

# New Mills Community Orchard Management Plan 2021-2026



Management Plan 2023 v3 – January 2023

Document history

Document version	Updated by:	Date	Details of update.
Management Plan 2021 v01	Mary Parkinson	March 2021	Review and update of Management Plan for discussion by Management Group
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Management Plan 2023 v1	Mary Parkinson	January 2023	Review and update of Management Plan for discussion by Management Group
2023_v3 New Mills Orchard Management Plan	Julian Ashworth	January 2023	Management Plan update following review and amendments added by Julian Ashworth

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## 1 Introduction

New Mills Community Orchard was established by the local community in 2006 on a site adjacent and to the west of High Lea Park. The successful development of the orchard has relied on the hard work of the local community and since the idea first took root considerable progress has been made.

The main objective at the site is to manage, maintain and enhance the orchard and associated habitats and species for the benefit of the local community and wildlife. A management group has been established to guide maintenance and development of the Orchard on behalf of the local community.

Derbyshire Wildlife Trust were commissioned by New Mills Community Orchard Group to produce a management plan for the New Mills Community Orchard and associated habitats in 2008. The original plan was informed by two surveys of the site and information gathering undertaken by the Derbyshire Wildlife Trust. Derbyshire Wildlife Trust identified three distinct areas in the Orchard: an orchard, an area of acid grassland and the scrub and underscrub that fringes this grassland. The original management plan focussed on maintaining these distinct areas of habitat.

The Management Plan has been subsequently reviewed and updated on a regular basis. The Management Plan aims to provide a guide for the future management and development of the site both by identifying management that needs to be continued and identifying new areas of management aimed at enhancing the value of the site and addressing new issues or problems at the site.

The management plan provides an overview of the Orchard and a review of management activities to date to inform the management objectives and activities for the next five years. The aim is to provide a plan that will guide activities in the Orchard aimed at achieving specific objectives. It aims to be flexible enough to be reviewed and revised regularly allowing progress to be tracked.

Over the years, considerable progress has been made. The Orchard encourages community involvement, for example:

- Local people involved in creation and operation of the orchard.
- Local schoolchildren involved in tree planting and logo design.
- Links with other community groups, eg. Library, U3A, allotment society, New Mills Transition, etc.
- Community events, e.g. annual Apple Days, participation in One World Festival, Wassailing.
- Orchard promoted by website, Facebook, events and press coverage.
- Links forged with other community orchard groups, including Hayfield, Buxton and Bradwell.
- Provision of support for creation of new orchards, eg. In local schools.

Achievements include:

- Successful funding applications for trees and associated support and publicity.
- We took part in the Tree O Clock scheme.
- The Orchard was awarded an Excellence in the Community Award by Derbyshire County Council.
- The Orchard is protected under the Queen's Jubilee award.
- We have helped to start other Orchards in New Mills, including Hague Bar and Ollerset.
- We have created a small 'Forest Garden' area within the orchard.
- We have undertaken works in the orchard to improve accessibility and use of the orchard.

- We have established and maintained bee hives on site.



## 2 Background

### 2.1 Site Description

The Orchard is planted on land owned by New Mills Town Council and lies on the western boundary of High Lea Park, New Mills. The entrance to the Orchard is off St Mary's Road via the main entrance to High Lea Park. The national grid reference for the centre of the site is SJ994855. The site is shown shaded pink on the figure below (Figure 1).

The site is open to the public at all times. The site is bounded by stone walls and fences and includes paths, benches, sculpture and interpretation boards. The site occupies a south-facing slope and there are several springs present that have created damper ground in several places. There are no utilities (running water, electricity, gas etc.) on the site.

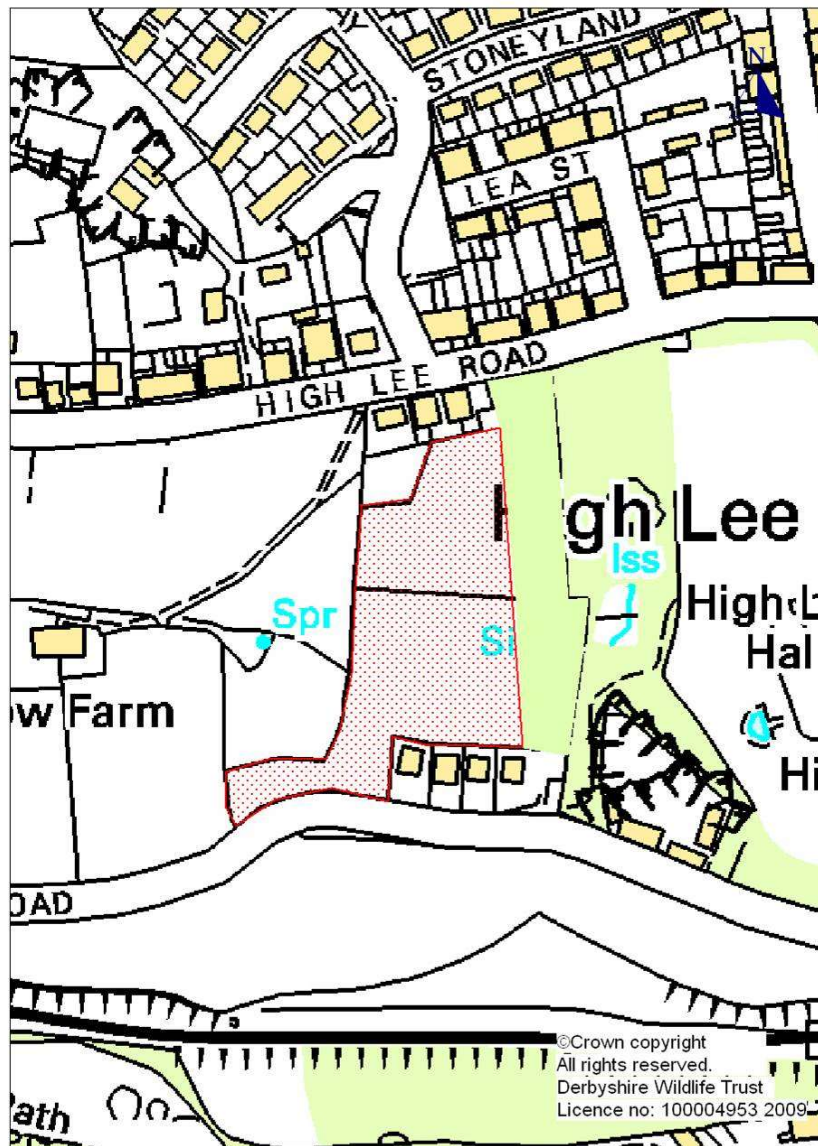


Figure 1 - Site location

Figure 2 shows the schematic planting for the site

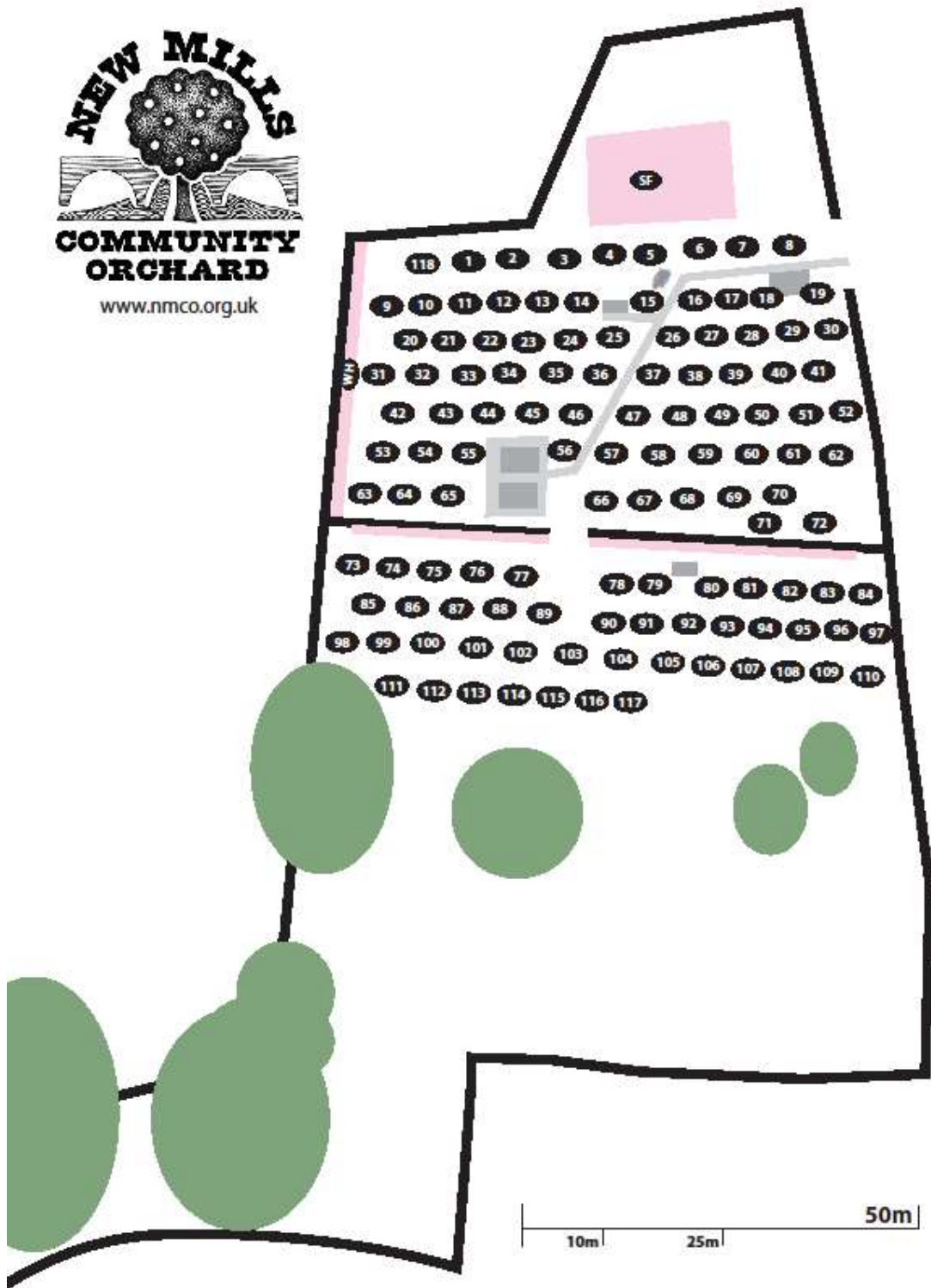


Figure 2 Planting scheme

Derbyshire Wildlife Trust surveyed the site and assisted New Mills Community Orchard in establishing the original management plan for the site. The Trust surveys identified the following features:

- Feature 1: The Orchard - The orchard is planted with soft fruits, figs, apples, pears, cherry, damson and plum and is surrounded by walls and fences. The fruit trees are well established.
- Feature 2: Grassland - The fruit trees have been planted into grassland vegetation formerly used for grazing. The character of the grassland is neutral to acid and it is of moderate botanical diversity only.
- Feature 3: The pond - A small ephemeral pond is present in the south-eastern corner of the field.
- Feature 4: The boundaries of the fields include stone walls, fencing and planted trees and shrubs.

Information relating to environment, flora and fauna from the original surveys is presented in Section 8.

In addition to the features identified in the original wildlife survey, honey bee hives have been established on the site and are maintained by local beekeepers. Two bug hotels have also been constructed by a local environmental youth group.

## 2.2 Site History

Records show that an orchard existed here in 1640. More recently the site was used as pasturage for livestock. The establishment and planting of the current orchard was facilitated by a grant from the Lottery Fund. Subsequently site development and maintenance has been funded through various community fundraising activities.

Surveys by the Derbyshire Wildlife Trust informed development of the first management plan for the Orchard. Since the original surveys and management plan the Orchard has developed considerably and the community in new Mills has developed orchards in other parts of New Mills (at Ollersett Fields) and has assisted other groups in developing local orchards further afield. The principles established in the original management plan relating to biodiversity enhancement remain a part of the current management plan and activities.

## 2.3 Management

The site is managed via a small Management Group consisting of representatives from New Mills Town Council and local community representatives. The Management Group maintains communication with key representatives within the wider community and has established a wider communication group to facilitate community engagement and draw on volunteers to help with orchard maintenance activities.



### 3 Objectives

Main objective: To manage, maintain and enhance the orchard and associated habitats and species for the benefit of the local community and wildlife.

A number of operational objectives and associated actions have been identified to facilitate achievement of the main objective. These are:

- Objective 1: Maintain and develop site management structure
- Objective 2: Manage and develop the orchard
- Objective 3: Maintain and develop the site's community use as an educational, training and amenity resource for local schools, residents, societies and organisations.
- Objective 4: Maintain and enhance the pond.
- Objective 5: Maintain and enhance site infrastructure
- Objective 6: Manage soft fruit area in the north-east corner of the field.
- Objective 7: Manage and develop boundaries.
- Objective 8: To maintain and enhance grassland vegetation, communities, associated habitats, features and niches.
- Objective 9: Maintain areas of hawthorn/gorse scrub for birds
- Objective 9: Maintain areas of bramble underscrub for invertebrates, small mammals and birds.
- Objective 11. To realise the full potential of the site for public and educational use by developing interpretative and educational materials, educational access and organizing events.
- Objective 12: Survey and monitor key features
- Objective 13. Review and monitor management plan

## 4 Management Plan achievements and next steps

Objective	Achievements	Next steps
Objective 1: Maintain and develop site management structure	<ul style="list-style-type: none"> <li>• Active management group that meets regularly</li> <li>• Numbers on management group have dropped off but a core group has been maintained.</li> <li>• Wider group established to participate in projects, planting and maintenance in the Orchard</li> <li>• Regular liaison with other community groups including local schools, Transition NM, Allotment, etc, has been ongoing to explore opportunities for partnership in developing and maintaining the Orchard</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure management group continues to meet regularly.</li> <li>• Continue to identify and undertake activities to maintain group and wider engagement.</li> </ul>
Objective 2: Manage and develop the orchard	<ul style="list-style-type: none"> <li>• Orchard maintained - pruning and weeding as required. Mowing undertaken by Parks staff to maintain grassland.</li> <li>• Some trees have been lost and these have been replaced.</li> <li>• New plantings have been undertaken.</li> <li>• New Orchards, including Ollersett Field, have been established by the group.</li> <li>• A Forest Garden Plot has been established.</li> </ul>	<ul style="list-style-type: none"> <li>• Regularly review actions necessary to manage and develop orchard.</li> <li>• Consideration needs to be given to further development and maintenance of new orchard sites, including Ollersett.</li> </ul>
Objective 3: Maintain and develop the site's community use as an educational, training and amenity resource for local schools, residents, societies and organisations.	<ul style="list-style-type: none"> <li>• Orchard is popular as a recreational area for use by the local as well as wider community.</li> <li>• Regularly used by local schools.</li> <li>• Visited by organisations wishing to develop similar community projects.</li> <li>• The Orchard has also been used by other organisations, for example, Home Schooling, New Mills Festival, Woolley Wanderers, High Peak Community Arts and Incredible Edible, for development of joint projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to review and promote the Orchard as a community resource through Facebook and the NMCO website.</li> </ul>
Objective 4: Maintain and enhance the pond.	<ul style="list-style-type: none"> <li>• Monitoring of the pond showed that levels of water varied and the pond can become dry during periods of low rainfall.</li> </ul>	<ul style="list-style-type: none"> <li>• No actions planned for current management period. Consider</li> </ul>

Objective	Achievements	Next steps
	<ul style="list-style-type: none"> <li>• Consideration was given to whether the Pond should be properly developed to maintain water levels by lining with clay.</li> <li>• After careful consideration and consultation it was decided that the pond should be left in its natural state as an ephemeral pond.</li> </ul>	<p>removal of this objective in future management plans.</p>
<p>Objective 5: Maintain and enhance site infrastructure</p>	<ul style="list-style-type: none"> <li>• Consideration has been given to improvements in access to the site as well as access within the site.</li> <li>• A joint project with New Mills Town Council has improved pathways and access within High lea Park, which has benefited access to the Orchard.</li> <li>• Within the Orchard, work has been undertaken to level areas at the top of the Orchard to improve access.</li> <li>• Pathways are maintained via mowing.</li> <li>• Seating and viewing areas and picnic benches are maintained.</li> <li>• Information boards are maintained</li> <li>• Bee hives have been established on the site and are maintained by local beekeepers. Vandalism at the end of 2022 has required action and a review of the management of hives on the site.</li> <li>• Two bug hotels have been established by a local environmental youth group</li> </ul>	<ul style="list-style-type: none"> <li>• Accessibility to be kept under consideration.</li> <li>• Review management and maintenance of bee hives on the site in consultation with bee keepers and community support groups.</li> </ul>
<p>Objective 6: Manage soft fruit area in the north-east corner of the field.</p>	<ul style="list-style-type: none"> <li>• Soft fruit has been maintained as part of the management of the site.</li> <li>• New fruit has been planted to replace any damaged bushes.</li> <li>• Pruning and weeding around the bushes has been undertaken as necessary.</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing activities to manage soft fruit within the monthly management plan to be reviewed and actioned regularly.</li> <li>• Weed and prune soft fruit as necessary - see the monthly management plan.</li> </ul>
<p>Objective 7: Manage and develop boundaries.</p>	<ul style="list-style-type: none"> <li>• The hedgerow on the western boundary has been developed and provides some shelter for Orchard.</li> </ul>	<ul style="list-style-type: none"> <li>• Manage hedgerows - Maintain the hedgerow at around 5ft 6” to 6 ft in height. Top as needed.</li> <li>• Review hedgerow management – decide on balance between trimming to promote wildlife</li> </ul>

Objective	Achievements	Next steps
		habitat and provision of shelter for orchard.
Objective 8: To maintain and enhance grassland vegetation, communities, associated habitats, features and niches.	<ul style="list-style-type: none"> <li>Maintained through mowing at specific periods of the year.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing – continue to mow half the grassland in late August/September.</li> </ul>
Objective 9: Maintain areas of hawthorn/gorse scrub for birds	<ul style="list-style-type: none"> <li>Activities undertaken to maintain areas of scrub.</li> </ul>	<ul style="list-style-type: none"> <li>Remove hawthorn, gorse or other saplings from the grassland area.</li> <li>Cut back encroaching hawthorn or gorse.</li> </ul>
Objective 10: Maintain areas of bramble underscrub for invertebrates, small mammals and birds.	<ul style="list-style-type: none"> <li>Bramble has been maintained in the orchard. Need for cutting back kept under review.</li> </ul>	<ul style="list-style-type: none"> <li>Maintain current extent of bramble</li> <li>Cut back any bramble encroaching onto the grassland in autumn/winter.</li> </ul>
Objective 11. To realise the full potential of the site for public and educational use by developing interpretative and educational materials, educational access and organizing events.	<ul style="list-style-type: none"> <li>Leaflets have been developed and used.</li> <li>Facebook site developed and used to promote events, activities and raise awareness of the site.</li> <li>Links have been established and maintained with local groups.</li> <li>Forest Garden trial project established in partnership with local Transition and Incredible Edible groups.</li> <li>Materials, including books, have been made available in the local library.</li> <li>Site is regularly used by local schools and by the local community.</li> <li>Apple Day events have been held annually in the Orchard and have been very successful in publicising the Orchard, raising awareness with local community and as a means of fundraising to further develop the orchard.</li> </ul>	<ul style="list-style-type: none"> <li>Ongoing activities to be identified as part of management group meetings.</li> <li>Updates to be made to website to improve information on fruit in orchard.</li> <li>Maintain and update interpretation material on boards in the Orchard.</li> <li>Organise at least one public event annually at the orchard to encourage community involvement.</li> </ul>
Objective 12: Survey and monitor key features	<ul style="list-style-type: none"> <li>Condition of trees and bushes kept under review.</li> <li>Trees have been lost in the Orchard and have been replaced. For example, James Grieve apple trees were planted originally but have not thrived in the Orchard, despite being recorded as a variety that has been traditionally</li> </ul>	<ul style="list-style-type: none"> <li>Consider updating ecological survey to inform development of future management plans.</li> </ul>

Objective	Achievements	Next steps
	<p>grown locally. These have now been replaced with varieties that have been shown to be more successful.</p>	<ul style="list-style-type: none"> <li>• Monitor condition of trees and shrubs to inform management plan.</li> </ul>
<p>Objective 13. Review and monitor management plan</p>	<ul style="list-style-type: none"> <li>• Review of requirements of the management plan has been undertaken by the management group.</li> <li>• Activities required to maintain the Orchard have been identified and action undertaken either through working group activities or via park staff or other helpers as necessary.</li> </ul>	<ul style="list-style-type: none"> <li>• Review management plan regularly.</li> <li>• Record activities with written and photographic evidence.</li> </ul>

## 5 Management Plan 2021 to 2026

Objective	Actions	Timing	2021	2022	2023	2024	2025	2026
Objective 1: Maintain and develop site management structure	<ul style="list-style-type: none"> <li>Regular and recorded (in minutes) management group meetings as required.</li> </ul>	Throughout the year	X	X	X	X	X	X
	<ul style="list-style-type: none"> <li>Identify and undertake activities to maintain group and wider engagement.</li> </ul>	Throughout the year	X	X	X	X	X	X
Objective 2: Manage and develop the orchard	<ul style="list-style-type: none"> <li>Regularly review actions necessary to manage and develop orchard as part of Management Group meetings.</li> </ul>	Throughout the year	X	X	X	X	X	X
	<ul style="list-style-type: none"> <li>Consider further development and maintenance of new orchard sites, including Ollerset.</li> </ul>	As soon as possible and ongoing	X	X	X	X	X	X
Objective 3: Maintain and develop the site's community use as an educational, training and amenity resource for local schools, residents, societies and organisations.	<ul style="list-style-type: none"> <li>Continue to review and promote the Orchard as a community resource through Facebook and the NMCO website.</li> </ul>	Throughout the year	X	X	X	X	X	X
Objective 4: Maintain and enhance the pond.	<ul style="list-style-type: none"> <li>No actions planned for current management period.</li> </ul>							
Objective 5: Maintain and enhance site infrastructure	<ul style="list-style-type: none"> <li>Accessibility to be kept under consideration.</li> </ul>	As required						



Objective	Actions	Timing	2021	2022	2023	2024	2025	2026
	<ul style="list-style-type: none"> <li>Maintain current infrastructure - paths and access, interpretation boards, benches, gates, boundary walls</li> </ul>	Throughout the year	X	X	X	X	X	X
	<ul style="list-style-type: none"> <li>Review management and maintenance of bee hives on the site in consultation with bee keepers and community support groups.</li> </ul>				X			
Objective 6: Manage soft fruit area in the north-east corner of the field.	<ul style="list-style-type: none"> <li>Ongoing activities to manage soft fruit within the monthly management plan to be reviewed and actioned regularly.</li> </ul>	As required	X	X	X	X	X	X
	<ul style="list-style-type: none"> <li>Weed and prune soft fruit as necessary - see the monthly management plan.</li> </ul>	Spring	X	X	X	X	X	X
Objective 7: Manage and develop boundaries.	<ul style="list-style-type: none"> <li>Manage hedgerows - Maintain the hedgerow at around 5ft 6" to 6 ft in height. Top as needed.</li> <li>Review hedgerow management – decide on balance between trimming to promote wildlife habitat and provision of shelter for orchard.</li> </ul>	Autumn/winter	X	X	X	X	X	X
	<ul style="list-style-type: none"> <li>Review hedgerow management annually</li> </ul>	As required	X	X	X	X	X	X
Objective 8: To maintain and enhance grassland vegetation, communities, associated habitats, features and niches.	<ul style="list-style-type: none"> <li>Mow grass in August/September.</li> </ul>	August/September	X	X	X	X	X	X
Objective 9: Maintain areas of hawthorn/gorse scrub for birds	<ul style="list-style-type: none"> <li>Remove hawthorn, gorse or other saplings from the grassland area.</li> </ul>	Autumn/winter	X			X		

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Objective	Actions	Timing	2021	2022	2023	2024	2025	2026
	• Cut back encroaching hawthorn or gorse.	Autumn/winter	X			X		
Objective 10: Maintain areas of bramble underscrub for invertebrates, small mammals and birds.	• Maintain current extent of bramble.	As required	X	X	X	X	X	X
	• Cut back any bramble encroaching onto the grassland in autumn/winter.	Autumn / winter	X	X	X	X	X	X
Objective 11. To realise the full potential of the site for public and educational use by developing interpretative and educational materials, educational access and organizing events.	• Ongoing activities to be identified as part of management group meetings.	As required	X	X	X	X	X	X
	• Updates to be made to website to improve information on fruit in orchard.		X					
	• Maintain and update interpretation material on boards in the Orchard.	As required	X	X	X	X	X	X
	• Organise at least one public event annually at the orchard to encourage community involvement		X	X	X	X	X	X
Objective 12: Survey and monitor key features	• Consider updating ecological survey to inform development of future management plans.			X				

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<b>Objective</b>	<b>Actions</b>	<b>Timing</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
	<ul style="list-style-type: none"> <li>• Monitor condition of trees and shrubs to inform management plan.</li> </ul>	Ongoing	X	X	X	X	X	X
Objective 13. Review and monitor management plan	<ul style="list-style-type: none"> <li>• Review management plan regularly.</li> </ul>	At least once per year	X	X	X	X	X	X
	<ul style="list-style-type: none"> <li>• Record activities with written and photographic evidence.</li> </ul>	Ongoing	X	X	X	X	X	X

## 6 Monthly workplan

Month	Activities	Harvesting	Compartment 2 – Grassland and scrub
<b>January</b>			Cut back shrubs as needed
	Prune cobnuts if necessary		
	Prune apples and pears if necessary		
	Trim back hedgerows as needed		
<b>February</b>	Trim back hedgerows as needed		
<b>March</b>	Prune cherries if necessary Prune soft fruit if necessary		
<b>April</b>	Prune off mildewed twigs and cankers		
	Undertake weeding around fruit trees		
<b>May</b>	Check any stakes and ties		
	Undertake weeding around fruit trees		
<b>June</b>	One World Festival		
	Thin out apple clusters late June		
	Prune figs		
	Undertake weeding around fruit trees		
		Elderflowers	

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		Tayberries	
<b>July</b>	Pull out ragwort		
	Undertake weeding around fruit trees		
		Red, white and blackcurrants	
		Jostaberry	
		Gooseberries	
		Raspberries	
		Cherries (late)	
<b>August</b>	Cut grass		
	Prune cherries if necessary		
		Boysenberry	
		Opal plum (early) and Victoria plum (late)	
		Oullins Golden Gage (mid)	
		Figs	
		Discovery apple (late)	
		Cobnuts (from mid)	
<b>September</b>	Apple Day	Blackberries	

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		Clapps Favourite Pear	
		Damson (early)	
		Loganberry	
		Japanese wineberry	
		Buerre Hardy Pear (mid while hard) Williams Bon Chretien pear	
	Prune plums if necessary	James Grieve (early-mid) Worcester Pearmain (leave on tree as long as possible for best flavour) Cox's Orange Pippin (mid) Red Devil Apple (late	
<b>October</b>		Egremont russet apple Spartan apple (early-mid) Jonagold apple (mid) Bramley cooking apple	
	Trim back hedgerows as needed	Ornamental Quince Real Quince	



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		Conference pear	
<b>November</b>		Conference pear	Remove any hawthorn, bramble, saplings from grassland.
		Newton Wonder cooking apple	
<b>December</b>			

## 8 Derbyshire Wildlife Trust Survey findings

The original Derbyshire Wildlife Trust survey to inform the first management plan.

### 8.1 Environmental Information

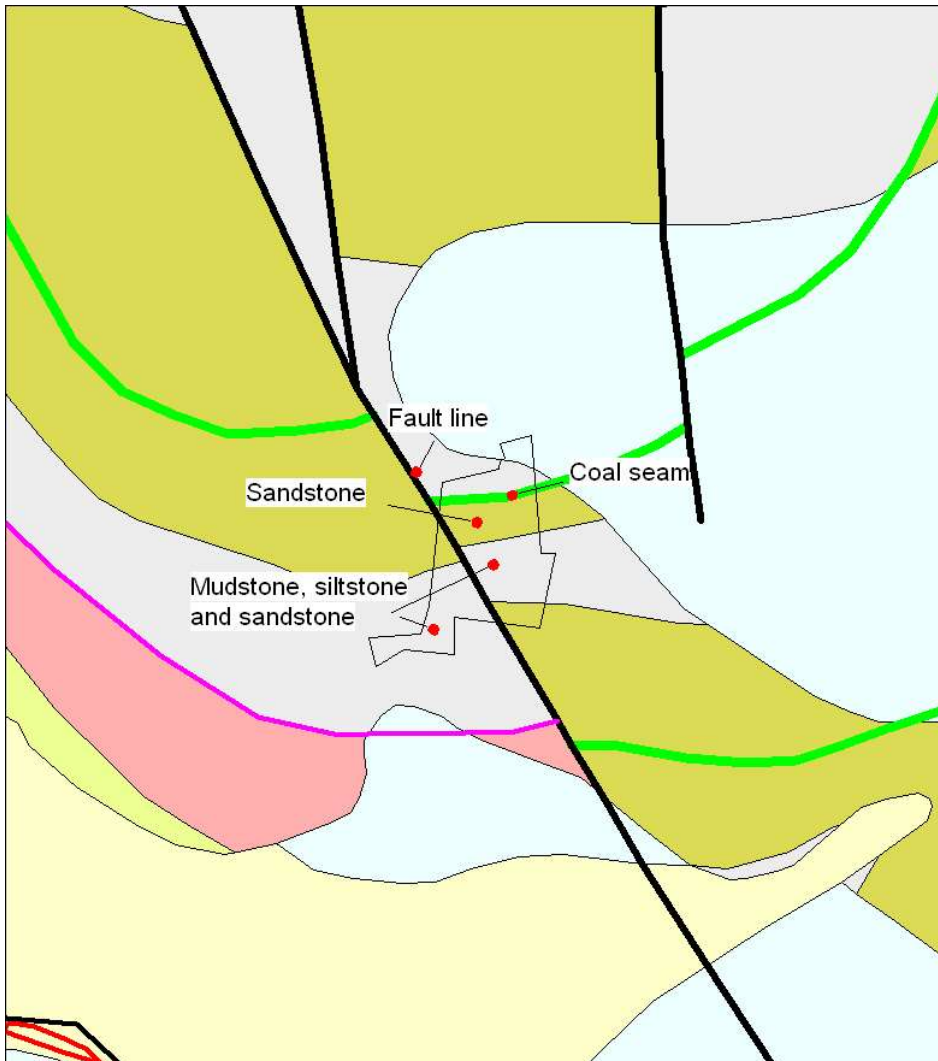
#### 8.1.1 Physical

##### 8.1.1.1 Climate

The orchard lies within the Mild sub-oceanic lowlands and experiences an average rainfall of around 2.57mm / day. Rainfall can be high in this area and there have been a series of wet summers in recent years. The mean summer temperatures (June – August) is 14.49° C and the mean winter temperature is 3.49° C (Dec – Feb). These figures are based on 1961 – 1990 averages for Britain at a resolution of 10-km square.

##### 8.1.1.2 Geology

The site lies over lower coal measures and is illustrated in detail on map 4.



Map 4: Site geology

### 8.1.1.3 Soils and Substrates

There is little detailed information on the soils. However, they appear to be acid to neutral with a low to moderate moisture content. Interestingly the vegetation over the sandstone is more neutral whilst the acid grassland and heather occurs over the mudstone, siltstone and sandstone rock. However, differences may have been influenced by past agricultural treatments such as liming.

### 8.1.1.4 Hydrology

The site occupies a south-facing slope and there are several springs present that have created damper ground in several places, but there is no running water present.

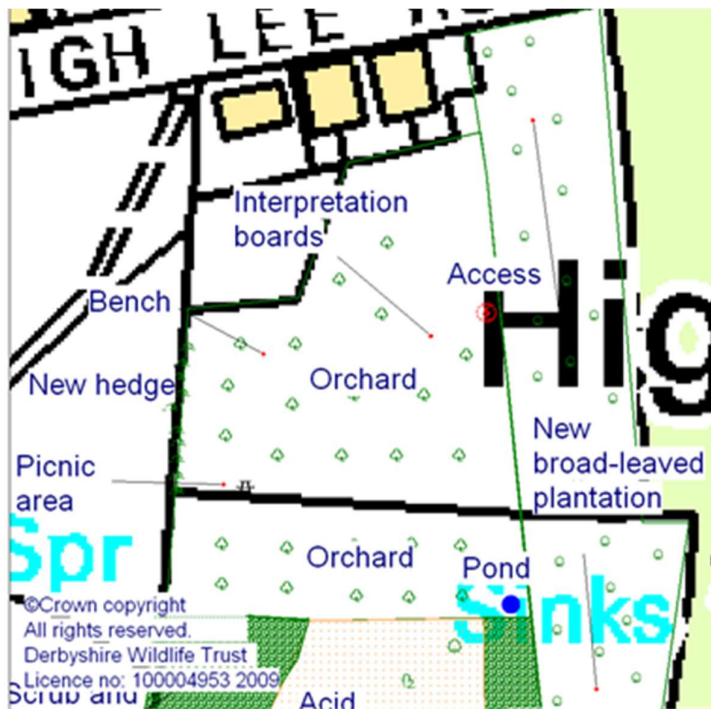
## 8.1.2 Biological

### 8.1.2.1 Flora

#### 8.1.2.1.1 Flora: Habitats / Communities

The Orchard - Compartment 1 (See Map 5) - Size: 0.5 ha

Map 5: Compartment 1 Current Features; The orchard, grassland, pond and boundaries.



#### Feature 1: The Orchard

The orchard is planted with apples, pears, cherry, damson and plum and is surrounded by walls and fences. The fruit trees are well established.

#### Feature 2: Grassland

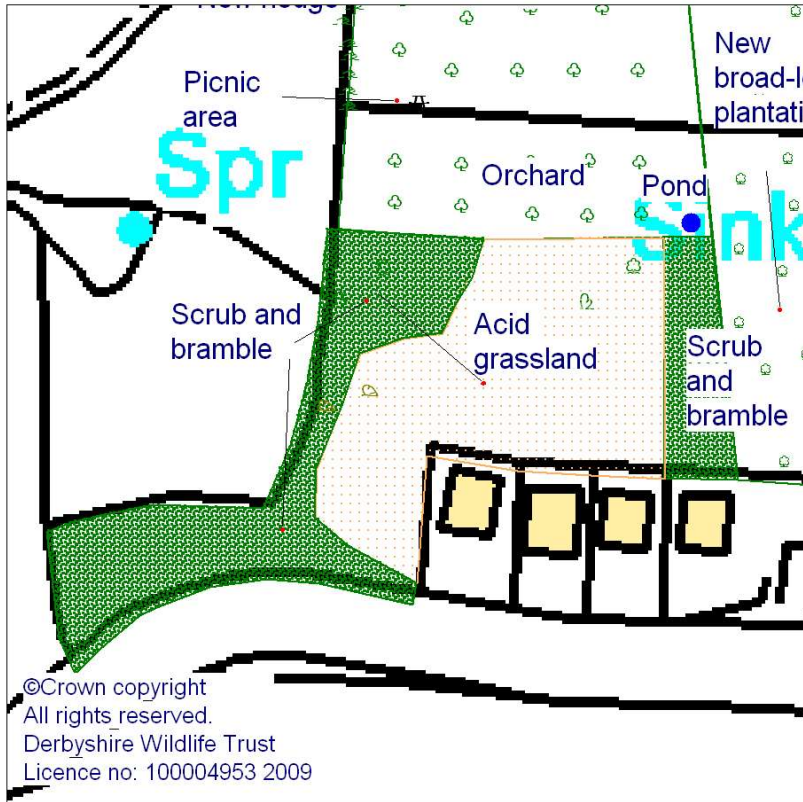
The fruit trees have been planted into grassland vegetation formerly used for grazing. The character of the grassland is neutral to acid and it is of moderate botanical diversity only.

#### Feature 3: The pond

A small pond is present in the south-eastern corner of the field. Plants present include the wetland species marsh marigold, starwort and bogbean. Around the margins of the pond are patches of rushes and tufted hair-grass.

Feature 4: The boundaries of the fields include stone walls, fencing and planted trees and shrubs.

Acid grassland and scrub - Compartment 2 (see Map 6) - Size 0.5 ha



Map 6: Compartment 2 Features; acid grassland, scrub and underscrub

Feature 1: The acid grassland (0.26 ha)

The lower part of the site supports relatively species rich neutral to acid grassland of moderate to high biodiversity value for its plantlife and associated invertebrates. The sward is typically quite fine-leaved with species like red fescue, sweet vernal grass, crested dog's-tail, bent grasses and locally sheep's fescue and heath grass present. More lush areas are characterised by Yorkshire fog with cock's-foot and false-oat grass. There is a relatively rich diversity of associate herb species including locally abundant common knapweed with creeping buttercup, ribwort plantain, clovers and common sorrel. More locally tormentil, cat's-ear, rough hawkbit, heath bedstraw, common bird's-foot-trefoil and harebell occur. The lower steeper part of the site retains small areas of heather in the south-west.

Part of the field is moderately damp and here jointed and soft rushes occur together with broad-leaved dock. At the top of the field the grassland is less diverse and dominated by coarse-leaved grasses with more scattered herbs.

## Feature 2: The scrub and underscrub (0.24 ha)

There are several patches of scrub comprised of mixtures of elder, hawthorn, rowan and broom and areas dominated by bramble underscrub.

### 8.1.2.1.2 Flora: Species

#### Vascular plants

The vascular plants of the site have been well surveyed by both Derbyshire Wildlife Trust in October 2008 and John Hawksford in July 2007. Over 70 species of higher plant have been recorded to date, although a number of these are quite rare. The majority of species are characteristic of grassland habitats with a smaller number associated with either wetter ground or more disturbed ground. In addition there are a number of dwarf shrubs, shrubs and trees.

#### Ferns

The site supports only two species of fern and is not considered to be especially important for this group.

#### Bryophytes

A full bryophyte survey has not been undertaken at the site, but mosses are present associated with the grassland, trees and walls.

### 8.1.2.1.3 Fungi

A full fungal survey has not been undertaken, but the acid grassland has the potential to support waxcap and earth tongue fungi.

### 8.1.2.2 Fauna

#### 8.1.2.2.1 Birds

A variety of birds are present in and around the site including many species typical of the woodland edge habitats such as scrub. For example, dunnock, robin, wren, blackbird, blackcap and willow warbler all occur in areas of scrub and bramble as well as within the woodland. The site is too small to attract ground-nesting grassland species like skylark and meadow pipit. The more mature trees including hawthorn provide foraging opportunities in the canopy and associated with the bark. The presence of the fruit trees will also start to prove attractive to birds that eat buds such as bullfinch.

#### 8.1.2.2.2 Invertebrates

Although a detailed invertebrate survey has not been undertaken the mosaic of habitats present at the site and immediately adjacent will provide a wide range of niches for insects and other invertebrates. The following habitats and microhabitats are of value:

- Bramble – provides good cover and a source of nectar and pollen to insects like bumblebees and hoverflies.
- Hawthorn – mature hawthorn provides fissured bark with cracks and holes as well as foliage and flowers all valuable for insects.
- Acid grassland – the variety of flowering plants and the tussocky structure of the grassland will benefit insects like bumblebees (opportunities for nesting and forage), hoverflies, solitary wasps and bees, spiders and beetles.
- Walls – provide excellent nesting opportunities for insects

- Ponds – used by a wide variety of insects including aquatic and semi-aquatic species, but also terrestrial insects like wasps and hoverflies that may use the pond edges or vegetation to forage. A queen wasp (*Vespula* sp.) was noted at the pond in May 2009.
- Fruit trees – the blossom on the young fruit trees will prove beneficial for butterflies, bees, hoverflies, flower beetles and flies of various types. Later as the trees mature the presence of any deadwood, fissures or holes will provide a new set of niches for invertebrates.

#### 8.1.2.2.3 Amphibians

Common frog and common toad are known from the area and the pond is used as a breeding pond by at least one amphibian species (probably frogs) as tadpoles were observed in May 2009.

#### 8.1.2.3 Alien Invasive / Pest Species

Spanish bluebell occurs within the woodland to the east of the site. Common ragwort is present within the grassland. It is not particularly abundant, but needs to be monitored in case the population increases. Otherwise invasive and pest species are not thought to be a much concern at the current time.

### 8.1.3 Cultural

#### 8.1.3.1 Archaeology

The archaeology of the site has not been surveyed in any detail, but it is believed that there is a mineshaft within the site.

#### 8.1.3.2 Past Land Use

The site once included an orchard (1640s) and this may have been present for some time. However, at some point the land was turned back to pasture and used for rough grazing.

#### 8.1.3.3 Present Land Use

The local community currently uses the site and part of the site has been used to create a new orchard, which will in time mature and produce fruit.

#### 8.1.3.4 Past Management for Nature Conservation

The site has not consciously been used for nature conservation in the past as far as is known. However, extensive grazing and lack of fertilizer use has resulted in the survival of an area of more floristically diverse grassland.

#### 8.1.3.5 Stakeholders

There are a number of stakeholders in the site including the following:-

- Friends of New Mills Community Orchard
- Local Community including residents and schools
- New Mills Town Council
- High Lea Park Wardens

#### 8.1.3.6 Educational Use

The management of the site has already involved local schools and this should if possible be maintained and developed in the coming years.



## 8.2 Nature Conservation Features

### 8.2.1 Evaluation

#### 8.2.1.1 *Size*

The site is small and comprises approximately xx orchard, xx acid grassland and xx scrub and bramble.

#### 8.2.1.2 *Diversity*

The site, though small is relatively rich in different plant species including native species associated with the grassland and other habitats and the introduced species of tree and shrub including the fruit trees.

Animal populations on the site are unlikely to be large, but there are a wide range of niches available and given the rich mosaic of habitats occurring in close proximity the site is likely to attract a varied assortment of animals especially insects.

#### 8.2.1.3 *Naturalness*

The site includes some semi-natural habitats that have developed as a result of traditional livestock farming such as the acid grassland. The scrub and bramble has developed naturally as a result of a cessation in grazing management. The trees and shrubs associated with the orchard are introduced and these habitats have a lower degree of naturalness.

#### 8.2.1.4 *Rarity*

The unimproved acid grassland is a declining habitat (due to more intensive agricultural methods) and even small areas can be important refuges for a variety of native plant species. Traditional orchards have also waxed and waned over the centuries and in the past 100 years have perhaps declined by around 50% in Derbyshire . None of the species so far recorded from the site have any rarity status.

#### 8.2.1.5 *Fragility*

The acid grassland is vulnerable to changes in management. The orchard is likely to be vulnerable to especially severe winters and late frosts and potentially droughts – though this should not happen in New Mills. Fruit trees are also likely to be vulnerable to some pest species and possibly even birds like bullfinches which can damage trees.

#### 8.2.1.6 *Typicalness*

The acid grassland vegetation is very typical of the area, though has become rare in recent decades. The orchard is less typical as few other orchards occur in this part of the Peak District.

#### 8.2.1.7 *Recorded History*

There is some historical information relating to the site based on old maps and more recently local knowledge.

#### 8.2.1.8 *Position in an Ecological Unit*

The site lies immediately east of an area of recently planted broad-leaved woodland and mature broad-leaved secondary woodland and to the west there are open fields of semi-improved and possibly unimproved grassland as well as gorse scrub along the higher parts of the slope. Though small the site makes a unique contribution to the High Lea Park.

#### 8.2.1.9 *Potential Value*

The potential value of the site can be realized by adopting a management programme that seeks to balance the existing habitats and the new habitats.

#### 8.2.1.10 *Intrinsic Appeal*

The site has high intrinsic appeal due to the variety of habitats, good access and excellent views. The surrounding landscape is very attractive.

### 8.3 Ecological relationships and implications for management

Within compartment 1 some changes in the grassland vegetation should be anticipated as the fruit trees grow and begin to take up more space and cast more shade. These changes are not thought likely to be detrimental as such, but there could be an opportunity to plant more shade tolerant herbs under the fruit trees as time goes on.

Within compartment 2 there is a need for sympathetic grazing management to maintain the current species and structural diversity of the grassland. This may be difficult if suitable grazing animals cannot be found. The relationship between the scrub and the grassland also needs to be considered. Under management will allow the scrub and bramble to spread and gradually it will become more difficult to manage the grassland areas. However, the established scrub provides a valuable associated habitat to the grassland and the nearby woodland. Limits to the extent of scrub seen as desirable on the site need to be set.

The method of management for the acid grassland also needs to be carefully considered. Horses have been used in recent years to graze the grassland and whilst this may be compatible with the objective of maintaining the diversity of the grassland it needs close monitoring. Horses graze very close to the ground and can damage swards and reduce structural diversity which can reduce the value of the grassland for invertebrates. However, it is recognised that management options for the grassland may be limited.

### 8.4 Site management rationale

The rationale for management is based on an assessment of the nature conservation value of the various habitats found on the site at the current time. The assessment recognizes the value of the orchard, hedgerows, the pond, acid grassland and scrub and underscrub habitats. This mosaic collectively provides a small but very varied area of habitats and niches that can support a reasonably high diversity of plants and animals.

There are potentially three habitats recognized nationally as being of conservation value; the orchard, the pond and the unimproved acid grassland. However, of these only the acid grassland would meet the current definition for its habitat type.

The management of all of the habitats present on the site appears to be achievable without compromising the aims of establishing an orchard and a resource for the local community.

Unimproved acid grassland requires some form of management on a fairly regular basis if it is to be maintained. This can be achieved by grazing or by mowing. Management should seek to maintain

both the botanical diversity of the grassland and the structural diversity of the grassland. The latter attribute is important for invertebrates, small mammals and birds.

The site provides an excellent outdoor workshop for local schools and community groups and seeking to include this as a part of the site's use is considered important.

## 8.5 Site Management

### 8.5.1 Compartment 1

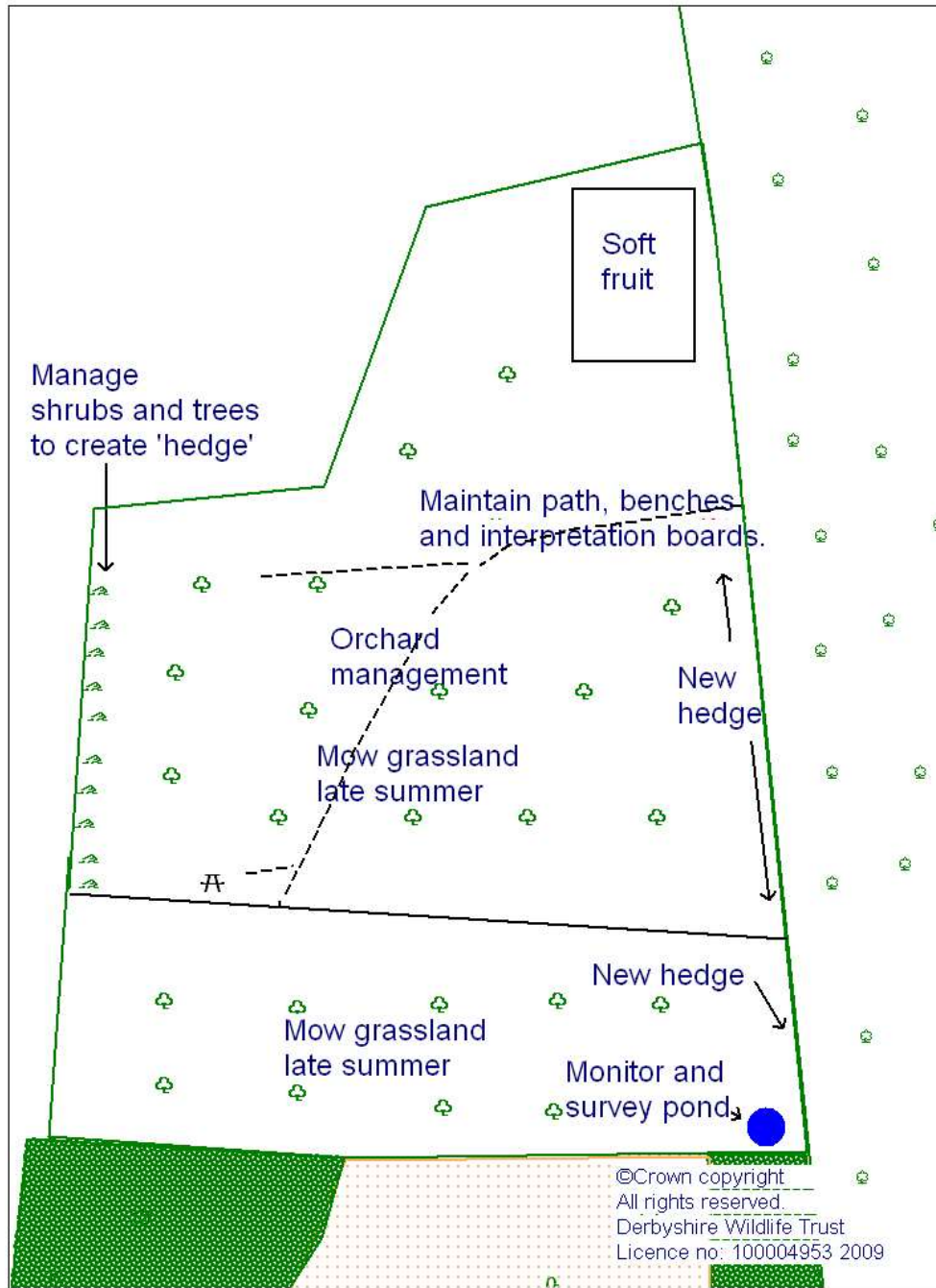
#### 8.5.1.1 *Feature 1: Orchard management*

##### 8.5.1.1.1 Post Planting Treatment

An area of at least 3 feet [1 m] diameter should be kept weed free for 2-3 years minimum. This can be achieved with a mulch of organic material or polythene or a mulch mat, or be kept clean with a herbicide. An application of fertiliser around the tree can be beneficial, particularly in the second season after planting.

##### 8.5.1.1.2 Guarding Young Trees

In many situations, particularly domestic gardens, no form of guard is necessary. A plastic mesh guard should be used, as rabbits are a threat. The presence of hare or deer will require a taller 'tree tube', up to 6 feet [1.8m] tall. Remember that newly planted trees may prove attractive to domestic livestock. Therefore, check boundary fences. A couple of sheep or bullocks overnight can cause immense damage.



Map 7 Key management proposals for Compartment 1

#### 8.5.1.1.3 Guarding Orchard Trees

Standard orchards are often grazed by sheep and where this is the case each tree will need an individual guard. Traditional practice was to plant standard trees with a tall stake and attach a 6ft [1.8m] tall heavy gauge wiremesh tube to the stake. Tall staking has been proven to produce unstable trees with weak stems. Furthermore, the wiremesh guard generally damages the tree by rubbing or constricting. It is better to plant a tree inside a guard that is physically detached from the tree. This type of guard can be used for trees from maiden up to standard size and does not cause them physical damage. It consists of:-

- 1 Spiral rabbit guard
- 3 x 5'6"[1.65m] tanalised stakes
- A length of 3'6" [ 1 m] sheep netting
- 3 lengths of tanalised rail or batten
- A length of barbed wire
- Nails and fencing staples

N.B. A 50m roll of sheep netting will build at least 15 such guards. Stock or pig netting is not adequate for this guard. It is designed to exclude sheep, which are the best means of grazing an orchard. Cattle and goats are inadvisable, particularly in a young orchard. On no account put horses in an orchard if you value the trees.

The overall height of the guard is approximately 4 feet [1.2m], assuming the stakes are driven 18 inches [45 cm] into the ground. The stakes are driven in 18 inches [45 cm] from the base of the tree, to form the points of an equilateral triangle.

#### 8.5.1.2 Feature 2: The grassland

##### 8.5.1.2.1 Mowing

The most likely form of management for the grassland beneath the orchard (in the absence or undesirability of sheep) is to mow the grassland around fruit trees in late summer, leave longer grass at edges.

##### 8.5.1.2.2 Enhancing the grassland

Over time as the fruit trees grow and start to develop more shade casting crowns the grassland could be enhanced by introducing more shade tolerant plants such as bluebell, red campion, greater stitchwort, wood speedwell and wood avens.

#### 8.5.1.3 Feature 3: Pond

The pond is subject to drying out in prolonged dry periods.

It is not currently considered to be a significant problem, but if this view changes, solutions could include deepening the pond slightly or clay lining the pond so that it holds water through dry periods.

In general leave the vegetation around the pond uncut through the summer. Cut back every other year, but prevent development of bramble underscrub and shrubs or dominance by dense tall herb vegetation around pond. When cutting, cut quite high to avoid removing vegetation close to the ground where invertebrates and amphibians will find shelter and food.

Several aquatic weeds can become quite dominant in ponds and it is recommended that a proportion (1/4 to ½) of the vegetation is cleared out in the autumn if this is perceived as a problem. Removed vegetation should be left adjacent to the pond for a time so that any animals can escape back to the water and then should be removed.

#### 8.5.1.3.1 Invasive aliens

Many species of imported plants have escaped from garden ponds into the wild and a few are causing very serious ecological damage to ponds and rivers. Part of the problem is the ability of these plants to reproduce from very small fragments and then form dense choking mats of vegetation. Some of these species are still on sale in garden centres but should never be planted in your pond – they would take it over in no time.

Avoid the following:

- |  |                            |
|--|----------------------------|
| • Fairy or water fern                                  | Azolla filiculoides        |
| • New Zealand pygmyweed/<br>Australian swamp-stonecrop | Crassula helmsii.          |
| • Parrot's-feather                                     | Myriophyllum aquaticum.    |
| • Floating pennywort                                   | Hydrocotyle ranunculoides. |
| • Canadian pondweed                                    | Elodea canadensis.         |
| • Nuttall's pondweed                                   | Elodea nuttallii.          |
| • Curly waterweed                                      | Lagarosiphon major.        |

#### 8.5.1.4 Feature 4: Hedgerows

The hedgerow on the western boundary may need to be trimmed back and topped. Ideally management should try to promote the development of a dense line of trees and shrubs that can act as a shelterbelt for the meadow.

##### 8.5.1.4.1 New hedgerows

Parts of the eastern boundary could be planted with a new hedge of hazel, field maple, hawthorn, alder buckthorn and dogwood.

#### 8.5.1.5 Feature 5: Soft fruit area

There is a small area in the north-east corner of the field that is to be used to grow soft fruit.

#### 8.5.1.6 Feature 6: Forest Garden area

There is potential for a trial area based on Forest Gardening techniques; a form of permaculture based on a natural, low maintenance form of cultivation of edible plants at ground, shrub and tree layers, and to use this as an educational resource.

#### 8.5.2 Compartment 2: Acid grassland and scrub (see Map 8)

*8.5.2.1 Grassland management*

*8.5.2.1.1 Option 1 - graze the grassland with sheep or horses*

In order to graze the field with sheep capital works will be needed to stock-proof the field on three sides and stock may also need a water source. A local grazier would need to be found. If horses can be found some stock proofing may still be needed along the bottom of the site.

The ideal grazing period would be mid-July – September. How many weeks the grass is grazed for depends on the stocking density which in turn depends on whether horses or sheep are used. A rough guide would be as follows:-

Horses 2 for 2 weeks or 1 for a month

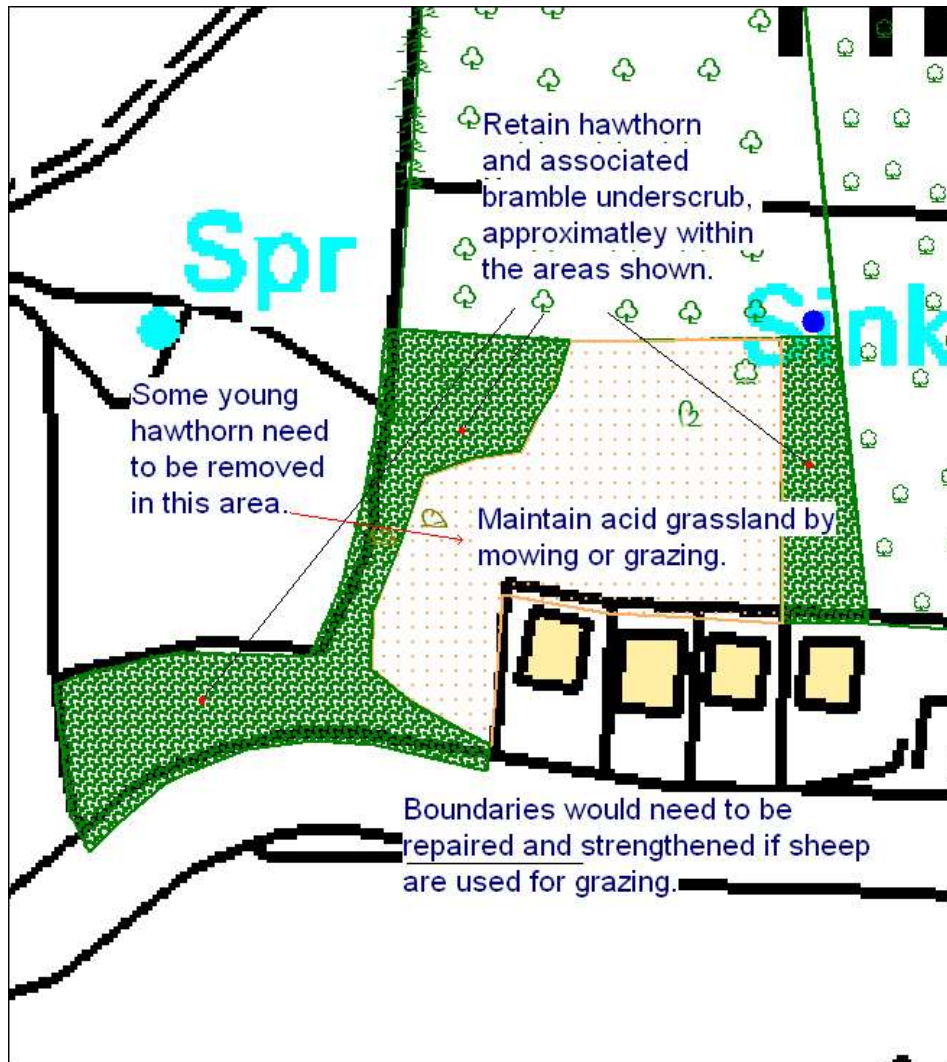
Sheep 8 - 10 for 2 weeks or 5 for a month

*8.5.2.1.2 Option 2 – mow the grassland on a rotation*

The grassland could be mown mechanically using a strimmer. If roughly one-third of the grassland was cut every year this would maintain it as rough tussocky grassland but hopefully check the spread of bramble and hawthorn. Cut relatively high leaving vegetation at various heights of between 2” to 6” to create structural diversity. Collect up the cuttings and remove.

*8.5.2.2 Scrub*

Retain large hawthorn trees and surrounding bramble under-scrub as habitat for birds such as willow warbler, blackcap and dunnock.



Map 8: Key management proposals for compartment 2.

#### 8.5.3 Educational resource

The site has great potential for use by schools and local community groups. Links with local schools should be maintained and extended and educational materials linked to the National Curriculum could be produced.

School children could assist with some of the enhancement work such as a butterfly garden, pruning or plug planting (once fruit trees have developed further).

#### 8.5.4 Surveys and monitoring

Some additional surveys focused on insect life and birds could provide useful information on interactions between plants and animals as well as helping to inform management.



## 8.6 Vascular Plant Records

Based on site visits made by Kieron Huston in October 2007 and May 2009 and John Hawksford in July 2007.

Scientific name	Common name	Abundance within the site
<i>Agrostis capillaris</i>	Common bent	LF
<i>Alopecurus geniculatus</i>	Marsh Fox-tail	VR
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass	A
<i>Arrhenatherum elatius</i>	False Oat-grass	LF
<i>Briza media</i>	Quaking grass	VR
<i>Buddleja davidii</i>	Butterfly-bush	R
<i>Calluna vulgaris</i>	Heather	LF
<i>Campanula rotundifolia</i>	Harebell	LF
<i>Centaurea nigra</i>	Common Knapweed	A
<i>Cerastium fontanum</i>	Common Mouse-ear	O
<i>Chamerion angustifolium</i>	Rosebay willowherb	O
<i>Corylus avellana</i>	Hazel	R
<i>Cotoneaster sp.</i>	A Cotoneaster	R
<i>Crataegus monogyna</i>	Hawthorn	LF
<i>Crepis capillaris</i>	Smooth hawk's-beard	O
<i>Cynosurus cristatus</i>	Crested Dog's-tail	F
<i>Cytisus scoparius</i>	Broom	R
<i>Dactylis glomerata</i>	Cock's-foot	LF
<i>Danthonia decumbens</i>	Heath-grass	O
<i>Deschampsia cespitosa</i>	Tufted hair-grass	LF
<i>Digitalis purpurea</i>	Foxglove	O
<i>Dryopteris dilatata</i>	Broad buckler-fern	VR
<i>Dryopteris filix-mas</i>	Male fern	R
<i>Elytrigia repens</i>	Common couch	R

<i>Epilobium hirsutum</i>	Great willowherb	VR
<i>Epilobium obscurum</i>	Short-fruited willowherb	VR
<i>Festuca ovina sens.str.</i>	Sheep's Fescue	LF
<i>Festuca rubra agg.</i>	Red Fescue	F
<i>Galium saxatile</i>	Heath Bedstraw	LF
<i>Geranium endressi x versicolor (G. x oxonianum)</i>	Druce's Crane's-bill	VR
<i>Glyceria declinata</i>	Small Sweet-grass	VR
<i>Hieracium acuminatum</i>	A hawkweed	R
<i>Hieracium sebaudum</i>	A hawkweed	R
<i>Holcus lanatus</i>	Yorkshire-fog	LA
<i>Holcus mollis</i>	Creeping soft-grass	R
<i>Hypochaeris radicata</i>	Cat's-ear	O
<i>Juncus articulatus</i>	Jointed Rush	O
<i>Juncus effusus</i>	Soft Rush	R
<i>Lathyrus pratensis</i>	Meadow vetchling	LF
<i>Lemna minor</i>	Common duckweed	VR
<i>Leontodon autumnalis</i>	Autumnal Hawkbit	O
<i>Leontodon hispidus</i>	Rough Hawkbit	O
<i>Lolium perenne</i>	Perennial Rye-grass	O - F
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	F
<i>Luzula campestris</i>	Field Wood-rush	F
<i>Myosotis arvensis</i>	Field forget-me-not	VR
<i>Persicaria maculosa</i>	Redshank	R
<i>Plantago lanceolata</i>	Ribwort Plantain	F
<i>Poa trivialis</i>	Rough meadow grass	R
<i>Pilosella officinarum</i>	Mouse-ear hawkweed	LF
<i>Polygonum aviculare agg.</i>	Knotgrass	R
<i>Potentilla anglica</i>	Trailing tormentil	R
<i>Potentilla erecta</i>	Tormentil	LF
<i>Prunella vulgaris</i>	Selfheal	R

<i>Prunus spinosa</i>	Blackthorn	R
<i>Quercus robur</i> agg.	Oak (seedlings)	O
<i>Ranunculus acris</i>	Meadow buttercup	R
<i>Ranunculus repens</i>	Creeping Buttercup	O - LF
<i>Rhinanthus minor</i>	Yellow rattle	R – O
<i>Rubus fruticosus</i> agg.	Bramble	LD
<i>Rumex acetosa</i> ssp. <i>acetosa</i>	Common Sorrel	F
<i>Rumex acetosella</i>	Sheep's sorrel	O – LF
<i>Rumex crispus</i> ssp. <i>crispus</i>	Curled dock	VR
<i>Rumex obtusifolius</i>	Broad-leaved dock	LF
<i>Slaix</i> sp.	A sallow	R
<i>Sambucus nigra</i>	Elder	LF
<i>Senecio jacobaea</i>	Common ragwort	O
<i>Sorbus aucuparia</i>	Rowan	O
<i>Taraxacum officinale</i> agg.	Dandelion	O
<i>Trifolium pratense</i>	Red Clover	F
<i>Trifolium repens</i>	White clover	O
<i>Ulex gallii</i>	Western gorse	R
<i>Urtica dioica</i>	Common nettle	R
<i>Vicium sepium</i>	Bush vetch	R

## 8.7 Birds

Recorded from the site and adjacent habitats

Blue tit

Rook

Great tit

Willow warbler

Jackdaw

Blackbird

Robin  
Blackcap  
Dunnock  
Chaffinch  
Long-tailed tit  
Buzzard

**Butterflies**

Speckled wood  
Peacock  
Orange tip  
Small white

**Other insects observed**

Mining bee (*Andrena* sp.)

8.8 [Legislation and Policy](#)

**Wildlife Legislation**

**Legal obligation: The Wildlife and Countryside Act 1981 (and subsequent amendments)**

There is a legal obligation not to damage or disturb protected species or breeding birds during the breeding season. The Act also relates to the spread of undesirable species such as Japanese Knotweed and Himalayan Balsam and restrictions on the introduction of plant and animal species.

**General Legislation**

**Legal obligation: The Occupiers Liability Act**

This Act imposes on the owners and occupiers of the land an obligation to ensure that every reasonable care is taken to remove any risk to visitors and trespassers alike.

**Legal obligation: The Health and Safety at Work Act 1974**

All operations carried out on site must be undertaken by appropriately trained personnel using methods and equipment approved by the Health and Safety Executive and also in compliance with the employers written Health and Safety procedures.

**Legal obligation: The Weeds Act 1959**

The Control of Weeds Act requires that the following plants are controlled:

- Creeping Thistle (*Cirsium arvense*)
- Curled Dock (*Rumex crispus*)
- Broad-leaved Dock (*Rumex obtusifolius*)
- Ragwort (*Senecio jacobaea*)
- Spear Thistle (*Cirsium vulgare*)

**Legal obligation: The Environmental Protection Act 1990**

This Act encompasses a wide range of issues aimed at both businesses and individuals but is ultimately concerned with maintaining the quality of the environment.

**Non-legal accepted local practice**

**Health and Safety Policy**

All relevant Health and Safety policies must be complied with by anyone undertaking work on site.