

PETERSFIELD HEATH

TEN YEAR MANAGEMENT AND HEATHLAND RESTORATION PLAN

NORTH EAST HAMPSHIRE HEATHLANDS PROJECT, APRIL 1993

1. INTRODUCTION

Petersfield Heath is a surviving fragment of the once extensive heathlands of the western Weald in East Hampshire. 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 past fertiliser application, 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 still has areas of high ecological value and supports a number of rare species. The heavy public use of the site has been beneficial in maintaining healthy populations of 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, assuming that the golf club moves to its new course in 1994 or 1995.

This management plan has been prepared by the North East Hampshire Heathlands Project, on behalf of Petersfield Town Council, 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 Scheme application, should this way forward be taken. Management prescriptions, the more specialised of which can be carried out by the Heathlands Project, are given for the ten year period covered by a standard Stewardship agreement.

Heathland restoration is one of several recommendations for Petersfield Heath, being coordinated by Christine Seaward of the County Council's Urban Fringe Environment Team. 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.

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)
 Within the East Hampshire Area of Outstanding Natural Beauty
Area: 37.8 hectares (93.4 acres)
Area proposed for Stewardship Agreement (Map 1): 25.7 ha (63.5 acres)

3. SITE DESCRIPTION

3.1. Physical Features

3.1.i. Geology and Soils. Petersfield Heath is situated on the relatively narrow band of nutrient poor, acid soils - which provide the conditions required by heathland flora - occurring round the edge of the Weald. This band runs south of the Hogs Back, to the east of the Hangers escarpment then north of the South Downs. The geology of this area 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 Sandgate 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. Soil series present are Shirrell Heath, Sollom and Holidays Hill (well drained sandy podzols), Hedge End (gley soils affected by surface water) plus Formby and Fordham (gley soils affected by ground water).

3.1.ii. Hydrology. The main hydrological features on the site are:

Heath Pond - an extensive (8.9 ha) but shallow lake, dug in the 18th Century in an area of pools and boggy ground where livestock reputedly sank without trace from time to time. The Pond has no obvious inlet stream and the water level is governed by ground water since it has been dug into wet soils underlain by waterlogged Folkestone Beds. In recent years Heath Pond has been deepened by suction dredging, this having had an indirect effect on the terrestrial habitats through silt dumping.

The outlet stream - leaving Heath Pond at a sluice in the north, this stream has been piped beneath the landscaped area, then flows across the site southeastwards in an artificially straightened channel, devoid of any meanders, shallows or other natural features. Eventually it joins the River Rother near Penns Place.

Wetland and drains - a series of small seasonal drains, two small seasonal pools and three areas of high groundwater also occur on the site.

3.1.iii. Geomorphology. Petersfield Heath lies within a small valley between two east flowing tributaries of the River Rother, Tilmore Brook to the north and Standbridge Stream to the south. The Heath Pond Stream flows through a broad bottomed valley, a little below the 55 m contour, and the Pond itself has been constructed at the head of this valley at about 56 m. The land rises to the north along Heath Road and to the south at Music Hill to just over the 60 m contour. The overall effect is like a large horseshoe, with the open end to the east, with Heath Pond and the valley system confined on three sides by gravelly terraces more or less following the lines of Heath Road and Sussex Road.

3.2. Biological Features

The habitats and species of note on Petersfield Heath have been described by Dr. Francis Rose in his survey report of January 1993, based on nearly 40 years of records accumulated from the site. The highly modified areas of the golf course are very species poor, and of little biological interest, but several areas of herb rich acid grassland and heathland fragments remain. There are also areas of good secondary (and planted) woodland cover, an interesting boundary hedge along the northern and eastern edges of the site and, in places, rich aquatic and shore vegetation around Heath Pond. The western margin of the site, adjacent to Sussex Road, has been mostly modified and supports a typical wayside and disturbed ground weed flora. This edge, together with Heath Pond, has been excluded from the Stewardship application since heathland restoration is so obviously impossible here.

Based on the Management Compartments for this plan (Map 4), the areas of greatest ecological value on Petersfield Heath are:

Compartment 1 - short, heavily used acid grassland containing several rare species which rely on grazing or trampling to prevent them being smothered by more aggressive competitors, such as coarse grasses. Public use is therefore beneficial for this habitat. This grassland is easily damaged by the application of fertilisers, however, and any other modifications, such as specimen tree planting, boardwalk or building construction, would have extremely adverse affects.

Compartment 14 - a tiny surviving fragment of the former heathland cover of the site, which once extended beyond Heath Road East and Sussex Road. There has been a decline in the value of this heath, mainly through bracken invasion, but it still remains one of the best areas on the site.

Of lesser value at present, but still important, are parts of Compartments 3, 6 (especially the acid grassland at the western end in front of the club house), 7, 8, 12, 15, 16, 18, 19, 22 and the woodland areas, W1 - W7. All could be markedly improved by management (Section 5). The rest of the Compartments consist of modified, enriched or disturbed land, principally the golf course, which will require additional treatments to restore any kind of biological interest or value.

3.3. Cultural Features.

3.3.i. Archaeological Features. Petersfield Heath is an extremely important archaeological site and is a Scheduled Ancient Monument (No. 84) on account of the high concentration of Bronze Age barrows. The County Archaeologist, at Hampshire County Council must be consulted before any management or restoration work, likely to affect the barrows takes place.

3.3.ii. Public Access. Map 1 shows the location of official rights of way on Petersfield Heath. The site also a Public Open Space but, in reality, the existence of the golf course deters many walkers and confines the majority to the area around Heath Pond. The various aspects of public access to be considered once the golf club leaves the Heath are beyond the scope of this plan and are to be incorporated in the landscape report. The management suggestions included here will not impede public access and the work will help to improve the accessibility and visual appeal of the site.

4. MANAGEMENT OBJECTIVES

4.1. Short Term Management

4.1.i. Rationale. The intensive management of the golf course, especially past fertiliser applications and the very frequent mowing of the playing areas and semi-rough, has led to a direct loss of the majority of the site's heathland and acid grassland. In addition, the remaining heathland has suffered encroachment from bracken and scrub, most now having reached the stage of secondary woodland. Short term management work is aimed at restoring, as far as practical, habitats to their original state - taking into account present day factors affecting such plans.

Capital payments are available through the Stewardship Scheme to tackle these problems and restore Petersfield Heath to a more balanced mix of heathland, grassland, scrub and woodland. A comparison of Maps 2 and 3 will indicate the sort of changes that can be achieved through this grant aid. The following short term management tasks will need to be undertaken.

4.1.ii. Heathland Restoration. Restoring the golf course to a more natural vegetation cover will form the bulk of the work to improve Petersfield Heath. Once the golf club have moved to their new home, some 15.7 ha of the former tees, fairways and greens can be restored. Annual Stewardship payments are available at £250/ha/year for this work.

Across most of the course a combination of light rotovation and, where the grass thatch is very dense, turf stripping will prepare the ground for the spreading of suitable seeds. Supplementary payments are available to fund the collection of seeds, which will have to be done on other East Hampshire heaths with extensive heathland present (the Heathlands Project can coordinate this). In some areas the heathland seed bank may well be still viable, which can be determined by cutting turfs on small areas in the first year to see what germinates, in which case the supplementary payments will not be needed. The rest is then up to nature, but on most sites where this has been done recognisable heathland has developed by the second summer after treatment. Restoring one area each year, rather than attempting to do all the work at once, will result in a gradual return to heathland, more easily monitored and managed and with a variety of vegetation ages represented at the end of ten years.

In addition, there are a few areas where heathland will reappear as soon as the mowing regime is relaxed to one cut a year, preferably less often and this will speed up the restoration process.

4.1.iii. Scrub and Woodland Management. Unchecked scrub growth poses a threat to heathland flora and fauna and, without the natural system of thinning out tree seedlings (large grazing animals) this needs to be done by humans. Some clearance is needed in Compartment 14. Scrub is a valuable component of heathland ecosystems and scattered trees and small groups, plus open woodland grading into dense woodland all add to the diversity of the site and should be retained.

Birch, the usual tree that requires thinning on heathland, is the third best native tree in terms of the number of insects its supports but many of these prefer birch trees on warm open heathland. The site can be improved by removing some trees to give those retained, and the plants below them, more space and sunlight.

The same applies to woodland, and past thinning in Compartment 12 has already shown the marked improvement in the ground flora that results from such work. The trees left will also develop better in subsequent years, rather than growing like bean poles as they do when competition from their neighbours is too intense. The management of the woodland compartments (W1 - W7) is beyond the scope of Stewardship payments, but suggested thinning (retaining all mature trees) is shown on Map 3, leaving plenty of dense, unthinned woodland. A bracken spraying grant for 2.5 ha (£212.50) is requested for W3 in Year 1, however, to keep it under control here.

The natural germination of tree seedlings will also be encouraged by such thinning, providing future replacements for the existing trees on the site (which is preferable to planting). The heathland restoration work on the golf course will also provide opportunities for tree seedlings, particularly birch, to germinate. Provided these are kept under control in the long term (Section 5) a light tree cover can be allowed to develop on the newly created heath. Selective scrub control will therefore result in less severe boundaries between woodland and open areas than exist at present. Overall, the amount of land with some kind of tree cover will actually be increased by the proposed management and this, together with the conversion of species poor grassland to heathland and natural acid grassland, will greatly enhance the visual appeal and ecological value of Petersfield Heath.

4.1.iv. Bracken Control. Again without natural controls, such as trampling of young fronds by large herbivores (long since extinct in Britain) or commoners' livestock, bracken can become very invasive and will eventually smother all smaller plants. There are also several public health worries concerning extensive areas of this plant. Regular cutting can keep it in check, and on some sites local people use it as a valuable compost and garden mulch. Machine cutting is impractical on Petersfield Heath since most of the bracken is present among trees, making access very difficult. Spraying in the summer with the selective herbicide Asulox would be far more effective here and specific treatments, and Stewardship funds available, are outlined in Section 5.

4.2. Long Term Management.

4.2.i. Rationale. Once the worst of the habitat deterioration has been tackled through the short term management, it is important to avoid continual, and expensive, repetition of this work. A long term management regime is therefore needed which will keep the levels of nutrients in the system low, thereby favouring heathland and acid grassland, and habitat diversity high. The full range of species will then be able to thrive on the site without being swamped by a few aggressive plants. Several options are considered below.

4.2.ii. Controlled Burning. Although fierce summer fires are extremely damaging to heathland, controlled winter burns (done in small areas in a patchwork) can be very beneficial in removing nutrients, checking invasive species and promoting fresh growth. This technique is not recommended for Petersfield Heath, however, for several reasons.

Burning without grazing on wetter parts of the site will only tend to encourage purple moor-grass at the expense of the heathers and other species. Poorly conducted burns are often damaging to the habitat and wildlife and there is a lack of local expertise with this technique. Burning would also be a nuisance for local residents and problems caused by the smoke could contravene the Environmental Protection Act 1990. If anyone walking on the site is endangered by such an operation an offence has been committed under the Health and Safety at Work etc, Act 1974. In addition, the roads surrounding Petersfield Heath are a further complication since it is illegal under the Highways Act 1980 (as amended in 1986) to light a fire so as to cause injury, interruption or danger to road users.

The high costs of controlled burning, with adequate personnel needed to control the fire, plus machinery to cut fire breaks, water bowsters on standby and so on, also make this a less than suitable option for Petersfield Heath.

4.2.iii. Grazing. In many ways, grazing is the ideal management tool for heathland since certain breeds of domestic livestock closely duplicate the behaviour of the original native herbivores with which so many species evolved. Most other management is merely recreating, in one way or another, the beneficial effects of grazing. Even though Petersfield Heath was frequently grazed in the past, however, this option is not feasible today. Fencing would be essential but totally impractical on such a well used site. The sheer numbers of visitors would also create enormous stock management problems so this technique cannot be recommended for Petersfield Heath.

4.2.iv. Turf Cutting. Until the advent of readily available coal in the 19th Century, and with most woods protected for their timber value, turf and peat cutting on the heaths and commons was an important means of obtaining fuel. Nutrients were being removed from the site (as with grazing) and bare ground exposed for seedling germination (as with ground disturbance by large animals) and this practice was therefore beneficial when done on a small scale.

Although stripping the turf is part of the heathland restoration work, turf cutting will also help to maintain the heathland in the long term. This is particularly valuable in the wetter areas and has promoted significant increases in plant diversity on many sites. Small areas only, a few metres square, need to be cut each year but this would have to be done away from the most heavily used parts of the site. This technique would be an expensive way of managing the entire site anyway, but done in small patches each year it would certainly be a useful adjunct to the long term management regime.

4.2.v. Vegetation Cutting. Invasive species are checked, nutrient levels are kept low and a diverse mosaic of different aged stands of vegetation is produced by a suitable cutting programme. Although the golf course is regularly cut at the moment this has ~~not~~ been to the detriment of heathland survival as it is done far too frequently. Heather cannot tolerate more than one cut per year, and this is best done after flowering to allow the plants to set seed. Mowing more often favours the more vigorous grasses which eventually form a dense sward and thatch layer. This subsequently prevents heather and other species from growing at all.

Once heathland restoration is underway the site can be divided into separate areas, some to be cut once a year in late autumn, some every two years and so on. Other areas should be allowed to develop to maturity, which can take over 15 years for heathland, and beyond before they are cut. Once heathland is established over most of the areas chosen for this work the site can be divided into 20 - 30 equally sized blocks (excluding regularly cut areas and some heathland to be left completely uncut) and one of these should then be cut each year. In this way the whole area would be cut on a 20 to 30 year rotation. It is very important that all cut material is removed from the site and not left lying on the ground to rot.

The specific details of such a cutting programme for the heather dominated areas would depend on the results of the restoration work, as some Compartments may take longer to develop into heathland than others. The Heathlands Project will be able to advise on this aspect of the management on an annual basis, so that unforeseen events can be taken into account. The acid grassland areas, mainly in the north of the site will require a different cutting programme, with several cuts each growing season (again with the material removed) although factors such as heavy trampling or drought conditions may make this unnecessary from time to time.

5. MANAGEMENT PRESCRIPTIONS

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 (Map 4) 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 work schedule 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 glomeratum) 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 several 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 been 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 reestablishment 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 reseedling 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 (Year 1). This is an attractive feature, requiring no woodland management at present. The bracken should be controlled with the selective herbicide Asulox (grant - £21.25 for 0.25 ha). Small scarified patches can be sown with heather seed to promote the reestablishment 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 rotation, 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 (Year 10). The degree of waterlogging, and the existing seedbank, will determine the vegetation type.

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 (Year 1). Spray bracken with Asulox to allow easier access in the summer months and promote the development of a more varied flora (grant £21.25 for 0.25 ha).

Compartment 13 (0.1 ha).

Present State. Improved 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 (0.75 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. There is a small patch of dwarf gorse, Ulex minor, a nationally rare species, in this compartment - the only place it is found on the Heath. 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. The heathland is becoming somewhat invaded by birch scrub, some coppiced in the past, but bracken is a more serious threat.

Management (Year 1). Heavily thin birch scrub on the heathland and cut back into the surrounding scrub to create a less distinct boundary between this compartment and the surrounding woodland. Retain well formed young and all mature trees. Spray bracken to control encroachment. Initially, this will be the only area with any mature heathland on the site so this compartment should not be cut until some of the restored heathland is well established (probably not until after the ten year Stewardship agreement period). This heathland will provide a important source of invertebrate colonists for the restored areas.

Grant - £187.50 for scrub clearance (25 - 75 % cover) @ £250 per ha
£63.75 for 0.75 ha bracken spraying @ £85 per ha

Compartment 15 (0.2 ha)

Present State. Overmown remnant heathland. Most of the heather has been killed by repeated mowing and is being replaced by grasses.

Management. Avoid cutting or mowing this area for at least three years. There is enough surviving heather to permit limited reestablishment of heathland vegetation if allowed. Subsequently, cut no more than once every five to ten years.

Compartment 16 (0.5 ha)

Present State. Straight, artificially deepened ditch carrying outlet stream from Heath Pond off the site to, eventually, the River Rother. There is a good flora in one or two places along the banks, but this feature is generally poor ecologically.

Management. Cut back the banks in suitable places to produce shallow, marshy areas which will encourage a more diverse and interesting wetland flora and also make the banks safer for the public. This will not affect the overall flow of the stream.

Compartment 17 (0.5 ha)

Present State. Improved grassland (part of the golf course).

Management. Strip turf and seed with heathland species to create a mix of humid heath and acid grassland (Year 9).

Compartment 18 (0.125 ha)

Present State. Overmown remnant heathland.

Management. As for Compartment 15.

Compartment 19 (0.65 ha)

Present State. Patches of rough grassland with bracken and gorse, suffering from the effects of nutrient enrichment at some time in the past.

Management. Strip nutrient enriched turf and litter layer and sow with seeds of heathland species (Year 8). Some of this area, especially adjacent to the ditch, would develop into wet heath and some into dry heath.

Compartment 20 (1.25 ha)

Present State. Improved grassland (part of golf course).

Management. Strip turf and seed with heathland species (Year 7).

Compartment 21 (0.825 ha)

Present State. Improved grassland (part of golf course)

Management. Strip turf and seed with heathland species (Year 5).

Compartment 22 (0.65 ha)

Present State. Overmown remnant heathland.

Management. As for Compartments 15 and 18.

Compartment 23 (1.05 ha)

Present State. Improved grassland (part of golf course).

Management. Strip turf and seed with heathland species (Year 6).

Compartment 24 (1.0 ha)

Present State. Improved grassland (part of golf course).

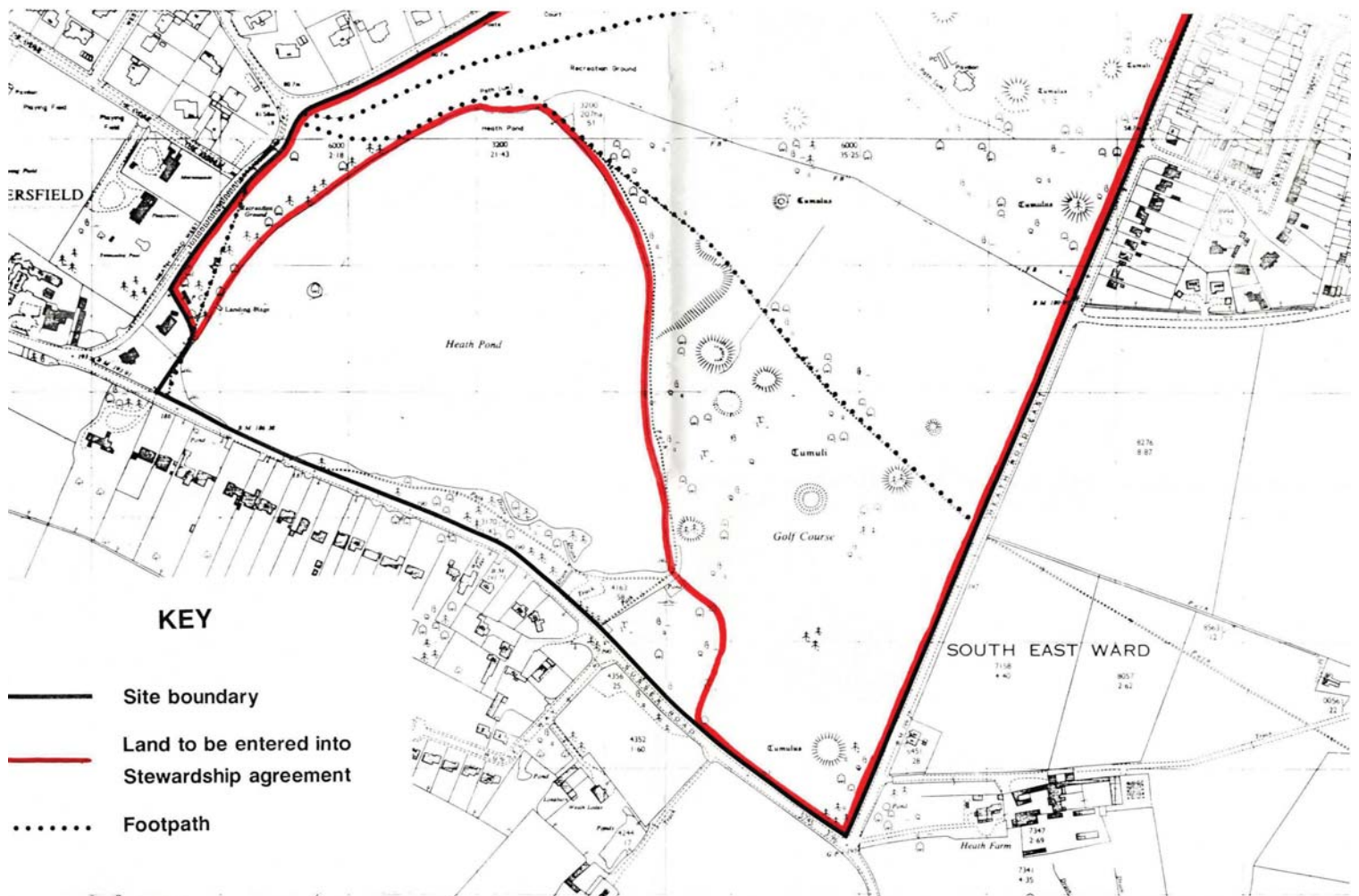
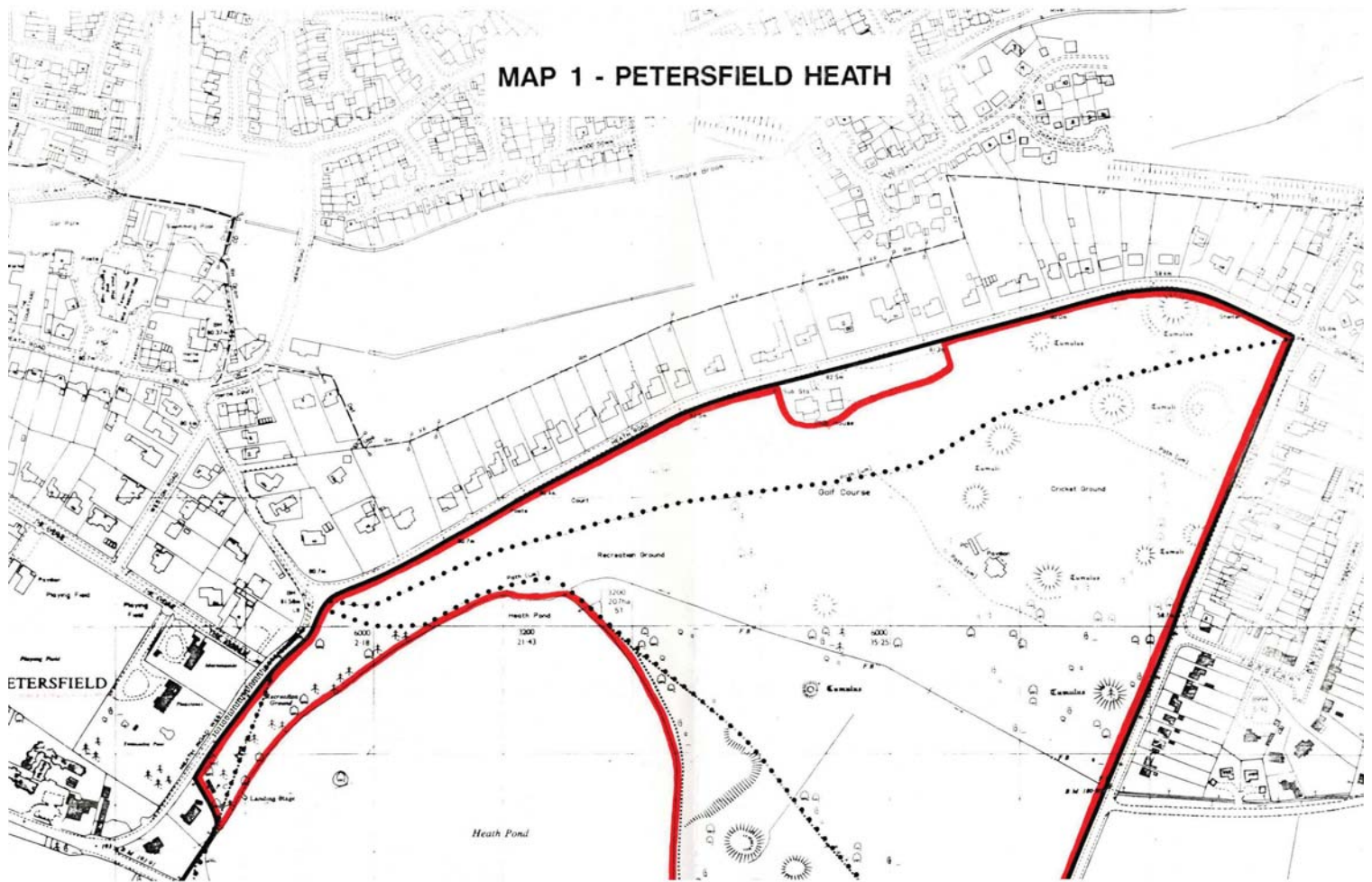
Management. Strip turf and seed with heathland species (Year 4).

Compartment 25 (0.85 ha)

Present State. Improved grassland (part of golf course).

Management. Strip turf and seed with heathland species (Year 3).

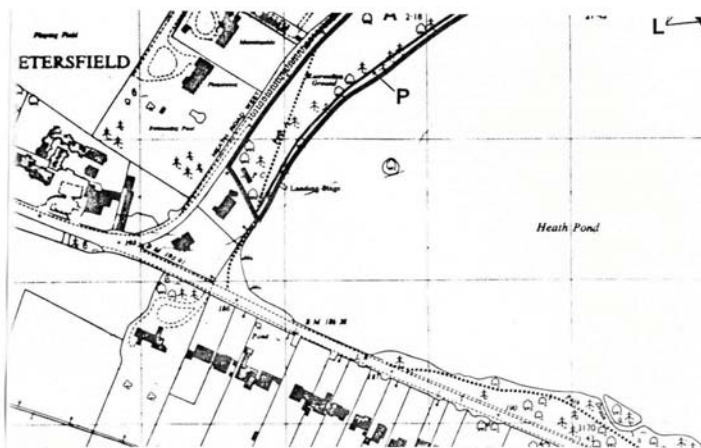
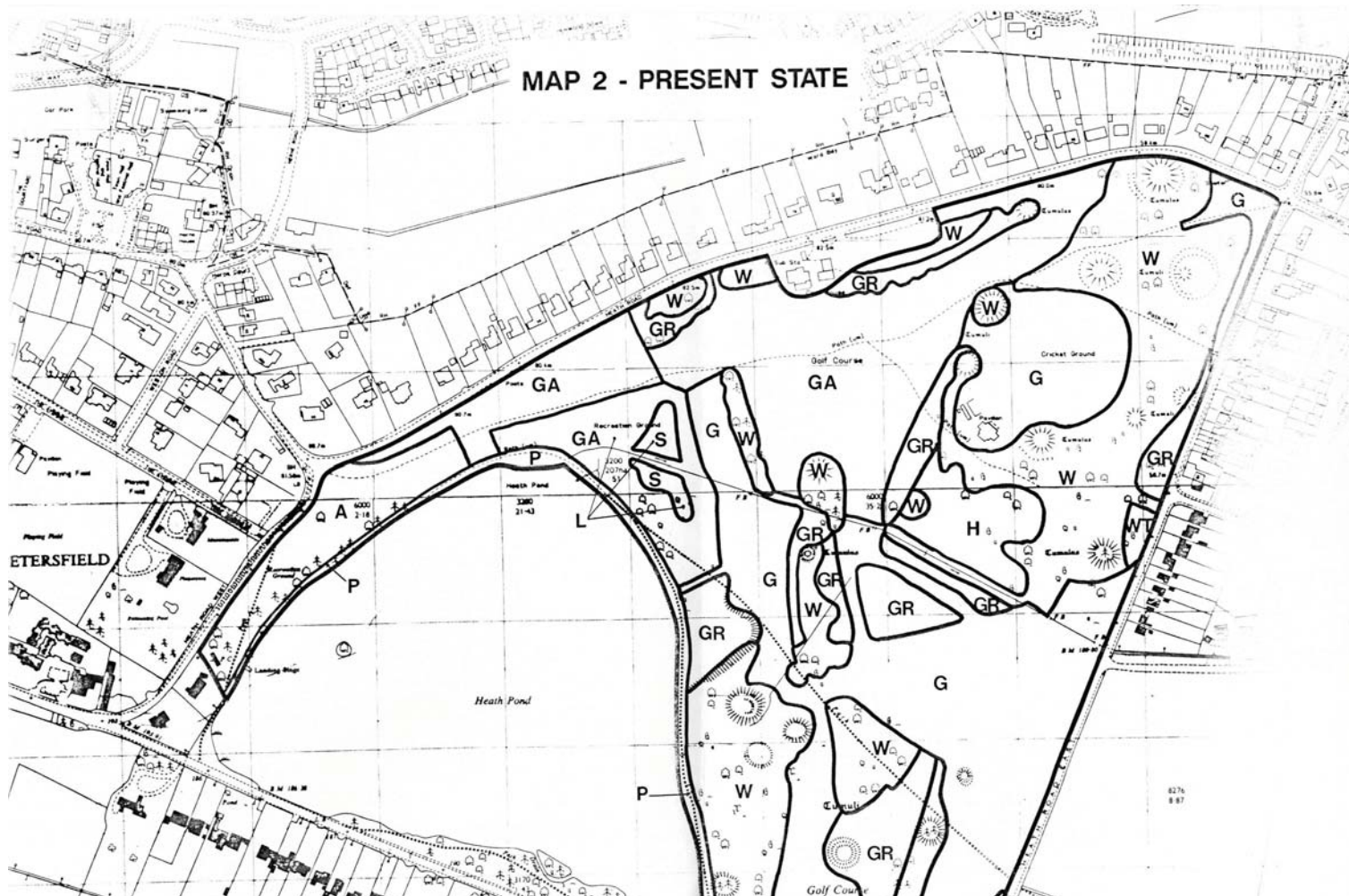
MAP 1 - PETERSFIELD HEATH



KEY

- Site boundary
- Land to be entered into Stewardship agreement
- Footpath

MAP 2 - PRESENT STATE

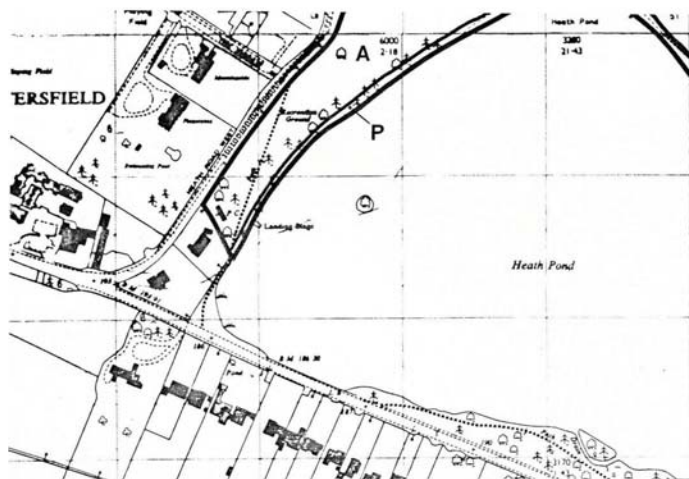
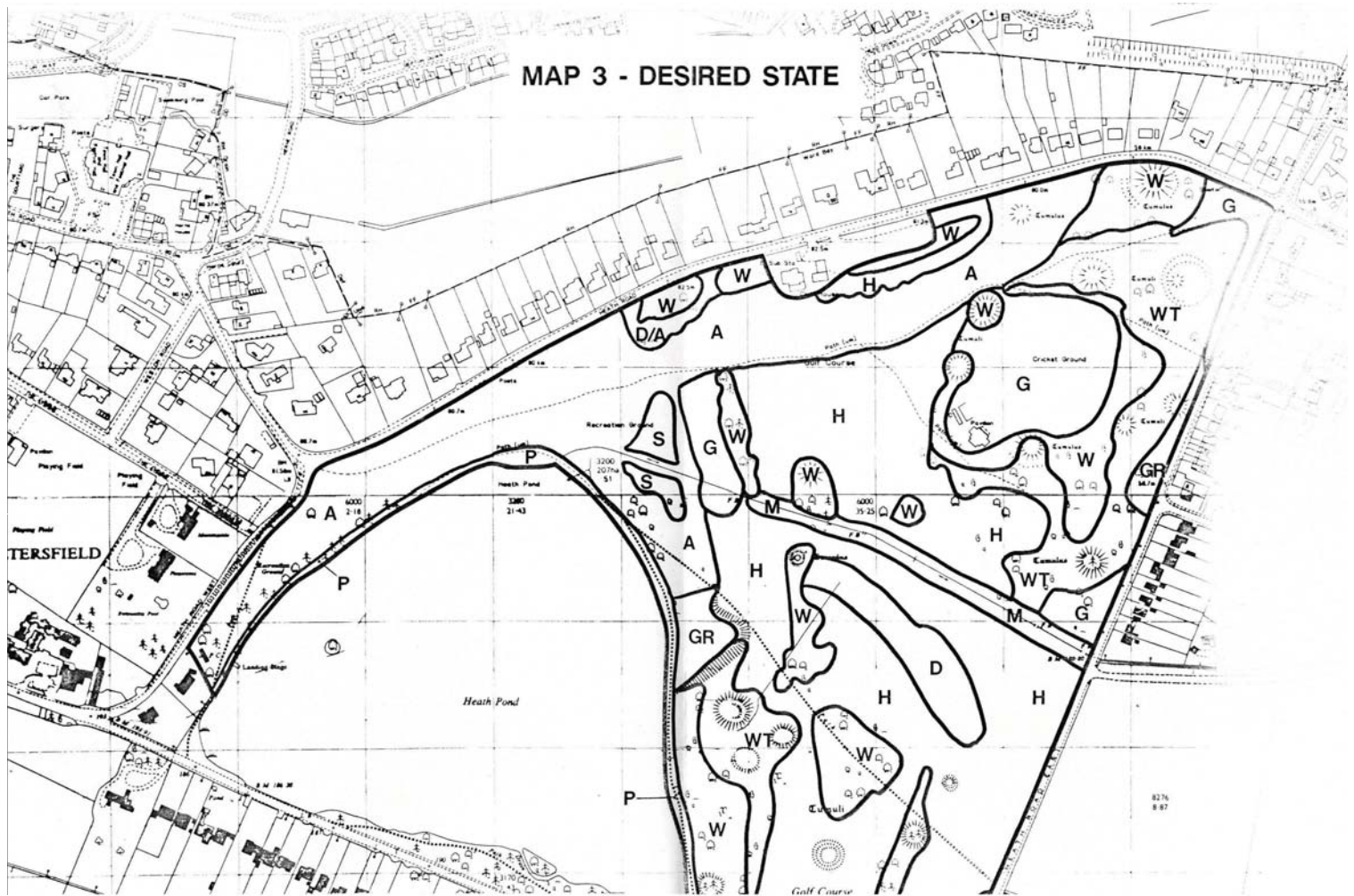


KEY

- H - Humid/wet heathland A - Species rich acid grassland
- D - Dry heathland G - Species poor improved grassland
- GA - G with acid grassland and heathland remnants
- GR - Rough improved grassland with heathland remnants
- S - Scrub W - Secondary and planted woodland
- L - Recently landscaped areas WT - Thinned woodland
- M - Marsh/stream P - Pond margin

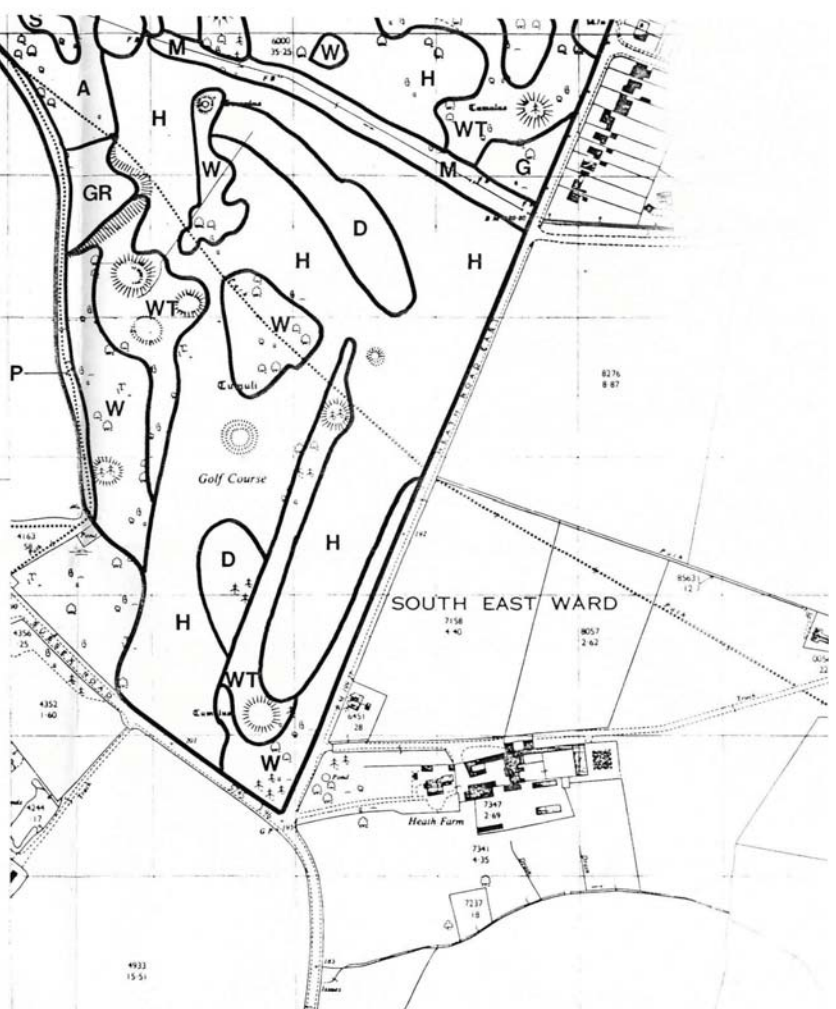


MAP 3 - DESIRED STATE



KEY

- H - Humid/wet heathland A - Species rich acid grassland
- D - Dry heathland G - Species poor improved grassland
- GA - G with acid grassland and heathland remnants
- GR - Rough improved grassland with heathland remnants
- S - Scrub W - Secondary and planted woodland
- L - Recently landscaped areas WT - Thinned woodland
- M - Marsh/stream P - Pond margin



MAP 4 - MANAGEMENT COMPARTMENTS

