Riverside Meadow, Milton Ernest,

Baseline Ecological assessment and suggestions for management.

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Ecological Consultancy Services

For Bedfordshire and neighbouring counties

Beds RCC

Bedfordshire Rural Communities Charity

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Contents

Introduction 2
Current Features 3
Wildflower Grassland 3
Close Mown Grassland 3
Hedges 4
Riverside Willows 5
Newly planted trees 7
Additional features 7
Suggested management 8
Wildflower Grassland 8
Close mown grassland 8
Hedges 9
Riverside Willows 9
Newly planted trees 9
Additional features 10
Conclusions 11

Fig 1. A Google Earth extract of the area.

Introduction

Riverside Meadow, Milton Ernest is owned and managed by Milton Ernest Parish Council, the extent of the site is indicated by the blue line on fig 1. It is a public access amenity space managed for people and wildlife. It consists of a riverside meadow with boundary hedges and a riverfront featuring mature trees overhanging the river. There are recently planted copse of young trees and occasional single shrubs and trees. The meadow varies from nearly flat along the village side to quite steeply sloped near the river.

Recent management of the site has included trimming of some of the hedges, planting of new trees, clearing dense bramble and willows near the river and cutting the grass.

The Council aspires for the site to become a well-managed site for wildlife that allows for quiet recreation by the people of Milton Ernest.

The site was visited during April and May by BedsRCC's Ecology and Environment Office r and surveyed for habitats and species, representatives of the council were consulted on site about what is done at the moment and their aspirations for the future.

A number of suggestions are contained within this report that will help to achieve the Council's aim of creating a welcoming public access environment whilst enhancing the ecological value of the site.

Current Features

Wildflower Grassland

Fig. 2. Grassland

The site is dominated by species rich neutral grassland with abundant wildflowers (listed in detail in the species list appended to this document). There are some areas which are beginning to develop scrub in the form of occasional Elder plants and other areas that have been overplanted with trees. Many of the plants present are larger than might be expected of wild flowers and are indicative of the site being seeded and being of high nutrient levels.

Close Mown Grassland

Fig 3. Close mown grassland

Paths and some other areas are maintained by regular mowing. The paths pass around and through the site giving rise to areas of close mown grassland which feature fewer wildflowers than the less frequently mown grass.

Hedges

The boundary hedges are in varying ownership and maintained under different regimes.

The western boundary hedge

Part of the northern boundary hedge

The northern boundary hedge.

The eastern and western boundary hedges are left to grow as they will and these provide rich habitat and both early nectar sources and autumn fruits for wildlife.

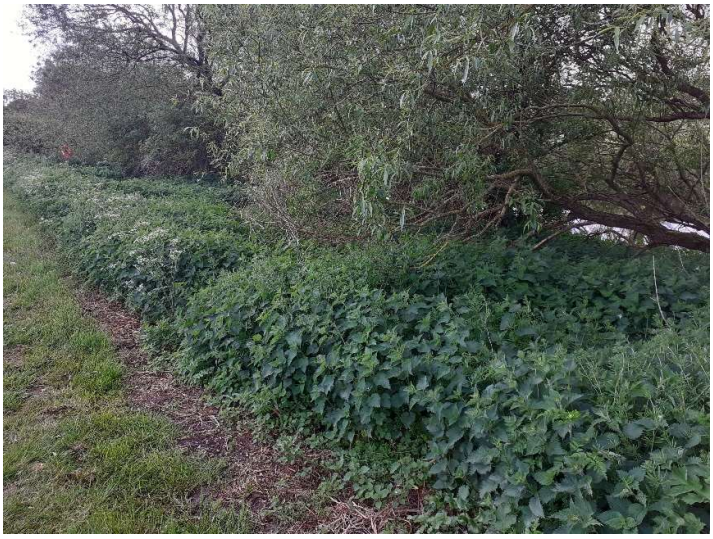
The northern boundary hedge is treated in an unconventional way and is trimmed in different ways in different sections leading to a varied height and structure. In the most part this has given rise to a range of microhabitats within the hedge and is a desirable condition however in some places this has been more closely managed, resulting in more of a "garden" feel with reduced wildlife value. One area has been mulched and has no ground flora giving rise to a functional gap in the hedge. Elsewhere the ground flora is growing well providing the vital ground level shelter so important in wildlife friendly hedgerows.

Riverside Willows

Riverside trees viewed from an area that has been recently cleared.

The riverside willows are providing extremely good habitat for a wide range of wildlife, specifically invertebrates, birds, mammals – with bat as well as cover for otters and fish. Willows provide habitat for the second largest variety of invertebrates of any tree species in the UK and those

examples found here are maximizing that potential with their varied age structure, presence of fresh growth and dead wood, natural fractures, splits and hollows and roots being both on the dry bank and going into the river. The branches draping into the river provide good additional habitats that are uncommon. The log and brash piles (hibernacula) resulting from management of the willows provide additional habitats.



Nettle dominated ground flora under the riverside trees.

Beneath the willows the ground flora features few plants other than Common nettle and Hogweed, with occasional areas of bramble and piles of cut willow branches and in one place, a hay bale. In some of the cut willow log piles could be seen invertebrate borings of the right size and shape for Musk Beetle (*Aromia moschata*) an uncommon native beetle.

Willow branches with beetle borings.

Newly planted trees

Some newly planted trees

Two areas have been planted with a variety of trees of uncertain type and origin to create two new copse areas. A Rowan has been planted in the center of the site.

Additional features

Piles of cut vegetation.

Piles of cut vegetation

There are several piles of cut vegetation scattered about the site, some of which are constructed hibernacula. These will provide shelter and habitat for a wide range of invertebrates, small mammals and potentially Grass Snakes.

Straw bale

A hay bale is present on the river bank in the south east corner. Whilst this will decay and provide good habitat for invertebrates, small mammals and grass snakes.

Cleared river bank

A recently cleared area of river bank.

Some areas have recently been cleared of the dense vegetation that were engulfing the river banks, these will provide variety to the habitats in the area but the riverside rivers and their overhanging branches will provide a greater diversity than the cleared areas do.

Suggested management

The site is generally being managed in a sensitive way to encourage both wildlife and people.

Wildflower Grassland

The grassland is developing a diverse and species rich flora although it is beginning to develop some scrub. There are no other undesirable species present and there is a good mix of species already present to spread throughout the site.

The site is not suitable for grazing due to its open nature and small size and as such cutting is the recommended grassland management technique.

A single full cut should be undertaken once a year in Late August/ early September.

The cut material should be raked up and either made into bales and removed from site or piled on top of the existing vegetation piles.

The two small elder trees currently within the grassland can be left but no additional scrub should be allowed to grow on site.

Close mown grassland

The close mown grass providing access around and within the site and creating picnic areas covers a relatively large proportion of the site if it were to be purely of wildlife interest but is ideal to allow the use of the site for quiet recreation.

Careful consideration should be given to any plans to increase the area of close mown grassland as it will be to the detriment of the wildlife value of the site.

Consideration should be given to reducing the area of close mown grass at the entrance to the site to a 3m walkway.

Close mown grassland should be managed by regular mowing during the growing season adjusted to varying annual conditions (six cuts from March to October should suffice).

Hedges

Some of the hedges do not appear to be managed and have developed a varied structure and provide early nectar and late food sources for wildlife. Other hedges are annually or more frequently trimmed and are of less wildlife and more amenity value. One area of hedgerow is being managed as part of gardens.

The northern boundary hedge has been maintained in an unconventional way, being cut at varying heights and thicknesses and this has resulted (in general) in a greater variety of habitat diversity than might normally be present within a conventionally managed hedge. The hedge can generally continue to be managed in this way moving forward with the hedge being trimmed in winter each year. However, there is an area managed as part of a gardens and this should be investigated as to who is managing it like that and whether it should be brought into the same management as the rest of the hedge. The section has a bench and mulched base and as such has much reduced wildlife value; it also creates a break in the hedge thus further reducing the wildlife value of the entire hedge.

Consideration should be given to removing the bench and mulch at this location and gap filling the holes with native hedge plant species (such as Common Hawthorn). The ground flora should be allowed to re-generate naturally.

There is a wide break in the hedge at the entrance to the site this reduces the connectivity of the hedge and its value as a wildlife corridor. See the section on the Entrance below for more details on this.

Riverside Willows

The riverside willows are providing an uncommon and very rich wildlife habitat, including potential bat roosts and should not be over-managed. The Parish Council should consider having a Bat survey undertaken.

The condition of the trees will need to be monitored - they should be added to the Council's regular tree safety assessment schedule.

Limbs or trees that pose a direct threat to site users or interfere with riparian responsibilities should be managed but additional tree cutting should be avoided.

The regrowth of willow limbs following pruning provides good habitat for the Musk Beetle, there should be sufficient habitat available following essential maintenance but monitoring should be undertaken to ensure that there is some young (under 10 years old) willow growing on site.

Newly planted trees

There are two areas of newly planted trees and one additional standard tree. The main areas of wildlife value of the site are the grassland and riverside willows and additional tree planting will have a negative impact on those features.

The newly planted trees should be monitored and should they fail they should be replaced with native species local stock trees of the youngest age available. (Younger trees take better and become established faster than older trees but don't have the same immediate visual impact as larger trees).

Consideration should be given to maintaining short grass around the base of the newly planted trees to reduce competition for water with long grass during the prolonged dry season we are now experiencing. Care needs to be taken when doing this so as not to damage the trees during cutting. (Herbicides should not be used here.)

Two entrance feature trees are covered in more detail below.

Additional features

Piles of cut vegetation

There are enough of these present on a site of this size so the creation of additional piles should be avoided. Vegetation arising from future management should be added to those piles already present.

Consideration should be given to putting up temporary interpretation panels when the piles are added to notifying the public that they have been created deliberately to provide additional habitat for wildlife.

Hay bale

There should be sufficient vegetation from onsite management to create these types of habitat in future.

Cleared river bank

The cleared areas of river bank have been re-seeded with an amenity grassland seed mix and the growth of vegetation should be monitored to ensure the banks are stabilizing and are not going to become a sediment source for the river over the winter.

Regular mowing will ensure the vegetation becomes densely established and the areas are not re-taken over by nettles.

Should the amenity grassland mix struggle to become established then consideration should be given to trying an alternative seed mix, such as Emorsgate EP1 - a more naturalistic seed mix suited to river banks on the site. This could be applied during September to give time for the grasses to become established before winter.

Entrance feature

Currently there are no entrance features and nothing stopping vehicular access to the site.

A view of the site entrance

Consideration should be given to planting additional hedging and standard trees either side of the entrance to narrow it down whilst not reducing the open feel. Structures such as fold down bollards may be required to prevent unwanted vehicular entry long term.

Interpretation

The site lends its self to two types of interpretation: a traditional board at the entrance highlighting the sites ownership, purpose, its features and how they are managed and how visitors are expected to behave (clear up after their dogs etc.); and temporary, informal signs explaining particular management that has been applied to the site, such as explaining the vegetation piles, why the grass has been cut at the time of year it has, why the hedges have been trimmed etc. The temporary signs can be simple laminated A4 sheets or small staked blackboards that can be sign written and moved about.

There should be a dedicated area on the Milton Ernest Parish Council website about the site detailing similar information to the main interpretation board with additional news type information such as “next week we’ll be undertaking the annual grassland cut, for more information contact…”

Benches and additional seating

The site currently features some benches and picnic benches but additional seating could be added to the site to allow for informal group education to be undertaken here. A ring of suitable logs firmly embedded in the ground in both upright and lying flat configuration could be used for this purpose (preferably English Oak). These need to be on a relatively flat area and not too close to the river.

Conclusions

This site features species rich grassland, hedgerows, newly planted trees and riverside willows along with other small areas of habitat providing some good opportunities for wildlife that are easily accessible for local people to enjoy. In general, the site is currently well managed for this purpose and, with a few small changes and additions, this site will be even better for people and wildlife. It is important to clearly communicate the intentions of management on the site so that users can understand and appreciate what is being done here. This should be undertaken in a variety of ways

to reach as many of the local users as possible whilst not attempting to increase the use of the site by visitors from too far afield as its small size would not bear high visitors numbers.

Species list

Name	Species	Abundance	Notes
General and riverside plants			
Broad Leaved Plantain	*Plantago major*		
Common Daisy	*Bellis perennis*		
Ribwort Plantain	*Plantago lanceolata*		
Common Nettle	*Urtica dioica*		
Common Hogweed	*Heracleum sphondylium*		
Yellow Iris	*Iris pseudacorus*		By Riverside
Broad Leaved Dock	*Rumex obtusifolius*		
Common Cleavers	*Galium aparine*		
Willow sp.	*Salix spp.*		
Garlic Mustard	*Alliaria petiolata*		
Dandelion	*Taraxacum spp.*		
Great Willowherb	*Epilobium hirsutum*		
Sedge sp.	*Carex sp.*		By Riverside
Elder	*Sambucus nigra*		
Cow Parsley	*Anthriscus sylvestris*		
Wild Fennel	*Foeniculum vulgare*		
Crack Willow	*Salix × fragilis*		
Wild Hop	*Humulus lupulus*		
Ground Ivy	*Glechoma hederacea*		
Wild Angelica	*Angelica sylvestris*		
White Deadnettle	*Lamium album*		
Osier sp.	*Salix viminalis*		
Hedge plants			
Rowan	*Sorbus aucuparia*		Hedge
Dogwood	*Cornus sanguinea*		Hedge
Common Hawthorn	*Crataegus monogyna*		Hedge
Field Maple	*Acer campestre*		Hedge
Hazel	*Corylus avellana*		Hedge
Rose sp.	*Rosa sp.*		Hedge
Guelder Rose	*Viburnum opulus*		Hedge
Silver Birch	*Betula pendula*		Hedge
Cherry sp.	*Prunus sp.*		Hedge
Wild Privet	*Ligustrum vulgare*		Hedge
Meadow Plants			
Bulbous Buttercup	*Ranunculus bulbosus*	Common	
Cow Parsley	*Anthriscus sylvestris*	Occasional	
Cowslip	*Primula veris*	Abundant	
Yellow Rattle	*Rhinanthus minor*	Rare	
Common Nettle	*Urtica dioica*	Rare	
Common Hogweed	*Heracleum sphondylium*	Occasional	
Ribwort Plantain	*Plantago lanceolata*	Occasional	

Hoary Plantain	*Plantago media*	Occasional	
Oxeye Daisy	*Leucanthemum vulgare*	Common	
Greater Knapweed	*Centaurea scabiosa*	Occasional	
Black Knapweed	*Centaurea nigra*	Occasional	
Lady's Bedstraw	*Galium verum*	Occasional	
Common Sorrel	*Rumex acetosa*	Occasional	
Dandelion	*Taraxacum spp.*	Rare	
Germander Speedwell	*Veronica chamaedrys*	Rare	
Common Vetch	*Vicia sativa*	Rare	
Elder	*Sambucus nigra*	Rare	
Spear Thistle	*Cirsium vulgare*	Rare	
Rough Hawk's Beard	*Crepis biennis*	Rare	
Red Clover	*Trifolium pratense*	Rare	
Daisy	*Bellis perennis*	Occasional	
Broad leaved Plantain	*Plantago major*	Occasional	
Black Medic	*Medicago lupulina*	Rare	
Common Field Speedwell	*Veronica persica*	Rare	
Cocksfoot	*Dactylis glomerata*	Rare	
Soft Brome	*Bromus hordeaceus*	Common	
Upright Brome	*Bromus erectus*	Occasional	
Yarrow	*Achillea millefolium*	Occasional	
Invertebrates			
St Mark's Fly	*Bibio marci*		
Alder Fly	*Sialis sp.*		
Banded Demoiselle	*Calopteryx splendens*		
Azure Damselfly	*Coenagrion puella*		