

# EASTER INCH MOSS AND SEAFIELD LAW LOCAL NATURE RESERVE

**Management Plan** 

**FINAL** 

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## 1.0 INTRODUCTION

Ironside Farrar Ltd was appointed by Central Scotland Forest Trust in November 2010 to prepare a revised 5 Year Management Report for Easter Inch Moss and Seafield Law Local Nature Reserve (LNR).

The current 5 Year Management Plan covers the period from 2007 to 2012 and was prepared as part of the original petition for designation of Easter Inch Moss and Seafield Law as a Local Nature Reserve.

The plan laid out six clear objectives to improve and enhance the site from which a series of task related prescriptions was devised.

The revised Management Plan intends to build on achievements of the current plan and through a series of tailored Management and Maintenance tasks aims to progress the ecological value and recreation enjoyment of the site.

In order to form and develop the revised plan the commission requested a number of specific services be undertaken. These were as follows:

- Woodland Condition Survey has provided information on the state of the woodland and identified opportunities for woodland management and new tree planting. The survey also required consideration for new tree planting beyond the LNR boundary.
- Soil investigation to interpret soil conditions to determine if areas identified for new tree planting (including those beyond the LNR boundaries) have the capacity to support new trees.
- Hydrological Survey focusing on the raised bog and wetland. The survey has identified water resources within the LNR, their condition, sustainability and water storage capacity and made recommendations for management and habitat sustainability.
- Extended Phase 1 Habitat Survey has identified present vegetation and distribution of species.
- Stakeholder Consultation to engage with the LNR Management Group and the Central Scotland Forest Trust. Discussions and feedback to inform the future site management.

The collective results of the surveys, consultations and meetings together with assessment of previous ecological surveys and information have helped inform the content and direction of the revised Management Plan. It is required to cover the period from April 2011 to March 2016 and has set out the rational for management decisions, what management will be undertaken and how this will be achieved.

The revised plan has also required to identify opportunities or management actions for implementation beyond March 2016.

# 2.0 PUBLIC USE OF THE SITE

An appraisal of public use of the site was undertaken during site survey work in January and February 2011. Some information relating to public use was also given through consultation with the LNR Management Group. Gathering of this information was secondary to undertaking the physical survey. No survey work was undertaken during weekends or in the evenings. Nonetheless, site notes and observations of routes provide a 'snapshot' of information. These include the following:

- The main cycle track and access to Blackburn appeared to be very well used by walkers, runners and cyclists. A disability scooter was also noted close to the Blackburn access.
- There are a large number of informal paths and tracks within the site. What appeared to be the most clearly defined are illustrated on Drawing No. 4467/602. It should be noted that the network and use of the site by walkers is more extensive than the paths illustrated.
- The summit of Seafield Law appeared to be a popular destination. Hoof prints were also seen here, illustrating equestrian use of the site.
- Trail bike use of the site was observed at first hand on both Seafield Law and across Easter Inch Moss on the modified peat bog. There was a concentration of tyre treads observed at the former bing, but treads were also observed on other sections of the site including areas of sensitive habitat.

# 3.0 EASTER INCH MOSS MANAGEMENT PROPOSALS

Management Plans and Proposals have been developed further to the following:

- An appraisal of the existing management plan;
- An appraisal of existing maintenance of the site;
- An appraisal of the existing footpath system within the Local Nature Reserve and its use (Drawing No. 4467/602);
- An understanding of the key assets of the Local Nature Reserve (Drawing no. 4467/603);
- An understanding of the condition of the emerging woodland within the site (Woodland Condition report and Drawings Nos. 4467/102 and 4467/601);
- And understanding of the hydrology of the site and how it can be manipulated for habitat restoration (see Hydrology Survey and Drawings No. 4467/401 and 4467/402);
- An understanding of the ecology of the site and how landscape management can improve and conserve important habitat types (see Extended Phase 1 Ecological Survey and Drawing No. 4467/103). Reference is also made to previously produced information including 'Notable Species Records', Lothian Wildlife Information Centre, 05 April 2007.

The aim of this proposed management plan is to concentrate on the successful management of the Local Nature Reserve in terms of habitat, woodland management, bog management, access management and improvements. It is recognised that other aspects of site management outwith the physical landscape may be equally important, for example Audience Development. Whilst this is not discussed in detail within the report, it can be seen that through a process of change and improvements within the physical landscape, there is provided the opportunity to increase learning, participation and volunteering within the Local Nature Reserve.

The management proposals have been presented in plan form (Drawings Nos. 4467/604 and 4467/605) together with accompanying tables which identify management goals, tasks and timescales. It is understood that no specific budgets have been identified to undertake these tasks and, therefore, it is imperative that this is considered to be a flexible document with the process and order of active management being dependent on the funding available. Whilst it is considered that the tasks identified are both realistic and of high priority it remains understood that not all recommendations may be fully achievable within the Five Year Period.

## 4.0 KEY OBJECTIVES

The key objectives of the 2011 – 2016 Management Plan should be as follows:

- To enhance public enjoyment and access to and around the Local Nature Reserve;
- To protect habitats associated with the raised bog and modified bog together with undertaking a phased programme of bog restoration;
- To create a more species diverse sustainable woodland by the active management of emerging woodland planting;
- To protect, improve and monitor habitat associated with the Great Crested Newt and other amphibians;
- To protect, improve and monitor grassland as a habitat for insects, butterflies and moths;
- To reduce and mitigate anti-social behaviour associated with motorcycle use, flytipping and fire damage;
- To provide opportunities for enhanced community involvement, engagement and capacity building.
- To protect and improve habitats associated with avifauna.
- To support the monitoring and surveying of wildlife in partnership with other conservation bodies.

#### 5.0 HABITAT MONITORING

There is a clear benefit in regular monitoring of the site as a management action. Regular monitoring allows for the site ecology and site use to be understood and allows for consideration of amendments to current management priorities to be considered and implemented should changes become evident. The ability to undertake timeous changes to priorities and achieve a flexible management of the site is highly desirable. It is recognised, however, that monitoring can be an onerous and potentially expensive task and only has substantial benefit if the monitoring process has the ability to amend current maintenance and management procedures.

As there can be a cost associated with any actions associated with remedial actions it is recommended that regular monitoring of the site should be targeted and prioritised. This can then be augmented by a more general five year review at the end of the maintenance / management period.

In addition, it is recognised within the Management Group there may be existing expertise or interest in particular aspects of the conservation value and ecology of the site, for example avifauna. There are also examples where there have been established links with other conservation groups which have resulted in species monitoring of the site. This monitoring should be encouraged as the results will assist in further developing and revising management strategies and practices.

Should the recommendations in terms of management of the site be implemented then it can be argued there are three key areas of the site that could be targeted in terms of monitoring the health of the habitat development within the Local Nature Reserve. These are as follows:

# Raised Bog

Management proposals are aimed at both protecting the existing area of raised bog and to promote the restoration of bog through amending the hydrology of areas of wet modified bog. This can be achieved by mapping the areas of key peat forming moss species within the site and by undertaking regular readings of water and bog levels. Should spread be less than anticipated then remedial action could include further means to adjust site hydrology.

# **Great Crested Newts / Amphibians**

The existing ponds create a valuable resource for species such as Great Crested Newts. As a protected species numbers should be monitored. Should numbers drop then remedial action should be considered. It is likely that the shading of ponds and its impact on water temperature could be a factor which impacts on suitability of ponds as a habitat to support amphibians and that remedial action could include selective thinning. Monitoring requires to be undertaken annually by a qualified Ecologist.

# Butterflies / Moths / Damselflies

The existing grassland is recognised as supporting a wide range of butterfly, moth and damselfly species. Management of grassland should seek to protect those areas from encroachment of dense scrub and to actively plant to encourage species diversity within the herb layer. Annual monitoring of butterfly numbers and species would give the ability to consider management techniques to avoid encroachment of either dense scrub or of vigorous grass species.

# 6.0 POSITIVE MANAGEMENT MONITORING FOR CHANGE

The recommendations within this report suggest means through which the environmental quality and habitat value of the site can be improved through management and maintenance works.

These works are sometimes not without potential risk of undesirable impacts. There are certain instances where these risks can be identified and can be reduced by working incrementally and monitoring to quickly recognise any issues and undertaking prompt remedial action. Key examples include the following:

# Action:

• Amending hydrology to create restored raised bog.

#### Risk:

• Increased water levels may create flooding off site, may impact on footpath surfaces and damage other sections of the site, for example existing woodland.

#### Risk Managed by:

- Undertaking more detailed hydrological survey prior to works.
- Undertaking the work in phases as per the Management Plan. Phase 1 is least likely to impact upon paths.
- Careful and regular monitoring of water levels on site following the works to enable remedial works to be instructed if required.

#### Action:

• Removal of coniferous planting adjacent to wet modified bog.

#### Risk:

• Coniferous woodland provides shelter for adjacent trees and shelter to cycle track. Trees are shallow rooted due to high water levels, therefore, felling could make trees highly vulnerable to being wind blown.

#### Risk Managed by:

- Undertaking work over a long time period with maximum 10% felling over single year.
- Undertaking work in conjunction with appropriate replanting programme.
- Monitoring impact of work regularly and undertaking remedial works.

#### Action:

• Woodland thinning to west of site.

#### **Risk:**

• Thinning may make woodland less stable with more chance of windblow. Thinning operations may also impact upon animal species within woodland such as badger setts.

## Risk Managed by:

- Careful consideration of each woodland compartment prior to works.
- Undertake works in a stages manner thinning trees from the leeward side.
- Monitoring the impact of works prior to undertaking further thinning.
- Map and monitor species during the phased working process.

# Routine Monitoring

As well as the specific monitoring suggested above some aspects of the site would benefit from routine monitoring to ensure basic management goals are achieved. These basic goals should include the following:

- Check for encroachment of self-seeding trees within bog areas.
- Check for natural regeneration within woodland areas.
- Check for encroachment of scrub within open grassland areas.
- Monitor fly-tipping and consider targeted response.
- Monitor impact on site of anti-social behaviour and use of trail bikes and consider targeted response.
- Monitor pedestrian / cycle / equestrian use, its impact on the landscape (for example erosion of Seafield Bing) and where opportunities occur to improve desire lines, such as boardwalks over wet areas.