Restoring the Pastoral Landscape at Burnham Beeches

A Summary of the 2010 Grazing Strategy









1 A Vision for Burnham Beeches

First published in 2005, the long-term vision for Burnham Beeches is that the reserve, conserved and protected forever, will be a first class, sustainable public open space and a site of international conservation importance. The vision forms the core of the 2010 management plan, and in public consultation received 95% support.

One part of a larger green landscape

Burnham Beeches is part of a larger landscape, linked by a network of wildlife areas that encircle London and stretch across the country. These are maintained by organisations and communities that safeguard the environment. Harmful pollution is a thing of the past – all transport systems are sustainable. Quiet roads surround the Beeches and other green spaces, so that the local community can walk, cycle or ride in safety.

Outstanding habitats maintained by grazing

Rich in wildlife, Burnham Beeches offers an attractive and varied landscape. It is a mix of open heathland, dense woodland – and everything in between. Livestock graze across the site under pollarded trees of all ages. Neighbouring fields provide additional land when grazing numbers on-site need to be reduced. The wood pasture system provides a sustainable source of fuel and food for the local community.

A local community working together

Visitors work with the City of London to care for 'their' heritage, ensuring that access is managed to ensure that people can enjoy the site without detracting from its natural character. The Beeches is safe and provides opportunities for informal recreation and to learn about the past, present and planned future of the Beeches in a variety of different ways.

The future is secured

The Beeches is financially secure, renowned internationally for its work and good practice in conservation management. The site adapts appropriately to external influences such as climate change and continues to contribute to international debate and action on major ecological issues affecting the planet.





The establishment of grazing as a habitat management tool over the majority of the site is an integral part of the vision for Burnham Beeches, which seeks to safeguard the site hundreds of years into the future.

First mooted internally in 1999, the requirement to expand the grazed area was highlighted in the 2005 – 2010 site management plan and subsequently endorsed by the City of London Open Spaces Business Plan (2009 – 2012).

The grazing expansion is fully supported by Natural England and Buckinghamshire County Council.

2 Moving Towards a Pastoral Landscape at Burnham Beeches

Burnham Beeches is a National Nature Reserve (NNR), Site of Special Scientific Interest (SSSI) and European Special Area of Conservation (SAC).

It is also a public open space, owned and managed by the City of London Corporation. The City aims to manage the reserve for the public to enjoy informal countryside recreation without compromising its wildlife and ecology.

We aim to restore grazing to almost all of Burnham Beeches. There are many influences that could still affect the exact timing of this project but, ideally, domestic livestock will be able to roam across the majority of the reserve from spring 2014. This will include the public roads that pass through the site and the land next to the roads that is also part of the Beeches.

Burnham Beeches will once again feel like a single entity: anyone entering the area, whether on foot or by public highway, will know that they have come to a very special place. It will finally become a tranquil, rural refuge where visitors can escape the hustle and bustle of the surrounding towns and villages, and where wild-life (much of it rare or endangered) is truly protected.

Although the reserve will have echoes of a more peaceful past, extensive grazing is not about creating a living museum. Grazing is the only effective way to manage Burnham Beeches in order to meet the City of London Corporation's legal obligation to look after the habitats, species and overall biodiversity that make the reserve internationally important for wildlife.

As we have already demonstrated with trial grazing areas, restoring the original wood pasture management that created this unique site improves biodiversity within the Beeches. It is now time to extend grazing to almost all the site in order to create and link a wider range of diverse wildlife habitats and niches. This will create a robust, flexible ecosystem that will be well placed to adapt to environmental stresses created by pollution and climate change.

The completion of the grazing expansion scheme at Burnham Beeches is the first part of a wider plan involving many other bodies and agencies. We hope that the Beeches will one day be linked to other, similarly managed sites in south Buckinghamshire.





Timeline for the Re-introduction of Grazing at Burnham Beeches

- **1992** 3 hectares grazed near Seven Ways Plain, by ponies.
- 1993 Area extended to 6 hectares and pigs used to help control bracken in recently cleared wood pasture areas.
- 1994 2 cattle added.
- 1995 Second fenced area added south of Lord Mayor's Drive, taking in restoration work on the heathland and mire as well as birch dominated secondary woodland.
 - Additional smaller areas, contained by temporary electric fences, were subsequently grazed.
- **2002** Initial area extended to include Seven Ways Plain Hill Fort.
- 2007 Joining up of the two fenced areas, incorporating land on either side of Lord Mayor's Drive; completion of the Car Free Zone.

As the area has expanded the number of animals has increased from two cows, ponies and pigs to the current herd of two ponies, seven cattle and two pigs. A flock of twelve sheep was used for several years to help with the restoration phases; this was particularly useful in controlling birch. There are now approximately 20 animals grazing in total.

- **2012** Design and Consultation phase for completion of the grazing expansion.
- **2012** Experimental grazing trials.
- **2014** Livestock graze throughout Burnham Beeches.

3 Completing the Restoration of Extensive Grazing at the Beeches

Grazing was reintroduced to Burnham Beeches in 1992 and has expanded to cover 43 out the total 220 hectares (20% of the reserve). Grazing the majority of the site will not only ensure that we meet our legal obligation to manage the site properly, but will play a part in improving the environment in south Buckinghamshire and, in a small way, help to combat the effects of climate change on the habitats and species found here.

3.1 Conservation and Biodiversity

In the past, most of Burnham Beeches was grazed by livestock and many of the trees were pollarded to generate a regular supply of firewood. This resulted in a landscape of wood pasture and heathland. It was very rich in wildlife because the mixture of sun and shade provided a good variety of micro-habitats for different species. When grazing and pollarding stopped, scrub and secondary woodland grew up over much of the previously open pasture and heath; the unmanaged pollards began to die.

Burnham Beeches has European designation as a SAC site for the beech woodland. This woodland is so important because of the now ancient pollards, created as part of the wood pasture system. The wildlife that lives on and around the pollards is exceptionally rare; first class management of ancient pollards for the future includes the appropriate management of the land surrounding them, including the creation of new pollards. Heathland is also now a rare habitat; in Buckinghamshire, 94% of an estimated 1,500 - 2,000 hectares has been destroyed since the 18th century.

The City of London Corporation has a legal duty to protect all the habitats that make Burnham Beeches unique and to manage them in the best way possible. The most effective way to manage the wood pasture and heathland habitats is through grazing.

Sundew - one of the plants found here that benefits from trampling by grazing animals.

Think globally, act locally

Bog pimpernel grows on bare soil; last seen in 1926, it reappeared in 2002 and is now growing really well. Low intensity grazing using a mixture of livestock, (as proposed here), is recognised to be the best way of creating diverse habitats with a good mixture of wildlife.

Different animals eat different types of vegetation: grazing produces *structural variety* – a mosaic of plants of different ages, heights and shapes.

Many of these plants have flowers, providing nectar and pollen for insects that in turn provide food for other animals in the food chain.

An open environment maintained by grazing helps the old trees by reducing competition for light and keeping the growth of new trees in check. New trees will still grow where the animals find it difficult to get to, such as in amongst dead wood and among the branches of prickly shrubs.

The physical impact of the livestock creates new niches or microhabitats, with variation in levels of trampling, the amount of grazing and, of course, dung which (unlike dog excrement) is itself a valuable habitat.

The landscape varies over time, depending on where the animals choose or are encouraged to graze.

Grazing is better than mechanical methods of management such as mowing, which – quite apart from the environmental cost of fossil fuels - tends to produce a very uniform vegetative structure. Its effects are particularly difficult to replicate at the edges of water bodies like ponds and streams where yet more specialist flora/fauna can develop.

3.2 Culture and History

Grazing livestock shaped the landscape of South Bucks and were the reason that the Beeches had pollarded trees. The trees' branches were cut so regrowth was out of reach of grazing animals; the grazed land underneath was heathland. The reinstatement of animals such as cattle and ponies across the Beeches restores the cultural landscape created by our ancestors.

South Bucks is considered to be 'ancient countryside' characterised by straggling commons, ancient woodland and lanes (see also the Buckinghamshire County Council Landscape plan). These ancient landscapes have a culturally complex record of human history. Although much has changed over the centuries, much still remains that is of value and that can be restored with appropriate management.

3.3 Benefits for Visitors and the Local Community

Burnham Beeches receives over 500,000 visits each year. The City of London Corporation provides and maintains low key facilities for visitors, including toilets, a café, easy access routes, information point and car parking. Like all visitor use, these are managed to ensure that they are not detrimental to the wildlife value of the site. Although extensive grazing may change the way some visitors view the reserve, it offers both short and long term benefits for those visiting and living near Burnham Beeches.

A tranquil and truly rural atmosphere has mental and physical health benefits, particularly for children and older people. All management to increase the peace and accessibility of the reserve will increase opportunities for people to relax, enjoy the fresh air and get away from the stresses and strains of modern life. There are also opportunities for educational work with schools.

The presence of livestock already adds to the rural feel of the reserve and the majority of visitors appreciate being able to see and get close to animals in the 'real world'; extensive grazing will increase the range of opportunities for this experience. The roadside 'edges' will blend into the main body of the reserve: this, combined with entrances to Burnham Beeches on the public highways being clearly marked, will help create a **'special sense of place'** at Burnham Beeches.

Research shows people feel more safe in an open woodland than a densely wooded area. Livestock will restore the open nature of the site because livestock browse the lower branches of trees and keep scrub levels down.

For residents near to the Beeches, there is evidence that the range of benefits associated with living next to an open space is enhanced by improvements to facilities. These include increases in house prices, encouraging inward investment, providing attractive areas for people to live in and generating retail and tourism opportunities. In addition, there is also evidence that urban crime and violence are lower near to natural areas.

Consultation in November 2009 showed a positive response to grazing. Out of 800 respondents:-

71% would like to see as much of the Beeches as possible grazed by cattle, ponies and pigs;

85% would like to see cattle grids installed on the public roads through the Beeches;

72% felt that long-term benefits of grazing outweigh the initial costs.

3.4 Benefits in the Wider World

A fact often overlooked, particularly in urban areas, is that we cannot live in isolation from the environment. Action to conserve terrestrial ecosystems can provide clear economic, social and environmental benefits. Completion of the extensive grazing scheme is a step towards ensuring that our work at Burnham Beeches is sustainable.

Grazing will help the habitats and wildlife **respond** to climate change. This is predicted to cause greater extremes of weather in south east England, including more heavy rainstorms and a greater chance of droughts. Improved *biodiversity* (the variety of species and habitats) and the resulting ecosystem flexibility will play an important part in helping wildlife cope with the effects of these changes. The more flexible our environment, the less extreme the impact of climate change may be.

Another method of mitigation is to **increase ecosystem resilience** by making the various habitats better interconnected, both within the Beeches and by linking with other sites. This will help wildlife move between habitats. At the moment we have woods, grassland and heathland areas with distinct boundaries; grazing creates a gentle transition between habitats, making it easier for wildlife to move around and to respond to changes in any particular habitat.

Grazing will not only improve the biodiversity of the reserve. If the volume of traffic through the Beeches falls, this may also **reduce local air pollution**. It will also play a part in **raising awareness of the importance of the local and wider environment** (an essential part of securing our global future) through the amount of discussion and interest amongst residents, visitors and the wider community.

The grazing expansion at Burnham Beeches is the first stage in creating a series of interlinked Commons and open spaces in south Buckinghamshire. These will, with the adjoining agricultural land, create a **tranquil**, **diverse**, **desirable environment for residents**, **businesses and visitors**.



4 Challenges

This project has the potential to improve the environment of Burnham Beeches and its surroundings, but there are significant challenges to reintroducing such a pastoral system to an increasingly **periurban** (between the suburbs and the countryside) area.

Gaining support

We need visitors and residents to consider the overall, long term value of the project to the local quality of life as well as to conservation and not to become focussed on individual areas of concern.

Concerns of visitors

Worries could legitimately include:

- noise from cattle grids
- access issues
- safety issues with livestock
- livestock and traffic
- impact on existing activities, such as dog walking
- increased tree felling
- fencing of properties

The proposals on page 7 aim to address anticipated concerns, and to provide a structure for discussion and consultation with local residents and the wider community to address these and any other issues.



5 Learning from Others

We are not alone! There are several successful extensive grazing schemes across the country, and we intend to build on their experiences and expertise to meet the challenge of grazing Burnham Beeches effectively, safely and sustainably.



Find out about other successful grazing schemes

Gloucestershire Commons

www.nationaltrust.org.uk/cotswoldsgrazing

The Gower

www.gowercommons.org.uk

The Malverns

www.malvernhills.org.uk

The New Forest

www.verderers.org.uk



6 Proposals for the Completion of the Grazing Scheme

The City of London Corporation will work closely with its neighbours and partners to find the best way to complete the expansion of the grazing scheme. This will include extensive consultation including information, presentations, practical support and - where appropriate - visits to other sites to see extensive grazing in action. There will also be formal consultation by Transport for Buckinghamshire in relation to Highway matters. We will use newsletter and website updates, leaflets, posters, displays in the information point, talks and presentations to ensure visitors are kept up to date with developments.

Preliminary proposals (as of January 2010)

- 6.1 Livestock will graze up to the boundaries of Burnham Beeches. Although perimeter fencing is technically the responsibility of the neighbouring properties, the City may be able to help for those who do not have stock proof gardens or fences secure their properties; after a period of five years from when the stock are turned out, the onus would then be on the resident to maintain those structures.
- 6.2 Either cattle grids or an electronic invisible fence will be used to keep livestock on the reserve. The system will be designed and located to minimise noise and disturbance to residents; it may also slow traffic on the perimeter roads. Gates will be used if needed to ensure access is available for all.



- 6.3 Most of the fences on the reserve will be taken down, allowing unrestricted access throughout the Beeches. There may still be a need to use temporary electric fencing, as at present, to increase/decrease grazing pressure on particular areas as needed.
- 6.4 The grazing density will be similar to that found at present, with around 40 cattle/ponies and about 12 pigs grazing across the site. The number of animals on site will vary throughout the year and according to the management needs of the reserve.
- 6.5 We will continue to use traditional British breeds of livestock and follow best practice guidelines (e.g. using herds of mixed ages, using docile breeds) to ensure the animals are suitable for use in areas with high public access. We will continue to educate visitors about appropriate behaviour with livestock, particularly in not feeding or petting them.
- 6.6 We will use, monitor and adapt as necessary measures (e.g. reflector bands) recommended by the Grazing Animals Partnership to reduce the risk of road traffic accidents. This will include public awareness campaigns at key times of the year, when livestock are known to be most vulnerable.
- 6.7 The grazing extension will require no changes to the existing by-laws with regard to dog control. We will continue to provide information and interpretation to ensure visitors understand that they have a responsibility to keep their dog(s) under close control while visiting this National Nature Reserve.
- 6.8 The current programmes of restoration work on the old pollards, creation of new pollards and heathland restoration will continue. Additional cutting of scrub (e.g. young silver birch), whether by hand or machine, will be carried out according to the work programme; most mowing will stop.
- 6.9 Monitoring of factors such as animal numbers, grazing days, incidents and biological changes and a full grazing impact assessment process will be used to evaluate project achievements; modifications to design and implementation procedures will be made as needed. A Highways Agency post opening project evaluation (POPE) could also be carried out.

7 Timetable for Action

The City of London's team at Burnham Beeches has been working in partnership with Transport for Buckinghamshire to ensure the grazing scheme meets their requirement. If the trials are successful, we hope all necessary infrastructure will be in place by 2014 enabling grazing across the majority of Burnham Beeches.



8 Funding

Burnham Beeches is currently under a Higher Level Stewardship (HLS) agreement with Natural England. This provides annual funding for grazed parts of the Reserve. Natural England supports the grazing expansion at the Beeches and is likely to provide substantial funds under a special project fund within HLS for any necessary infrastructure.

In addition, the annual grant for wood pasture is area based and will therefore increase. It is proposed that the additional costs will be met from City of London Corporation internal budgets and other partners. If HLS money is unavailable, there will be a need to apply for funding from other sources.



9 Working in Partnership

This project differs from many others undertaken by the City of London Corporation at Burnham Beeches because it is reliant on assistance from many other partners. Their support is essential.

The key partners are:

- Natural England
- Buckinghamshire County Council
- Transport for Buckinghamshire
- South Buckinghamshire District Council
- Plantlife

Links with other strategies

Grazing at Burnham Beeches will in turn help our partners fulfil their own objectives.

This is a key project within the South Bucks Biodiversity Opportunity area that will benefit many Biodiversity Action Plan species and habitats.

The grazing expansion also contributes to many local and national initiatives, including:

- Buckinghamshire Green Infrastructure strategy
- Landscape Plan for Buckinghamshire
- South East plan
- Natural England's Securing Biodiversity initiative
- Planning Policy statement 9
- North West Green Arc
- South Bucks District Council Open Space Strategy
- South Bucks District Council Infrastructure and Accessibility study
- South Bucks District Council Core Strategy



10 Further Information

A Grazing Strategy for Burnham Beeches

The full grazing strategy is available on our website and from the Burnham Beeches office.

Burnham Beeches Management Plan (2010 -2020)

The proposals in this document should be seen in the context of the management plan for Burnham Beeches, available from summer 2010 from the Burnham Beeches office and the website.

Burnham Beeches Fact Sheets:

- Wood pasture
- Ancient pollards
- Deadwood

Available from the Information Centre and office.

Urban parks and public health: exploiting a resource for healthy minds and bodies.

A report (Wheater *et al*, 2007) containing further information about the health benefits and economic consequences relating to nature, open space and parks.

Available from www.cph.org.uk (publications).

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