



Mousehold Heath Conservators

Mousehold Heath Management Plan 2019 – 2028



NORWICH
City Council

Foreword from Councillor Marion Maxwell, Chair of Mousehold Heath Conservators

It is a great pleasure to present the new Mousehold Heath Management Plan.

It builds on the excellent work done over the last ten years and outlines the new vision and objectives for the next ten and has been produced in partnership between the Mousehold Heath Conservators and officers at Norwich City Council.

The new plan creates a link from the vision through to the individual projects which will support the delivery of the eight management objectives. A high level work plan identifies the priority projects to be undertaken each year and will be used to form a more detailed annual work programme.

It is a dynamic working document and will be reviewed on an ongoing basis by the Conservators because priorities can change throughout the lifetime of a long term plan.

The key priorities going forward include continuing to enhance the biodiversity of the site through the restoration of nationally declining habitats, building on the important work around increasing understanding of the heath through volunteering opportunities and educational programmes as well as ensuring the site offers a safe and welcoming environment for all its visitors.

Despite financial challenges and incidents which have resulted in the destruction of habitats and wildlife, I feel the heath is in a better place now than it was five years ago and in a very strong place to meet the challenges it will likely face over the next ten years.

I would like to personally thank all of the amazing volunteers who regularly give up their time to help look after the heath, the Mousehold Heath Wardens, my fellow conservators and officers of the council who support the work of the committee.

Because of their inspiring dedication and hard work the heath is the wonderful and unique place we see today.

Councillor Marion Maxwell
Chair of Mousehold Heath Conservators



Marion F. Maxwell

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1. BACKGROUND

Norwich City Council

Norwich City Council is one of four local authorities that provide services to the city of Norwich, along with Broadland District Council, South Norfolk Council and Norfolk County Council. The city council is responsible for approximately 60 per cent of the urban area of Norwich, including the historic city centre, covering a population of approximately 139,900 people (Source: 2016 midyear estimates, Office of National Statistics ONS).

Norwich is an innovative, creative city with big ambition for both the place and the people who live here. The fastest growing economy in the east of England, it is home to the headquarters of 50 major companies, is one of the top shopping destinations in the country, and is the regional cultural capital. Yet, in sharp contrast to this, outward economic prosperity, Norwich has a low-wage economy and high levels of deprivation.

Norwich's position as a regional centre means there are high levels of inward travel for work, shopping, cultural and leisure activities. This means that many of the services the city council provides are used by people who live outside of the city, placing additional pressures on council resourcing. However, this must be balanced against the range of benefits this high inward travel provides, including to the local economy and to the council financially through its share of business rates etc.

The freehold of Mousehold Heath is held by Norwich City Council and the management of the heath is vested in the Mousehold Heath Conservators.

Mousehold Heath Conservators

Mousehold Heath was given to Norwich City Council (then known as the local corporation) in 1880 by the church to look after on behalf of the citizens of Norwich. The City of Norwich Mousehold Heath, Scheme Confirmation Act was passed by Parliament in 1884. The Mousehold Heath Conservators were constituted following the passing of the act to maintain and preserve Mousehold Heath.

The City of Norwich Act 1984 made further provision for the regulation and maintenance of Mousehold Heath by the Mousehold Heath Conservators.

There are 12 Conservators appointed as follows; 9 appointed by the Council (at least 7 of whom must be councillors), 1 from the Mousehold Heath Defenders, 1 from the Norwich Society and 1 appointed by an organisation interested in the conservation of the environment in the city.

The Mousehold Heath Conservators meet four times a year and cover the costs of managing the heath through a precept to the Council.

Management planning

Managing change in the natural environment, preventing the loss of habitats or creating and improving them takes place over many years. The management plan sets out the long term objectives for a site, where changes in the management committee can take place annually, to ensure continuity of management. The plan will enable the Conservators to manage the site effectively; to identify the management required to meet their objectives; to provide a framework for decision making and setting policy; to identify budget requirements, to support grant funding applications and to develop work programmes. A management plan is produced taking into consideration the environmental, cultural and historical attributes of the site along with the visitors it serves, which collectively identify the importance of Mousehold Heath as an open space within a city.

It has been ten years since the introduction of the first Mousehold Heath management plan covering the period 2008-2013 which was revised in 2013 to cover the period 2013 – 2018.

This current document is not a complete re-write of the original management plan agreed through public consultation, as the majority of information within it is still applicable. It has been updated and developed to build on the successes achieved over the last 10 years.

During the timescale covered by a management plan changes in legislation, best practice, financial climate and technology can change, as can trends in the way people wish to use a site. A management plan is a dynamic document which through the annual work plan will enable management to be flexible, adapting to changes in constraints and opportunities, whilst still working towards the vision and objectives which have been defined for the next 10 years.

2.INTRODUCTION

Mousehold Heath is a unique open space made up of grassland, woodland, heathland and recreational open space within the city. In Tudor times, Mousehold Heath stretched as far as South Walsham and had a boundary of 35km, and up until the 1900s it was predominantly open heathland. Mousehold Heath is now 88 hectares (184 acre) in area, of which a relatively small proportion is now heathland and not woodland.

The site has played an important part in Norwich's history and is a diverse part of the city's cultural and natural heritage, shaped by its geology, history and previous and current use.

The Mousehold Heath you see today has been influenced by the way the heath has been used in the past including being used for grazing livestock such as cattle, sheep and pigs, gathering fuel, gravel extraction and quarrying and also brick making.

The site has a mosaic of habitats including mature woodland, specimen trees, acid grassland, heathland, scrub and aquatic environments which provide a range of conditions suitable for a variety of plant and animal species, including some which are nationally in decline. Mousehold Heath is a Local Nature Reserve (LNR) and County Wildlife Site (CWS).

The Mousehold Conservators use traditional management techniques such as coppicing and pollarding when managing trees, to look after the site alongside more modern techniques such as humus stripping when trying to increase the extent of heather cover on the heath. The management work is carried out by the Mousehold wardens, volunteers and contractors.

Mousehold Heath has important historical links with the city. The body of William of Norwich was found on the heath. It was suspected he was the victim of a ritual murder and supposedly attained the status of saint and martyr. The heath has been used as a campsite during rebellion, as a military training ground on more than one occasion in its history and was the site of two military aircraft crashes during more recent conflict.

Although important for its wildlife and history, it is much more than a museum or a nature reserve. It is a space that is highly valued as a place where people can enjoy a feeling of being in the countryside whilst still being in the city. It is a place where people can walk, play sport, learn about nature and history, attend an event, or just unwind from the pace of city life.

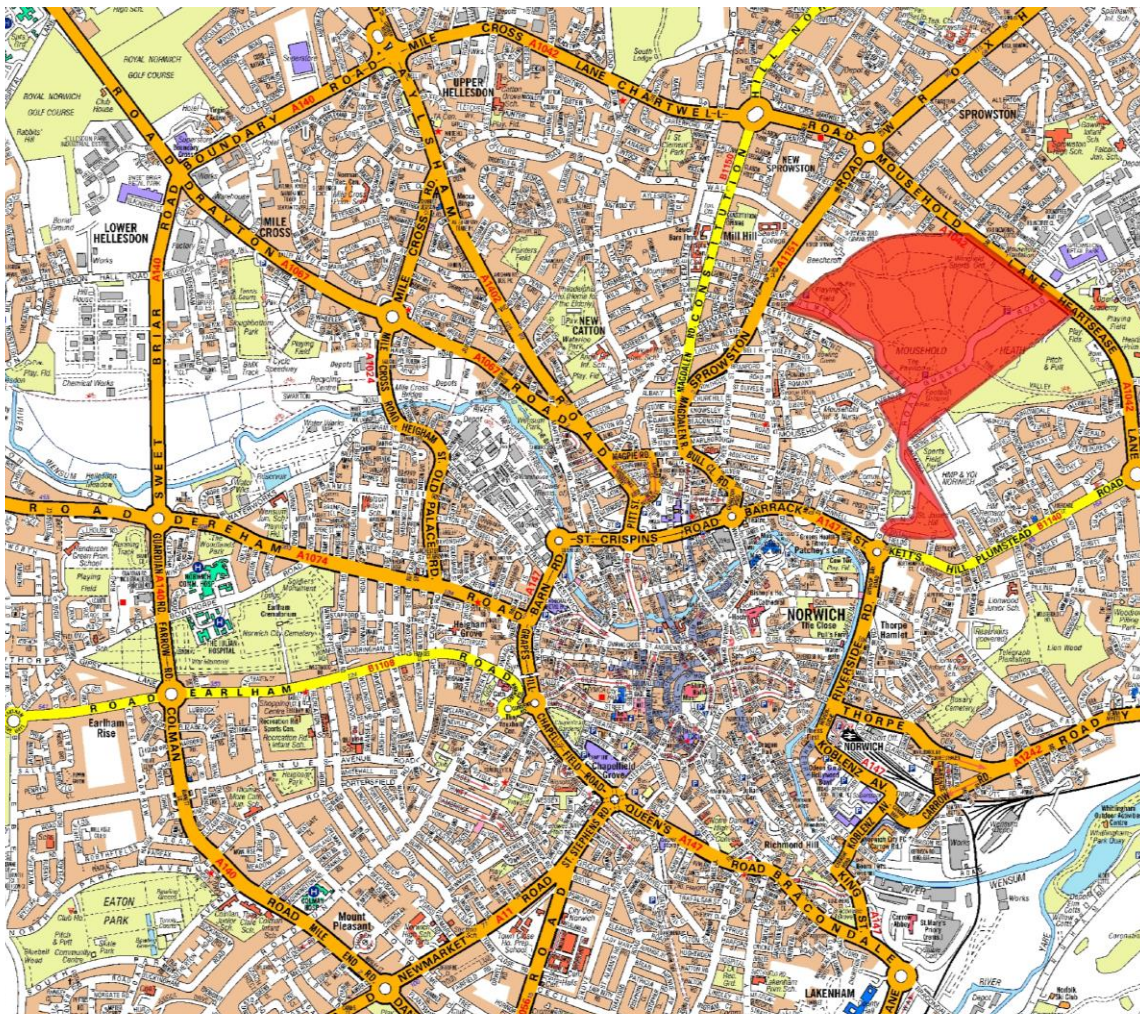
3.SITE DESCRIPTION

GENERAL INFORMATION

Location

Mousehold Heath lies in the northeast quarter of the city of Norwich, Norfolk, just inside the city ring road. Central grid reference is TG245104.

MAP1: City location map



Ownership

The freehold of Mousehold Heath is owned by Norwich City Council. The Mousehold Conservators are responsible for the regulation, maintenance and preservation of the heath.

Mousehold Heath was given to Norwich City Council (then known as the local corporation) in 1880 by the church, to look after on behalf of the citizens of Norwich. Norwich City Council still owns the freehold of Mousehold Heath.

In 1884 Parliament passed the City of Norwich Mousehold Heath, Scheme Confirmation Act and, the Mousehold Heath Conservators were constituted following the passing of the act to maintain and preserve Mousehold Heath.

The City of Norwich Act 1984 made further provision for the regulation and maintenance of Mousehold Heath by the Mousehold Heath Conservators.

Site status

Mousehold Heath is designated as a Local Nature Reserve and also a County Wildlife Site (Reference number 1469).

The site and remains of St William in the Wood Chapel is designated a Scheduled Ancient Monument under the Ancient Monuments and Archaeological Areas Act 1979. Recorded as Site of Saint William's Chapel list entry Number: 1003172.

The two aircraft crash sites are covered by the Protection of Military Remains Act 1986.

The Norwich Local Plan 2014 defines Mousehold as an open space and critical drainage area to which Development management policies DM3, DM5, DM6 and DM8 apply.

Staff

The site has two full time wardens who work a rota system to cover weekends and weekdays. They are multifunctional and not only patrol the heath but also carry out management work, surveys, practical task, liaise with users of the heath and assist with developing policies and projects and supervise project delivery.

The work of the Conservators is also supported by a number of officers at Norwich City Council.

Budget

The Mousehold Heath revenue budget for 2017/18 was £221,293 with £100,766 capital held in reserves.

Legal constraints

The freehold of Mousehold Heath is held by Norwich City Council.

Mousehold Heath Conservators are responsible for the management of the heath as set out in the City of Norwich Act 1984.

The site is covered by Mousehold Heath byelaws pursuant to Section 21 of the Norwich City Council Act 1984.

The Wildlife and Countryside Act (1981): provides protection for a wide range of species, some of which occur at Mousehold Heath.

Section 40 of the Natural Environment and Rural Communities Act (2006) (NERC Act), states that:

‘Every public body must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity’

The NERC Act applies to Norwich City Council and the Mousehold Conservators

Leases and licences

Zaks restaurant has a lease for the Pavilion building. There is also an annual licence in place for an ice cream van on Gurney Road.

Utility services

One utility company has statutory rights of access onto the site to repair and maintain their structures and apparatus.

A VALUED OPEN SPACE

Visitor appeal

Mousehold Heath is used throughout the year by local residents and also people from outside of Norwich and Norfolk. People are attracted to the site because of the sense of being in the countryside whilst in a city, its wildlife, its history and also the events and activities which take place on the site throughout the year.

Visitor access

The site is easily accessed by visitors, the majority of whom, it would seem, come from the city, through observation and conversations with them on site. The site boundary is unfenced with a large number of established access points and paths. A policy of access restrictions only being put in place where there is a need to control illegal activities is in place; also taking into consideration the scale of the problem, the impact on the site and users and the cost considered against the benefits. The lowest level of intervention to deal with the specific issue being addressed is used.

No cycling is allowed on the heath apart from on the Pink and Orange pedalways which are designated cycle routes

Public transport

There are three bus services that can be used to access the heath at the time of writing the plan which are:

- First bus 23/24 runs along Plumstead Road, a short walk from St James’ Hill
- First bus 11/12 runs along Sprowston Road, a short walk from the Gilman Road entrance

- Konect50/50A runs through the heath and has a stop on Mousehold Avenue.

Visitor facilities (MAP 2: Facilities)

- A bandstand with seasonal concerts
- Cycle parking
- Football pitch and changing rooms
- Surfaced access paths are located at Hill Farm rack, Britannia Road car park to Mottram Memorial viewpoint loop and Valley Drive to Gurney Road. The surfaced cycle-ways are also for use by pedestrians.
- Seating, benches and picnic tables
- Four car parking areas
- Public toilets (adjacent to the pavilion)
- The Fountain Ground has toilet and changing room facilities (for the use of organised sports teams only)
- Nature trail and orienteering routes
- Earth heritage trail
- Refreshment facilities including Zaks restaurant and an ice-cream van concession adjacent to the Fountain Ground sports pitch, Gurney Road.
- Combined litter/dog waste bins
- Public benches in various locations
- Interpretation and information panels

MAP 2: FACILITIES



Community involvement

A community approach encourages local people to be involved with the management of the site. The community are involved in a variety of different ways on an individual basis acting as 'eyes and ears' and reporting problems, collecting litter and being directly involved with practical management tasks carried out by a number of groups in conjunction with the Mousehold wardens. There are also volunteer groups that undertake survey work and lead guided walks.

Two local groups, the Norwich Society and the Mousehold Heath Defenders, appoint a representative each to the Mousehold Heath Conservators.

Local groups and schools are involved in regular conservation tasks; these include The Conservation Volunteers (T.C.V.) Assist Trust, Mousehold Heath Defenders, Heartsease Open Academy, Norwich High School for Girls, City College, Easton Agricultural College, DofE students and local business as part of their corporate volunteering activities.

The site also has its own volunteer group involving a number of people from the local community.

The wardens work effectively with local schools on site, running educational programmes and assisting students with college placements and providing them with practical work experience

The use of the heath as a Forest School is supported and used by children from Mousehold Avenue infant School, George White Junior School and Parkside Infant School. The wardens also go into local schools to talk with children about Mousehold Heath.

An annual programme of guided walks is delivered and seasonal wildlife surveys involving local community groups, students and residents are undertaken.

A number of biodiversity workshops have taken place which give an introduction to local wildlife, along with Heritage open weekends and geological walks led by local experts and the Mousehold Heath wardens.

Present use

Mousehold Heath is used frequently for dog walking and other informal recreation such as running or jogging, casual ball games and picnics. There are a large number of paths running throughout the heath, many of which are not part of the formal path network and these tend to come and go over time. Unofficial camping occasionally takes place, and in the wooded areas children and young adults sometimes construct 'dens' and rope swings.

There is a designated cycle way, although unauthorised cycling occurs over parts of the site, and this has caused some localised erosion. "Do it yourself" mountain bike courses are often constructed which can be a hazard for other site users. A potentially more serious problem is the occasional, unauthorised, use of the site for off-road motorcycling.

Organised sporting activities, mainly football, take place at the Fountain Ground. Organised cross-country runs occasionally take place on the site.

The bandstand is still used for occasional concerts, although on a less frequent basis than in the past. Public fetes and similar events have also been organised by Norwich City Council, Mousehold Conservators and Mousehold Defenders.

A constraint on the recreational use of Mousehold is the very busy Gurney Road, which effectively cuts the site in two. Crossing this road can be extremely hazardous

for pedestrians and there is further environmental impact from noise and traffic fumes. Traffic calming measures have been introduced involving the narrowing of the road from near the Rangers House to Valley Drive and speed humps being put in place.

Misuse and anti-social behaviour

As with any open space adjacent to (or, in Mousehold's case, surrounded by) a large urban area, problems of misuse and anti-social behaviour do occur and include:

- deliberate vandalism, including graffiti, to buildings, seats, gates, signage etc.
- unauthorised access by motor vehicles, including stolen ones that are often abandoned and set alight
- fly-tipping of rubbish, including green waste
- littering
- dog fouling
- illegal drug taking
- arson (mainly setting fire to vegetation)

The misuse and anti-social behaviour taking place at Mousehold Heath is common to other areas of Norwich and at a relatively lower level than adjacent open spaces. Measures are undertaken to tackle these issues across the city and are dealt with by the wardens in conjunction Norwich City Council, using council policies and processes.

From an ecological viewpoint, the most serious form of misuse is arson. Although controlled burning is used as a management tool on some extensive heathlands, it is carried out so as to minimise damage to wildlife. At Mousehold, the area of heathland remaining is very small, and there is little space available to which heathland wildlife can retreat in the event of a fire, and from where it can re-colonise the burnt areas afterwards.

A further undesirable effect of heathland fires is that they can encourage the spread of birch and also bracken, if these species are present as they are at Mousehold.

PHYSICAL FEATURES

Climate

Temperature (Met Office monthly average 1981 – 2010)

Maximum: 21.4°C (August)

Minimum: 1.3°C (February)

Temperature (Met Office annual average 1981 – 2010)

Maximum 13.8 °C

Minimum 6.4 °C

Rainfall (Met Office monthly average 1981 – 2010)

Maximum: 68.2mm (October and November)
Minimum: 41.7mm (February)

Rainfall (Met Office annual average 1981 – 2010)
Annual average: 674.2mm

Hydrology

There are currently no visible springs or watercourses on the heath. There is one shallow rain fed pool, known as the Vinegar Pond, which following being relined with bentonite clay granules in 2012, holds water throughout the year. The pond is located in a slight hollow, but there has been some debate as to its precise age and origins, or whether the pond is artificially lined. A survey in May 2007 and 2011, indicates that the current pond probably originated in the 20th century as a result of ground compaction from quarrying and military activities.

In 2012, a community wildlife pond was constructed using a bentonite clay liner at the Gilman Road end of Valley Drive, adjacent to Silver Birch walk. This permanent feature now offers an important habitat for birds, dragonflies and frogs with an abundance of frogspawn in spring.

It is known that there were other ponds in the past, for example, a small pond formerly existed in the small valley between compartments B and C, but now there is no evidence of this.

Topography

Mousehold Heath is on the western edge of a plateau typically more than 40m above sea level. The site has a varied relief, due to a combination of natural processes and past human activities, especially quarrying, which today give the site much of its interest. The distinctive steeply sided, but flat-bottomed valleys at Mousehold were probably formed during cold stages of the Ice Age, when permafrost would have prevented water from soaking into the gravels and sands as it does today. The valleys would originally have drained into the River Wensum, and they would have cut deeper as the river itself gradually eroded deeper.

Geology

The basic geology of Mousehold Heath consists of 25m of gravels, sands and glacial till on top of chalk bedrock.

The coarse flint gravel (about 3m thick) which forms the heath's surface, and the underlying sandy gravel and sand (about 5m thick), were deposited by ice sheet meltwater rivers up to 400,000 years ago. Below is several metres of sandy, clayey till with stones (known as 'brickearth'), that was left by an ice sheet. Between the till and the chalk is a thick sequence of sands, known as the Norwich Crag, these are up to a million years old and mostly marine which sometimes includes shells.. The chalk itself is very much older, originating about 70 million years ago in the Cretaceous Period. The chalk was laid down in a warm, crystal clear sea and is exposed at the southern end of Mousehold Heath in St. James' Pit.

Soils

The soils are mainly sandy, which are acidic and nutrient poor on the higher ground. Where trees or bracken have gradually replaced the heathland vegetation, a more fertile surface humus layer has developed. Deeper, humus rich soils with a higher nutrient status occur in the wooded valleys.

CULTURAL HERITAGE (MAP 3: Cultural features)

Past land use

Mousehold Heath is a historic landscape with many features testifying to its past socio-economic importance to the City of Norwich. There are several medieval references which refer to the gradual reduction in size of the ancient and very extensive Thorpe Wood and its replacement by Mousehold Heath, mainly as a result of grazing pressure. These are described by Dr Oliver Rackham in *The History of the Countryside* (1986).

Heathland was formerly regarded as a useful resource, providing grazing and a wide range of products made from heather, gorse and broom; it was also an important source of fuel, especially in areas with little woodland. Bracken was also regarded as a valuable material with many different uses. It is known from historical documents that Mousehold was managed for these purposes since at least the 14th Century, when commoners had rights to keep cattle, sheep and pigs on the site.

Rabbits were also introduced and were actively managed for food, and their grazing activities helped delay the succession of the heathland to woodland until the 1950s, when they were decimated by myxomatosis.

Generally, these processes would have had a very positive effect on the heathland habitat, in that they produced a mosaic of vegetation of different ages (thereby encouraging a wider range of wildlife dependent on it), and prevented reversion to woodland. Traditional management practices, such as grazing and cutting, may also have helped prevent bracken from out-competing heather. Active management also limited the build-up of large quantities of combustible material, thereby reducing the risk of catastrophic fires.

Mousehold was also quarried extensively from at least the 16th century until well into the 20th, a factor that has been responsible for the varied relief of the site with its characteristic 'hills and hollows'. The quarrying, especially the larger scale activity of the late 19th and early 20th centuries, may have had some adverse effects on the site's vegetation and associated wildlife. However, many heathland species, especially invertebrates, favour bare ground and these may have benefited. It is very unlikely that all the heathland vegetation could have been destroyed during the quarrying, and plants and animals would probably have been able to re-colonise the former quarried areas, once operations had ceased, from adjacent pockets of heathland that survived.

The heath was used for military training from 1790, when a cavalry barracks was built in Barrack Street and there is still a path known as the Cavalry Track, which has

been cleared and is now maintained. During World War Two, limited military training occurred at Mousehold, and an attempt by the War Office to take over most of the area for a battle training ground in 1947 was defeated by strong local protests.

Mousehold Heath may always have been used for public recreation to some extent, but it was not until the late 19th Century, and the passing of the 1884 act that created the Mousehold Conservators, that this became the dominant use for the site. From this time onwards, Mousehold became extremely important as a site for open-air recreation by the people of Norwich. Early photographs (e.g. Gorham, 1908) show large numbers of people enjoying the heath on both informal occasions and at organised events. Although there are now fewer organised events, public recreation has remained the major use of the site up to the present day, and it is likely to continue to do so.

Cultural references

There are several well-known cultural references to Mousehold Heath. Two of Britain's most celebrated landscape painters, John Crome (1768-1821), and John Sell Cotman (1782-1842), of the Norwich School of Artists, painted scenes of Mousehold Heath - both works show a very open and typical heathland landscape. Another Norwich School artist, Henry Ladbroke (1800-1870), painted a large work depicting sheep grazing on Mousehold Heath - this is on display in Norwich City Hall.

Local writers were also inspired by Mousehold Heath. George Borrow (1803-1881) mentions his true life meetings with gypsies on Mousehold in his work *Lavengro*, and the writer and World War One poet, Ralph Hale Mottram (1883-1971), also knew the site well and campaigned for its conservation. The Mottram Memorial on St. James' Hill commemorates his association with the area.

Archaeological and historical significance

Within the overall landscape are several individual features of archaeological and historical interest, the most important of which is the site of St. William in the Wood Chapel site, a Scheduled Ancient Monument.

In 1144 the body of a boy, William of Norwich, a tanner's apprentice from Norwich was found on Mousehold Heath. It was thought that he had been the victim of a ritual murder. A chapel founded at the location where his body was discovered was originally dedicated to St Catherine de Monte but following the supposed martyrdom of William, it was rededicated in 1168 and became known as St William in the Woods chapel (Norfolk Heritage Explorer record 406). It is thought that the chapel was located in a wooded grove, complete with wood banks, long after most of the other woodland on Mousehold had turned into heathland (*Rackham* 1986). The chapel and the grove were destroyed during the Reformation in the 16th Century, the exact date is not known but the last offering was recorded in 1506 and by 1556 the site was being leased out.

Now only earthworks remain and these consist of bank and ditch enclosures with mounds and dips of flint rubble which is potentially the remains of buildings on the site.

The vegetation in this area is now managed to make the landforms which define the location of the chapel more visible.

Various archaeological finds have been made at Mousehold Heath, including three prehistoric hand axes as well as other flint artefacts

The Vinegar Pond, as well as being a significant wildlife habitat, is also a historic feature in its own right, although it probably dates only from the 20th century. Other features include the old tram track, which runs from Mousehold Lane through part of the site to Gurney Road. The latter appears to have been used primarily for goods traffic, especially in connection with the building of an airfield to the north of Mousehold during World War One. The airfield was abandoned in 1921 and is now a distinctive woodland path with high banks on either side.

Mousehold Heath has played a role in several nationally important historical events. During the Peasant's Revolt of 1381, a rebel group camped on the heath while undertaking offensive operations against government forces in Norwich. With them were several high ranking prisoners they had captured earlier. One of these prisoners Sir Robert de Salle, a prominent knight who was in charge of the Norwich defences, was killed by the rebels when he tried to escape.

Mousehold Heath played an important role in Kett's Rebellion of 1549. The rebel force, led by Robert Kett, camped on the heath whilst besieging Norwich. The final battle of Dussindale, at which the rebels were finally defeated by a large government army, is believed by some authorities to have taken place on or near Mousehold rather than on the site of the modern Dussindale housing development.

During the Second World War, two military aircraft crashes occurred at Mousehold Heath. On 12 February 1942, a Hampden bomber came down in the Long Valley, and on 25 July of the same year, a Beaufort torpedo bomber crashed on the Fountain Ground. A memorial plaque to those who died in these accidents was funded and installed by the people of Norwich and unveiled on 22 April 1990.

MAP 3: CULTURAL FEATURES



NATURE

Habitats

Until the early 20th Century, Mousehold Heath was predominantly an open heath landscape, probably dominated by dry *Calluna vulgaris* heath and grassy heath. Today, it is largely covered in secondary woodland and scrub, consisting mainly of oak (*Quercus robur*) and birch (*Betula pubescens* and *B. pendula*), with rowan (*Sorbus aucuparia*), which readily invade heathland communities suffering a decline in their management. Since the Second World War, and particularly since 1975, there has been a rapid rate of decline of the open heath communities, a fact that is clearly apparent from aerial photographs taken at various dates.

Mousehold Heath can be divided into a number of different compartments (MAP 4: Compartment map). In the scheme below, the main remaining areas of heathland vegetation are located in Compartments A – D. Compartments E – I consist primarily of non-heathland vegetation including woodland and grassland.

Compartment A contains large areas of dense gorse, rabbit-grazed acid grassland and mixed scrub consisting mainly of birch. Heather has largely disappeared from this area. Bracken is mainly confined to the mixed scrub area around the northern part of the compartment. This compartment also contains the Vinegar Pond.

Compartment B formerly contained many scattered young and semi-mature birch and oak trees, and extensive gorse scrub. Bracken and heather dominated areas have been managed for several years, but control of bracken has had limited success. Other parts of this area are dominated by grasses, with encroaching gorse and bramble. There is a stand of even-aged birch in the southern part of the compartment.

Compartment C is fairly uniform in character, surrounded by woodland and scattered encroaching scrub. Similar to B, the areas of heather are relatively well established, though in places being out-competed by bracken.

Compartment D includes the original heathland reclamation 'Pilot Project' area. Some of the heather in this area is long and mature, and in places forms a dense mosaic along with gorse. In some areas, particularly towards the boundary with the pitch and putt course (not part of the heath), mature gorse and broom are dominant. There is considerable birch encroachment over most of the compartment. In areas where topsoil stripping has taken place, there is good heather regeneration.

Compartment E consists mainly of woodland and also contains Zaks restaurant. The woodland is mainly birch-oak, a recognised woodland type that invades neglected heathland sites (*Rackham, 1986*), although other species, including rowan and sycamore, are also present. Small remnants of heathland vegetation (mainly gorse and broom), occur within the woodland, and to the north east of Zaks car park, adjacent to Gurney Road, is a small area of acid grassland with anthills. This area is suffering rapid encroachment by both self-sown and planted trees.

Compartment F consists mainly of woodland similar in character to Compartment E, and it also contains the remains of St. William's Chapel. This too was formerly a fairly open area that has been invaded by scrub, resulting in the chapel remains being heavily obscured. The Wingfield Sports Ground and the pitch and putt car park are also included in this compartment.

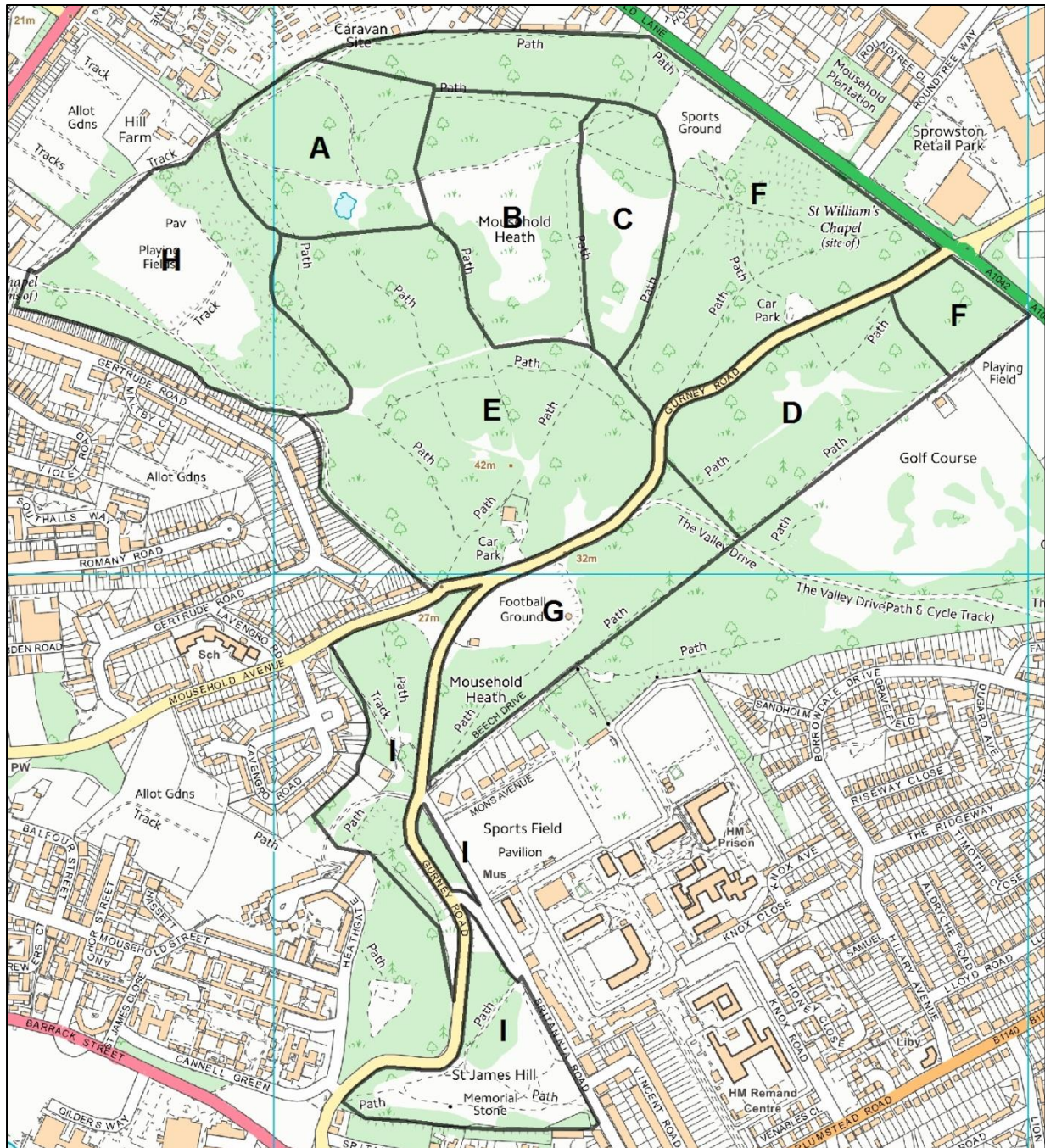
Compartment G contains the Fountain Ground sports field, which is maintained as amenity grassland and is surrounded by semi-mature trees. The bandstand is also situated in this area.

Compartment H also contains the Gilman Road Open Space and the Desert Conservation Area, which is managed as a wildflower meadow. Both areas are

surrounded by semi-mature trees and woodland, with small areas of gorse and broom, especially along Gilman Road.

Compartment I consists of the narrow southern extension of Mousehold Heath, between Mousehold Avenue and Gurney Road and Britannia and Gurney Roads. The northernmost parts of this area consist mainly of woodland and scrub with remnant heathland vegetation, much of it dying out due to the dense shade. The former Ranger's House is also located here. The southern tip of this compartment is formed by St James' Hill, a wide expanse of grassland fringed by scrub.

MAP 4: MANAGEMENT COMPARTMENTS



Heathland (MAP 5: Habitat features)

Of the total area of 88 hectares, approximately 10 hectares of Mousehold Heath is covered by heathland.

Attempts to reverse the rapid loss of Mousehold's open heathland areas to woodland were undertaken at least as early as 1972, when selected areas were cleared of scrub and some of this work involved follow up treatment with herbicides. Asulox was also used to control bracken at this time. Initial results appear to have been encouraging, although the momentum was not maintained.

In 1991, a pilot area (parts of which had been cleared during the 1970s conservation work) was cleared of encroaching vegetation to allow for the regeneration of heather and other heathland flora. Two further areas were cleared in 1994, and these now form one of the core areas of surviving heathland at Mousehold.

Further heathland management work has since been undertaken at Mousehold, including topsoil stripping in Compartment D in 2003 (which has resulted in good heather regeneration), further tree and scrub removal and gorse cutting in Compartments A, B and C in 2005-07, and more topsoil stripping in Compartments A and B (following extensive fires) in 2006-07.

In 2012, Norwich City Council secured grant funding from Natural England's Higher Level Stewardship Scheme (HLS), to restore and conserve areas of heathland and acid grassland over a 10 year period. Working towards the targets and objectives for Norfolk, which contribute to the achievement of regional and national targets.

Currently, areas of heathland on the site are in poor condition due to high nutrient levels leading to invasion by bracken.

An annual management grant totalling £30,600 was awarded to restore heathland and acid grassland areas up until the year 2022.

Norwich City Council is a key member of the Norfolk Biodiversity Partnership, which co-ordinates biodiversity activity throughout the County. The Partnership has set local targets for key habitats and species in Norfolk, of which lowland heathland is one.

All members of the partnership have signed up to these targets, including Norwich City Council, and all partners who own or manage heathland are actively working to retain their existing heathland.

The importance of the remaining heathland at Mousehold was also highlighted in the Green Infrastructure Strategy document for Greater Norwich (2007), which advocates that Mousehold Heath could form the key historic component in a major heathland habitat restoration scheme to the northeast of Norwich.

MAP 5: HABITAT FEATURES



Acid grassland (MAP5: Habitat features)

Grass species favouring acid soil conditions are an integral component of heathland vegetation communities, although they sometimes replace heather and other heathland plants due to nutrient enrichment. Some areas dominated by grasses occur within the main heathland areas themselves, but more extensive grassland areas are also present. The main ones are 'The Desert', a former sports field that has been developed as a wildflower area, St James' Hill and an area bordering Gurney Road, to the east of Zaks Restaurant ('The Anthills').

Rabbits still inhabit parts of Mousehold, and their grazing and burrowing activities help maintain open grassland (and heathland) areas, as well as creating patches of bare ground that are important for many invertebrate species and as basking places for lizards. Rabbits are, however, either absent from, or have a negligible impact on

some grassland areas at Mousehold. The three main grassland areas identified above are also maintained by mowing.

The Desert

This area is managed by an annual cut in late summer-early autumn; with the arisings being removed to prevent a build-up of nutrients (most wildflowers typical of semi-natural grasslands prefer nutrient-poor soil).

This management regime has vastly improved the diversity of wild flower species associated with acidic grassland. This has been proven through regular plant surveys carried out by local volunteers along with the wardens and in 2016, 39 differing species were recorded. Simultaneously, the amount of problem species, such as ragwort and dock, appear to be decreasing.

The Anthills

This grassland area was, until 2006, unmanaged apart from very limited rabbit activity, and self-sown and planted trees and scrub are rapidly encroaching upon it. The area contains numerous large anthills produced by the yellow meadow ant (*Lasius flavus*); the size of these nests indicates that this area has been open grassland for a considerable time. This grassland area is sunny and sheltered, and it is likely to be important for insects; furthermore, anthills have their own specialised ecology. This habitat has improved to the extent that it is included in the sites HLS Agreement.

St James Hill

From photographic evidence and the presence of residual heathland plants such as gorse and broom, this area was formerly heathland but the majority of it is now acid grassland. Developing woodland and scrub occur at the margins of the site controlled from encroaching by removal and treating with herbicide, there are a few individual trees, mainly self-sown sycamores, within the grassland area.

There is a formal disabled pathway leading to the city viewpoint. At the Mottram Memorial, this pathway is managed by a standard grass cut controlling encroaching vegetation.

Targeted areas of grassland are cut annually and arisings removed from site ensuring acidic soil conditions ideal for wild flower, grass and sedge species, of which 79 species were identified by surveys carried out by the Mousehold Heath Defenders in 2016.

Recent removal of trees has improved the view of the city skyline from the Mottram Memorial with all stumps treated with the application of Roundup to prevent regrowth.

Management will continue to prevent the encroachment of trees and vegetation that would impact on the view.

Wild Flower Glade

In 2013-14, works were carried out to improve the glade adjacent to the wildlife pond by removing vegetation and seeding with a wild flower mix to improve biodiversity of the site.

This area is now closely monitored with regular surveys carried out by local volunteer groups, in 2016 a plant survey was carried out by the Mousehold Heath Defenders recording 40 differing plant species (Mousehold Heath annual report 2018).

This area is currently managed by an annual cut, using brushcutters, with the arisings being raked and removed to prevent a build-up of nutrients in the autumn.

Woodland (MAP5: Habitat features)

The majority of the trees found on the heath are oak, birch, beech, sycamore, rowan. There are also some cherry and Scotts pine trees and low numbers of species such as hawthorn, crab apple and black thorn. There are a small number of ornamental specimen trees that have been planted like lime, giant redwood, Turners oak, tree of heaven, black pine, plane and chestnut. The tree of heaven poses a risk of being invasive and we have been undertaking proactive work to remove this type altogether from the heath.

It is proposed that most of the woodland areas will be retained during the next ten years although some additional areas may be cleared to reinstate heathland if additional resources became available in the future.

The following are considered when making a decision about the removal of any woodland:

- (i) Has there been a long period of continuity of cover? As these areas are likely to have a higher ecological value than more recently established woodland, as well as being more appealing to visitors.
- (ii) Would the removal of the woodland have a detrimental impact on notable features, such as avenues (e.g. Beech Drive); notable specimen trees?
- (iii) Is it practical or cost effective to remove woodland to attempt to restore heathland and also maintain it in a favourable condition?
- (iv) Is there sufficient evidence present to suggest that clearance of the woodland to regenerate heathland will be successful?

The mature woodland at Mousehold Heath would benefit from more active management, to diversify the age, structure and improve understorey and ground flora.

Work has been done to create rides and glades to encourage species that need more light and facilitate their movement around the site.

Large areas of the woodland are managed on a minimum intervention basis. Tree management outside of the areas identified for clearance as part of a habitat restoration project is restricted to keeping access routes open, for fire safety reasons, to maintain formal 'views' and for safety reasons.

Traditional management techniques such as coppicing and pollarding are used in some areas and adjacent to paths, rides and fire breaks to improve the diversity and structure of the woodland.

Dead and dying trees are retained where possible to provide standing deadwood habitat where the risk to visitors is low and the timber from dead and decaying trees is left on site at the location, to minimise the impact on the organisms which are resident in the timber and to create new fallen deadwood habitat for invertebrates and fungi.

Natural regeneration processes rather than planting are used to maintain the areas identified as being retained as woodland. There is scope for some minimal ornamental tree planting in the more formal amenity areas with a view to replacing some of the aging specimen trees. These are around the band stand, the restaurant Zaks, the picnic seating area at Britannia Barracks and around the sports pitches.

Tree safety management

Tree safety management is done on a risk assessment basis. The main highways through the route are inspected on annual basis by Norwich City Council arboricultural officers and in accordance with the council's tree safety policy.

Twice a year the Mousehold wardens carry out basic tree safety inspections around all of the pedestrian routes across the site, car parks and those in close proximity of buildings. If their findings require a more detailed assessment from a professionally qualified arborist they are supported by the council's arboricultural team.

Works are carried out by the Mousehold wardens if possible or by NorwichNorse Environmental on the instruction of the council's arboricultural officer following discussion with the Mousehold wardens for more specialist works.

Flora

Areas of heather can still be found on the heath. *Calluna vulgaris* is the main type of heather found, but *Erica cinerea* also occurs, though it is much scarcer. Bracken (*Pteridium aquilinum*) encroaches on these open heath areas as well as being common in the woodland. Other typical plants of heathland communities that grow on Mousehold include sheep's sorrel (*Rumex acetosella*), broom (*Sarothamnus scoparius*) and common gorse (*Ulex europaeus*). Mousehold is also locally important for two species of dwarf gorse (*U. gallii* and *U. minor*) which occur in only two and one other locations in Norfolk.

In some areas (notably Compartment A) heathland grades into acid grassland and small pockets of acid grassland survive elsewhere at Mousehold. In Compartment E, near Zaks Restaurant, large anthills, an indicator of relatively undisturbed grassland and with their own associated wildlife, occur. 'The Desert' is an area of formerly close-mown amenity grassland in Compartment H that is now managed as

a wildflower meadow. A much larger expanse of grassland, although fairly low on flora species, is found on St. James' Hill.

The wooded areas consist primarily of birch-oak woodland, which is typical of recent secondary woodland on heathland sites. A number of other tree species, including some planted exotics such as horse chestnut, a Turner's oak (which forms the centrepiece of the Pavilion car park), and a giant redwood are also present. The flora of the wooded areas, apart from relict heathland vegetation, is generally low on specific species. In some areas it consists mainly of bramble (in the late 19th century, the botanist E.F. Linton conducted a celebrated study of brambles on the heath), often growing with honeysuckle and bracken. In some areas where the canopy is particularly dense, ground flora is almost entirely absent. There is also a low diversity of epiphytic vegetation (plants that use trees as a means of support), with only two species of fern, other than bracken, recorded. There are also a few species of common mosses and lichens on some trees, and ivy is locally abundant.

Fauna

Birds

Many common woodland birds inhabit Mousehold, including sparrowhawk, jay, magpie, kestrel, green and greater-spotted woodpeckers, treecreepers and great, blue and long-tailed tits. Also the song thrush, a Biodiversity Action Plan priority species, is reasonably common. Many parts of the woodland lack undergrowth and/or mature trees, and therefore tend to be lacking in nesting opportunities for birds. However, recent data shows a gradual increase in woodland associated species with more dead wood and older trees creating nesting opportunities.

Birds that are strongly associated with heathland are regularly spotted at Mousehold, however, the remaining heathland area is probably too small to support breeding populations and the intensive use of the site for dog walking would discourage ground nesting species.

Mammals

Mammals recorded on the heath include bank vole, wood mouse, grey squirrel, rabbit, common shrew, hedgehog, fox, stoat and Reeve's muntjac and roe deer. Red squirrels were present until about 1970, but no longer inhabit the site. Bat surveys and walks have recorded 5 species including common pipistrelle, soprano pipistrelle, Daubenton, brown long-eared and noctules. Other species may be present and hunt over Mousehold Heath although it is not known if they actually roost there.

Amphibians

The Vinegar Pond is an important spawning site for frogs and toads. Common lizards live in the remaining open heathland areas, and slow-worms are also present. Adders are said to have lived there in the past, but there are no recent records. All British reptile species declined considerably during the last century, mainly due to habitat loss. Although slow-worms still live in urban areas, the presence of common lizards so close to a city centre is exceptional.

Invertebrates

Most invertebrate groups were under-recorded at Mousehold, but in recent years a number of surveys have been undertaken. The site is known to be of importance for solitary bees and wasps, especially for species associated with heathland or bare ground habitats. A study carried out by the County recorder found 82 species present, with 12 scarce and notable species.

Monthly Bumblebee surveys are carried out with 7 species being recorded

Dragonflies and damselflies are often seen at Mousehold Heath, especially near the Vinegar Pond, and regular recording of these was started in 2008.

Two Butterfly Conservation Monitoring Scheme transects are walked on the site. Species include the green hairstreak (*Callophrys rubi*), the small heath (*Coenonympha pamphilus*), white-letter hairstreak (*Satyrus w-album*) and the white admiral (*Ladona camilla*), all of which are Biodiversity Action Plan species. The elms suckers adjacent to the pavilion are extremely valuable for the white-letter hairstreak.

A number of moth surveys are carried out each year, with over 220 species recorded to date. Many of these species are uncommon and closely associated with locally scarce heathland and acid grassland habitats.

4. A VISION FOR MOUSEHOLD HEATH

'The Mousehold Conservators are committed to safeguarding the long term future of Mousehold Heath as a high quality and accessible natural area for residents and visitors to the city to enjoy.

To manage the heath in a way that protects and enhances the valuable historic and natural features of the site, and provides opportunities for all to be involved in looking after and learning about the site.'

The vision will be achieved through objectives, management prescriptions and projects that are set out in this document.

The Mousehold Heath project register contains the individual project details including project numbers and project titles.

5. MANAGEMENT OBJECTIVES

There are eight management objectives.

- A) To ensure Mousehold Heath is a welcoming place for people to visit.
- B) To protect Mousehold Heath and ensure that it is a safe and secure place to visit.
- C) To ensure that Mousehold Heath is clean and well maintained.
- D) To manage Mousehold Heath in a way that has a positive impact on the environment.
- E) To improve habitats and the natural environment for wildlife to enhance the biodiversity of Mousehold Heath.
- F) To safeguard the historic landscape, archaeological features and buildings of Mousehold Heath.
- G) To provide opportunities for local communities to be involved in all aspect of our work.
- H) To promote Mousehold Heath to increase awareness, knowledge, understanding and a sense of pride.

A. To ensure Mousehold Heath is a welcoming place for people to visit.

Mousehold Heath will be managed in a way that continues to attract visitors to the site.

Management

The Mousehold Conservators ('Conservators') are responsible for the management of the site and are legally empowered through the Norwich City Act 1984 to maintain and preserve the heath, and to ensure that the city has free access to the site.

The heath is used for a wide range of activities but occasionally it is misused. Trends will vary over time and the Conservators will need to respond to changes in activities and seek to ensure that the site continues to be maintained through continued improvements in provision and management.

Continuous improvement will be delivered by the Conservators and Mousehold Heath wardens ('wardens') who will learn from other examples of best practice. Implementation of any learning will be done through the management plan and changes in management techniques.

A Green Flag submission, the adopted standard for a well-managed public space, will form the basis for an ongoing annual independent quality assessment and continuous improvement needs to be demonstrated to retain the award.

Personal safety

There is often a perception among visitors to open spaces, especially large ones containing woodland that they are unsafe to visit, due to a feeling of being isolated in secluded areas.

There is a balance to be struck with a natural area such as Mousehold Heath. Key access points will be developed in terms of being open and providing information to enable visitors to orientate themselves. There will be clear sightlines and clearly identifiable key pathways. Glades and areas of heathland and grassland will be maintained as open areas. Increased use and presence will also reduce people's personal safety concerns.

Access points

Although much of the heath is 'informal countryside' there is a need to ensure that key access points are maintained and key information provided about the heath and who it is managed by. This will increase understanding of the site and visitors enjoyment of it.

A1) The Mousehold Conservators will manage the site and discharge their duties in accordance with the Norwich City Council Act 1984

AF00 Financial planning and recording

AF00/01 PREPARE ANNUAL BUDGET

AF00/02 BUDGET MONITORING AND REPORTING

AP20 Prepare/revise site management plans

AP20/01 NEW MANAGEMENT PLAN
AP20/02 MANAGEMENT PLAN REVIEW

AP60 Prepare/plan annual work

AP60/01 ANNUAL WORK PROGRAMME
AP60/02 ANNUAL WORK PROGRAMME MONITORING

AP80 Convene meeting, Site Management Committee

AP80/01 MOUSEHOLD CONSERVATORS MEETING
AP80/02 MOUSEHOLD CONSERVATORS MANAGEMENT SUB GROUP
MEETING
AP80/03 MOUSEHOLD CONSERVATORS ITINERANT

AR01 Prepare report, project review, new project

AR01/05 BRITANNIA CAR PARK REVIEW

AR20 Prepare report, annual progress

AR20/01 MOUSEHOLD CONSERVATORS ANNUAL REPORT
AR20/02 ANNUAL REPORT PUBLIC SUMMARY DOCUMENT

AR30 Prepare correspondence, general

AR30/01 GENERAL ENQUIRIES

AR60 Prepare report, other

AR60/00 MOUSEHOLD CONSERVATORS PROJECT APPROVAL AND
RECORDING
AR60/01 MOUSEHOLD CONSERVATORS QUARTERLY MANAGEMENT
UPDATE
AR60/02 MOUSEHOLD CONSERVATORS QUARTERLY BUDGET
MONITORING REPORT
AR60/03 MOUSEHOLD CONSERVATORS ANNUAL WORK PROGRAMME
REPORT
AR60/04 MOUSEHOLD CONSERVATORS PRECEPT REPORT

A2) To provide opportunities for the Mousehold Conservators to develop their understanding of the management of the site and of best practice in the management of public open space and especially heathland.

AP80 Convene meeting, Site Management Committee

AP80/03 MOUSEHOLD CONSERVATORS ITINERANT

AT00 Training and management

AT00/04 BEST PRACTICE VISITS

A3) To continuously improve the management of the site through the development of staff and contractors

AT00 Training and management

AT00/01 STAFF 1:1s
AT00/02 STAFF APPRAISAL
AT00/03 STAFF DEVELOPMENT PLANS
AT00/04 BEST PRACTICE VISITS

AT40 Liaise and supervise staff/contractors

AT40/01 CONTRACT MONITORING/IMPROVEMENT NORWICH NORSE ENVIRONMENTAL
AT40/02 CONTRACT MONITORING/IMPROVEMENT NPS NORWICH
AT40/03 CONTRACT MONITORING EXTERNAL CONTRACTORS

A4) To ensure that key access sites are welcoming and encourage people to explore the site

AP21 Prepare/revise plan. Strategic planning

AP21/04 INTERPRETATION STRATEGY
AP21/05 ACCESS HUBS

A5) To submit applications for awards, where appropriate, for awards that recognise the positive management of Mousehold Heath

AI00 Inspections and audits

AI00/01 GREEN FLAG AWARD

B. To protect Mousehold Heath and ensure that it is a safe and secure place to visit.

Protection

The wardens play an important role in protecting the heath by carrying out regular patrols and also when they are out on the site carrying out practical tasks and survey work.

Patrols cover the whole site but known 'hotspots' relating to vandalism, misuse or fly tipping, will be visited more regularly. The wardens will advise visitors regarding issues of misuse and by drawing their attention to the byelaws. In the case of more serious misuse the matter will be passed to a more appropriate authority to deal with.

A community approach is taken to the safeguarding of the heath, with the wardens working with regular visitors to the site and the Mousehold Heath Defenders ('Defenders') acting as additional 'eyes and ears'.

Any incidents the wardens see or are notified of, are investigated and immediate action is taken where possible. Information is shared with the relevant authorities when it is appropriate to do so. The wardens will also work proactively with the police and fire service when necessary to reduce the risk of future incidents occurring. The recording and analysis of incidents could be improved through the introduction of an incident reporting system.

Licences and leases agreements

Licenses and lease agreements relating to property and business use are negotiated by NPS Norwich on our behalf, but with the approval of the Conservators. They also deal with one off access requests relating to adjacent properties.

Meetings are held with leaseholders whose activities will potentially have an impact on the heath.

Occasionally requests are received from people wishing to carry out projects or research on the heath and permission to undertake these types of activity is decided by the Conservators.

Facility provision

The heath currently has a senior size football pitch and changing facility. The booking and pitch management is carried out by NorwichNorse Environmental and the changing room facility is maintained by NPS Norwich on behalf of the conservators.

The provision of this facility will need to be reviewed in the future taking in to account the level of use, other local provision and the cost of providing it in relation to the income received. This will also need to take into consideration other possible recreational uses.

Seating is provided at a number of locations across the heath to reflect or observe a view of the city. The Conservators respond to requests for benches or seats favourably, this will always be subject to the location being appropriate and the

resource available for purchase and installation. The development of a bench sponsorship scheme will be considered.

The heath has one public toilet block located at the Fountain Ground car park and in very close proximity to Zaks restaurant. The toilet block requires some investment to improve the quality of provision.

Each of these decisions cannot be made in isolation and due consideration will also need to be given to how the conservators wish to see the main formal recreational area of the heath containing the Fountain Ground is used in the future, with regards to visitor facilities, informal recreation and play

Vehicular access management

Where possible restrictions are not put in place which would impede visitor access to the site, however, there are places where it is necessary to prevent unauthorised motor vehicle access to the site. This is to protect the site and also visitors.

Restrictions installed can take the form of gates, barriers, drop down bollards and rows of low bollards.

Legal obligations

As well as the Norwich City Council Act 1984, the heath is managed with the aim of meeting all the legal requirements of the Health and Safety at Work Act 1974. Other applicable regulations and policies and procedures are also followed as defined by Norwich City Council.

Tree safety

On such a largely wooded site with paths and roads running through the site, tree safety is a priority and there is always a need to balance risk reduction with the conservation of notable trees and dead/ dying trees.

Tree inspections are carried out twice a year by the wardens. The Mousehold Heath tree safety inspection regime would benefit from being reviewed so that it can be integrated with the Council's tree safety policy regarding inspectors qualifications, methodology, recording and ordering.

Any work required identified during the inspections is done by the wardens or, if it is of a more specialist nature, it is completed by NorwichNorse Environmental.

Site hazard identification and management

The wardens risk assess their activities and also those undertaken with volunteer groups, ensuring that safe systems of work are used and appropriate qualifications held for those activities that require them. Personal protective equipment (PPE) identified as being required by the risk assessments is worn by the wardens and if necessary provided to the volunteers.

NorwichNorse Environmental and NPS Norwich (joint ventures with Norwich City Council), who undertake work on the site have health and safety management systems in place that have been checked prior to the contracts being awarded. These are monitored on an annual basis by the contract managers. Any sub-

contractors working on behalf of the joint ventures have also been checked for compliance prior to work being awarded.

There is no annual site safety inspection carried out however, the wardens will deal with or make safe any hazards identified as part of their patrol and management activities on site. An annual inspection and a recording and rectification system/process will be introduced during the life of this plan.

B1) To protect the integrity of the heath and in accordance with the Norwich City Council act 1984

AS00 Site and species safeguard and law enforcement

AS00/00 LEGAL ENFORCEMENT ACTION

AS10 Protect site, visitor permit system

AS10/00 LICENCE AND PERMIT SCHEME

ML00 Liaise with stakeholders, owners/occupiers

ML00/01 ZAKS RESTAURANT

ML30 Liaise with stakeholders, neighbours

ML30/01 BRITANNIA CAFÉ

ML30/02 RANGERS HOUSE

ML00 Liaise stakeholders, owners/occupiers

ML00/04 GAS PIPELINE

ML40 Liaise stakeholders, local/national authorities

ML40/01 NORWICH AREA TRANSPORT STRATEGY

ML40/02 NORWICH CITY COUNCIL – AREA MANAGEMENT TEAM

MP00 Patrol, general

MP00/01 SITE PRESENCE

MP00/02 SITE BOUNDARIES AND HOSTPOTS

RH35 Collect data, public use, trespass/theft/damage

RH35/01 ILLEGAL ACTIVITIES CRIME

B2) To work with the emergency services to work on joint problem solving to deter and resolve misuse of the site.

ML60 Liaison with stakeholders, emergency services

ML60/01 NORFOLK CONSTABULARY

ML60/02 NORFOLK FIRE AND RESCUE SERVICE

B3) To increase visitor perception of feeling safe on the heath.

AP21 Prepare/revise plan. Strategic planning

AP21/04 INTERPRETATION STRATEGY

AP21/05 ACCESS HUBS

AT00 Training and management, general

AT00/05 SAFEGUARDING CHILDREN AND VULNERABLE ADULTS

MP00 Patrol, general

MP00/02 SITE PRESENCE

B4) To provide facilities for formal and informal recreation where appropriate

AF00 Financial planning and recording

AF00/03 ELECTICITY

AF00/04 GAS

AR01 Prepare report, project review, new project

AR01/03 FORMAL AND INFORMAL SPORTS PROVISION REVIEW

MI60 Provide/manage events

MI60/03 FOOTBALL PITCH PROVISION

MI60/04 FOOTBALL BOOKINGS MANAGEMENT

B5) To provide a public toilet facility at the heath

AR01 Prepare report, project review, new project

AR01/02 PUBLIC TOILETS PROVISION REVIEW

B6) To manage vehicular access to prevent damage to the site and to reduce the risk to visitors.

AP50 Prepare/revise plan, safety

AP50/01 VEHICLE ON SITE POLICY

B7) To provide seating.

AP21 Prepare/revise plan. Strategic planning

AP21/02 BENCHES AND SEAT PROVISION PLAN

AR01 Prepare report, project review, new project

AR01/05 SEAT AND BENCH SPONSORSHIP SCHEME

B8) To ensure that the heath is managed in accordance with relevant legal obligations.

AI30 Implement inspection, site safety

AI30/01 ANNUAL SITE SAFETY INSPECTION

AI30/02 TREE SAFETY INSPECTION

AI30/03 RISK ASSESSMENT

AP50/02 TREE SAFETY MANAGEMENT POLICY

C. To ensure Mousehold Heath is clean and well maintained.

Boundary protection maintenance

Infrastructure relating to the protection of the boundary relating to gates, barriers and bollards is inspected on ad-hoc basis by the wardens and damaged/missing structures are maintained/replaced on a reactive basis.

A phased programme of bollard replacement will be developed as sections of bollards tend to become rotten and vulnerable at a similar time.

Litter bins and waste

There are 16 litter bins which can be used for litter and also the disposal of dog waste. Litter bins are cleaned and maintained by NorwichNorse Environmental. Bins are emptied regularly to ensure that they do not become full or overflow.

In 2017 a review of the provision of litter bins was undertaken. None of the bins were identified as being dispensable or required moving to alternative locations.

There are currently no recycling bins on the site. The possibility of installing different bins which enable recycling will be considered during the life of this plan. Putting in recycling bins would depend on the budget to do so as well as the style bin being deemed appropriate for the natural landscape. Vehicular access also needs to be considered in order to empty the bins.

A daily litter pick covers the key areas and hotspots of the site. The litter picker (from NorwichNorse Environmental) will report any issues such as fly tipping to the wardens.

Fly tipping is reported through to NorwichNorse Environmental and is removed within 24 hours. If there is evidence of who was responsible for the fly tipping the matter is passed to the Norwich City Council environmental protection team who will pursue the matter further.

Public toilets

The public toilets located near to Zaks restaurant are permanently open and cleaned on a daily basis. The condition of the toilets is poor which can make cleaning difficult. A refurbishment of the block, using capital held in reserve by the Conservators, needs to be considered and will be completed after a review of sports provision and the changing rooms has been completed.

Any damage to the toilets is reported to NPS Norwich for repairs to be made.

Paths

The majority of paths on the heath are natural surfaces.

The vegetation on path boundaries is maintained to prevent encroachment and paths becoming inaccessible.

Car parks

Car park surfaces are not covered with tarmac but compacted stone and are regraded on an annual basis to remove potholes. Compacted stone is a preferred option as it discourages people from speeding in the car park and putting other visitors at risk.

This work is resource intensive so a more cost effective solution will be explored during the life of this plan.

Mousehold warden office

The wardens are located at the Heathgate Area Housing Office on the boundary of the heath. A recharge is made by the council for the use of this facility and all repair and maintenance costs are included in this charge.

Periodically the council carries out a review of its assets and the future of the office cannot be guaranteed. Depending on the outcome of the review of sport provision on the heath, the building which is currently a changing facility located at the Fountain Ground will have an option appraisal carried out regarding its suitability as a site office for the wardens.

Equipment maintenance

The wardens have chainsaws and brush cutters for carrying out practical maintenance on the heath as well as a stock of hand tools for volunteer tasks. Mechanised equipment is serviced and maintained by a specialist and hand tools are checked and maintained by the wardens.

Graffiti

Graffiti on hard surfaces is removed within 14 working days of being reported and where possible, offensive graffiti is removed within 24 hours.

Graffiti occasionally occurs on trees or other natural absorbent surfaces. On non-living surfaces the wardens will sand the surface to remove it. Graffiti on trees is left to weather with time as the use of graffiti cleaning products or sanding would be detrimental to the health of the tree.

Bandstand

The bandstand is repaired on a reactive basis following any damage. It would be beneficial to get a condition assessment of the bandstand completed to enable a maintenance plan to be developed.

The bandstand is cleaned twice a year in April and September.

C1) To maintain and where necessary install additional boundary protection

ME01 Manage site infrastructure, boundary features

ME01/01 GATES , FENCING AND BARRIERS

ME02/02 BOLLDARDS

ME02 Manage site infrastructure, other structures

ME02/01 BENCHES, SEATS & PICNIC TABLES

C2 To provide and maintain litter bins and remove rubbish and waste

ME04 Remove rubbish/maintain litter bins

ME04/01 LITTER PICKING

ME04/02 LITTER BINS

ME04/03 FLY TIPPING

C3 To provide and maintain public toilets and changing rooms

ME12 Site buildings maintain/improve

ME12/04 CHANGING ROOMS

ME14 Site buildings, maintain/improve toilets

ME14/01 TOILET CLEANING

C4 To provide and maintain paths

ME41 Provide/maintain paths

ME41/01 MAIN PATHS

ME41/03 CYCLEWAYS

ME41/04 ACCESS FOR ALL PATHS

C5 To provide and maintain car parks

ME44 Provide/maintain car parks

AR01/01 CAR PARK SURFACING REVIEW

ME44/01 CYCLE STANDS

ME44/02 CAR PARK SURFACING

C6 To provide and maintain accommodation for the Mousehold Wardens

ME70 Provide/maintain staff facilities, general

ME70/01 WARDEN OFFICE OPTIONS APPRAISAL

ME70/02 WARDEN OFFICE ACCOMMODATION

C7 To maintain tools and equipment so that it is safe to use

MM20 Acquire and maintain tools and equipment

MM20/00 TOOLS & EQUIPMENT MAINTENANCE

C8 To keep the site clear of graffiti

ME12 Site buildings, maintain/improve

ME12/01 REMOVE GRAFFITI

C9 To provide and maintain the bandstand

ME12 Site buildings, maintain/improve

ME12/02 BANDSTAND CLEANING

ME12/03 BANDSTAND MAINTENANCE

D. To manage Mousehold Heath in a way that has a positive impact on the environment.

The work carried out on the heath contributes to the delivery of the council's environmental strategy through the delivery of projects associated with achieving the other seven objectives.

In its environmental strategy the council has committed to:

- Increase energy efficiency in council owned property
- Reduce disposal of waste to landfill
- Increase recycling
- Reduce consumption of paper in council activities
- Reduce consumption of fuel in council buildings and vehicles

This is being achieved through a number of initiatives:

- Recycling facilities in all offices for paper
- Recycling facilities for cans and bottles in all offices
- Default settings on printers for black and white, double sided, draft quality
- Only essential operational car users provided with city centre parking to encourage use of the park and ride or cycling to work
- Mileage allowance paid for operational use of bicycles at work

Climate change

The influence of human activities on our climate is now widely recognised. Climate change represents a major management challenge for parks and open spaces; with more frequent extreme weather events affecting biodiversity, hydrology and the built environment.

Norwich City Council has contributed to the work that Norfolk County Council have done looking at extreme weather events in Norfolk and the impact they will have on services.

The limited hard surfaces on the heath are permeable so that rainfall filters through into the groundwater.

Pesticide use

Pesticide use is minimal and where possible other control methods are used, such as tree poppers and volunteers.

The contractor is responsible for ensuring that any chemicals used are approved for use by the council, that they are stored correctly, staff have the relevant qualifications to use them and all usage is logged.

Any reviews of operating methods carried out by NorwichNorse Environmental based on industry best practice will be delivered on the heath as part of citywide contract improvements.

There is no bedding planting or peat used.

Tree planting

No trees are brought onto the site for planting.

Procurement

- Benches and seats are produced using timber from sustainable sources.
- Where appropriate products are made from recycled plastic.
- Surplus equipment that has not reached the end of its product life will be used elsewhere on the site

D1) To management the site in as sustainable way as possible.

THROUGH THE DELIVERY OF RELEVANT PROJECTS THROUGHOUT THE OTHER 7 OBJECTIVES

AP21 Prepare/revise plan, strategic planning

AP21/01 NCC ENVIRONMENTAL STRATEGY

E To improve habitats and the natural environment for wildlife to enhance the biodiversity of Mousehold Heath

Woodland

Although formerly a large area of heathland, Mousehold is now predominantly a secondary woodland habitat. A large amount of the woodland is managed with minimum intervention and natural processes allowed to occur.

A programme of coppicing and felling is used to maintain a diversity of age range and structure in the woodland.

Glade and ride areas are created and maintained linking together areas to further increase diversity within the woodland.

Coppicing is used to create pockets of a more diverse age range within the woodland and also adjacent to path, ride and glade edges to create a transitional habitat between the open areas and woodland.

Standing dead and decaying wood will be retained; fallen deadwood and pieces will be left as large as possible at their original location.

The importance and value of honeysuckle and ivy in the woodland as a nectar source is recognised and there is not a policy of removing either of these species.

There are specific trees which will be managed outside of standard management regimes as a result of their historic or biodiversity significance, such as their age, impact in the landscape or a habitat for a specialist species. These trees will be identified and their location mapped, to ensure that management is in accordance with the reason for them being designated 'significant' trees.

Grassland and heathland

The majority of the heathland and flower rich meadows have been lost over time. The remaining areas of heathland and acid grassland are vulnerable to being lost too through the encroachment of trees and shrubs.

Existing areas of acid grassland will be cut and the arisings removed. Work will be carried out to remove trees and shrubs from remnant acid grassland to increase the coverage of the grassland.

The areas of existing heathland will be maintained by removing bracken and any encroaching shrubs or saplings. Gorse will be managed in some cases removing it and in others managing it through rotational cutting.

Though the priority remains to maintain the areas of existing heathland and those restored over the life of the last management plan, new areas will be created and maintained, subject to the resources being available to do this. To do this shrubs will be removed to allow light into the area and then the surface layer of humus stripped, to deplete the nutrient resources and to stimulate the dormant heather seed bank to germinate.

Ponds

The ponds on the heath will be managed to improve biodiversity whenever possible, removing vegetation from within and around them, when necessary and in accordance with industry best practice.

Invasive and undesirable species

Invasive and undesirable species will be removed based on an assessment of the threat they pose to a particular habitat.

Where a particular problem is identified, the species will be removed by cutting, applying selective herbicide, cutting and pulling.

Recording and monitoring

Information will be collected through a range of different methods about species and habitats to enable the impact of the different management regimes on the site to be measured in terms of effectiveness. This information will also inform ongoing decision making and guide the development of projects in the future.

E1) To maintain and improve, where appropriate, woodland habitats

MH00 Manage habitat, woodland, coppicing

MH00/01 COPPICING

MH03 Manage habitat, woodland, aiding natural regeneration

MH03/01 NATURAL REGENERATION

MH04 Manage habitat, woodland, maintaining ride/path/glade

MH04/01 GLADE MANAGEMENT, MAINTAIN

MH04/02 GLADE MANAGEMENT, CREATION

MH04/03 PAVILION FIRE BREAK

MH08 Manage habitat, woodland, by managing deadwood

MH08/01 DEAD AND DECAYING WOOD

MH09 Manage habitat, forest / woodland / scrub, by other activities

MH09/01 SIGNIFICANT TREES

E2) To maintain, improve and increase, where appropriate, acid grassland

MH12 Manage habitat, grassland by mowing

MH12/01 MAINTAIN ACID GRASSLAND

MH14 Manage habitat, grassland by scrub control

MH14/01 RESTORE ACID GRASSLAND

E3) To maintain, improve and increase, where appropriate, heathland

MH31 Manage habitat, heath, by scrub, tree control

MH31/01 SCRUB AND TREE REMOVAL

MH35 Manage habitat, heath, by cultivation to accelerate leaching

MH35/01 HUMUS STRIPPING

MH39 Manage habitat, heath, by other activities

MH39/01 BRACKEN REMOVAL

MH39/02 ROTATIONAL CUTTING COMMON GORSE

MH39/03 COMMON GORSE REMOVAL

ML40 Liaise stakeholders, local/national authorities

ML40/06 NATURAL ENGLAND HLS AGREEMENT

ML40/08 NATURAL ENGLAND RE-NEGOTIATE HLS AGREEMENT

E4) To maintain and improve, where appropriate, aquatic habitats

MH60 Manage habitat, open water, general

MH60/01 VINEGAR POND

MH60/02 WILDLIFE POND

E5) To manage invasive species

MH29 Manage habitat, controlling invasive species, other activities

MH29/01 LAUREL

MH29/02 JAPANESE KNOTWEED

MH29/03 HIMALAYAN BALSAM

MH29/04 SYCAMORE

MH29/05 RHODODENDRON

E6) To manage specific species

MS30 Manage species, mammals

MS30/01 BAT BOXES

MS70 Manage species, Lepidoptera

MS70/01 WHITE-LETTER HAIRSTREAK

E7) To survey and monitor fauna to assess management impacts and inform future decision making.

RA06 Collect data, mammals, list species

RA06/01 MAMMALS SPECIES LIST

RA12 Collect data, birds, survey

RA12/01 COMMON BIRD CENSUS

RA16 Collect data, birds, list species

RA16/01 BIRDS SPECIES LIST

RA26 Collect data, herptiles, list species

RA26/01 REPTILES SPECIES LIST

RA42 Collect data, lepidoptera, survey

RA42/01 BUTTERFLY CONSERVATION SURVEY

RA44 Collect data, lepidoptera, count, estimate, measure

RA44/01 MOTH TRAPPING

RA46 Collect data, lepidoptera, list species

RA46/01 BUTTERFLIES SPECIES LIST

RA46/02 MOTHS SPECIES LIST

RA56 Collect data, odonata, list species

RA56/01 DRAGONFLY SPECIES LIST

RA56/02 DAMSELFLY SPECIES LIST

RA66 Collect data, orthoptera, list species

RA66/01 GRASSHOPPER SPECIES LIST

RA66/02 CRICKET SPECIES LIST

RA76 Collect data, other insects, list species

RA76/01 SOLITARY BEE SPECIES LIST

RA76/02 SOLITARY WASP SPECIES LIST

RA82 Collect data, other invertebrates, survey

RA82/01 ST JAMES' HILL SOLITARY BEE & WASP SURVEY

RA92 Collect data, fauna, survey

RA92/01 NBMP

RA92/02 BAT BOX SURVEY

E8) To survey and monitor flora to assess management impacts and inform future decision making.

RF03 Collect data, vegetation monitor

RF03/01 HEATHER COVER AND QUALITY MONITORING

RF16 Collect data, trees/shrubs, list species

RF16/01 TREE SPECIES LIST

RF22 Collect data, other, vascular plants survey

RF22/01 MUSTARD POND GLADE SURVEY

RF22/02 ST JAMES' HILL SURVEY

RF66 Collect data, fungi, list species

RF66/01 FUNGI SPECIES LIST

F To safeguard the historic landscape, archaeological features and buildings of Mousehold Heath

Earthworks and archaeological features

Earthworks and historical features are vulnerable to encroachment by vegetation and compaction plus erosion from visitors using the site. The features will be maintained by management through the cutting and removal of vegetation, shrubs and trees, where appropriate, using methods sympathetic to the sensitivities of the feature.

Where required by legislation, the work will be done in conjunction with the appropriate local and national agency.

Historic buildings and structures

The historic buildings and structure on the site will be maintained through programmed works and also reactive repairs and maintenance to ensure that they remain in a good condition. Where appropriate and subject to resources, work will be carried out to improve them.

The pavilion will require substantial investment during the lifetime of this management plan to prevent further deterioration of the structure and to ensure that landlord obligations are met.

The toilets are also in poor condition and decision about the future of the toilets will be made during the lifetime of this plan.

Building condition surveys have been completed to inform future decision making and a programme of repairs and maintenance.

Historical information

Information relating to the history of the site and the historic features within it will be collected to inform decision making and to assist with future interpretation of the site.

F1) To maintain earthwork features

MC03 Manage cultural features, earthwork, by felling, cutting

MC03/01	ST WILLIAMS' CHAPEL - VEGETATION REMOVAL
MC03/02	ST WILLIAMS' CHAPEL - SCRUB TREE REMOVAL

ML40 Liaise stakeholders, local/national authorities

ML40/03	HISTORIC ENGLAND
ML40/04	NORFOLK ARCHAEOLOGY SERVICE

F2) To maintain, and where appropriate, enhance historic buildings

MC50 Manage cultural features, historic building/structure

MC50/01	PAVILION
MC50/02	AIRMENS MEMORIAL PLAQUE
MC50/03	BANDSTAND
MC50/04	MOTTRAM MEMORIAL
MC50/05	HISTORIC BOUNDARY MARKERS

MC50/06 PAVILION CONDITION SURVEY

F3) To maintain industrial archaeology

MC70 Manage cultural features, industrial archaeology

MC70/01 OLD QUARRIES

MC70/02 TRAM TRACK

MC81 Manage cultural features, historic landscape, felling/cutting

MC81/01 VIEW FROM MOTTRAM MEMORIAL

MC81/02 BEECH DRIVE

MC81/03 CAVALRY TRACK

F4) To collect data relating to the history of Mousehold Heath

RC01 Collect data, archaeological

RC01/01 ST WILLIAMS' CHAPEL

RC10 Collect data, historic buildings

RC10/01 RANGER'S HOUSE

RC10/02 PAVILION

RC20 Collect data, industrial archaeology

RC20/10 GENERAL

RC30 Collect data, historic landscape

RC30/01 LANDSCAPE

G To provide opportunities for local communities to be involved in all aspects of our work

Volunteering

The work carried out by volunteers is not only important in terms of creating a sense of ownership and responsibility in the local community but is also crucial in achieving the objectives of this plan. Meeting these objectives would not be possible with the available budget and warden resources alone.

A strategic approach to recruiting, retaining and developing volunteers will be taken during the life of the plan to develop this aspect of our work further.

The wardens will also work with other community and volunteer groups managing land adjacent to the heath to develop joint working groups for larger projects. This will also create opportunities to share learning and to provide some variation for the volunteers by working with other groups.

G1) To provide and develop volunteering opportunities on the heath and develop volunteers

AP21 Prepare/revise plan strategic planning

AP21/03 VOLUNTEER STRATEGY

AT00 Training and management general

AT00/06 VOLUNTEER DEVELOPMENT

AT50 Liaise/supervise volunteers

AT50/01 GENERAL

AT50/02 CORPORATE

AT50/03 MOUSEHOLD DEFENDERS

AT50/04 MOUSEHOLD HEATH MOUSEKETEERS

AT50/05 TCV

RH90 Collect data, other activities, general

RH90/05 VOLUNTEERS

G2) To develop initiatives with other community/volunteer groups

ML50 Liaise stakeholders, local community/groups

ML50/01 NORWICH FRINGE PROJECT

ML50/02 FRIENDS OF KETTS HEIGHTS

AP21 Prepare/revise plan strategic planning

AP21/03 VOLUNTEER STRATEGY

H To promote Mousehold Heath to increase awareness, knowledge, understanding and a sense of pride

Information and interpretation

The provision of information and interpretation on the site is crucial for people to understand what is allowed and not allowed on the heath as well as teaching them about the natural and historical importance of the site.

Education

Young people will have a big role to play in the future of the heath, in terms of using and protecting it. Their understanding of the historical importance of the heath and the habitats and species it contains is crucial. Educational activities on site and in local schools will continue

Events

The heath provides an excellent venue for events for local people. Work will continue to provide a range of onsite events, delivered to increase people's understanding and enjoyment of the heath, alongside working with the Norwich City Council's events team to deliver other events..

Media

It is important that the profile of the heath is maintained as a unique and valuable open space. This will be done working in conjunction with the local press (both broadcast and print) to generate positive promotion of the heath and the work of the Conservators.

The website and social media are also important in terms of raising the profile of the heath and the work. The Norwich City Council web pages will be reviewed and updated to include geographic information system (GIS) data to improve people's understanding of the heath.

H1) To provide and maintain signage and interpretative material

ME06 Erect/maintain signs/interpretation boards

ME06/01	FINGER POSTS AND WAYMARKS
ME06/02	GATE ACCESS RESTRICTIONS
ME06/03	INFORMATION PANELS
ME06/04	MOUSEHOLD HEATH WELCOME SIGNS

H2) To provide and maintain information trails

ME06 Erect/maintain signs/interpretation boards

ME06/05	NATURE TRAIL
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MI10 Inform visitors, onsite information

MI10/04	GEOLOGICAL TRAIL
MI10/06	NATURE TRAIL
MI10/07	BIODIVERSITY TRAIL

H3) To inform visitors on site and off site about Mousehold Heath

MI00 Inform stakeholders

MI00/02 WEBSITE

RV70 Create/manage GIS data

RV70/03 GIS DATA SETS

MI10 Inform visitors, onsite information

MI10/01 GENERAL INFORMATION SIGNS

MI10/02 GENERAL VISITOR ENQUIRIES

MI10/03 TEMPORARY MANAGEMENT SIGNS

MI10/05 INTERPRETATIVE PANELS

H4) To provide educational opportunities on site and off site

MI00 Inform stakeholders

MI00/01 OFFSITE SCHOOL TALKS

H5) To work with local media to raise the profile and awareness in the city of Mousehold Heath

ML70 Liaise stakeholders, media

ML70/01 PRESS

ML70/02 TV

ML70/03 RADIO

H6) To provide events

MI60 Provide/manage events

MI60/01 EVENTS

MI60/02 GUIDED WALKS PROGRAMME

H7) To collect data relating to use of the site

RH31 Collect data, public use, education

RH31/01 FOREST SCHOOLS

RH31/02 ONSITE EDUCATIONAL VISITS

RH90 Collect data, other activities, general

RH90/01 WEBSITE USE

RH90/02 COUNCIL EVENTS

RH90/04 GUIDED WALKS PROGRAMME

RH90/05 VOLUNTEER CONTRIBUTION



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