ADMG ANALYSIS AND REPORT ON THE 2019 DEER MANAGEMENT GROUP ASSESSMENT PROCESS

Introduction

This report has been produced by the Association of Deer Management Groups (ADMG) on conclusion of the 2019 Deer Management Group (DMG) Assessment process undertaken by Scottish Natural Heritage. The information generated by SNH has been collated from individual DMG areas by ADMG. SNH are undertaking a review of deer management for submission to Scottish Government Ministers in September 2019 and are expected to include coverage of the Assessment process within that.

This report is intended to provide feedback to member DMGs on the Assessment process, how it went and pointers for the ongoing development of collaborative deer management in the areas of Scotland covered by DMGs; also, to invite members to make comments and to contribute ideas on how the process might evolve in the future.

The Assessment Process

Each DMG Assessment was split into two parts:

The **Benchmark Assessment** looks at the functioning of DMGs and is based on the Benchmark Standard developed by ADMG in 2013 and launched in 2014 after consultation with members and SNH.

The **Delivery of Public Interest Assessment** is based on the SNH document *Wild Deer: A National Approach* (WDNA*)*, which sets out fourteen areas of public interest of relevance to deer management. These include environmental, social and economic aspects of the public interest. The assessment process based on this was devised by SNH in consultation with ADMG in 2014.

The purpose of each Assessment is to analyse the functioning of a DMG and its delivery of public benefit into a series of readily understandable criteria. There are 45 **Benchmark** (functional) criteria and 56 **Public Interest** (WDNA) criteria. Each of these criteria is judged on a Red/Amber/Green basis, where:

Green - delivery is good and in line with Benchmark and WDNA expectations

Amber - delivery is mixed or variable in quality

Red - delivery is poor or processes are weak or non- existent.

An initial Assessment took place in 2014. It was repeated in 2016 and the 2019 Assessment is therefore the third time this exercise has been carried out by SNH. The 2019 Assessment has generated much valuable information which can be used to demonstrate progress at both local and national level and indicate future direction. By identifying specific strengths and weaknesses the Assessment process has allowed ADMG and industry consultants to support individual DMGs in relation to their particular circumstances. SNH too has been able to target additional resources to the Groups which most need support which is mainly delivered through the SNH Wildlife Management Officers (WMOs).

It is important to note that the Assessment process is continuing to evolve and to become more informative. In 2014 the process was at the trial stage with a view to a self-assessment approach. The public interest criteria in particular represented a new way of thinking about deer management and DMGs were therefore being assessed on criteria which may not have been considered before. This unsurprisingly resulted in a preponderance of lower scores. While the 2014 Assessment is now treated as being the baseline for subsequent SNH three yearly Assessments, (matching the requirement for triennial Scottish Government reviews of the deer sector introduced in the Land Reform [Scotland] Act 2016), it was a reflection of what was known about DMG areas at that time rather than a useful measure of performance.

In the period between the 2014 and 2016 Assessments there was a concerted effort to build capacity at DMG level to engage in deer management planning which incorporated public as well as private interest objectives. The Scottish Government provided grants (£200,000 in total) to assist the development of a new generation of Deer Management Plans (DMPs) and SNH allocated additional staff resource to help support the process.

ADMG also increased its ability to support DMGs by promoting the development of consultancy capacity within the sector which resulted in most new generation DMPs being professionally produced.

The 2016 Assessment was carried out with DMG Chairs and Secretaries by SNH Wildlife Management Officers with oversight from SNH Area Managers leading to some subsequent grading adjustments.

In the months leading up to the 2019 Assessment ADMG offered a "Health check" process to all DMGs and this was universally taken up. This involved funding a consultancy meeting with each DMG to carry out a mock Assessment. It proved particularly useful in identifying areas requiring additional attention prior to the SNH 2019 Assessment. The total cost of the Health check was in the order of £40,000, drawn from the ADMG Project Fund.

In the run up to the 2019 Assessment ADMG worked closely with SNH to clarify what was expected of DMGs. During this process SNH identified 2019 Assessment priority criteria (36) which allowed ADMG to focus DMG support and set topics for workshops for DMG Chairs and Secretaries.

The 2019 Assessment process was initiated for each Group by a desktop Assessment carried out by the SNH WMO, followed by a meeting with DMG representatives at which each criteria was discussed and an evaluation of progress in delivering actions agreed, with Groups providing evidence where required. In almost all cases Groups were supported by their "Health check" consultants with an additional contribution to cost from ADMG project funds.

In summary, and having had feedback from member DMGs, ADMG considers that the 2019 Assessment was a more consistent, interactive and fair process than either of the preceding Assessments and the results, as summarised below and in the Appendices to this Report, reasonably reflect the progress made at DMG and sector level over the last three years.

As an additional comment it should be noted that Deer Management Plans (DMPs) are normally prepared for five years with annual Action Plan updates. The start/finish dates for DMPs vary from Group to Group and they do not necessarily coincide with the Scottish Government triennial review cycle. In a number of cases therefore old generation DMPs are still in place and do not include all aspects of the new generation Plans. This will have led to a number of otherwise effective DMGs being marked down on some Assessment criteria due to process rather than practice considerations.

Analysis of the Assessment process

Detailed analysis of the results of the 45 Assessments is contained within the Appendices to this report, as follows:

> **Appendix 1** – Diagrammatic representation of change 2014/2016/2019
>
> **Appendix 2** – Percentage progression in DMG scores 2014/2016/2019
>
> **Appendix 3** – Evaluation of performance against individual Assessment criteria

While this analysis does not identify individual Group scores, the 45 DMGs assessed included:

> *Affric & Kintail, Ardnamurchan, Arran, Balquidder, Blackmount, Breadalbane, Cairngorms/Speyside, East Knoydart, East Loch Ericht, East Loch Shiel, East Ross, East Sutherland, EGDMG (Birse), EGDMG (Glen Isla/ Glenshee)*, EGDMG (South Deeside/ north Angus), EGDMG Sub 5 (Upper Deeside & Donside), Gairloch, Glenartney, Glenelg, Glenmoriston, Harris & Lewis, Inveraray/Tyndrum, Islay, Lochalsh, Mid-West, Moidart, Monadhliaths, Morvern, Mull, North Ross, Northern, North West Sutherland, South Perthshire, Strathconon, South West Ross, Strathfarrar, Strathtay, W.Sutherland- East, W.Sutherland- North, W.Sutherland South, W.Sutherland- West, West Grampian, West Knoydart, West Lochaber and West Ross.*
>
> **EGDMG (Glen Isla/Glenshee, formerly Sub Area 1) was assessed for the first time, and on Public Interest only, in 2016.*

In 2019, SNH also assessed a number of new Groups for the first time and will report on these outwith the Assessment process. These areas include Skye, the Cowal peninsula, the Uists and Jura. A number of other notable local initiatives have developed on Donside (2), in South Sutherland, at Flanders Moss and in the Dunkeld area.

Discussion

This section considers the data gathered as a whole in **2014**, **2016** & **2019**. It assumes the same level of importance for all criteria. For each year there are 101 criteria x 45 DMGs, ie 4545 Red/Amber/Green assessments made in total (excluding the new Groups assessed by SNH for the first time in 2019). This represents a lot of very detailed information.

In Appendix 1 can be found a summary depiction of the Red/Amber/Green scores for the **Benchmark** and **Public Interest** assessments over all of the 45 Groups covering the three successive assessments.

For the **Benchmark** assessment, the red scores were significantly reduced between **2014** and **2016** as people came to understand the process and what the expectations were. In **2019** only a few red scores remain.

The amber scores also reduced noticeably between **2014** and **2016**, but significant levels of ambers were still evident. By **2019** amber marks were still present but were clustered around certain groups of criteria. Analysis of these criteria clusters is to be found in Appendix 3. There is an obvious increase in green scores in each of the Assessment rounds, so that green is heavily dominant in **2019**.

On the **Public Interest** assessment, the large areas of red scores in **2014** reflect the fact that DMG areas were being assessed against criteria that were new to them and which they had not had to consider previously. The significant change between **2014** and **2016** is therefore mainly due to DMGs understanding and evaluating these criteria as they apply to their areas although a significant number of reds was still evident in **2016**. This was partly because some criteria were still being underdelivered, particularly by some of the new DMGs in the early stages of set up and planning, and because a number of DMGs had yet to complete new generation Plans. Many of these red scores had disappeared by the time of the **2019** assessment. There were still some significant areas of amber in **2016**, and in some areas of activity, notably habitat impact assessments (HIA), delivery was poor, with only a few DMGs achieving green. By **2019**, there has been a significant reduction in amber, but there are still clusters of amber in certain criteria areas, suggesting that DMGs require more time to deliver these elements. Certainly, with habitat monitoring, the information only becomes useful after repeated monitoring cycles and, in most areas, there has only been time for a single baseline HIA. By the next Review this is likely to apply in respect of woodland HIAs as the methodology is still in development.

As with the **Benchmark** assessment, the green scores are heavily dominant in **2019**, but there is an obvious time delay between improvement in approach and operation and in delivery of additional public interest, such as measurable habitat improvement.
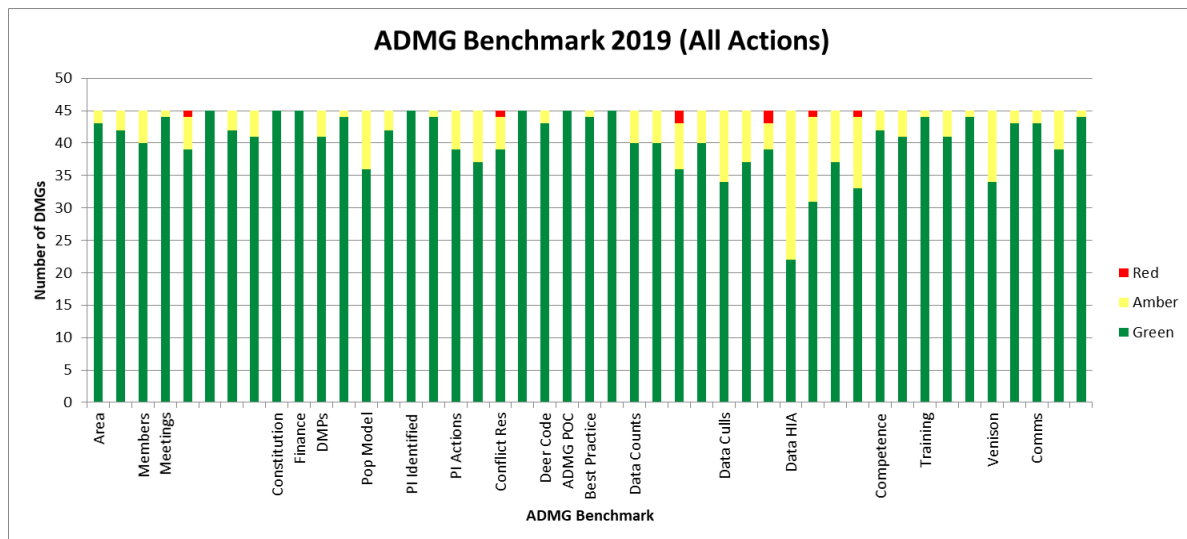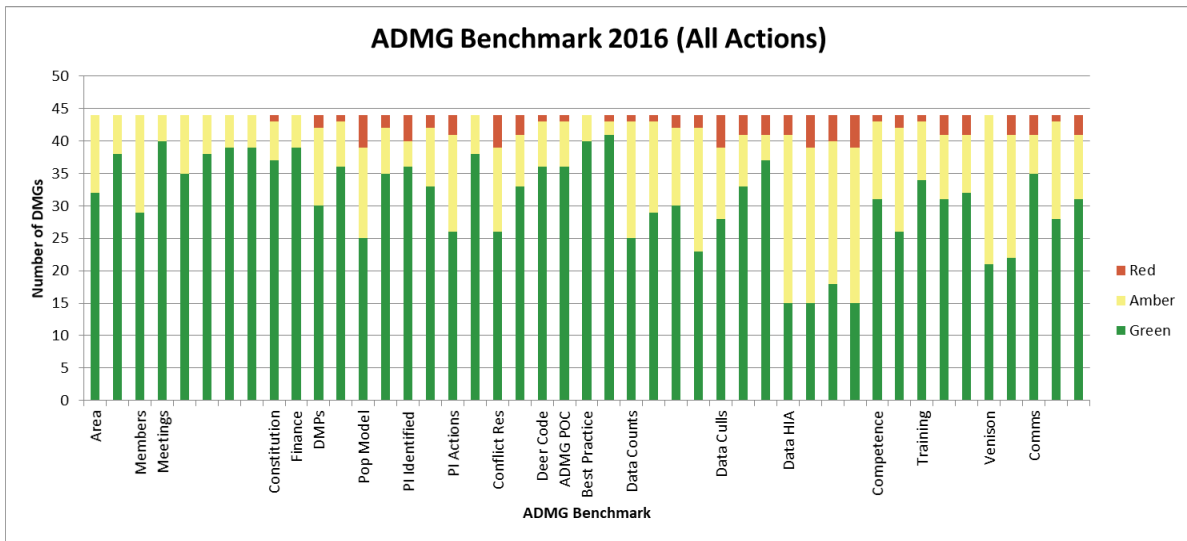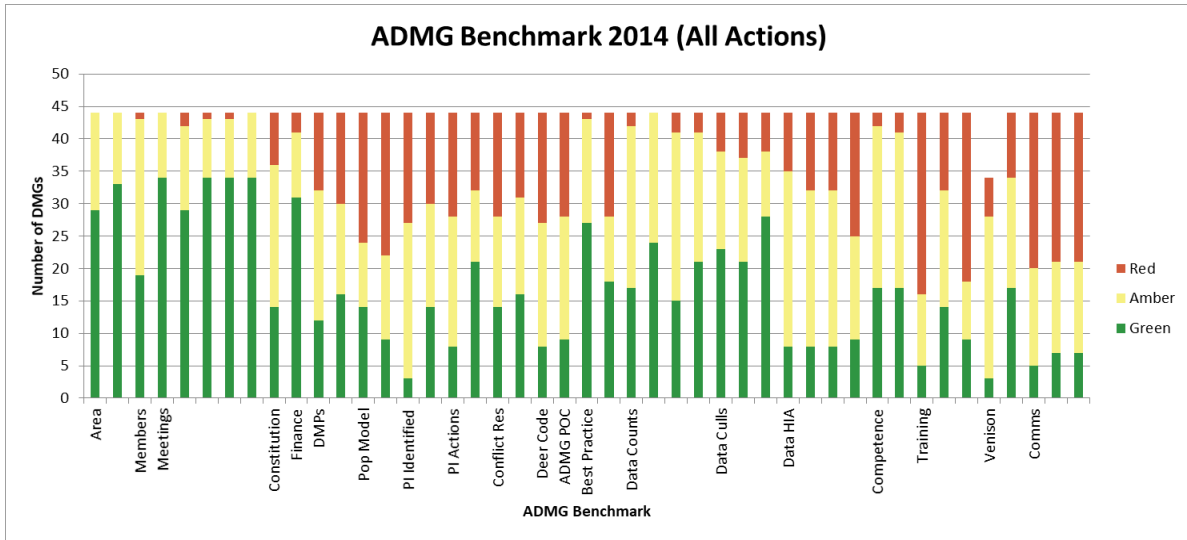
The purpose of this section is to answer the question, "Are DMGs getting better?" The answer to that question would appear to be Yes and the analysis of the data which has emerged from the 2019 SNH Assessment would also appear to indicate general progress by the upland deer sector.
Comments arising from the 2019 Assessments

The comments and suggestions below are intended to improve the assessment and delivery of some areas of public interest:

1. Population modelling in the 8 - 10 DMGs with significant areas of forestry open to deer is problematic and this is also likely to be relevant in other peripheral deer areas in the future as red deer gradually become resident around the fringes of the more traditional red deer zone. As woodland continues to expand this is a key area where we need a better understanding of population dynamics, particularly in mixed habitats.

2. Updated habitat monitoring methodology, including guidance relevant to the grass dominated hills in the west, is urgently required.

3. Many DMGs require guidance in devising impact targets for different habitat types and there is a need for a better understanding of the complex relationship between deer density and habitat impacts, as was identified in the SRUC/UHI review of research on wild deer management for the Scottish Government in 2017.

4. DMGs and individual estates would find it easier to record and present habitat data if their computer mapping capacity could be improved.

5. The SNH site condition monitoring methodology for designated sites, currently under review, should ideally be brought more into line with DMG Habitat Impact Assessments so that the two methodologies are compatible. Synchronization of these processes would make the results more meaningful and helpful in management planning.

6. The NWSS woodland survey information is 12 years out of date and is now under review. ADMG welcomes this and believes that a new survey protocol is needed and would welcome the opportunity to work with Scottish Forestry on this.

7. The SRDP funded Forestry Co-operation Grant can facilitate woodland management and expansion on a cross property basis. A review of current applications would be helpful in determining how best this is developed for future use.

8. There is currently no agreed methodology available to assess the economic impact of significant changes in land use with relation to red deer, although this is now under discussion between SNH and ADMG. This should be undertaken as a matter of priority, in conjunction with the deer sector, along with wider estate management and farming industries.

9. Further discussion is needed between SNH and ADMG as to how DMGs can demonstrate delivery of good deer welfare.

10. SQWV Ltd is currently working on a scheme for smaller producers. This should further extend quality assurance to many smaller producers and recreational stalkers who are unable to justify the cost of membership of the current scheme. This would further the progress made in the venison industry over recent years and underpin established production standards.

Appendix 1 – Diagramatic representation of change 2014/2016/2019

ADMG Benchmark 2014 (All Actions)

ADMG Benchmark 2016 (All Actions)

ADMG Benchmark 2019 (All Actions)

Public Interest 2014 (All Actions)

Public Interest 2016 (All Actions)

Public Interest 2019 (All Actions)
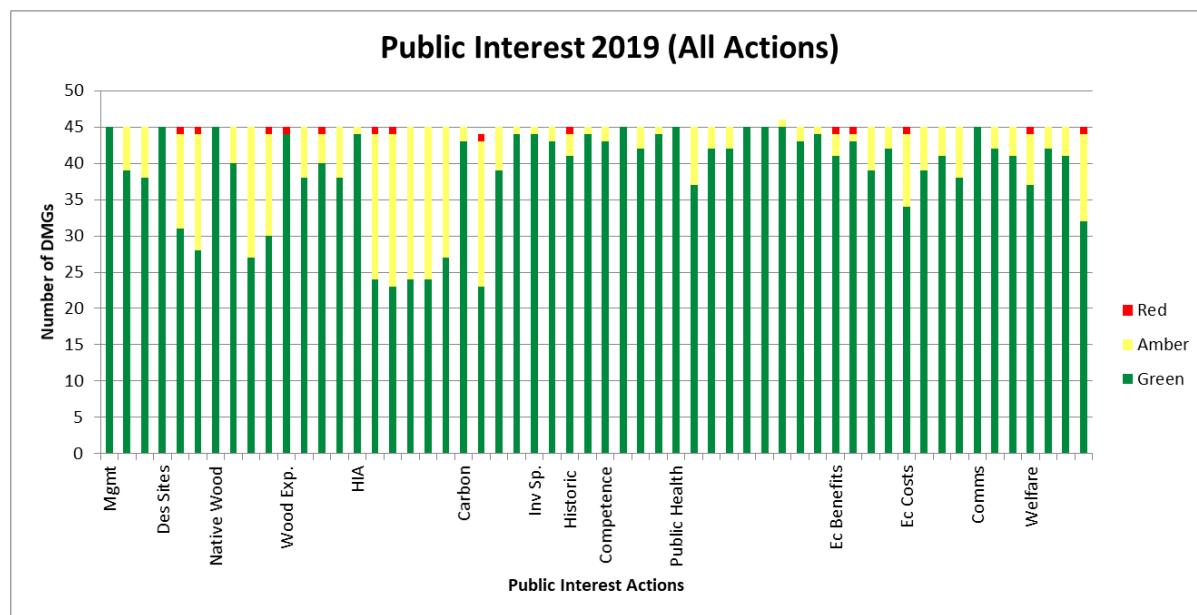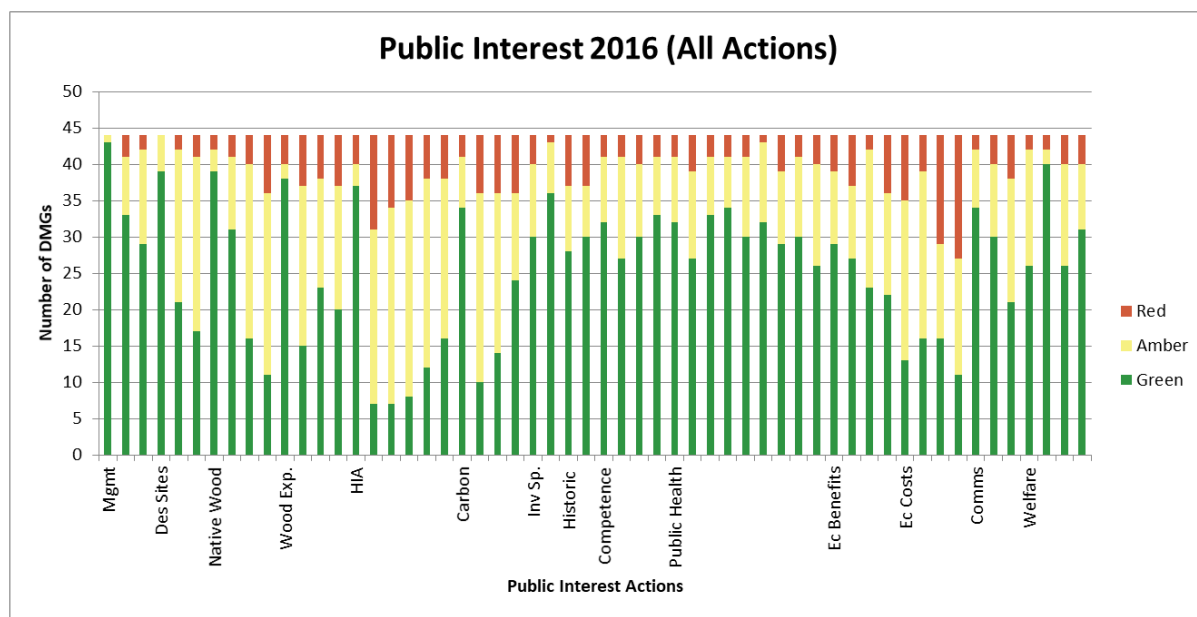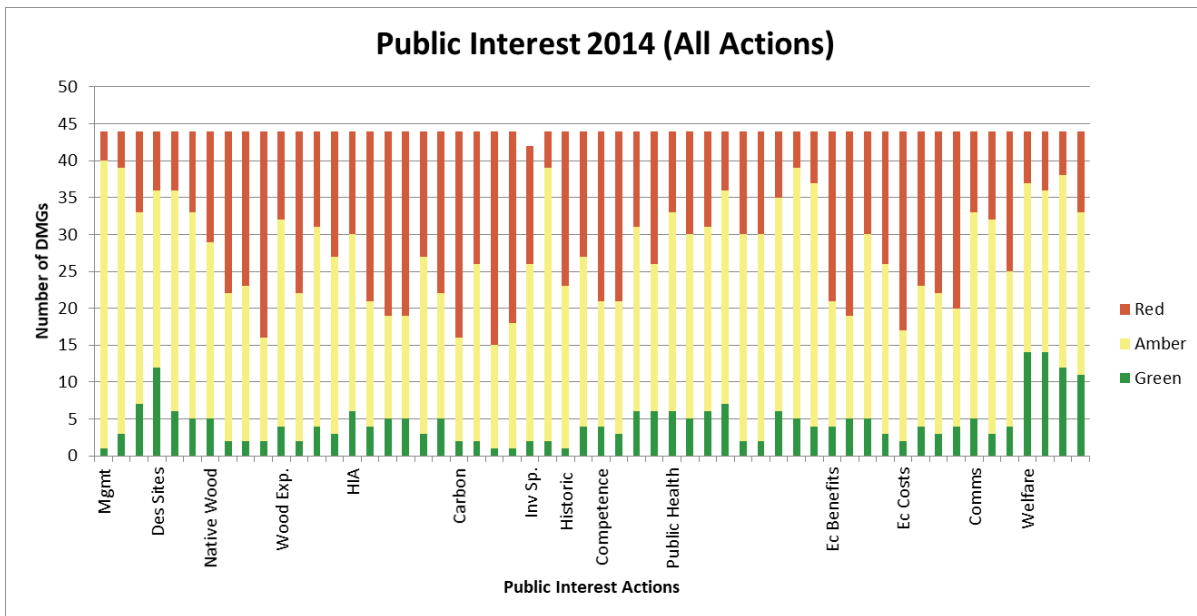
Appendix 2 - Percentage progression in DMG scores 2014/2016/2019

While the charts in Appendix 1 provide for a simple pictorial depiction of progress, they do not necessarily indicate what is going on in practical terms. In Appendix 2 an account is given of general progress at DMG level by allocating scores to the Red/Amber/Green grading of the Assessment system. For this analysis, a score of 2 is given for each green mark, a score of 1 to each amber, and a zero allocated for any reds. The scores are totalled up for each DMG area and presented as percentage figures.

In the charts below, the **Benchmark** and **Public Interest** % scores are allocated into 5 point bands, and the number shown is the number of DMGs, of the total of 45, within each banding.
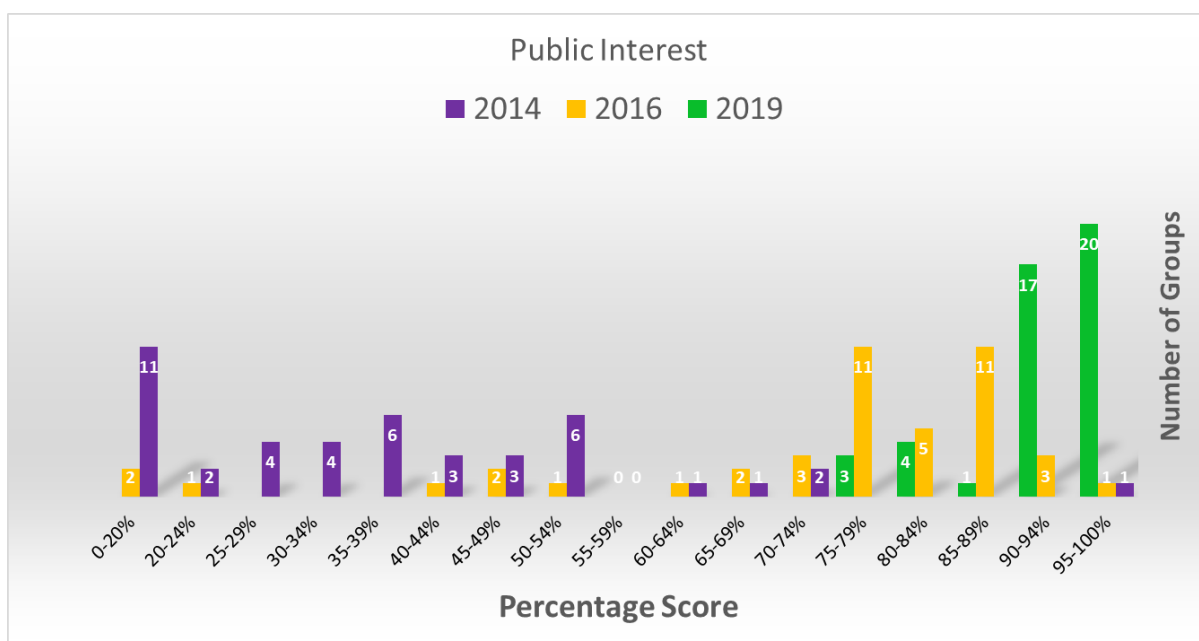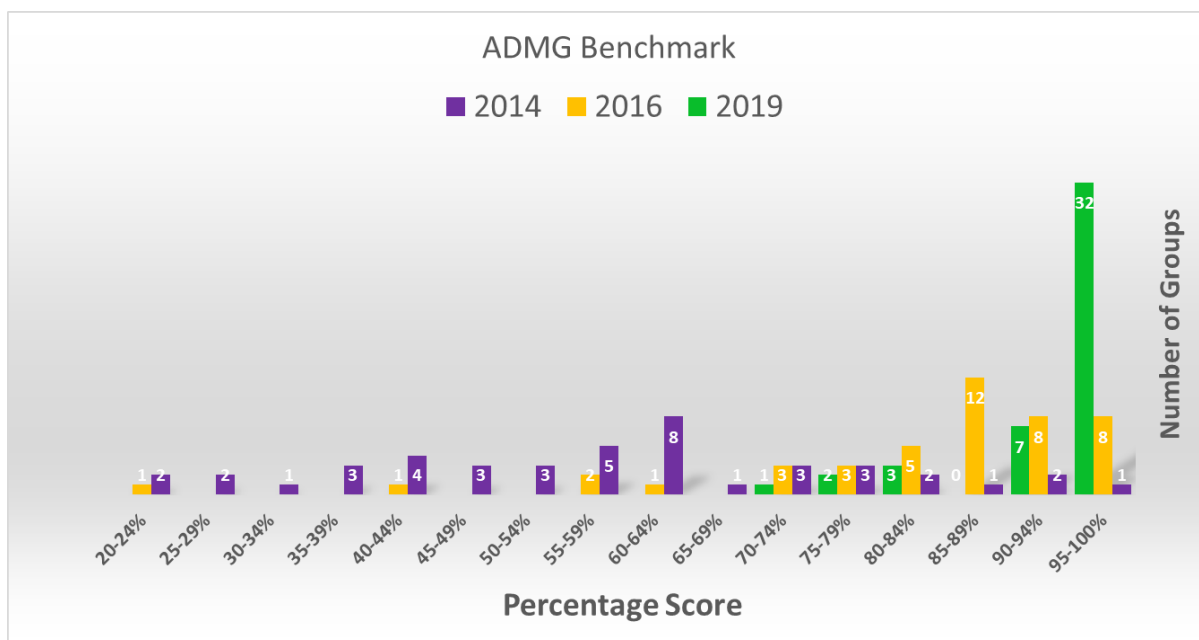
Appendix 3

Evaluation of performance against individual Assessment criteria

This Appendix comments on the 101 Assessment criteria (45 Benchmark and 56 Public Interest) one by one, with comments and reference to DMG performance against each. Prior to the 2019 assessment, SNH classified some criteria as being more important than others, and these criteria are noted in the text below, with outputs compared to SNH targets in these cases.

<u>**BENCHMARK ASSESSMENT**</u> *(Benchmark headings shown in bold, guidance in Italics, blue)*

1. Area and boundaries
1.1. Identify the appropriate boundaries for the group to operate in.

Most Deer Management Groups have long established boundaries and these are not changed or challenged without good reason. However, significant changes to land management practices, addition or removal of sheep, putting up or removing fences or higher or lower culls, can all, sometimes in combination, change the dynamics within a Group and create new movements of deer that may not have been apparent before. In many cases, it can take several years for this to happen and then stabilise, and longer for people to understand the changes and how they might be addressed. On this element of the assessment, two Groups have their boundaries under review. This suggests that they are alert to change and will consider boundary change if the evidence indicates that this is desirable.

1.2. Define appropriate sub populations where applicable

Related to the above, three DMG areas have sub area populations under review. This is important as population models are heavily reliant on having the correct boundaries and sub boundaries.   It is necessary for Groups to be aware of and react to change and it may take some time to agree boundary adjustments within a Group area.

2. Membership
2.1 All property owners within a deer range should be members of a DMG, including private and public land owners; also, where possible, agricultural occupiers, foresters, crofters and others on adjoining land where deer may be present. In some cases this may even extend to householders.

Five DMG areas are noted as Amber in having significant issues with landholdings not being members of the Group. It can be problematic if the whole local deer range, including marauding range, is not fully represented on a DMG. Population modelling is difficult if the whole deer population and the whole deer cull are not within the ambit of the DMG and this can affect overall DMG performance.

Often, there are no easy answers to this, although many Groups are able to recruit new members within their deer range over time. Several DMG areas have "reporting members" who receive Group communications and provide cull data but for whom deer management is not sufficiently important for them to be actual members of the Group. Many such holdings are upland sheep farms or crofts which happen to have a few deer as well, sometimes only seasonally.

3. Meetings
3.1. DMGs should meet regularly. Two formal meetings per year is the norm but more frequent interaction between members between meetings should be encouraged.

Almost all DMG areas now have an appropriate schedule of meetings, both formal and operational, with one exception, one of the poorer performing DMG areas.

3.2. For effective collaborative management to take place it is important that all DMG Members should attend every meeting or be represented by someone authorised to make appropriate decisions on their behalf.

39 DMGs are marked as Green on this. There is a key difference between <u>membership</u>, usually a land owner or authorised representative, and <u>participation</u>, which may extend to staff and other indirect interests. Five DMG areas rate participation by members as Amber, and one DMG has effective participation rated as Red, a real issue within that Group.

3.3. In addition to landholding Members, including public sector owners, public agencies such as SNH and Forestry Commission Scotland should be in attendance and other relevant authorities such as Police Scotland may be invited to attend DMG meetings.

All DMG areas list public sector attendance at meetings as good from members although it is recognized that for operational reasons this attendance is not always possible.

3.4. Meetings should operate to an agenda and be accurately minuted. Attendees should be encouraged to participate and agreed actions and decisions should be recorded.

42 DMGs now score green, with 3 on amber. Simple, basic administration is essential to the operation of any Group and increased professional capacity in recent years has allowed this to happen to a more consistent and higher standard. Those few lower scoring DMGs often depend on volunteer or rotating secretaries.

3.5. A Group can demonstrate capacity to deal with issues between meetings as they arise, and to provide an ongoing source of communication and advice as required.

Since 2014, many DMGs have enlisted external professional help and developed their working structures and steering groups. This has increased capacity for ongoing work between meetings, and this is one of the most important changes over recent years. 5 DMGs score Amber on this, the rest Green. It is important to note that this additional capacity comes at significant extra cost and some of the smaller Groups are unable to resource professional support unaided.

4. Constitution & Finances
4.1. All DMGs should have a Constitution which defines the area of the Group, sets out its purpose, its operating principles, membership and procedures, in addition to providing for appointing office bearers, voting, raising subscriptions and maintaining financial records.

All 45 DMGs now have an agreed Constitution in place and have been aided in this by an ADMG template being made available from 2014.
4.2 Good management and budgeting of finances.

All 45 DMGs are rated Green on this. In recent years, many informal arrangements have been tightened up.

5. Deer Management Plans
5.1. All DMGs should have an up to date, effective and forwar- looking Deer Management Plan (DMP).

This element, in many ways, should be the most difficult to achieve, but all 45 DMGs have DMPs with 41 graded green, 4 amber, and no red. The amber Plans are likely to be older Plans, not yet replaced, or to have significant gaps.

5.2. The DMP should record all the land management objectives within the DMG area.

44 DMGs have scored green on this with only 1 DMG failing to clearly describe the objectives of all members, being an old DMP due to be updated shortly.

5.3. Where applicable, the Plan should include a rolling 5 year population model.

36 DMGs scored green on this, with the remaining 9 on amber. While some DMGs have more work to do on modelling, broadly these are Groups which contain significant areas of woodland within their boundaries or with deer movement in and out of their area, where accurate counting may not be possible. This undermines a Group's ability to construct an accurate population model. Further thinking is required on how to model populations in situations with incomplete population data.

5.4. Appropriate use of maps to illustrate relevant detail.

42 DMGs scored green on this. For the remaining 3 at amber maps were either too low a resolution or inadequate for showing all necessary detail. It is generally easier to interpret maps if they are presented separately rather than embedded within the text of a DMP.

5.5. The DMP should identify the public interest aspects of deer management.

All 45 DMGs scored green on this element. There is an element of duplication between this criteria and the Public Interest part of the Assessment.

5.6. A DMP should make appropriate reference to other species of deer within the DMG area and provide a level of detail proportionate to this interest.

44 DMGs scored green on this. The remaining Group had a significant population of sika deer within an extensive woodland area, and is currently developing a DMP which takes account of this.

5.7. A DMP should include a list of actions that deliver the collective objectives of DMG Members as well as public interest objectives. These actions should be updated annually

39 DMGs scored green on this. For the remaining 6 which fell short the actions were not readily apparent or were not updated. Within a DMP, normally set for five years, a short Action or Working Plan, which is reviewed and updated annually, is now becoming the norm.

5.8. It is important that all DMG Members should play a full part in the planning process and in the implementation of agreed actions

This element is similar to 3.2 above. 37 DMGs scored green with the remainder on amber, suggesting that some Groups fall short in securing sufficient participation by all members.

5.9. The DMP may identify potential conflicts and how they can be prevented or addressed to ensure an equitable approach to the shared deer population.

39 DMGs scored green on this, with 5 at amber and 1 red. This latter was a DMG adjusting to a significant internal change in land use management.

5.10. Relevant local interests should be consulted on new DMPs and advised of any changes as they come forward.

All 45 DMGs scored green on this element reflecting the fact that local communications have been one of the successes of the ongoing process of change at DMG level.

6. Code of Practice on Deer Management

6.1. The Code should be endorsed by all DMGs and referenced in both the Constitution and Deer Management Plan of every Group. The terms of the Code should be delivered through the Group Deer Management Plan.

The Code is important in setting the tone and ethos by which Groups operate. 43 DMGs scored green on this element and, of the 2 amber scores, one was because the Plan was written prior to 2014 being now due for review. The remaining Group, in dealing with internal land use conflicts, has yet to address some of the fundamentals of deer management planning.

7. ADMG Principles of Collaboration

7.1. The Principles of Collaboration should be incorporated into all DMG Constitutions and Deer Management Plans.

All 45 DMGs scored green on this. The "Principles" reinforce the ethos of collaborative management.

8. Best Practice

8.1. All deer management should be carried out in accordance with Best Practice.

44 DMGs scored green. The remaining Group, a very effective Group in other respects, scored amber being deemed to have given insufficient attention to the compensatory cull requirements of a WGS within the area.

8.2. All Deer Management Plans should reference and follow WDBP which will continue to evolve.

All 45 DMGs scored green on this element.

9. Data and Evidence gathering- Deer counts

Three criteria in this section have been designated as priorities by SNH.

Benchmark	Green	Amber	Red	% G	% A	% R	SNH Target
9.1. Accurate deer counting	40	5	0	89%	11%	0%	100%
9.2. Carry out a regular well-planned coordinated foot count	40	5	0	89%	11%	0%	100%
9.3. Recruitment and mortality counts	36	7	2	80%	16%	4%	100%

9.1. Accurate deer counting forms the basis of population modelling. An ethos that reflects this should be in evidence.

40 groups scored green on this element compared to the target of 45 so there is room for improvement in the 5 amber areas. While every Group desires to count regularly there are areas where the topography makes this difficult particularly if associated with insufficient manpower. Aerial counting by SNH has in the past provided an alternative source of census data but is no longer available for all areas.

9.2. As publicly funded aerial counts are now exceptional DMGs should aim to carry out a regular well planned coordinated foot count of the whole open range deer population. The norm is to count annually.

See 9.1, above.

9.3. Recruitment and mortality counts are also essential for population modelling.

The shortfall in this area is less explicable than that in 9.1 & 9.2, as these counts can be done irrespective of terrain, although mortality counts in woodland areas are particularly difficult. There are a number of DMG areas where these recruitment and mortality counts are not adequate, and the red marks allocated flag up a significant issue as this undermines a DMG's ability to create reliable population models.

9.4. Other census methods may be required in some circumstances, e.g. dung counting in woodland or other concealing habitats or on adjoining open ground.

40 DMGs scored green, 5 amber, implying that, for the latter, woodland counting would be appropriate but is not being considered. Woodland dung counting is extremely laborious and can be expensive and often the results can be inconclusive. Going forward, the interaction of open ground and unenclosed woodland and determining how to manage deer in such circumstances requires more attention from both public agencies and the sector as this is an increasingly difficult issue for many DMGs.

10. Data and evidence gathering - Culls
SNH has identified three priority criteria in this area:

Benchmark	Green	Amber	Red	% G	% A	% R	SNH Target
10.1. All DMGs should agree a target deer population	34	11	0	76%	24%	0%	100%
10.2. The cull should be apportioned among Members	37	8	0	82%	18%	0%	100%
10.3. The Group cull target should be reviewed	39	4	2	87%	9%	4%	100%

10.1. All DMGs should agree a target deer population or density which meets the collective requirements of Members without detriment to the public interest.

This is an element which may seem straightforward but can be complicated, not least because different densities might be appropriate in different situations, and much depends on what the results of habitat monitoring suggest. There is no clear relationship between deer density and habitat response, particularly when other herbivores are also present, and there is a need to increase understanding in this area.   It is however unquestionably important for a DMG to agree a forward target deer density and to adjust it by regular review if evidence suggests this – an adaptive approach.

A target density is also valuable in focussing discussion on cull allocation (10.2) within a DMG, this being one of the most important areas for collective decision making. The deficit in this area is therefore something which should be addressed as a priority although ADMG considers that, in setting 100% targets for these criteria, SNH has not taken a wholly realistic view of the complexities of setting population targets.

10.2. The cull should be apportioned among Members to deliver the objectives of the DMP and individual management objectives while maintaining the agreed target population and favourable environmental condition.

The correct process is to develop a population model based on accurate census data and the combined objectives of DMG members and to extrapolate sustainable cull levels to be allocated among members. As previously noted however, population modelling is more speculative where a DMG area contains large areas of concealing habitats, thus cull allocation is more difficult. In such situations an element of trial and error is unavoidable. Nonetheless the 8 amber Groups should give more thought to cull allocation.

10.3. The Group cull target should be reviewed and, if necessary, adjusted annually.

The Assessment results indicate room for improvement in a small number of DMGs which fall short in this important area. Considering historic culls is just one aspect of future cull planning but is valuable alongside the population model.

11. Data and evidence gathering - Habitat Monitoring
SNH has identified one priority element in this section.

Benchmark	Green	Amber	Red	% G	% A	% R	SNH Target
11.1. DMGs should carry out habitat monitoring.	22	23	0	49%	51%	0%	75%

11.1. DMGs should carry out habitat monitoring. Habitat Impact Assessments (HIA) measure progress towards agreed habitat condition targets on both designated sites and the wider deer range.

The Assessment results indicate that less than half of DMG areas scored green on this, with the remainder on amber. While this appears disappointing, as noted elsewhere, a useable standard methodology for setting habitat condition targets, other than on designated land, has yet to be finalised with SNH. Many designated sites in particular are complex and suitable monitoring protocols are not in place for many key habitats, and for some of these monitoring requires specialist knowledge beyond the level of expertise available within most DMGs. The lack of suitable software (SWARD still in development) to record and analyse information also remains a constraint. It is noted indeed that SNH has suspended site condition monitoring (SCM) on designated sites while reviewing monitoring techniques.

This remains an important area of development and for future collaboration between SNH and the sector. The expectation is that overall the DMGs will establish routine HIAs over 3.5m hectares and much of that is now covered, with the aid of funding from SNH to assist training, but further support is required from the public sector to build skills, confidence and capacity. Looking forwards, almost all young stalkers coming into the industry are able to monitor habitat through their college training and it is to be expected that capacity to do this will increase in the medium term.

11.2. HIAs should be carried out on a systematic and regular basis. A three-year cycle is the norm but many find annual monitoring useful.

31 DMGs scored green on this, with 13 amber and 1 red. Routine HIAs are a new management skill, yet the level of uptake among the DMGs has been commendable as operating a Group-wide HIA grid is a significant task for a DMG to set up and coordinate. The emerging norm in most areas is to work up a three-year rotating pattern so as to spread the time commitment equally over successive years. As at 2019 many DMGs now doing HIA will only have completed the first cycle and the results therefore represent no more than a baseline for future monitoring. It may realistically take up to ten years to establish clear trends in habitat response.

11.3. Data is required on other herbivores present and their impact on the habitat.

37 DMGs scored green. Many DMG areas now have few, if any, sheep or cattle present on the open range and as domestic stock are often not controlled by deer managers it is difficult to establish numbers or manage their grazing impacts alongside deer. Other wild herbivores, goats, rabbits, hares, are also important grazers in some areas.

11.4. DMPs should include a section on habitat monitoring methods and procedures and record annual results so as to measure change and record trends.

33 DMGs scored green with 11 amber and 1 red. As above, many DMGs have only recently commenced HIAs but DMPs can set out how HIAs are to be implemented even where only first cycle data is available.

12. Competence
SNH has identified one priority element in this section.

Benchmark	Green	Amber	Red	% G	% A	% R	SNH Target
12.2. "Trained Hunter" status	41	4	0	91%	9%	0%	100%

12.1. It is recommended that in addition to DSC 1 deer managers should also attain DSC 2 or equivalent.

42 DMGs scored green, the few exceptions being in areas where properties may be small and remote and deer culling is carried out by itinerant seasonal staff often required to cull only small numbers of deer.

Training logs kept by DMGs suggest that 80-100% of full-time stalkers now have DSC Level 1 and 70-80% have DSC 2, with a greater proportion of permanent personnel having met these standards. The expectation from most employers is that new staff will be qualified. This has been an area of rapid recent and ongoing change.

12.2. Deer managers supplying venison for public consumption are required to certify carcasses as fit for human consumption to demonstrate due diligence. "Trained Hunter" status is required for carcass certification.

41 DMGs scored green for this, and uptake is generally good. Again, the few exceptions often relate to small properties with a small cull and seasonal staffing. The standards of carcase handling on most full-time units is now very good with key personnel taking a lead and employers expecting qualifications as standard. DSC2 holders are deemed to be "Trained Hunters".

13. Training
13.1. All DMGs should have a training policy and incorporate it in the DMP

44 DMGs scored green. The single outstanding DMG has a pre 2014 DMP, with an update scheduled for 2019.

13.2. All DMG Members or those acting on their behalf should undergo the necessary training to demonstrate Competence.

As per 12.1, standards are good, with a small number of exceptions for the reasons stated above.

13.3. The training policy should promote and record continuing professional development through Best Practice Guidance.

As 13.1, 44 DMGs scored green on this element.

14. Venison Marketing
14.1. Membership of the Scottish Quality Wild Venison scheme is recommended by ADMG.

34 DMGs score green on this, with 11 amber. It is known that some smaller low output businesses are put off by the perceived bureaucracy and cost of the SQWV scheme, and many people point to the fact that there is seldom a significant price premium for being quality assured. SQWV Ltd is working up a scheme for small producers at more economic

cost and has offered free pre assessments of deer larders to encourage additional participation.

14.2. There is evidence of collaborative venison production within the Group.

43 DMGs scored green. There are some good examples of collaborative schemes throughout the country, but it is not possible everywhere as the locations of estates in relation to roads makes collaboration impractical in some areas, but shared use of larders and co-ordination of game dealers works very well in some areas, for example on the Isle of Mull.

15. Communications
SNH has identified one priority element in this section.

Benchmark	Green	Amber	Red	% G	% A	% R	SNH Target
15.3. A Deer Management Plan should be publicly available	44	1	0	98%	2%	0%	100%

15.1. DMGs should include a Communications Policy in their DMP. External communication should be directed at parties not directly involved but with an interest in deer management including individuals, local bodies such as community councils, local authorities, local media and other specialist interests.

43 DMGs score green on this element. DMG communications are now generally good and Groups make use of the generic ADMG website format and consult locally in the interests of transparency and openness.

15.2. An annual communication programme suitable to local circumstances is advised. This might include a DMG website or a page on www.deer-management.co.uk, an annual newsletter, annual open meeting, or attending local meetings by invitation.

As above, standards are good, and 39 DMGs scored green. There are some issues with DMGs keeping websites up to date, which is reflected in the lower scores than in 15.1.

15.3. A Deer Management Plan should be accessible and publicly available, and local consultation during its development is advised.

44 DMGs scored green on this element. The remaining DMG was awaiting formal endorsement of its DMP, which addresses this criteria, at its summer meeting. The Plan will then be posted on the Group website.

DELIVERY OF PUBLIC INTEREST ASSESSMENT

1. ACTIONS to develop mechanisms to manage deer

One priority element was identified by SNH in this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
1.3. Produce and publish a Deer Management Plan & Minutes	38	7	0	84%	16%	0%	100%

1.1. Carry out an assessment of effectiveness against the Benchmark

All 45 DMGs scored green on this element.

1.2. Develop a series of actions to be implemented and assign roles

Given the significant extra workload that new generation deer management planning has created for DMGs, it is important that functions are properly delegated, and this assignation of roles is actually one of the most important functional elements in this Assessment and should arguably be in the Benchmark section of the Assessment. Since 2014, many DMGs have employed secretaries, sourced professional advisory help, appointed vice-Chairs and established steering groups. These have all been logical and necessary steps required to increase capacity and strengthen leadership.

39 DMGs now score green on this element. The remainder have yet to fully implement changes to their structure, and it is important that the value of doing this is emphasized.

1.3. Produce and publish a forward looking, effective deer management plan which includes the public interest elements relevant to local circumstances. The plan should contain an action plan which sets out agreed actions and monitors delivery. Minutes of DMG meetings should be made publicly available.

This is the main task of a DMG and an important element of the Assessment process requiring, as it does, an adopted DMP, population model, summary Action Plan and minutes of meetings to be maintained online.

38 DMGs scored green on this. Some DMGs fell short in not having annual action plans to set and monitor short term actions; in addition, 2 DMGs did not have recent Minutes online. It is the population model which makes a DMP "forward looking" and, as stated elsewhere, creating a reliable population model is difficult for Groups where much of the area comprises concealing habitats and accurate deer counts are problematic.

2. ACTIONS for the delivery of designated features into Favourable Condition.

Three priority criteria have been identified by SNH in this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
2.1. Identify Designated Features	45	0	0	100%	0%	0%	100%
2.2. Actions to manage impacts affecting Designated Features	31	13	1	69%	29%	2%	80%
2.3. Monitor progress and review actions to manage herbivore impacts	28	16	1	62%	36%	2%	80% of 2.2

2.1. Identify designated features, the reported condition, and herbivore pressures affecting designated sites in the DMG area.

All 45 DMGs scored green.

2.2. Identify and agree actions to manage herbivore impacts affecting the favourable condition of designated features.

31 DMGs scored green on this element.

Most DMG areas have a variety of designated sites, some of which are easier to deal with than others. Some individual designated features within a site can be difficult to address and there are often conflicting requirements for features within the same site, ie features requiring low deer pressure, and others requiring higher deer pressure, to maintain favourable condition. By focusing on the feature failures which cause failure of the site there is a danger of overlooking feature successes in close proximity.

Designated sites should generally be analysed on an individual basis, although dealing with clusters of sites at a DMG level can be appropriate if the sites are of a similar type.

2.3. Monitor progress and review actions to manage herbivore impacts affecting favourable condition.

28 DMGs scored amber on this, which exceeds the SNH target.

3. ACTIONS to manage deer to retain existing native woodland cover and improve woodland condition in the medium to long term.

Three priority criteria have been identified by SNH in this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
3.1. Establish overall extent of woodland	45	0	0	100%	0%	0%	100%
3.2. Determine current condition of native woodland.	40	5	0	89%	11%	0%	100%
3.3. Identify actions to retain and improve native woodland condition	27	18	0	60%	40%	0%	No Red

3.1. Establish overall extent of woodland and determine what proportion is existing native woodland.

All 45 DMGs scored green on this element.

3.2. Determine current condition of native woodland.

40 DMGs scored green. Those who scored amber failed to produce maps of the distribution of impacts. Such information is readily available from SNH so this is easy to achieve.

3.3. Identify actions to retain and improve native woodland condition and deliver DMG woodland management objectives.

27 DMGs scored green on this. This task is not easy to address in a general way and guidance is at an early stage but all DMGs have made some progress towards this as per SNH requirements.

3.4. Monitor progress and review actions to manage herbivore impacts.

30 DMGs scored green on this element, which SNH have not suggested is a priority. In practice, the NWSS data is now dated and interpretation of some aspects of it are open to question. To be fully relevant and useful NWSS should be brought up to date by Scottish Forestry in full consultation with relevant interests, including deer management interests.

4. ACTIONS to demonstrate DMG contribution to the Scottish Government woodland expansion target of 25% woodland cover.

SNH has identified four priority criteria in this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
4.1. Identify and quantify extent of recent woodland establishment	44	0	1	98%	0%	2%	100%
4.2. Opportunities and priorities for woodland expansion	38	7	0	84%	16%	0%	60%
4.3. Consider implication of increased woodland on deer densities	40	4	1	89%	9%	2%	100%
4.4. Implement actions to deliver the woodland expansion proposals	38	7	0	84%	16%	0%	100%

4.1. Identify and quantify extent of recent woodland establishment (through SRDP [last 5 years] and through other schemes).

44 DMGs scored green. The remaining DMG, which scored red, had produced its deer plan prior to 2014, and this is scheduled to be updated in 2019.

4.2. Identify and quantify opportunities and priorities for woodland expansion over the next 5-10 years.

38 DMGs scored green, exceeding the 60% target set by SNH. This task requires further attention by some Groups.

4.3. Consider at a population level the implication of increased woodland on deer densities and distribution across the DMG.

40 DMGs scored green on this, 4 amber, implying partial consideration only, and 1 red score flags up a DMG area where this topic has yet to be addressed.

4.4. Implement actions to deliver the woodland expansion proposals and review progress.

38 DMGs scored green on this, with 7 amber areas, indicating only partial implementation.

5. ACTIONS to monitor and manage deer impacts in the wider countryside.

SNH has identified five priority criteria in this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
5.1. Identify and quantify the habitat resource by broad type.	44	1	0	98%	2%	0%	100%
5.2. Identify required impact targets for habitat types.	24	20	1	53%	44%	2%	66%
5.3. Quantify a sustainable level of grazing and trampling	23	21	1	51%	47%	2%	30% No Red
5.4. Identify where different levels of grazing may be required	24	21	0	53%	47%	0%	30% No Red
5.5. Conduct herbivore impact assessments	24	21	0	53%	47%	0%	30% No Red

5.1. Identify and quantify the habitat resource by broad type.

44 DMGs scored green. The DMG on amber had a poor DMP section on habitat monitoring and scored red on each of the following two elements as well.

5.2. Identify required impact targets for habitat types.

This element and each of the following two requirements are more or less the same and could be combined; the figures produced are almost identical.

This is an area where most DMGs are struggling to understand what is required, and there are a number of reasons for this. Most upland areas are a mixture of habitat types, often with conflicting requirements. The herbivore impacts in a particular area are not related to herbivore pressure alone, but the proportions of different habitats have a significant bearing on what the impacts are. For example, if dry heath dominates an area it is likely that deer impacts will be spread across the whole and average as low. If dry heath exists as a small proportion on a grassy hill, the impacts on the dry heath are likely to be much higher. So, no generic impact per habitat can be recommended; add to this that for grass habitats in particular there is no approved methodology in place. There is no easy relationship between deer density and habitat response, particularly when other herbivores are also present.

This is a new skill area for deer managers and understanding and delivery will undoubtedly improve subject to further detailed guidance from SNH.

5.3. Quantify a sustainable level of grazing and trampling for each of these habitat types.

See 5.2

5.4. Identify where different levels of grazing may be required and prioritise accordingly.

See 5.2

5.5. Conduct herbivore impact assessments and assess these against acceptable impact ranges. Where necessary identify and implement actions to attain impacts within the range.

24 DMGs scored green on this, which was higher than the SNH target of 30% although there is an overlap with Benchmark criteria 11.1 which sets a higher target. As noted elsewhere Habitat Impact Assessment across DMG areas is at an early stage of development.

5.6. Regularly review information to measure progress and adapt management when necessary.

27 DMGs scored green. Again, it is difficult to monitor progress when most DMG areas are still in the early stages of this process and may only have one round of data available to them.

6. ACTIONS to improve Scotland's ability to store carbon by maintaining or improving ecosystem health.

SNH had identified one priority criteria in this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
6.3. Identify opportunities for the creation/restoration of peatlands	39	6	0	87%	13%	0%	100%

6.1. Quantify the extent of the carbon-sensitive habitats within the DMG range.

44 DMGs scored green on this element.

6.2. Conduct herbivore impact assessments and assess these against acceptable impact ranges for these sensitive habitats. Identify and implement actions to attain impacts within the range.

23 DMGs scored green on this element which is in line with HIA more generally, as covered in Section 5 above.

6.3. Identify opportunities for the creation/restoration of peatlands

39 DMGs scored green on this element. SNH placed a high level of importance on properties applying for the SRDP funded Peatland Restoration Scheme. Many estates have considered this, and a number of schemes have been carried out with more in the pipeline. Some DMGs carried out landscape scale exercises as a basis for a coordinated restoration plan. A number of DMGs have also set out to try to match deer numbers to their peatland areas.

This is a topic of particular importance in terms of Scottish Government policy and funding and will undoubtedly be an area of attention for DMGs in future.

6.4. Contribute as appropriate to River Basin Management Planning

Many DMGs have good links to local river boards, often with members in common. 44 DMGs scored green on this and the single amber may be anomalous as the DMG concerned has good links with riparian interests.

7. ACTIONS to reduce or mitigate the risk of establishment of invasive non-native species

7.1. Manage invasive non-native species (e.g. muntjac) to prevent their establishment and spread e.g. report sightings of muntjac to SNH

44 DMGs scored green on this element. It is likely that the one amber is due to a lack of an appropriate commitment or policy in the DMP. As muntjac deer are not thought to be present in Scotland this requirement is somewhat academic but does indicate awareness of a future risk.

7.2. Agree on local management of other non-natives which may be utilised as a resource e.g. sika, fallow, goats, to reduce their spread and negative impacts.

43 DMGs scored green. The two remaining groups do have significant populations of sika deer and also some fallow and it would be fair to assume that their deer plans do not contain sufficient detail to cover this.

8. ACTIONS to protect designated historic and cultural features from being damaged by deer e.g. by trampling.

8.1. Identify any historic or cultural features that may be impacted by deer and undertake deer management to mitigate this.

Light grazing by deer or sheep is almost always beneficial to such sites as it prevents woody growth. Threats to such sites more commonly come from cattle feeding areas.

41 DMGs score green on this element. It is likely that the 3 ambers relate to insufficient reference in the DMPs. Any risks of excessive deer impacts should be recognised in a DMP where relevant. The single red score relates to a pre 2014 Plan, now under review.

8.2. Consider the implications of fencing on the landscape with due regard to the Joint Agency Guidance on Fencing.

44 DMGs scored green. It is not known why the remaining area was scored amber.

9. ACTIONS to contribute to delivering higher standards of competence in deer management.

SNH has prioritised one element within this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
9.3. Ensure all those who actively manage deer are "competent"	42	3	0	93%	7%	0%	100%

9.1. Undertake a skills and training assessment to establish current skill levels applicable to deer management within the DMG.

43 DMGs scored green. The Assessment process has shown that levels of training are now high within the industry, particularly among full time or regular stalkers.

9.2. Identify training and development needs/requirements of DMG members including opportunities for Continuous Professional Development (i.e. in relation to Best Practice).

All 45 DMGs scored green.

9.3. Ensure all those who actively manage deer are "competent" according to current standard

42 DMGs scored green. The remainder are likely to be Groups with an element of seasonal employment for deer culling where those involved have other occupations and less incentive to secure specialist qualifications.

9.4. Promote and facilitate the uptake of formal and CPD training opportunities for those participating in deer management.

44 DMGs score green on this element.

10. ACTIONS to Identify and promote opportunities contributing to public health and wellbeing.

SNH has identified four priority criteria within this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
10.3. Identify means of ensuring food safety is maintained	42	3	0	93%	7%	0%	100%
10.4. Ensure deer managers are familiar with notifiable diseases	42	3	0	93%	7%	0%	100%
10.5. Ensure that that appropriate bio security measures are enacted	45	0	0	100%	0%	0%	100%
10.9. Facilitate public access	44	1	0	98%	2%	0%	100%

10.1. Identify and quantify public safety issues associated with deer within the DMG area. eg DVCs, airports etc.

All 45 DMGs scored green on this element.

10.2. Identify actions by landowners, Local Authority and DMG to reduce or mitigate public safety risks and monitor effectiveness of actions.

38 DMGs scored green. This element principally refers to deer/vehicle collisions (DVCs), which are not always easy to understand or evaluate, and mitigating actions are often not straightforward to identify. There is no simple relationship between deer densities and DVCs.

10.3. Identify means of ensuring food safety is maintained in carcase handling and venison processing and compliance with WDBP in relation to meat hygiene.

42 DMGs scored green. This element is taken to relate mostly to training standards and competence, and the level of green scores is similar to that in the Training/Competence section, with the same geographical areas of weakness, mostly in the remoter areas.

10.4. Ensure deer managers are familiar with notifiable diseases, that a system for recording is in place, and that all deer managers are familiar with course of action to take.

42 DMGs scored green. As per 10.3 this element is taken to relate mostly to training/competence.

10.5. Ensure that appropriate biosecurity measures are enacted when visitors from areas where CWD is present are involved with deer management activities

Awareness of this issue is now high, and all 45 DMGs scored green.

10.6. Identify opportunities to raise awareness of the risks associated with Lymes Disease

All 45 DMGs scored green.

10.7. Identify main access and recreational activity within the DMG area and assess how this fits with deer management activity.

All 45 DMGs scored green on this element.

10.8. Identify actions to mitigate any public access and recreation activity during peak periods of deer culling e.g. use of Hill phones and web sites.

43 DMGs scored green.

10.9. Facilitate public access by promoting positive communication between visiting public and wildlife managers.

44 DMGs scored green on this element.

11. ACTIONS to maximise economic benefits associated with deer

SNH has identified one priority criteria in this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
11.2. Identify and quantify deer-related employment.	43	1	1	96%	2%	2%	70%

11.1. Identify and quantify the main sources of revenue related to deer (sport, tourism etc.)

41 DMGs scored green with 3 amber, and 1 red which did not attempt this requirement. There are as yet no clear criteria to indicate how this element should be evaluated in assisting Groups in working through conflicting objectives. Discussions are ongoing between SNH and ADMG to address this for which there is an urgent need in terms of the balancing duties of SNH.

11.2. Identify and quantify deer-related employment. Identify opportunities to increase and improve prospects throughout the DMG.

43 DMGs scored green on this, with one amber and one red. This latter group is the same one noted in 11.1.

11.3. Identify opportunities to add value to products from deer management (SQWV, venison branding).

39 DMGs scored green. There is no detailed guidance on this requirement and the remaining 6 are likely to have represented this requirement inadequately in their DMPs.

11.4. Explore options for larder sharing, infrastructure improvement and carcase collection to ensure maximum benefit from venison production whilst reducing carbon costs.

42 DMGs scored green on this. As noted previously, local geography and the road network often makes collaboration impractical, especially in the north and west.

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

SNH has identified one priority element in this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
12.2. Identify where deer are impacting on other land uses	39	6	0	87%	13%	0%	50%

12.1. Identify and quantify capital investment in deer management related infrastructure.

Many DMGs and their consultants struggled to know what type of information was required for this element, and no guidance was available. Nevertheless 34 DMGs were scored green.

12.2. Identify where deer are impacting on other land uses and include all relevant stakeholders to assist the Group in understanding costs of deer within the DMG (e.g. woodland, agriculture, DVCs)

39 DMGs scored green exceeding the SNH target. However clearer definition of how negative impacts can be quantified is necessary. DMGs are generally aware of areas of potential conflict within their boundaries and how to address them.

12.3. Where there are management changes assess the likely changes to the economic costs across the DMG.

41 DMGs scored green but, in most cases, this was because the DMG did not have any significant management changes and the scoring therefore simply defaulted to green. Until there is an established methodology for assessing economic impacts there will be uncertainty as to this element of the Assessment.

12.4. Formulate a strategy to minimise the negative economic impacts in an equitable way.

As per 12.3 the requirement here is unclear and insufficiently defined. Nevertheless, 38 DMGs scored green on this.

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

13.1. Provide regular opportunity for wider community and public agency engagement in planning and communications.

All 45 DMGs scored green. Establishing effective communications has been an area of good progress since the introduction of Assessments in 2014 as is indicated by SNH not now identifying this as a priority area.

13.2. Identify and implement actions to address community issues on deer or deer management activity.

42 DMGs scored green. The remaining 3 presumably made insufficient reference to this topic in their DMPs. Community attitudes to deer and their management are often divided and DMGs, while accepting the need for openness and good communication, require to tread warily.

13.3. Support and promote wider opportunities to further education on deer.

41 DMGs scored green on this element. Good opportunities for educational involvement do exist in many areas and are often the initiative of single properties as opposed to the DMG as a whole. For some remote DMGs education opportunities are less available.

12. **ACTIONS to ensure deer welfare is taken fully into account at individual animal and population level.**

SNH has identified three priority criteria within this section.

Public Interest	Green	Amber	Red	% G	% A	% R	SNH Target
14.2. Ensure that deer culling operations safeguard welfare	42	3	0	93%	7%	0%	100%
14.3. Welfare of surviving populations is safeguarded	41	4	0	91%	9%	0%	100%
14.4. Periodically to review welfare	32	12	1	71%	27%	2%	100%

14.1. Agree, collate and review data available within the DMG which might be used as a proxy for deer health/welfare i.e. recruitment, winter mortality, larder weights etc.

37 DMGs scored green on this. There is uncertainty about what is required for this element as reaching welfare conclusions requires many factors to be taken into account – weather, population density, shelter etc. Larder data is just one indicator. There is a need for further thinking in this area leading to clearer definitions and parameters for welfare.

14.2. Take reasonable actions to ensure that deer culling operations safeguard welfare for culled and surviving animals (e.g. by following BPG)

42 DMGs scored green on this. Most Groups indicate a clear correlation between this element and training/competence.

14.3. Take reasonable actions to ensure that the welfare of surviving populations is safeguarded (e.g. provision and access to food and shelter)

41 DMGs scored green on this. It is not known if there are obvious deficiencies or problems in the other four Groups but it is likely that this topic was insufficiently addressed in DMPs.

14.4. Periodically review information on actions to safeguard welfare; identify and implement changes as required.

32 DMGs scored green. Deer welfare is a central concern of all DMGs which have meaningful annual discussions on mortality and recruitment, and on larder weights and condition, but a more structured approach to this subject is required.