is ongoing and we recognise that further work is required to ensure all Local Authorities are properly taking responsibility for deer as managers and in terms of their wider policies. Phase 2 of the Lowland Deer Management Project has illustrated the level of deer management that is being delivered through the various delivery models within the project area.

We continue to help support and develop a range of collaborative deer management structures as appropriate to the situation from lowland deer groups; to groups primarily concerned with forestry or agricultural impacts on the edge of the red deer range; to re-establishing upland DMGs. We expect this trend will continue with groups establishing where a need arises.

*The Lowland Deer Management Project findings and the online questionnaire results support our conclusion that the majority of lowland deer managers are taking responsibility for managing deer on their land.*

*Specific action has been taken with respect to DVC risks in certain areas and we continue to develop our understanding of the risks to help reduce impacts on public safety and deer welfare.*

## **7.2 Our view on Deer Code compliance and effectiveness**

Our view on compliance with the Deer Code and its effectiveness has been informed by the online questionnaire returns, DMG Assessments, SNH's use of regulatory powers, information collated from Local Authorities over recent years on their progress with deer management and recent reports pertaining to lowland deer management (specifically the Lowland Deer Management Project and the findings of the Lowland Deer Panel).

The online questionnaire findings indicate that the majority of owner–occupier respondents: collaborate on deer management, have a Deer Management Plan and have undertaken relevant actions to deliver sustainable deer management as set out in Chapter 3 of the Deer Code. It suggests there are a small proportion of deer managers who are not using the Deer Code as a tool to inform their deer management.

The evidence from the 2019 DMG assessments supports the questionnaire finding that most DMGs are taking account of the full range of public interests in their deer management planning. However, there remain criteria where progress has been slow and this is supported through our limited evidence of delivery of SBS native woodland condition and restoration targets and progress with Protected Areas feature condition.

SNH aims to use its regulatory provisions in a proportionate and enabling way. Nationally the number of circumstances where we have had cause to intervene in local deer management to protect public interests is relatively few.

Supported by the Lowland Deer Panel findings, SNH does not consider there are widespread problems with deer management in lowland areas. Phase 2 of the Lowland Deer Management Project has illustrated the level of deer management that is being delivered through the various delivery models within the project area; again supporting the finding that the majority of deer managers are taking responsibility for managing deer on their land.

Our work with Local Authorities demonstrates that further work is required to ensure all Local Authorities are properly taking responsibility for deer as managers and in terms of their wider policies and this work is ongoing.

The Lowland Deer Management Project, information from the online questionnaire, our experience with Local Authorities and engagement with developing collaborative structures such as Cowal Deer Working Group, has highlighted that further work is needed to continue to raise awareness of the Deer Code; to support and explore with deer managers what it means in practice in a range of situations.

*The majority of land managers are complying with the letter and spirit of the Deer Code; we note there are areas where more work is needed.*

Again our view of the effectiveness of the Deer Code is informed by the online questionnaire responses and from our observations with regard to delivery of sustainable deer management across the board and the need for intervention. Levels of compliance indicated in the questionnaire for those actions listed as 'should' and 'could' are comparable indicating most managers are going beyond the statutory requirements.

The questionnaire responses indicated that just over a half of respondents think that the Deer Code is effective and believe it has brought about positive changes (30% were not sure, 17% thought it was not effective). The promotion of sustainable deer management has also been furthered by the application of the Deer Code in the DMG assessment criteria and as a means of assessing the delivery of public interests in the Lowland Deer Management Project.

*The Deer Code has been effective in promoting sustainable deer management by helping to clarify 'the ask' of deer managers and public bodies.*

The above assessments relate to the Deer Code in the present context as set out in 2012. We are conscious of the evolving picture in terms of public policies that relate to land use in light of the declared climate emergency, IPBES global assessment of nature and ongoing reviews relating to land reform. We may need to review the Deer Code in light of new public policy commitments arising from the Climate Change Plan<sup>40</sup>, the revised Scottish Biodiversity Strategy or implementation plan for the Scottish Forestry Strategy. However, we are not currently in a position to say what this may entail.

### *7.3 SNH's leadership role in protecting the public interest*

In 2016 we set ourselves the challenge of delivering an enhanced approach to deer management. We have carried out a comprehensive package of work to support and progress deer management in both the uplands and lowlands. We have set clearer expectations for the DMG assessment process in 2019 and have supported DMGs in preparing for the assessments through the provision of advice and grant aid. There has been greater focus of support on poorer performing groups which is reflected in their enhanced performance.

---

<sup>40</sup> Current CCP targets are to :

- increase woodland cover from around 18% to 21% by 2032
- restore 40% (250,000 hectares) of Scotland's peatland by 2030

We have made use of the range of legislative powers e.g. Section 6 and Section 40A. We have reviewed the existing Section 7 Control Agreements and carried out preparatory work for two new agreements if required. The rate of progress on existing Section 7 sites has been variable. Progress has taken longer than anticipated at the outset on a number of sites, notably at Caenlochan and Beinn Dearg. Typically these are difficult sites to resolve involving large upland sites, multiple habitats and owners and the greatest challenges in terms of balancing natural heritage outcomes and socio-economic impacts. Where progress towards targets is not made or is slow, we have to consider the alternative options and make a judgement as to whether progression to Section 8 would better deliver the outcomes sought. SNH have actively considered the need to use control schemes in a range of casework, but to date have concluded not to use these powers.

We would note the time dedicated to supporting and carrying out the DMG assessment process has to some extent limited our ability to make progress on some regulatory sites. Hence our ambition around the rate of progress for initiating new control agreements has been tempered by other priority work. We note there has also been less progress with Delivering Favourable Condition on Protected Areas than might have been anticipated, again reflecting a shift in focus towards other priority work. We have had deliberate focus on supporting DMG assessments within finite resources, given the relative biodiversity gains to be had from across the upland DMG range as opposed to a focus purely on Protected Areas. We think this investment is well reflected in the uplift in DMG performance.

We have endeavoured to improve communications with ADMG, DMRT and Environment Link, towards being more open and providing clearer expectations.

*The evidence presented demonstrates SNH's proactive leadership role in deer management within a voluntary system. We have balanced our use of support, intervention and regulation to promote sustainable deer management and the protection of public interests. We have prioritised and targeted finite resources and have secured a significant improvement in deer management planning across the uplands with the potential for greater natural heritage benefit than could be achieved by a narrower focus on preventing damage on a selection of regulatory sites.*

*Balancing natural heritage and socio-economic objectives is challenging; voluntary control agreements can be made to work, but that they can take time and be resource intensive.*

While good progress has been made against the benchmarks set in 2014 we recognise there are likely to be greater challenges ahead. In the current Brexit hiatus there remains uncertainty about the future of agri-environment and forestry support measures. The declaration of the climate emergency by the First Minister, and increasing evidence for the need for more woodlands and trees in the landscape is likely to have a stronger impact on public objectives for land use, deer and woodland management in the next 10 years compared to the last decade. The large scale conversion of open ground and pasture to woodland has the capacity to sequester carbon at a scale that is very significant in the context of the 'Net-Zero' target by 2045. Beyond carbon sequestration, there is increasing recognition of the ecosystem function of woodlands, uplands and peatlands in aspects of wider land use such as flood amelioration and freshwater temperature control, as well as support of declining biodiversity; all of which will require low density deer populations. Land use intensification including grazing pressure is amongst the seven main recognised pressures on biodiversity<sup>41</sup> and deer management has a key role to play in reducing these

---

<sup>41</sup> SBS Routemap 2020



impacts. While the next SBS (2020 - 2030) is under development, it's reasonable to expect these themes to have increased prominence.

An increased priority for more trees and woods, combined with difficulties in meeting previous condition targets and an ageing fencing infrastructure means that further efforts to seek effective management of the interaction of woodlands, trees and deer impacts will be necessary. An acceleration of peatland restoration will require associated measures to ensure herbivore impacts do not negatively impact on these efforts.

To tackle climate change and biodiversity loss we have indicated the urgent need for a collective re-think of how land use can best deliver for nature and build resilience at the same time as reducing emissions. The current appearance of our uplands is shaped by their management history including grazing by deer and sheep. The question of what we want from our uplands is very topical with initial work carried out to scope how we might develop a strategic vision<sup>42</sup> and the development of regional land use plans included in the Programme for Government<sup>43</sup>. The 2019 DMG assessments and our work in lowland deer areas indicate that the sector is well positioned to respond, but the changing context emphasises the need to maintain the momentum.

*Future challenges remain to ensure delivery of sustainable deer management in Scotland. The sector is making progress, but momentum needs to be maintained if we are to meet the emerging priorities associated with climate change and biodiversity loss and realise the benefits of effective deer management on the ground. This report illustrates that the deer sector is now in a better position to respond to these emerging challenges.*

---

<sup>42</sup> [Scoping a strategic vision for the uplands: report from SNH to the Scottish Government](#)

<sup>43</sup> [Protecting Scotland's Future: the Government's Programme for Scotland 2019-2020](#)

## Annex 1 Lowland deer areas definition

For the purposes of deer management, broadly four different types of land area can be identified in Scotland:



**1) Upland open range** characterised by areas of large single owner /management, properties, within the main red deer range and where collaborative structures may exist e.g. Monadhliaths Deer Management Group.

**2) Shoulder of hill:** buffering between (1) upland open range as above and (3) mixed agricultural and woodland as below. Characterised by larger owned and larger longer-term tenanted farms, also including large-scale forestry. May involve interactions with all four species of deer present in this type of landscape e.g. Cowal, Strathdon and the Southern Uplands.

1) and 2) share large-scale land ownership patterns, which may be more suited to collaborative approach to deer management (however the requirement to collaborate may differ given the species of deer and management objectives) i.e. managing a herding species with a range of management objectives, or where impacts are better managed through integrated management.

**3) Mixed agricultural & woodland** refers to areas of fragmented land ownership patterns with a mosaic of mixed land-uses; including: housing, transport infrastructure, industry, agriculture, forestry and ‘natural’ areas<sup>44</sup>. Outwith the main red deer range; with roe deer being the typical focus for management but Sika and fallow deer may also be present in some areas. e.g. parts of Dumfries and Galloway, Perthshire and Aberdeenshire.

**4) Urban** settlements with a population of 10,000+ e.g. Edinburgh, Aberdeen and Inverness. For the purposes of better understanding lowland deer management, focus should be on areas 3 and 4 as described above. Area types 3) and 4) are where the nature of the land ownership pattern may naturally break the land into discrete deer management units.

<sup>44</sup> This correlates with the definition of peri-urban as used in *The management of roe deer in peri-urban Scotland*: <http://www.snh.gov.uk/docs/B652479.pdf>

## Annex 2 Stand-alone account of SNH's review of the Deer Code

### REVIEW ON THE EXTENT OF COMPLIANCE WITH THE CODE OF PRACTICE ON DEER MANAGEMENT AND ITS EFFECTIVENESS IN PROMOTING SUSTAINABLE DEER MANAGEMENT – September 2019

#### EXECUTIVE SUMMARY

- Taking account of all the information collated we consider that the majority of land managers are complying with the letter and spirit of the Code of Practice on Deer Management (Deer Code);
- Information from the questionnaire, our experience with Local Authority engagement and the 2019 DMG assessment process has highlighted that further work is needed to continue to raise awareness of the Deer Code and to support and explore with deer managers what it means in practice in a range of situations;
- On balance we consider, since its introduction in 2012, the Deer Code has made a positive contribution to sustainable deer management by helping to clarify 'the ask' of deer managers and public bodies.

#### 1. INTRODUCTION

Scottish Natural Heritage (SNH) is required under the Deer (Scotland) Act 1996 (as amended) to:

- (1) carry out a review into the extent to which the Code of Practice on Deer Management is:
  - a. being complied with owners and occupiers of land; and
  - b. is effective in promoting sustainable deer management.
- (2) SNH must .....submit a report to the Scottish Ministers
  - a. setting out SNH's views on the extent to which the code –
    - i. has been complied with
    - ii. has been effective in promoting sustainable deer management
  - b. including such recommendations as SNH consider appropriate.

This review is the first and according to the legislation subsequent, similar reviews must be carried out every three years.

#### 2. BACKGROUND

The Code of Practice on Deer Management (Deer Code) provides guidance to land managers to help deliver sustainable deer management in Scotland. It applies to all species of wild deer and all people who own or manage land where wild deer occur. Public bodies are required to take account of the Deer Code 'when carrying out any of their functions which could impact on deer' but there is no statutory requirement for private and other non-public bodies to follow the Code. SNH takes relevant aspects of the Deer Code into account in determining whether intervention is necessary.

### 3. SOURCES OF INFORMATION

The primary source of information for this review is the responses to an on-line questionnaire. Further summary information was drawn from the 2019 Deer Management Group (DMG) assessments, information collated from Local Authorities over recent years on their progress with deer management activities, our work pertaining to lowland deer management (specifically the Lowland Deer Management Project and the findings of the Lowland Deer Panel) and SNH's involvement in local deer management casework and our use of regulatory provisions.

SNH commissioned market and social research consultancy 'Why Research Ltd' in May 2018, to develop an on-line questionnaire to gather information to help assess the extent of compliance with, and the effectiveness of the Deer Code. SNH chose a questionnaire approach to provide a fair, consistent, transparent and repeatable method for collating information.

SNH invited a range of stakeholders to participate in the on-line questionnaire via the Deer Management Round Table (DMRT), a Scottish forum for discussion of deer related issues, which meets bi-annually. The DMRT provided a direct route into a potentially large sample size representing a broad range of people involved in deer and their management.

The questionnaire was anonymous and the instructions confirmed that no responses would be attributed to individuals or individual organisations.

### 4. ASSESSING COMPLIANCE

The majority of information on compliance was derived from the on-line questionnaire.

One hundred and sixty completed questionnaires were received; 100 from owner-occupiers and 60 from representatives of organisations<sup>45</sup>. While the response represents a relatively small sample of deer managers<sup>46</sup>, the response rate is considered to be good for this type of survey (WHY Research). The majority of respondents indicated they were responsible for managing roe (68%) and red deer (66%). Almost one third said they managed Sika and one tenth managed fallow. Fourteen per cent of owner-occupiers and twenty three per cent of representative bodies claimed not to be responsible for managing deer. This meant that 86 (out of 100) owner-occupiers answered questions about the actions they carried out.

There are a number of caveats associated with the information collected through the questionnaire, relating in particular to the small sample size; the potentially 'self-selecting' nature of the respondents and the anonymity of the responses.

#### 4.1 Deer Code Actions which 'should' be carried out

The Deer Code sets out 14 actions which *should* be carried out to avoid the risk of regulatory action. These relate to protection and enhancement of the environment, supporting sustainable economic development, supporting social well-being and safeguarding wild deer welfare.

---

<sup>45</sup> The representation of respondents was as follows: private sector (68%), public sector (21%), third sector/charity (3%), environmental, NGOs (2%), other (7%). By land management category: 27% were from 'estate management and Deer Management Groups', 21% were in the agricultural, crofting and farming sector, 14% were in the environment and conservation sector, 8% were from Local Authorities and 8% were in forestry.

<sup>46</sup> For example around 4000 properties are registered on the SNH Deerline database to which requests for annual cull return are made.

Actions to protect and enhance the environment - Most (above 80%) of the respondents either complied with the environmental actions or indicated they were not relevant to them. Only a small proportion (between 5 – 16%) indicated that they did not carry out some or all of the actions relating to the environment. Most notably:

- The majority (95%) of respondents claimed they had undertaken actions to manage levels of grazing, trampling and browsing on designated sites or have no designated sites on the land which they manage or own;
- The majority (84%) of respondents claimed they had taken actions to manage grazing levels designed to prevent loss or damage to Scotland's biodiversity and wider ecosystems;
- Almost all respondents (97%) follow the Invasive Non-native Species Code to prevent further establishment of non-native species by reporting any sightings of muntjac.

Actions to support sustainable economic development - The majority (87%) of respondents claimed to take account of other economic activities when managing wild deer. A small number of respondents (13%) claimed not to carry out any actions. The reasons for not taking action included that other economic activities were not relevant to their situation. Actions undertaken included; controlling deer populations to minimise the impact on forestry and erecting fencing to prevent deer intrusion.

Actions to support social well-being - The majority of respondents (above 80%) claimed to carry out actions to support social well-being. This included taking action to reduce deer vehicle collisions and holding a Deer Stalking Certificate Level 1 or Deer Stalking Certificate Level 2 qualification to demonstrate appropriate training in deer management. The minority of respondents (between 6% and 21%) who did not carry out actions included some who had no training, claiming this was because it was too expensive or the qualifications were not fit for purpose. Almost all respondents (94%) said that they followed the Scottish Outdoor Access Code.

#### Actions to ensure that wild deer welfare is safeguarded

The majority of respondents (79%) have taken account of the impacts of management activities on the welfare of deer (e.g. the effect of tree planting and new fencing on deer movements and feeding was considered). About one fifth claimed they have no management activities which have an impact on the welfare of deer. A very small proportion of respondents (2%) claimed to have not taken account of the impacts of management activities on the welfare of deer; the reasons they gave were that they were not interested or that the cull was too small.

## **4.2 Deer Code Actions which demonstrate good practice – ‘the could actions’**

The Deer Code lists 17 actions which are encouraged because they demonstrate good practice in deer management. Nearly all owner-occupier respondents (91%) carried out actions demonstrating environmental good practice in relation to deer management. The most popular action was support of ecosystem services e.g. flood reduction schemes, riverbank restoration or creation of forest habitat networks. Just under half indicated they contributed to reducing the effects of climate change.

A majority of the owner-occupier respondents (90%) claimed to have carried out actions following good practice in relation to sustainable economic development.

All 86 of the owner-occupier respondents who acknowledged a responsibility for managing deer claimed to have carried out actions following good practice in relation to social well-being.

#### **4.3 Other questionnaire responses on compliance with the Deer Code**

The Deer Code encourages collaboration and sets out different forms this collaboration may take. The questionnaire included two questions on collaboration: whether the respondents collaborated and whether they collaborated more or less since the introduction of the Deer Code. The responses were:

- The majority of owner-occupiers (77%) indicated that they collaborated with others to deliver actions in the Deer Code;
- Almost two thirds said that their level of collaboration had remained the same since the introduction of the Deer Code and one third said that it had increased.

There was also a related question on sources of advice. SNH and DMGs were cited the most often with just over half of respondents liaising with one or both organisations.

The Deer Code encourages deer management planning at an appropriate scale. According to the questionnaire, the majority of owner-occupiers have a Deer Management Plan. For those that did not have a Deer Management Plan, two thirds said that they nevertheless considered deer management planning in their work.

The questionnaire asked respondents to indicate plans, policies and guidance that they had in relation to their deer management. These documents are not a requirement of the Code, hence this request was principally to help substantiate some of the tick-box responses and provide an extra level of detail. The feedback revealed that:

- the key activity, plan or policy in place was a Deer Management Plan;
- just over half of respondents had undertaken a Habitat Impact Assessment;
- just under half of respondents had a Habitat Management Plan which took account of deer and/ or Long Term Forest Plans.
- a third of respondents referred to Land Use Plans which took account of deer;
- a small number of respondents (17%) had a Scottish Government AECS contract which included moorland management options for deer only and/ or for deer and livestock.

### **5. ASSESSING THE EFFECTIVENESS OF THE DEER CODE IN PROMOTING SUSTAINABLE DEER MANAGEMENT**

The majority of the information on effectiveness was derived from the responses to the on-line questionnaire on questions about awareness of the Deer Code, how effective respondents thought the Deer Code was and whether they thought it had had an impact on behaviours.

- Almost all respondents (98%) claimed to be aware of the Deer Code and the majority of respondents (88%) claimed to use it, with over a quarter of those claiming to use it regularly;
- Just over half of respondents think the Deer Code is effective (30% were not sure);
- A small proportion of respondents (15%) felt that the Deer Code was not effective;
- Just under a half of respondents think that the Deer Code has brought about changes in the way in which they or their organisations manage deer;
- A handful of respondents (8%) claimed not to use the Deer Code.



Respondents' key reasons for thinking the Deer Code was effective were that it provides a good framework and clarity on what deer managers should be doing and it encourages collaboration. Of those that did not think the Deer Code is effective their prime reason was that they believe it is not followed properly. This would imply their concern is about compliance rather than effectiveness of the Deer Code *per se*.

## **6. OTHER INFORMATION ON THE COMPLIANCE WITH AND EFFECTIVENESS OF THE DEER CODE**

### **6.1 Deer Management Group Assessments**

We refer to progress in the DMG assessments as a reflection of how the Deer Code has been implemented in the upland red deer range. The assessment criteria used in the DMG assessments are derived from the Deer Code. The 2019 DMG Assessment showed significant progress in the deer management planning process across the upland DMG range. The assessment also noted that there are still improvements to be made in relation to natural heritage targets and the associated delivery of benefits on the ground.

### **6.2 Local Authorities**

We refer to engagement with Local Authorities on deer management relating to the specific duty on public bodies to take account of the Deer Code. In our 2019 Progress Report we note that good progress has been made with Local Authorities in developing their deer management policies, although further work is required to ensure all Local Authorities are properly taking responsibility for deer as managers and in terms of their wider policies.

### **6.3 Lowland Deer Panel**

The independent Lowland Deer Panel was established to explore new approaches to deer management and the delivery of public interests as set out in the Deer Code in the Scottish lowlands: specifically to examine the need for and appropriate scale of collaboration and what information is needed to support the process. The Panel recognised that data in relation to the delivery of public interests is not as readily available to deer managers in lowland areas as it is in the uplands, but that the existing structures are appropriate. They recommend that SNH supports stakeholders to deliver local planning, actions and solutions. We think the Panel recommendations largely endorse the current approach which presumably reflects that they consider the Deer Code is being followed, although we note they make recommendations for how this could be improved.

### **6.4 Lowland Deer Management Project**

The Lowland Deer Management Project which was established in 2017 to develop a better understanding of the current models of lowland deer management in the context of the delivery of Public Interests i.e. use of the Deer Code, and to test the extent to which collaboration and management planning can be used to improve delivery of Public Interests in lowland Scotland. Phase 2 of the project indicates that the main drivers for land managers managing deer in the project area are: protecting forest and agricultural crops, recreational stalking and venison for consumption. By default, this management is considered to provide benefits to public interests. Again we consider these findings largely endorse the current approaches to lowland deer management and that they are by and large protecting the public interests as set out in the Deer Code.

## 6.5 SNH use of regulatory provisions

In our Progress report 2019 we present information on SNH's use of regulatory provisions. Noting that SNH aims to use its regulatory provisions in a proportionate and enabling way, the use of regulatory provisions could be interpreted as a measure of how well the Deer Code is being followed and where intervention has been considered necessary. Nationally the number of circumstances where we have had cause to intervene in local deer management to protect public interests is relatively small.

## 7. SNH'S VIEW ON DEER CODE COMPLIANCE AND EFFECTIVENESS

The online questionnaire findings indicate that the majority of owner–occupier respondents: collaborate on deer management, have a Deer Management Plan and have undertaken relevant actions to deliver sustainable deer management as set out in Chapter 3 of the Deer Code. It suggests there are a small proportion of deer managers who are not using the Deer Code as a tool to inform their deer management.

The evidence from the 2019 DMG assessments supports the questionnaire finding that most DMGs are taking account of the full range of public interests in their deer management planning. However, there remain criteria where progress has been slow and this is supported through our limited evidence of delivery of SBS native woodland condition and restoration targets and progress with Protected Areas feature condition.

SNH aims to use its regulatory provisions in a proportionate and enabling way. Nationally the number of circumstances where we have had cause to intervene in local deer management to protect public interests is relatively few.

Supported by the Lowland Deer Panel findings, SNH do not consider there are widespread problems with deer management in lowland areas. Phase 2 of the Lowland Deer Management Project has illustrated the level of deer management that is being delivered through the various delivery models within the project area; again supporting the finding that the majority of deer managers are taking responsibility for managing deer on their land.

Our work with Local Authorities demonstrates that further work is required to ensure all Local Authorities are properly taking responsibility for deer as managers and in terms of their wider policies and this work is ongoing.

- *Taking account of all the information presented, we consider the majority of land managers are complying with the letter and spirit of the Deer Code, we note there are areas where more work is needed*
- *Information from the questionnaire, our experience with Local Authority engagement and the 2019 DMG assessment process has highlighted that further work is needed to continue to raise awareness of the Deer Code and to support and explore with deer managers what it means in practice in a range of situations.*

Again our view of the effectiveness of the Deer Code is informed by the online questionnaire responses and from our observations with regard to delivery of sustainable deer management across the board and the need for intervention. Levels of compliance indicated in the questionnaire for those actions listed as 'should' and 'could' are comparable indicating most managers are going beyond the statutory requirements.

The questionnaire responses indicated that just over a half of respondents think that the Deer Code is effective and believe it has brought about positive changes (30% were not

sure, 17% thought it was not effective). The promotion of sustainable deer management has also been furthered by the application of the Deer Code in the DMG assessment criteria and as a means of assessing the delivery of public interests in the Lowland Deer Management Project.

*We consider that since its introduction in 2012, the Deer Code has been effective in promoting sustainable deer management by helping to clarify 'the ask' of deer managers and public bodies.*

The above assessments relate to the Deer Code in the present context as set out in 2012. We are conscious of the evolving picture in terms of public policies that relate to land use in light of the declared climate emergency, IPBES global assessment of nature and ongoing reviews relating to land reform. Hence we may need to review the Deer Code in light of new public policy commitments arising from the Climate Change Plan<sup>47</sup>, the revised Scottish Biodiversity Strategy or implementation plan for the Scottish Forestry Strategy. However, we are not currently in a position to say what this may entail.

---

<sup>47</sup> Current Climate Change Plan (February 2018) targets are to :

- increase woodland cover from around 18% to 21% by 2032
- restore 40% (250,000 hectares) of Scotland's peatland by 2030

## Annex 3 Public policy targets relevant to deer management

### Climate Change Plan<sup>48</sup>

By 2032 Scotland's woodland cover will increase from around 18% to 21% of the Scottish Land Area. Further expanding Scotland's forests and woodlands supports the sustainable supply of wood products and the **fulfilment of the Scottish Government's commitments on climate change and biodiversity**.

The focus for delivering this ambition is to:

- increase the annual woodland creation target of 10,000 hectares (ha) per year to 15,000 ha by 2024/25; and

### Scottish Biodiversity Strategy: Route Map 2020<sup>49</sup>

Under Priority Project 1 – Restoration of Peatlands – An ambitious peatland restoration programme is underway, contributing to the **EU 15% degraded ecosystem restoration target**.

Under Priority Project 2 – Restoration of native woodland, the Scottish Government has committed to improve the condition and extent of existing native woodlands and to further increase new woodland planting:

- Increase the amount of native woodland in good condition (upwards from 46% as identified by the *Native Woodland Survey of Scotland*).
- Create 3,000 to 5,000 ha of new native woodland per year.
- Restore approximately 10,000 ha of native woodland into satisfactory condition in partnership with private woodland owners through Deer Management Plans.

Priority Project 8 – Ensure protected sites are under good conservation management.

- At least 80% of designated 'features' in favourable condition by 2016.

### Wild Deer- A National Approach (WDNA)

- National target of 60% of native woodland to be in satisfactory condition by 2020;
- Increase the contribution made by local deer management to delivering the woodland *expansion* target (10,000 ha of new woodland each year).
- Reiterates the SBS target for designated feature condition and extends this up to 2020.

---

<sup>48</sup> [Climate Change Plan: The Third Report on Proposals and Policies 2018-2032](#)

<sup>49</sup> [Scotland's Biodiversity a Route Map to 2020](#)

## Annex 4 Site Condition Monitoring - supplementary details

The following changes apply to the 1606 'Features Potentially Affected by Herbivores' (FPABH) between 2016 and 2019:

- 309 SCM assessments have been completed (19% of features)
- 281 Site Checks have been completed (17% of features)
- There have also been a small number of site and feature designation changes in the period but these have had little impact on the percentage of favourable or recovering features.

### Positive changes

- 31 features have improved in condition to favourable
- 1 feature has had a first assessment which was favourable
- 34 (2% of 1606 FPABH) features have reached the status of 'Unfavourable recovering due to management' as a result of management actions put in place.

### Negative changes

- 38 features have declined in condition to unfavourable
- 7 features have had a first assessment which was unfavourable
- 25 (1.6%) features have lost their 'Unfavourable recovering due to management' status' (URDTM). This can occur as a result of SCM or Site Check site visits where staff note that 'unfavourable due to management' status is no longer suitable, perhaps because new unaddressed pressures have been identified or that the current management is insufficient.

Table a) SCM features that have recorded a change since 2016 by feature type\*.

Where the change is negative the number of features with evidence that the change is at least partially due to herbivores are shown in brackets\*\*

| Feature type      | Positive Unfavourable recovering due to management | Positive SCM from unfavourable to favourable | Positive Baseline assessment favourable | Negative SCM from favourable to unfavourable | Negative Revoked Unfavourable recovering due to management | Negative Baseline assessment unfavourable | % of decline with evidence of herbivores |
|-------------------|--|--|---|--|--|---|--|
| Birds             |  | 4  |   | 6 (1)  |  |   | 17%                                      |
| Lowland grassland | 4  | 3  |   | 2 (2)  | 2 (0)  |   | 50%                                      |
| Lowland heath     | 1  |  |   |  |  |   |  |
| Upland habitat    | 14   | 20   |   | 15 (13)                                      | 11 (10)  | 4 (4)                                     | 90%                                      |
| Vascular plants   | 2  | 3  |   |  |  |   |  |
| Woodland          | 13   | 1  | 1                                       | 15 (15)                                      | 12 (10)  | 3 (3)                                     | 93%                                      |
| Total             | 34   | 31   | 1                                       | 38 (31)                                      | 25 (22)  | 7 (7)                                     | 86%                                      |

\* only the FPABH that have changed since 2016 are shown – the other features have either not been updated or the SCM status is unchanged.

\*\*Evidence of herbivore impact is based on negative pressures or SCM targets not met that are indicators of herbivores.

## Annex 5 DMG Assessment results tables

Table a) Number of DMGs rated green against each Benchmark criteria

| Criteria   | Category   | Number rated green in 2014 | Number rated green in 2016 | Number rated green in 2019 (subset of 44 DMGs) | Number rated green in 2019 (all 48 DMGs assessed in 2019) |
|--|--|----------------------------|----------------------------|--|---|
| 1.1 Identify boundaries  | Area and Boundaries                              | 29 (66%)                   | 32 (73%)                   | 43 (98%)                                       | 46 (96%)  |
| 1.2 Define sub-populations   | Area and Boundaries                              | 33 (75%)                   | 38 (86%)                   | 42 (95%)                                       | 45 (94%)  |
| 2.1 Property owners as members                                       | Membership                                       | 19 (43%)                   | 29 (66%)                   | 40 (91%)                                       | 43 (90%)  |
| 3.1 Meet regularly   | Meetings   | 34 (77%)                   | 40 (91%)                   | 43 (98%)                                       | 47 (98%)  |
| 3.2 Members attend meetings  | Meetings   | 29 (66%)                   | 35 (80%)                   | 38 (86%)                                       | 42 (88%)  |
| 3.3 Involve public agencies  | Meetings   | 34 (77%)                   | 38 (86%)                   | 44 (100%)                                      | 48 (100%)   |
| 3.4 Agenda and minutes   | Meetings   | 34 (77%)                   | 39 (89%)                   | 41 (93%)                                       | 45 (94%)  |
| 3.5 Capacity to deal with issues                                     | Meetings   | 34 (77%)                   | 39 (89%)                   | 40 (91%)                                       | 44 (92%)  |
| 4.1 Have a constitution  | Constitution and Finance                         | 14 (32%)                   | 37 (84%)                   | 44 (100%)                                      | 48 (100%)   |
| 4.2 Management and budgeting of finances                             | Constitution and Finance                         | 31 (70%)                   | 39 (89%)                   | 44 (100%)                                      | 48 (100%)   |
| 5.1 Up to date deer management plan                                  | Deer Management Plans                            | 12 (27%)                   | 30 (68%)                   | 41 (93%)                                       | 43 (90%)  |
| 5.10 Consult local interests on new DMPs                             | Deer Management Plans                            | 13 (30%)                   | 33 (75%)                   | 44 (100%)                                      | 48 (100%)   |
| 5.2 Record land management objectives                                | Deer Management Plans                            | 16 (36%)                   | 36 (82%)                   | 43 (98%)                                       | 47 (98%)  |
| 5.3 Include population model   | Deer Management Plans                            | 14 (32%)                   | 25 (57%)                   | 36 (82%)                                       | 39 (81%)  |
| 5.4 Use maps to illustrate detail                                    | Deer Management Plans                            | 9 (20%)                    | 35 (80%)                   | 42 (95%)                                       | 44 (92%)  |
| 5.5 Identify public interest aspects                                 | Deer Management Plans                            | 3 (7%)                     | 36 (82%)                   | 44 (100%)                                      | 48 (100%)   |
| 5.6 Include other deer species                                       | Deer Management Plans                            | 14 (32%)                   | 33 (75%)                   | 43 (98%)                                       | 47 (98%)  |
| 5.7 Deliver collective objectives of DMG members and public interest | Deer Management Plans                            | 8 (18%)                    | 26 (59%)                   | 39 (89%)                                       | 41 (85%)  |
| 5.8 Participation of all members                                     | Deer Management Plans                            | 21 (48%)                   | 38 (86%)                   | 36 (82%)                                       | 39 (81%)  |
| 5.9 Identify potential conflicts                                     | Deer Management Plans                            | 14 (32%)                   | 26 (59%)                   | 39 (89%)                                       | 41 (85%)  |
| 6.1 Code endorsed by all DMGs  | Code of Practice on Deer Management              | 8 (18%)                    | 36 (82%)                   | 43 (98%)                                       | 46 (96%)  |
| 7.1 Incorporate in to DMP  | ADMG Principles of Collaboration                 | 9 (20%)                    | 36 (82%)                   | 44 (100%)                                      | 48 (100%)   |
| 8.1 Deer management carried out in accordance with best practice     | Best Practice                                    | 27 (61%)                   | 40 (91%)                   | 43 (98%)                                       | 47 (98%)  |
| 8.2 DMP should reference WDBP  | Best Practice                                    | 18 (41%)                   | 41 (93%)                   | 44 (100%)                                      | 48 (100%)   |
| 9.1 Accurate counts inform population models                         | Data and Evidence Gathering - Deer Counts        | 17 (39%)                   | 25 (57%)                   | 39 (89%)                                       | 43 (90%)  |
| 9.2 Coordinated foot counts  | Data and Evidence Gathering - Deer Counts        | 24 (55%)                   | 29 (66%)                   | 39 (89%)                                       | 43 (90%)  |
| 9.3 Recruitment and mortality counts                                 | Data and Evidence Gathering - Deer Counts        | 15 (34%)                   | 30 (68%)                   | 35 (80%)                                       | 38 (79%)  |
| 9.4 Other census methods   | Data and Evidence Gathering - Deer Counts        | 21 (48%)                   | 23 (52%)                   | 40 (91%)                                       | 43 (90%)  |
| 10.1 Agree target population   | Data and Evidence Gathering - Culls              | 23 (52%)                   | 28 (64%)                   | 34 (77%)                                       | 37 (77%)  |
| 10.2 Cull apportioned among members                                  | Data and Evidence Gathering - Culls              | 21 (48%)                   | 33 (75%)                   | 37 (84%)                                       | 40 (83%)  |
| 10.3 Review cull targets annually                                    | Data and Evidence Gathering - Culls              | 28 (64%)                   | 37 (84%)                   | 38 (86%)                                       | 42 (88%)  |
| 11.1 Habitat impact assessments                                      | Data and Evidence Gathering - Habitat Monitoring | 8 (18%)                    | 15 (34%)                   | 22 (50%)                                       | 23 (48%)  |



|   |  |          |          |          |          |
|---|--|----------|----------|----------|----------|
| 11.2 HIAs conducted regularly                           | Data and Evidence Gathering - Habitat Monitoring | 8 (18%)  | 15 (34%) | 31 (70%) | 32 (67%) |
| 11.3 Other herbivores                                   | Data and Evidence Gathering - Habitat Monitoring | 8 (18%)  | 18 (41%) | 36 (82%) | 39 (81%) |
| 11.4 Habitat monitoring in DMP                          | Data and Evidence Gathering - Habitat Monitoring | 9 (20%)  | 15 (34%) | 33 (75%) | 35 (73%) |
| 12.1 DSC1 + DSC2  | Competence                                       | 17 (39%) | 31 (70%) | 41 (93%) | 45 (94%) |
| 12.2 "Trained hunter" status                            | Competence                                       | 17 (39%) | 26 (59%) | 40 (91%) | 44 (92%) |
| 13.1 Training policy                                    | Training   | 5 (11%)  | 34 (77%) | 43 (98%) | 47 (98%) |
| 13.2 Competence   | Training   | 14 (32%) | 31 (70%) | 40 (91%) | 44 (92%) |
| 13.3 Best practice guidance                             | Training   | 9 (20%)  | 32 (73%) | 43 (98%) | 47 (98%) |
| 14.1 Membership of Scottish Quality Wild Venison scheme | Venison Marketing                                | 13 (30%) | 21 (48%) | 33 (75%) | 36 (75%) |
| 14.2 Collaborative venison production                   | Venison Marketing                                | 17 (39%) | 22 (50%) | 42 (95%) | 45 (94%) |
| 15.1 Communications policy                              | Communications                                   | 5 (11%)  | 35 (80%) | 43 (98%) | 45 (94%) |
| 15.2 Annual communication programme                     | Communications                                   | 7 (16%)  | 28 (64%) | 39 (89%) | 40 (83%) |
| 15.3 DMP accessible and publicly available              | Communications                                   | 7 (16%)  | 31 (70%) | 43 (98%) | 46 (96%) |

Pink shading highlights priority criteria

Table b – Ranked percentage of plans meeting each Benchmark criteria within each category

| Category  | Percentage rated green in 2014 | Percentage rated green in 2016 | Percentage rated green in 2019 (subset of 44 DMGs ) | Percentage rated green in 2019 (all DMGs assessed in 2019) |
|---|--------------------------------|--------------------------------|---|--|
| 4 Constitution and Finances                         | 51.1                           | 86.4                           | 100.0   | 100.0  |
| 7 ADMG Principles of Collaboration                  | 20.5                           | 81.8                           | 100.0   | 100.0  |
| 8 Best Practice                                     | 51.1                           | 92.0                           | 98.9  | 99.0   |
| 6 Code of Practice on Deer Management               | 18.2                           | 81.8                           | 97.7  | 95.8   |
| 13 Training   | 21.2                           | 73.5                           | 95.5  | 95.8   |
| 1 Area and Boundaries                               | 70.5                           | 79.5                           | 96.6  | 94.8   |
| 3 Meetings  | 75.0                           | 86.8                           | 93.6  | 94.2   |
| 12 Competence                                       | 38.6                           | 64.8                           | 92.0  | 92.7   |
| 5 Deer Management Plans                             | 28.2                           | 72.3                           | 92.5  | 91.0   |
| 15 Communications                                   | 14.4                           | 71.2                           | 94.7  | 91.0   |
| 2 Membership  | 43.2                           | 65.9                           | 90.9  | 89.6   |
| 9 Data and Evidence Gathering - Deer Counts         | 43.8                           | 60.8                           | 86.9  | 87.0   |
| 14 Venison Marketing                                | 34.1                           | 48.9                           | 85.2  | 84.4   |
| 10 Data and Evidence Gathering - Culls              | 54.5                           | 74.2                           | 82.6  | 82.6   |
| 11 Data and Evidence Gathering - Habitat Monitoring | 18.8                           | 35.8                           | 69.3  | 67.2   |

\*Categories with priority criteria in pink

Table c – Number of DMGs rated green against each Public Interest criteria

| Criteria   | Category                          | Number rated green in 2014 | Number rated green in 2016 | Number rated green in 2019 (subset of 44 DMGs) | Number rated green in 2019 (all 48 DMGs assessed in 2019) |
|--|-----------------------------------|----------------------------|----------------------------|--|---|
| 1.1 Effectiveness against Benchmark                              | 1.2 Develop series of actions     | 1 (2%)                     | 43 (97%)                   | 44 (100%)                                      | 48 (100%)   |
| 1.2 Develop series of actions                                    | 1. Mechanisms to manage deer      | 3 (7%)                     | 33 (75%)                   | 38 (86%)                                       | 42 (88%)  |
| 1.3 Deer management plan   | 1. Mechanisms to manage deer      | 7 (16%)                    | 29 (66%)                   | 38 (86%)                                       | 40 (83%)  |
| 2.1 Designated features within DMG                               | 2. Deliver favourable condition   | 12 (27%)                   | 39 (89%)                   | 44 (100%)                                      | 48 (100%)   |
| 2.2 Actions to manage herbivore impacts                          | 2. Deliver favourable condition   | 6 (14%)                    | 21 (48%)                   | 31 (70%)                                       | 33 (69%)  |
| 2.3 Progress for managing herbivore impacts                      | 2. Deliver favourable condition   | 5 (11%)                    | 17 (39%)                   | 28 (64%)                                       | 30 (63%)  |
| 3.1 Establish extent of native woodland                          | 3. Improve woodland condition     | 5 (11%)                    | 39 (89%)                   | 44 (100%)                                      | 48 (100%)   |
| 3.2 Determine condition of native woodland                       | 3. Improve woodland condition     | 2 (5%)                     | 31 (70%)                   | 40 (91%)                                       | 43 (90%)  |
| 3.3 Deliver DMG woodland management objectives                   | 3. Improve woodland condition     | 2 (5%)                     | 16 (36%)                   | 26 (59%)                                       | 28 (58%)  |
| 3.4 Actions to manage herbivore impacts                          | 3. Improve woodland condition     | 2 (5%)                     | 11 (25%)                   | 31 (70%)                                       | 33 (69%)  |
| 4.1 Quantify recent woodland establishment                       | 4. Woodland expansion             | 4 (9%)                     | 38 (86%)                   | 43 (98%)                                       | 47 (98%)  |
| 4.2 Identify opportunities for woodland expansion                | 4. Woodland expansion             | 2 (5%)                     | 23 (52%)                   | 38 (86%)                                       | 40 (83%)  |
| 4.3 Consider implication on deer                                 | 4. Woodland expansion             | 3 (7%)                     | 20 (45%)                   | 38 (86%)                                       | 42 (88%)  |
| 4.4 Actions to deliver woodland expansion proposals              | 4. Woodland expansion             | 2 (5%)                     | 12 (27%)                   | 38 (86%)                                       | 40 (83%)  |
| 5.1 Identify habitat types                                       | 5. Wider countryside              | 6 (14%)                    | 37 (84%)                   | 44 (100%)                                      | 47 (98%)  |
| 5.2 Identify impact targets                                      | 5. Wider countryside              | 4 (9%)                     | 7 (16%)                    | 25 (57%)                                       | 28 (58%)  |
| 5.3 Identify sustainable level of grazing and trampling          | 5. Wider countryside              | 5 (11%)                    | 7 (16%)                    | 24 (55%)                                       | 26 (54%)  |
| 5.4 Identify if different levels of grazing are required         | 5. Wider countryside              | 5 (11%)                    | 8 (18%)                    | 24 (55%)                                       | 26 (54%)  |
| 5.5 Conduct herbivore impact assessments                         | 5. Wider countryside              | 3 (7%)                     | 12 (27%)                   | 24 (55%)                                       | 25 (52%)  |
| 5.6 Review information to measure progress                       | 5. Wider countryside              | 5 (11%)                    | 16 (36%)                   | 26 (59%)                                       | 28 (58%)  |
| 6.1 Quantify extent of carbon-sensitive habitats                 | 6. Ecosystem health               | 2 (5%)                     | 34 (77%)                   | 43 (98%)                                       | 46 (96%)  |
| 6.2 Conduct herbivore impact assessments                         | 6. Ecosystem health               | 2 (5%)                     | 10 (23%)                   | 24 (55%)                                       | 25 (52%)  |
| 6.3 Identify opportunities for creation/restoration of peatlands | 6. Ecosystem health               | 1 (2%)                     | 14 (32%)                   | 39 (89%)                                       | 41 (85%)  |
| 6.4 Contribute to River Basin Management Planning                | 6. Ecosystem health               | 1 (2%)                     | 24 (55%)                   | 43 (98%)                                       | 47 (98%)  |
| 7.1 Manage INNS to prevent establishment and spread              | 7. INNS                           | 4 (9%)                     | 30 (68%)                   | 43 (98%)                                       | 47 (98%)  |
| 7.2 Agree local management of INNS                               | 7. INNS                           | 2 (5%)                     | 36 (82%)                   | 42 (95%)                                       | 46 (96%)  |
| 8.1 Identify features that may be impacted by deer               | 8. Historic and cultural features | 1 (2%)                     | 28 (64%)                   | 40 (91%)                                       | 44 (92%)  |
| 8.2 Consider implications of fencing                             | 8. Historic and cultural features | 4 (9%)                     | 30 (68%)                   | 43 (98%)                                       | 46 (96%)  |
| 9.1 Skills and training assessment                               | 9. Competence in deer management  | 4 (9%)                     | 32 (73%)                   | 42 (95%)                                       | 46 (96%)  |
| 9.2 Identify training and development needs                      | 9. Competence in deer management  | 3 (7%)                     | 27 (61%)                   | 43 (98%)                                       | 47 (98%)  |
| 9.3 Ensure competency to current standards                       | 9. Competence in deer management  | 6 (14%)                    | 30 (68%)                   | 41 (93%)                                       | 45 (94%)  |
| 9.4 Promote and facilitate training                              | 9. Competence in deer management  | 6 (14%)                    | 33 (75%)                   | 43 (98%)                                       | 47 (98%)  |
| 10.1 Identify public safety issues                               | 10. Public health and wellbeing   | 6 (14%)                    | 32 (73%)                   | 44 (100%)                                      | 48 (100%)   |
| 10.2 Mitigate public safety risk                                 | 10. Public health and wellbeing   | 5 (5%)                     | 27 (61%)                   | 38 (86%)                                       | 40 (83%)  |
| 10.3 Food safety   | 10. Public health and wellbeing   | 6 (14%)                    | 33 (75%)                   | 41 (93%)                                       | 45 (94%)  |
| 10.4 Familiarity with notifiable diseases                        | 10. Public health and wellbeing   | 7 (16%)                    | 34 (77%)                   | 41 (93%)                                       | 45 (94%)  |
| 10.5 Biosecurity measures  | 10. Public health and wellbeing   | 2 (5%)                     | 30 (68%)                   | 44 (100%)                                      | 48 (100%)   |
| 10.6 Raise awareness of Lyme's disease                           | 10. Public health and wellbeing   | 2 (5%)                     | 32 (73%)                   | 44 (100%)                                      | 48 (100%)   |

|   |                                 |          |          |           |           |
|---|---------------------------------|----------|----------|-----------|-----------|
| 10.7 Identify access and recreational activity        | 10. Public health and wellbeing | 6 (14%)  | 29 (66%) | 44 (100%) | 48 (100%) |
| 10.8 Mitigate effects of public access during culling | 10. Public health and wellbeing | 5 (11%)  | 30 (68%) | 42 (95%)  | 46 (96%)  |
| 10.9 Facilitate public access                         | 10. Public health and wellbeing | 4 (9%)   | 26 (59%) | 44 (100%) | 48 (100%) |
| 11.1 Identify main sources of revenue                 | 11. Maximise economic benefits  | 4 (9%)   | 29 (66%) | 40 (91%)  | 43 (90%)  |
| 11.2 Identify deer related employment                 | 11. Maximise economic benefits  | 5 (11%)  | 27 (61%) | 42 (95%)  | 46 (96%)  |
| 11.3 Add value to products                            | 11. Maximise economic benefits  | 5 (11%)  | 23 (52%) | 38 (86%)  | 41 (85%)  |
| 11.4 Maximise benefit from venison production         | 11. Maximise economic benefits  | 3 (7%)   | 22 (50%) | 41 (93%)  | 45 (94%)  |
| 12.1 Identify capital investment                      | 12. Minimise economic costs     | 2 (5%)   | 13 (30%) | 31 (70%)  | 33 (69%)  |
| 12.2 Deer impacts on other land uses                  | 12. Minimise economic costs     | 4 (9%)   | 16 (36%) | 37 (84%)  | 41 (85%)  |
| 12.3 Economic impacts of management changes           | 12. Minimise economic costs     | 3 (7%)   | 16 (36%) | 39 (89%)  | 42 (88%)  |
| 12.4 Minimise negative economic impacts               | 12. Minimise economic costs     | 4 (9%)   | 11 (25%) | 37 (84%)  | 40 (83%)  |
| 13.1 Community and public engagement                  | 13. Communication               | 5 (11%)  | 34 (77%) | 44 (100%) | 47 (98%)  |
| 13.2 Address community issues                         | 13. Communication               | 3 (7%)   | 30 (68%) | 42 (95%)  | 44 (92%)  |
| 13.3 Further education                                | 13. Communication               | 4 (9%)   | 21 (48%) | 40 (91%)  | 44 (92%)  |
| 14.1 Data on deer health/welfare                      | 14. Deer welfare                | 14 (32%) | 26 (59%) | 36 (82%)  | 39 (81%)  |
| 14.2 Safeguard welfare during culling                 | 14. Deer welfare                | 14 (32%) | 40 (91%) | 41 (93%)  | 45 (94%)  |
| 14.3 Welfare of surviving populations                 | 14. Deer welfare                | 12 (27%) | 26 (59%) | 40 (91%)  | 44 (92%)  |
| 14.4 Review actions to safeguard welfare              | 14. Deer welfare                | 11 (25%) | 31 (70%) | 31 (70%)  | 35 (73%)  |

Pink shading highlights priority criteria

Table d – Ranked percentage of plans meeting each Public Interest criteria within each category

| Category                          | Percentage rated green in 2014 | Percentage rated green in 2016 | Percentage rated green in 2019 (subset of 44 DMGs) | Percentage rated green in 2019 (all DMGs assessed in 2019) |
|-----------------------------------|--------------------------------|--------------------------------|--|--|
| 7. INNS                           | 6.8                            | 75.0                           | 96.6   | 96.9   |
| 9. Competence in deer management  | 10.8                           | 69.3                           | 96.0   | 96.4   |
| 10. Public health and wellbeing   | 10.9                           | 68.9                           | 96.5   | 96.3   |
| 8. Historic and cultural features | 5.7                            | 65.9                           | 94.3   | 93.8   |
| 13. Communication                 | 9.1                            | 64.4                           | 95.5   | 93.8   |
| 11. Maximise economic benefits    | 9.7                            | 57.4                           | 91.5   | 91.1   |
| 1. Mechanisms to manage deer      | 8.3                            | 79.5                           | 90.9   | 90.3   |
| 4. Woodland expansion             | 6.3                            | 52.8                           | 89.2   | 88.0   |
| 14. Deer welfare                  | 29.0                           | 69.9                           | 84.1   | 84.9   |
| 6. Ecosystem health               | 3.4                            | 46.6                           | 84.7   | 82.8   |
| 12. Minimise economic costs       | 7.4                            | 31.8                           | 81.8   | 81.3   |
| 3. Improve woodland condition     | 6.3                            | 55.1                           | 80.1   | 79.2   |
| 2. Deliver favourable condition   | 17.4                           | 58.3                           | 78.0   | 77.1   |
| 5. Wider countryside              | 10.6                           | 33.0                           | 63.3   | 62.5   |

\*Categories with priority criteria in pink

Figure 1 The variability of DMG performance in 2016 and 2019 based on the similarity of assessments for both the Benchmark (a) and Public Interest criteria (b). (Green dots and polygon 2016 – Blue dots and polygon 2019).

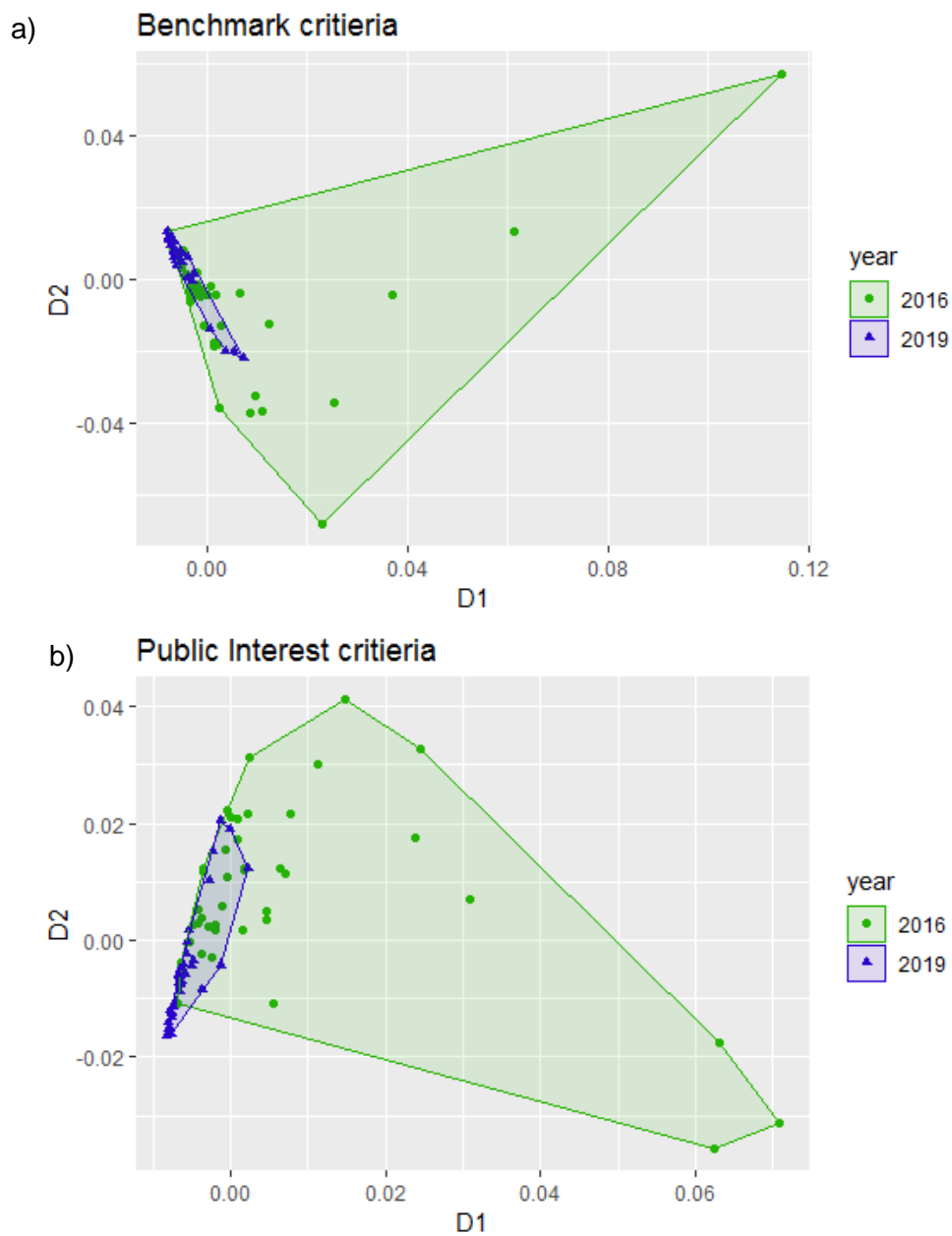
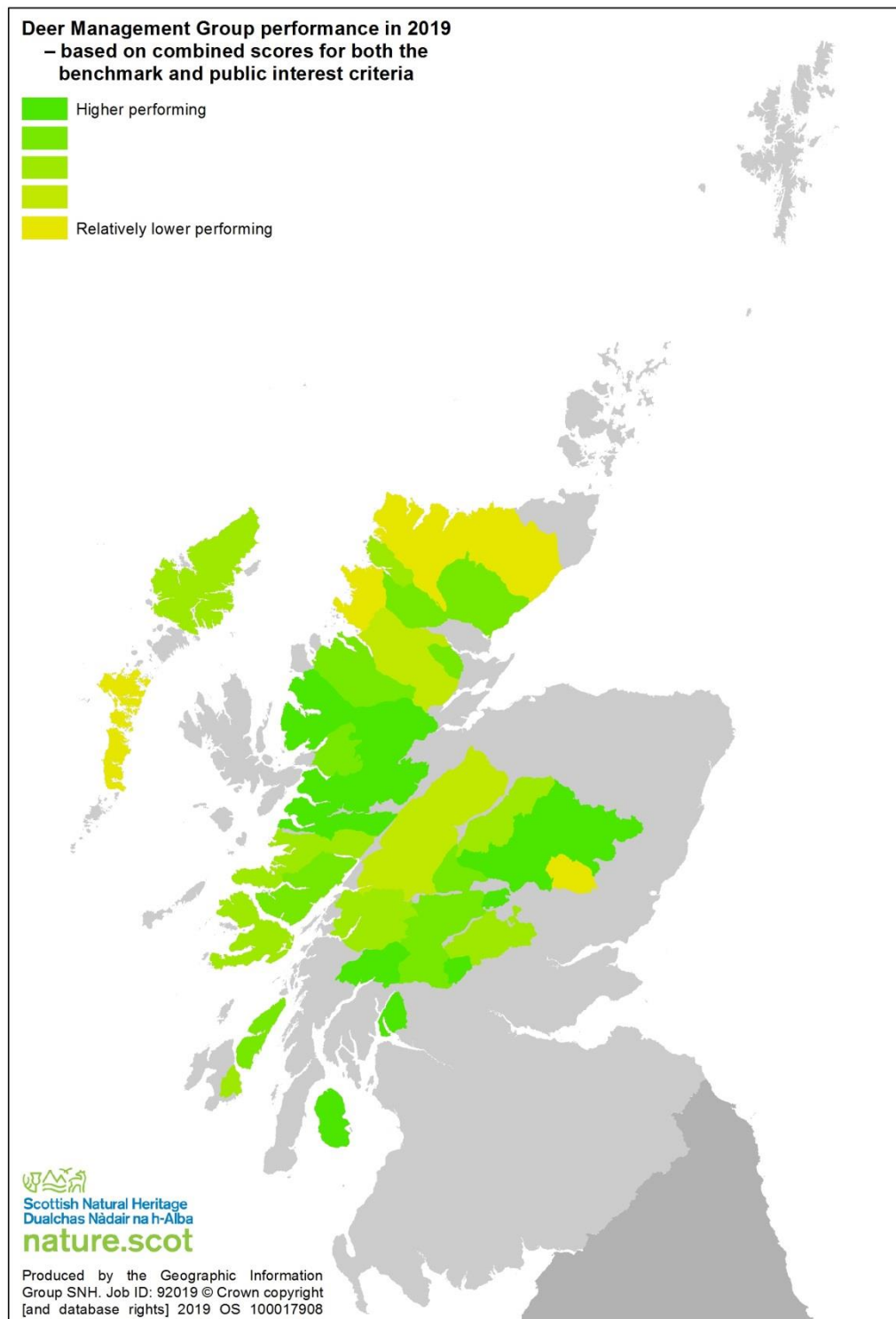


Figure 2 Deer Management Group performance in 2019 – based on combined scores for both the Benchmark and Public Interest criteria - colour gradient illustrates higher performing (Green) to relatively lower performing groups (Yellow).



## Annex 6 Lowland deer management structures and priorities in 2019

Table a Summary of lowland deer management structures and priorities in 2019

| Group Function                   |                               |                  |                            |              |     |   | Public Interest Priorities               |                            |              |                     |                                |   |                                 |   |
|----------------------------------|-------------------------------|------------------|----------------------------|--------------|-----|---|--|----------------------------|--------------|---------------------|--------------------------------|---|---------------------------------|---|
| Name                             | Type                          | Deer Species     | Formalised group structure | Constitution | DMP | Greater extent of 'traditional' Collaboration | Training, skills uplift & Qualifications | Communications & education | Deer Welfare | Commercial forestry | Agricultural damage prevention | Native woodland & nature conservation interests | Invasive non-natives priorities | Minimise economic costs and safeguard public health and wellbeing |
| North Lanarkshire DG             | Stalker led                   | Roe              | ✓                          | ✓            | n/a | n/a   | ✓✓                                       | ✓                          | ✓            | ✓                   |                                | ✓   | ✓                               | ✓   |
| South Lanarkshire DG             | Stalker led                   | Roe              | ✓                          | ✓            | n/a | n/a   | ✓✓                                       | ✓                          | ✓            | ✓                   |                                | ✓   | ✓                               | ✓   |
| West Lothian DG                  | Stalker led                   | Roe              | ✓                          |              | n/a | n/a   | ✓✓                                       | ✓                          | ✓            | ✓                   |                                | ✓   | ✓                               | ✓   |
| Buchan & District DG             | Stalker led                   | Red, Roe         | ✓                          | ✓            | n/a | ✓   | ✓✓                                       | ✓                          | ✓            | ✓                   | ✓                              | ✓   | ✓                               | ✓   |
| Borders DG                       | Owner / manager / stalker led | Roe, Sika        | ✓                          | ✓            |     | n/a   | ✓  | ✓                          | ✓            | ✓✓                  | ✓                              | ✓   | ✓                               | ✓   |
| Edinburgh & East Lothian DG      | Stalker led                   | Roe              | ✓                          | ✓            | n/a | n/a   | ✓✓                                       | ✓                          | ✓            | ✓                   | ✓                              | ✓   | ✓                               | ✓   |
| South Ayrshire & Wigtownshire DG | Owner / manager / stalker led | Red, Roe         | ✓                          | ✓            | n/a |   | ✓✓                                       | ✓                          | ✓            | ✓✓                  | ✓✓                             | ✓   | ✓                               | ✓   |
| Clyde Coast DG                   | Stalker led                   | Roe, Red         | ✓                          |              | n/a | n/a   | ✓✓                                       | ✓                          | ✓            | ✓                   |                                | ✓   | ✓                               | ✓   |
| Eskdalemuir & Liddesdale DG      | Manager led                   | Roe, Sika        | ✓                          | ✓            | ✓   | ✓   | ✓  | ✓✓                         | ✓            | ✓✓                  |                                | ✓✓  | ✓✓                              | ✓   |
| Cowal DG                         | Owner / manager / stalker led | Red, Roe         | ✓                          | ✓            | ✓   | ✓   | ✓  | ✓                          | ✓            | ✓✓                  | ✓✓                             | ✓✓  | ✓                               | ✓   |
| Galloway & Dumfriesshire DG      | Owner / manager / stalker led | Red, Fallow, Roe | ✓                          | ✓            | n/a |   | ✓✓                                       | ✓                          | ✓            | ✓✓                  | ✓                              | ✓   | ✓                               | ✓   |



|                          |                               |                  |  |  |     |   |   |   |   |    |    |    |    |    |
|--------------------------|-------------------------------|------------------|--|--|-----|---|---|---|---|----|----|----|----|----|
| Doune Woodlands Forum    | Owner / manager / stalker led | Red, Roe         |  |  | n/a |   | ✓ | ✓ | ✓ | ✓✓ | ✓✓ | ✓  | ✓  | ✓  |
| Dunkeld Deer Forum       | Owner / manager / stalker led | Red, Fallow, Roe |  |  |     | ✓ | ✓ | ✓ | ✓ | ✓✓ | ✓✓ | ✓  | ✓  | ✓  |
| Flanders Moss Deer Forum | Owner / manager / stalker led | Red              |  |  | ✓   | ✓ | ✓ | ✓ | ✓ | ✓✓ | ✓✓ | ✓✓ |    | ✓✓ |
| Howe of Alford Forum     | Owner / manager / stalker led | Red              |  |  |     | ✓ | ✓ | ✓ | ✓ | ✓✓ | ✓✓ | ✓  |    | ✓  |
| Islay Rinns Deer Forum   | Owner / manager / stalker led | Red              |  |  | ✓   | ✓ | ✓ | ✓ | ✓ | ✓  | ✓✓ | ✓✓ |    | ✓  |
| Loch Lomond Islands DMG  | Manager / owners led          | Fallow           |  |  |     | ✓ |   |   | ✓ |    |    | ✓✓ | ✓✓ | ✓  |
| East Loch Lomond LMF     | Owner / manager led           | Red, Roe, Fallow |  |  | ✓   | ✓ | ✓ | ✓ | ✓ | ✓✓ | ✓  | ✓  | ✓  | ✓  |

(DMG = Deer Management group, DG = Deer Group, MF = Management Forum) ✓ = Objective ✓✓ = Primary Objective)

## Annex 7 Lowland census since 2016 in support of local case work

Table b) SNH Lowland census since 2016 in support of local case work

| Area  | Date   | Justification  |
|---|--------|--|
| Flanders Moss Deer Forum area                       | Mar-16 | Supporting the local Deer group and SNH regulatory action                      |
| Glenfalloch, RSPB Inversnaid, Loch Lomond           | Mar-16 | Supporting RSPB and Glen Falloch Estate with goat and deer management planning |
| Flanders Moss Deer Forum area                       | May-17 | Supporting the local Deer group and SNH regulatory action                      |
| Flanders Moss Deer Forum area                       | Nov-17 | Supporting the local Deer group and SNH regulatory action                      |
| Hamilton Golf Course, South Lanarkshire             | Jan-18 | Support South Lanarkshire Council decision deer management planning            |
| 7 Lochs Wetland Park, Glasgow and North Lanarkshire | Feb-18 | Supporting 7-loch project development plan                                     |
| Woodhall Dean SSSI, East Lothian                    | Feb-18 | Supporting SWT deer management planning  |
| Cart and Kittoch SSSI, Glasgow                      | Mar-18 | Support Glasgow City Council deer management planning                          |
| Straiton Bing, Mid Lothian                          | Mar-18 | Support local concerns regarding DVCs.   |
| Hall Gill SSSI, North Lanarkshire                   | Apr-18 | Support North Lanarkshire Council deer management planning                     |
| Flanders Moss Deer Forum area                       | Apr-18 | Supporting the local Deer group and SNH regulatory action                      |
| Glenfalloch, RSPB Inversnaid, Loch Lomond           | Apr-18 | Supporting RSPB and Glen Falloch Estate with goat and deer management planning |
| Glenfalloch, RSPB Inversnaid, Loch Lomond           | Apr-18 | Supporting RSPB and Glen Falloch Estate with goat and deer management planning |
| Fairy Knowe and Doon Hill SSSI, Aberfoyle           | Dec-18 | Supporting East Loch Lomond deer group management planning                     |
| Loch Lomond Islands DMG                             | Dec-18 | Supporting the local DMG   |
| Kirkconnel Flow SSSI, Ayrshire                      | Jan-19 | Supporting SNH case work   |
| Chatelherault Country Park, South Lanarkshire       | Jan-19 | Support South Lanarkshire Council decision deer management planning            |
| East Loch Lomond Land Management Forum              | Jan-19 | Support local deer management planning   |
| Gullane Area, East Lothian                          | Apr-19 | Supporting East Lothian Council deer management planning                       |
| Flanders Moss Deer Forum area                       | May-19 | Supporting the local Deer group and SNH regulatory action                      |

## Annex 8 DVCs trend maps and charts

Table a) Higher risk DVC sites where we have been engaged or supported local managers to take a proactive role in addressing DVC risk 2016 - 2019

| Site                  | Stakeholders   | Action taken  |
|-----------------------|--|---|
| A82, Loch Lomond      | Transport Scotland, Police Scotland, Luss Estates, West Loch Lomond DMG                    | Protocol agreed and authorisation issued to allow deer control along a 17km stretch of A82  |
| A84 Lochearnhead      | Transport Scotland, Police Scotland, Balquidder DMG, Glenartney DMG                        | Provision of DVC data, review of fencing / roadside vegetation management, and targeted deer culling to address frequency of DVCs   |
| A9, Dunkeld           | Dunkeld Deer Forum   | Provision of DVC data and focussed deer management to address local fallow deer populations   |
| A835, Garve           | North Ross DMG   | Provision of data, actions defined within latest DMP and local recording of DVCs to inform local management decision making, Reactivation of vehicle speed activated signage making drivers aware of increased deer risks |
| A9, Helmsdale - north | Northern DMG   | Provision of data, risks acknowledged in latest DMP and local recording of DVCs to inform local management decision making  |
| A9, Helmsdale - south | Northern DMG, East Sutherland DMG  | Provision of data, actions defined within latest DMP and local recording of DVCs to inform local management decision making   |
| A87, Glenshiel        | Glenelg DMG, Transport Scotland  | Support for local monitoring and reactivation of vehicle speed activated signage making drivers aware of increased deer risks   |
| A701, St Annes        | Police Scotland, Transport Scotland, Annandale Estate, Galloway & Dumfriesshire Deer Group | Provision of data. Local awareness raising event led by LDNS and deer group. Targeted fallow deer culling by local controllers  |

Figure 1 Reported Trunk Road DVCs by region 2013 to 2017. Blue columns denote reports collated by Trunk Road Operating Companies and stacked red columns by SSPCA - supplemented by Forest and Land Scotland wildlife ranger records.

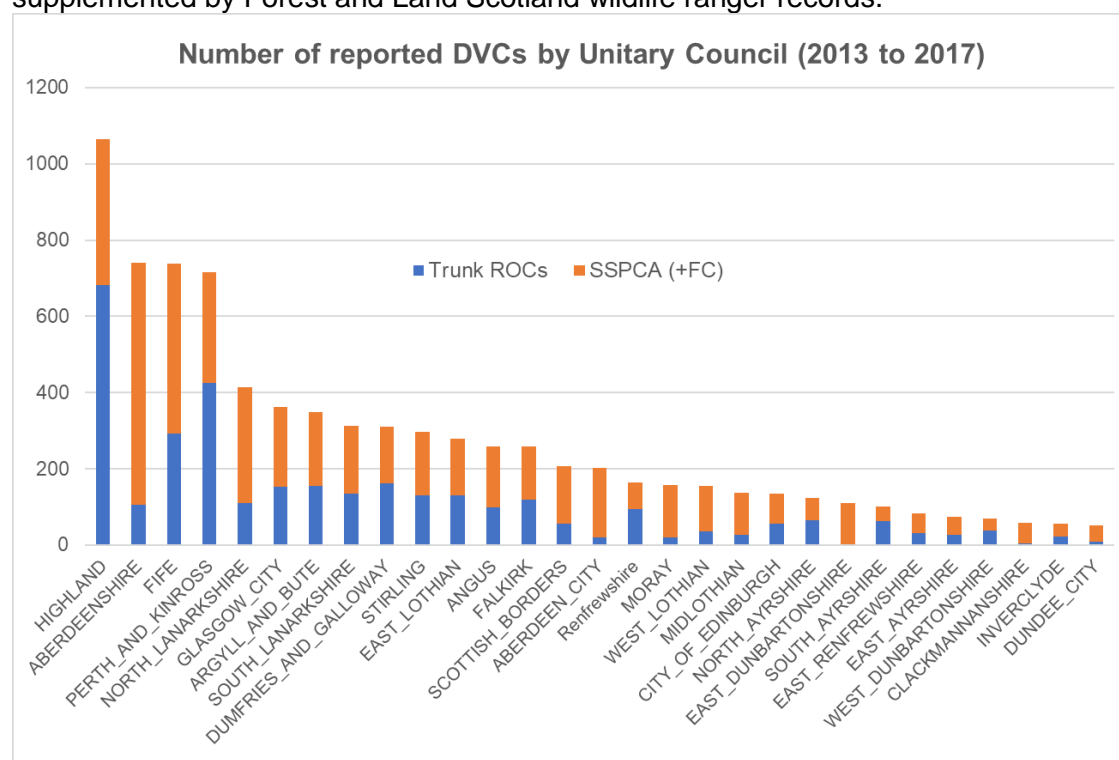


Figure 2 DVCs reported by Trunk Road Operating Companies 2008 - 18.

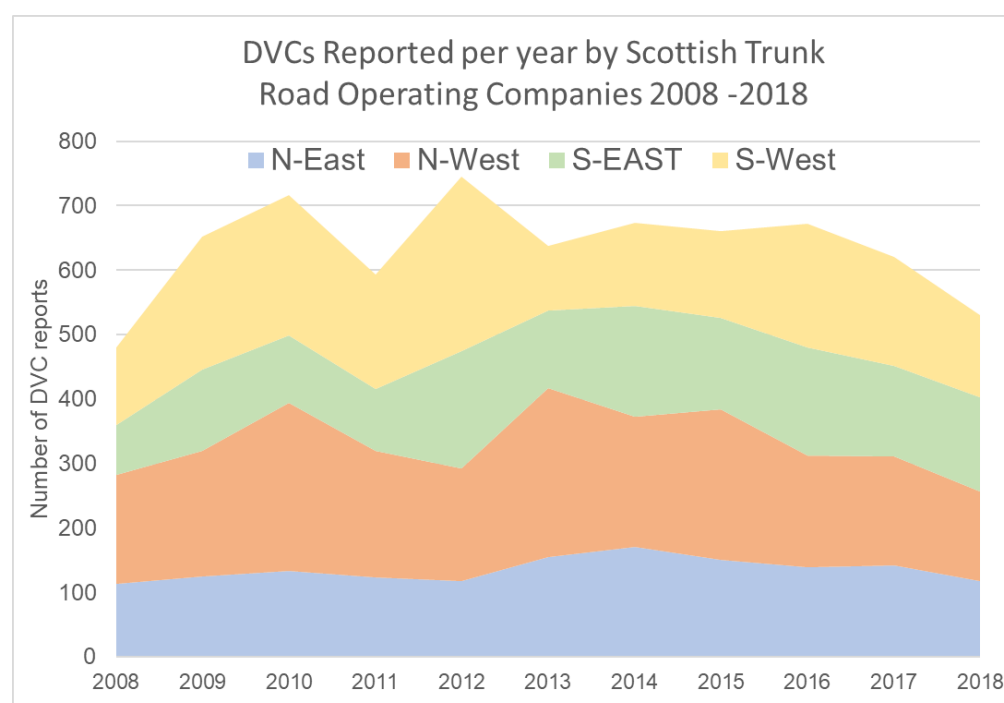


Figure 3 Risk of DVCs to drivers – colour coding of risk index shown.

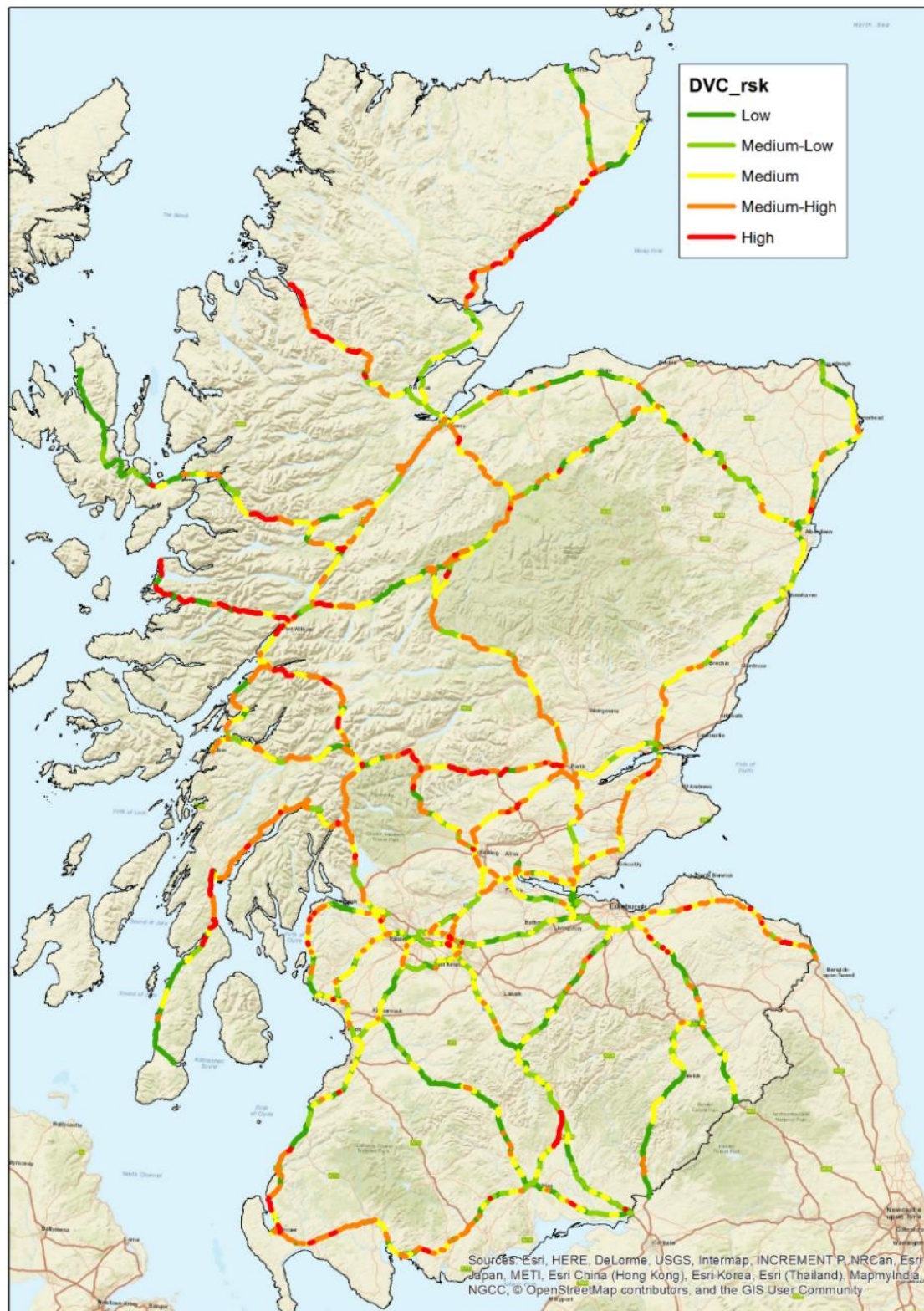
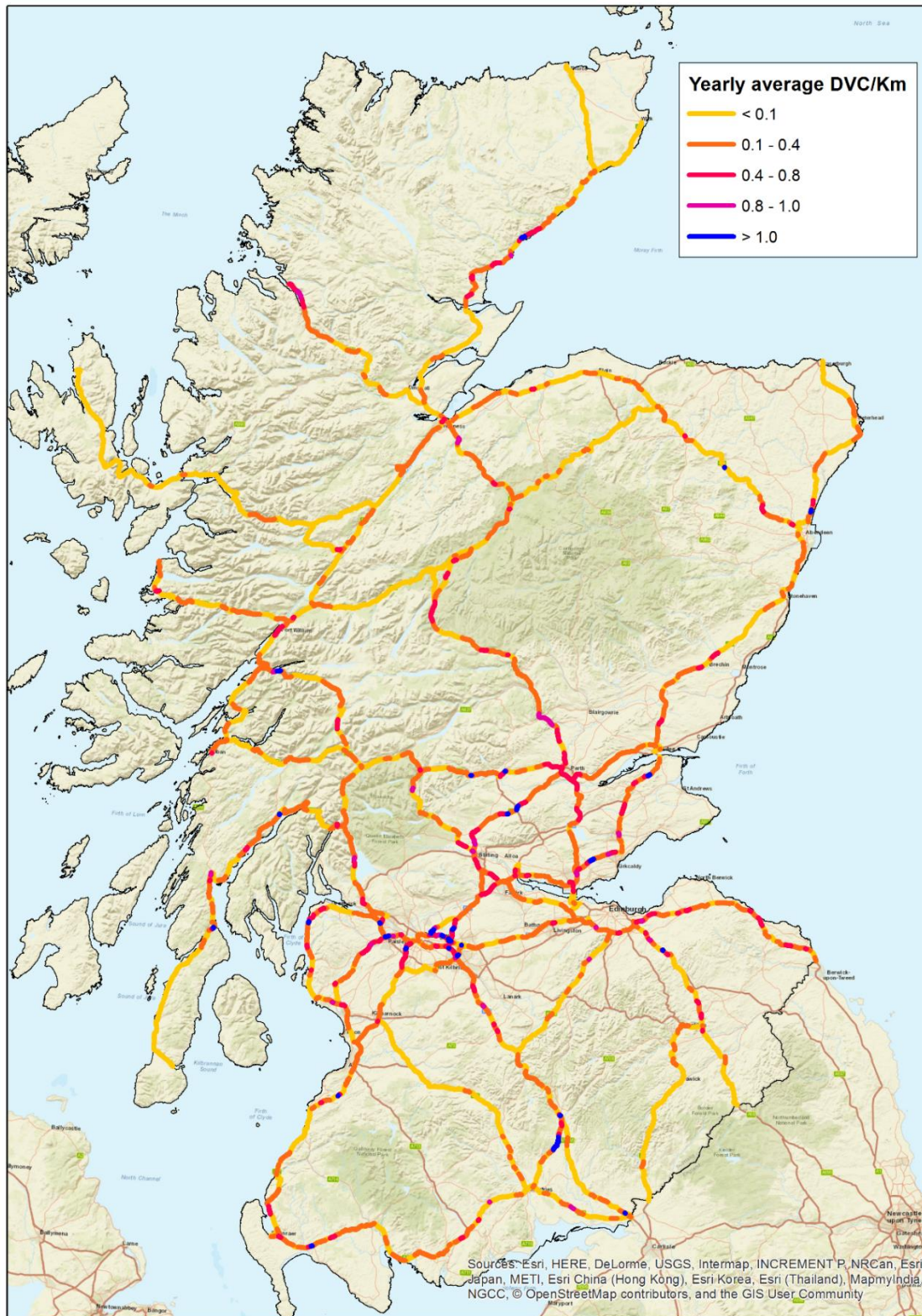




Figure 4 Risk of DVCs to deer (DVC/km)





## Annex 9 Summary of deer management delivery models in lowland deer areas

Table a) Exploration of the deer management being delivered by different deer management models in lowland deer areas (extract from Lowland Deer Management Project Phase 2 report\*).

|  | Primary Deer Managers  |                           |                        |                                 |        |
|--|------------------------|---------------------------|------------------------|---------------------------------|--------|
|  | Land / Forest Owner    | Stalking Tennant          | Deer Controller        | Wildlife Ranger Deer Contractor | Total  |
| Total No of Survey Responses             | 27                     | 33                        | 37                     | 1                               | 98     |
| Primary Land Use                         | Agriculture            | Agriculture               | Agriculture            | Forestry                        |        |
| Secondary Land Use                       | Forestry / Woodland    |                           | Forestry               |                                 |        |
| Primary Purpose of Management            | Protection of Ag Crops | Protection of Ag Crops    | Protection of Forestry | Protection of Forestry          |        |
| Secondary Purpose of Management          | Protection of Forestry | Own Recreational Stalking | Protection of Ag Crops |                                 |        |
| Primary View on Deer                     | Issues due to Impacts  | Issues due to Impacts     | Issues due to Impacts  | Issues due to Impacts           |        |
| Total Area (ha)                          | 7,678                  | 1,267                     | 17,435                 | 10,000                          | 36,380 |
| Average Area / Property or Operator (ha) | 959                    | 127                       | 1,090                  | 833                             | 752    |
| Annual Roe Cull                          | 204                    | 165                       | 849                    | 559                             | 1,777  |
| Annual Red Cull                          | 64                     | 75                        | 153                    | 108                             | 400    |
| Total Annual Cull                        | 268                    | 240                       | 1,002                  | 667                             | 2,177  |
| Average Cull / Operator or Property      | 38                     | 22                        | 59                     | 56                              | 44     |
| Cull per ha                              | 0.03                   | 0.19                      | 0.06                   | 0.07                            | 0.06   |
| Challenge #1                             | Increasing numbers     | Sporting rates            | Public access          |                                 |        |
| Challenge #2                             | Lack of collaboration  | Lack of collaboration     | Lack of collaboration  |                                 |        |
| Challenge #3                             | Access to larders      | Public access             | Increasing numbers     |                                 |        |
| Attend Deer Group                        | 22%                    | 85%                       | 89%                    |                                 |        |

\*See Research report for full details. Chetwynd, T. 2019. Lowland deer management: assessing the delivery of public interests. Phase 2. *Scottish Natural Heritage Commissioned Report No. TBC (in prep)*.

## Annex 10 Status of Local Authority deer plans

Table a) List of Local Authorities with deer and the status of their deer management plans at July 2019.

| Local Authority Name  | Plan Type                            | Status of management in place   |
|---|--------------------------------------|---|
| West Lothian Council  | DMP – SNH Funded                     | Active Deer management in place in Country Parks  |
| Stirling Council  | Deer Position Statement – SNH Funded | No active management to date  |
| Scottish Borders  | Deer Position Statement – SNH Funded | No active management to date  |
| East Lothian Council  | Deer Position Statement – SNH Funded | No active management to date  |
| South Lanarkshire Council   | Site specific DMP - SNH Funded       | No active management to date but protocol agreed  |
| North Lanarkshire Council   | Deer Position Statement – SNH Funded | No active management to date  |
| Glasgow City Council – 7 Lochs Wetland Park   | Deer Position Statement – SNH Funded | No active management to date  |
| Aberdeen City Council   | DMP in place                         | Actively Managing deer across land ownership  |
| Perth & Kinross Council   | DMP in place                         | Actively Managing deer across land ownership  |
| Dundee City Council   | DMP in place                         | Actively Managing deer across land ownership  |
| East Dunbartonshire Council   | Deer management policy in place      | Actively Managing deer in one Country Park  |
| Fife  | None currently                       | Some limited discussion with SNH underway   |
| Highland, Dumfries & Galloway   | None currently                       | Early discussions with SNH underway to potentially fund a position statement  |
| Comhairlie nan Eilean Sar, East Ayrshire, Inverclyde, South Ayrshire, Argyll & Bute | None currently                       | No further contact since response to SNH chairman's letter in 2016  |
| Renfrewshire, Clackmannanshire, Edinburgh, Midlothian, Falkirk, West Dunbartonshire | None Currently                       | Some discussion with SNH but little appetite to engage on deer management policy development citing lack of resources or limited importance |
| Aberdeenshire, Angus, East Renfrewshire, Moray, North Ayrshire,                     | None currently                       | Little or no engagement with SNH on deer matters  |

\*11 with statements or plans shaded

## Annex 11 Scottish Forestry Grant Scheme grants contributing to native woodland SBS condition targets between April 2016 and March 2019

|  | Total area (ha)  | Explanation of option aims and eligibility  |
|--|--|---|
| Options  |  |   |
| Sustainable Management of Forests - Livestock Exclusion              | 1,277  | <p>This option aims to bring native woodland back into active management by excluding livestock.</p> <p>Woodlands are only eligible if they appear on the <a href="#">Native Woodland Survey of Scotland</a> either as native woodland (including native woodland scrub communities) or if they are near-native sites or other Plantations on Ancient Woodland Sites where the owner intends to restore towards native woodland.</p> <p>Applicants can also use the <a href="#">Woodland Improvement Grant – Habitats and Species</a> option to support related works such as removal of non-native species, fencing and work to stimulate natural regeneration, all of which help improve woodland condition.</p> <p><b>This option fully supports the SBS target to improve Native Woodland Condition.</b></p>  |
| Sustainable Management of Forests - Low Impact Silvicultural Systems | 11   | <p>This is an annual grant to support the additional costs for deer control and management planning that are required to implement low impact silvicultural systems.</p> <p>The option is not restricted to native woodlands, but helps support management at a land holding or landscape scale. Applicants can also apply for a separate grant under the <a href="#">Woodland Improvement Grant – Low Impact Silvicultural Systems</a> option to support related works that are considered capital items, such as cultivation and monitoring.</p> <p>To qualify applicants must have a <b>Deer Management Plan</b>. All deer control must comply with best practice guidance and the applicant must retain all cull records (although these are not sent to Scottish Forestry). If the application area is within or affecting a Site of Special Scientific Interest or Natura site the proposed work must fit with the objectives set out in the site management statement.</p> <p><b>This option partially supports the SBS target to improve Native Woodland Condition.</b></p>   |
| Sustainable Management of Forests - Native Woodlands                 | Average annual area grant funded 6,383.8 ha yr <sup>-1</sup> | <p>The aims of this scheme are to maintain native woodland condition and bring native woodlands and designated woodland features into good ecological condition and it is considered the main route to delivery of deer management in native woodlands. It can also be used to restore Plantations on Ancient Woodland Sites to native woodland specifically through deer control and natural regeneration recruitment.</p> <p>Scottish Forestry recognise that good ecological condition of woodland depends partly on its character, age and management history. Therefore this is an annual grant to support the costs of deer control, the monitoring of habitat impacts (including natural regeneration of trees and shrubs) and changes in ecological condition (such as encroachment of non-native species) to ensure appropriate management options are planned and delivered that achieve the stated objectives.</p> <p>Scottish Forestry recognises that woodland in good ecological condition contains a variety of open ground, native trees and shrubs and wildlife species expected for the type of woodland. Therefore this option has been designed to ensure the proposed management is suitable for the ecosystem to be sustained, adapted or expanded. Applicants must submit a <b>Deer Management Plan</b> with their application. All deer control must comply with best practice guidance. Applicants must undertake habitat monitoring and keep records of culls.</p> <p>Only woodlands that appear on the <a href="#">Native Woodland Survey of Scotland</a>, either as native woodland (including native woodland scrub communities) or if they are near-native sites or other Plantations on Ancient Woodland Sites where the owner</p> |

|   |        |   |
|---|--------|---|
|   |        | <p>intends to restore towards native woodland are eligible. Applicants are required to take account of the current and relevant information within the Native Woodland Survey of Scotland, and verify and update information if required.</p> <p>Landowners in this scheme are expected to maintain boundary fences to ensure that deer are excluded from the woodland, and must make a submission detailing deer control activities and ecological recovery each year to enable re-payment. That submission must include evidence of the habitat monitoring that has been undertaken (to be repeated annually using the herbivore impact assessment method and field guide below) the supporting documentation must include:</p> <ul style="list-style-type: none"> <li>• a map showing the area that is being claimed and any relevant survey information</li> <li>• their habitat monitoring results</li> <li>• their cull records for verification.</li> </ul> <p><b>This option fully supports the SBS target to improve Native Woodland Condition and supports some delivery against the 10,000 ha native woodland restoration target.</b></p>  |
| Sustainable Management of Forests - Species Conservation - Reducing Deer Impact | 6,352  | <p>The aim of this option is to <b>reduce deer impacts</b> to a level that will allow the regeneration of unprotected soft conifer and broadleaved species at a landscape scale, to help diversify forests and improve their conservation value.</p> <p>Grants are available to help reduce deer numbers or maintain them in the range of five to 10 deer per square kilometre. This is an annual grant to support the costs of labour for culling and monitoring deer populations. Landowners must have a <b>Deer Management Plan</b> approved by Forestry Commission Scotland. This plan must show that regeneration of soft conifer or broadleaved species will take place if the plan is successfully implemented through density reducing deer culls.</p> <p>Landowners can get direct entry into this option by providing damage assessments from the past five years, to show that damage has been limited to 10 per cent across all conifer species and 25 per cent on broadleaved species. Uptake of the grant option indicates a planned commitment to keep damage to within these levels.</p> <p>Landowners can access this option with an approved Woodland Improvement Grant Deer Management Plan. Through this route we expect that the effects of culling will show improvement in reducing the levels of damage recorded. There needs to be a commitment to get the damage levels down towards those indicated above during the five years of the contract. If the survey shows a density of higher than 20 deer per square kilometre at the start of the proposed Deer Management Plan period, applicants <b>must reduce it</b> to below this level before they can apply for this option.</p> <p><b>This option partially supports the SBS target to improve Native Woodland Condition.</b></p> |
| Forestry Co-operation   | 489    | <p>Additional grant support is provided for a range of collaborative projects that address numerous issues such as landscape-scale woodland deer management proposals to bring woodlands into good condition, or woodland creation projects which deliver landscape-scale expansion of forest habitat networks through deer management.</p> <p><b>This option partially supports the SBS target to improve Native Woodland Condition.</b></p>   |
| Woodland Improvement Grant - Deer Management Plan                               | 11,092 | <p>This option provides grant aid to help owners or occupiers of forested land obtain and prepare the data they need to formulate a robust <b>Deer Management Plan</b>. The plan is then intended to help them reduce deer populations in order to secure the regeneration of broadleaved and/or diverse conifer species. This grant is for the work required to carry out the population survey and baseline damage assessment at a landscape scale.</p> <p>The aim of the <b>Deer Management Plan</b> must be to reduce deer densities to an agreed target. We would normally expect this to be in the range of five to 10 deer per square kilometre within three years, and then to maintain them at that level for a further two or more years. The actual deer density and the target population will</p>  |

|   |      |   |
|---|------|---|
|   |      | <p>depend upon the quality of the habitat and carrying capacity of the woodland, and the level of damage being experienced.</p> <p>The Deer Management Plan must be based on an accurate, independent third-party assessment of deer densities. The survey results will be used to develop a deer population model for the area in question, and hence a robust culling plan.</p> <p>This survey method may not be appropriate for all situations and so landowners are encouraged to fully discuss the proposal with local Scottish Forestry staff as soon as possible. Deer Management Plans will need to be prepared at a landscape scale in collaboration with neighbours in order to be effective. Involving a number of woodland properties will achieve the scale necessary to cover a significant proportion of the deer population in that area and so reduce the impact of immigration and emigration on the population. We provide an estimate of 500 to 10,000 hectares as the most appropriate range of land area for the plan to cover. Small areas are unlikely to be effective in dealing with the population level reduction required to be effective.</p> <p>Not all schemes that have made use of this grant option have given rise to delivery to on site management. Some areas are still being planned and could be submitted for approval (for Sustainable Management of Forests - Species Conservation - Reducing Deer Impact or Sustainable Management of Forests - Native Woodlands) in future years.</p> <p><b>This option partially supports the SBS target to improve Native Woodland Condition.</b></p> |
| Woodland Improvement Grant - Woodland Grazing Management Plan | 1784 | <p>The Woodland Grazing Management Plan is indirectly related to delivery of woodland condition improve as it encourages landowners and woodland owners to reflect on the existing impact of wild herbivores on their woodland type, its grazing history, and any site-specific management objectives. Managers are expected to describe the expected environmental impact of intended livestock grazing by taking full account of the current impact of grazing by wild deer.</p> <p>Woodlands are only eligible if they appear on the <a href="#">Native Woodland Survey of Scotland</a>. They can be native woodland (including native woodland scrub communities) or they can be near native sites or other Plantations on Ancient Woodland Sites where owners intend to restore these sites to native woodland. Open ground that is integral to the woodland up to a maximum limit of 20 per cent of the total management plan area is allowed within the payment area.</p> <p>If landowners intend to expand their woodland by natural regeneration, this must be realistic and only include specific parts of the landholding where regeneration would be expected to establish if actively encouraged: they must not include areas of open hillside or farmland.</p> <p>Landowners must have prior agreement with Scottish Forestry and/or Scottish Natural Heritage (for designated sites or national scenic areas) that your woodland is appropriate for this option.</p> <p><b>This option partially supports the SBS target to improve Native Woodland Condition.</b></p>   |

## Annex 12 Summary of SNH provisions under Deer (Scotland) Act 1996 as amended

Table a) Summary of SNH regulatory provisions on deer management

| Deer (Scotland) Act 1996 | Summary of Provision  | Recent Amendments<br><br><i>The Land Reform (Scotland) Act 2016 (LRA) &amp; Wildlife and Natural Environment Act (2011) (WANE)</i> |
|--------------------------|---|--|
| Section 4                | Appointment of Panels to provide advice to SNH on any of its deer management functions  | By the LRA to consider community engagement  |
| Section 5                | Sets the requirement for close seasons and provides the mechanism to allow SNH to issue Out of Season authorisations where we are satisfied that this is necessary to prevent damage by deer  | By WANE to provide for General Authorisations  |
| Section 5A & B           | Code of Practice – SNH must draw up a code for the purpose of providing practical guidance in respect of deer management and review compliance with the code  | WANE introduced the requirement to produce the code and LRA to review compliance   |
| Section 6A               | Deer Management Plans – SNH can request a plan to be prepared and submitted for approval  | By the LRA to require deer management plans  |
| Section 7                | SNH can agree a control agreement where we are satisfied that deer have caused or are likely to cause damage or if deer have become a danger or potential danger to public safety   | No recent amendments   |
| Section 8                | Control schemes follow on from failure of a control agreement or where SNH has failed to reach agreement  | Amended by WANE to make the link between S7 and S8 more effective  |
| Section 10 and 11        | SNH can ask for, or take, emergency measures to kill deer that are causing damage if we are satisfied that none of our other powers are adequate to deal with the situation   | Amended by WANE to include welfare   |
| Section 12               | Provides a mechanism whereby SNH can provide services or equipment associated with the killing of deer  | No recent amendments   |
| Section 18               | Night shooting of deer can be authorised to prevent damage or in the interests of public safety. A Night Shooting Authorisation is required for anyone shooting deer between one hour after sunset and one hour before sunrise regardless of the time of year or target species | Amended by WANE to include Public safety   |
| Section 40 and 40A       | Provides the mechanism for SNH to serve notice on owner/occupiers of land to provide cull returns of the number of deer killed or planned to be killed in the following year  | Amended by LRA to include the ability for SNH to require a return on the number of deer <i>planned</i> to be killed                |



## Annex 13 SNH response to Deer Panel Review of Authorisations 2016 recommendations

| Panel Recommendations   | Work being taken forward  |
|---|---|
| Recommendation 1: SNH should review and publish authorisation guidance for applicants which provides clarity on the expectations and behaviours of both the applicant and potentially affected parties. The Panel recommend a more explicit requirement in the application process to provide evidence of communication regarding previous efforts to find collaborative solutions. A worked example of an application outlining the level and nature of the detail sought would be helpful | Revised <a href="#">Authorisation guidance</a> published.   |
| Recommendation 2: Given that authorisations have the potential to impact on neighbours, and in the pursuit of the Better Regulation agenda, it is suggested that a summary of applications (minus any sensitive personal data) and their results should be made publicly available.   | Format and process for collection of data agreed. Published quarterly.  |
| Recommendation 3: SNH should consider the annual publication of data on deer culls including out of season and night shooting.  | Format and process for collection of data agreed. Published annually.   |
| Recommendation 4: Collaborative Deer Management Planning and Plans should be considered in assessing authorisation applications.  | Incorporated in published guidance.   |
| Recommendation 5: SNH authorisations guidance should be updated to better reflect SNH's approach to assessing resources as part of the test of 'other reasonable means'.  |   |
| Recommendation 6: SNH should consider the case for increasing the period of site specific authorisations beyond the current maximum 12 month period where there is evidence that ongoing use of out of season or night shooting will be required.   |   |
| Recommendation 7: SNH should consider taking a risk-based approach to site visits to avoid expending unnecessary resources, as opposed to prescriptively conducting repeat site visits on a three year basis.   | Incorporated in guidance and adopted.   |
| Recommendation 8: SNH should consider working with training providers to develop training on control in areas of high public access in order (i) to address the likely prospect that more deer control will be necessary and (ii) to give the public further assurance of competence.   | LDNS and Best Practice have considered whether there is a need for formal accreditation or bespoke training. An outline course was trialled in the Central belt. The conclusion drawn was that the DSC1 provided the competence level required. Interacting with the public while stalking, is now covered in deer stalking courses organised by shooting organisations such as BASC and BDS. |
| Recommendation 9: SNH, in conjunction with the Wild Deer Best Practice Steering Group, should consider the role and training of dogs for use during night shooting.   | After discussions with key 'dogs for deer' training organisations a revised version of the use of dogs guide was presented to the Best Practice Steering Group and is on track for publication in November 2019.  |
| Recommendation 10: SNH should consider undertaking research to gather more objective data from those undertaking culls on aspects of welfare and efficacy associated with night shooting.   | An internal review of the Cockram Report concluded that as conditions in relation to shooting at night with a lamp had not materially changed, the report was still relevant. As any further issues arose this position would be  |

|   |  |
|---|--|
|   | reviewed.  |
| Recommendation 11: SNH should consider undertaking work to establish whether there are benefits for safety, efficacy and deer welfare associated with permitting use of night vision and image intensifying scopes for culling deer. (NB - Any change to allow the use of night sights for deer would require a change to the Deer (Firearms etc) (Scotland) Order 1985)          | Project plan in place produced by Prof Jimmy Simpson with statistical input from Glasgow University. Agreement from FLS to carry out culling and record findings. TI and NV equipment procured by FLS and SNH. Approval received from SG to undertake trials under license. Stakeholders will be updated through DMRT and bilateral discussions. |
| Recommendation 12: SNH should review the demand for, and the likely welfare implications of, April and September shooting of females, and consider any required changes to the seasonal restrictions currently placed on the General Authorisation as well as on the conditions currently generally placed on the shooting of females under Specific Authorisations.              | Information on the demand and need was asked in annual cull returns for 2016/17. A review has not yet been undertaken due to competing demands on resources.   |
| Recommendation 13: SNH should develop an audit process for assessing balancing duties and should provide this when refusing or applying conditions to any authorisation.  | Incorporate in published guidance.   |
| Recommendation 14: The Panel recommends moving towards a streamlined approach to the control of deer out of season and at night, but does not, at this time, propose significant changes in the use of Specific or General Authorisations. Moving forward, SNH should consider how best to align the different approaches to land use and damage type that are currently in place | Further consideration will take account of the DWG review and recommendations.   |

## Annex 14 Site accounts in relation to voluntary control agreements (Section 7)

### 14.1 Details of concluded Section 7 agreements

#### *Mar Lodge 2010 – 2017*

SNH and the National Trust for Scotland (NTS) signed a Section 7 agreement in 2010, covering 29,000 ha; with a 10 year term. The main purpose of the agreement was to underpin the estate's deer management plan, protect the public investment in the site and ensure damage to woodland was prevented, in particular the designated Caledonian Pinewood habitats in the Cairngorms Special Area of Conservation.

The estate was split into two zones to facilitate the management of conservation and sporting objectives before the control agreement began. A population target for the property was set for the moorland zone for 1,650 deer, a density of 5.6 deer per km<sup>2</sup>. The cull to protect the designated woodland was focused on the woodland zone of the estate with most effort on controlling all deer in this area.

Although the deer density target on the moorland zone was not quite met, monitoring in 2015 had showed that reductions in deer numbers during the agreement had led to woodland habitat targets being met, with overall browsing levels being reduced and widespread recruitment of tree seedlings.

SNH and NTS, along with neighbouring estates and other local and national stakeholders, agreed in early 2017 that the Section 7 agreement could be terminated as damage to the key habitats was being prevented. It was considered that a formal agreement was no longer necessary and any specific instances of further deer impacts could be dealt with through other SNH authorisations if required. The agreement was terminated on 27 April 2017.

NTS monitoring from 1998 - 2018 has shown a change towards a more diverse woodland structure, with an increase in new woodland regeneration, deadwood provision and vascular plant diversity in both glens. Almost all woodland regeneration occurred between 2008 and 2018, in response to changes in deer density.

The three Deer Management Groups adjacent to Mar Lodge Estate all now have deer management plans. SNH has issued a number of authorisations to NTS to help prevent damage.

#### *Kinveachy 2005 – 2015 (extended to 2016)*

The Kinveachy Control Agreement underpinned management to prevent damage to Caledonian Forest and Bog Woodland. Management was supported with public funding through an associated Management Agreement (SNH) and Scottish Forestry Grant Scheme (FCS) and covered 8,196 ha. After several years of increased culls and adaptive management, impacts have reduced. This agreement has now concluded with the designated site management objectives supported by Scottish Forestry through a Forest Grant Scheme contract. There is regular monitoring of browsing impacts and seedling growth which is used to inform management approaches and this is reviewed under the terms of the Forest Grant scheme.

The Kinveachy site sits within the Monadhliath DMG which now has a well-developed deer management plan which incorporates actions for woodland management.

### *Breadalbane Hills 2010 – 2015*

The Breadalbane Hills Control Agreement covered 75,561 ha, of which 16,400 ha are designated for upland features. This was the first control agreement to cover a full DMG. The Agreement covered five designated sites over 27 properties. The progress made in reducing deer populations and addressing impacts under the Section 7 agreement was reported in the SNH 2016 Deer Review. Consequently SNH concluded that the objectives of the Section 7 agreement had largely been met and that there were processes in place through the DMG and DMP to monitor and review management.

No further impact assessments or census work has been carried out in Breadalbane since 2016. The DMG assessment in 2019 recognised that further work was required to develop HIA and this remains a priority action for this group.

#### *14.2 Accounts of progress on current suite of five Section 7 sites*

### *Ben Wyvis 2010 - 2015 (extension to 2019 and currently under review) – On track*

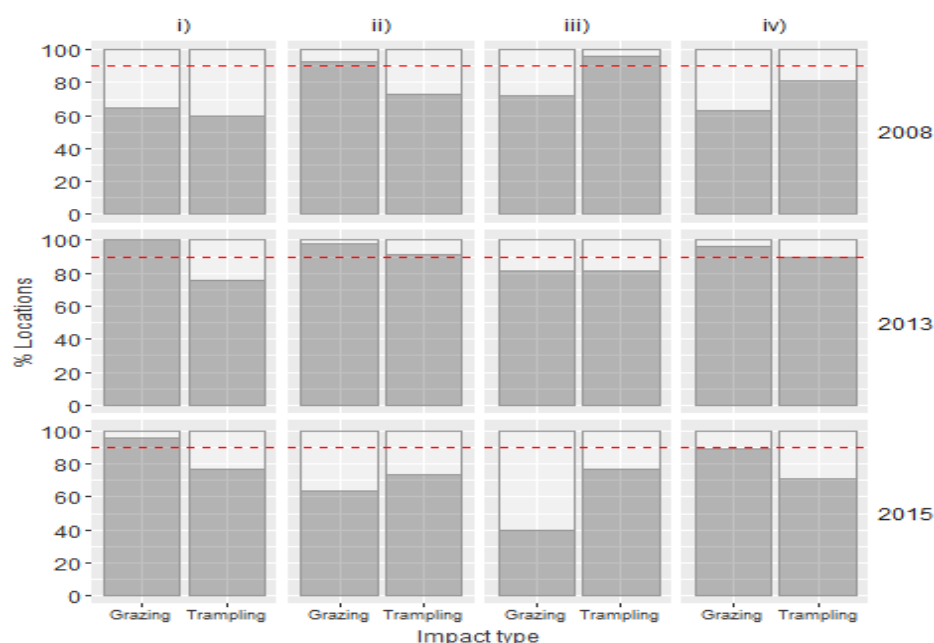
The Ben Wyvis control agreement extends to 12,031 ha and is within the North Ross DMG. The Section 7 Control Agreement was signed in July 2010. In 2013 a follow up HIA found evidence of good progress towards habitat targets, however the HIA in 2015 suggested some impacts had increased since 2013 (Figure 1). Most impacts are localised and efforts are currently targeted at reducing these through focused effort. The agreed management on these areas should allow for targets to be met. A repeat HIA is being carried out this summer (2019) with the results informing the next steps for this agreement.

Target hind culls for the Section 7 area have been exceeded in the last two years (Table a) and a census in 2019 shows an 18% reduction in deer numbers across the control area since 2015. The agreement will continue until SNH are confident that the habitat targets are moving in the right direction and the DMG demonstrate ownership for managing the Protected Area interests.

Table a) Hind culls and counts associated with Ben Wyvis SAC Section 7

| Hind culls |                 |           |
|------------|-----------------|-----------|
| Year       | SNH Recommended | Delivered |
| 17/18      | 193             | 205       |
| 18/19      | 60              | 119       |
| Counts     |                 |           |
| 2015       | 1147            |           |
| 2019       | 941             |           |

Figure 1 Ben Wyvis SAC HIA results – Shows the proportion of plots (with a median impact) within the desirable impact range for the given feature type. The red dotted line indicates the target across the site. Features of interest data is i) Alpine and subalpine heaths, ii) Blanket bog, iii) Dry heaths; iv) Montane acid grasslands.



#### Fannich Hills 2010 – 2020 – On track

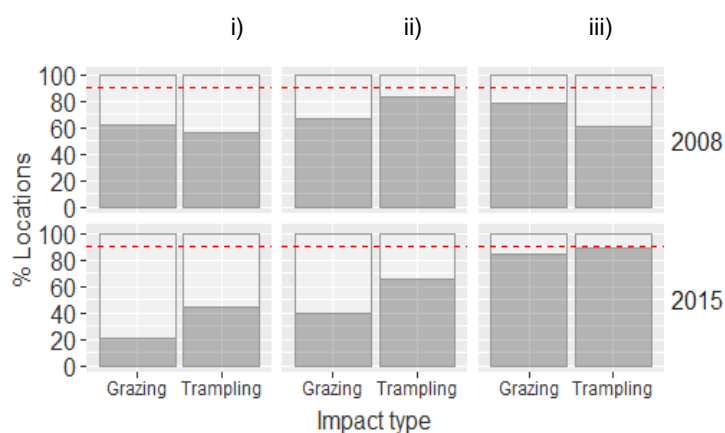
The Fannich Hills SAC covers 9,500 ha, comprising Fannich Estate, Strone (Foich) Estate and Kinlochluichart Estate. All four owners signed the Section 7 Control Agreement with the control agreement area extending to 19,612 ha. The deer population target (11deer per km<sup>2</sup>) was achieved in year five of the agreement. A census in 2018 shows a 22% reduction in deer numbers across the control area since 2015. Habitat targets for blanket bog and dry heath were some way from being met in 2015. An HIA is being carried out this summer (2019) and the results will inform the next steps.

Table b) Hind culls and counts associated with Fannich Hills SAC Section 7

| Hind culls |                 |           |
|------------|-----------------|-----------|
| Year       | SNH Recommended | Delivered |
| 17/18      | 281             | 373       |
| 18/19      | 159             | 67*       |
| Counts     |                 |           |
| 2015       | 2137            |           |
| 2018       | 1677            |           |

\*target met over two years.

Figure 2 Fannich Hills SAC HIA results - Shows the proportion of plots (with a median impact) within the desirable impact range for the given feature type. The red dotted line indicates the target across the site. Feature of interest data is i) Blanket bog, ii) Dry heaths, iii) Montane acid grasslands.



*Beinn Dearg 2010 – 2015 (extended and currently under review) – New agreement proposed*

Beinn Dearg SAC covers an area of 13,894 ha that encompasses seven different properties totalling 46,389 ha. The Section 7 was signed in 2010 on the back of the collaborative Upland Habitat Management Plan commissioned by SNH/Deer Commission for Scotland (DCS) in 2009. The 2013 HIA showed increased trampling impacts and the 2015 HIA showed maintained or increasing impacts on three of the four habitats monitored - blanket bog, montane acid grasslands, montane willow scrub and alpine and sub-alpine heaths (Figure 3).

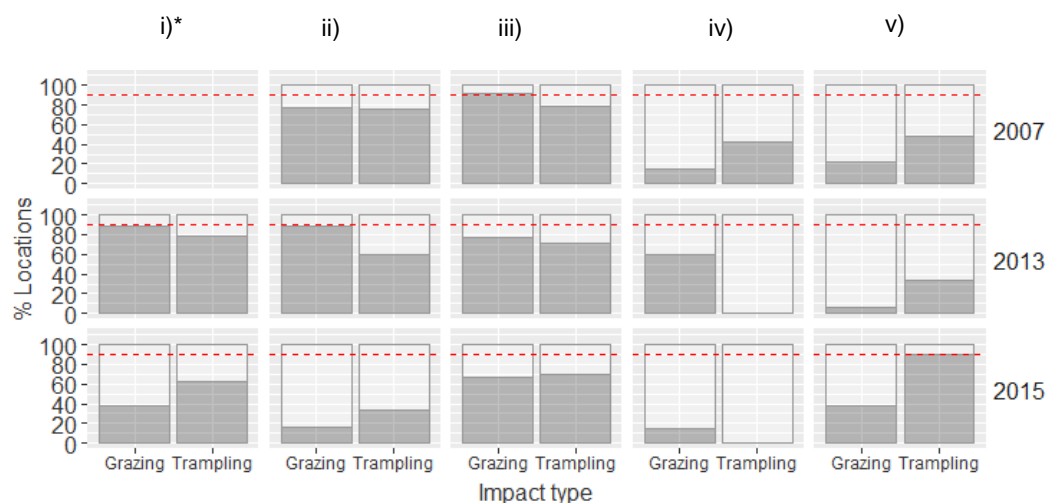
The original population model produced a spring target population of 5166 red deer by 2015 which it was expected would lead to a reduction in impacts. Cull targets were not met in the period 2010 - 2017, but were exceeded in 2017/18. Winter 2018 delivered a high mortality of red deer in parts of North Ross and some estates lost confidence in the population model. As a result the 2018/19 culls were well below target. The spring population target was met for the first time when counted in January 2019.

Table c Hind culls and counts associated with Beinn Dearg SAC Section 7

| Hind culls |                 |           |
|------------|-----------------|-----------|
| Year       | SNH Recommended | Delivered |
| 17/18      | 625             | 738       |
| 18/19      | 551             | 278       |
| Counts     |                 |           |
| 2015       | 6198            |           |
| 2019       | 5102            |           |



Figure 3 Beinn Dearg SAC HIA results - Shows the proportion of plots (with a median impact) within the desirable impact range for the given feature type. The red dotted line indicates the target across the site. Feature of interest data is i) Alpine and subalpine heaths (\*not assessed in 2007), ii) Blanket bog, iii) Montane acid grasslands; iv) Mountain willow scrub; v) Species-rich grassland with mat-grass in upland areas.



Wider analysis of culls and deer populations in 2017 revealed that neighbouring estates were culling well below recruitment and securing higher culls on these properties would be needed to reduce the risks to SAC habitats. This information was shared with the DMG and higher culls were delivered on the Beinn Dearg estates and many of the surrounding estates in 2017/18. After further analysis of the situation in 2018, it was agreed that targeted culling of hinds across the wider area was necessary to effectively control the population at a wider landscape scale and therefore a revised Section 7 was proposed in June 2018.

A count of the North Ross DMG area was undertaken in January 2019 which showed an 18% reduction in population from 2015 to 2019. A new control agreement over a wider area of the DMG is being consulted on and at the time of writing is still in protracted negotiation. We are in the process of agreeing a revised population model for 16 properties to reduce hind populations and reduce impacts on the SAC.

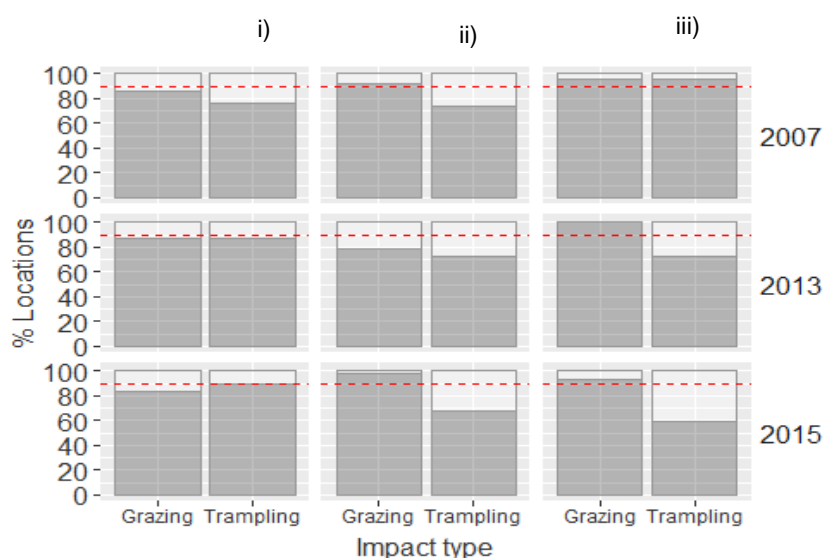
#### *Inverpolly 2010 – 2015 (extension to 2019 and currently under review) – On track*

A Section 7 Control Agreement was signed in June 2010 to help address concerns over the impacts of sheep and deer within the Inverpolly SAC. The total control area is 12,115 ha and covers three properties. The HIA of upland habitats carried out in 2015 indicted that impacts were now broadly in line with the desirable impact range for the features present and consequently most upland features are now classed as favourable or recovering due to management (Figure 4). The 2016 count indicated the deer density was also within target. Cull levels have increased and the signatories continue to meet their deer population targets across the control area. Culls on neighbouring North Ross are likely to increase under the revised Section 7 and this is likely to result in reduced immigration to Inverpolly from this area.

Table d) Hind culls and counts associated with Inverpolly SAC Section 7

| Hind culls |                 |           |
|------------|-----------------|-----------|
| Year       | SNH Recommended | Delivered |
| 17/18      | 80              | 68        |
| 18/19      | 70              | 66        |
| Counts     |                 |           |
| 2013       | 622             |           |
| 2016       | 561             |           |

Figure 4 Inverpolly SAC upland HIA results - Shows the proportion of plots (with a median impact) within the desirable impact range for the given feature type. The red dotted line indicates the target across the site. Feature of interest data is i) Blanket bog, ii) Dry heaths, iii) Montane acid grasslands.



Consideration is being given to extending the control agreement to support Scottish Forestry in their work to address favourable condition in the woodlands where herbivore impacts on woodland habitats have not been reduced. Tree seedling surveys were initiated in 2008 with the intention of repeating annually until 2015. Initial results showed significant impacts from deer outwith enclosures. A fire within the SAC in 2011 affected areas of the designated woodland. The Section 7 signatories have agreed in principle to plans to improve woodland feature condition on their properties, but there are a number of issues which require to be worked through relating to grant eligibility. Scottish Forestry is working with individual woodland owners to address these issues.

#### *Caenlochan Glen (2003 – 2013) then (2014 - 2019) – Agreement to be reviewed*

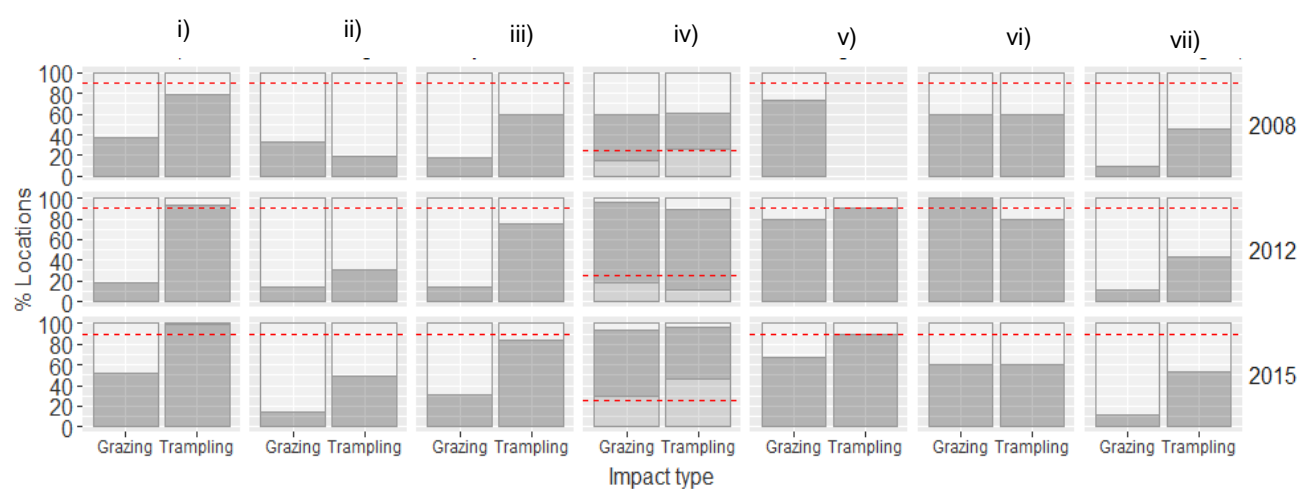
Caenlochan is the longest running control agreement with the initial agreement signed by ten ownership units in 2003 to prevent damage by deer to upland habitats in Caenlochan Glen. The control area was much larger than the Glen, covering 25,337 ha to manage the highly mobile deer population within the area. An agreement over an extended area (13 properties and 34,144 ha) was signed in 2014. This agreement seeks to deliver favourable condition on upland habitats over the Caenlochan SAC, Garbh Choire and Glen Callater SSSIs.

Caenlochan supported some of the highest densities of deer in Scotland and the initial target in the first Section 7 was to reduce the deer population from a summer density of 44 deer per km<sup>2</sup> to a density of 19 deer per km<sup>2</sup> by 2007 (year 4 of 1<sup>st</sup> agreement). Cull levels increased dramatically with support from the DCS and population numbers reduced

significantly. Counts showed populations fell from almost 12,000 to 6,000; however, by the end of the agreement in 2013 the population density target had not been reached.

HIAs were carried out in 2008, 2012 and 2015 and most recently in 2018 on seven habitats. Over this period, habitats targets have been far from the levels considered to be required to achieve favourable habitat condition (Figure 5).

Figure 5 Caenlochan SAC HIA results - Shows the proportion of plots (with a median impact) within the desirable impact range for the given feature type. The red dotted line indicates the target across the site; for flushes the target has two parts with all impacts anticipated to be below M and no more than 25% of plots as M. Features of interest data is i) Alpine and subalpine heaths, ii) Blanket bog, iii) Dry heaths; iv) Flushes; v) Montane acid grasslands; vi) Mountain willow scrub; vii) Species-rich grassland with mat-grass in upland areas.



The current agreement is underpinned by a DMP which aims to reduce impacts by deer, primarily by encouraging deer to become hefted away from the designated sites, while (at least initially) maintaining deer numbers at around a summer density of 19 deer per km<sup>2</sup>. From 2016 two DMGs have covered the Section 7 area: one in the north, South Deeside and Angus; one in the south Glen Isla / Glen Shee - East Grampian Sub Area 1, which has recently re-established.

An SNH helicopter deer count in January 2018 recorded a significant increase in deer numbers. It is likely that the main reason for population increase has been the underestimation of recruitment with the result that the population model underpinning the deer management plan was incorrect and therefore culls were too low. In addition, recommended actions to encourage deer away from designated sites either were not carried out or were not successful.

As a result an enhanced hind cull was undertaken by the end of March 2018. After a review of cull options and the population model, the two DMGs agreed a significantly increased hind cull in the Section 7 area for winter 2018/19.

Table e) Hind culls and counts associated with Caenlochan SAC Section 7

| Hind culls    |                 |           |
|---------------|-----------------|-----------|
| Year          | SNH Recommended | Delivered |
| 17/18         | *               | 1070      |
| 18/19         | 1900            | 2091      |
| Counts        |                 |           |
| 2016(winter)  | 6656            |           |
| 2018(winter)  | 8440            |           |
| 2019 (summer) | 7880            |           |

\* Cull targets were advised by the DMGs.

In 2018 SNH commissioned a combined HIA, Site Condition Monitoring and Deer Occupancy assessment in the designated sites and some surrounding areas. This information, including a population model, modelled cull targets and habitat condition targets, is set to form the basis of a strategic review of the control agreement and to recommend a way forward once the current Section 7 expires in November 2019. The draft report was received in June and is currently undergoing our internal QA prior to publication. The draft report indicates that most habitat targets remain some way from being met, with the exception of flush and montane acid grassland habitats which now meet the trampling targets. The findings also demonstrate a strong gradient of deer (and sheep and hare) occupancy across the site, with a strong relationship evident between measured occupancy and habitat impacts.

Along with an enhanced cull, in 2019 the DMG reviewed membership, governance and modus operandi. As a result, a new Deer Management Group (South Grampian) was established appointing a new and independent chairman in June 2019. The Caenlochan S7 properties are all members of this new group.

Discussions have commenced with the DMG with regard to the production of a new management plan which would provide a longer term and sustainable solution. This will require agreement over: the deer population target, the control area, habitat targets and timescales for delivery, socio-economic considerations and the form of the DMG. To enhance decision-making and effectiveness of operation, an Executive Steering Group has been formed, which will drive the business and delivery of the DMG. As an interim measure, until the new strategic review and plan is completed a shorter term, more focussed section 7 agreement is being developed to ensure continued reduction in overall population size in 2019/20.

#### 14.3 Poorly performing DMGs where SNH has initiated work since 2016

##### *East Loch Shiel*

East Loch Shiel was one of the poorer performing deer management groups in the 2016 DMG assessment round. SNH initiated and have completed a review of habitat impact data from surveys undertaken in summer 2018. These results show negative impacts are continuing to occur to the designated woodland features within three Protected Areas.

Doire Donn SSSI Upland oak woodland has poor age structure, with very few saplings or small trees and virtually no oak regeneration due to a high level of browsing (91% on oak seedlings). HIA survey of the Native pinewood feature of Ardgour pinewoods SSSI (also notified as SAC Caledonian forest) found that successful regeneration of Scots pine and downy birch is only occurring within deer exclosures, and browsing on tree seedlings is high (63% on Scots pine seedlings). For Sunart SSSI Upland oak woodland (also notified as SAC Western acidic oak woodland), oak is not regenerating due primarily to the high levels of

browsing (70% on oak seedlings). These results and our conclusions have been shared with the land owners.

Whilst the group have made progress in performance between 2016 and 2019, the DMG has not fully addressed priority criteria for actions to manage herbivore impacts on designated features. In addition the DMG has not achieved a green rating for addressing the delivery of woodland management objectives, identifying sustainable level of grazing and trampling or delivering HIA in the wider countryside.

We plan to work with the group to see whether they can identify and agree solutions to address the impacts on designated features by reviewing and implementing their deer management plans. If these are not forthcoming, we will offer a Section 7 agreement.

### *Ardnamurchan*

Ardnamurchan was one of the poorer performing deer management groups in the 2016 DMG assessment round. Recently we shared our review of HIA data for open ground and woodland habitats with the land owners (August 2019). On Sunart SSSI/SAC and Kentra SSSI Upland oak woodland sites, the current high browsing levels are unsustainable and are negatively affecting species composition and age structure. In Sunart impacts are largely attributed to deer and at Kenta both sheep and deer are causing impacts.

On Ben Hiant (Sunart SSSI/SAC) the main issue is the progressive loss of dry heath at the site due to heavy grazing from deer and sheep, and trampling on the blanket bog. Most (95.7%) of the blanket bog and all of the wet and dry heath plots were subject to chronic heavy grazing. Flush, species-rich nardus grassland and acid grassland habitats were also assessed as having chronic heavy grazing in over 70% of plots.

In the 2019 assessment, the DMG did not fully address priority criteria for actions to manage herbivore impacts on designated features. In addition the DMG has not progressed on a number of wider countryside criteria and actions relating to setting appropriate habitat impact targets. Feedback and direction from the DMG in response to the HIA reports will shape our approach as we move forward.

## Annex 15 Examples of developing local collaborative approaches

### *Cowal Deer Working Group*

Cowal historically had a DMG which ceased in its function in 2005. Since 2016 growing concerns about forest restructuring, increasing deer populations and damage to commercial forestry interests led to the formation of the Cowal Deer Working Group (CDWG) comprising the primary forestry management companies, land and deer managers, FLS, SNH and with support from ADMG. This group is now formally constituted and has a Deer Management report which provides the initial basis for the deer management planning process by identifying appropriate boundaries, key stakeholders, priorities for primary land owners and managers, availability of information and data gaps.

The CDWG has highlighted the challenges of initiating collaboration over multiple land ownerships; there are in excess of 140 properties within the CDWG area. Habitat type, forest design and age-class, access, deer movements and fecundity all have a bearing on the delivery of practical deer management. Lessons learned from the CDWG, can be applied to other areas of western Scotland where commercial forestry is the primary land use and where deer management needs to be a primary consideration.

### *Sleat Deer Management Group*

SNH received a number of complaints from crofters and private residences in the Sleat peninsula, South Skye in early 2015 regarding increases in deer damage to gardens and farming/crofting interests. Following a meeting of all interested parties, land managers in the area agreed to form a Sleat Deer Management Group and set out to address the concerns. The group initiated effective control of red deer reducing negative impacts to acceptable levels. The group elected to develop a DMP using their own resources. The group has evolved to deliver and achieve common aims. No complaints have been received from this area since the group started working together.

### *Glenrinnnes/ Cabrach Deer Management Group*

In February 2018, SNH carried out a deer count of red deer on the open range at the Cabrach. To discuss the findings of the deer count and other matters relating to deer in the Cabrach/Glenlivet area, SNH hosted a stakeholder meeting in Glen Rinnnes Hall in April 2018. At that meeting, stakeholders agreed that while deer were an asset to the area, they also represented a problem; particularly to farmers and foresters. It was accepted that a reduction in overall deer numbers was desirable.

A stakeholder group was established, with a chair and secretary, for the purpose of providing direction and guidance for stakeholders; especially with regard to setting 2018/2019 cull targets aimed at reducing overall deer numbers. Ambitious cull targets (particularly for hinds) were set for 2018/2019. Local deer managers report that the cull targets have been substantially achieved, representing a significant increase on culls in previous years.

In addition to achieving 'ramped-up' culls in 2018/2019, several deer fences have been either repaired or newly erected. The combination of increased culling and fencing is locally reported to have had a beneficial effect. There is no systematic data currently available on the size of deer population (nor on the associated impacts).

The stakeholder group is due to meet in autumn 2019 and it is anticipated that the group will discuss and agree management measures aimed at continuing to reduce or prevent damage by deer to agriculture and woodlands in the Cabrach/Glenlivet area.



### *Howe of Alford*

In November 2017, SNH hosted a meeting for stakeholders to discuss how best prevent damage by deer (mostly by red deer to malting barley) in the Howe of Alford. From that initial meeting, the stakeholders agreed that there was a pressing need to develop and implement deer management measures to reduce or prevent further damage by deer. Local land managers subsequently formed two associated groups: a working group and a wider stakeholder group. The primary purpose of the groups is to reduce or prevent damage by deer to agriculture and woodland.

The Working Group has met frequently and regularly to develop management proposals and recommendations for the Stakeholder Group. Although there have been no systematic deer population (or damage) assessments carried out in the area, the Working Group and Stakeholder Group identified that deer densities and levels of occupation/utilisation within the area were relatively high and that reduction culls were required.

Ambitious cull targets, for red deer (especially hinds), were set for 2017/2018 and for 2018/2019. Significant culls were achieved (albeit slightly lower than targets), entirely by local managers and ambitious cull targets have been set for 2019/2020. Local farmers report that, while red deer are continuing to cause damage to agriculture, the intensity and severity of the damage appears to be noticeably lower than in previous years. The HoAWMF Working Group intends to actively oversee the delivery and achievement of the deer culls in 2019/2020.

Challenges encountered by the group include difficulties associated with: a) securing funds for carrying out systematic assessments of deer populations and levels of damage, b) creating the infrastructure needed for dealing with substantial culls of red deer (in the past, culls had tended to focus on roe rather than red) and, c) dealing with deer that tend to spend significant amounts of time in concealing habitats – meaning that much of the cull has to be carried out in the close season and/or at night.

### *South East Sutherland Deer Management Group*

Deer managers within the South East Sutherland area met in November 2018 and agreed that the development of a collaborative DMP was necessary. They met again in March 2019 and became a constituted group. While SNH has supported the group and communicated Scottish Government's expectation for collaborative deer structures across the deer range and for the delivery of wider public benefits, the use of Section 6a has not been required at this point. The benefits of a collaborative Working Plan are widely recognised by members of the group. SNH has offered group support, comprising 50% of the cost of the DMP. The Group are currently proactively trying to engage a contractor to draft the plan for them and SNH are providing support with this.

### *Dunkeld Deer Forum*

The Dunkeld Deer Management Forum, Perthshire commenced in 2016 to discuss lowland deer management issues in and around Dunkeld; notably the A9 and other busy roads, significant areas of forestry, and an increasing population of fallow and probably roe deer. There is a chair and secretary, and meetings are held once or twice a year. The group does not function in the same way as a DMG since it consists of a wide range of local people interested in deer (e.g. stalkers, general public) as well as deer and land managers. The DMG model may not be appropriate in this lowland situation with large numbers of land holders. SNH continue to advise this group.



### *West Loch Lomond Deer Management Group*

West Loch Lomond DMG was previously a collaborative deer group that ceased working in 2004/5. In 2016 SNH approach the three main landowners to discuss the re-establishment of a collaborative deer group to encourage the sharing of land management information and more structured deer management across the area. Since 2016 the properties have shared deer management information and experiences and adopted a collaborative DMP in 2018. In April 2019 SNH carried out a deer count across the group area to assist with setting cull targets that will help reduce deer impacts to woodland (including designated sites), agricultural land, natural heritage and reduce the risk of DVCs on local roads. The group is open to other land managers within the area.

### *East Loch Lomond Land Management Forum*

East Loch Lomond Land Management Forum was previously a collaborative deer group that ceased working in 2004/5. In 2017 SNH were approach about re-establishing a collaborative land management forum and through further dialogue with the support of Loch Lomond & Trossachs National Park and Forest and Land Scotland. At present, the Forum consists of 12 key landowners. The purpose of the forum is to discuss the opportunities for a collaborative approach to land management on the east side of Loch Lomond, and the potential to achieve landscape-scale delivery on a number of projects. Each land manager will have their own specific outcomes, but will co-ordinate delivery in order to achieve joint outcomes and the efficient use of resources. A Land Management Plan 2019 – 2024 has been adopted, and will be available online via the [Loch Lomond National Park's website](#) by Autumn 2019. A helicopter deer count of the open hill was undertaken in March 2019, which provided deer population information. There are expansive areas of woodland habitat, and as such, management will be focussed on managing impacts.

### *Islay Rinns Deer Forum*

Islay Rinns Deer Forum was created in 2014 in response to damage to agricultural interests by marauding red deer and impacts to designated sites in the area. The group aims to provide all land managers on the Rinns with an opportunity to raise damage concerns, sharing information on deer numbers and culls. A DMP was adopted in 2018, and wider funding has also helped target a variety of collaborative land management initiatives in the Rinns area.

## Annex 16 List of SNH research reports

- [SNH Commissioned report 963 – Meeting the challenge of wild deer research to support delivery of sustainable deer management in Scotland.](#)
- [SNH Commissioned Report 948 - Trends in woodland deer abundance across Scotland 2001-2016](#)
- [SNH Commissioned Report 981 - Estimating national trends and regional differences in red deer density on open-hill ground in Scotland: identifying the causes of change and consequences for upland habitats](#)
- [SNH Research Report 1069 - Lowland deer management - assessing the delivery of public interests](#)
- [SNH Research Report 1095 - Review of compliance with the Code of Practice on Deer Management](#)
- Albon, S. D., McLeod, J., Potts, J., Irvine, J., Fraser, D. & Newey, S. 2019. Updating the estimates of national trends and regional differences in red deer densities on open-hill ground in Scotland. *Scottish Natural Heritage Commissioned Report No. 1149 (in prep)*.
- Chetwynd, T. 2019. Lowland deer management: assessing the delivery of public interests. Phase 2. *Scottish Natural Heritage Commissioned Report No. TBC (in prep)*.
- Langbein, J. 2019. Deer-Vehicle Collision (DVC) Data Collection and Analysis to end 2018. *Scottish Natural Heritage Research Report No. TBC (in prep)*.
- [Lowland Deer Panel report](#) 2019



Scottish Natural Heritage  
Dualchas Nàdair na h-Alba

**nature.scot**