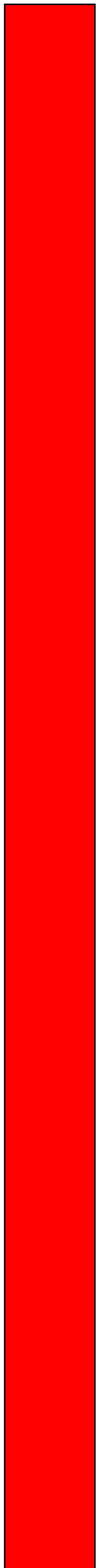


Louie Memorial Playing Fields Habitats and Management

A report for
North Hinksey Parish Council
and
Vale of White Horse District Council

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Appendix 1: Vascular Plant Species Lists Recorded Oct 2008

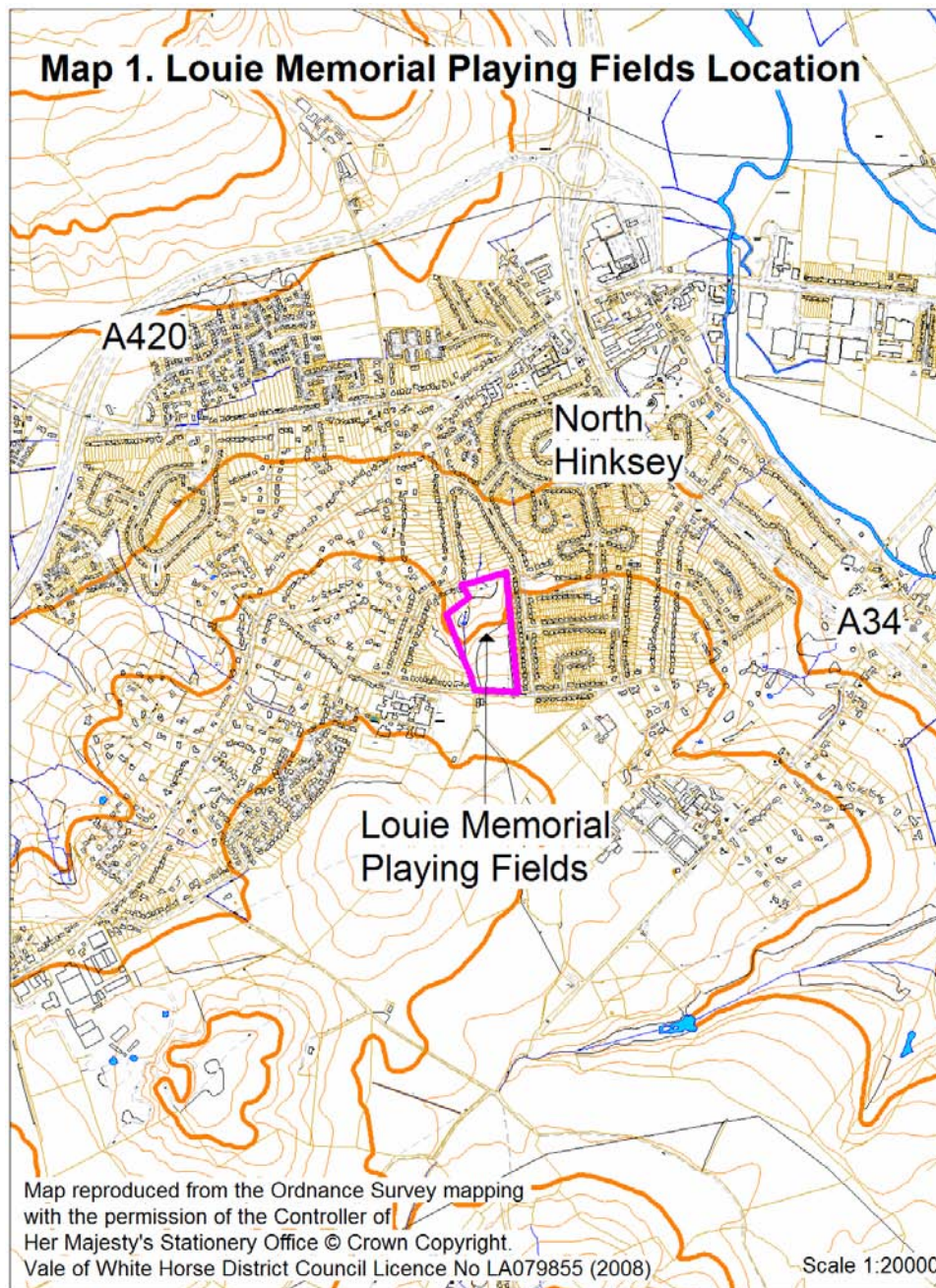
Appendix 2: Photographs

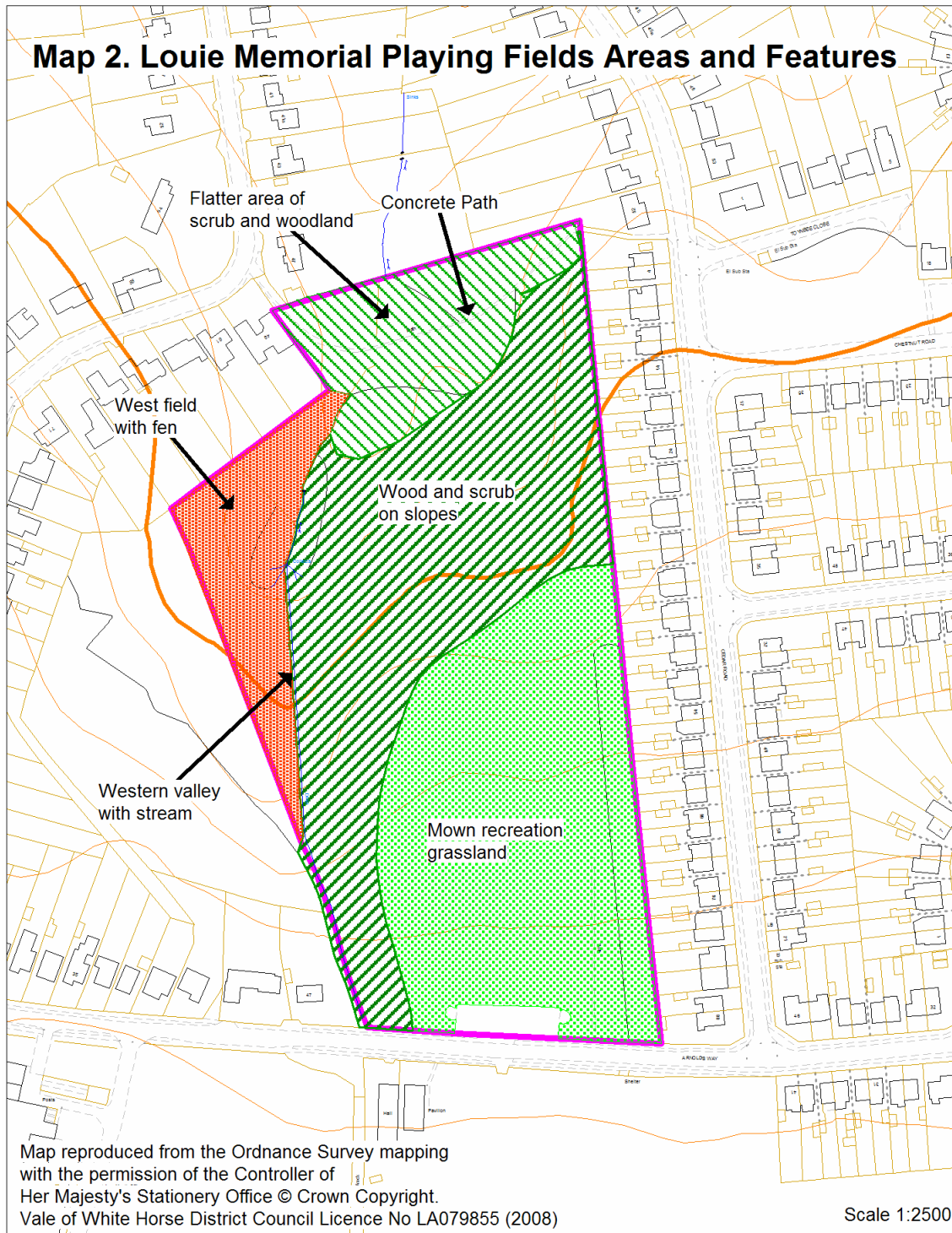
Introduction

This report describes and maps the habitats at the Louie Memorial Playing Fields, excluding the recreational grassland, in the parish of North Hinksey and makes recommendations concerning the management of these habitats.

The survey was carried out on October 10th 2008.

Louie Memorial Playing Fields lies on a north facing slope of Cumnor Hill (see Map1). On the western side a small valley cuts through the hill side. On the steeper slopes, fringing the recreational grass, there is woodland and scrub habitat. This extends onto flatter land to the north. The western slope of the small valley supports an area of fen habitat along with some rough grassland and tall herb habitat. The main features and area mentioned in this report are shown on Map 2.





Geology

The southern half of the site is on Corallian limestone. This follows close to the edge of the wood before extending over all the south-western slopes and the southern end of the western field. There is a band of Corallian sandstone underlying most of the northern slopes and much of the western field. Towards the base of the slopes and in the flatter area in the north the site is underlain by Oxford clay.

Habitats

The habitats described in this section are shown on Map 3. A list of vascular plant species recorded during the survey is provided in appendix 1. Photographs of various features are provided in appendix 2.

Fen

The western field supports an area of fen habitat, mainly on the steeper valley side. This habitat is also found to east of the stream in an area fringed by willow trees, at the base of the wooded western slope. The fen habitat has developed on the area where there is significant seepage of water from the area below the junction of the Corallian limestone and sandstone. Some of the seepages are orange in colour due to the presence of iron rich minerals.

- The fen is mainly dominated by hemp agrimony and giant horsetail, but also includes areas dominated by a pond sedge and branched bur-reed and a patch of reed canary-grass.
- Meadowsweet, wild angelica and pendulous sedge are abundant towards the base of the slope. Further up the slope bugle is abundant on a fairly open ground layer below the horsetail and hemp agrimony. There are some patches of yellow flag iris. The other species that is frequent on the ground is wavy bittercress. Water mint is also present. At the edge there some small patches of spiked sedge. Towards the top of the slope there are some clumps of hard rush.
- There is a line of large willow trees along the line of the stream. These are found on a drier bank along with hazel, hawthorn, dogwood and guelder rose. Some of the willows have partially collapsed into the fen and new growth is arising from these branches.
- The stream line becomes fairly indistinct within the main fen area.
- East of the stream line there is more fen vegetation that is rather shaded by the willows that lie along the stream and at the edge of the wood. There are also collapsed willow branches here with new willow growth. Two larger willows have established in this area. There is also some young and horse chestnut near the eastern edge.
- The ground remains very wet east of the stream and supports a variety of wetland species including hemp agrimony, meadowsweet, water mint, giant horsetail, creeping Jenny, brooklime, fool's water-cress and marsh thistle. Pendulous sedge is quite abundant in places. Bryophytes are frequent on the ground in places. It could be described as wet woodland but it is really more fen habitat that is shaded by the fringing willow trees.

Pond

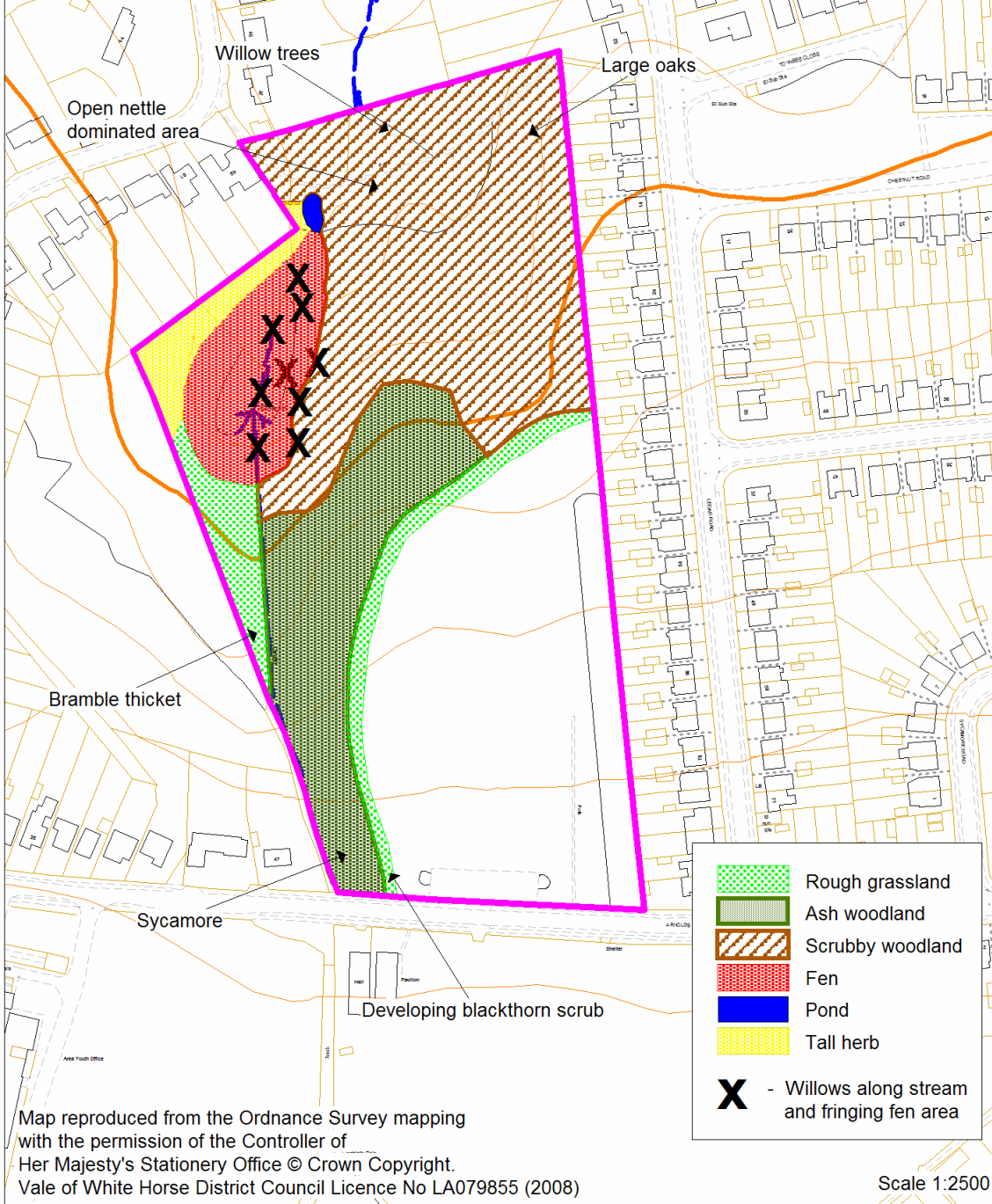
At the bottom of the slope there is a water filled depression which is probably the remains of a small pond. Water-cress is abundant here.

Rough grassland and tall herb

At the edge of the fen the habitat consists of tall herb to the north and rough grassland to the south.

- The tall herb is dominated by common nettle with frequent giant horsetail and with frequent giant willowherb especially towards the base of the slope.
- The grassland has dense tussocks of red fescue, where it fringes the fen, and is dominated by false oat grass as the area narrows to the south. Yorkshire fog is abundant. Common nettle and giant horsetail are frequent. In the shorter rough grassland, silverweed is abundant and meadow vetchling is present. In the south, nettle becomes dominant and there are patches of bramble.

Map 3. Louie Memorial Playing Fields Habitats



Woodland and scrub

The dry slopes of the western valley and the northern slopes support woodland and scrub habitat. This is quite recent in origin and has developed since the Second World War. It is not present on maps from 1944. It is also not plantation woodland and appears to have developed through natural succession once farming ceased on the land as housing was built on Cumnor Hill. The land was probably used for livestock grazing. Initially hawthorn dominated scrub will have developed and then ash trees will have established.

- Much of the north end of the site is quite scrubby without a significant canopy. There are a few ash, and some older oaks which would have been present when the area was still grassland, on the northern slopes. There are also some younger ash which are about as tall as the hawthorn that dominates the area. There is also some hazel and elder. Very young ash is abundant in the area. In the long term the area will develop an ash dominated canopy. This hawthorn dominated scrub extends southwards in a narrow band on the western slopes.
- On the flatter ground at the north end there are some fairly old hazel coppice stools as well as a large multi-stemmed field maple which has developed from coppice and a large cherry tree. North of the concrete path there are a few willow trees forming a canopy although in general this flatter area is similar to northern slopes with hawthorn scrub and elder. There is also some blackthorn scrub in the north west. There are also open areas dominated by nettle, one of which is quite wet with some giant horsetail.
- In 1886 a rifle range extended into the flat area and the older hazel and field maple may have fringed this area then. The range was no longer present in 1899.
- On most of the western slopes the woodland is more developed with an ash dominated canopy and with sycamore at the southern end. The western slopes have an abundance of field maple in the understorey, probably reflecting the calcareous nature of the soils here. Holly is also abundant. Hazel is largely absent on the western slopes towards the south. There is a more open area dominated by elder, adjacent to the stream towards the south.
- Other species present in the understorey are crab apple and there is some blackthorn especially at the edge next to playing fields. There is some elm at the base of the western valley, close to the fen edge. A *Lonicera* (honeysuckle) shrub, probably a garden escape, is also quite frequent in places.
- The ground flora is fairly typical for a woodland recent origin. It is dominated by ivy. It does support a range of typical woodland and hedgerow species. These are wood brome, red currant (which might be a garden escape), herb Robert, wood avens, male fern, broad buckler fern, sweet violet and hedge woundwort. Cow parsley is also present.
- At the base of the western slopes, near the stream, dog's mercury is present. This is a typical dominant ground species in long established woodland. Pendulous sedge and giant fescue are also present here. Both are typical of long established woodland or hedges, suggesting the area along the stream has supported trees and shrubs much longer than the rest of the site.
- The pendulous sedge might just be a garden escape and not unusually for a site close to housing, a number of garden escapes are present.
- There is some dead wood on the woodland floor especially on the western slopes.

Recreational grassland edge

There is a narrow band of rough grassland between the wood and scrub and the mown recreational grassland. Agrimony, a species typical of grassland on calcareous soils, is present here, along with cow parsley. At the southern end of this fringe, blackthorn scrub is establishing.

Importance of the site

The most important habitat at Louie Memorial Playing Fields is the fen. The site lies within an area known as the Midvale Ridge. Initially this area was identified in English Nature's Natural Areas, which are landscape areas with characteristic natural features and habitats. In 1996 the Countryside Commission and English Nature, with support from English Heritage, produced The Character of England Map. This map combined English Nature's Natural Areas and the Countryside Commission's Countryside Character Areas into a map of 159 Joint Character Areas for the whole of England.

The Midvale Ridge runs from Lynham in Wiltshire to Pichcott Hill and Oving in Buckinghamshire and includes Brill, Waddesdon and Quanton Hills. In the area running west of Oxford this area rises gently from the Ock Valley to a more prominent escarpment along the Thames Valley running from Cumnor to Faringdon and includes Faringdon Hill, with the Folly, and Badbury Hill. The Oxfordshire section is often referred to as the Oxfordshire Heights and includes Cumnor Hill, Boars Hill, Shotover Hill, Forest Hill, Hurst Hill and Wytham Hill.

Fen is a key habitat within this area and there are some extensive areas, especially along the Sandford Brook at Cothill. Elsewhere smaller areas of fen have developed along valleys that cut through the sides of the hills. This includes the Lye Valley at Headington, Sydlings Copse, north east of Barton, and the series of narrow valleys that run down from Boars Hill to the south of North Hinksey.

Elsewhere, throughout the Midvale Ridge, smaller areas of marshy fen habitat are found on flushes that form where water seeps out at geological boundaries. Examples can be seen on the western slopes of Cumnor Hill, at Raleigh Park and at Hurst Hill. The fen in the narrow western valley at Louie Memorial Fields is an example of this habitat and is a relatively large area, which might be considered to be of County importance, although further survey work would be required to establish this. Such habitat can be important for invertebrates, bryophytes (mosses and liverworts) and taller wetland vegetation may provide habitat for birds such as reed bunting, which was recorded here in 1996, and warblers.

Woodland is also typical of the Mid Vale Ridge landscape. There are extensive areas of ancient and long established woodland such as Wytham Wood, Bagley Wood and on Shotover Hill. Smaller areas of woodland have developed along smaller valleys in the area which can be quite wet in places. In this respect the woodland at Louie Memorial Fields is also a typical feature of the landscape, although it is recent in origin and still developing through natural succession from scrub.

The woodland and scrub is of local value for wildlife providing a useful area on the fringe of gardens for species such as birds, to move back and forth. Denser areas of scrub provide good nesting opportunities for birds. Although it lacks the diversity in species and structure associated with the more important longer established woodlands it is valuable as an area of woodland that the local community can enjoy.

Rough grassland and tall herb habitats are typical of unmanaged or little managed land. Such areas support common invertebrates, including some butterflies, and small mammals such as voles. The areas here are quite small but add to the diversity of habitats and the potential range of species present at the site.

Management

The management suggestions listed here that concern specific locations are shown on Map 4.

Fen

The fen is the most important habitat on the site and needs to take priority for habitat management.

A preliminary drawing of potential ideas from the Parish shows a pond dug into the fen. It is vital to stress that this would be highly inappropriate. New habitat should not be created within areas of existing important habitat.

The long term health of the fen will rely on water continuing to seep from the slope. It is likely that in dry years this will be significantly reduced. However the site has survived recent dry years intact. It is important that nothing is done on the land surrounding and above the fen that has a significant effect on the hydrology of the fen.

Key management recommendations are:

- Maintain the area of open fen by removing collapsed branches of willows and any regrowth from them. This will need to be done without heavy machinery to avoid damaging the fen. If any of this willow has rooted deeply it might be necessary to use a winch from the edge. This is the first priority and should be done as soon as possible.
- For the area east of the stream: Remove collapsed branches and regrowth. Again this will need to be done without heavy machinery to avoid damaging the fen, although again it might be possible to use a winch if necessary from the dry woodland edge to the east. There are two larger single stemmed willows in the area east of the stream. It would be best to remove these. Pollarding would be inappropriate because it would significantly increase shading as multiple branches regrow. This is the first priority and should be done as soon as possible.
- Remove ash and horse chestnut that is establishing at the edge of the fen. This is the second priority and will not require a significant amount of work.
- If it is not considered practical to remove deeper rooted regrowth from collapsed willows or the roots of the two larger willows, remove as much of the collapsed branches and regrowth as possible and coppice the remaining willow on a regular basis.
- Pollard the willows along the stream to prevent further collapses in the future and reduce shading of the fen.
- In the future extend pollarding to the willows at the eastern edge.
- In all this work keep damaging from trampling to a minimum.
- There is one clump of the garden *Lonicera* shrub at the western edge which should be removed.

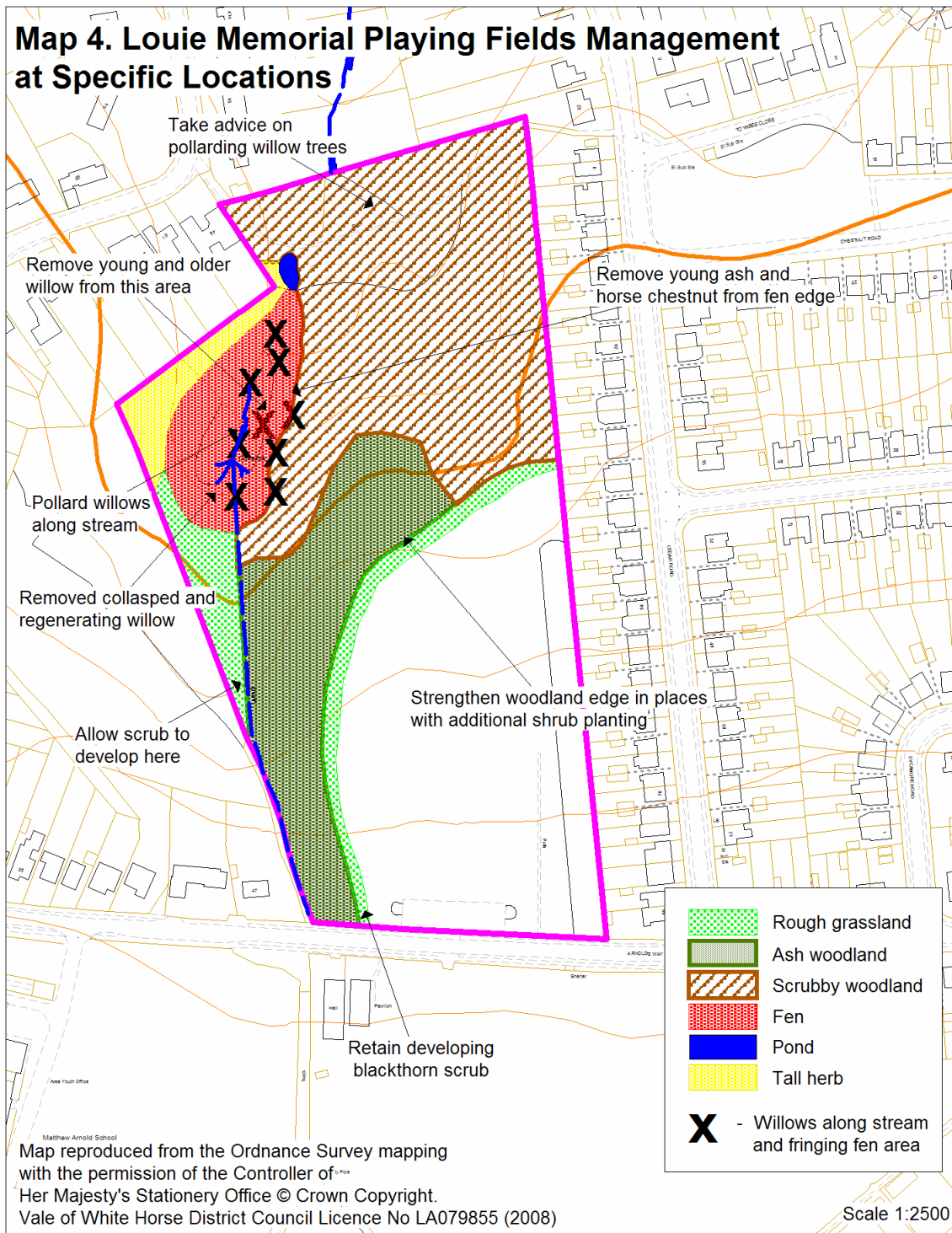
There might be a case for cutting the fen on a rotational basis, which means cutting a small area each year. This would prevent any build up of dead material and encourage smaller fen species. However there does not appear to be a particular build up of dead material at present. This needs further consideration, which will be helped by the proposed survey in 2009, which will provide a fuller assessment of the species present in the fen.

Besides the proposed 2009 survey it is highly recommended that invertebrate and bryophyte surveys are commissioned. It is possible these could be done on a voluntary basis by local experts.

Pond

The pond at the base of the slope can be restored. However it should not be significantly extended or deepened so that it does not drain water from the fen. Rather it should be fed by excess water from the fen and stream. It is possible that in dry years the pond will dry out and become seasonal. This should not be considered to be a major problem. Any material dug out the pond should be removed from the site or spread on the land to the west if the volume is not too great.

Map 4. Louie Memorial Playing Fields Management at Specific Locations



Rough grassland and tall herb

The preliminary drawings provided by the Parish show a small picnic area in this location. However there is really very little room for this in the western field. The fen is more extensive than shown on these drawings and even outside the fen the ground is quite wet. Even if there was room it might be inappropriate as it might lead to greater disturbance to the fen. While it might be appropriate to recommend some rotational cutting of the rough grassland, little would be gained by doing this. It would be sensible to leave this area largely unmanaged. In the long term remove any shrubs that establish in the grassland. However the narrowing southern corner should be left unmanaged to allow scrub to develop. There are already bramble thickets here.

Woodland and scrub

The main aim of woodland management should be to allow it develop naturally whilst retaining some scrub areas.

- Sycamore: this species, which is not native to the UK, can be quite invasive. At present there is only a little young sycamore establishing but this needs to be removed.
- Paths: it would be sensible to provide a simple network of surfaced paths. This would encourage people to follow obvious routes with better underfoot conditions. Route these away from any denser scrub areas to reduce disturbance for nesting birds.
- Woodland Edge: edge habitat can be particularly valuable for wildlife and there is a significant length of edge habitat alongside the mown recreational grassland. There is already a fringe of unmown grassland at the edge of the woodland which is a good start. Maintain this as at least a five metre strip. Half of this can be cut each year. A variety of pot grown wildflowers suitable for calcareous soils could be planted in to provide a better habitat. Suitable species would be greater knapweed, field scabious, meadow crane's-bill and cowslip. The blackthorn scrub that is developing in the south of this area should be retained. The edge of the wood would be maintained as coppiced shrubs and coppiced small trees. Some additional species can be added to strengthen the edge. Suitable species would be dogwood, guelder rose, blackthorn, spindle and wayfaring tree.
- Scrub: Allow any denser areas of scrub to develop to provide less disturbed nesting sites for birds. Much of the hawthorn scrub is quite spindly. While it provides food for birds it does not provide the best potential nesting conditions. The eastern edge is quite open at present and would be an ideal area to plant more shrubs to provide a dense area for birds and to increase security for adjacent gardens.
- Nest boxes: The site provides a good opportunity to put a variety of nest boxes into the trees to encourage a range of woodland birds.
- Trees: In the long term it will be necessary to thin the ash in the canopy to promote good tree development. The first area that needs to be looked at is where there is already a good canopy on the western slopes.
- Large hazel coppice stools: there is little to be gained by re-coppicing these at present. In the long term it might be necessary if they signs of collapse.
- Dead wood: fallen and standing dead wood is a very important component of the woodland ecosystem. There is some dead wood on the floor at present which should be left. This should be added to whenever the opportunity presents itself, for instance if any thinning is required. Standing dead wood is especially important. This may appear as trees age. In the long term it should only be removed if it is a real danger, for instance where it is overhanging paths, and then left as fallen dead wood.
- Ivy: ivy is sometimes accused of strangling trees and shrubs. This is not true but when ivy gets into the canopy of trees and shrubs it can affect bud and leaf development and thus food supply from photosynthesis is reduced. However ivy on trees and shrubs can provide a valuable habitat for invertebrates and on larger trees may provide roosting sites for bats. There is some ivy on

some of the hawthorn bushes at present. If it was beginning to cover a significant proportion of the shrubs then there might be a case for removing some of it but at present it should be just considered to be a valuable micro habitat which should be left.

- Willow trees, northern flat area. One large branch has fallen from one of the trees in recent years. It might be sensible to pollard these willows. Further advice should be sought on this.
- Long term management advice: the Oxfordshire Woodland Project is keen to be involved with community groups with the management of woodland sites. This would be an ideal site.
- There is some litter problems ranging from drinks bottles to garden waste. The involvement of the local community and regular litter picking exercises may help to reduce this problem.

Appendix 1: Vascular Plant Species Lists Recorded Oct 2008

1. Trees and shrubs

Scientific Name	Common name	Comments
<i>Acer campestre</i>	Field Maple	
<i>Acer pseudoplatanus</i>	Sycamore	
<i>Aesculus hippocastanum</i>	Horse-chestnut	Fen edge
<i>Cornus sanguinea</i>	Dogwood	Bank along stream in fen area
<i>Corylus avellana</i>	Hazel	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Fraxinus excelsior</i>	Ash	
<i>Ilex aquifolium</i>	Holly	
<i>Lonicera</i> sp.	a Honeysuckle	
<i>Malus sylvestris</i>	Crab Apple	
<i>Prunus</i> sp.	a cherry	Northern flat area
<i>Prunus spinosa</i>	Blackthorn	
<i>Quercus robur</i>	Pedunculate Oak	
<i>Salix caprea</i>	Goat Willow	
<i>Salix fragilis</i>	Crack Willow	Stream line, fen edge and northern flat area
<i>Sambucus nigra</i>	Elder	
<i>Taxus baccata</i>	Yew	
<i>Ulmus procera</i>	English Elm	Fen/woodland edge
<i>Viburnum lantana</i>	Wayfaring-tree	Fen edge
<i>Viburnum opulus</i>	Guelder-rose	Fen edge

2. Grasses, sedges and rushes

Scientific Name	Common name	Comments
<i>Brachypodium sylvaticum</i>	False-brome	
<i>Carex hirta</i>	Hairy Sedge	Fen
<i>Carex pendula</i>	Pendulus Sedge	Fen and west woodland edge
<i>Carex</i> sp.	a sedge	A pond sedge
<i>Carex spicata</i>	Spiked Sedge	Fen edge
<i>Dactylis glomerata</i>	Cock's-foot	Rough grassland
<i>Festuca gigantea</i>	Giant Fescue	Fen/woodland edge
<i>Festuca rubra</i>	Red Fescue	Rough grassland
<i>Holcus lanatus</i>	Yorkshire-fog	Rough grassland
<i>Juncus inflexus</i>	Hard Rush	Fen
<i>Lolium perenne</i>	Perennial Rye-grass	Rough grassland
<i>Phalaris arundinacea</i>	Reed Canary-grass	Fen
<i>Phleum pratense</i>	Timothy	Rough grassland
<i>Poa annua</i>	Annual Meadow-grass	

2. Other species

Scientific Name	Common name	Comments
<i>Agrimonia eupatoria</i>	Agrimony	Rough grassland
<i>Ajuga reptans</i>	Bugle	Fen
<i>Angelica sylvestris</i>	Wild Angelica	Fen
<i>Anthriscus sylvestris</i>	Cow Parsley	
<i>Apium nodiflorum</i>	Fool's Water-cress	Fen
<i>Calystegia sepium</i>	Hedge Bindweed	
<i>Cardamine flexuosa</i>	Wavy Bitter-cress	Fen
<i>Cirsium palustre</i>	Marsh Thistle	Fen
<i>Convolvulus arvensis</i>	Field Bindweed	Rough grassland
<i>Dryopteris dilatata</i>	Broad Buckler-fern	
<i>Dryopteris filix-mas</i>	Male Fern	
<i>Epilobium hirsutum</i>	Great Willowherb	Tall herb at fen edge
<i>Equisetum telmateia</i>	Great Horsetail	
<i>Eupatorium cannabinum</i>	Hemp-agrimony	Fen
<i>Filipendula ulmaria</i>	Meadowsweet	Fen
<i>Galium aparine</i>	Cleavers	other
<i>Geranium robertianum</i>	Herb-robert	
<i>Geum urbanum</i>	Wood avens (Herb Bennet)	
<i>Hedera helix</i>	Ivy	
<i>Heracleum sphondylium</i>	Hogweed	
<i>Iris pseudacorus</i>	Yellow Iris	Fen
<i>Lathyrus pratensis</i>	Meadow vetchling	Rough grassland by fen
<i>Lysimachia nummularia</i>	Creeping-Jenny	Fen
<i>Mentha aquatica</i>	Water Mint	Fen
<i>Mercurialis perennis</i>	Dog's Mercury	
<i>Rorippa nasturtium-aquaticum</i>	Water-cress	Pond
<i>Plantago major</i>	Greater Plantain	Path – north end of site
<i>Potentilla anserina</i>	Silverweed	Rough grassland by fen
<i>Ranunculus repens</i>	Creeping Buttercup	
<i>Ribes rubrum</i>	Red Currant	
<i>Rosa canina</i>	Dog Rose	
<i>Rubus fruticosus</i>	Bramble	
<i>Rumex conglomeratus</i>	Clustered Dock	Fen
<i>Scrophularia auriculata</i>	Water Figwort	Fen
<i>Senecio vulgaris</i>	Groundsel	
<i>Solanum dulcamara</i>	Bittersweet	Fen
<i>Sonchus asper</i>	Prickly Sow-thistle	
<i>Sparganium erectum</i>	Branched Bur-reed	Fen
<i>Stachys sylvatica</i>	Hedge Woundwort	
<i>Taraxacum officinale</i>	Dandelion	
<i>Urtica dioica</i>	Common Nettle	
<i>Veronica beccabunga</i>	Brooklime	Fen
<i>Veronica chamaedrys</i>	Germander Speedwell	
<i>Viola odorata</i>	Sweet Violet	

Appendix 2: Photographs



Open fen from top of slope. Regenerating willow from collapsed branches on the right side



Fen amongst willow – the two willows on the right side of the picture are recommended for removal



Regenerating willow from collapsed branches



Open fen from the base of the slope – the main plant that can be seen is hemp agrimony



Sedge dominated fen



Large hazel coppice stool in the north of the site