1. Introduction – Purpose of the Management Plan

The STRI’s Ecology & Environment Department has been engaged by Bearwood Lakes Golf Club to produce a Management Plan covering appropriate ecological and landscape management opportunities for the golf course. The main aim of this plan is to highlight wildlife interests whilst providing an appropriate series of management prescriptions, enabling the ongoing running and improvement of the 18 hole facility.

The primary aim of the plan is to provide focus and direction towards future ecological/conservation management, whilst taking fully into account the principal golfing issues. It is accepted by all involved that the primary objective of Bearwood Lakes Golf Club is to maintain a high quality golf course that is synonymous with prestigious golf worldwide. Any ecological management work to be undertaken therefore must complement rather than compromise these ambitions.

The aim of this plan will be to give focus and direction to future management of out of play areas of the course and ensure that future vegetation introduction, removal or management is geared towards achieving the overriding strategic landscape and ecological objectives of the site.

2. Background/Rationale for Management

The 18 hole course at Bearwood Lakes is now around ten years old and offers the member and visiting golfer an outstanding golf facility, providing a challenging test of golf within wonderful surroundings. The course was laid out by the renowned Golf Course Architect Mr Martin Hawtree, who maximised the existing features of the land (lakes, woodlands etc) incorporating them into the design wherever possible, providing the golfer with outstanding views and a rich tapestry of habitats in the out of play areas.

Since its inception the course has been managed to a high standard through the tees, greens and fairways with some attention given to the out of play areas, notably the woodlands and lakes. Some small scale introduction of gorse (*Ulex europaeus*) and trees has taken place in order to develop further visual and strategic interest. In addition to the tree planting, gorse introduction etc that has been carried out over a number of years, certain areas of the course have been allowed to develop naturally over time without management intervention. In places this has led to an improvement in the course with native species becoming dominant, developing a more natural look however, in others the unchecked growth of gorse, rhododendron (*Rhododendron ponticum*) and trees has blocked impressive views both internally and out-with the course and in places this has also been to the detriment of the priority ecological habitats.
The overriding character of the course is difficult to pinpoint and define as the course incorporates both heathland and parkland elements. The features of the course that give Bearwood Lakes its distinctive atmosphere and coincidentally offer the maximum ecological benefits are the mature pine woodlands and associated undergrowth, the small pockets of acid grassland and heath and the water bodies/lakes to the north of the site. Given that the course has been purposefully designed to incorporate and utilise these elements wherever possible, this plan will stay true to the philosophy of the designer and draw upon these influences when considering the future development of the out of play areas.

3. Objectives

3.1 Golfing objectives

- To develop, maintain and further enhance a prestigious, challenging and attractive 18 hole golf facility, whilst conserving and enhancing the principal nature conservation and landform interests that form an important asset to the Bearwood Lakes Golf Club.
- To maintain an appropriate balance between all habitat types, ensuring that these are managed to complement the landscape and agronomic interests of the course.
- To ensure that the areas of woodland, heath and grassland form valuable features of the course providing aesthetic and strategic interest.

3.2 Nature conservation objectives

- The principal nature conservation objectives must be to improve the nature and quality of the habitats on the site, through recognition and appropriate conservation management.
- Protected species - adder, bats and badger - are likely to utilise the site (no specific surveys have been undertaken) therefore, appropriate management must be geared towards encouraging and conserving these species through appropriate woodland and grassland management practices.
- Restore woodland condition through felling, selective thinning and appropriate restocking.
- Develop and extend the rough grassland from the woodland fringe through to the deep rough close to play via appropriate grassland management techniques.
- Improve and extend the status of small but ecologically valuable habitats on the course e.g. areas of acid grassland/heath.
- Assess the condition of and develop management regimes for the extensive water features within the site aimed at achieving their maximum ecological potential.
3.3 Combined objectives

- Achieve all of the above in a fashion that is both practical (given budget and resource limitations) and has the least short term negative affect on golfers and wildlife.

4. Designations/Legal Obligations

No statutory designations exist over the area of the golf course. The management of trees across the site will form an integral part of this plan. This gives rise to a number of potential legal issues.

1. Acquisition of a tree felling licence.
2. Trees covered by a Tree Preservation Order.
3. Presence of bats in trees prior to management operations.

(See appendix 3 - Information leaflets)

5. Management prescriptions

5.1 Woodland management

5.1.1 General

The principal issues requiring consideration relate to the need to reduce the extent of the even-aged plantation woodland and either:

- Improve structural diversity of those retained. Many of the planted woodlands through the course are considered to be of a fairly even age, thereby lacking a long term future. Increasing diversity will involve adding a greater number of trees over the short, medium and long term to increase height and growth structure and canopy layering. This will also increase woodland composition, so providing more opportunities for a greater number of wildlife types.
- Reduce the extent of inappropriately planted and self set trees over the site, whilst improving the contribution of the retained trees, i.e. those supporting a more local native origin.
- Total clearance of inappropriate trees and woodlands and full restoration of priority grassland, heath or wetland habitat and/or development of views internal to the site.
5.1.2 Management operations

The principal management operations will involve:

- Thinning and selective clearance
- Crown lifting and high pruning
- Selective removal and restocking

The retention of deadwood will be fundamental within areas of retained woodland (ideally out of immediate view) wherever this can be accommodated.

**Tree removal** will need to be undertaken "broadscale" through certain areas, i.e. where greens or other playing surfaces are to be more exposed, or on a selective basis to create clearings within larger retained woodland stands to accommodate new planting. Thinning and restocking will need to be continued to improve the condition of the retained trees and to facilitate further restocking work. Thinning/selective clearance will be required in places without any follow-up restocking, to promote short-distance views over the course and ensure airflow and light penetration through to the principal playing surfaces.

The priority habitats over the course (some of which are yet to be developed) will be a mosaic of woodland, wetland, heath, scrub and open grassland communities. Tree felling will form an important part of developing these habits. However, recognition is given to improving the condition of the retained woodlands to improve structural and ecological interests.

**Tree planting** - both standards and forestry transplants have a place on the course though the merits of each must be considered, dependent on their position on the course.

Standards are quite costly to purchase and obviously more labour-intensive to plant and maintain. However, they given an immediate effect and are more preferable in areas in or near to play. The main disadvantage of standard trees is that they take time to fully establish, during which time they may be damaged through stray golf balls. Standards would generally be planted at relatively wide spacings of between 3 and 5 metres so necessitating intensive maintenance, i.e. grass cutting around each tree base throughout the establishment phase. The use of standards alone leaves little room for thinning or woodland structuring and as such may be best utilised along woodland fringes where play is regularly encountered. Standards can be utilised as sentinel or strategic trees but one must always consider appropriate protection given the likelihood of damage through stray golf balls.

In summary, use standards only as individual sentinels in immediate view or to give an immediate effect to visually or strategically important plantings. Guidance as to where to introduce standards is given in the “Hole by Hole Guide” Section 6 of this plan.
Forestry transplants tend to be much cheaper to purchase, easy to plant and can be introduced around taller strategically placed standards to offer protection throughout the establishment phase. Forestry transplants would be best suited throughout areas of established woodland where they can be notch planted at relatively close spacings in single species groupings in multiples of three, i.e. 6, 12, etc.

In summary, utilise forestry transplants wherever possible for large scale woodland development or restocking. Guidance as to where to introduction transplants is given in the “Hole by Hole Guide” Section 6 of this plan.

**Stump control and deadwood** - Following cutting work, tree stumps should be retained wherever possible and allowed to break down naturally over time. Throughout the more central areas of any woodland a few stumps could be wrenched slightly out of the ground before felling, to create caves and cavities for nesting bees and potentially hibernating reptiles. Around the margins of any woodland stump grinding should be undertaken to provide suitable surface conditions for golf. Individual stumps should be ground to within 150 mm below ground level and the surface re-capped during mulching prior to preparation of a surface seed tilth.

Where possible, all cut timber should be stockpiled both horizontally and vertically within the retained woodlands (ideally out of sight), to facilitate its natural breakdown and decomposition. Aim to retain deadwood near to where it was cut if at all possible. Brash could be chipped and re-spread over the retained woodland floor to a depth not exceeding 10 cm.

**5.1.3 Predation**

Deer numbers are known to be moderate to high over the course and they are likely to pose a threat to the establishment of any trees planted. Deer fencing may need to be utilised where significant numbers of trees are being introduced. All unfenced trees must be protected with 1.2 metre tree guards or appropriate post and chicken wire fencing. Rabbits are also a potential threat to young tree establishment. Rabbit-proof post and chicken wire fencing should be used wherever significant numbers of trees are utilised.

**5.1.4 Scrub management**

**Gorse planting**

Certain areas on the course would benefit both strategically and ecologically from the introduction of new plantations of gorse. Although samples were not taken at the time of the visit, it is assumed (through observations of existing gorse) that the pH of the soils throughout the course is conducive for gorse to thrive and therefore no amelioration or alteration to the surface/sub-surface rootzones have been recommended. There are a number of options available for introducing new gorse where it is required, involving the purchase of seed or container-grown stock, or indeed the collection of seed/brashings from the small yet useful supply within the course and its reintroduction when required.
If container-bought seedlings are to be introduced then individual plants should be notch-planted at close centres not exceeding 0.8 metres. Once planted, the surface around each individual should be firmed and watered, with protection thereafter being given throughout the first twelve months by the complete enclosure of the area, using 450 mm high chicken wire fencing in order to protect from grazing rabbits, deer and other mammals. Gorse should not be planted within single tree guards as this inevitably leads to lollipop-shaped individuals which have little to no basal growth and do not have the strength to remain upright beyond their first year after tree guard removal. Following this work, the entire area should be designated as Ground Under Repair (GUR) again for the first twelve to eighteen months in order to allow establishment.

Gorse seed can readily be collected from within the course by gloved hand removal during late July/August of any given year, when the yellow flowers have disappeared and the brown pea-like capsules are prevalent. The seed and associated debris will be stored during the winter months and applied to a cut and scarified surface during early spring (i.e. February to March) given favourable ground conditions. Alternatively, surface brash/debris can be collected from beneath mature gorse bushes following gorse management and applied at a rate of approximately 400-600 g/m². This surface material will inevitably contain large proportions of gorse seed and again this can be applied to a recently cut and raked surface at a depth measuring no greater than 30 mm. Again, protection of these gorse seedlings will be required via the introduction of a 450 mm high chicken wire fence surrounding the entire plantation and the designation as a GUR until such time as the gorse can withstand moderate grazing and golfer pressure.

**Gorse management**

Due to the presence of planted gorse in certain areas of the course, (particularly around 1st green/2nd tees) and its value as both a course feature and ecological habitat, its continual management should be considered of great importance if it is to remain visually impressive and ecologically viable. Gorse has a finite lifespan of twenty-five to thirty years, of which its final ten to fifteen years are spent as a leggy degenerate shrub providing little colour or interest and can be of a height that will impede vistas across the course. It should therefore be the aim of any management regime to retain gorse in its healthiest state, i.e. between the ages of one and ten years and also to ensure that individuals do not reach a height whereby they block the outstanding views that are such an important feature of the course. For the above reasons it is recommended that any gorse close to areas of play is cut to a height of approximately 8 cm, on an eight to ten yearly cycle. In addition to the above; a light scarification of the soil immediately beneath mature gorse bushes will expose any buried gorse seed that has dropped from the individual and become covered by the thatch layer. This should ensure both regeneration from the cut stumps and new germination of seed. To avoid significant visual impact it is advised that large areas of gorse are designated into three or four sections that will each receive management on a three to four yearly basis.
Preventing the spread of gorse
Where the prevention of gorse spread has been recommended, i.e. in species-rich grasslands where young gorse individuals are prevalent, then removal by physically pulling will be the most appropriate way forward. If the spread is to such an extent that this would be impractical given the labour and time investment, then spot treating with a triclopyr-based herbicide or weed wiping using the same will be required. With both of the above, take care not to physically disturb the underlying habitat as the recommendation of this work would usually suggest that the surrounding grassland or heathland is particularly ecologically important.

Rhododendron
Rhododendron is prevalent through the site and is beginning to spread unchecked throughout one or two woodlands. This species does have visual appeal during the early part of the year and contributes positively to the overall atmosphere of the course in certain areas. If left without management however, rhododendron is an aggressive species, often out competing other (high priority) vegetation. Equally, the mature plants are dense in nature, leading to a lack of sunlight and airflow to the in play areas.

Areas of rhododendron to be retained in the long term will require ongoing coppicing management identical to that described above for gorse gorse.

Rhododendron is a particularly invasive shrub and will readily out compete other woodland shrubs and plants, leaving an ecologically uninteresting mono-culture. As it has gained a strong foothold within woodlands around the course its eradication will be necessary in certain areas. The work will be particularly labour intensive, however should be tackled as soon as possible to prevent its further spread. Bushes can be cut to approximately 10 cm above ground level or small bushes can be removed by a tractor and winch. Small remaining stumps can be dug up and burnt but remaining stumps may require chemical treatment to prevent regrowth. This will involve drilling holes 1 cm in diameter into cut stumps to a depth of approximately 10 cm filling these with a supersaturated solution of ammonium sulphamate or Timbrel, chemically treated stumps will need covering with thick plastic (or another impenetrable cover) in order to prevent birds landing and ingesting the chemicals. It is important that rhododendron control is not merely limited to 1 or 2 years but is considered a long-term project.

Bramble Management
Bramble (Rubus agg.) can become quite invasive, particularly under higher light situations within and throughout more open woodland areas. Note that bramble is an excellent conservation shrub and wherever possible it should be retained. However, within certain areas, close to play for example, its visual appearance and thorny tangle of intertwined branching will make bramble an unwanted weed. Bramble can play a visually important role on a golf course, adding height and structural diversity to a woodland area. Golf balls which may stray into a bramble-dominated area tend to be unplayable and therefore bramble ought to be controlled within the first 6-8 m of woodland edge.
Where bramble eradication has been recommended, this will be undertaken by cutting back followed by chemical treatment of regrowth. Thus, in the first instance consideration will need to be given to physical cutting and removal, treating thereafter with a suitable herbicide. It will be necessary to treat as and when new growth is noted on a selective (spot) basis, taking care to avoid drift or excessive contamination away from each target area. Treatments over perhaps two years should be sufficient to eradicate bramble. Further regrowth could then be removed once again by hand, possibly during the winter period when a little more time is available to the greenstaff to carry out this work.

Bramble control and retention will involve simply cutting back existing plants to 100mm above ground level and allowing to regrow. This will be undertaken on a 5 yearly cycle unless advised otherwise. No more than 50% of any given stand will be receive attention in any given year, so as to prevent any impact upon dependent wildlife.

The main emphasis of the bramble control programme must be to severely reduce the photosynthetic reserves stored within the relatively strong root system. Do take care when using any herbicide, applying in strict accordance with the manufacturer’s and label recommendations and by trained operators.

Bracken control/Removal

All areas of bracken (*Pteridium aquilinum*) throughout the site should be monitored on an annual basis for signs of spread. Fixed point photography would be ideal with fixed point photos being taken every 3 years. Bracken is an integral component of the golf course, both ecologically and aesthetically, and will be retained in areas where it is not deemed detrimental to the priority habitats.

Where bracken spraying is specified an Asulox based chemical will be applied by a trained operator using knapsack sprays during the 2\(^{nd}\) or 3\(^{rd}\) week in July.

As the club do not possess a ribbed or other heavy tractor drawn roller, areas specified for bracken crushing will be carried out simply using a small ATV (ie quad bike or similar). The area in question will be “crushed” on a 3 times per year basis with the first crush being the first week in June, followed by 2 further operations at 6-weekly intervals. Pathways around the golf course for maintenance vehicles could be altered in order that some severely infested bracken areas will be crushed on a much more frequent basis each time access is required.
5.2 Grassland/heathland management

5.2.1 Grassland management

The extensive areas of rough grassland on the golf course vary in sward composition, and therefore quality, from sparse grasslands supporting the fine leaved fescue (*Festuca spp.*) and bent (*Agrostis spp.*) species through to extremely thick areas dominated by the broad leaved ryegrass (*Lolium spp.*), cock’s-foot (*Dactylis glomerata*) and yorkshire fog (*Holcus lanatus*).

The strategic and ecological quality of a rough is directly linked to the species composition within it. A sward dominated by the finer leaved species allows rapid ball retrieval for the wayward golfer thereby retaining throughput of golfing traffic. Such rough also tends to support elevated ecological interest due to the gaps within the sward giving rise to wildflowers and associated invertebrates etc. Thicker grasslands containing the broader leaved grasses tend to trap the stray golf ball thus impeding speed of retrieval and often rendering a shot unplayable.

Soils that support an elevated nutrient status will encourage the hungry broad leaved grasses that thrive in an ecosystem where nitrates are readily available. It is the aim therefore of rough grassland management to reduce the soil fertility through a series of harvesting procedures, ie cutting and collecting. If sufficient nutrients are removed from a soil profile, then the aforementioned broad leaved species cannot survive and the opportunistic, finer leaved grasses can colonise. The speed at which this process will occur is impossible to determine without trial and error; some grasslands may revert from a thick undesirable sward into a thin, wispy sward in a matter of months whilst others may take several years.

Due to the presence of the broad leaved grasses in the majority of grasslands at Bearwood Lakes Golf Club, much of the newly created rough is to be cut and collected on a twice per year basis in order to speed up the removal of nutrients. Other areas that do support some of the finer leaved grasses at present will only receive management on an annual basis in order to save club resources. Other deep rough grasslands that are situated well away from play will be left without intervention for a number of years so as to provide valuable habitat for overwintering and specialist small mammals and invertebrates.

On each occasion, cut to 75-100 mm, implementing the first cut during early spring, ie to the end of March. The second cut will need to be undertaken after seeding, ie late August/September thereby reducing the risk of interfering with nesting birdlife and invertebrates.

Where a change in character in grasslands is required more quickly, then a deep scarification and debris removal in early spring (March/April) will accelerate the rate of nutrient removal and increase stress on the coarser species, thus creating gaps in
the sward suitable for wild flowers and fine desirable grasses to become established and will reduce the need for management in the upcoming years. This technique has been suggested in several areas on the golf course where the sward quality and relationship to play suggest the best results.

During our course tour we discussed the use of selective graminicides in order to improve sward composition in areas such as left and right of the 1st hole, where scarification has been trialled in previous years, and chemical control could present itself as a reasonable option. Products such as fusillade (Syngenta) are being trialled through the UK at the present time and are likely to receive full permission for use in the amenity sector over the upcoming 12-18 months. At such time as they become available for use, we can develop a programme of grassland management involving such chemicals.

It is unlikely that an immediate change in sward composition will be seen in the majority of rough areas and therefore a few years may be experienced whereby the sward in any given rough is deemed overly penal by the members. This is a common scenario at any golf club however; continued management of the rough in conjunction with proactive communication should alleviate such problems. The management regimes for each will be reassessed after years 3 and 5 of the plan, to reduce or increase frequency of cut as necessary.

The areas outlined on the drawing No 3192 are as a guide only, it may be the case that a rough grassland introduced may be unnecessarily harsh to the higher handicap golfer, whereas it is the single figure golfer who should be targeted for punishment if they stray off line. Similarly the drawing may represent a small area of rough which, when allow to develop, is of high quality and therefore the decision could be made to extend its range. The entire process will involve trial and error, reasonable discussion with the member with the membership and ongoing monitoring before the perfect scenario can be found.

5.2.2 Existing heathland management

Several distinct pockets of heath vegetation are present on the course (most notably right hand side of the 6th carry). Although some of these patches have been introduced (e.g. around bunkers), they all contribute positively to the course and are valuable for wildlife, they will therefore be retained following work to enhance their visual interest.

The areas of heath are made up of a variety of species with the dominant plant being heather. The aim of management will be to retain an open sward supporting a minimum 60% heather component juxtaposed with acid grasses, wild flowers and other scrub. Management will be geared towards the heather component; however will improve all target species in an area.

Before successful management of heather can be undertaken it is important that a little background regarding the biology and ecology is understood. Heather has a
lifespan that is split into 3 distinct phases, the first being a ‘building’ phase where the young heather seedling establishes into a mature woody plant - this phase covers the first 8 - 10 years. The second phase is a ‘mature’ period where the heather maintains a healthy form as a woody plant and again this lasts for approximately 8 - 10 years, and the final phase is a ‘degenerate’ stage whereby the foliage of the plant lifts to the end of the woody stems creating the typical “lollipop” shape associated with unmanaged, degenerate heather. It is the aim therefore of heather management to retain the heather in its healthiest life stage, ie between the building and mature phases. As all species of heather are pyrophytes this is conducted in a more natural environment by drying out and becoming burnt in particularly hot years. This should not be replicated as burning is never a recommended practice on the golf course but it is a fairly specific management tool and also has the potential to become out of control and cause excessive damage.

The majority of heather areas on the course support a diverse mix of mature, degenerate and young plants. If left without management most areas will become unsightly and of low ecological value. Management will be undertaken by cutting to less than 50 mm outside of the main bird, small mammal and invertebrate breeding seasons and will therefore be carried out in either

- **Early season** - 2\(^{nd}\) week in February through last week in March, or
- **Late season** - 3\(^{rd}\) week in August through last week in November

Cutting heather in this fashion will encourage regrowth from the cut stump and furthermore will open up the area directly beneath cut shrubs to sunlight. As heather seed is produced in vast quantities each year by an individual it can be safely assumed that the upper layers of the soil profile contain a significant amount of viable seed. A light scarification of the first 50-75mm of the soil profile will be undertaken in conjunction with the above cutting work in order to break up the dense thatch layer and encourage germination of heather seed.

Specialist machinery may be required to carry out heather management; one of the optimum machines to use being either an Amazone Groundkeeper, Trilo, a Rytek Hightip Flail Collector or similar.

### 5.2.3 Acid grassland/heath creation

Areas to be developed as acid grassland/heath will be sited in out of play yet visually important parts of the course. They will provide year round texture and colour through most of the playing season. The choice of grasses and heather species is directly related to the need for introducing maximum aesthetic value for the longest period of time. Given that similar areas are widespread both within and external to the course, the establishment of these acid grassland/heath areas will help to develop landscape and ecological connectivity within the wider countryside and ensure environmental 'best fit'.
These areas will be established and maintained in a fashion that will retain a thin and fairly open sward supporting a mosaic of heath and grassland. Stray golf shots landing in these areas will be punished however, the majority of balls will be easily found. The presence of introduced or existing trees, shrubs or heather colonies will act as markers assisting in the location of stray golf balls.

Ideally heather brash (containing seed) will be collected from existing areas using a forage harvester or similar. Collection of capsules from mature plants, ground litter and cut heather plants will be acceptable, this will be undertaken during mid-late September when the seed of the heather will have desiccated. This will ensure native providence and increase chance of germination success. If this is not possible then heather brash may be purchased from a reputable supplier of native heather. Alternatively pure heather seed will be acquired, again of certified native stock and no more than 1 generation from the parent plant. No heather plugs, turves or pot grown plants will be used. Under no circumstances will non-native cultivars be utilised as these will appear contrived and have limited chance of long term success.

During early spring (Feb/March) the land will be scarified to provide a smooth and receptive seed tilth and be sown out with the following grass species mix at a rate of 8 – 10 g/m²:

- Red fescue 33%
- Sheeps fescue 33%
- Sweet vernal grass 33%

Thereafter, the heather brash will be applied over the seeded tilth at a rate of 1200 g/m² or pure seed (with a sand carrier) at 8 – 12 g/m². Light irrigation may be required through the growing season (dependant on climatic condition) however, will be used sparingly to prevent colonisation by more aggressive grasses and broad leaved forbs.

Following this work, the entire area will be designated as Ground Under Repair (GUR) for the first two seasons in order to allow establishment.

5.3 Wetland Management

The extensive water bodies through the North of the site are crucial in developing the unique atmosphere at Bearwood Lakes Golf Club. They provide outstanding visual interest for the golfer and also offer much in the way of ecological value for a variety of water loving flora and fauna.

These areas do require careful and ongoing management if they are to be retained in their best possible state for both golf and wildlife. Cyclical management of reeds and other marginal species is advocated throughout the life of this plan. The aim of this work is to prevent a dominance of any one species and retain the important views across the lakes. The work has been phased so as to reduce any short term negative
impacts on local wildlife and conversely bring about structural and species diversity in the long term.

Recommendations are included in the plan to develop ephemeral wetlands (i.e. left hand side of the 11th tees). These areas will offer additional habitat for species currently lacking on the course.

Any management of water bodies will take place outside of the main bird, mammal and amphibian breeding and hibernation seasons. Works will therefore be carried out during September to November or late February to March.
6. Hole by Hole Guide

1st Hole

Compartment 1a

The rough both left and right of the 1st hole is a defining characteristic of the opening hole however, is extremely coarse and dense in nature and dominated by perennial ryegrass (*Lolium perenne*), yorkshire fog, cock's-foot, timothy-grass (*Phleum pratense*) with small pockets of browntop bent (*Agrostis capillaris*) and red fescue (*Festuca rubra*) also represented. Here the long-term aim will be to significantly thin the rough in order to facilitate speed of play through the opening hole and reduce the number of lost balls. Definition, character and ecological interest will be retained through retention of the diverse texture and depth of the rought. This will be achieved through late season cut/collect, early season scarify/collect and early season application of a selective coarse grass graminicide such as Fusilade (if/when the product is given permission for use in the amenity section - hopefully 2008/09) and input of a fescue seed mix thereafter (see Management Prescription 1). **High priority**
Compartment 1b

Through the left hand side of the approach to the 1st green the birch (*Betula pendula*), oak (*Quercus agg.*), cherry (*Prunus spp.*) and Scots pine (*Pinus sylvestris*) plantation will be developed in the long term as an oak dominated woodland, through removal of eight of the pine on the tee side of the plantation and all of the cherry. The woodland will then be bolstered through introduction of eight to ten further oak, introduced sparingly through the whole area.

To the right hand side the two individual stands of gorse will be reduced in extent (greenside) and linked through introduction of an irregularly shaped gorse stand as outlined on drawing no. 3192. **High priority**

Compartment 1c

The c.8 maple (*Acer spp.*) which have been introduced to the left hand side of the mature pine plantation to the far right of the 1st hole will be removed as these block a view into the woodland and give a somewhat fragmented feel. **High priority**

The circular stand of gorse will be extended through introduction of additional gorse as described in the gorse Management Presctiprion and the remainder of the gorse brought under management. The group of pine thereafter will be selectively thinned, retaining the five or six better quality specimens. **High priority**
Compartment 1d

Through both the right and left of the green the existing gorse has developed and grown rapidly and is now juxtaposed by amenity cut rough. Particularly to the right hand side of the green this is being overly penal given that many balls will roll from the green down into the gorse and be lost. In order to combat this, the existing gorse line will be pushed back away from play by a nominal 2 - 3 m with a fringing deep rough grassland restored thereafter. The remainder of the gorse will be brought under management. Moderate priority

Compartment 1e

To the left and right of the path leading through to the 2nd tees, the gorse has recently been cut and is now in parts looking degenerate and dominated by creeping thistle (Cirsium arvense) and stinging nettle (Urtica dioica). The grassland component of this area will be cut and collected (using strimmers) during the back part of 2007 and gorse encouraged thereafter. The individual mature gorse closest to the path will be cut back to within 150 mm above ground level and allowed to regenerate. The long-term aim for this area will be to retain mature, yet healthy gorse away from the left and right of the path, flanked by rough grassland and amenity cut turf. High priority
2nd Hole

Compartment 2a

Through the right hand side of the 2nd tees the woodland edge is somewhat "unkempt" and is becoming degenerate. The first 8 - 10 m will be flailed in order to redevelop a strong grassland with the individual dead birch being removed and the timber stockpiled deep within the woodland for its ecological value. The developing oak which is leaning out towards the Competition Tees (white tees) will be removed in order to expose the two better quality specimens beyond. Within the woodland edge gorse and bramble are prevalent. Gorse can be allowed to regenerate however, the bramble will be selectively removed following the initial flail, using physical techniques and also application of a selective herbicide such as Timbrel. **Moderate priority**
Compartment 2b

To the rear and left hand side of the 2nd tees the pine and beech (*Fagus sylvatica*) plantation has been introduced in order to give screening through to the 17th green. The majority of these trees are exceptionally close to play and will pose agronomic problems as they develop. To the immediate rear of the green a clear fell will be undertaken and a grassland restored thereafter. To the left hand side c.40% of the existing trees will be removed with a further three or four oaks introduced in and amongst (away from the tee box). The gorse will be extended as outlined on drawing no. 3192. **Moderate priority**

Compartment 2c

The rough grasslands left and right hand side of the 2nd carry are identical to those as described in 1a and 1c and should receive the same management. **High priority**

Compartment 2d

The trees planted through the right hand side of the 2nd hole have obviously been introduced in order to tighten up and give strength to the left to right dogleg. In my opinion the tree species are not well thought out and are an eclectic mix of ornamental, native and non-native specimens. The copper beech (*Fagus sylvatica* var. *purpurea*), spruce (*Picea* spp.), red oak (*Quercus rubra*) and sweet chestnut (*Castanea sativa*) are particularly out of place trees. In order to retain the strength of the right hand side of the hole but also improve its landscape value the majority of these trees will be removed and replaced over time. Initially an 80% Scots pine/20% oak mix will be introduced through the area, extending from the mature pine plantation far right of the forward tees through to the oak on the dogleg in accordance with
drawing no. 3192. In addition to the above, 60% of the existing trees will be removed at that time. As the newly introduced trees develop the remainder of the trees will be selectively removed, simply retaining the few better quality silver birch (*Betula pendula*) and oak.

Through the woodland edge itself the introduced hawthorn (*Crataegus monogyna*) are developing into straggly and poor quality specimens and these will again be removed. The developing gorse will be coppiced and allowed to regenerate naturally thereafter. **High priority**

This sweet chestnut is a particularly out of place tree and will be removed. **Moderate priority**

**Compartment 2e**

The developing gorse in this area will be designated into four sections with two receiving management in any given year. Operations will be phased four years apart so as to develop structural diversity for both visual and ecological interest. **Moderate priority**

**Compartment 2f**

Through the left hand side of the fairway a plantation has been introduced to give screening and separation through to the 16th hole and to extend the mature and existing woodland. Unfortunately, as with the right hand side of the hole, the trees introduced are largely specimens which are alien elsewhere to the course and will therefore better replaced with a more befitting species mix. Through this area the existing oaks will be retained and further augmented through planting of additional Scots pine, oak and birch. Here a mixture of 60% oak, 20% birch and 20% pine will be used throughout. Thereafter, the cherry, poplar (*Populus spp.*) and other individuals will be removed. The long term aim here will be to develop an irregularly shaped copse of oak and pine with a few developing silver birch within. **High priority**
Compartment 2g

This stand of gorse to the immediate rear of the 2nd green is generally in healthy condition at present however, will require ongoing management as outlined in the Gorse Management Prescription. A small triangular copse of gorse will be introduced to the back left of the green as outlined on drawing no. 3192 and thereafter the leading edge of the gorse removed in order to reinstate this newly introduced area as the new edge of the gorse stand. 

Moderate priority

Compartment 2h

The Scots pine to the right hand side of the approach to the 2nd hole are an important feature however, as with similar areas on the course will require a replacement programme. This area will be subject to a 40% thin and full restock using Scots pine. 

Moderate priority
3rd Hole

Compartment 3a

This introduced tract of trees serves no real purpose and is again a mixture of non-native and somewhat ornamental species. Here the entire tract of trees will be removed in its entirety and replaced with two strong stands of gorse as described above in 2g and a second to the tee side of "Founders Wood". **High priority**

Compartment 3b

The open acid grassland supporting heath through this section will be maintained via a late season cut and collect on annual basis.

The developing shrubs and trees to the right hand side of the 1st bunker are beginning to give the appearance to the approach to the green an imbalanced feel and block a view of the impressive bunkering. These will be removed and rough grassland reinstated. **High priority**
The bracken which has been allowed to develop to the right hand side of the carry will be removed in accordance with the Bracken Removal Prescription and a deep rough restored thereafter. Similar rough will be allowed to establish to the left hand side of the path in order to develop further balance.

Compartment 3c

This area known as Founders Wood is fairly uniform and regimented in nature and gives a somewhat heavy feel to the left hand side of the hole, particularly given the open aspect to the right. The area is in need of thinning (40% throughout). The woodland edge will be re-profiled to give a more natural appearance and also retention of a strong rough grassland buffer zone. The area will be re-stocked throughout using 80% oak and 20% Scots pine.

Given that numerous stray balls land within compartment 3c from both the 3rd and 16th tees it is acceptable to maintain certain areas as cut rough to facilitate speed of play. In its current state the prevalence of trees means that this is an almost impossible task and therefore the existing woodland will be reduced to c.40% of existing tree numbers in the long term. Initially, thinning will concentrate on the aggressive white poplar (Populus alba), cherry and sweet chestnut. Moderate priority
Compartment 3d

To the right hand side of the Championship Tees the natural and self-set gorse has established into a tall and dense stand over time, thus blocking an outstanding view of the heath and lake around the 6th hole. A significant tract of gorse will be removed and reinstated as rough grassland as outlined on drawing no. 3192. The remainder of the gorse will be brought under management. High priority

Compartment 3e

The pines introduced to the rear of the 3rd green are well chosen trees and will establish over time, developing visual interest to the back of the 3rd hole.
4th Hole

Compartment 4a

To the left hand side of the 4th tee complex the woodland is similar in nature to other plantations on the course and will require ongoing thinning and restocking with pine, oak and birch.  **Moderate priority**

Compartment 4b

The plantation as described above will be extended out into the open grassland in and amongst the existing introduced trees however, these will be replaced by pine, birch and oak with the copper beech, sweet chestnut etc being removed over time.

Across the carry to the immediate front right of the forward tees the individual developing oak will be exposed through removal of the surrounding trees.  This will form an impressive gateway to the 4th hole.  **High priority**
Compartment 4c

These two groups of ash (*Fraxinus excelsior*), oak and beech serve no purpose and appear alien to the environment. They detract visually from the impressive bunkering and will therefore be removed in their entirety. The single individual oak (photographed) will be retained as the only tree to the left hand side of the 4th hole.  
**High priority**

No replacement is needed and the grasslands throughout the 4th hole will be maintained via an annual late season cut/collect and early season scarification.  **High priority**
Compartment 4d

Immediately to the rear of the 4th green the Scots pine and spruce copse has been underplanted in two stages with 100% Scots pine. This has been an extremely successful operation and will be used as an example for elsewhere on the course. Introduction of four or five individual oak will develop further structural and ecological interest through the woodland. **Moderate priority**

This work has been continued through the left hand side of the 5th tees in order to give a screen through to the 14th green. It should be recognised that ongoing thinning will be required through these introduced pine in order to retain impressive views of the lake from both the 4th green and 5th tees. **Moderate priority**

5th Hole

**General shot of 5th hole**

Compartment 5a

Similar to many other recently introduced copses on the course the plantation in compartment 5a is a varied mix of species, including horse chestnut (*Aesculus hippocastanum*) hornbeam (*Carpinus betulus*), sweet chestnut etc and is largely alien to the surrounding woodlands and landscape. It will be replaced on a phased and ongoing basis with a pine (80%) dominated woodland also supporting 20% oak and birch. **High priority**
Compartment 5b

This small copse of trees introduced in order to strengthen the slight right to left dogleg doesn't offer much in the way of aesthetic value and simply blocks a view of the bunker and green. As these trees develop they will exacerbate this problem and I therefore recommend their removal with appropriate bunkering and deep rough grassland reinstated thereafter. **Moderate priority**

To the far left of the plantation (as described above) the first 5 - 8 m of the woodland (to the left hand side of the cart path) will be subject to a 60% thin throughout, in order to expose the better quality trees and give a more subtle gradation away from the playing line. **Moderate priority**

Through the whole left hand side of the 5th hole a strong tract of deep rough will be introduced to envelop the proposed bunkers, leading all the way up to the immediate left of the green where the stand of poplar and silver birch will be removed and replaced by a group of ten to fifteen Scots pine to mirror those through the right hand side of the hole. **Moderate priority**

Compartment 5c

To the immediate rear of the green, the reed (*Phragmites australis*) control and tree management undertaken over the past two to three years has opened up this area at one of the more aesthetically impressive and ecologically rich areas of the course. No immediate action is required however, ongoing monitoring and control of reeds will be necessary in the longer term. **Moderate priority**
The banking through the right hand side of the 6th tee complex is becoming dominated by self-set pine, rhododendron and gorse and blocks a view of the fairway, green and associated bunkering from the Championship Tees. The 6th hole is one of the more aesthetically impressive on the course and would be further improved through the restoration of this bank as a mosaic of acid grassland, heather and low lying scrub. Initially, every self-set pine will...
be removed in conjunction with coppicing of all existing gorse. Gorse situated within 3 - 5 m away from the cart path will be removed in its entirety. The self-set birch will be pulled or cut and spot treated with a selective herbicide whereas the pine will be cut as they will not re-grow from a cut stump. All rhododendron will be physically pulled, including its root system. Thereafter the gorse and grassland will be allowed to develop naturally, and subject to a flail and collect three to four years following the initial clearance work. Between 30 - 40% of the heather/acid grassland will be flailed at any one time to retain the ecological integrity of the area. **High priority**

Note that in its current state this area is losing both aesthetic and ecological value through the regeneration of the self-set pine, rhododendron and birch and would be significantly improved by the above management.

**The heathland component of this area is the most visually and ecologically important**

### Compartment 6b

To the left hand side of the hole the view through to the lakes has been lost through natural establishment of rhododendron, silver birch and bracken. This whole area will be cleared of low-lying vegetation and scraped back to a dirty underlying soil/sand to facilitate grassland/heather establishment thereafter. Heather seed can be manually collected from elsewhere on the course (right hand side of 6th carry) and applied to the exposed soil to establish this area as a mosaic of grass/heather low lying scrub. This will
open up an outstanding view across to the lakes far left of the hole and also further develop ecological interest through the ground layer of the woodland. **Moderate priority**

**Compartment 6c**

This significant stand of gorse is becoming degenerate in nature and in parts becoming overrun with self-set silver birch. The area will be designated into three individual sections (working outwards from the centre) and subject to gorse management as in the Gorse Management Prescription. **Moderate priority**

**Compartment 6d**

Through the left hand side of the fairway the 10th and 11th holes are once again obscured from view and this gives a slightly heavy feel to the left hand side of the 6th hole. Here the self-set and developing silver birch will be removed in their entirety with a ground layer restored as described above within compartment 6b. Small pockets of heather are naturally establishing however are currently being out-competed by the birch. These will be further encouraged through scraping of the ground immediately surrounding. **Moderate priority**
The group of silver birch which have been planted in order to accentuate the slight dogleg through the left hand side of the hole will be under-planted with Scots pine, with the birch eventually being removed in order to reinstate a pine plantation as an extension of those that dominate the 11th hole. **Moderate priority**

**Compartment 6e**

The individual Western red cedard (*Thuja plicata*) to the back left of the 6th green appears alien within this landscape and also detracts from the other better quality oak and larch (*Larix decidua*) specimens close by, I therefore recommend that this tree is removed. The oak to the immediate right hand side (photographed) will be subject to selective de-limbing of the lower branches in order to raise the height of the crown. **High priority**

**Compartment 6f**
The left and right of this trackway from 6th green to 7th tees will be planted up through the left hand side with pine, in order to screen the adjacent driving range. The existing ornamental trees will then be removed over time in order to develop a more natural walkway through bracken, gorse, larch and pine.

7th Hole

Compartement 7a

This woodland will be subject to a 30 - 50% thin throughout in order to expose the better quality trees and prolong the life of the woodland. This will also facilitate sunlight and airflow through to the 7th tee. **High priority**
Compartment 7b

The two Western hemlock (*Tsuga heterophylla*) which dominate the front right of the general play and Competition Tees for the 7th hole block an inordinate amount of sunlight across the tee complex and offer little in the way of aesthetic or ecological value. These trees will be removed with a grassland/bracken ground layer restored thereafter. This will also open up a view into the planted woodland beyond and those trees as advised through compartment 2d. **High priority**

Compartment 7c

This Scots pine woodland has been the victim of fire in recent years and has subsequently been restocked with a mixture of beech and cherry. As these trees develop they will appear relatively out of place in comparison with the remaining trees and will therefore be removed. Approximately 200 Scots pine whips have been introduced in and amongst the existing trees and these will be retained, bolstered with a further twent oak and allowed to establish, in order to develop a second canopy within the woodland.
The bracken which is developing and out-competing the pine in places will be subject to a single foliar application of Asulam during 2008, in order to facilitate development of the Scots pine. Thereafter simply flailing or strimming on an ongoing basis will be sufficient control. **Moderate priority**

**Compartment 7d**

This small tract of introduced trees will be restocked using 80% pine with a few individual oak and birch and eventually the existing trees will be removed. **Moderate priority**

**Compartment 7e**

Through the left hand side of the second half of the fairway the line of c.13 oak make for an exceedingly difficult approach shot into the green, particularly from anybody slightly left of the fairway. The most significant tree that juts out towards the fairway, close to the top of the hill will be subject to selective and judicious de-limbing, reducing its extent by c.15 ft on the fairway side. **High priority**

In order to create a more scalloped and contoured fairway edge the second, third and fourth trees counting from the tee will be removed, in conjunction with the last and second to last tree closest to the green. This will help to expose the retained better quality specimens and develop a more natural woodland edge and subtle gradation away from the playing line. **Moderate priority**

A band of deep rought of varying width will be developed along the left hand side of the hole in order to frame the oak and give balance to the rough on the right hand side. **High priority.**

**Compartment 7f**

To the immediate left of the 7th green the rhododendron, bramble and bracken offer little in the way of gradation away from the playing line and will be removed through the first 8 - 10 m, in order to expose the outstanding oak and Scots pine to the rear. These rhododendron are extensive in nature and have received no management over a significant period of time and therefore offer little in the way of aesthetic or ecological value. **High priority**
8th Hole

Through the rear and right hand side of the 8th tees the rhododendron and bracken component of the ground layer of the woodland has become unruly and degenerate, leading to a slightly unkempt feel. This area will be cut to ground level and allowed to regenerate naturally thereafter. This will also open up glimpses through to the 7th hole and vice versa. **Moderate priority**
Compartment 8b

Through the right hand side of the hole the acid grassland/heathland is an important feature of the course and should be maximised wherever possible. Unfortunately however, the self-set birch, Scots pine, gorse and bracken are becoming dominant and necessitate management. This area has the potential to be one of the more aesthetically and ecologically outstanding on the whole course however, will require aggressive and ongoing management in order to control the developing scrub and retain an open grassland/heathland sward. Removal of 80% of all self set scrub will be undertaken on a once per two yearly cycle. **High priority**

Compartment 8c

Within the woodlands to the immediate right and rear of the 8th green the open heathland/grassland sward is again the priority aesthetic and ecological habitat. The introduced silver birch surrounding the green will develop in time and create a more parkland feel to the hole and these will therefore be removed in favour of retention of the outstanding views from the entrance to the club through to the 8th green. The individual sweet chestnut to the immediate rear of the green will also be removed in favour of the establishing Scots pine, beech and oak. **High priority**
9th Hole

Compartment 9a

The area to the immediate rear and right hand side of the tees is a rather disparate and fragmented area supporting birch, sweet chestnut, gorse and rhododendron. The area will be connected to the pine woodland to the right hand side of the 9th and those to the immediate rear of the 8th green as an extension of the pine planting throughout and additional pockets of gorse to the right hand side of the tees, in order to screen the greenkeeping compound and to the immediate rear to develop some separation from the road.

The existing sweet chestnut and horse chestnut will be removed from the back of the green and the birch to the right hand side of the tees subject to an 80% thin throughout as the pine develops. The aim of this work will be to create connectivity between the aforementioned pine woodlands and develop continuity through this section of the course. **High priority**
Compartment 9b

This area to the immediate left of the Ladies tees is a fairly scruffy stand of native/non-indigenous trees offering no aesthetic or ecological value. Initially the gorse, rhododendron and holly (*Ilex aquifolium*) will be brought under control through coppicing to 150 mm above ground level and the two oak to the immediate rear of the bench will be crown lifted, to facilitate air movement through to the tee complex. The individual degenerate leaning oak to the immediate left of the forward tee will be removed as it is not only directly competing with the turf for nutrients, but also is an aesthetically unimpressive tree that will pose a health and safety hazard over time. The long-term aim of this work will be to restore a bracken, gorse and heather ground layer supporting c.8 mature and impressive trees. **High priority**

On the pond banking to the immediate front left of the tees the scrub oak and birch will be removed before they develop into sizeable trees and undermine the water feature bank. **High priority**

To the far side (green side) of the pond the developing birch will be removed as will the split limbed sweet chestnut. The gorse will be brought under management in order to expose the two oaks as feature trees. This will in turn develop a better grassland sward beneath. **High priority**
Compartment 9c

The Scots pine woodlands to the right hand side of the 9th hole are generally in reasonable condition however, would benefit from a 30% thin throughout. **Moderate priority**

Compartment 9d

Between the left hand side of the 9th hole and the left hand side of the 8th fairway, the oak and horse chestnut copse offers protection between the two holes however, will be bolstered further through introduction of a significant number of pine, particularly to the green side of the 9th hole.

Close to the pond (Compartment 9b) introduction of two or three pine in and amongst the existing oak will suffice in developing subtle gradation. The horse chestnut are not well chosen trees and will, over time, develop into massive parkland specimens not in keeping with the remainder of the course and also drop significant amounts of debris, therefore posing course maintenance problems. The horse chestnut and mature sweet chestnut will therefore be removed in time as the introduced pine develop. **Moderate priority**

Compartment 9e

The Scots pine to the immediate back left of the 9th green are identical to those as described within compartment 9c and will receive the same management. **Moderate priority**

10th Hole
Compartment 10a

This mature apple (*Malus* spp.) tree is reputedly of ancient and important provenance and is currently showing signs of decay and is likely to fall during strong winds in the future. I would suggest that the club acquire the services of a specialist arboricultural consultant who may well deem it necessary to brace the tree. In order to make more of an interesting feature of the tree, a small and discreet information sign may be erected close to the tree as an interesting feature for the members. I suggest you contact Bill McIntosh at Parsaver Golf on 07702 568333, who are reputable suppliers of high quality golf course signage.

Compartment 10b

This mature/degenerate stand of blackthorn (*Prunus spinosa*) running the full right hand side of the 10th carry/first part of fairway is a negative landscape feature when compared with the surrounding pines and rough grassland. I am pleased to see that the back section has been
cleared and replaced with pine saplings. The next stage will be to clear the leading edge (remainder) of the blackthorn and reinstate with an open rough grassland.

This will develop excellent views through into the 11th hole whilst retaining a physical barrier through the newly introduced and existing Scots pine. Given its mature to degenerative nature the area is not of significant ecological benefit however, may provide some opportunities for nesting songbirds. Its removal could be considered as a negligible yet negative ecological effect however, when taken as part of the holistic management plan is of little consequence. **High priority**

Re-growth of blackthorn is prevalent through the recently cleared section and this will require ongoing treatment through physical removal and treatment with Timbrel. A fescue/bent grassland will be restored thereafter, in order to replicate the woodland floor through the right hand side of the second half of fairway.

**Compartment 10c**

The introduced plantation through the left hand side of the 10th hole is (similar with other plantations on the course) a mix of tree species that are evidently different to most elsewhere on the course. Here lime (*Tilia vulgaris*), whitebeam (*Sorbus aria*), rowan (*Sorbus aucuparia*), field maple (*Acer campestre*) and blackthorn are the dominant planted species. This area will be re-stocked throughout using predominantly pine with some oak and silver birch. Toward the tee side of the plantation the oak and silver birch component underplanting will be increased to tie in with the existing mature woodland to the left hand side of the carry. **High priority**
Thereafter the existing trees will be selectively thinned to facilitate growth of the newly planted specimens. Over the longer term only the silver birch and oak will be retained, perhaps with one or two field maple in and amongst.

**Compartment 10d**

Several semi-mature trees have been introduced around the 10th green and these include turkey oak (*Quercus cerris*), lime, horse chestnut and ash. The majority of these trees, if they are allowed to develop will become large in stature blocking views of the impressive bunkering, particularly through the left hand side of the green. With the exception of the individual oak to the front left of the green (tee side of the ditch), these trees will be removed in order to make a feature of the mature oaks at the far right of the green.

**Moderate priority**

To the rear of the green the grasslands below the mature pine will be maintained through an annual cut and collect with the gorse being brought under management. The single beech introduced in the dead centre of the green will be removed and replaced with a light standard Scots pine and the two Western hemlock trees removed thereafter. **Moderate priority**

The three poplar to the far right of the green (far right of the bunker) will again be removed as these trees have exceptionally aggressive root systems and are spreading via suckers throughout the surrounding grassland. These trees will be removed during mid summer with the stumps drilled and treated with glyphosate or Timbrel in order to take out the surrounding suckers. **High priority**
In order to compensate for the above both ecologically and strategically, the rough will be extended both left and right of the green as outlined on associated drawing no. 3192. High priority

11th Hole

![General shot of 11th hole](image)

Compartment 11a

Through the left and right hand side of the 11th tees the rhododendron component of the woodland floor has become extremely aggressive to the detriment of other better quality vegetation. The silver birch through the right hand side have become degenerative and in places have fallen and may pose a health and safety threat in the future. Here the rhododendron and sapling poplar and alder (*Alnus glutinosa*) will be cut to ground level in order to facilitate further tree planting (pine, birch and oak in equal proportions).

Thereafter the ground layer on the woodland will be maintained using a strim or flail on a once per two-yearly basis in order to allow these trees to develop. Within the small pocket of trees to the immediate right of the General Play Tees, the developing alder will be removed
in its entirety along with the adjacent rhododendron, in order to maintain this area simply as low lying scrub and bracken with the single split limbed silver birch. **High priority**

**Compartment 11b**

![Compartment 11b Image]

The reeds (common reedmace (*Typha latifolia*), greater reedmace (*Typha latifolia*), lesser reedmace (*Typha angustifolia*) and common reed) through the right hand side of the carry give balance with the more natural vegetation through the left hand side and the remainder of the water body. These should be retained in their current extent through ongoing control using the club’s mini-digger in order to prevent them from spreading in front of the tees. Note that the current extent of the reeds is optimum. **Moderate priority**

Through the left hand side of the carry (greenside bank) the previous clearance work has been successful and reeds are now beginning to re-spread. These will again be controlled on an infrequent basis. **Moderate priority**

**Compartment 11c**

To the immediate left of the Championship tees alder and rhododendron have become the dominant vegetation through this wetland. In order to maximise its ecological and aesthetic potential the area will be restored as a wetland, supporting a variety of grasses, sedges and rushes through the removal of all developing alder. The few semi-mature silver birch can be retained. **Moderate priority**
To the immediate right of the Championship tees and rear of the old tee complex once again the alder and rhododendron components will be removed so as to open up views through this area.

This corner of the golf course is one of the most aesthetically impressive through the whole site and the views around the 10th green, 11th tees and left hand side of 6th hole should be maximised wherever possible. Through clearance of self-set alder and rhododendron the priority grassland, scrub and wetland communities will be restored, thereby improving this area equally for its ecological potential.

Following the initial clearance work the alder and rhododendron re-growth will require ongoing physical and chemical treatment in order to prevent it from becoming dominant once again. In addition to the above, a series of small “scrapes” will be developed in the area at a rate of one per three years. Creation of an individual scrape will involve using the club’s mini-digger to excavate a 0.75 - 1 m deep area measuring some c.30 m². The area will then be allowed to follow the process of natural succession and infill with native wetland plants. These scrapes will provide outstanding habitat for a variety of flora and fauna.

**Compartment 11d**

Through the far right of the carry the stand of mature alder requires a 40% thin throughout, simply retaining the better quality trees. This will allow the retained trees to develop and mature over time. The two mature specimens either side of the path have a large amount of re-growth from their base and this will be removed in order to develop these trees further as features. **High priority**

Through the remainder of the woodland floor and extending up into the woodlands to the right hand side of the 10th hole, the thistle and poplar re-growth will be removed by an annual cut and collect, in order to restore an open grassland similar to those further along the right hand side of the hole. **High priority**
Compartment 11e

The small triangle of grassland to the left hand side of the forward tees is an important wetland community and will be maintained via an ongoing flail every three to five years simply to prevent invasion of rhododendron and birch. Through the remainder of the woodland edge through the left hand side of the fairway the developing birch, gorse and rhododendron will be cleared throughout the first 10 - 12m away from the woodland perimeter, in order to restore a bracken grassland and heather ground layer. Moderate priority

Compartment 11f
The planted trees through this area will be selectively removed, retaining just the better quality oak specimen within the grassland/heath. Note that the priority habitats here are the acid grassland and heather and exposure of these will help to tie in the two heather faced bunkers on the approach to the green. **Moderate priority**

**Compartment 11g**

Similar to the above the rhododendron which has developed through the woodland perimeter through the left hand side of the 2nd part of the 11th hole will be removed through the first 10 - 15 m, again in order to encourage the acid grassland/heathland habitat. Throughout the first 10 - 12 m a 60% thin of existing trees will be undertaken, largely concentrating on the larch. This will develop a more subtle gradation away from the playing line through to the deeper woodland beyond. **Moderate priority**

**Compartment 11h**

Pine woodlands which separate the 10th and 11th holes are impressive in nature and the ground layer is a useful wispy fescue/bent dominated sward. This grassland will be maintained through an ongoing and annual cut and collect. In order to tie in with the heather-clad bunker and the heath to the left hand side of the hole, small scale scarification and application of collected heather seed will be undertaken through the central section. **Moderate priority**
Compartment 11i

To the immediate rear of the green the Scots pine dominated woodland forms an impressive backdrop to the greens. The introduced deciduous trees (predominately oak) will be removed, with the woodland being re-stocked further away from playing line using Scots pine. Moderate priority

12th Hole
Compartment 12a

To the back and right hand side of the 12th tees the rhododendron will again be pushed away from play, in order to encourage the heather and acid grassland which is prevalent beneath the rhododendron, but dying off. **High priority**

The three pockets of gorse which have been introduced will be selectively coppiced, in order to retain a screen to the adjacent roadway, but developing a more domed and healthy looking stand. Selective coppicing will involve cutting back to less than 150mm above ground level through no more than 15 - 20% of the entire area in any given year. **High priority**

Compartment 12b

Through the length of the left hand side of the 12th hole the impressive pine, birch and oak woodlands are becoming over-run throughout the lower and mid canopy layers by rhododendron and self-set silver birch. A 40 - 60% thin through the first 10 - 12 m of woodland will be carried out in conjunction with removal of all rhododendron. To the immediate left of the forward tees the area between the 12th and 11th holes is relatively thin and therefore the rhododendron will be cleared throughout in order to open up impressive views. **High priority**
Additonal deep rough grassland will be developed across the carry and through the left hand side of the hole. This will create further strategic and aesthetic value and improve the ecological interest through the 12th hole. The grassland will be maintained via a cut/collect on a twice per year basis. **High priority**

**Compartment 12c**

The introduced oak and birch to the right and left of the approach to the green if allowed to develop, will become massive and completely unnecessary trees blocking views through to the green. I see no need for their retention therefore these trees will be removed. **High priority**

The remaining heather clad bunker appears somewhat out of place and therefore the heather will be removed and replaced with fine turf.

The single mature oak which stands to the far left of the approach to the green (i.e. immediately left of the introduced birch) is an impressive tree and will be exposed as a feature tree on the hole through removal of the surrounding developing pine, rhododendron and birch.

**Compartment 12d**

The mature Western Hemlock to the immediate left of the bunker is an impressive and worthwhile tree however, it has an extensive and aggressive root system which is undermining the bunker almost rendering it unplayable. Here I recommend engaging the services of a professional golf architect to re-shape the bunker, no closer than 3 m to the tree and insertion of a root barrier in order to prevent further ingress of roots. **High priority**

Through the immediate rear of the green the mature and extensive Scots pine woodland is in largely good health however, supports a number of thin and spindly trees. The lake is just visible from the 12th green through the trees and I feel it would be an excellent project to undertake a significant (70-80% thin) through the central sections of the woodland immediately rear of the green as outlined in drawing no. 3192, in order to open up an impressive view of the lake. The remainder of the woodland will be subject to a 30% thin throughout. **High priority**
Through the ground layer of the woodland bramble, bracken and rhododendron re-growth is likely to be excessive following thinning and opening up sunlight through to the ground layer, therefore an annual flail through the first three years thereafter reducing to once every three years will be required. The long-term aim for the ground layer of the woodland will be to develop a mosaic of bracken, grasses and natural vegetation including sorrel (*Rumex acetosa*), Foxglove (*Digitalis purpurea*), etc.

### 13th Hole

[General shot of 13th hole]

**Compartment 13a**

The very back tees on the 13th hole have been constructed within a dense area of woodland, which makes growing any form of playable surface almost impossible. Furthermore, the 13th hole is not as aesthetically or strategically impressive when viewed from these back tees and the lake is obscured from view. Aside from clear felling the woodland through the entire left hand side of the tees I feel the only option is to decommission this tee and reinstate as native rough grassland and vegetation.
Compartment 13b

The trees which have recently been introduced in memory of past members and pets all seem to be in generally good health at this time.

The individual tree to the left of the forward tees will be removed before it establishes. **High priority**

Compartment 13c

The re-developing birch, rowan and rhododendron through the right hand side of the 13th tee/carry are beginning to block an outstanding view of the lake and therefore will be removed on an ongoing and rotational three yearly cycle. A further 20% thin of existing mature trees will also be undertaken in order to facilitate the outstanding views. **Moderate priority**

The developing alder and birch within the bank sides on both the tee and green side of the water body block a view again of the lake and the three impressive Scots pine beyond. These two small areas of scrub will be cleared and allowed to regenerate naturally thereafter.

Compartment 13d

This extensive water body has previously been a degenerate, dark and aesthetically and ecologically worthless area. Its recent clearance in line with my previous report dated 2004 has been an outstanding project, which has opened this area up as one of the key features of...
the 13th hole. Ongoing control of regenerative alder around its perimeters will be required from here on in. **Moderate priority**

**Compartment 13e**

This small triangle of land is becoming dominated by self-set alder and birch scrub that will require ongoing and rotational clearance, similar to that as described above in 13c. Take care not to remove more than 50% of this vegetation at any one time in order to retain its ecological interest. **High priority**

**Compartment 13f**

Following the clearance of the reed bed the views out to the lake from the 13th hole are now one of the most impressive throughout the whole course. Ecological interest has been retained through the small pockets of reed, perimeter scrub and rough grassland. Again the regenerative scrub and reeds will require ongoing control clearing no more than 40% at any one time. **High priority**

The rough grassland through the right hand side of the 13th hole is one of the most impressive through the whole course and will be maintained through an annual cut and collect in order to prevent ingress of birch and gorse and retain a thin, open sward.
Compartment 13g

Through the left hand side of the 13th hole the plantation is a mix of lime, hornbeam, rowan and pine. The rough grassland here forms an important feature of the hole and is one of its defining characteristics. The majority of deciduous planted trees through this area will be selectively removed, simply allowing the pine and one or two oak to develop. **Moderate priority**

The rough grassland will be cut thereafter on a once a year basis and managed thereafter on a once a year basis involving flail and collect. **High priority**

Through the back left of the green a group of five white poplar and other ornamental trees will be removed and the rough grassland reinstated through this area of amenity rough (between the two cart paths leading through to the significant oak). **Moderate priority**

Compartment 13h

The far left of the 13th hole/far left of 5th hole is a pine dominated woodland which has suffered from wind damage in recent years. The area will be re-stocked with 80% pine and 20% oak/birch and the ground layer maintained via a three yearly rotational clearance of bramble, simply to control rather than eradicate this species. The introduced leylandii (*Cupressocyparis leylandii*) will be removed in their entirety. **High priority**
14th Hole

Compartement 14a

This rough grass banking between the 14th and 5th holes has been the subject of some low-key birch and pine introduction in the past and will be further bolstered through introduction of a small number of pine and oak throughout. No further tree removal is required in the short term however, ongoing grassland management in the form of an annual cut and collect is required. Moderate priority
Compartment 14b

This open grassland supporting planted trees will be re-stocked with 80% pine, 20% oak/birch through the back section (away from the green), whilst retaining a strong 10 - 15 m grassland closer to the green. The extent of the current grassland can be shaped up in order to engulf the lower lying sections of the mounding to the left hand side of the green and thereafter maintained by an annual cut and collect. As the newly introduced pine and oak establish the three chestnut, beech, horse chestnut and lime will be selectively removed. The long-term aim here would be to develop a strong pine and oak plantation to the far left of the green, bordered by an ecologically and aesthetically rich rough grassland. Moderate priority

Note that all of the white poplar will be removed as a matter of urgency. High priority

15th Hole
Compartment 15a

The planted trees through this area of grassland will be removed and a rough grassland reinstated thereafter. **Moderate priority**

The first of the two sweet chestnut will be subject to selective and judicious de-limbing through the lower section, in order to improve this tree aesthetically. **Moderate priority**

Beyond the two sweet chestnuts the c.10 introduced hawthorn and birch will again be removed in order to retain the open grassland and view through to the heath beyond.

Compartment 15b

The group of five cherry will be removed. Following early season scarification of the grassland, heather seeds collected from the adjacent heath will be applied in order to tie the right hand side of the hole in with the adjacent land. **Moderate priority**

Compartment 15c

Further introduction of oak and birch will take place through this whole area away from the playing line, in order to give shape to the right hand side of the hole. A strong (15 - 20 m) buffer of rough will be retained to the right hand side of the fairway. **High priority.** Thereafter, the more inappropriate trees such as horse chestnut and lime will be selectively removed. The flowering cherry are not well suited trees and these will be removed as a matter of some **high priority.**
Compartment 15d

To the back of the 15th green Founders Wood forms a backdrop to the hole. The management as outlined through the left hand side of the 3rd hole will be continued here, selectively introducing a few oak, birch and pine individuals. Those sweet chestnut and beech situated in an amphitheatere around the green will be selectively removed simply retaining one or two better quality trees, which will be allowed to form long-term features and a backdrop to the hole. Moderate priority

16th Hole

Compartment 16a

The left hand side of the hole is dominated by Founders Wood. The trees here are developing into large specimens and are in places compromising the growth of their nearest neighbours. Furthermore, the density of trees prevents the maintenance of the rough and currently the change from cut rough through to the deep ryegrass and yorkshire fog dominated sward beneath is overly penal and aesthetically displeasing. Initially the woodland edge will be re-contoured in accordance with associated drawing no. 3192 and thereafter a few better quality birch, oak
and sweet chestnut within selected for retention. The surrounding trees will then be removed in order to facilitate machinery access. **Moderate priority**

The rough will then be subject to management in the form of a twice per year cut and collect and early season scarification and application of a fescue/bent grass seed mixture. The long-term aim here will be to develop a thin wispy rough grassland in and amongst a few well-chosen mature trees.

Note that the white poplar will all be removed as a matter of some higher priority as these are spreading much to the detriment of the better quality and high priority grassland. **High priority**

**Compartment 16b**

Through the right hand side of the hole the mature limes, sycamore (*Acer pseudoplatanus*) and beech are all in reasonable health and the newly introduced lime and beech will provide some replacement in the future. No further tree felling is required save for the two out of character white poplar. **High priority**

The small puddle/wet area to the right hand side of the hole should be drained and reinstated as rough grassland. Additional rough could be developed through the right hand side of the hole, closer to the maintenance track in and amongst the mature trees.
Compartment 16c

To the immediate left of the 2nd green/left of 16th fairway this area (currently managed as amenity rough) will be allowed to develop as deeper rough and maintained on an annual basis thereafter. **High priority**

The high fescue component should lead to a good quality sward and tie in well with the pocket of rough which engulfs both bunkers. Beyond the fairway bunker to the left hand side of the 16th the rough changes and is dominated by yorkshire fog, cock's-foot, false oat-grass (*Arrhenatherum elatius*) and timothy and is unruly and rank in nature. Given that this area is blind from the 16th fairway it will be cut out and mown as amenity rough. **High priority**

**17th Hole**

General shot of 17th hole
Compartment 17a

Through the right hand side of the 17th carry the beech woodland will be subject to a 30% thin, simply retaining the better quality specimens. The holly which have been introduced in some numbers around the mature oak to the front right of the forward tees will be removed throughout the first 8 m away from the cut rough with only the four or five individuals well away from play being retained. **Moderate priority**

Compartment 17b

The spruce which has been introduced to the right hand side of the fairway is a completely alien tree and will be removed. **High priority**

Through the remainder of the section a 60% thin of the introduced holly, chestnut and sweet chestnut will be undertaken and a 100% removal of the flowering cherry. **Moderate priority.**

Compartment 17c

To the immediate right of the green the introduced Scots pine have developed well and offer some screening to the telephone mast beyond. This area will be re-stocked with 80% oak, 20% birch throughout and a 60% thin of the existing pine undertaken thereafter. **Moderate priority**

Compartment 17d

This copse of pine, beech and Western red cedar appears somewhat contrived within these surrounding natural environments and therefore the majority of trees will be removed, simply retaining two or three of the developing Scots pines. If the proposed extension to the 18th hole goes ahead then a clear fell of all remaining trees will be required thereafter. **Moderate priority**
18th Hole

Compartment 18a

Through the right hand side of the 18th hole the developing rhododendron and birch will be removed through the first 10 - 12m away from the playing line and a rough grassland restored thereafter. The majority of the mature birch and oak are generally in a healthy condition and will be retained. No further tree planting is required through this section. **Moderate priority**

Compartment 18b

Through the remainder of the right hand side of the 18th hole, the planted cherry will be removed as will the birch and rowan surrounding the individual oak which juts out onto the fairway, almost directly across from the low lying area to the left hand side of the hole. **High priority**

A rough grassland of varying widths will be introduced through the right hand side of the hole in order to incorporate the rhododendron, gorse and few trees situated closer to the path. This area will be managed via an annual cut and collect. **High priority**

The remainder of the mature rhododendron to the right hand side and front right of the green will be coppiced and allowed to regenerate thereafter. In order to prevent a negative visual impact on the golfers, this area will be undertaken in three distinct phases. **Moderate priority**
Compartment 18c

The low lying area to the left hand side of the approach to the 18th green has been allowed to develop as rough in the past, but was deemed to be overly penal given the lushness and thickness of sward. Here I would recommend simply re-contouring the existing line of rough in order to incorporate the subtle mounding within the land to develop a more contoured edge to the rough. The low-lying area through the centre of the hollow will be retained as cut rough in order to facilitate ball retrieval. **High priority**

Woodlands surrounding chipping area and driving range

Although no detailed inspections of these woodlands and individual trees were undertaken at the time of the visit, casual observation revealed them to be in generally good condition and requiring no further management over the short term.

The chipping area and driving range should be retained as separate areas from the golf course and this will be achieved largely through the planting as outlined above in the hole by hole critique. Along the left hand side of the path from the chipping area to the driving range and the clubhouse to the driving range, the dense rhododendron and spindly silver birch give a somewhat oppressive character to this area and it would be improved through selective (40 - 60%) thinning throughout and removal of rhododendron over a nominal 2 - 3 m either side of the pathway. This would also facilitate sunlight penetration through to the ground layer and help dry up the path and allow grass growth in a thin band either side of the track itself.