SU7550 2290 (02)

THE HEATH
PETERSFIELD
HAMPSHIRE

MANAGEMENT ASSESSMENT REPORT

August 1993

Prepared by Hampshire County Council
on behalf of
Petersfield Town Council

THE HEATH, PETERSFIELD

MANAGEMENT ASSESSMENT REPORT

CONTENTS

SUMMARY

I This Ten Year Management and Heathland Restoration Plan has been prepared by Hampshire County Council in response to a request from Petersfield Town Council. The area of study was defined in an agreed brief which is attached as Appendix 1.

II The brief identifies specific study areas which provide the foundation of the recommendations for future management of the site. These topic reports where prepared by specialist consultants and are attached to the report as Appendices.

Appendix 2 : Geology, Hydrology, Soils and Edaphic Relations with special reference to Heathland Restoration. Prepared by Ron Allen Associates.

Appendix 3 : Botanical Report and Management Recommendations. Prepared by Dr Francis Rose.

Appendix 4 : Pine Trees on Barrows. Reconnaissance Health and Condition Survey. Prepared by Ron Allen Associates.

Appendix 5 : A Landscape Assessment and Recommendations for Management. Prepared by Plincke Landscape.

Appendix 6 : Land in the Vicinity of the Public Car Park. Prepared by Ron Allen Associates

Appendix 7 : A detailed report into Heathland Restoration including a Countryside Stewardship Application. Prepared by The North East Hampshire Heathlands Project.

Appendix 8 : Details of the underground services and easement rights. Prepared by Plincke Landscape.

III The Brief also identifies the context within which this report has been prepared. Certain assumptions were considered necessary such as:

- Petersfield Golf Club will be vacating The Heath in 1996/7.
- A further car park may be required.
- A pitch and putt course may be provided by the Town Council.
- All maintenance and management works will be directed and supervised by Petersfield Town Council.

IV The information contained with the report itself has been brought together into a single report by Hampshire County Council through consultation with all contributors. A draft report was also presented to Petersfield Town Council for their consultation before the document was finalised.

V Points 3.10, 3.11 and 3.12 have not been included within the report as it is not possible to provide these items at this stage. However, the Countryside Stewardship Scheme does give detailed proposals for the Heathland Restoration. Both this work and other pieces of work identified within the plan can be brought forward at a time and a pace of the Town Councils choosing, as and when resources allow.

VI <u>The Site</u>:

The Heath has a variety of features which make it a very special area for the town of Petersfield, for residents and visitors alike. It comprises 37.8 hectares of public open space, owned and managed by Petersfield Town Council. The site has several features including a large pond, extensive areas of open grassland with pockets of remnant heathland, mixed woodland an important group of Bronze Age Barrows (which are protected as a scheduled Ancient Monument by English Heritage). The site combines a variety of formal and informal recreational facilities.

VII Proposals :

To improve the public enjoyment of open air recreation on The Heath by:-

- Improved circulation of visitors around The Heath to be achieved by attracting people to a variety of landscape feature points throughout the site.

- Surfaced, easy access paths provided around the lake with unmarked beaten track pathways elsewhere. Clay based path gravel or hoggin is recommended where surfacing needs to be introduced or replaced.

- Improved year-round access between the Sussex Road car park and Heath pond with a new section of timber boardwalk.

- Information boards with a map of the area sensitively designed and sited, to inform and interest visitors about the site.

- Creation of low key features at entrance points to welcome visitors and create a sense of arrival.

- Boundary hedge to be improved by planting up gaps and allowing hedges to grow taller and thicker.

To provide a variety of formal and informal activities promoted to suit all needs.

- Lakeside playground and associated facilities improved.

- Pitch and putt could replace the golf course.

- Public use of the club house for refreshments/information centre/shop/club meeting rooms/toilets etc.

- Continued cricket/fishing/boating.

- Provision of an improved boat slipway.

- Regular maintenance of fishing platforms and associated vegetation.

To provide and maintain a more diverse landscape.

- Habitat diversity restored and wildlife encouraged.

- Music Hill to be opened up to create a central focus to The Heath and a view point.

- Protection of barrows as features of interest.

- Tree planting only to replace existing mature trees over the years.

- Creating a variety of spaces: open, enclosed, intimate, shaded, sunny, some with picnic areas, some with views and some to retain a sense of wilderness.

- Environmental sculptures to create an element of surprise, fun and creative inspiration.

Improved safety.

- The improve/maintain safety by encouraging the area to be self-policing.

- Opening up some woodland pathways.

- A warden on The Heath as low key presence.

To enhance the wildlife of The Heath.

- Restoration of the heathland mosaic under a ten year rolling programme of works.

- Creating a marsh habitat by extending the pond edge adjacent to Sussex Road car park.

- Restoration of woodland habitats.

- Promotion of long term conservation and habitat diversity.

- Any new pathways to be sited away from sensitive areas to enable wildlife refuges to establish.

- The island in Heath Pond to be enlarged and re-designed to provide a wetland wildlife refuge.

To maintain the natural character of The Heath.

- Design guidelines to be adopted to ensure the natural, informal character of The Heath is conserved and that the visual impact of man on the landscape is minimised.

- Management of The Heath to follow a long term management plan to ensure appropriate care and maintenance of the site for quiet enjoyment and habitat conservation.

VIII Design Standards:

i) The impact of man on the natural landscape of the site to be limited as much as possible formal recreation and visible signs of man to be restricted to the town side of The Heath, along Heath Road and the south west end of Sussex Road. Elsewhere the priority is for the natural character and habitats of The Heath to be conserved.

ii) All man-made installations to be kept to a minimum and to be simple, robust and rural in character, with the use of natural materials and a co-ordinated design.

iii) Timber to be the predominant construction material.

iv) Pathways and car parks to be low impact and informal.

v) Site interpretation to reflect the rural character and siting of boards to be limited to existing car parking areas.

vi) Existing buildings may be improved but no new buildings to be permitted.

vii) Any new planting to be sensitive to the overall site management and restricted to appropriate native species only.

IX Management for Nature Conservation

Woodland Management:

A patchwork of diverse woodland habitats to be encouraged by following a variety of management techniques such as:-

Creating woodland glades, coppicing, selective clearance, selective thinning, retention of native mature standard trees.

The choice of technique to be sensitive to the existing natural diversity.

Grassland Management:

Grassland management techniques should encourage heath grassland mosaic by cessation of fertiliser applications and sensitive cutting regimes.

Wetland Management:

Reeds should be removed from the pond on 5-10 year rotation. Silt should be removed on a 20 year rotation.

The stream vegetation should be cleared on a 5 year rotation.

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27 August 1993

APPENDICES

Appendix 1	Brief for Survey and Management Plan
Appendix 2	Geology, Hydrology, Soils and Edaphic Relations with special reference to Heathland Restoration Prepared by Ron Allen Associates
Appendix 3	Botanical Report and Management Recommendations Prepared by Dr Francis Rose
Appendix 4	Pine Trees on Barrows Reconnaissance Health and Condition Survey Prepared by Ron Allen Associates
Appendix 5	A Landscape Assessment and Recommendations for Management Prepared by Plincke Landscape
Appendix 6	Land in the Vicinity of the Public Car Park Prepared by Ron Allen Associates
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1. INTRODUCTION

1.1 General Information

Site name: Petersfield Heath
Grid Reference: SU 755 229
OS Sheets: 197 (1:50,000), Pathfinder 1265 (1:25,000)
District Council: East Hampshire
Parish/Town Council: Petersfield
Ownership: Petersfield Town Council
Status: Scheduled Ancient Monument, Hampshire County No. 84 (barrows) No conservation status
Area: 37.8 hectares (93.4 acres)
Areas Proposed for Stewardship Agreement (Map 1): 25.7 ha (63.5 acres).

1.2 THIS REPORT

This report has been prepared for Petersfield Town Council by the Urban Fringe Environment Team of Hampshire County Councils Planning Department. It aims to set a framework for the future management of the area as informal open space, assuming that the golf course will be relocated to another site. The proposals set out in the report are designed to be incorporated into a rolling programme of works over the next few years and to fit with a funding programme determined by Petersfield Town Council.

1.3 In order to cover the broad scope of the work detailed specialist investigations have been undertaken. Proposals for future management are based on this information.

1.4 The ecology of the Heath has been assessed by Dr Francis Rose. Information on geology, soils and hydrology has been examined by Ron Allen Associates. The North East Hampshire Heathlands Project has provided specific advice on the opportunities for restoration of heathland on the site as well as detailed proposals for a Countryside Stewardship Scheme. An overall landscape strategy has been prepared by Plincke Landscape. A topic report has also been undertaken by Ron Allen Associates to examine the health and condition of trees on the archaeological monuments.

1.5 Reappraisal of the character, use and management of The Heath, including removal of the golf course, opens up an exciting future for public enjoyment of the site for both local residents and visitors, as well as the potential for enhancing the wildlife habitats.

2. BACKGROUND INFORMATION

2.1 CULTURAL

The Site and its Context

2.1.1 The Heath is a large area of popular public open space comprising a large pond with stream outlet (partly underground), extensive areas of open grassland with pockets of remnant heathland, while a quarter of the site is covered in mixed oak woodland with areas of birch and pine. It is situated on the south eastern edge of the country town of Petersfield, ten minutes walk from the town centre. It is enclosed by four well used roads: Heath Road, Heath Road East, Heath Road West and Sussex Road. The land slopes gently on all sides down to the pond and stream outlet which occupy the lowest parts of the site, with the central knoll of Music Hill forming the highest point. The site is overlooked by residential suburban housing to the north, south and west, with views out in places to the countryside to the east.

2.1.2 Petersfield, an old market town, is now largely residential with an expanding shopping centre, a new hospital and sports centre, and the central offices of the East Hampshire District Council. The recently finished A3 bypass has changed its nature from a through town to a destination town, a place to visit in its own right. Associated measures are being taken to improve the town centre including tree planting and sculpture. The Heath is the major open space in the town.

2.1.3 Today it is extremely popular with locals and visitors as a place to stroll or jog, walk the dog, fish the pond, picnic or go boating in the summer. Also on The Heath are a pondside children's play area, refreshment building and toilets, golf course and club house, cricket pitch and pavilion.

2.1.4 The site is owned by Petersfield Town Council and managed as public open space and at present combines a variety of formal and informal recreational facilities. (Drawing 1).

2.1.5 In spite of its popularity the public use is concentrated in one half of the site; enjoyment of The Heath is at present limited by the hazards of flying golf balls on the fairways and a lack of safety in the overgrown woodlands. Most use is made of the pond, the pathway around the pond and the children's playground.

2.1.6 The potential of the natural habitats for wildlife is at present limited by minimal management of the woodland, and the unsympathetic golf course maintenance regimes which continue to destroy the natural acid grassland, wetland and heathland by the previous use of fertiliser and continued over-mowing.

2.2 ARCHAEOLOGY/HISTORY

2.2.1 The Barrows

The County Sites and Monuments Record indicates the presence of a Group of Round Barrows on Heath Common Petersfield as follows:

> "A group of 21 Bronze Age barrows located to the east of Heath Pond. The barrows are predominately of the Bowl barrow type, although Bell, Disc and Saucer forms are also present. The barrows survive as earthworks, although some have been damaged. According to the Sites and Monuments Record, the barrows have never been excavated. Bronze Age flints have been recovered from two of the barrows. The barrows are included in the Scheduled Ancient Monument, Hampshire County Number 84".

2.2.2 Flint implements found on The Heath dating to 4000 BC indicate prehistoric occupation of the area by hunter-gathering tribes who would have hunted the wild game and fowl of The Heath, felling trees to make shelters and for fuel.

2.2.3 The numerous earth mounds known as tumuli or barrows scattered around the site date to circa 1550 BC and are the remains of a middle bronze age cemetery site, the best preserved site of its type in Hampshire. They reveal The Heath as an area of importance for ceremonial ritual and burial at that time. These farming people would have lived in villages nearby, using The Heath for hunting and grazing their cattle.

2.2.4 **Ancient Soils**

The soil types found on Petersfield Heath are similar to those dated from the Neolithic to the Bronze Age and prehistoric sites elsewhere. The nutrient leaching would have occurred following woodland clearance and cultivation or cropping since that time.

2.2.5 **Lynchets and Heath Pond**

Also on Petersfield Heath are lynchets and former field boundaries of unknown age.

There are written historical records for the medieval period when The Heath was open common land with rights for grazing and peat cutting. Cattle were frequently lost in the bog areas that existed then so circa 1735 farmers and local people contributed towards digging out the bog, throwing up the soil around to form Heath Pond.

2.2.6 With the 1859 Enclosure Act The Heath was parcelled up and enclosed (fenced off) by the landowners until 1913 when the District Council bought the area now known as The Heath for public recreational use.

2.2.7 **Ancient Plant Communities**

Early OS Maps show the site supported heathland vegetation similar to other commons in the area. The area would have been used to graze sheep and cattle on the heather and young tree seedlings from the Neolithic time. With the cessation of grazing natural regeneration of secondary woodland gradually occured in all areas except those cut or mown for recreation. Today only very small areas of heathland vegetation remain.

2.2.8 In the past bands used to play on Music Hill and the Taro fun fair, originally a horse fair, pitched up yearly next to the playground. The fair ceased for one year on this site while dredged silt from Heath Pond was poured into earth bunds and left to settle and evaporate over the area. The bunds were recently restored to grassland with a willow wildlife habitat area.

2.3 PHYSICAL

2.3.1 LANDSCAPE SETTING

2.3.1.1 Petersfield Heath is situated in the south west corner of the Weald, a large area of sandy, loamy and locally clayey land lying between the Chalk escarpments of the North and South Downs which join as the Wealden Edge in East Hampshire and extend to the west as the Hampshire Downs.

2.3.1.2 The South Downs rise to the south of the site and the Wealden Edge escarpments extend to the north before swinging east into Surrey and Kent as the North Downs. Within that broad sideways arc of the Chalk is the lesser escarpment of the Upper Greensand, then the Clay Vale of the Gault and then a succession comprising sandy land of the Folkestone Beds, clays and loams of the Sandgate Beds and finally in the centre of the district, sands and sandstones of the Higher Weald on the Hythe Beds. Petersfield Heath is on the junction of the sandy Folkestone Beds and the wetter land of the Sandgate Beds.

2.3.2 LANDFORM AND RELIEF

2.3.2.1 **Landform**

Landforms in the general vicinity are complex with surface topography superimposed on an underlying complex geological sequence.

2.3.2.2 Petersfield Heath is within a small valley eroded into the interfluve between east flowing tributaries of the River Rother, the Tilmore Brook in the north and the Standbridge Stream in the south. Heath Pond (Appendix 2, photograph 1) is constructed in the head of this small intermediate valley and the outlet stream forms a further east flowing tributary of the Rother.

Appendix 2, Drawing 2 shows the principal landforms within the site.

2.3.2.3 The main feature is the Heath Pond Stream flowing east out of Heath Pond through a broad shallow valley. The stream is often static and sometimes dry. The valley has a narrow bottom either side of the stream but in the north this expands as a broad low lying footslope which rises to a gently undulating area to the north east and rather more steeply rising land in the north which passes to a terraced interfluve along the line of Heath Road.

2.3.2.4 Gravelly terraces confine the valley and pond system on three sides (like a horseshoe on its side and open to the east) and broadly follow the lines of Heath Road in the north and west and Sussex Road in the South.

2.3.2.5 South of the stream, the land rises gently to an area of higher land topped with three barrows and known as Music Hill. This higher land continues to the south as an interfluve separating the broad valley from a small narrow valley head (by the public car park) trending west back towards Heath Pond.

2.3.2.6 Heath Pond is constructed within the footslopes of this valley system and occupies low land towards the head of the valley and surrounded in the north, west and east by the previously mentioned gravel terrace system.

2.3.2.7 **Relief**

Contours taken from the 1:10 000 OS plan are given on Drawing 3, Appendix 2.

The main valley bottom is a little below the 55 m contour and from where the land rises to the north along Heath Road and to the south at Music Hill to a little over the 60m contour giving a total relief of about 10m. Heath Pond is at about 56 m AOD.

2.3.3 **GEOLOGY**

2.3.3.1 The geology of this area of the Weald is complex and is covered in detail in the site survey report by Ron Allen Associates Appendix 2.

2.3.3.2 The geological baseline information has been taken from 1:10,000 scale sheets of the British Geological Survey. The geological setting of the area is shown on Drawing 4, Appendix 2 and a schematic cross section across the area is provided in Drawing 5, Appendix 2.

2.3.3.3 Petersfield Heath lies on the junction of the sandy Folkestone Beds and the wetter sands, clays and loams of the Sandygate Beds. At the very southern edge of the site Gault Clay just overlies the Folkestone Beds and is topped by thin, gravelly Terrace deposits, which also occur round the north and west margins of the Heath. Sandy Head deposits occur across much of the lower lying parts of the site and generally lie wet.

2.3.3.4 The soils of Petersfield Heath are very varied for a relatively small site, ranging from deep, well drained sands to wet, seasonally or permanently waterlogged soils. As well as sandy podzols, typical of heathland sites, loamy, sandy and peaty gley soils, affected by both surface water and ground water, also occur. Soil series present are Shirrell Heath, Sollom and Holidays Hill (podzols), Hedge End (surface water gley soils) plus Formby and Fordham (ground water gley soils).

2.3.4 **SURFACE HYDROLOGY AND HYDROGEOLOGY**

2.3.4.1 **Surface Hydrology**

The main hydrological features are shown on Drawing 6, Appendix 2. These features include Heath Pond, the outlet stream, a series of small seasonal drains, two small seasonal pools and three areas of high groundwater.

2.3.4.2 **Heath Pond**

The dominating wet feature on the site is Heath Pond, an extensive but shallow pond thought to have been dug in the 18th Century to merge a series of wet pools.

There is an outlet stream but no obvious inlet stream however, several culverts feed in from Sussex Road. The pond appears to have been dug into wet soils in Sandy Head deposits within a low lying basinal area underlain by waterlogged Folkestone Beds.

Water in the pond has a neutral reaction with pH values of 7.0 to 7.1 when measured during March 1993.

In recent years Heath Pond has been deepened by suction dredging. This will have the effect of increasing water depth, maintaining cooler water during the summer which will aid fish survival and prevent the excessive development of freshwater algae.

2.3.4.3 Surface Stream, Wetland and Drains, Springs and Surface Water.

2.3.4.4 **Surface Stream**

The outlet stream leaves the pond at a sluice in the north and flows through the bottom of a shallow valley towards the east-southeast before passing under Heath Road East and flowing east and then northeast to meet the River Rother just south of the East Hampshire District Council offices at Penns Place.

From the sluice, the stream has been piped below the landscaped areas formed from the previous bunded lagoons and then flows across the site in a straightened channel devoid of meanders, shallows or other natural features.

Stream water is slightly acidic with pH values (March 1993) of 6.3. Water in the stream is thus more acidic than that in Heath Pond suggesting that water in the stream arises in part from interception of groundwater as well as directly from Heath Pond via the sluice.

2.3.4.5 **Wetland and Drains**

Low lying areas on Petersfield Heath are drained by small shallow ditches.

The low lying area between the stream and the golf club house lies waterlogged in the winter and spring and has a network of silted and grassed over drains and shallow pools that today serve little purpose. Such surface water that follows them flows west into a thin woodland strip where it is discharged before reaching Heath Pond.

A further area of low lying land occupies a small valley head by the public car park. Water flows off the surrounding slopes via a series of shallow silted and grassed over drains and pools into a maintained ditch to flow east-north east in a straight channel north of the car park, into a small pond and through a culvert into Heath Pond. Water in the drain in March 1993 had a moderately acidic pH value of 5.2.

There is also a small drain taking water from the north east corner of the site. This dug ditch takes seasonal water from a small shallow pool south along the road to be discharged in the general direction of the Cricket Ground.

2.3.4.6 **Springs and Surface Water**

Seasonally wet areas occur at the base of sandy slopes, but there is a pronounced seasonal spring at the edge of the terrace to the east of the Golf club Car Park (Photograph 3, Appendix 2). Here there is an area of seasonally wet land which may at one time have been a pond but is now an area of peaty secondary woodland with Moor-grass (Molinia caerulea). Where this land has been mown, it is mossy and abundant Heath Rush (Juncus squarrosus) and some Heather.

Surface water stands in pools on low-ways when the water table rises and also after heavy rain in areas with impeded soil drainage. These areas most dramatically include land in the southeast corner where open pools develop in shallow low-ways on

thin terrace gravel over Gault Clay (Photograph 4, Appendix 2). Waterlogged land also develops along the southern fairways where the soils have clayey layers at depth and also in the north east of the site to the north and east of the Cricket Ground where the soils overlie Marehill Clay.

2.3.4.7 **Hydrogeology**

The local geology is shown on Drawing 4, Appendix 2 and the geological structure (dip exaggerated) is shown on Drawing 5, Appendix 2.

The regional dip of the strata is only about 2-3 degrees and so the natural landforms of Petersfield Heath cut through a succession of differing geological materials. Some of these are permeable (usually sandy) and form aquifers and some are slowly permeable (usually clayey) and form aquicludes.

The main aquifer is the Folkestone Beds and water is perched within this formation over the underlying Marehill Clay (Sandgate Beds).

Heath Pond appears to have been dug below the water table level in the Folkestone Beds and its covering Head deposits. The Folkestone Beds here are relatively thin and groundwater is likely be perched over the underlying Marehill Clay. The catchment for water reaching the lake is likely to be the adjacent land on Folkestone Beds to the east and west and also the areas of gravels on the surrounding higher terraces.

Because the base of Heath Pond appears to be permeable, the water level will vary with the rise and fall of groundwater and during dry periods, water levels will be low as water passes down the gently dipping aquifer below the Gault Clay in the south.

2.3.5 **SOILS**

Soil conditions at Petersfield Heath are surprisingly varied for a relatively small area.

These variations in soil type occur according to the lithology of parent geological materials and their moisture regimes and also with vegetation change and the effects of man.

Wetter soils are associated with lower valley sides and valley bottoms or with springs at the base of terrace deposits. Seasonally waterlogged soils are associated with areas of impeded drainage and well drained soils occur on deep sands, both types are generally above the water table.

The soil map in Drawing 7, Appendix 2, illustrates the broad trends in soil distribution although in reality the fine variation in soil conditions is locally complex.

2.3.5.1 Soil Survey

Soils have been surveyed from 43 locations across Petersfield Heath by digging small pits to 25 cm by spade and hand augering to about 1 m depth.

A detailed and comprehensive report has been prepared which is available as Appendix 2.

2.3.6 HEATHLAND RESTORATION

Judging by the range of soils available and taking further clues from the existing vegetation, it would appear that the full range of common southern heathland types could have existed. Valley mire and wet heath could easily have occurred in the low areas with Fordham and Formby soils respectively. Holidays Hill soils are typical of many areas with humid heath communities, and Shirrell Heath soils occur under large areas of classic dry heath in the Western Weald.

For the most part, the fairways remain acidic and have the low levels of Potassium and phosphorus associated with semi-natural heathland habitat. However some areas are better suited to different habitats.

2.3.6.1 Land Best Suited to Dry Heathland

Dry Heathland communities naturally develop on Shirrell Heath soils and these are not represented on the fairways.

The most extensive area of these soils is on the valley side to the south of the stream and to the east and west of sample area 14b. This area may have local nutrient enrichment derived from gorse litter which is rich in nitrogen, but light topsoil stripping to about 5 cm and removal of all scrub litter would make these soils ideal for establishing with Common Heather, Calluna vulgaris.

There is a further area of dry soils on higher land in the south of the site on the interfluve (Drawing 2, Appendix 2).

Some areas of Holidays Hill soils have well drained upper layers and would probably provide a substrate for dry heathland communities.

2.3.6.2 Land Best Suited to Humid Heathland

The relatively extensive areas of Holidays Hill and Sollom soils have either impeded drainage or are affected by high groundwater and so would provide soils suited to humid heathland. The degree of wetness in these varies from place to place and so some areas would tend to encourage the development of drier heath swards and some areas may tend towards wetter communities.

Humid heathland communities could also develop along the drier fringes of Fordham soils to the south of the footpath that runs in front of the golf club house.

2.3.6.3 Land Best Suited to Wet Heathland and Valley Mire

Careful excavation of Formby soils in the low-way between the northern footpath and the stream would provide ideal conditions for wet heath and the initiation of valley mire communities. This area could easily be converted into a very interesting acidic

wetland complex of open pools, mire and wet heath of considerable benefit to wildlife conservation and not currently represented on Petersfield Heath, although it can be assumed that they occurred at one time and probably in this same area and on the site of the present Heath Pond.

2.3.6.4 **Land Best Suited to Neutral Marsh and Poor Fen**

This is the land corridor along the valley bottom immediately adjoining the stream. Water in the stream is only slightly acidic at pH 6.3 and this probably reflects a mixing of neutral surface-water from Heath Pond with more acidic groundwater.

2.3.6.5 **Land Poorly Suited to Heathland Creation**

Land with soils least suited to heathland creation include those with either a high pH value (greater than 6) or those with a high nutrient load especially of Phosphorus.

The highest pH values were found on the amenity grassland in the north of the site that currently supports rich acidic grassland communities. Should liming occur here to improve the sward, it should clearly be stopped.

The next highest pH value (5.6) was around fairway sample B but this is not excessive for heathland.

The highest Phosphorus levels occur in the old quarry where values of 59 mg/1 are much higher than those needed for agricultural cropping and nearly 15 times as high as the lowest levels found on Petersfield Heath. How such high levels came to be here is a mystery, but it could be that the site has been fertilised or that Phosphorus rich silt was deposited here as part of the dredging operation.

The next lowest Phosphorus levels are on the northern amenity grassland and in the reseeded land in the vicinity of the old tennis courts suggesting past fertiliser application.

3.0 EXISTING USE OF THE HEATH

3.1 THE LANDSCAPE OF THE HEATH

3.1.1 The full natural character and beauty of The Heath is currently unrealised and could be greatly enhanced by a number of low key changes. Restoration of The Heath's diverse habitats of heathland, heath grassland, wetland and woodland would create a more diverse and visually interesting landscape, as well as improve The Heath for wildlife. Natural features of the site are impaired by the intrusion of the golf fairways, greens and tees, and the unchecked growth of woodland, of which the Music Hill knoll is the most notable example. Removal of the golf course and selected patches of woodland would open vistas and access to the knoll drawing people up to it to enjoy views over The Heath and Heath Pond. Woodland management, heathland restoration, some specimen tree planting and areas of rough cut grassland introduced throughout the site would restore its natural character.

3.1.2 The landscape of The Heath could be further enhanced by man made features to create points of interest to look at and visit all round the site. The pine clumps on the barrows planted by the Victorians already exist as such a feature which greatly contribute to the character of The Heath. These need to be replaced in time with new tree planting situated away from the barrows for conservation reasons.

3.1.3 The barrows on The Heath are pre-historic man-made features of interest and as important archaeological monuments need careful conservation. Currently most of them are obscured by mature trees, gorse, bracken or brambles which has helped to protect them from erosion by trampling and the interests of metal detector enthusiasts. Others are planted with mature pine clumps as mentioned above.

3.1.4 To conserve the underground archaeological remains the barrows need to cleared of trees and planted with shallow or delicate rooting ground over, ideally grass and heather and/or brambles. The pine clumps as a much loved feature of The Heath should be kept until over-mature and require felling, with the long term aim that all trees growing on barrows are gradually removed by felling to ground level, the roots treated to kill them off and grass or heather brambles and ground cover encouraged.

3.1.5 As scheduled ancient monuments all landscape work particularly earthworks and planting carried out on or near the tumuli has to comply with the Secretary of State conservation regulations and be in agreement with the County Archaeologist.

3.1.6 Some under-used areas of The Heath could be made more interesting to visit by introducing additional features such as environmental sculptures inspired by the character of The Heath and sensitive to the individual location such as a diving fish sculpture in the lake or stream, leaping deer or timber totem pole in the woodland. It must be emphasised that features must be unobtrusive in keeping with the natural character of The Heath.

3.2 CIRCULATION AROUND THE HEATH

3.2.1 Main circulation routes are around the lake (walkers, many with dogs) to the children's playground (young families), and across the site between Petersfield town centre to the west and the housing areas east of The Heath (local residents and school children). Circulation throughout the site as a whole is at present limited by the hazards of flying golf balls, the uninviting, perhaps unsafe nature of the dense woodland areas, and the lack of site planning to accommodate the conflicting needs for access for both golfers and the public. Consequently there is a maze of desire lines criss-crossing the whole site providing a range of experiences for visitors.

A detailed plan is needed to provide a coherent layout for circulation linking paths with car parks and access points and to encourage users to explore the range of experiences available here.

PATHS

3.2.2 Pathways are largely informal beaten tracks or desire lines. The main pondside path is gravel or hoggin (no edgings) with a small stretch of timber boardwalk along the Sussex Road which provides the walker with a welcome change of experience. Gravel or hoggin has also been put down in places along the main east-west path and small waterlogged or eroded stretches of pathway used by the golfers. The existing paths are in keeping with the natural character of The Heath. Continued minimum use of gravel and hoggin (no edgings) limited to the main paths only with predominantly informal beaten paths is recommended.

3.2.3 Between the Sussex Road car park and the pond is a low-lying, intermittently waterlogged area of grass with trees intersected by a number of pathways. The area lacks cohesion and needs re-appraisal to resolve in particular the problem of waterlogged paths.

3.3 **CAR PARKS AND VEHICLE ACCESS**

3.3.1 There are two car parks: the Sussex Road public car park and the car park by the golf club house currently used by golfers only. Limited car parking is provided on the roadside by the children's playground and along Heath Road up to the golf club. There is need for a car park to serve the north end of the site.

3.3.2 There is access for maintenance vehicles and fire engines on the Sussex Road and on Heath Road where the main pedestrian access point has removable bollards.

3.4 **PEDESTRIAN ACCESS**

3.4.1 Pedestrian entry to The Heath is limited by the boundary hedge except along the pond on the Sussex Road, where access is unlimited over open grass, and the children's playground where there is open access down a bank through a line of timber bollards.

3.4.2 The main pedestrian entry points to the site are at the Sussex Road car park, the golf club car park (mainly golfers) and by the play area. The main pedestrian route for local residents between the town centre and housing on the east of The Heath is served by an entrance on Heath Road and at the Heath Road/Heath Road East crossroads. These "gateway" points lack character and definition where first impressions of The Heath are important. They could be re-designed keeping them open and informal with features such as sculptures or specimen tree planting could be used to provide a greater focus.

3.4.3 There are also lesser used access points mainly along the north end of the site on Heath Road and Heath Road East used by residents of the adjacent housing. The gateway features (see proposal) could form the first of the visually linked features of interest that could be located over the whole of The Heath to encourage the natural progression of visitors around The Heath along the planned routes of circulation. These access points need to be marked in some way to draw people to them: a simple timber post for example on both sides of the hedge to protect it.

3.5 **THE BOUNDARY HEDGE**

3.5.1 The boundary hedge is of mixed species (Hawthorn, Blackthorn, Honeysuckle, Privet, Holly, Yew) and in reasonable condition particularly along Heath Road. Gaps exist in places, mainly along the Sussex Road and require replanting with the same species as adjacent hedging. It is important that the hedge is maintained well and gaps replanted to limit access points and encourage people to use the planned pathways. Temporary fencing may be needed to protect establishing hedge planting. Less rigorous cutting is recommended to maintain a flourishing hedge and enhance its wildlife habitat value.

3.6 **THE PLAY AREA**

3.6.1. This popular pondside play area has a beautiful lakeside setting but the play equipment requires re-examination and designing overall. The refreshment hut, boat hut and toilet block do not relate well to each other or the site itself. However they do provide welcome facilities.

3.6.2 During the preparation of this report the play area refurbishment has been decided upon. works are due to take place in Summer/Autumn 1993. Buildings could, if resources allow be sensitively redesigned as a whole perhaps following a waterside theme (boating/water birds) to make the area more attractive, interesting and enjoyable.

3.6.3 A timber boat landing stage and slipway would also tie the design of the area together and be more appropriate to the natural character of the site than the existing concrete slipway.

3.6.4 The limited roadside parking adjacent to the play area is insufficient to meet demand. There is nowhere nearby for extra car parking off The Heath and additional parking on The Heath itself has been ruled out.

3.6.5 The mature trees and grass with informal gravel surfacing immediately around the play area work well here and should be continued. New pondside planting is needed to take the place of the existing trees when they die and to augment the recent birch tree planting.

3.7. **THE GOLF CLUB**

3.7.1 With the removal of the golf course a new use for the club house, car park and fairways is assumed by the brief.

3.7.2 A pitch and putt course could be a suitable alternative with less danger of flying golf balls, and requiring a smaller area of grassland which could be located away from pathways. A fee could be paid at the club house. An experienced golf consultant would be needed to advise on the course layout, management practice and ensure the course is designed in keeping with the character of the site.

3.7.3 The club house could provide a new focus for The Heath away from the pond offering refreshments and toilet facilities, collection of pitch and putt and fishing fees and sale of associated goods. It could also be used as a meeting place for clubs: youth clubs, environmental conservation clubs, an information centre about the history and habitats on The Heath.

3.7.4 The buildings need to be refurbished to accommodate a new use. Sensitive design should ensure that the building is not intrusive in the landscape.

3.8 FISHING

3.8.1 Bankside fishing is very popular on Heath Pond, permits are obtained from fishing shops in the town. The expanses of grassy banks and gaps cut into the tree and shrub lake fringes (approximately 1 metre width gap is required to full tree height for fishermen to cast their rods) provide the fishermen with easy and adequate access points. Where erosion problems occur informal patches of hoggin (clay-based) surfacing or in extreme cases a timber boardwalk deck could be introduced.

3.9 PICNICKING

3.9.1 Summer picnicking is concentrated around Heath Pond and the Sussex Road car park. Further use could be made of The Heath to provide the opportunity to picnic away from the noise of the road. A variety of sites could be chosen for views, seclusion, shade, sun and easy access. The provision of timber picnic tables is not generally recommended throughout the site but could be provided in a few places and combined as year round seating. Picnic tables should not be located in the heathland and woodland areas.

3.10. LITTER

3.10.1 Litter bins should be provided at the car parks, club house and playgrounds only. It is advised that litter bins are not supplied anywhere else on The Heath and that instead signs should be located at the above sites requesting visitors to bring their litter to these points. This avoids the problem of blown litter from full bins and litter collection over a large area.

3.11 SAFETY

3.11.1 Public safety on The Heath is of paramount importance. Encouraging the public to use The Heath at all times would provide safety in numbers and make it self-policing. This already happens around the pond where there is a constant flow of walkers, fishermen and young families. Problems are more likely to occur in enclosed woodland areas and more secluded spots such as the south east end of The Heath which is not overlooked by housing. Woodland thinning around pathways will bring in more light and eliminate cover for lurking. Means may need to be found to encourage people to enjoy a greater variety of aspects of The Heath. The introduction of a trim trail in the woodland, nature trails and historic trails over the site Heath, picnic spots, viewpoints and sculptures could all help to attract people.

3.12 SERVICES

3.12.1 Underground services (sewer, gas and electricity) cross The Heath parallel to Heath Road and adjacent to the lake outlet, part of which itself is piped underground. Easement rights require that tree and shrub planting is prohibited within a 5 to 8 metre band parallel to the services. Heathland restoration should not be affected, but any landscape changes to The Heath earthworks, tree felling and planting in particular must be in agreement with the requisite authorities: East Hampshire District Council Engineers Dept (sewers), British Gas Southern, Mid Southern Water PLC, Southern Electric Test Division. (Details are provided in Appendix 8).

3.12.2 Any landscape proposals to open up the pond outlet will need to take into account the proximity of the sewer pipes and may have to be carried out by hand and/or the stream course altered slightly. Care is also needed with woodland clearance operations adjacent to services. Tree felling to ground level with roots to be killed off and left in situ may be recommended by the authorities.

3.13 DOGS

3.13.1 A policy on the presence of dogs on The Heath needs to be addressed. Dog walking is very popular but causes problems of hygiene in children's play areas and picnic sites. They detrimentally increase the nutrient balance of the soil; heathland requires a low nutrient soil. The new toddlers play area will be fenced off but careful design is vital to ensure the fence does not detract from the scenic lakeside setting. Alternatively dog walkers could be asked to avoid play areas and other selected parts of the heathland.

4.0 PROPOSALS

These proposals address the problems raised by the survey and analysis of The Heath and should be read with the Landscape Plan and Habitat Restoration drawings numbers; Plincke Landscape 9138-21, 22, (see Appendix 5).

Proposal 1: To improve the public enjoyment of open air recreation on The Heath by the following:

1.1 Improved Circulation

Surfaced easy access paths should be maintained around the pond with unmarked beaten track pathways elsewhere. Clay based hoggin or screened path gravel is recommended where surfacing needs to be introduced or replaced.

Circulation of visitors around The Heath to be a logical progression around the whole of The Heath along mainly unmarked pathways, encouraged by drawing visitors from main entrances to landscape feature points: tree clumps, tumuli, sculpture: and to activity areas: playground, picnic site, trim trail, so that more of The Heath is in general use.

Creation of low key features at the main entrances to welcome the visitor and create a sense of arrival.

Simple timber posts coud be used to mark lesser entrances.

Information board with map to interest and inform visitors about the site (site layout, activities, history, wildlife and natural habitats) to be located at both car parks and at the club house.

Boundary hedge to be improved by planting up gaps and allowing hedges to grow taller and thicker.

Public use of golf car park is recommended once the golf club has left, with re-designed surfacing.

Improved year-round access between the Sussex Road car park and Heath Pond with new timber boardwalk.

1.2 **Variety of formal and informal activities promoted to suit all needs:**

Pitch and putt replaces golf course with public use of club house for refreshments, information centre, shop, club meeting rooms, toilets.

Lakeside playground and associated facilities improved.

Continued cricket, fishing and boating with improved boat slipway and regular maintenance of fishing platforms and associated vegetation.

Leaflets at club house to promote wildlife and recreational aspects of the site.

1.3 **A more diverse landscape:**

Habitat diversity restored and wildlife encouraged.

Music Hill knoll opened up to create a central focus to The Heath and as a viewing point over The Heath and Heath Pond.

Barrows should be protected by woodland clearance with heather, grass and bramble cover to replace trees in the long term. Pine tree clumps to be retained until over mature and new tree clumps planted away from barrows. A special topic report has been prepared to examine the health of the trees on the barrows (see Appendix 4).

Sensitive tree planting is recommended to enhance the club house area and to replace existing mature trees over the years.

A variety of spaces created: open, enclosed, intimate, shaded, sunny, some with views and some to retain a sense of wilderness.

Environmental sculptures to create an element of surprise, fun and creative inspiration.

1.4 **Improved safety:**

Safety promoted by encouraging The Heath to be self policed by people using more of The Heath during daylight. Opening up the woodland along main pathways by clearance of undergrowth beneath matures trees 2-3 metres away from path would create a greater sense of security. A Heath Warden to provide a low key presence on The Heath for safety.

Proposal 2: Enhance the wildlife of The Heath

2.1 **Restoration of the heathland mosaic:**

The proposed Healthland Management Plan promotes long term conservation and habitat diversity of heathland, grass heathland, woodland and wetland habitats. (see Appendix 7).

Marsh or damp heathland habitat could be created by extending the pond edge adjacent to the Sussex Road car park.

2.2 **Restoration of the woodland:**

A mosaic of varied natural woodland habitats could be created by making clearings within existing woodland to encourage ground flora, coppicing, maintaining existing mature tree stands.

2.3 **Habitat and wildlife conservation:**

Any new pathways should be carefully sited away from sensitive areas of heathland and woodland to enable wildlife refuges to establish.

Heath Pond island to be enlarged as a wetland wildlife refuge.

Proposal 3: Maintain the natural character of The Heath

3.1 Design guidelines:

The following design guidelines could be used to ensure that the natural informal character of The Heath is conserved and that the visual impact of man on the landscape is minimised.

i) Formal recreation and visible signs of man to be restricted to the Petersfield side of The Heath mainly along Heath Road and the south west end of the Sussex Road. Elsewhere the priority is for the natural character and habitats of The Heath to be conserved.

ii) All man-made installations to be kept to the minimum and to be simple, robust and rural in character with use of natural materials and co-ordinated design.

Timber to be the predominant construction material for bridges, boardwalks, bollards, litter bins, information boards, play structures, seating. Timber should be from re-newable sources and the use of tropical hardwood is not advised.

Pathways and car parks to be constructed of hoggin or gravel with no use of edgings. Wood bark chipping may also be used for pathways in woodland.

Information boards and leaflets to feature simple graphics and instructions with limited use of colour. Information boards to be limited to car park areas and the club house only.

iii) Existing buildings may be improved but no new buildings are permitted on The Heath. Improvements are to be simple and in keeping with the natural character of The Heath.

iv) New planting is to be limited to native species to encourage wildlife.

vii) Management of The Heath to follow a long term management plan to ensure appropriate care and maintenance of the site for public enjoyment and habitat conservation.

5.0 TEN YEAR MANAGEMENT AND HEATHLAND RESTORATION PLAN

5.1 Petersfield Heath is a surviving fragment of the once extensive heathlands of the western Weald. Much of the former biological diversity and richness of this 37.8 ha site has been lost and less than 3.0 ha of heathland and acid grassland remain in a relatively unmodified state. The most significant factor in this decline has been the presence of the golf course on the site. The intensive mowing and previous fertiliser application, often associated with golf course management, have resulted in a major reduction in the extent of the semi-natural habitats and their wildlife.

Despite this, the site has areas of high ecological value and supports a number of rare species. The heavy public use of the site has been very beneficial in maintaining healthy populations of rare acid grassland herbs, species which require trampling and/or grazing. Much of the highly modified land has excellent potential for restoration to the historical habitats of the Heath, especially now that the departure of the golf club seems likely.

This management plan has been prepared by the North East Hampshire Heathlands Project, to outline the actions and techniques required to restore former habitats, most notably heathland. Lowland heathland, now internationally endangered, is one of the key habitats targeted by the Countryside Commission for grant aid through its Countryside Stewardship Scheme.

This management plan has been specifically written to accompany a Stewardship application, should this way forward be decided on. Management prescriptions, all of which can be carried out by the Heathlands Project, are given for the ten year period covered by a Stewardship agreement.

Such specialised work is a part of the wider recommendations for Petersfield Heath. A good deal of background information is available for the site and various reports from other experts are referred to in this document. The heathland restoration proposals which follow will therefore be fully integrated with the other activities taking place on The Heath.

5.2 General Information

Site name: Petersfield Heath
Grid Reference: SU 755 229
OS Sheets: 197 (1:50,000), Pathfinder 1265 (1:25,000)
District Council: East Hampshire
Parish/Town Council: Petersfield
Ownership: Petersfield Town Council
Status: Scheduled Ancient Monument, Hampshire County No. 84 (barrows)
No conservation status
Area: 37.8 hectares (93.4 acres)
Areas Proposed for Stewardship Agreement (Map 1): 25.7 ha (63.5 acres).

5.3 Site Description

5.3.1 Physical Features

i) Geology and Soils

The geology of this area of the Weald is complex and is covered in detail in the site survey report by Ron Allen Associates ("The Heath - Petersfield. Geology Hydrology, Soils and Edaphic Relationships with Special Reference to Heathland Restoration", April 1993) commissioned by the Hampshire County Council Planning Department.

Petersfield Heath lies on the junction of the sandy Folkestone Beds and the wetter sands, clays and loams of the Sandygate Beds. At the very southern edge of the site Gault Clay just overlies the Folkestone Beds and is topped by thin, gravelly Terrace deposits, which also occur round the north and west margins of the Heath. Sandy Head deposits occur across much of the lower lying parts of the site and generally lie wet.

The soils of Petersfield Heath are very varied for a relatively small site, ranging from deep, well drained sands to wet, seasonally or permanently waterlogged soils. As well as sandy podzols, typical of heathland sites, loamy, sandy and peaty gley soils, affected by both surface water and ground water, also occur. Soil series present are Shirrell Heath, Sollom and Holidays Hill (podzols), Hedge End (surface water gley soils) plus Formby and Fordham (ground water gley soils).

5.4 Management Prescriptions

5.4 i) Ten Year Management Programme

Staged over the ten year Stewardship agreement period the programme of works on Petersfield Heath is aimed at enhancing the biological diversity of existing habitats, recreating the original ecosystems where appropriate and, ultimately, achieving a balance of different vegetation types and growth phases. The open habitats of the site have been divided into 25 management compartments, plus a further seven for the main woodland blocks, (Map 4, Appendix 7) and the prescribed work for each is outlined below.

Due to the vagaries of nature, it will no doubt be necessary to modify these proposals from time to time. Progress should be reviewed regularly, through monitoring of the results of management and restoration, and a more detailed plan drawn up annually which takes into account these results.

Compartment 1 (1.25 ha)

Present State. Species rich acid grassland, one of the most ecologically valuable areas of Petersfield Heath. There are residual effects apparent of past fertilising and liming, and some rare species formerly recorded in this compartment (eg. clustered clover, Trifolium golmeratum) have disappeared. Nevertheless, the trampling of visitors has prevented a dense, species poor grass sward from smothering the less vigorous herbs and much of interest survives here. There is good potential for an even richer sward.

Management. Continue to mow as required (the frequency will depend on the weather, visitor pressure and how the sward recovers from past enrichment). All cut material must be removed to help deplete the excess of nutrients in the soil, especially phosphorus. Tree planting or construction of any kind in this compartment should be avoided if at all possible.

Compartment 2 (0.75 ha)

Present State. Once the richest part of the whole site, this area was temporarily used for dumping silt, removed from the Pond, then sown with rye-grass. Unfortunately, this resulted in the disappearance of most species including the nationally rare bulbous meadow-grass, Poa bulbosa, (now only found on a handful of sites on the south coast), mossy stonecrop, Crassula tillaea, (now confined to the New Forest and Woolmer Forest in Hampshire), and several rare clovers.

There are signs, however, that some of the plants that formerly occurred here are returning, especially in the patches where the rye-grass (which does not thrive on such poor soils without feeding) is beginning to fail. Burrowing clover, Trifolium subterraneum, and birdsfoot, Ornithopus perpusillus, have already reappeared from the seed bank and undoubtedly more species will do so with the right conditions.

Management. The avoidance of any fertiliser or lime application, plus the removal of cuttings from regular mowing, will help to deplete the increased nutrient levels in this compartment. The more vigorous areas of rye-grass could be stripped off, to speed up this process, or simply rotovated or scarified lightly in early Spring in Year 1 of the agreement period. The seed bank of plants that used to be widespread on the site will still be viable for many species, and can remain so for decades in some cases, which will considerably help the restoration work in most compartments.

Compartment 3 (1.4 ha)

Present State. This is the main area used for silt dumping when Heath Pond was being dredged four or five years ago. Some of the original acid grassland species are already returning, mainly along the northern edge of the compartment and on bare sandy patches here and there. An area has been sown as a 'wildflower meadow', although a dense growth of wayside and arable weeds has become established instead. Two stands of willow scrub have created and there is also a bank of dense gorse.

Management. As for Compartment 2, mow the grassland regularly and remove the cuttings to encourage lower nutrient levels. Light rotovation or turf stripping would also be beneficial in places. The most vigorous invasive weeds may require chemical control, but this should not be necessary on the well mown areas. This compartment is currently fenced and it would be advantageous to remove this as soon as possible to allow trampling by members of the public, which will assist still further in the re-establishment of a species rich sward.

The gorse should be cut on a fifteen year rotation (ie. a fifteenth is cut down to ground level and removed from site each year) to prevent the growth from becoming too gaunt and leggy, when it starts to lose its value for wildlife and become a serious fire risk. This will promote the growth of fresh young gorse from the stumps. Cutting on a shorter cycle would not allow the more mature bushes to develop and it is this stage, when the gorse provides maximum cover, that is of most value to insects and the birds that feed on them. The gorse cutting programme should incorporate all the gorse on the site so that eventually all growth stages will be represented. Similarly the willow scrub can be regularly coppiced on a three to five year cycle.

Compartment 4 (0.4 ha)

Present State. Much of this area supports a dense growth of improved and disturbed ground species, such as couch-grass, creeping soft-grass and false oat-grass, with one or two small patches of the former unimproved grass-heath. Gorse seedlings are also plentiful here. The bank to the south and east of this compartment contains a more typical flora of remnant heathland, including species like the heath rush, Juncus squarrosus, and several acid grassland plants.

Management. Turf stripping or rotovation is unlikely to be immediately effective on this area, principally because of the very high phosphorus levels (higher than is maintained on productive agricultural land) which are not well suited to heathland restoration. In addition the ground has been disturbed in the past and true soils do not occur in this area.

Regular mowing and removal of cuttings will help to reduce surplus nutrients with time, although it may be more sensible to allow the gorse to develop and incorporate it into the 15 year cutting programme for this species. The presence of the silt bunds adjacent to this compartment for several years may explain the high nutrient levels here, coupled with the golf green at the top of the bank. If no more fertiliser application occurred here the bank itself should start to develop a more healthy heathland vegetation.

Compartment 5 (0.25 ha)

Present State. This area is typical of the species poor improved grassland of many golf courses. The grass is lush and green and evidence of past liming was obtained during the soil survey.

Management. Regular cutting, without the addition of any more lime or fertiliser, will deplete the soil in time. This area, however, is the least suitable part of the golf course for heathland restoration at present. Turf stripping and reseeding can be attempted in Year 10 if future monitoring indicates this would be worthwhile.

Alternatively this compartment could be left to develop naturally in the absence of intensive golf course management.

Compartment 6 1.6 ha)

Present State. There are several areas of species rich acid grassland persisting in this compartment, especially at the western end below Compartment 7. Dr. Francis Rose has recently rediscovered two notable species in this area, clustered clover, Trifolium glomeratum, and mossy stonecrop, Crassula tillaea, neither of which had been recorded on Petersfield Heath for a number of years. Improved grassland is also present but there are no easily determined boundaries.

Management. Continue to mow regularly, removing cuttings, and cease any lime or fertiliser application. Rotovation or light scarification of the improved grass sward (Year 1) would greatly assist recolonisation by acid grassland species. Tree planting and any construction/development in conjunction with a revamping of the club house should only take place after consultation with Dr. Rose.

Compartment 7 (0.25 ha)

Present State. This is a sandy knoll, on well drained acidic podzols, supporting two small copses of birch, rowan, oak and gorse. Several heathland/acid grassland species can still be found on the open slopes but bracken is beginning to effectively smother the ground flora.

Management. This is an attractive feature, requiring no woodland management at present. The bracken should be controlled with the selective herbicide Asulox. Small scarified patches can be sown with heather seed (Calluna vulgaris and Erica cinerea) to promote the re-establishment of a dry heathland/acid grassland vegetation. The gorse should be included in the cutting programme for the site.

Compartment 8 (0.3 ha)

Present State. An area of scrub and gorse, with heathland remnants persisting in places. The soils here have peaty topsoils and sandy subsoils and are formed at a spring site. Ron Allen's report suggests that part of the area may be a silted pond. The presence of purple moor-grass and heath rush is indicative of waterlogged soils.

Management. Cease mowing the edges of this compartment to allow the heather to flower, set seed and spread. Overmowing of heathland promotes the establishment of grasses at the expense of the heathers. Once humid/wet heath is well established a heathland cutting programme, on a 25-30 year rotovation, for the whole site can be instigated (probably not until at least Year 10 to allow time for the large areas of heathland restoration to develop a good vegetation cover). Cut gorse in this compartment as described earlier.

Compartment 9 (1.3 ha)

Present State. A waterlogged area, sloping gently down to the Heath Pond outlet stream to the south. The topsoils are slightly peaty and at one time would have supported acidic mire plant communities - before the construction of the Pond and associated drainage. Heavily mown species poor grassland occurs here, with some more diverse areas, and small pools usually form in the winter. The potential for the creation of wet heathland is very good in this compartment.

Management. Cease all fertiliser and lime treatment. Strip upper 2-7 cm of rootbound turf/topsoil and seed area with a suitable heather/wet heath species mix. The degree of waterlogging, and the existing seedbank, will determine how the vegetation develops.

Compartment 10 (1.25 ha)

Present State. Cricket pitch with improved species poor grassland.

Management. Not affected by heathland restoration plans, continue current management regime.

Compartment 11 (0.25 ha)

Present State. Enriched grassland with little botanical interest except the old mixed boundary hedge.

Management. Not affected by heathland restoration proposals, continue current management regime.

Compartment 12 (0.25 ha)

Present State. The northern half of this compartment is open and is dominated by bracken, with some gorse, and coarse grasses. The southern half, part of the adjacent secondary birch/oak woodland, has undergone some thinning of birch in the recent past. The benefits for the ground flora of allowing more light into the heavily shaded secondary woodland is clearly demonstrated by this work. Foxgloves and other species have appeared and are thriving and there is also a good patch of bilberry, Vaccinium myrtillus, the only place this species occurs on Petersfield Heath.

Management. Spray bracken with Asulox to allow easier access in the summer months and promote the development of a more varied flora. No other management required at present.

Compartment 13 (0.1 ha)

Present State. Improvement grassland (golf tee and green).

Management. Once the golf course departs this area will slowly revert to a nutrient poor state, through leaching and the removal of mowings. Access is difficult for machinery suitable for turf stripping so heathland restoration is not proposed for this compartment at present.

Compartment 14 (0.74 ha)

Present State. The sole surviving area of heathland on the entire site. Heather is still dominant over about 0.5 ha together with several heathland associates. Both well drained Shirrell Heath soils and seasonally waterlogged Holidays Hill soils occur, so there is a mixture of dry and humid heathland. The lowest pH values on the Heath have been recorded here (pH 3.7), mostly due to the very acidic litter produced.

MISSING

6.0 MANAGEMENT OPTIONS FOR LONG TERM CONSERVATION OF THE HEATH'S HABITATS

i) WOODLAND MANAGEMENT

A patchwork of diverse woodland habitats could be created by the following variety of management techniques in small patches of woodland rotated over a 5-10 year period ensuring woodland regeneration. The choice of management technique should be sensitive to the woodland's natural diversity.

These works should be programmed between September and March to avoid unnecessary disturbance to existing wildlife.

Woodland Glades

Clearings in woodland to be created by selective felling to promote growth of woodland shrubs and woodland ground flora. Selected young tree species to be retained to create future mature woodland.

Pond Edge

Selective clearance of young trees and shrubs in a 2-3 metre band along woodland and path margins.

Coppiced Woodland

Coppicing of suitable species (eg. Hazel, Willows and Ash) with a proportion of tree standards retained to encourage spring flowering ground flora and associated wildlife.

Young Mixed Woodland

Selective thinning is needed to promote growth of young mixed woodland with vigorous understorey trees and shrubs.

Mature Woodland

Stands of woodland should be thinned of trees and shrubs to favour growth of mature standard trees (predominantly Oak and Ash, with Birch and Pine on heathland edge) and spring flowering ground flora.

ii) **Grassland Management**

Short Cut Grassland

Cut 10-12 times per year. Cessation of fertiliser applications will reduce nutrient level of soil and promote heath grassland.

Rough Cut Grass/Wildflower Meadow

Cut twice a year. It is essential to remove cuttings to reduce nutrient level and promote growth of natural heath grassland.

Areas required for summer use eg. Taro fair/picnic sites can be cut June-August as for short cut grassland.

Weed infestation may be controlled by temporary adherence to short cut grassland regime, or by selective herbicide application. Cuttings must be removed.

iii) **Wetland Management**

The Pond

Reed removal on a 5-10 year rotation.

Silt removal on a 20 year rotation.

Pondside Trees and Shrubs

Fishing Stand Points:

Annual pruning to create a 1.5 metre minimum width clearance to the lake and to full height of tree.

Pondside Tree Fringe

Coppice willow on a 3 year rotation with selective retention of mixed age tree standards.

Stream Management

Stream vegetation clearance on a 5 year rotation.

iv) **Willow Wildlife Areas**

Gorse - coppice mature gorse stands. Chop off at ground level on a 15 year rotation.

Willows - coppice willow on a 3 year rotation with selective retention of willow standards at 5-8 metre spacings.

Pondside Trees and Shrubs

Fishing Stand Points:

Annual pruning to create a 1.5 metre minimum width clearance to the lake and to full height of tree.

Pondside Tree Fringe

Coppice willow on a 3 year rotation with selective retention of mixed age tree standards.

Stream Management

Stream vegetation clearance on a 5 year rotation.

iv) **Willow Wildlife Areas**

Gorse - coppice mature gorse stands. Chop off at ground level on a 15 year rotation.

Willows - coppice willow on a 3 year rotation with selective retention of willow standards at 5-8 metre spacings.