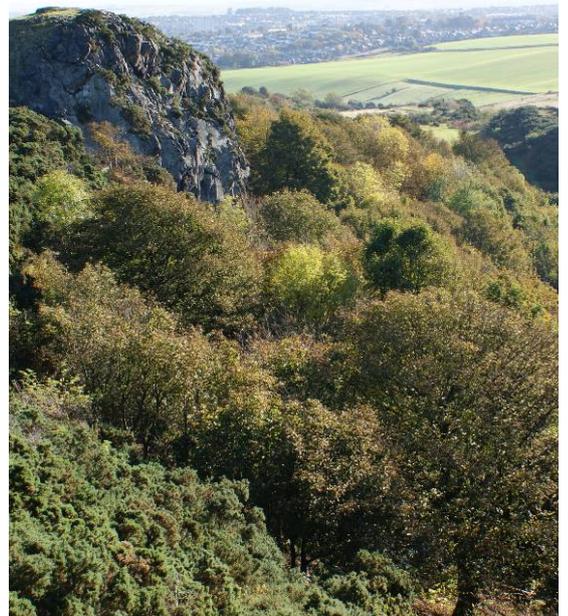


# Hermitage of Braid and Blackford Hill Local Nature Reserve Management Plan 2011 – 2021



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## **Introduction and Statement of Intent**

The Hermitage of Braid and Blackford Hill Local Nature Reserve (hereafter referred to as the LNR) is a key area for the wildlife and people of Edinburgh. The variety of natural habitats, flora and fauna; close to such a large urban area, make the need for careful management of the LNR a fundamental element in this management plan. Without consideration of the many and varied ways in which people have formerly shaped and currently use the LNR, however, the plan would be of limited value. As such, it is the intention of this management plan to provide guidance on social, historical and ecological aspects relating to the LNR, as described in the following statement of intent:

“To secure the long term future of the Hermitage of Braid and Blackford Hill Local Nature Reserve, by conserving and enhancing both the natural and the designed landscapes, and promoting its continued enjoyment by the public.”

## **Park Description and Evaluation**

### Scope of the Management Plan

This management plan is intended to cover the period April 2011 to March 2021. The management plan is a site-specific document produced by the City of Edinburgh Council Countryside Ranger Service (hereafter referred to as the CECCRS), intended to offer guidance to all aspects of the management of the LNR. Where actions are specified, they will be prioritised to focus work programmes accordingly.

Despite the range and number of suggested actions that could be undertaken on the LNR, the plan is meant to be implemented in the real world of financial restrictions and limited staff availability. As such, the actions are focused down to those which are specific, realistic and achievable.

A yearly report on the actions of the workplan should be undertaken and recorded to ensure knowledge of actions and objectives is kept up to date. The management plan should be reviewed after 5 years to take into account any major changes that would affect operations.

### Site Details

The LNR is located on the 1:50,000 Ordnance Survey Map no. 66, centred on Grid Reference NT 255 704.

The LNR covers an area of 60.3 hectares and is divided into two distinct areas; Blackford Hill, an upstanding area of grass and scrub vegetation, and the Hermitage of Braid, a narrow woodland dell, with accompanying watercourse, the Braid Burn. Outwith these two sections there are further smaller areas specific in habitat and name (e.g. Blackford Pond). These commonly recognised and distinctively named subdivisions of the LNR are presented on map 2 of appendix 2.

### Conservation Status

The LNR is located entirely within the Green Belt of Edinburgh. In the Local plan for southeast Edinburgh (1992), it was identified as an Area of Great Landscape value, and of specific nature conservation interest. These designations were then effectively superseded by the site's identification as an Urban Wildlife Site, in the City of Edinburgh Council's Urban Conservation Strategy for Edinburgh, (1992). This was recognised formally when the area was awarded Local Nature Reserve Status in 1993, under the terms of the National Parks

and Access to the Countryside Act 1949. As such, the park now enjoys statutory protection as a nature reserve.

Within the LNR there are three additional specific designations. The first is the geological Site of Special Scientific Interest (SSSI) of Agassiz Rock. Secondly, the summit area of Blackford Hill is a Scheduled Ancient Monument (SAM), being the site of a former hill fort and external settlement. And third, about 12 hectares of the mature woodland is on the Ancient and Semi-Natural Woodland Inventory as Ancient woodland of semi-natural origin.

### Ownership and Tenure

Blackford Hill was bought by the Edinburgh Corporation in 1884, and the adjacent Hermitage of Braid estate was gifted to the city of Edinburgh in 1938, by its final owner, John McDougal. The gift allowed the Hermitage to be used as “a Public Park or Recreation Ground for the benefit of the citizens.” The City of Edinburgh Council retains ownership of the park and is primarily responsible for its maintenance. This is done primarily through the CECCRS, with the assistance of other council teams such as Task Force and Forestry Unit.

### Adjacent Landowners

To the south, the LNR is bounded by privately owned fields and Hermitage Golf Course. The north and west sides of Blackford Hill lie adjacent to the City of Edinburgh Council allotments (Midmar) together with a privately owned field, Midmar Field (owned by the A. J. Laing Trust). East of the LNR a privately owned golf course (Craigmillar Park) is located. Also to the east is an area of Millenium Forest Community Woodland; a forest planted over a reclaimed quarry and dump site, with trees planted in the late 1990's. The remaining boundary area of the LNR is fringed by substantial private properties, with sizeable gardens containing a variety of ornamental and indigenous flora.

The importance of so much greenspace around the LNR, providing both a buffer zone to urban sprawl and an additional foraging area for wildlife, cannot be underestimated. Consequently, maintaining good relations with adjacent landowners is critical. Green Belt policy designation of the surrounding fields will likewise assist in safeguarding the adjacent landscape.

## **Natural Environment**

### Climate

The nearest weather station, at the Royal Botanic Gardens, Edinburgh, indicates that the climate is typical of eastern Scotland, with comparatively low rainfall, high sunshine, and modest temperature variations. Within this overall picture, the microclimate of the LNR is more variable; the dark woodland dell is typically more humid, cooler and sheltered than elsewhere in the park. Blackford Hill, being an upstanding landform, also differs from the general picture by recording higher wind speeds and a greater variation in temperature.

### Hydrology

#### Braid Burn

The Braid Burn is the principle watercourse, flowing for some 3 kilometres through the LNR. It is a small river, typically some 5 metres wide by 20cm deep. At this location it is approximately half way along its 32km course from a spring in the Pentland Hills, to its mouth at Portobello. Along several sections of the Braid Burn, the river flows through parkland and other managed areas. Immediately upstream of the LNR, the river flows through Braidburn Valley Park. Downstream it flows through Inch Park and then the Scottish Wildlife Reserve at

Duddingston Loch, before becoming the Figgate Burn, passing through Figgate Park (another park managed by the City of Edinburgh Council), before joining the Firth of Forth at Portobello. As such, the burn forms a vital and diverse corridor for wildlife.

Throughout much of its course within the LNR, it has been contained by artificial banks, and at one point it flows through a subsurface tunnel for a distance of about 120 metres. These features date from the late C18, in conjunction with the rebuilding of Hermitage House. The Braid Burn has also had flood prevention works done both upstream and downstream of the LNR. No change to the hydrology of the Braid Burn was done within the boundary of the LNR.

The Braid Burn does occasionally have problems with litter, particularly after times when the burn is in spate as debris washes in from upstream. Past occasions when water quality has been adversely affected are connected to heavy periods of rainfall and associated overflowing of storm drains and sewage systems upstream as well as pollution from chemicals being used on land upstream or being poured into surface drains. Sediment pollution from construction works or during the Flood Prevention works upstream have also occurred, particularly coinciding with heavy rains. Instances of pollution are reported by the CECCRS to the Scottish Environmental Protection Agency (SEPA) for investigation.

In addition, there are several seasonal burns within the LNR, which reflect variations in rainfall. An example is the Howe Dean Burn, which flows into the Braid Burn on the southeastern end of the LNR.

### Blackford Pond

Blackford Pond measures some 225 x 60 metres at its widest points, and was artificially created between the end of 1800 and beginning of 1900 according to OS maps, taking advantage of an ice scoured hollow. The pond is eutrophic (over-rich in nutrient content), due to runoff entering from the allotments to the west and from bird faeces and remnants of food thrown to feed waterfowl. In addition, a moderate amount of litter detracts from the feature. This eutrophic condition can cause large algal blooms which deplete oxygen in the pond and can be a health hazard.

An island is situated in the centre of Blackford pond, this being an artificial feature created primarily for the benefit of wildfowl. Upon creation its dimensions were 40 x 8 metres at its widest points. Wind and wave action had dramatically reduced the size of the island, to the extent that it was only about one quarter of its original size. However, through partnership working with the CECCRS, the Friends of the Hermitage of Braid and Blackford Hill received a grant of funds from the South Central Neighbourhood Partnership in early 2010, and were able to hire a local specialist contractor, WaterGems, to enlarge the island and undertake works to prevent further erosion. This was in addition to repair work carried out on the island in the 1990s, then 2006, so an assessment of what is successful in repairing the island and what has not worked will be needed if future repairs become necessary.

Erosion control was also undertaken along the northern edge of Blackford Pond in a number of areas. These eroded areas were the result of a combination of bird activity and wind/wave action, creating scalloped edges that in some cases threatened to undercut the path. Elm poles were laid horizontally across the eroded areas which were then backfilled with yellow flag iris and other marginal plants. In time these should grow and fill the eroded areas, stabilizing the bank of the pond and producing new habitat for wildlife.

There is a wetland area adjacent to Blackford Pond that serves as a feeder pond to its larger neighbour. Another wetland area is located along the drive to Hermitage House on the south side, and can cause significant run-off onto the drive, resulting in potholes and erosion.

All ponds and wetland areas are to some extent supplied by fresh water from underground springs.

Runoff

Given the relief of the LNR, rainfall runoff is rapid. The level of the Braid Burn increases quickly following rain, all the more as the steep slopes of the woods, together with the south side of Blackford Hill drain freely into it. To the north and west sides of Blackford Hill, rainfall runoff eventually filters into Blackford Pond, whilst the gentler slope to the east of the hill distributes runoff in an unrecorded manner.

Hydrology; Evaluation

The water features form an important habitat within the LNR, due to the wide array of flora and fauna they support both directly and indirectly. Moreover, they are a focus for public interest and popular spots for visitors. In consequence, it is strongly desirable to undertake measures to remove negative elements associated with these habitats such as erosion or pollution and to introduce steps that will enhance these areas.

Alongside public interest in these water features comes the issue of public safety. It is strongly recommended current safety measures and practices are examined and improved if necessary.

Management recommendations for the Braid Burn, ideally, should be co-ordinated with other sections of the course of the river outwith the LNR. Recommendations could be made for the management of these areas, to the overall benefit of the section of the river contained within the LNR. The recent Flood Prevention works on the Braid Burn have shown the impact that upstream activities can have on the area within the LNR.

Hydrology; Objectives

- To conserve and enhance the wetland habitats
- To improve public safety awareness at water features

Geology and Geomorphology

Mr. David Land and Mr. David McAdam of the British Geological Survey have provided much of the geological information for the LNR, whose work is gratefully acknowledged.

The bedrock of the LNR is composed of two lava flows, the product of volcanic activity some 400million years ago. The upper layer, andesite, comprises Blackford Hill. The lower lava, trachyte, is exposed along the gorge of the Hermitage and the Howe Dean glen.

Following the volcanic episode, desert flash floods deposited sandy material on top of the lavas, which cemented to become part of the Upper Old Red Sandstone group. None survive as visible outcrops in the LNR, though sections have been utilised in the walls bounding the site.

Earth movements have tilted all the rocks to give a northeast dip slope at an angle of 10-15 degrees.

Glacial modification

The series of ice ages, and the movement of ice in a west to east direction have produced several important features. Erosion and deposition produced the crag-and-tail of Blackford Hill, which also contains smaller examples of this feature; e.g. Corbie's Craig.

Further evidence of glacial activity is provided by the dolerite erratics located to the North of Blackford Pond and displayed in a surround of granite setts.

Meltwater from ice sheets was responsible for altering the course of the Braid Burn. Large amounts of water exploited a weakness in the bedrock and cut the gorge through the Hermitage, which has now been adopted by the Braid Burn. Prior to this action, the course lay to the south of the LNR, on the valley side now overlain with glacial till.

### Agassiz Rock SSSI

In 1840, Swiss geologist Louis Agassiz visited Edinburgh and ultimately proved to fellow geologists that Scotland had at one time been covered by ice. The polished and striated rock that now bears his name was one location where he gathered his evidence. Today little of the striae remain, as the rock is badly eroded, but it remains a SSSI, because of its historical role in the development of geological theory.

The quarries within the LNR date from the early C.19, when andesite was extracted and used for road construction. Operations ended in 1953. Since this time one quarry adjacent to the LNR has been used as a landfill site and is now a community woodland, whilst within the LNR the quarries have been allowed to become colonised by flora. Blackford quarry has become a popular locality for climbing and abseiling. Sadly the same area has also been the target for negative activities – bonfires, parties and graffiti.

#### Geology and Geomorphology; Evaluation

The geology and geomorphology of the LNR is both varied and readily accessible, providing an excellent site for interpreting such topics to members of the public. The historical importance of the area amongst geologists is recognised by the SSSI designation, and for this reason alone the whole site is of regional importance.

The former quarry continues to be a focus for climbing groups, whose continued use of the area is to be encouraged. The negative elements of this area, especially the eyesores of graffiti and litter, detract from the LNR's status as a whole.

#### Geology and Geomorphology; Objectives

To preserve the geological and geomorphological landforms

To enhance public understanding about geology and geomorphology

### Soils

Much of the soil of the LNR is from the Sourhope association, comprised of glacial till from Andesite lavas. These soils drain freely and are both acidic and basic in nature. In addition areas of Rowanhill soils, of the Macmerry series exist on the LNR, these draining imperfectly. There are small alluvial deposits associated with the Braid Burn.

Within the Hermitage, the Brown Earth soils, containing a deep layer of humus, reflect that there has been woodland cover for several hundred years. The soils drain imperfectly with clay deposits inhibiting water movement.

#### Soils; Evaluation

Little work on soils has been conducted to date, and should form a focus for future research projects.

#### Soils; Objectives

To increase knowledge of soil profiles across the LNR.

To try to prevent erosion of soils due to human activities.

### Habitats

The LNR contains six distinct habitat communities;

Woodland,  
Scrubland,  
Grassland,  
Ruderal (Weed) Communities,  
Wetland,  
Rock Outcrops.

### Woodland

#### General Description

Some 90% of woodland cover for the LNR is located within the Hermitage of Braid. Elsewhere, woodland fringes can be found around Blackford Hill and Pond, and along Howe Dean Glen. The total woodland cover comprises 30.9 hectares, a little over half the total area of the LNR.

The Hermitage of Braid and Blackford Hill LNR has a separate Woodland Management Plan, written in 2008 and adopted in 2009. It is located as an appendix to this document and has detailed descriptions of woodland compartments and management.

#### Woodland Classification

The woodlands are classified and registered on the Ancient Woodland register as ancient semi-natural woodland, having been in existence for at least 250 years, and depicted on several ancient maps for the region, e.g. Adair's map of Midlothian, 1735. The native woodland composition of Ash, Elm and Oak equates best with W8 woodland, (National Vegetation Classification, 1991, Rodwell).

The 'semi-natural classification' for the woodlands reflects that the native woodland has been greatly modified by the introduction of species that subsequently have become naturalised, e.g. Sycamore and Beech. In addition, deliberate planting of non-native trees, for landscape design, e.g. Small-leaved Lime, or for commercial timber production, e.g. Lodgepole Pine, has increased the tree mix, to the end that some 35 woody species have been recorded across the LNR.

### Veteran Trees

A survey in 2000 identified 26 veteran trees, i.e. trees of 90cm diameter or more. Veteran trees are of particular interest as a microhabitat, having the potential to contain species of flora and fauna (e.g. lichens) that only grow on long established trees. This survey may now be out of date, and a new survey with mapping of veteran trees would be appropriate to understand the composition and health of the woodland.

Wherever possible these trees should be maintained and allowed to progress naturally, however if they pose a health and safety risk, work must be done to make them safe. In cases, this may involve removing limbs, retaining as a monolith only, or taking right down to a stump. Deadwood should, however, remain on site as habitat.

### Naturalised Trees

Sycamore and beech are two naturalised trees, i.e. trees that are not native to the area, but which were introduced a long time ago and now grow in the wild. Both species account for the majority of trees found across the woods, to the detriment of the native stock. Both sycamore and beech produce copious amounts of seed, increasing the competition for suitable places to establish for young native trees. In addition there is little native woodland regeneration due to the prevalence of mature trees shading out smaller specimens. This is particularly evident with sycamore and beech, their prolific leaf cover preventing nearly all sunlight from penetrating to the woodland floor.

### Non-Native Trees

The woodlands contain trees that are non-native, i.e. deliberately planted as a landscape feature or as a commercial crop, and which do not produce viable seed. Being non-native, such trees tend to be of limited wildlife value, and would therefore be suitable for thinning and cropping. However, trees associated with the landscaping of the site, e.g. along the main paths, will be retained for their historic and aesthetic values.

### Control of Disease

The woodlands contain a number of wych elms. With the arrival of Dutch Elm Disease into Edinburgh in the early 1970s, many of the elms in the woods have been affected. Trees are inspected annually, and removed from September to March. To limit the spread of the disease, the stumps of affected trees are then de-barked, and all felled timber burnt. Despite efforts to control the disease, several are marked and removed each year.

No other treatment occurs to trees on site. Specimens affected by parasitic fungi are left to decay, as part of the natural process, unless located close to a path or a building where they would present a risk to health and safety. Any trees so identified would be felled to make them safe and the wood left on site to decay.

### Deadwood Strategy

Trees that blow down safely and away from paths are left to break down naturally, forming an important microhabitat in their own right. When fallen trees block access to paths, the timber is cut to clear the path, and the material retained as a habitat pile for wildlife. Similarly any stumps that remain upstanding after a tree has fallen over are also left in situ, as a habitat for wildlife.

### Commercial Tree Management

Commercial plantations exist in compartments 4b, 4d and 4e. Species include lodgepole pine (*Pinus contorta*), scots pine (*Pinus sylvestris*), norway spruce (*Picea abies*), and cherries, (*Prunus SPP*). These were planted approximately 35 years ago, and had some thinning work in the past 10 years to try to create areas where understory vegetation could

develop, improving the habitat for wildlife. In many of these areas additional work is needed, as outlined in the Woodland Management Plan. Some woodland management began in late 2010, including clear-felling some of these conifer woodlands before enrichment planting will take place.

### Current Management

For a complete evaluation and description of works to be undertaken in the woodlands of the LNR, please consult the Woodland Management Plan (see appendices). In 2010 a Forestry Commission grant for Woodlands in and Around Towns was awarded to do works relating to this plan. Works began in autumn 2010, starting in the woodlands nearest Braid Road.

#### Woodlands; Evaluation

The woods of the Hermitage are of very high local importance, and the age of woodland cover has resulted in the high variety of woodland flora and fauna recorded to date. Locally rare plants include bluebell (*Hyacinthus non-scriptus*), and wood speedwell (*Veronica montana*) along with other species associated with the habitat. The fauna of the woods are equally varied, with locally rare species, e.g. great spotted woodpecker (*Dendropcopos major*), spotted flycatcher (*Muscicapa striata*), breeding on site.

The woodlands require active management if the habitat is to be maintained and improved. Aggressive introduced specimens need to be reduced, block plantations thinned, and young native specimens need to be introduced across the woods to generate a more balanced woodland composition. This is described fully in the Woodland Management Plan.

#### Woodlands; Objectives

To ensure that the woods have a diversity of age structure and species composition, with a shift towards enhancing native stock over naturalised / introduced species.

To retain the landscape design features of the woodlands.

To ensure the woodland is kept in a safe condition.

To maintain the current woodland area cover.

To conserve the woods as a habitat for native flora and fauna.

### Scrubland

Blackford Hill contains a scrub habitat, covering some 40% of its total area. Species include elder (*Sambucus nigra*), blackthorn (*Prunus spinosa*) and hawthorn (*Crataegus monogyna*), but by far the most dominant is gorse (*Ulex europaeus*). It is rapidly increasing its range, to the detrimental effect of the grassland communities and associated flora.

Gorse is particularly susceptible to damage from fire, and fires, both malicious and accidental, have broken out almost annually on Blackford Hill. Gorse regeneration after fire is rapid, however, and can add to the problem of the aggressive spread of the species.

### Current Management

Gorse is cut back annually, to produce firebreaks in the densest stands, to create 10 metre wide gaps between stands. In some areas, the gorse can provide important habitat for small

birds and other wildlife, so a strategic way of retaining some areas of gorse should be examined. Blackthorn and other scrub species should only be cut when encroaching paths or any areas of high field layer diversity as the thickets provided by blackthorn and other scrub species is very rare in and around Edinburgh, providing an excellent habitat for wildlife.

#### Scrubland; Evaluation

Gorse has both positive and negative management implications, on the one side providing a valuable habitat for scrub nesting birds, whilst on the other shading out many of the more local plant and grass specimens. Current practice to guard against the risk of fire should be continued, but in addition, gorse should be prevented from spreading onto the more plant rich areas, typically the neutral grasslands and rocky exposures.

Stands of gorse should be maintained, however, as a habitat for birds, though the current area coverage is seen to be too high.

#### Scrubland; Objectives

To contain the spread of gorse on Blackford Hill, but also maintain a diverse scrub habitat for nesting birds.

### Grassland

Unimproved grassland comprises approximately half the ground cover within the LNR, mostly located upon Blackford Hill. The grasslands are both acidic and neutral. Several plant species associated with the neutral grasslands and / or rocky exposures are of importance locally and some regionally as well, summarised in the table below;

**Table 1: Plants and ferns of note, Blackford Hill**

Species		Importance		
		Regional	Scotland	Britain
Spring Sandwort	<i>Minuartia verna</i>	~~	Rare	Local
Purple Milk-Vetch	<i>Astragalus danicus</i>	Rare	~~	Local
Spring Cinquefoil	<i>Potentilla neumanniana</i>	~~	Rare	~~
Rue-Leaved Saxifrage	<i>Saxifraga tridactylites</i>	Rare	Rare	~~
Shining Cranesbill	<i>Geranium lucidum</i>	Rare	Scarce	Local
Prickly Sedge	<i>Carex muricata</i> ssp. <i>Lamprocarpa</i>	~~	Scarce	~~
Common Rock-rose	<i>Helianthemum nummularium</i>	Rare	~~	~~
Sticky catchfly	<i>Lychnis viscaria</i>	Rare	Rare	Local
Forked Spleenwort	<i>Asplenium septentrionale</i>	~~	~~	Rare

Additional areas of grass can be found across the LNR. These include 'amenity lawns', currently under a cutting regime to provide areas for recreation. One section of former amenity grassland has for several years been left uncut during the summer months to create a wildflower meadow habitat (contained within Compartment 3f on the Map in Appendix 2).

### Current Management

Beyond the cutting regime of certain grass areas, there is little formal management of the grassy areas. Members of the public are requested to stay on the paths and dog walkers to

clean up after their dogs, but in both instances these are the issues putting the greatest strain upon the grass habitats.

Erosion of grass cover reveals bare soil, which quickly increases in size, this being evident at several locations. In May 1999, 4 areas of Blackford Hill were fenced off and reseeded with grass seed in a fabric mesh in an attempt to resurface eroded patches.

A newer threat to the diversity of the grasslands is appearing in the invasive species Himalayan balsam. Although this species tends to grow on the lower areas of the hill, it has several strongholds in higher areas near the more species-rich grassland. Hand pulling of this species has been undertaken with volunteers, but is proving difficult to eradicate all plants in a year, with some areas being almost impossible to reach and remove plants.

#### Grasslands; Evaluation

There remain sizeable areas of neutral and acidic grasslands in the LNR, which are of high conservation value. The pressure upon these areas comes from gorse encroachment, erosion, and dog fouling.

Dog fouling is both unpleasant and a potential health hazard. Moreover at high levels, excessive fouling can alter the balance of plant life towards rank vegetation. All these elements are to be found across Blackford Hill, increasing as one approaches the main car park by the observatory.

Blackford Hill offers an excellent view of the City of Edinburgh, this due in part to the grassy vegetation allowing an unbroken view. Future management, whilst addressing conservation issues, must incorporate the popularity of the viewpoint element within overall planning strategies. Fortunately, the elements that detract from the public's appreciation of the hill as a viewpoint, are the same as those identified as being of detriment to the grassland habitats.

Areas currently cut to provide grass lawns for informal recreation are well used by the public, and they ought to be maintained in this manner.

#### Grasslands; Objectives

To conserve and enhance existing grassland habitats

To improve species diversity where possible.

To continue to manage the wildflower meadow at the Braid Road entrance to the LNR.

#### Ruderal (Weed) Communities

Several areas within the LNR exhibit features associated with ruderal communities (Group A 1-4 inclusive, Plant Communities of Scotland, J.S.Robertson, 1984). Currently there are no management policies for such areas, beyond cutting back as part of other actions, e.g. path clearing.

All wet / damp areas have to some extent been affected by the non-native invasive species; giant hogweed (*Heracleum mantegazzianum*), Himalayan balsam (*Impatiens glandiflora*), and Japanese knotweed (*Fallopia japonica*). These have been treated in an erratic manner.

The number of giant hogweed plants that occur in the LNR each year can be high – often around 300 specimens. Typically they are sprayed with a glyphosate agent, though given the city-wide nature of the spread of this plant, it remains a problem on the LNR. A larger problem is that although treatment within the LNR has improved over time, adjoining properties such as the field to the east of the Howe Dean Path and area behind the Blackford Depot are not controlling the giant hogweed that grows there, allowing the seeds to continue to spread to the LNR.

Himalayan balsam had been allowed to grow unchecked until 1998, when initial steps were undertaken to control its spread. Sites containing the plant were identified, and some clearing took place. This policy was more thoroughly enacted in 1999, with all main areas affected being cut and hand picked. Since then an annual programme of ‘balsam bashing’ has taken place, almost entirely depending upon hand picking the plant with volunteers. This has had mixed results, but overall, balsam continues to grow in many areas of the park. It is difficult for volunteers to pull all areas of the plant – particularly areas of steep slope or when it grows in the midst of gorse – allowing small colonies of the plant to remain and eventually spread.

Fortunately, Japanese knotweed has only a modest distribution within the LNR, though this could change if shaded areas are opened up. Since 1999, individual plants have been repeatedly cut, dug out and disposed of, or in some cases treated chemically, and the species appears to be well contained. One area of concern is the boundary fence between the Midmar allotments and the wetland patch, and this should continue to be monitored and controlled.

Ruderal Communities; Evaluation

The extent of ruderal communities need to be established, and if seen to be increasing in size, appropriate management policies, e.g. strimming, brought into force.

The three invasive species need to be contained and reduced through a control programme.

Ruderal Communities; Objectives

To limit the spread of invasive weed communities.

Wetlands

Refer to the Hydrology section above, for a description of the aquatic features of the LNR.

The course of the Braid Burn contains plants of local interest, principally stream water crowfoot, *Ranunculus pencillatus*, and water figwort, *Scrophularia auriculata*.

Current Management

The Braid Burn is cleared of litter by the CECCRS and the Friends of the Hermitage of Braid on an average of 3 times a year.

The water quality of the Braid Burn and Blackford Pond is monitored by the Scottish Environmental Protection Agency (SEPA).

## Wetlands; Evaluation.

Pollution by both visible waste and invisible chemicals are the greatest issues to wetland habitats, and the prime source of grievance by members of the public. In addition waste material carried in the water adds to blockages and can cause water levels to build up to flood levels.

Blackford Pond continues to suffer from the appearance of algal blooms each summer and counteractive measures, in the form of barley rafts, have been tried, with very limited success. Advice for people to limit what they feed birds has also been tried to decrease excess nutrients in the pond. As a by-product of limiting algal development, the water habitat will improve, due to an increase in the oxygen content.

Work around Blackford Pond was done in Winter '09/'10 both to limit the erosive effects of wave action, and to enhance the habitat for roosting and nesting birds. This should be monitored for establishment and areas repaired if necessary.

## Hydrology; Objectives

To conserve and enhance the wetland habitats

To improve public safety awareness at water features

## Rock Faces

Rock faces form an important habitat for many lower plant species, e.g. mosses and lichens, together with specific flora, e.g. rue-leaved saxifrage (*Saxifraga tridactylites*).

The habitat is currently under pressure by encroachment of scrub species (Gorse), as described above. Management objectives for rock faces are thereby inextricably linked to containing the spread of gorse, as outlined in the objectives for scrubland above.

## Flora

Full species lists for flora and fauna of the LNR are not provided within this plan, though are held on a variety of formats at the CECCRS headquarters, and can be obtained upon enquiry. An up to date cataloguing of all such data will be a requested action of this plan. For now species will only be named where deemed of significance.

Bluebells, *Hyacinthoides non-scripta*, enjoys specific protection under the Wildlife and Countryside Act (1981), having recently been added to Schedule 8, though under the same act it is an offence to pick, uproot or destroy any wild plant. Picking of flowers across the LNR remains an occasional issue, particularly with giant bellflower, found near a main path, which has had all flowers picked over the past few years, therefore producing no seed.

Table 1 indicates plants of note on Blackford Hill. Some work to reintroduce species such as sticky catchfly is underway and there has been work by the CECCRS and a volunteer to reintroduce primrose (*Primula vulgaris*) to the Hermitage woodlands with a success rate of 36% so far.

Elsewhere within the woodlands there are a wide array of flora containing several locally interesting specimens, including wood speedwell (*Veronica Montana*), and wood anemone (*Anemone nemorosa*).

The former quarry in Blackford Glen provides a habitat of thin soils and bare rock, and contains species of local significance, including knotted clover (*Trifolium striatum*), and hairy rockcress (*Arabis hirsute*).

One threat to floral diversity in the woodlands is the continued spread of invasive non-native species. Both Himalayan balsam and few-flowered leek can cover areas almost completely, restricting light to native plants and causing their numbers to decline. Where control of Himalayan balsam has taken place, native flowers such as red campion have re-established. More understanding of the effects of few-flowered leek is needed, although casual observations would indicate that this spring flower forms dense mats of vegetation with little else in the way of spring ephemerals (ie: wood sorrel, wood anemone) growing.

Current Management

The CECCRS undertakes casual recording of plant specimens, with a more formal survey of the wildflower meadow and surveys to determine the success of reintroduced species done with the assistance of Biodiversity Volunteers. In addition, management policies currently in practice, e.g. path work, management rule enforcement; are specifically geared towards preserving the range and diversity of native flora.

A grassland survey of Blackford Hill was done in 2006 which identified a number of locally scarce or rare plants such as spring cinquefoil, and should guide efforts to retain and enhance plant species diversity on Blackford Hill.

The wildflower meadow is left to grow unchecked over the summer. It is then cut each September, and the cuttings removed, usually raked by volunteers and deposited along the edge between the meadow and woodland.

Flora; Evaluation

Much of the ground flora of the LNR is suffering in response to the twin pressures of erosion (by trampling, dogs, and bicycles) and competition from invasive non-native species. Primrose (*Primula vulgaris*), became locally extinct as a result of picking, and despite education to the contrary, this practice continues. Future management will have to reinforce the message of conservation via new Management Rules and appropriate signage.

Flora; Objectives

To conserve and enhance the population levels of native flora present within the LNR.

To ensure grasscutting is carried out to specifications re: amenity or wildlife meadows.

Fauna

Table 2 indicates fauna observed within the LNR which receive special protection under the Wildlife and Countryside Act, 1981.

**Table 2 Scheduled Fauna, The Hermitage of Braid & Blackford Hill LNR**

Species	Scientific Name	Protection	Comments
Kingfisher	<i>Alcedo alcedo</i>	Schedule 1part1	Rare visitor
Brambling	<i>Fringilla montifringilla</i>	Schedule 1part1	Winter visitor
Crossbill	<i>Loxia</i>	Schedule 1part1	Winter visitor
Fieldfare	<i>Turdus pilaris</i>	Schedule 1part1	Winter visitor
Redwing	<i>Turdus iliacus</i>	Schedule 1part1	Winter visitor
Garganey	<i>Anas querquedula</i>	Schedule 1part1	Rare passage migrant
Peregrine Falcon	<i>Falco peregrinus</i>	Schedule 1part1	Rare visitor
Whimbrel	<i>Numenius Phaeopus</i>	Schedule 1part1	Rare passage migrant
Wryneck	<i>Jynx Torquilla</i>	Schedule 1part1	Rare passage migrant
Bats (Typical) all species	<i>Vespertilionidae</i>	Schedule 5	Daubenton's bat & Pipistrelle sp.recorded
Common frog	<i>Rana temporaria</i>	Schedule 5	In respect of section 9(5) only
Common Toad	<i>Bufo bufo</i>	Schedule 5	In respect of section 9(5) only
Otter	<i>Lutra lutra</i>	Schedule 5	Observed using Braid Burn
Water Vole	<i>Arvicola terrestris</i>	Schedule 5	Formerly recorded on site.
Badger	<i>Meles meles</i>	Schedule 5	Sett recorded just off site, will use LNR

The otter (*Lutra lutra*) is known to inhabit most of the Braid Burn water system, and ought to be brought into overall management considerations for the site. No known holts have been recorded, but a number of suspected 'laying up' holes have been observed. Biodiversity Volunteers undertake otter surveys along the entirety of the Burn in the LNR, and have recorded spraints in most areas.

The water vole (*Arvicola Terrestris*), used to inhabit the Braid Burn system, however, there have been no recent recordings of this species, either in the Braid Burn system or in Edinburgh as a whole.

120 bird species have been observed within the LNR in total, though typically some 60-70 species are recorded in one year. In addition, the site contains 16 species of mammal. This diversity, coupled with the LNR's proximity to the city of Edinburgh, is at least as telling in understanding the importance of the area for wildlife, as the presence on site of the rarer species outlined by Table 2.

### Current Management

The CECCRS updates records of fauna during regular patrolling of the LNR.

The CECCRS and biodiversity volunteers began a breeding bird survey in 2010, which should continue to provide information on populations of birds on the hill and in the woodland.

There are around 30 nestboxes of different sizes and types located throughout the woods of the LNR, suitable for a number of hole-nesting birds. In addition there are approximately 10 bat boxes on site. At present the bat boxes are surveyed bi-annually by a bat licensed Countryside Ranger. The bird boxes do not tend to be checked, and an up-to-date map of all boxes should be undertaken to assess what new boxes may be useful to install.

A WeBS (Wetland Bird Survey) count is done at Blackford Pond by a volunteer with the British Trust for Ornithology and results passed to them.

A butterfly transect was initiated in 1998 to monitor species' presence and abundance within the LNR. After a few years where there were gaps in the survey's completion, it began to be regularly completed again in 2007 with the assistance of volunteers, trained at a CECCRS led day-long course. The survey is repeated annually in order to monitor population levels within species and detect changes in species' distribution. The survey is done by the CECCRS with assistance from trained Biodiversity Volunteers.

#### Fauna; Evaluation

The LNR holds a wide variety of fauna, reflecting its importance to wildlife. Future management should maintain the overall habitat distribution of the LNR, and maximise its value for wildlife. This will lead to conflicts of interest, (i.e. the restricting certain activities in order to enhance the wildlife value, e.g. public access, dog access).

Future research into fauna should be concentrated away from the familiar classes e.g. birds, and towards groups where less is known, e.g. mammals, invertebrates.

#### Fauna; Objective

To conserve and enhance the LNR for native fauna, and increase understanding about the fauna present on site

## The Historic Environment

### Archaeological Sites and Monuments

A prehistoric hillfort is situated at the summit of Blackford Hill, commanding extensive views over the surrounding area. The fort was defended in part by the naturally precipitous slopes, as well as by at least two circular ramparts which are still visible in places. The interior of the fort measured some 70 by 50 metres, and probably contained circular houses, though none can be seen today. The hillfort was probably built in the Iron Age, about 2000 years ago.

On an area of level ground immediately east of the hillfort, there are circular foundations of at least four houses, each about 8 metres in diameter, of which two are clearly visible. The remains of later rig and furrow field cultivation can also be seen in this area.

Cup and Ring marked rocks were recovered from the summit of Blackford Hill, and are now on display in the Royal Museum of Scotland.

The hillfort and external settlement are of national importance and are protected under the Scheduled Ancient Monument Act (SAM 5818). The area as a whole forms part of a larger historic landscape and it is quite possible that other as yet undiscovered prehistoric and medieval archaeological remains lie within the boundaries of the LNR.

## History and Architectural Features

The first identifiable landowner of the lands now covered by the LNR was Sir Henry de Brad, Sheriff of Edinburgh in 1165. It is presumed the lands of the area were named after him. No evidence remains of his property, though it is believed to have been a fortified structure located in what is now the field to the north of the house (Midmar field).

Successions of landowners are documented as occupying the property from the c16 until the present date, including Sir William Dick, Lord Provost of Edinburgh during the c17.

The current house, Hermitage House, is a category 'A' Listed Building, built by Robert Burn for Charles Gordon of Cluny in 1785, replacing a former dwelling. Many of the landscape design features of the LNR, e.g. canalisation of the river and tree avenue planting, are thought to have occurred at this time.

The Doocot predates the current house, being at least c17 in construction. It is situated within a walled garden, now overgrown. Both the Doocot and the walled garden are Category 'B' Listed features. The wall is in a poor condition, derelict in some areas, repaired in others, and patched up in yet further locations. The Doocot is in a fair condition having had a new roof installed in 2006.

The Ice House feature dates from the 18th century and is a typical example of this type of feature. It is a Category C/S Listed Building.

Other architectural remains include remnants associated with a mill, which was initially involved in food production, before being redeployed as a paper mill in 1571. The mill was demolished as part of landscape improvements carried out by Charles Gordon.

The date of the stable block is unknown. It is used for storage and has two public toilets on the eastern side.

Two small hydraulic ram water pump structures, of brick material, are located on the north side of the Braid burn, downstream of the weir. It is believed that the function of these pumps was to provide fresh water for the house and possibly stables. Their date of construction is unknown. Both are currently in a semi-derelict condition.

The buildings on Blackford Hill are all privately owned, being associated with the Royal Observatory or the communications industry.

Blackford Hill entered public ownership in 1884, when they were purchased by the then Edinburgh Corporation, for £8,000. The final owner, John McDougal, bequeathed the lands of the Hermitage of Braid to the City and its people in 1938. Since this date, the area has been a public space, the house itself being the residence of the Parks Superintendent 1939-66, before being a hostel for the Boy Scouts Association. The house was then renovated before becoming a Countryside Information Centre in 1979.

Quarrying in Blackford Glen (for road surfacing), occurred between 1826-1953.

## Current Management

The CECCRS has produced a variety of interpretative literature describing the historical background to the LNR. This was condensed into a designed and professionally printed "History of the Hermitage" leaflet in 2009.

Buildings and structural features are examined during patrolling, and where defects are recorded, repairs carried out by the Property Services section. At present there is no cohesive plan for the conservation of the designed landscape elements of the LNR.

**The Historic Landscape; Evaluation**

Given the limited information currently held, a professional, historic landscape and cultural heritage appraisal would be an ideal means to understand the development of the landscape, and make recommendations for its long-term maintenance.

The built landscape of the LNR is of great interest for many people. Resources should be sourced to preserve the remains and buildings on site, repairing as necessary. Specifically:

The walled garden is still overgrown, despite a number of conifer trees that were obscuring the Dooct being removed. Selective thinning and path clearance will enhance this feature and benefit ground flora that has been recorded in this part of the site. The Friends of the Hermitage hired a landscape architect to provide ideas for improving this area and are working with the CECCRS to try to take this project forward. In addition the wall is in places, in a severe state of disrepair, and resources ought to be made available to restore this historic feature.

The Ice House is a continuing source of interest to the general public, and has recently been cleaned and had a new gate and handrail along the steps to it installed.

The condition of the embankment along the Braid Burn, and associated features, e.g. Pump Houses, is in many places poor and deteriorating, and any repair work would require extensive resources.

**The Historic Landscape; Objectives**

To preserve and enhance the historic features and buildings

To increase knowledge about the archaeological remains and the historic landscape.

**Access**

Access Points

There are 13 principle access points into the LNR, as shown on map 1 in appendix 2. One of these points has a small self-contained car park (Midmar Paddock), while at Blackford Pond a small layby is often used for parking, whilst the third access at Blackford Hill shares a larger car park in conjunction with the Royal Observatory. Elsewhere car users must park on the roadside, and this can cause congestion at the Braid Road entrance.

Special Needs Access Points

Upon request, special needs groups are permitted to drive along the main entrance and use the car park area at the Stable Block near Hermitage House. This facility is also available to individual Blue Badge holders upon request, though current signage fails to inform of this access.

Paths

The main path networks are illustrated on Map 3 in appendix 2. The path system was surveyed in 1996, with surface type & condition, drainage, width and any step system all being elements recorded and assessed; this report is available at the Hermitage Visitor Centre. However, as may be expected, this survey is in many cases out of date. Some path improvements are scheduled to take place starting in 2010 as part of the WIAT funded project; therefore, regular patrols to look for defects during this time, followed by an updated path survey when work is completed would be advisable.

Two Rights of Way traverse the LNR, namely the path along Howe Dean Glen, and secondly the Lang Linn path. Both provide links to the Braid Hills on the south of the site. Also within the LNR are two of the Core Paths for Edinburgh. This initiative is described further in appendix 1.

### Disabled Groups

There are at present no paths specifically designed for Special Needs Groups. The topography of the LNR inhibits large-scale path creation for wheelchair users, though some of the surfaced paths give access to the less abled. Principally these paths are located at:

The north side of Blackford Pond,  
Blackford Hill, between the Observatory car park and the communications mast,  
The main drive to Hermitage House.

### Boundaries

The LNR boundary is made up of a series of stone walls, metal railings and wire fences, the conditions of which vary enormously. These boundaries were surveyed in 1996 and recommendations made as to actions needing undertaken. A full version of the survey is held by the Countryside Ranger Service.

### Public Safety and Security

Members of the public are responsible for their own health and safety whilst recreating within the LNR. Security, however, is a different matter, and several members of the public have been involved in incidents on the site. Where possible the CECCRS will either assist personally in such cases, or contact relevant agencies.

While patrolling, the CECCRS look for health and safety risks or defects to paths or infrastructure and report or repair them as necessary. All staff wear a recognisable uniform to add visibility when patrolling to add to the sense of security for visitors. Outside office hours, the CECCRS has a telephone answering machine with the council switchboard number for the public to call for other assistance or leave a message as they see fit.

### Signage

Information display cases can be found at 6 of the entrances to the LNR (see map 1 in appendix 2). These typically display Visitor Centre opening times, together with seasonal wildlife information or events, and information promoting responsible access. The current metal signs replace the former wooden signs that had weathered badly. They have a Plexi-glas cover that should be monitored regularly for any damage or vandalism.

4 Map panels are located at site entrances (see map 1 in appendix 2). New panels have been produced and recently installed that remove the obsolete access restriction messages of previous map panels and contain more natural and cultural history interpretation.

At Blackford Pond, an interpretation board highlights the water life of the pond – installed in 2010 to replace an earlier sign. Also at Blackford Pond, two A3 size panels at the gates to the pond inform visitors about not overfeeding birds and requests that they visit other areas of the park if they have dogs with them.

Temporary / emergency signage is put up by the CECCRS as required ie: path closures or thin ice signs.

There are currently no signs outwith the LNR to guide individuals to the main entrances. However, there may be scope to link with core path signage in the future.

### Path Management

As of 2010, many of the smaller paths in the woodland are in very bad condition, although main paths are still fully accessible. A full survey of the conditions of all paths is needed once all woodland work is completed, with priority going to paths identified as being in the greatest need for repair.

The main drive is cleaned annually by the Council's Task Force within Services for Communities with additional path scraping by the CECCRS and volunteers.

All main paths are kept free of obstacles and encroaching vegetation to the best abilities of the service. Staff use petrol trimmers to clear nettles, etc from path edges and volunteers assist by cutting back overhanging branches with secateurs/loppers.

The information panels are inspected at least once a week while the park is being patrolled.

There are a number of bridges that cross the Braid Burn that vary in construction and materials. These have been adopted by the City of Edinburgh Council's Bridges and Structures team and have been surveyed in 2010 to assess their suitability for use during woodland works. The Scout Bridge has been considered beyond economical repair and a replacement is being investigated.

Smaller bridges across drainage areas or other features in the park are checked whilst patrolling, as are the stiles to Midmar paddock. These are kept in good repair by the CECCRS with assistance from various volunteer groups.

#### Access; Evaluation

The current path work programme, though limited by resources, is now beginning to tackle the worst areas. Future management will continue to adopt a programme of path work repair and monitoring.

Prior to the Land Reform (Scotland) Act 2003, park management rules restricted certain types of access such as cycling – this has now changed, and all out of date signage has been replaced or removed.

Greater work is required to provide enhanced access within the LNR to a variety of Special Needs groups.

Current signage across the LNR has been recently updated with a co-ordinated style in keeping with that used in other CECCRS managed parks. Where appropriate, signs ought to be repaired, replaced or removed altogether, to produce a co-ordinated pattern of signage.

## Access; Objectives

To establish and maintain a controlled system of access across the LNR.

To maintain the principle path network in a good condition.

To enhance access for Special Needs groups.

## Recreation

### User Groups

Despite the designation 'Local Nature Reserve', the site is managed equally to meet the needs of nature conservation, alongside recreation and access. Several formal and informal recreational activities occur on site, including:

Walking, picnics, dog exercising, running, orienteering, climbing, natural history studies, art and photography, cycling and potentially horse riding.

### Cycling

Prior to 2003, the Council's park management rules restricted cycling in its parks, and cycling in the Hermitage of Braid and Blackford Hill was not officially allowed to anyone over the age of 14.

With the Land Reform (Scotland) Act 2003 and the Scottish Outdoor Access Code, cycling is now allowed within the park, provided it is done responsibly. Cycling has proven to be very popular, although occasional conflicts occur with other users, particularly walkers.

Families with children often cycle on the main drive to Hermitage House, and the main route along the Braid Burn is used by a number of commuter cyclists. Other woodland paths are used by mountain bikers and occasionally 'downhillers' will find a run down the gorge sides.

Impromptu mountain bike trail features are occasionally built, and subsequently removed by the CECCRS. Whenever possible, dialogue with the trail builders is attempted to try to educate them as to the unsuitability of the LNR for such activity due to its important habitat features and species.

### Dog Walking

The LNR is heavily used by dog walkers. Despite the creation of signage, and the provision of litter bins across the site, there is an excessive degree of dog fouling. The thoughtlessness of some dog owners presents a very real health hazard, and inhibits other users from visiting the site.

The high incidence of dog usage in areas of the LNR is also seen as detrimental to wildlife, with species of former ground and scrub nesting birds, e.g. skylark (*Alauda arvensis*) and meadow pipit (*Anthus pratensis*), no longer nesting on site. In addition, several 'desire lines' within the woodlands are the consequence of dog activity, in certain cases these tracks running through areas of locally important ground flora, e.g. bluebell, (*Hyacithoides non-scripta*).

Erosion of the banks of the Braid Burn is also a result of excessive dog activity, with some areas, including just outside the Hermitage House, showing large areas of scouring earth and mud. An examination of how this can be countered or repaired should be undertaken and actioned as resources permit.

One other issue regarding dog walking is the use of the LNR by professional dog walkers, who vary in their ability to control a large group of dogs, especially when encountering other park users. This is also an issue for other sites throughout the city and discussions regarding how to proceed are ongoing.

### Climbing

Climbing occurs at Blackford Quarry, with most groups alerting the CECCRS of the dates they will be using the area to allow the CECCRS to try to ensure there will not be conflict between multiple users. The groups typically use the west face of the quarry, and are self regulating. The quarry is used by groups between 20-30 times/year.

Groups are no longer allowed vehicular access to the Quarry, and permits are no longer issued in a formal manner. In 1999, 12 new climbing bolts were situated on the West face, supplied and secured by group members.

Apart from official groups, individual climbers use the West face of the quarry, together with other exposures nearby. Because many individuals climb upon the Agassiz Rock SSSI, a sign that formerly described the significance of Agassiz Rock is currently absent, having been vandalised. Replacement was considered, however, after the last instance of vandalism of the sign and the destruction of a nearby wooden directional post, the decision was made to incorporate the information onto the entrance map at Howe Dean bridge, located nearby.

### Orienteering

A fixed-point orienteering course exists throughout the woodland of the Hermitage of Braid, comprising of a series of metal plates attached to features or posts across the area. Maps for the Hermitage course as well as other orienteering courses in Natural Heritage parks are available from the Visitor Centre. The CECCRS and Edinburgh South Orienteering Club (ESOC) check the course for missing or damaged points. The course has been in existence for 20 years, and during this time, several marker points have been removed or fallen off through wear and tear, requiring replacement.

In addition to the fixed course, the LNR is used occasionally by orienteering groups as a venue for club events. Prior to use all groups inform the CECCRS, in order that any relevant information (e.g. 'no-go' areas) can be disseminated and risk assessments/liability insurance information can be given for records.

## **Recreational Facilities**

### Benches and Picnic Tables

The LNR contains a range of seating in the form of benches, seats and picnic tables. They vary in materials, age and construction. Some wooden 'commemorative benches' have been installed and fall under the responsibility of the Parks and Greenspace Workshop to maintain. Other seats include those of solid metal construction, those with metal leg supports and wooden seats and backs, and more informal wooden benches. Three picnic tables are also located in the LNR, including one in the wildflower meadow provided by the Friends of the Hermitage as a memorial picnic table as part of a donation to the group.

A full audit of all seating was done in 2006. Many seats require some work to bring them back up to satisfactory condition and work over the past year has focused on those of the poorest condition. Currently, seating is checked during patrols and any faults are repaired or reported as needed.

## Litter Bins

Litter bins are located at the main entrances of the LNR with only a few located within the LNR where vehicles can drive up to empty them. They are emptied three times a week by the Council's Services for Communities Task Force. Some bins are of an open top variety and problems occur with crows and dogs pulling out items in search of food, scattering rubbish in the process. In general, though, there is little litter on site, with the bins being used for both rubbish and dog waste. No specific dog waste bins are provided, and signage informs visitors that sealed dog waste should be deposited in the waste bins.

## Toilets

2 sets of toilets are situated within the LNR. One set is contained within the Visitor Centre (Hermitage House), cleaned daily. A second set by the stable block were refurbished and are now opened every day apart from Saturdays by one of the CECCRS staff. These 'stables toilets' have a disabled accessible toilet, necessary as the toilets in the Visitor Centre can only be accessed through use of the staircase.

## Visitor Centre

Hermitage House serves as both the base for the CECCRS and as a Visitor Centre for members of the public. It is open Monday-Thursday 9-5, Friday 9-4, and on Sunday afternoons. The centre contains a number of displays and information leaflets focusing on nature conservation and the history of Hermitage House. In addition there are audio-visual displays available on request, emergency telephone access, and First Aid provision, with all the Rangers being fully qualified. The number of people using the visitor centre is in the region of 7,500 each year.

Despite containing a variety of displays and information, the Visitor Centre remains an under-used facility. This is partly due to the very real difficulty of attracting people inside the premises in the first instance. Use of some of the downstairs rooms for meetings and training events has resulted in more use of the building and community groups such as the RSPB explorers have also meant an increase of use. A warden lives in a flat within the building and has responsibilities towards security of the entire building. Further rooms on the top floor are not currently used which limits the full use of the building. However, extensive intrusive investigation is required to ascertain load bearing limits prior to further use of the attic rooms being proposed.

## Sculptures

A wooden marimba made by local artist Mark Carr, along with participants from the Princes' Trust is a very popular addition to the LNR. A nearby 'crocodile xylophone' has not weathered as well, although the metal pipes within the framework are still and repairs to the rest of the sculpture are due to take place in 2011.

## Facilities Management

The Property Services Section manages the maintenance of Hermitage House with Edinburgh Building Services being utilised to carry out repairs in line with its grade 'A' listing. The display material shown within the visitor centre is created and changed by the CECCRS. Direct Cleaning are responsible for the cleaning of the property, including the toilets.

The litter bins, benches and sculptures are checked for defects as part of patrolling duties.

## Recreation; Evaluation

**Cycling:** responsible cyclists are now entitled to use the LNR on a variety of paths. Education should be provided to all users as to their rights and responsibilities under the Scottish Outdoor Access Code.

**Dog Walking:** the LNR shall remain available to responsible dog walkers. All dog users have the duty to clean up after their dog across the entire LNR, using the bins for disposal.

The incidence of dog fouling, and its consequent health hazards, must be reduced across the entire site. Dog walkers and other members of the public, together with council staff, should all act to instill this message to those dog users who persist in allowing their dog to foul. This message can be reinforced by a combination of educational programmes, interpretative material, and enforcement by the Environmental Wardens. A 'Blackford Hill Festival' done in 2009 raised awareness about this issue.

A trial project of having a portion of the LNR set apart as a dog free area in order to encourage scrub and ground nesting birds, during the breeding season (April – September) may be pursued.

**Climbing:** The use of the quarry by recognised climbing groups is to be encouraged. The condition of climbing bolts should be inspected on an annual basis. Currently this is done by a member of SOAC who updates the CECCRS if anything is missing.

**Orienteering:** The continued use of the LNR by groups is to be encouraged, subject to current restrictions on access to sensitive habitats. The fixed-point course within the Hermitage of Braid should be examined and repairs made as necessary.

**Benches / Picnic Tables / Sculptures:** The condition of many of the seats is very poor, several missing sections of planking and nearly all requiring repainting or re-varnishing. The seats and picnic tables should be examined annually and repaired / repainted biannually, and any that cannot be adequately repaired should be replaced or removed altogether.

**Litter Bins:** All litter bins should be checked during patrols to ensure they are in good condition and being emptied. In addition, all litter bins require signage to indicate their suitability as a site for the disposal of dog waste.

**Toilets:** Resources to maintain and regularly clean the toilets must be regarded as a priority. The Countryside Ranger who opens the Visitor Centre on any Sunday will always open the toilets located at the Stables by 9am.

**Visitor Centre:** The value of the Visitor Centre as a resource has yet to be fully realised. Funds to upgrade the building in line with its Listed status should be sought, in order to increase the value of the building as a centre for a variety of local activities. Funds to upgrade the building's energy efficiency should also be sourced, as significant heating costs are lost through the single pane glass windows and poor entrance to the building. An examination into possible use of rain water or grey water for toilets and other options could enhance the building as a learning centre for the public regarding energy and water saving.

Staffing restrictions inhibit the opening of the centre beyond the present levels.

## Recreation; Objectives

To encourage and facilitate sustainable recreation

## Education & Interpretation

The LNR is the focal point for environmental education and interpretation by the CECCRS. This is largely due to the resource of the Visitor Centre, which provides facilities such as toilets and hand washing for groups, in addition to a large classroom and laboratory, which can be used if the weather becomes poor.

### Environmental Education to Schools

The CECCRS has a range of requests from schools for visits to the parks they manage. Most of these requests are from Primary classes, and include topics such as woodland and minibeast study, life cycle/sustainability, seashore study, and others. Timetable restrictions result in hardly any Secondary classes visiting the LNR, apart from individual students conducting research for Higher / 6th year projects or seeking a work placement.

Currently some 40 classes each year visit the LNR. This number would doubtless be higher if resources including staff time permitted. Any additional classes would need management to avoid numbers having a detrimental effect upon the LNR such as trampling of vegetation. Future educational parties must be more evenly distributed amongst the green spaces of Edinburgh wherever possible. This has been partly achieved through promotion of other sites in the educational visit booking procedure and should be continued.

### Tertiary Environmental Studies

Edinburgh University has a large scientific campus close to the LNR, at King's Buildings. This means that the site has historically been frequently used as a study area. Unfortunately, in the past these studies have often tended to operate in isolation of each other. Results were compiled, reports completed and then forgotten about. The CECCRS identified this as an area where by contacting all relevant tertiary departments, individual research projects could be coordinated with the aim of producing valuable new data about the LNR. Currently a list of projects the CECCRS believes would be useful to have student assistance or information on is given to staff at Edinburgh University; however, this could be improved.

### Special Needs Groups

The LNR is visited by several Special Needs groups each year, some having CECCRS involvement, but many others accessing the park on their own. These groups are often dropped off in mini-buses which are allowed to park near the stables. If involving the CECCRS, a more flexible approach is adopted, both in terms of subject material studied, and the level at which the study is set.

### Forest Schools

Since July 2006 the CECCRS has hosted Edinburgh's Forest School Partnership Project on behalf of other partner bodies FCS, SNH, the FEI Edinburgh & Lothians Cluster Group and <sup>1</sup>Careers Scotland. The project has

*"..sought to actively increase the educational use of the city's woodlands"* (Nicol, p.26;2010)

by providing a supported package of accredited Forest School Leader training to those environmental and educational professionals interested in offering Forest School programmes to the clients they work with. This project has allowed the service to take a more strategic approach to positively engaging groups with the Natural Heritage parks managed by the service.

The Forest School ethos involves a group of children or adults visiting their local woodland area over a sustained period of time, whatever the weather (with exception of extreme weather posing an unacceptable health & safety risk). Programmes are delivered by an accredited Forest School practitioner and run for a minimum of six weeks; however, some take place all year round. Learning about the environment, self and each other is facilitated through a range of activities and experiences in the woodlands. This regular contact allows participants to explore nature, strengthen resilience, build confidence and take ownership of their own learning, all through a student centred approach. By the close of Edinburgh's Forest School partnership project in July 2011 it is expected that Edinburgh will have over 46 accredited teachers and group leaders throughout the city who are able to offer Forest School programmes, and as of 2010, two reside in CECCRS.

The Hermitage of Braid has provided an excellent venue for the last three accredited Forest School Leader Training courses. To date it has been occasionally used for Forest School programmes run by St. Thomas Aquins, Living Classrooms and the similarly modelled Branching Out programme run by ELGST. This use should be encouraged, but also managed carefully to avoid conflicts between groups using the same area and issues with overuse (such as trampling or erosion). With the Curriculum for Excellence promoting the benefits of outdoor learning (LTS; 2009) the increased volumes of such requests for should be anticipated and monitored.

<sup>1</sup>Careers Scotland were a partner body from 2006-2008 prior to changes in national funding through the Single Outcome Agreement.

### Interpretation

The variety of important features and a change of use (cyclists now allowed) call for careful management which could be greatly helped by interesting and provoking interpretation. The message to be conveyed in any interpretation should be that "The Hermitage of Braid and Blackford Hill has a wealth of history, geology and wildlife; please respect this and use the area safely and responsibly."

The objectives of interpretation would be to:

- Explain the history of the area – what the buildings you see today were used for
- Describe and explain the range of flora and fauna and why they live here
- Involve local people in deciding what and how the area is interpreted
- Ensure the LNR is as accessible to as wide a range of people as possible, both physically and intellectually
- Incorporate the corporate look of boards at other CECCRS sites

The main audience to the area is a mix of the people, who live in the local area and visit it regularly, plus visitors and tourists who only visit occasionally. This means the interpretation should include both the basic 'what you can see' as well as an element of changeable or updateable information about what is currently happening in the area.

The CECCRS manages 11 Natural Heritage Parks throughout the city and therefore wishes to keep interpretation on these sites within recognisable style guidelines.

These would be:

- The Interpretation should match the style and colouring of previous Interpretation produced on CECCRS managed sites
- Made from sustainable hard wearing material, vandal proof, can either be easily replaced or cleaned.
- Must include CECCRS and CEC logo, and the logo of any grant providers
- Fonts must be easy to read and distinguish letters in good contrasting colours
- Must be physically accessible to all complying with government legislation

New interpretation boards at the entrances, which both orientate visitors using maps and interpret the geology, history and wildlife at these entrances, have been produced and are now in place. The two main aspects still to be done are to update the ice house interpretation and produce interpretation along with the walled garden project - interpreting both the dovecot and plantings. The content and final media used will fall within the aforementioned guidelines and be decided in conjunction with local people. This may include a variety of media or keep to only one; the decision will be made once the local community have been consulted. These could involve new technology accessible through web sites and mobile phones and/or be supported by leaflets and literature available in the visitor centre as well as on the ground interpretation using boards and/or art work.

Interpretation within the LNR takes many shapes and utilises a variety of media. Guided walks are provided for a variety of groups (e.g. 50+ groups, walks for women), together with general walks open to individual members of the public. Large scale open day events, e.g. the "Blackford Hill Festival" of 2009, incorporate a number of conservation groups and activities, and have attracted some 200 visitors on the day. These large-scale events involve a great amount of resources, and as such can only be offered biannually and in partnership with others.

Individual displays and leaflets within the Visitor Centre cover a diverse array of topics, and are suited towards a variety of interests and abilities. Information on the CECCRS and the parks they manage including the Hermitage of Braid and Blackford Hill LNR can be explored on the internet; [www.edinburgh.gov.uk/countrysiderangers](http://www.edinburgh.gov.uk/countrysiderangers).

Current Management

The various displays within the Visitor Centre are changed two or three times each year. There is always scope to add new topics or displays to the Visitor Centre. The web site is regularly updated. Leaflets are popular with the public and are available at several points in the Visitor Centre, with stock being replenished as necessary. All school groups and guided walks participants including corporate volunteer groups are issued with evaluation forms to assess the success of their day and the quality of the service provided by the Ranger.

Education & Interpretation; Evaluation

Environmental education to schools of the LNR is both varied and thorough. Monitoring the site to prevent areas of overuse, to the detriment of its flora and fauna, should be regularly carried out and assessed. At the same time, there is no desire to reduce group / school / visits to the site, simply to ensure such groups are managed carefully.

Interpretation materials were previously done primarily on desktop software, however, more recent projects have involved either the Council's own designers or an external designer. This has resulted in much more professional signs and leaflets and should be continued where funds are available.

Physical interpretation materials should comply with design standards already in place and be made of physically robust materials which are vandal-proof or repairable as much as possible.

Education & Interpretation; Objectives

To continue to meet a variety of educational and interpretative requests, but also to decrease the effects caused by excessive use of the LNR.

## Marketing and Events

The CECCRS has a website ([www.edinburgh.gov.uk/countrysiderangers](http://www.edinburgh.gov.uk/countrysiderangers)), accessible through the City of Edinburgh Council's website, which informs the public about what parks the organisation manages, how to get there, what activities or events are scheduled, and how to contact the service to report any issues.

In addition, the CECCRS advertises its yearly programme of events in a published leaflet available at the Hermitage of Braid and Cammo Estate Visitor Centres, in the Outdoor Diary, and online at websites such as The List, and What's On.

The City of Edinburgh Council's Parks and Greenspace Service promotes the parks through the website, but also through a number of other ways, such as Park Surveys, which allow the Council to actively recruit the public's opinions about the parks they visit regularly. Other things such as a parks photo competition also increase the visibility and recognition of the City of Edinburgh Parks.

The Parks and Greenspace Survey was designed to capture people's views on a range of issues relating to parks in Edinburgh in general and the park they visit most frequently. The survey is available on-line at [www.edinburgh.gov.uk/parksurvey](http://www.edinburgh.gov.uk/parksurvey). The survey data is collated and analysed annually in June. The results are distributed to staff and stakeholders, such as Friends of Park groups. They are also posted on the Council website and in parks' notice boards. The results are used to help prioritise work in parks. Where appropriate they are used to develop park improvement plans and feed into the creation of park management plans.

For important events, or to advertise information about local community group activities and projects, the CECCRS makes use of press releases, both in smaller local newspapers as well as the Edinburgh Evening News. These press releases are important to reach out to different groups and promote knowledge of the park and activities.

### Marketing and Events; Evaluation

Because of the resource of the Visitor Centre, the site lends itself well to use for training, events, and meetings of groups or clubs. This should be managed well and increased.

The CECCRS should continue to develop a range of guided walks and events, including some at the LNR that showcase the benefits of Natural Heritage parks and the associated habitats and wildlife. Marketing should look at a variety of ways to get information to potential customers, and new ideas attempted to increase participation in events and provision of information about CECCRS.

### Marketing and Events; Objectives

To continue to provide a range of different guided walks and events on all sites for a range of age groups and users.

To find new ways to increase participation and information about the CECCRS and LNR by members of the public.

The increasing involvement of local community groups and individuals with an interest in the LNR will be important in continuing the positive development of the park. Some examples of the partnership working between the CECCRS and other groups are discussed below.

## Friends of The Hermitage of Braid & Blackford Hill LNR

The Friends of the Hermitage of Braid and Blackford Hill (FoHB) was formed in 1999, became a registered charity in 2001 (SC031776), and in 2010 had members in 200 households.

FoHB's objectives are to conserve and enhance the landscape, biodiversity, and sustainable use of the Hermitage of Braid and Blackford Hill Local Nature Reserve, and to engage and involve the local community in environmental issues and action, through information exchange, education and practical activities.

FoHB works closely with the CECCRS, and in recent years its efforts have focused on working in partnership with the Ranger Service to secure funding for major projects such as improvements to Blackford Pond and restoration of the Doocot.

FoHB undertakes regular practical maintenance work within the LNR and provides resources to assist and support the CECCRS with their ongoing programme of maintenance and improvements.

## Other Groups and Organisations

The CECCRS manages Natural Heritage sites for visitors to enjoy and it makes sense to engage with client groups and stakeholders by giving them opportunities to play a role in how these parks are managed. The hope is that this would, in turn, increase the sense of pride and ownership that a visitor has in his/her local park. The outcomes would be multiple: better managed parks, with a decrease in unwanted behaviours such as fly-tipping and vandalism; the CECCRS would be able to provide a better service delivery with limited resources; on an individual level, the volunteer would have satisfied some of his/her goals or needs. For example, when working with groups such as the British Trust for Conservation Volunteers (BTCV) and Stevenson College, the outcomes are the increase of employability by learning new skills, the creation of opportunities to socialize and the discovery of new places.

Involvement with other volunteer groups that are active throughout Edinburgh will continue, for example, volunteers from BTCV, Stevenson College, and corporate groups. This is useful, not only for the good work these groups help accomplish, but also to introduce people from throughout Edinburgh to the LNR, and encourage them to come back and visit the park.

A member of staff will continue to attend the City of Edinburgh Council South Neighbourhood Meetings, representing the CECCRS, in order to ensure continuity of management of the park with Council staff from other departments and the public.

### Partnerships and Community; Evaluation

A range of community and volunteer groups have been involved with various projects to improve the LNR, facilitated by the CECCRS, and this has provided benefits to all. Different groups are able to be involved with the LNR in different ways, and often receive positive outcomes such as training and development, a boost to self esteem, and satisfaction from seeing and working in a natural area.

The Friends of the Hermitage of Braid and Blackford Hill have been an asset to the work done to the LNR and with the CECCRS have sourced funds and undertaken work to improve the LNR for visitors and wildlife.

## Partnerships and Community; Objectives

To continue to involve a range of volunteers, community groups and corporate groups with projects that benefit the LNR and provide benefits to the groups/individuals involved.

To continue to support the FoHB in their involvement with the LNR.

## Sustainability

Because of the LNR's classification as a Natural Heritage Park, it does not involve the type of formal plantings that may use less sustainable items such as peat. The emphasis is for natural areas of wildflowers and trees to develop rather than formal flower beds.

Leaf litter, tree branches and fallen wood are left in situ if this is safe, or moved to areas away from paths if necessary, but are not taken away as waste. Any large items of rubbish removed from the site, particularly any fly-tipping, are taken to the local recycling centre where they can be separated rather than deposited in landfill.

There are a number of buses people can use to get to different areas of the LNR, with Blackford Pond being most accessible by bus. There is only a small amount of car parking available at different areas around the LNR, to encourage people to walk or cycle to the area if they live locally, or use the bus. The site is one of Edinburgh's Core Paths, further encouraging sustainable travel to the site and into and around the city.

A draft Pesticide Reduction Policy (2009) has been produced for the Parks and Greenspace unit within the City of Edinburgh Council. Herbicide application is only used when cultural practises will not provide adequate control. The Policy states;

*It is the City Of Edinburgh Councils policy, where appropriate, all non chemical alternative methods of weed control will be investigated and implemented depending on the requirements of the site, local environment and its users. This will also take into consideration, all available resources and any cost implications, which could impact on the local service delivery.*

*When non chemical alternatives are not suitable and chemical applications will be required, the Council will ensure;*

- *Chemical amounts are reduced by using alternative, low a.i. products.*
- *Application methods will be used to reduce the amount of chemicals applied.*
- *Application methods will be used to reduce chemical drift and any risk to the operator and the public.*
- *Chemical types and application methods will ensure that any risk to the environment is reduced or eliminated.*
- *Use well trained and certificated staff.*
- *Use well maintained and correctly calibrated application equipment.*
- *Continually monitor and review all chemical usage.*

Only affected areas are treated and only then using strategies that are sensitive to the needs of the public and the environment. The applications of herbicides are scheduled during off-peak times of park use and signs are posted to indicate the re-entry time period if appropriate. At the moment, herbicides are only used to control giant hogweed.

#### Sustainability; Evaluation

Unlike more formal parks, there is no use of peat and much lower use of any chemical herbicides or pesticides in the LNR. Efforts to reduce waste include leaving dead wood in situ wherever possible and taking waste that can be recycled to recycling centres rather than placing it in landfill waste collection.

There is scope to improve the energy efficiency of the Hermitage House Visitor Centre, and this should be examined and funds sourced for improvements.

#### Sustainability; Objectives

To continue to avoid use of peat and reduce or adhere to strict rules regarding chemical use in the LNR.

To promote alternative means of transport to and from the LNR.

### Monitoring and Reviewing

The LNR should be patrolled at least once a week, with all major entrances and features being checked. Observations made during the patrol are entered onto a patrol sheet and any works needing done are reported to other members of staff and acted on according to health and safety priorities. Patrol logs are kept at the CECCRS Headquarters and can be referred back to in case of any future issues or enquiries.

Parks and Greenspace Asset Audit is another way to monitor the features of the park. The aim of the audit was to produce a detailed inventory record of assets contained in each of the cities parks and countryside sites, including a basic condition survey for resource analysis and control. Each site was given a four digit numerical reference and each asset a unique reference number, a photographic record was taken and the assets grid reference noted. The information was imported to a Microsoft Access database which is linked to a Geographical Information System (ArcView) enabling users to locate precisely where each asset is located on the ground. Updates are done in Microsoft Access and a point is automatically added to the GIS asset field, there is a facility to run condition reports etc, this will help to identify the areas most in need of maintenance and costs to be ascertained.

In addition, the LNR is assessed internally by three groups of trained members of Parks and Greenspace staff using the Green Flag criteria. This assessment seeks to evaluate the park based on the main categories of the Green Flag award and is referred to as the Parks Quality Score (PQS). The assessment from this Parks Quality Score leads into development of the maintenance schedule for the park, allowing particular areas to be targeted or resources allocated to areas as required.

The CEC Parks and Greenspace Service also hold Park Surveys to get the public's opinions on how they think various parks are being maintained and managed. The results from this survey show those that responded most value the naturalness, open space, and views in the park. Issues that are of concern include wildlife management, anti-social behaviour, access, and litter management; these areas are then specifically addressed by the CECCRS with the help of volunteer groups.

In terms of monitoring the health and safety of the woodlands within the park, the Council's Trees and Woodlands department uses a computer program called Ezytreev. Ezytreev is a

tree management package that enables the user to record and monitor data relevant to single and/or groups of trees. The basic type of data that can be captured could include, age, girth, height, condition, location and targets. The system can be used in many ways, from simply mapping trees to setting up timed management processes on a continual basis and creating works orders. Ezytreev is also reasonably customisable so the user can tailor its specific needs. The City of Edinburgh Council purchased the system in 2006, and a large scale tree survey was commissioned to capture data relating to the trees in the streets, parks and woodlands that fall under the parks and greenspace remit; some 35,000 trees have been recorded to date. These are then monitored and any that become dangerous can be identified with this program and scheduled for works.

All City of Edinburgh Council Play Areas are designed in house to meet BS EN 1176 Parts 1 – 11. Prior to 1998 all play areas were designed to meet BS 5696. All play areas are held on a data base called Playsafe produced by Public Sector Software Ltd. This system holds information on all City of Edinburgh Council play areas, including; type of equipment, installation date, type of surface, fences and bins. This is relevant to the small play area at Blackford Pond.

Informal inspections are carried out by council employees who enter the play areas as part of their daily duties (Park Rangers, Playgrounds Maintenance Officer and Task Force staff). They report obvious hazards to the Councils workshop engineers. In-house ROSPA trained staff inspect the equipment on a monthly basis. Any defects identified are either repaired immediately or isolated and made safe, for repair at a later date. Written records of inspections and works undertaken are held with the Workshops at Inverleith Park. Annual inspections and risk assessments, conforming to RPII, are carried out on all the playgrounds by an independent Playground Inspector.

Another way of monitoring the improvement and success of the LNR will be through analysing the positive press interest and publicity the park, or the community groups involved with the park, receive; as this positive press can generate more interest and knowledge of the park from the general public. Community group involvement numbers are tracked and tallied by the CECCRS for inclusion in their annual report.

**Monitoring & Reviewing; Evaluation**

The City of Edinburgh Council and CECCRS use a variety of methods to monitor aspects relating to health and safety, status of infrastructure, and quality of parks and greenspaces. Some of these involve electronic resources and programs for trained members of staff. Others involve trained members of staff going out and assessing the parks according to Parks Quality Standards – which use criteria from the Green Flag Award scheme – to ensure the parks are meeting certain standards.

Any and all defects relating to issues regarding maintenance or health and safety are reported to the relevant member of staff or department, and are added to maintenance schedules etc. according to priority.

**Monitoring & Reviewing; Objectives**

To continue to regularly check features and infrastructure within the LNR against requirements for health and safety, visitor enjoyment, and parks quality standards.

To report back any faults or maintenance requirements to the appropriate staff member or department for inclusion into maintenance schedules.

## Operational Aims and Objectives

The following table sets out what actions and activities should be undertaken to meet the listed objectives in the previous sections of this document. This list is not exhaustive, and relevant projects or actions may arise within the next ten years that are not specifically listed within this table, but would meet some of the stated objectives. Where resources allow these new actions should be undertaken.

Similarly, the actions listed in the table below are subject to constraints due to funds or other resources such as staff time. Years for action are given as guidance, and should be met whenever possible; however, if resources are not present, the actions can be delayed while funds/resources are sourced. For most actions a lead organisation is listed to initiate the action, with assistance from other groups/departments as necessary.

Each year the table should be reviewed and comments made against any relevant actions. This review should also form part of the planning process for various Countryside Ranger workplans each year. Comments and updates against the various aims and objectives will inform other members of staff as to what has been accomplished or if changes to the plan have been made, which will be invaluable when reviewing the management plan and preparing to write a new plan in 2021.

Objective	Actions	Actioned By	Compartments	Year(s) for Action										Report/Comments
<b>Hydrology/Wetlands</b>														
To conserve and enhance the wetland habitats of the LNR	Bi-monthly litter clearance and drain inspection, B. Pond	CECCRS and Volunteers	1	1	2	3	4	5	6	7	8	9	10	
	Remove invasive vegetation at wetland patch	CECCRS and Friends Group	1e			3	4	5						
	Initiate 3 Braid Burn clean ups annually	CECCRS and Friends Group	2j, 2f, 3, 4	1	2	3	4	5	6	7	8	9	10	
	Monitor structural stability of Braid Burn edges, repair path erosion as needed and look for funds to improve habitat	CECCRS	2j, 2f, 3, 4	1		3		5		7		9		
	Seek grant funding and improve wetland patch area in terms of improved habitat for amphibians and accessibility for visitors.	CECCRS and Friends Group	1e			3								
	Seek funds to improve Braid burn bank just outside Visitor Centre, finding a way to reduce erosion and provide a safe approach for visitors to the waters edge	CECCRS and Voluntary Groups	3g	1	2									
	Seek funds and implement the building of a new woodland pond along the main drive to the VC where water is naturally running down and flooding the area	CECCRS and Voluntary Groups	4j	1	2	3								
	Conduct regular monitoring of water quality	SEPA & CECCRS	2j, 2f, 3, 4	1	2	3	4	5	6	7	8	9	10	
To improve public safety awareness at water features	Ensure 'thin ice' signs and any other information needed are placed at appropriate watercourses when needed	CECCRS	1,3,4	1	2	3	4	5	6	7	8	9	10	
<b>Geology and Geomorphology</b>														
To preserve the geological and and geomorphological	Encourage responsible climbing to main faces within Blackford quarry through discussion with groups	CECCRS	2f	1	2	3	4	5	6	7	8	9	10	

landforms	Monitor site regularly through patrols, ensure no potential damaging operations take place.	CECCRS	2f	1	2	3	4	5	6	7	8	9	10	
	Remove graffiti from rock exposures in quarry area	CEC Specialist Services	2f			3								
	Site condition monitoring of SSSI	SNH	2f		2		4		6		8			
To enhance public awareness about geology	Conduct geological guided walks across the LNR	British Geological Survey & CECCRS	all			3		5		7		9		
<b>Soils</b>														
To increase knowledge of soil profiles in LNR	Facilitate research projects and collect information	CECCRS and Tertiary Education Groups	all		2			5			8			
<b>Woodland</b>														
To ensure the woods have a diversity of age structures and species mix.	Initiate actions proscribed in the adopted woodland action plan	Trees and Woodlands officer, Forestry Team, CECCRS	all	1	2	3	4	5	6	7	8	9	10	
To retain the landscape design elements of the woodlands	Retain tree avenues, replacing as necessary	CECCRS and Forestry Team	3,4	1	2	3	4	5	6	7	8	9	10	
To ensure the woodland is kept in a	Removal of Elms affected with Dutch Elm Disease, outside the breeding bird season	Forestry Team	all	1	2	3	4	5	6	7	8	9	10	

safe condition	Implement Ezytreev system of inspecting and monitoring health/safety of trees	Trees and Woodland Officer	all	1	2	3	4	5	6	7	8	9	10	
	Clearance of dangerous limbs and trees	CECCRS and Forestry Team	all	1	2	3	4	5	6	7	8	9	10	
To maintain the current woodland area cover	Removal of seedling sycamore specimens around the fringes of Blackford Hill - mentioned in Woodland Plan	CECCRS & Forestry Team	2	1	2	3	4	5						
To conserve the woodlands as a habitat for native flora and fauna	Continue to leave dead wood in situ, where safe	CECCRS and Forestry Team	all	1	2	3	4	5	6	7	8	9	10	
	New tree plantings to be species of native stock & high wildlife value	CECCRS & Volunteers	all	1	2	3	4	5	6	7	8	9	10	
	Apply relevant actions to enact Edinburgh Biodiversity Action Plan	CECCRS & Volunteers	all	1	2	3	4	5	6	7	8	9	10	
<b>Scrubland</b>														
To contain the spread of gorse on Blackford Hill and maintain a sufficient scrub habitat for wildlife	Creation of fire breaks within gorse stands, measuring 10 metres across	CECCRS & Volunteer Groups	2	1	2	3	4	5	6	7	8	9	10	
	Conduct a survey to determine priority areas for nesting birds, consult the public about the temporary closing of paths to promote breeding birds	CECCRS & Volunteer Rangers	2		2		4		6					
	Investigate and potentially replace gorse with plantings of Blackthorn, Hazel and other native shrub species	CECCRS & Friends Group	2				4		6					
	Removal of gorse from western rock faces of hill where safe to do so (avoiding cutting from top to retain a barrier along rock faces)	CECCRS & Voluntary Groups	2	1	2	3								
<b>Grassland</b>														
To conserve and enhance existing														
	Undertake cuts of amenity areas May - September	CEC Task Force/Grounds	3,4	1	2	3	4	5	6	7	8	9	10	

grassland habitats		Maint.																
	Monitor Blackford Hill and repair damaged areas by reseeding with native grass mix	CECCRS & Voluntary Groups	2	1			4				7					10		
	Cut and lift grassland surrounding Blackford Hill Observatory car park	CECCRS, Task Force, Volunteers	2	1	2	3	4	5	6	7	8	9	10					
	Annual cut and lift of the wildflower meadow near Braid Road to retain diversity	CECCRS, Task Force, Volunteers	3f	1	2	3	4	5	6	7	8	9	10					
	Undertake trial strimming of Himalayan Balsam patches to prevent spread	CECCRS	2		2		4		6									
<b>Ruderal Communities</b>																		
To limit the spread of invasive weed species	Measure status of ruderal communities, and where they are increasing, deploy suitable control techniques, such as strimming.	CECCRS and Volunteers	all	1	2	3	4	5	6	7	8	9	10					
	Monitor and reduce identified invasive plant species, e.g. Japanese Knotweed, Himalayan Balsam and Giant Hogweed	CECCRS, Voluntary Groups, and Task Force	all	1	2	3	4	5	6	7	8	9	10					
<b>Flora</b>																		
To conserve and enhance the population levels of native flora present within the LNR	Implement reintroduction of Sticky Catchfly on Blackford Hill and monitor success of project	CECCRS & Biodiversity Vols	2	1	2	3	4											
	Identify important plant species currently extinct or receding through surveys and comparison with historical records	CECCRS & Biodiversity Vols	all		2		4		6		8							
	Where possible, work towards reintroducing important floral species or protecting small populations where they occur.	CECCRS & Biodiversity Vols	all			3		5		7		9						
	Implement, where relevant, recommendations of the Edinburgh Biodiversity Action Plan	CECCRS	all	1	2	3	4	5	6	7	8	9	10					

Fauna														
To conserve and enhance the LNR for native fauna and increase understanding amongst the public.	Monitor and assess habitat boxes, replace or add new ones as necessary to ensure a diversity of habitats	CECCRS	all	1	2	3	4	5	6	7	8	9	10	
	Undertake Breeding Bird Survey in spring and enter records	CECCRS & Biodiversity Vols	2,3,4	1	2	3	4	5	6	7	8	9	10	
	Undertake weekly counts of waterfowl at Blackford Pond	CECCRS or Volunteer	1	1	2	3	4	5	6	7	8	9	10	
	Conduct Butterfly survey and submit records to Butterfly Monitoring	CECCRS & Biodiversity Vols	2,3,4	1	2	3	4	5	6	7	8	9	10	
	Implement, where relevant, recommendations of the Edinburgh Biodiversity Action Plan	CECCRS	all	1	2	3	4	5	6	7	8	9	10	
	Improve knowledge about less well recorded fauna via survey work	CECCRS & Tertiary Education Groups	all		2		4		6		8			
	Monitor adjacent Badger Sett and watch for new presence in LNR	CECCRS & Edinburgh Badger Grp	all	1		3		5		7		9		
The Historic Environment														
To preserve and upgrade the historic features of the LNR	Seek funds and implement programme of repair to Walled garden, to include landscaping, interpretation and new planting to enhance feature.	CECCRS, Friends of the Hermitage	3e	1	2	3								
	Undertake remedial work to buildings when necessary	CEC Building Services	3,4	1	2	3	4	5	6	7	8	9	10	
	Monitor all historic features and assess condition	CECCRS, Historic Scotland and CEC City Development	2,3,4			3					8			
	Seek funds to employ specialist for Historic	CECCRS,	all			3								

	Landscape appraisal	Friends of the Hermitage															
	Improve interpretative signage associated with historic features	CECCRS	3,4	1	2	3											
<b>Objective</b>	<b>Actions</b>	<b>Actioned By</b>	<b>Compartments</b>	<b>Year(s) for Action</b>										<b>Report/Comments</b>			
<b>Access</b>																	
To maintain access points and path network in good condition	Scrape/clean Main Drive to Hermitage House	CECCRS & CEC Task Force	4	1	2	3	4	5	6	7	8	9	10				
	Scrape track to south of Blackford Pond	CECCRS & Volunteers	2	1		3		5		7		9					
	Cut back or trim vegetation along paths 0.5 metres back along each side wherever possible	CECCRS & Voluntary Groups	2c	1	2	3	4	5	6	7	8	9	10				
	Monitor path drainage systems and repair as necessary	CECCRS & Voluntary Groups	all	1	2	3	4	5	6	7	8	9	10				
	Monitor all step systems and repair as necessary	CECCRS & Voluntary Groups	all	1	2	3	4	5	6	7	8	9	10				
	Undertake path and associated infrastructure monitoring and report any defects to appropriate staff	CECCRS & Volunteer Rangers	all	1	2	3	4	5	6	7	8	9	10				
	Implementation of path repair programme as part of WIAT works	Private Contractor	2,3,4	1	2	3	4										
	Investigate funds to upgrade paths not part of the WIAT works	CECCRS & Voluntary Groups	All				4	5	6	7							
To enhance access for Special Needs Groups	Identify requirements and ways to develop access for special needs and disabled groups	CECCRS	all		2	3	4										
	Maintain 2 path systems for access by special needs groups (Blackford Pond and Main Drive) and seek new ways of providing access (ie: Walled garden raised beds)	CECCRS and Friends Group/Vols	all	1	2	3			6			9					

Recreation														
To encourage and facilitate responsible access and recreation	Develop closer links to all recreational user groups (ie: orienteering, horse riders)	CECCRS		1	2	3	4	5	6	7	8	9	10	
	Reduce incidence of dog fouling through education and interpretation.	CECCRS & Environmental Wardens		1	2	3	4	5	6	7	8	9	10	
	Monitor mountain bike use and remove inappropriate features such as jumps/berms - attempt dialogue with cyclists wherever possible.	CECCRS		1	2	3	4	5	6	7	8	9	10	
	Regular inspection during patrols of all physical features, and repairs undertaken as necessary	CECCRS		1	2	3	4	5	6	7	8	9	10	
	Litter bin provision & twice within 4-day shift cycle emptying of all litter bins	CEC Task Force (south)		1	2	3	4	5	6	7	8	9	10	
	Weekly litter pick of Blackford Pond and other paths, check Blackford Quarry and initiate clean ups as necessary	CECCRS & Volunteer Rangers	1,2	1	2	3	4	5	6	7	8	9	10	
To support and develop the 'Friends' group and assist where applicable in project implementation	Attend and support the Friends of the Hermitage and Blackford Hill meetings and events	CECCRS		1	2	3	4	5	6	7	8	9	10	
	Provide updates and information regularly to the Friends Group	CECCRS and other CEC depts		1	2	3	4	5	6	7	8	9	10	
	Provision of technical and practical assistance to group projects including the Walled Garden	CECCRS		1	2	3	4	5	6	7	8	9	10	
Education & Interpretation														
To continue to offer a wide variety of educational and interpretative talks and visits to the public.	Undertake Primary school group visits	CECCRS		1	2	3	4	5	6	7	8	9	10	
	Diversify areas to which school groups are taken	CECCRS		1	2	3	4	5	6	7	8	9	10	
	Provide self-led guidance notes for school groups that cannot be accommodated	CECCRS		1	2	3	4	5	6	7	8	9	10	
	Deliver guided walk and biodiversity training program yearly	CECCRS		1	2	3	4	5	6	7	8	9	10	

	Creation and facilitation of Tertiary Study Programme	CECCRS & Tertiary Education Groups	1	2	3	4	5	6	7	8	9	10	
<b>Across All Objectives</b>													
	Creation of up to date species list information using Recorder 6	CECCRS, TWIC, biodiversity volunteers	1		3		5		7		9		
	To monitor and evaluate success of actions	CECCRS	1	2	3	4	5	6	7	8	9	10	
	Conduct a review of the management plan in 2016	CECCRS					5						
	To produce a revised management plan for 2021	CECCRS										10	
	Regularly update the Parks Asset Register Database	CECCRS	1	2	3	4	5	6	7	8	9	10	

## Appendix 1 – Policy Context

The following Appendix provides details of the legislative responsibilities as well as local policies and strategies within which this management plan has been developed. The aim of each policy and/or strategy is described along with the particular relevance to the Hermitage of Braid and Blackford Hill LNR.

### Legislative Responsibilities

- **Land Reform (Scotland) Act 2003**

**Aim:** Part 1 of the Act establishes a right to be on land for recreational, educational and certain other purposes and a right to cross land. These rights exist only if they are exercised responsibly. Some of the provisions for that purpose are also extended in relation to rights of way and other rights. Part 1 imposes certain duties on local authorities in relation to access on and over land in their areas and, in particular, requires them to draw up and adopt a plan of core paths in their areas.

**Relevance:** the LNR is open to all visitors who use the site in a responsible way.

- **Nature Conservation (Scotland) Act 2004**

**Aim:** The Act sets out a series of measures which are designed to conserve biodiversity and to protect and enhance the biological and geological natural heritage of Scotland.

**Relevance:** the LNR is a park with a good range of biodiversity and natural heritage, its designation as the first LNR in Edinburgh shows its historic importance to wildlife and this is being maintained.

- **Dog Fouling (Scotland) Act 2003**

**Aim:** The Act has two principal aims. The first of these is to amend the offence of dog fouling so that the offence consists of failing to clear up after a dog rather than of allowing a dog to foul. The second aim is to establish new enforcement provisions in connection with the offence by enabling local authorities and police constables to issue fixed penalty notices to persons suspected of committing the offence.

**Relevance:** This Act is very relevant to the LNR as the largest visitor group is constituted of dog walkers.

- **The Disability Discrimination Act (DDA) 1995**

**Aim:** The Act aims to end the discrimination that many disabled people face. This Act has been significantly extended, including by the Disability Discrimination Act 2005. It now gives disabled people rights in the areas of: employment, education, access to goods, facilities and services. The Act now requires public bodies to promote equality of opportunity for disabled people.

**Relevance:** the LNR is fortunate to have a wide range of paths and terrains. There are well-made tarmac or hard surface paths that are flat and accessible to people with mobility difficulties, wheel or pushchairs. There are some paths that cross the hill that have gradients not suited to people with mobility difficulties, these restrictions are due to terrain that cannot be modified enough to make access open to all.

### Links with Local Strategies and Policy

- **Capitalising on Access – An Access Strategy for the City of Edinburgh – The City of Edinburgh Council – September 2003**

**Aim:** The Access Strategy sets out a framework for developing inclusive access for everyone who lives in, works in, and visits Edinburgh. Within the Strategy, the LNR falls into the Action Area Plan B: Outer Urban Areas.

**Relevance:** The priority action outlined by the Strategy relating to this area and relevant to the LNR is:

*Linking of greenspace networks with residential areas is vital. Areas such as Holyrood Park and Braid Hills provide excellent opportunities for outdoor recreation close to where many people live. Information and signage can help raise awareness locally, so these areas realise their full potential.*

- **Edinburgh Public Parks and Gardens Strategy – The City of Edinburgh Council, March 2006**

**Aim:** The purpose of the Edinburgh Parks and Gardens Strategy (2006) is to provide the City of Edinburgh with a strategy for its parks and gardens systems that sets realistic aspirations and shows the way forward to achieving them. The strategy is a means of matching the availability, function and role of parks and gardens with the changing requirements as identified by user surveys. The study has focused on parks and gardens within the urban area including the LNR.

**Relevance:** Under the proposed parks classification system recommended in the Strategy, the LNR would be classified as a Natural Heritage Park. These are generally large areas, the functions of which are determined by topography and ecology; indeed, the semi-natural character of these parks means that management for biodiversity is of fundamental importance.

- **The Edinburgh Biodiversity Action Plan 2010 – 2015 – The City of Edinburgh Council**

**Aim:** The third Edinburgh Biodiversity Action Plan was launched in March 2010. This new plan supersedes the previous Edinburgh Biodiversity Action Plans. In comparison with the first Plan 2000-2004, the third Plan contains only 12 species action plans compared with 97 in the first Plan. These 12 are for species requiring specific action which would not be accommodated for by general habitat management. The Plan continues to have Habitat Action Plans.

**Relevance:** the LNR contains mature woodlands, as well as large areas of natural grassland and scrub habitat. These habitats are important for a range of species. Bats are also found in the park, and are one of the species for which there is a specific action plan. Sticky catchfly and rock whitebeam are also priority species relevant to the LNR.

- **Play in Partnership – A Play Strategy for the City of Edinburgh – The City of Edinburgh Council, 2001**

**Aim:** The strategic vision for the Play Strategy is that: “Edinburgh will be a child friendly city where all children and young people have access to play opportunities which offer variety, adventure and stimulus. They will be able to play freely and safely and make choices about where, how and when they play.

**Relevance:** There are two objectives which will have an obvious impact on the management of the LNR. The first is that “*Every child and young person in Edinburgh will have access to good quality playgrounds and play areas which meet their needs for variety, accessibility, choice, open space, adventure and play aspirations.*” And “*To provide safe outdoor play areas in city parks, open spaces, woodlands, shorelines and other areas used for play.*”

- **Edinburgh Core Path Plan, 2008**

**Aim:** Part 1 of the Land Reform (Scotland) Act 2003 introduced a new right of responsible access to most land and inland water throughout Scotland. Under the Act, every Scottish

local authority has a duty to prepare a Core Paths Plan. The Core Paths Plan is required to identify a system of key routes for non-motorised access throughout the area.

**Relevance:** The LNR has two different Core Paths that pass through it. Path CEC2 is identified as 'The Braids' and contains the main route through the Hermitage Woodland, following the Braid Burn, with the addition of the Howe Dean Path. Path CEC3 is identified as 'Blackford Hill to the Meadows' and contains the main route around Blackford Hill including the parking areas at Midmar Paddock, the Observatory and then proceeding from the Blackford Pond entrance north. *"The aspiration for all Core Paths is to work towards a situation where they are all safer, appropriately signposted, accessible and well maintained."*

#### REFERENCES:

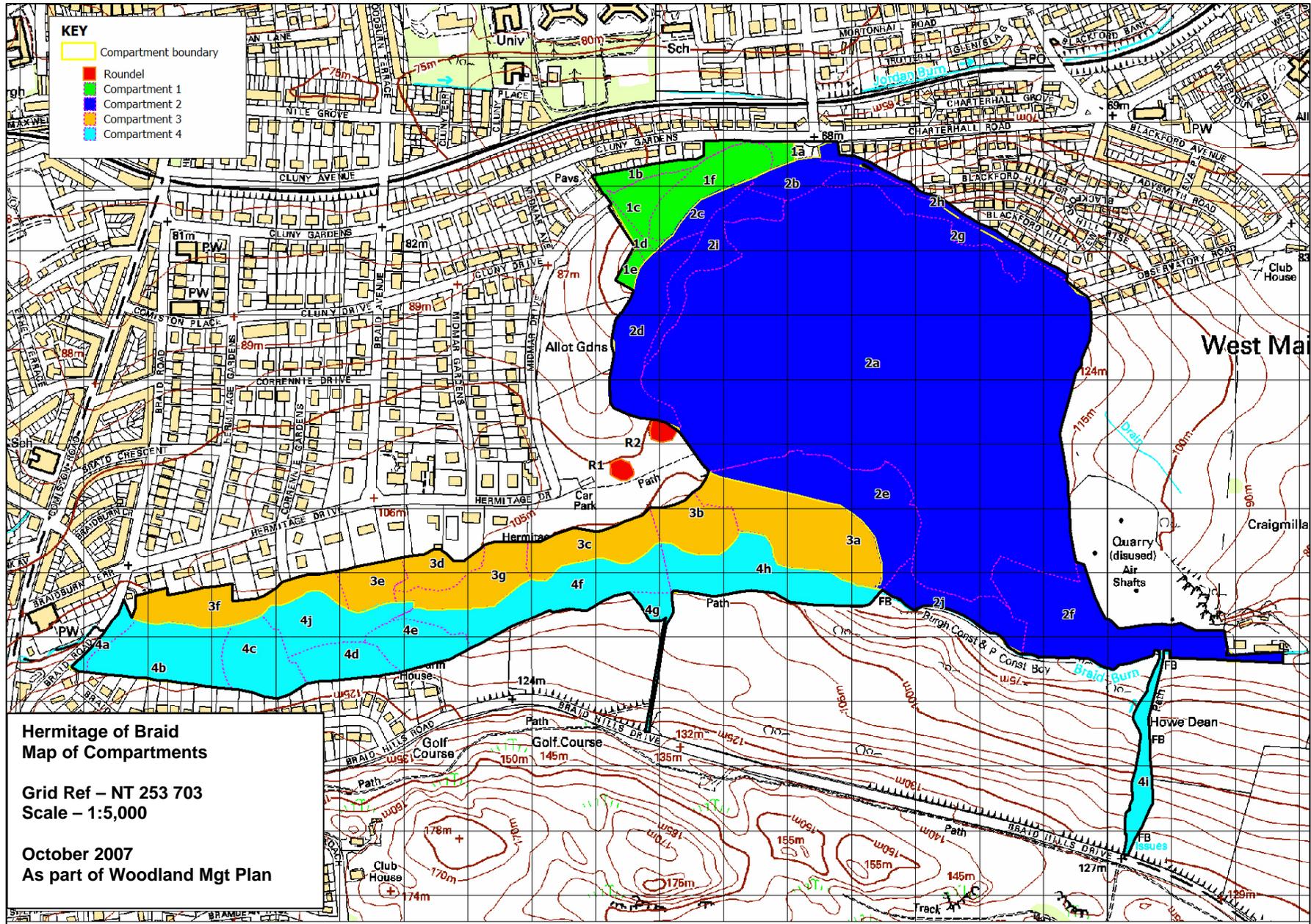
For all information relating to the management of the woodlands of the LNR, consult the Woodland Management Plan, written by Mark Hamilton Landscape Services for the City of Edinburgh Council. A copy is held at the Hermitage of Braid Visitor Centre.

The Core Paths Plan for Edinburgh is available in paper copy at the Hermitage of Braid Visitor Centre, or is downloadable online from [www.edinburgh.gov.uk](http://www.edinburgh.gov.uk)

This management plan is an updated version of a previous one written for the City of Edinburgh Council Countryside Ranger Service. Copies of the previous plan are held in paper copy at the Hermitage of Braid Visitor Centre or are available electronically from the CECCRS.



Map 2 – Compartments of the LNR



Map 3 – Access within the LNR

