

Committee(s):	Date(s):
Epping Forest Management Plan Steering Group Epping Forest & Commons	19 December 2014 12 January 2015
Subject: Epping Forest Grazing Monitoring Audit	Public
Report of: Superintendent of Epping Forest SEF 05 /15	For Decision

Summary

This report describes the progress with monitoring work on grazing and provides the third annual assessment by the Independent Grazing Assessor, Dr Peter Dennis of Aberystwyth University. The Assessor's independent audit report is appended at **Appendix 2** and his key points are summarised in this main report.

In his report the Assessor recognises the impact of the limits on areas grazed prior to the installation of the *Boviguard* invisible fencing loops later in the summer. He makes detailed recommendations for cattle grazing densities and the need for rotational grazing, including late season grazing. He examines the impact of grazing or lack of grazing at specific sites and makes recommendations for these areas. He reiterates that the combination of the many monitoring methods being used at Epping Forest provides "*..a suitable and effective monitoring programme*".

During 2014 the cost of monitoring by consultants on two key monitoring projects plus this 3rd independent assessment and report has been £8,895 from Local Risk budgets. This is well within the estimated costs proposed in last year's report. All projects proposed for monitoring in 2014 have been completed, plus one additional project by *Natural England* and these are highlighted in **Appendix 1** to this report. Annual costs of continuing the monitoring programme, with some of the additions covered in this report, would come from local risk budgets. In addition the work involved in the independent assessment is likely to cost between £3,500 - £4,000 in 2015.

Recommendation(s)

Members are asked to:

- note the observations of this 3rd Grazing Assessor report and progress with the conservation grazing monitoring programme;
- approve the production of a 4th report by the Assessor, to be provided to the Management Plan Steering Group for consideration prior to being submitted to Committee by January 2016.

Main Report

Background

1. The appointment of an Independent Grazing Assessor was approved in July 2010 (EFCC Report SEF 21/10) to give an objective overview of the way in which the impacts of grazing are to be measured and monitored.
2. The role of the Independent Grazing Assessor was approved to cover the following areas:
 - to analyse the current ecological monitoring of grazing at Epping Forest;
 - to provide advice on additional or alternative monitoring that could be viably achieved;
 - to provide additional knowledge from comparable sites and situations;
 - to provide the Superintendent with an annual validation report on the ecological monitoring.
3. The Assessor's previous two reports were received by Committee in November 2012 and 2013. An audit in 2014 was approved and is summarised below and the full report is appended at **Appendix 2**.

Current Position – grazing audit report

4. This report follows the visit on 19th and 20th August 2014 by the Assessor, Dr Peter Dennis, Aberystwyth University & Committee Member & Secretary of *The Royal Society's* UK Biodiversity Science Committee (UK BSC). He re-visited the grazing sites, including Trueloves and Fernhills, the monitoring transects and he also viewed the cattle behaviour at Fairmead and Bury Wood.
5. In his report Dr Peter Dennis recorded that cattle grazing expansion had been limited to the main grazing areas as the *Boviguard* installation had not been completed in the new areas at the time of his visit. This installation work is now complete and has been installed as nine new loops, one of which was viewed by some Members on the November 2014 Saturday visit.
6. Dr Dennis emphasised the "urgent need" to initiate grazing especially on sites where rank vegetation, bramble and other low scrub is a problem.
7. Dr Dennis considered that, despite the limit on the cattle numbers this year whilst awaiting new *Boviguard* equipment, by 2015 the numbers of livestock available to be deployed in the various target compartments with invisible fencing should represent a significant step forward and permit grazing over a much larger land area.
8. He observed the cattle movements and coverage of unshaded and shaded areas and has provided further advice on stocking densities. He examined the heathlands, Trueloves and Fernhills in detail and he proposed higher grazing densities at Fernhills. He also recommended an increase in the scrub control

effort here, in line with discussions at the Management Plan Steering Group, and this work has subsequently been carried out.

9. He considered the baseline data on vegetation to be sufficient. In particular, he considered the detailed collection of data (including 'before' and 'after' grazing) to be important for scarce species like Lousewort, Pepper Saxifrage and Heath Spotted Orchid, which are plants for which the Forest is now one of the last few sites, and most important sites, in the region and which are both adapted to and reliant on grazing. He considered the combination of approaches to monitoring (e.g. Fixed-point photos, quadrats and detailed GPS mapping) will allow the various impacts of grazing to be properly assessed across the areas.
10. The first full year of the Head of Conservation's rolling 5-year monitoring programme was 2014. All fieldwork for the projects in the programme for 2014 have been completed as proposed (see **Appendix 1**). The full analysis of the data from the ecological consultant carrying out the vegetation transects was not available before the completion of Dr Dennis' report this October but will be made available for his future review, should further review be approved.
11. From the preliminary results from the vegetation transect monitoring there are some clear changes in vegetation cover between 2013 and 2014. Some of these may be transient changes due to seasonal effects such as variation between the cover of certain grasses in the wood-pasture areas. Other changes may reflect the impact of grazing, such as changes to the grass and rush ratio in the sward at Pear-tree Plain and the establishment of Lousewort at this site over the last 3 years.
12. A detailed Heath Spotted Orchid census was carried out this year. This showed that there were at least 121 plants in the main population and 25 plants in an outlying population in a drier part of heathland; 146 plants in total. This compares with 118 plants recorded in a detailed census in 1995 in the main population area only and prior to the cattle grazing. This suggests that the Orchid population has been maintained over 20 years of cattle and deer grazing.

Current Position – other grazing-related issues

13. During the grazing season the free-ranging cattle at Fairmead did escape the confines of the invisible fencing area on a number of occasions during July and August. These led to a small number of complaints from neighbours, including Suntrap Field Centre where up to 8 cattle entered the grounds on at least 4 occasions and The Owl public house. The escapes were as a result of battery failures in the invisible fencing loops (The Owl) or incursion from Church Road through a hedge (Suntrap).
14. The stockman, on all but one occasion, removed the animals (the other time a member of Suntrap staff herded the cattle out) within hours. Damage was largely superficial and included dunging on the lawns and pathways. The issue was resolved in mid-August when the grazier inserted a section of invisible fence around the boundary of the Field Centre. The new invisible fence loop that has now been installed will prevent the cows from getting onto Church Road.

15. Horse-riders registered a few complaints during the summer about the presence of cows in general. In relation to this, maps of the grazing areas had been sent out prior to the grazing period by Forest Keepers to all Horse-riders' Forum members so that riders were made aware of the herd locations. Also new signage was erected at all main entry points.
16. In addition, two specific complaints were received which centred on access to the surface trail at Catacomb's corner at the western end of Almshouse Plain ride. The two riders in this case were concerned that when the cattle were congregated here, feeding on Crab Apple, they found it difficult or were unwilling to get their horses past the cows because the scrub here limited the ride and verge width.
17. In response the grazier and Head of Conservation have looked at cutting back the scrub there this winter to provide more room along the ride and around the main feeding attraction of the Crab Apples in 2015.

Options

18. A programme of student projects will continue to be developed for grazing monitoring. In addition, the current volunteers have also indicated their interest in continuing to do monitoring work in 2015.
19. The fieldwork in the monitoring programme will be reviewed annually. It has been phased over the 5 years to ensure that the Forest's Biodiversity Officer and others in the Conservation Section can achieve the fieldwork each year. As in the last 3 years, additional assistance will be required every year and the costs for this are likely to remain between £7,000 - £12,000 annually, depending on the number of sites, the detail or technicality of the surveys and the level of statistical analysis involved. In addition the costs of the Grazing Audit Report will also need to be included and, depending on the level of detail and length of the visit next year, this work is likely to cost around £3,500.
20. In future years, sources of funding will need to continue to be explored as well as the local risk budget.

Proposals

21. Dr Dennis proposes, in 2015, to discuss the best analysis for all the data, both the consultant's vegetation transect results and the other quadrat data gathered by Forest staff and the LTMN plots of Natural England. This will be used as an opportunity to review the monitoring work and ensure it is efficient and effective, which would involve some preliminary work prior to the Assessor's site visit.
22. It is proposed to continue with the current level of monitoring of the existing vegetation quadrats and invertebrate pitfall traps. It is vital that annual recording is maintained during the re-establishment phase of the grazing as this is when the changes are likely to be most rapid and measurable. The monitoring programme (**Appendix 1**) will be reviewed and become a rolling 5-yr programme taking into account the options for student projects (as above) and available resources.

23. In addition, the 8 transects would be re-surveyed in 2015 so that the amplitude of vegetation variations can be monitored. The additional fixed point photography established in 2014 will be carried out again by the volunteer photographer.
24. *Sphagnum* species need to be separately identified on the wet heathland sites, as recommended in Dr Dennis' 2013 report, so that favourable condition of the vegetation can be more accurately assessed. Adding this work into the 2015 monitoring programme will be considered against resources available, prior to the start of the fieldwork season.
25. On the heath the monitoring of Deershelter Plain scrape is proposed for 2015. A re-survey of Sunshine Plain vegetation quadrats will be considered also if resources are available, including more detailed recording of the *Sphagnum* species (as in para 24 above). Various invertebrate projects (e.g. anthills and grasshopper densities) will also be considered if students are available to carry them out.
26. As the GPS tracking of the cattle gathers more data these will be stored as a baseline information for analysis in future student projects.

Corporate & Strategic Implications

27. The options and proposals in this report meet the *City Together* Strategy by contributing to "*a world class City that promotes and enhances our environment*". In relation to the Open Spaces Department's Business Plan Improvement Objectives this report fulfils the objective to "*promote sustainability, biodiversity and heritage*".

Implications

Legal Implications

28. There are no legal implications associated with the proposals in this report.

Property Implications

29. There are no property implications associated with the proposals in this report.

Financial Implications

30. The costs of any monitoring work and the grazing assessor's time will be taken from local risk budgets as available and as in previous years. The likely costs for next year's audit, which may also include additional statistical analysis work would be between £3,500 - £4,000. This year's monitoring and audit costs, for the botanical consultant's survey work on transects, the orchid census project plus the Assessor's visit and report, in total amounted to £8,895. This monitoring work is essential both for assessing the Favourable Condition of the Site of Special Scientific Interest (SSSI) habitats and to allow adjustments to be made to management: – both grazing and mechanical control of vegetation.
31. Over the whole year vegetation and grassland invertebrate monitoring work plus the time spent with the Assessor amounted to a total of 122 hours of staff time. In addition, a further 131 hours of combined volunteer and staff time was

spent carrying out the more general background monitoring for the bird and butterfly transects, which are a long-term site condition monitoring commitment but which also inform the grazing impact assessment.

HR Implications

32. Any monitoring volunteers are recruited through the volunteer scheme by the Volunteers Development Officer and would be supervised, as required, by the Head of Conservation and members of the Conservation Section.
33. There are some HR cost implications associated with the Grazing Audit report, as well as the additional fieldwork and analysis proposals. These costs will be met from the Local Risk Budget.

Conclusions

34. This report briefly summarises both the findings of the Independent Grazing Assessor and the progress in the first year of what is to become a rolling 5-year monitoring programme. This programme will be reviewed against available resources and in response to the independent Assessor's recommendations.
35. The Assessor, Dr Peter Dennis, concluded that the current combination of methods and the level of monitoring effort provide a suitable and effective monitoring programme. He also considered that there is an urgent need for grazing at some, as yet ungrazed, sites but that, with the invisible fencing in place, the numbers of cattle should allow effective grazing across the land area in 2015

Appendices

- Appendix 1 – *Progress with Monitoring Programme.*
- Appendix 2 – *Grazing Assessor's report on status of cattle grazing and associated habitat monitoring across Epping Forest* by Dr Peter Dennis, University of Aberystwyth, 28th October 2014.

Background Papers:

- *Epping Forest Grazing Strategy 2006 (updated for Branching Out Project in 2008)*
- *SEF 25/07 EF&C Committee report on: the 2nd Public Consultation on Grazing*
- *SEF 21/10 EF&C Committee report on: Ecological Monitoring Programme for Grazing*
- *SEF 35/12 EF&C Committee report of 5th November 2012: Epping Forest Grazing Monitoring Audit*
- *SEF 33/13 EF&C Committee report of 13th November 2013: Epping Forest Grazing Monitoring Audit*

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