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Studham Common

Management Plan **2011 -2016**



(Picture Provided by Geoff Shute)









2011-2016

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Abbreviations used in the following text:

Key:

CAONB – Chilterns Area Outstanding Natural Beauty

CAT – Countryside Access Team

CBC – Central Bedfordshire Council

CCB - Chilterns Conservation Board

CTs - Contractors

FoSC - The Friends of Studham Common

GST - Greensand Trust

SPC - Studham Parish Council

CWS - County Wildlife Site

1. INTRODUCTION & SUMMARY

Introduction

This 3rd management plan sets out the proposals for Studham Common over the five-year period 2010-2015 and is a revision of the previous site management plan produced in 2004-2009 by South Bedfordshire District Council in consultation with the Friends of Studham Common and the Greensand Trust. The plan provides a guide for the holistic and proactive management of the site, helping to ensure that its special qualities are maximised for the benefit of the local area and wildlife and are sustained and preserved for the benefit of future generations.

The plan is not prescriptive or binding on interested parties, but aims to set the framework for co-ordinated management and the development and the continuations of partnerships. In this way, the plan is intended to enhance the site and serves to inform existing and future management documents and plans relating to the area.

The Studham Common Management Plan details the current position in terms of the common management and outlines a range of planned continued work for the period 2010-2015.

Summary

Studham Common is a locally prized area of open access land with a strong community interest in its future use and management. It is an important local resource providing opportunities for wildlife, public access, informal recreation, education, and community involvement. The site has an interesting and varied history, which has helped to determine its current character.

Like so many of the commons found within the Chilterns, concerns have grown over recent years regarding the changes in character brought about through the decline or removal of traditional grazing management. Studham Common is no different and has experienced some dramatic changes since the 1900's. The most notable change occurred when a large area of the common was ploughed after the Second World War for cultivation as part of the "Dig for Victory". This change in management resulted in a wide spread loss of site biodiversity particularly the more sensitive flora, a large number of plants and wild habitats are now returning.

This plan sets out a clear programme based upon an integrated management approach. An active management style is recommended in order to maximise the potential of the site and ensure its long-term survival as an area of semi-natural open space.

The plan proposes a management programme that builds on a range of site works undertaken by a combination of local volunteers, a local farmer and Central Bedfordshire Councils partnership consultants and contractors. Previous areas of works have included: opening up of a lost section of Public Bridleway; thinning of scrub; improving principal access points; woodland coppicing and thinning; selective removal of invasive species including bracken (*Pteridium aquilinum*) and Japanese knotweed (*Fallopia japonia*); hedgerow restoration and the production of interpretive material including a leaflet and installed site panels.

This management plan details a range of proposals that aim to achieve the following five objectives:

- Protection and enhancement of the wildlife diversity of the common.
- Improvement and maintenance of public access and amenity facilities in and around the common.
- Protection of the historic and landscape values of the common.
- Raising awareness of the intrinsic features of the common and encouraging its use as a place for public enjoyment and education.
- Encouraging local interest and community support in safeguarding the common.

Linking Strategies and Documents

A number of long term plans and partnerships underpin efforts to promote and provide leisure activities and wildlife protection. The common, and its management, contributes to many of these, particularly the South Bedfordshire Local Plan Review 2004 and South Bedfordshire's Community Plan, and any future developed overriding Central Bedfordshire policies / plans and the Countryside Access Team (CAT) Outdoor Access Improvement Plan (OAIP) as developed in the future.

Central Bedfordshire Council's vision

Green spaces have a large part to play in the well being of Central Bedfordshire. They make neighbourhoods better places to live in and help attract investment. The visual appearance of the local area, as seen by residents, visitors and potential investors is critical to social and economic health.

The Management Plan for Studham Common has to dovetail with Central Bedfordshire Councils corporate aims. The council has identified five ambitions.

- 1. Supporting and caring for an ageing population
- 2. Educating, protecting and providing opportunities for children and young people
- 3. Managing growth effectively
- 4. Creating safer communities
- 5. Promoting healthier lifestyles

Implementation of the South Bedfordshire Local Plan Review 2004

The Local Plan protects open spaces and is concerned with keeping open spaces within towns. It identifies that the implementation of countryside and nature conservation policies needs close collaboration with countryside management bodies and landowners.

Central Bedfordshire Council CAT works closely with The Greensand Trust, Bedfordshire Wildlife Trust, National Trust and the Bedfordshire Rural Communities Charity in pursuit of a better environment and more effective wildlife and landscape management. The Council also supports and contributes to the **Bedfordshire and Luton Biodiversity Action Plan (BAP)** produced in 2001, **Bedfordshire & Luton Strategic Green Infrastructure Plan produced in 2007, Luton and southern**

Bedfordshire Green Infrastructure Plan produced in 2009. Luton & South Bedfordshire Green Space Strategy (draft) produced in 2009.

Working in partnership with The Greensand Trust (GST), the Friends of Studham Common (FoSC) and Studham Parish Council (SPC) this management plan proposes the continuation of a range of management works and methods that will maintain and improve the quality of the site for both wildlife and people.

Central Bedfordshire Community Plan

Studham Common provides a range of opportunities that allow targets described within the Community Plan to be met. The Community Plan draws attention to a lack of a co-ordinated approach toward open space management. The Plan identifies the development of management plans for improving open spaces, parks and wildlife as one of the ways to achieve this. Three ambitions (all of which link closely to Studham Common and its management) are recognised within the Community Plan:

- **Improving the environment**: South Bedfordshire will have an extensive and high quality network of parks and open spaces for everyone to enjoy. They will contain a range of features, to provide something for everybody and a home for wildlife.
- Promoting Leisure: South Bedfordshire will be an area where everyone
 can benefit from leisure activities regardless of age, ability, or
 circumstance. Everyone will have the opportunity to access the
 countryside, improve their health and fitness, develop creative skills,
 discover new interests, socialise, and enjoy themselves. Leisure activities
 will be affordable with facilities and events accessible to all our town and
 village communities.
- **Safer Places**: South Bedfordshire will be a safer place where all people living, visiting and working will feel secure. People will respect each other, and nobody's freedom or opportunities will be constrained by actual crime or the fear of crime.

Outdoor Access Improvement Plan

Outdoor Access is about people getting access to the countryside and enjoying it in a wide range of ways. It involves rights of way, 'open country', parks and countryside sites, woodland, and any other countryside to which the public have access.

Outdoor Access is an important part of everyday life. It makes a big contribution to the quality of life for residents and visitors to the county. There are a wide range of public benefits from being able to use the countryside. These include recreation, sport, health, transport and travel.

Bedfordshire's unique landscape is varied and valued. It gives residents, from urban and rural communities, and visitors to the county much enjoyment and pleasure. The county has a strong rural identity and 'sense of place' in some communities.

Central Bedfordshire Council's Strategic Plan 'Making Bedfordshire Thrive' aims to make Bedfordshire a better place to live and visit, a place with a local environment and cultural heritage that is accessible for everyone and recognised as special by its local community.

Ensuring good Outdoor Access is a central element to this ambition. It can help people of all ages to feel a sense of local 'ownership' of places, perhaps through voluntary work or becoming 'wardens' or by getting involved in the planning and improvement of the Outdoor Access in their own local neighbourhoods. It can lead to people celebrating their local places through activities and events.

Guiding principles for management

The guiding principles for Studham Common's future management are set out below:

Historic landscape and character	The management aims to conserve
	and enhance the site in a way that is
	sympathetic and in keeping with that
	of historic Chilterns common land.
Safety	Public safety will always be the most
	important factor influencing
	management objectives. All
	equipment, trees, fences and
	provisions will be regularly checked.
Biodiversity	The management policy is to
-	encourage wildlife and to enhance the
	value of Studham Common for nature
	conservation wherever this is
	commensurate with other objectives.
Environmental Management: EMAS	Central Bedfordshire Council are
_	committed to achieving continuous
	environmental improvement in all
	their activities and services and have
	adopted a formal environmental
	management system. See Appendix
	C, 8.1 for details.
Green Pennant Award	A 'National Award' that recognises
	high quality green spaces in England
	and Wales that are managed by
	voluntary and community groups.
	Green spaces are different so each
	site is judged on its own merits and
	suitability to the community it serves.
Countryside Rights of Way Act	The Act provides a new right of public
(CROW)	access on foot to areas of open land
	comprising mountain, moor, heath,
	down, and registered common land,
	and contains provisions for extending
	the right to coastal land. The Act also
	provides safeguards which take into

account the needs of landowners and occupiers, and of other interests,
including wildlife.

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Valuable Internet Links

Chilterns Conservation Board - http://www.chilternsaonb.org/

FoSC - http://www.foscomm.org/

CBC - http://www.centralbedfordshire.gov.uk/community-and-living/walking/rights way/outdoor-access-improvement-plan.aspx

Bedslife - http://www.bedslife.org.uk/documents/BAP%20Endorsement.pdf

1. GENERAL INFORMATION

1.1 Site Definition

Studham Common is an area of predominently open common land that extends over almost 30 hectares. The common is subdivided into three distinct areas by two minor roads that run south from Studham. The three sections of the common are known locally as West, Middle and East Commons respectively (see Appendix A, 6.2 Map: Aerial Photography).

The site is accessible to the public via a network of public rights of which include Public Footpaths No. 15, 16, and 36 and Public Bridleway No. 17 (see Appendix A, 6.3 Map: Access). Central Bedfordshire Council allows open access throughout the site.

The common rises gently in height as you head southwards from approximately 155 metres to 175 metres above sea level along the southern boundary.

1.2 Location

Grid Reference TL 055 156

Studham Common lies immediately southeast of the village of Studham in South Bedfordshire. The village of Studham is located 6 kilometres south of Dunstable and 10 kilometres north of Hemel Hempstead.

1.3 Land Tenure

The common is in the ownership of CBC by virtue of a conveyance dated 17th October 1956. Commoner's rights still extend over the land.

The common is registered as common land in the Register of Common Land held by Central Bedfordshire Council, which confers on the general public rights to use the land subject to regulations and byelaws issued on 17th April 1967. (see appendix C 8.3)

2. ENVIRONMENTAL INFORMATION

2.1 Geology and Soils

Studham Common lies on the predominantly "clay with flints" bed that characterises a considerable area of the Chilterns dip slope. This is a drift deposit formed largely from material within the Upper Chalk Band and deposited during the last ice age.

The associated soils are rich and predominantly neutral. Acidic pockets are also notable on West Common. Some coarser gravel deposits were also present prior to their extraction (see section 2.10).

2.2 Flora

(See County Wildlife Report in Appendix B, 7.1 and Species List Flora / Fungi / Fauna in Appendix B, 7.2 7.3 and 7.4).

The common received designation as a County Wildlife Site (CWS) (see section 2.6) due to the variety of species rich habitats. Over 200 species of flowering plants, grasses and ferns have been recorded, many typical to grassland, woodland and hedgerow habitats.

Rough grassland extends over much of the East and Middle Commons with sweet vernal-grass (*Anthoxanthum odoratum*) dominating the sward. Despite several dramatic changes to both the area and the character of the original common a wide variety of plants have returned to the grassland since its restoration from arable in the 1960's. Using the National Vegetation Classification (NVC) the CWS survey classed much of the grassland habitat as MG6 sweet vernal-grass sub-community.

The West Common differs in character from East and Middle Commons with a combination of acidic grassland, scrub thickets and wooded areas predominating. Two woodland types can be distinguished. English oak (*Quercus robur*) with bracken, bramble (*Rubus fruticosus*), gorse (*Ulex* sp.), ash (*Fraxinus excelsior*), field maple (*Acer campestre*) woodland type with ivy (*Hedera helix*) and dog's mercury (*Mercurialis perennis*) dominant (NVC group W8).

The hedgerow on the East Common that follows the Bedfordshire and Hertfordshire boundary has a rich mixture of shrub species interspersed with oak and beech (Fagus sylvatica) standards.

The section of East Common that lies to the north of the service road contains a mix of scrub thickets and rough grassland.

More recently there has been planting of ash, alder, oak and beech on areas of both the East and Middle Common.

Some rare plant species have been recorded for Studham Common. These include species such as heath bedstraw (*Galium saxatile*), which is present in small numbers on West Common. This plant is listed as a Chilterns Common Character species (Chilterns Natural Area Profile - English Nature 1997). In addition green-winged orchid (Orchis morio), common spotted orchid (*Dactylorhiza fuchsii*), bee orchid

(*Ophrys apifera*), harebell (*Campanula rotundifolia*) and Imperforate St John's wort (*Hypericum maculatum*), have all been found in recent years.

2.3 Fauna

The mosaic of rich wildlife habitats and species diversity supports a wide range of insects, birds and small mammals, some of which have been declining in numbers in the wider countryside in recent years. See List of Recorded Fauna in Appendix B, 7.4

This list has been updated in 2010, Twenty-six species of butterfly have been recorded on the common. These include the white-letter hairstreak (listed Chilterns Common Character species). Other species of interest recorded include purple hairstreak, marbled white, brown argus and Essex skipper.

A bird and mammal survey for the common was undertaken by John Hanna in 2010. Over fifty species of bird were recorded breeding and/or using the site for foraging.

Four breeding pairs of skylarks were found in the open grassland areas, seven pairs of yellowhammers in largely hedgerow habitats and a pair of turtle doves breeding in the woodland on West Common. All of these species have been in decline in recent years. Skylark, yellowhammer and turtle dove are Red-listed species of special conservation concern and are listed in the UK Biodiversity Action Plan (BAP) and on the Royal Society for the Protection of Birds (RSPB) Red List. Flocks of Fieldfares, Redwings and a variety of finches and buntings are also known to make full use of the scrub and hedgerow habitats during the winter months. This has been updated in 2010 and shown in appendix B, 7.4

There is a known population of the hazel dormouse (Muscardinus avellanarius) making use of the eastern boundary hedge. The Dormouse is a rare species of national importance and is listed in the UK Biodiversity Action Plan (BAP). A local Species Action Plan has been developed under the auspices of the Bedfordshire Local BAP's and Bedfordshire Dormouse Group. The mammal survey undertaken by Steve Halton confirmed the presence of a number of small mammals in addition to dormouse, including woodmouse, bank vole, field vole and common shrew.

2.4 Recorded History

General Records

- Bedfordshire Sites and Monuments Record Gravel Pits SMR 10838 & SMR10839
- Mineral Workings in Bedfordshire Bedfordshire County Council 1954.
- A History of Studham Common Clifford Groves & The Friends of Studham Common.
- Studham Common Management Plan written by Andrea Britton from The Wildlife Trust, 1985.
- BLARS: Book 1441.

A number of historic maps are held at the Bedfordshire and Luton Archives and Record Service. These include tithe, estate and parish plans dating from the mid/late 18^{th} Century - early 20^{th} Century. The First, Second and Third Editions of Ordnance Survey Maps cover the area of the common from 1879-1926.

Ecological Records

- John Dony 1976 Field visit notes held by English Nature
- Plant & Butterfly Surveys Pat & Charles Baker 1994-01
- County Wildlife Survey Steve Halton 1997
- Informal Bird Surveys John Hanna 2000
- Common Bird Census Steve Halton 2001
- Mammal Survey Steve Halton 2001
- Various dormouse surveys and reports Steve Halton and FoSC volunteers between 2004-10

2.5 Public Interest

The village and residents of Studham have an integral link to the common. As described in section 2.11 the area has been used for a variety of uses over the years including grazing, mineral extraction and cultivation. In more recent years the common has been widely used for informal recreation and remains highly valued by the local community, as both a place of local beauty and as a safe refuge for wildlife.

Recent visitor surveys for Studham Common identify that the site is clearly used as a place for general enjoyment and recreation by a large number of people that live in and around the area. Local dog walkers and horse-riders are frequent users of the common. The site is used regularly for the annual village May fair.

The Middle Common has also been used over the years for a series of commemorative and memorial plantings. This included the earlier planting of two now established beech copses, and the community planting of "Jubilee Copse" in 1977 with oak and beech. Other smaller community planting projects include alders along the boundaries of the Middle and East Common.

Continued public interest has been exemplified with continual work parties managed by The Friends of Studham Common (FoSC). This is a local group, affiliated to the CBC P3 People, Projects, Partnerships scheme and working closely with The Greensand Trust. They established themselves in 1997 with the aims of conserving and raising the profile of the common. The group has a good active member base and regularly engages in practical conservation projects. The group have been involved in interpretation, assisting with the production of leaflets, management plans and interpretation panels and the setting up of a dedicated website for the benefit of visitors to the common.

2.6 Designated Status

Studham Common is designated as a County Wildlife Site or CWS (see County Wildlife Report in Appendix B, 7.1) placing it in the top 10% of countryside sites in Bedfordshire. As described in the former South Bedfordshire Local Plan Policy NE6 the status of a CWS status offers additional planning protection. The entire common lies within three important local planning policy guidelines:-

- 1. Green Belt (Policies GB1&2/NE1 SBDC Local Plan)
- 2. Area of Outstanding Natural Beauty (Policy NE2 SBDC Local Plan)
- 3. Area of Great Landscape Value Policy (Policy NE3 SBDC Local Plan)

A small section of the common at the northern end of Dunstable Road is also within the Studham Village Conservation Area (Policy BE4/5 SBDC Local Plan). These policies provide planning guidance to ensure that the character and appearance of the local landscape, and the settlements within it, are protected and enhanced.

2.7 Ecology - Implications for Management

As described in Section 2.3 Studham Common provides a rich mosaic of interconnected habitats. These include:

- Clay-with-Flints grassland, hay/flower meadows
- Woodland areas with bracken, gorse and acidic grassland glades
- Scrub thickets
- Species-rich hedgerows
- Planted beech copses and community tree areas on the Middle Common

Clay-with-Flints grassland, hay/flower meadows

The large extensive clay-with-flints grassland areas of the Middle and East Common are of special value, with few habitats of this type currently remaining in Bedfordshire. Although much of the original flora was lost under the twenty years of cultivation following the "Dig for Victory" campaign, the number of species has increased steadily over the years.

A return to traditional common grazing patterns would be the ideal future management for this area. Whilst remaining an ideal, it is possible to see a return to grazing in the future through Higher Level Stewardship (HLS). The area is currently being cut mechanically for hay.

Lack of appropriate grassland management remains one of the main threats to this habitat in the future. It is essential that a late summer hay cut is maintained every year to prevent a deterioration in the ecological value of the grassland, particularly from natural colonisation from the surrounding trees and scrub and further encroachment from aggressive species including coarser grasses and bracken.

Woodland & Acidic Glades

The woodland areas of the West Common are believed to have had a more open nature in the past. They may well have been used as wood pasture providing shelter for the commoner's livestock, in addition to supplying coppiced wood and fallen timber for fuel and other products. A return to active woodland management is recommended in order to maintain and enhance the diversity of the woodland ground flora. This will help to prevent the shading out of microhabitats, including the remaining acidic glades that include the majority of the site's rare Heath bedstraw plants.

Like a number of other commons in the Chilterns the lack of grazing has led to the problem of encroaching bracken and other coarse vegetation on the West Common. Bracken is a particularly invasive species that needs to be kept in check if the site's ecological potential is to be maximised. It may be useful to continue a trial combination of techniques for bracken control to help develop a long-term strategy. although consideration needs to be given to local views and concerns that it is

thought that the West Common is being over managed and made to look like an Urban Park rather than a common.

Scrub Habitat

The large scrub thickets on the woodland margins of West Common provide a useful habitat for insects, birds and small mammals. It is important to retain some scrub thickets as these could continue to provide secluded bird nesting sites and a plentiful supply of berries for small mammals and overwintering birds.

However a programme of active scrub management should be considered taking into consideration the lack of natural management concerning grazing of the commons. If left untended scrub will continue to encroach onto the grassland areas reducing plant diversity by shading out ground flora. A selective cutting plan could help maximise diversity by providing varied aged stands of scrub and increasing light levels for ground flora.

Hedgerows & Boundaries

The species-rich hedgerow on the eastern boundary of East Common provides an additional habitat of value to a wide variety of insects, birds and small mammals. As noted earlier, dormice are known to be active and resident in this hedgerow. Recommendations for this hedgerow continue to include prescriptions that can help meet the special requirements of the dormice, including opportunities to implement the local BAP for this species. The initial Dormouse Study was originally undertaken by NCT and has recently been updated by Steve Halton from CBC in partnership with FOSC and the Bedfordshire Dormouse Group. In line with the LBAP there is an aim to develop management guidelines for dormice sites within southern Bedfordshire. Whilst safeguarding the interests of the dormice it may be possible to undertake small-scale projects to enhance the hedgerow habitat and minimise further encroachment onto the grassland.

The hedgerow along the southern boundary of both the Middle and East Commons is over mature and tree and shrub cover is generally sparse. A large number of gaps have been planted with native species hedge planting and the previous boundary hedge which is dominated by invasive bracken and bramble has been thinned and reduced to greatly enhance this important wildlife corridor that connects the individual commons. With a carefully planned planting mix the hedge will provide further useful dormouse habitat in the future.

Planted Copses

There is a particularly strong community interest in the areas of communal tree planting (see section 2.5). Some groups of trees and other individual specimens hold a memorial and/or commemorative significance. Ongoing tree management will be necessary within these areas, but needs to be sensitive to these needs. This management plan recommends that further planting of the common is restricted to the boundary areas of the site wherever possible and within the wooded area on the West common.

2.8 Grazing – an option for future grassland management

These wildflower grasslands have a very high biodiversity, with a variety of grass species and many wildflowers as well as lots of different insects, small mammals

and breeding birds. Sadly though, they are one of Britain's most threatened habitats due to inappropriate, poor or no management. If a grassland is not managed, it can become overgrown by scrub (scrub = woody plants such as hawthorn and blackthorn) and eventually it will revert to woodland. Therefore, an annual management regime is vital to maintaining and developing wildflower grasslands.

Grasslands are normally managed as either pastures or flower/hay meadows. While there is no golden rule, conservation grazing generally involves less intensive land management techniques on areas that are less commercially productive. The type of livestock is a primary consideration for conservation grazing and differences in feeding preferences, physiology and animal behaviour will affect their suitability for different sites. Due to their hardiness and ability to cope well on unimproved grassland rare and native breeds of livestock are frequently used in conservation and extensive grazing systems and additionally represent an important part of our cultural heritage.

In the UK almost all areas we value for their conservation interest form part of cultural landscapes created by humans, often as a side product of subsistence agriculture. Grazing livestock and their associated activities played a key role in the formation and maintenance of many semi-natural habitats including grassland, commons, heathland and pasture-woodland, through slowing or altering the successional trajectory of these habitats towards increased woodland cover. In addition to maintaining or restoring such habitats, grazing is also an essential component of many habitat (re)creation projects for example managed reversion from arable fields to species-rich grassland or flower/hay meadows.

2.9 Landscape – implications for management

Studham Common is one of the most prominent landscape features in the Studham area. It is visually attractive throughout the seasons and has a character typical of many of the commons throughout the Chilterns. The mosaic of habitats are particularly evident on the West Common, whilst both the Middle and East Commons are more open in appearance. Future projects will need to be sympathetic to their impact upon the landscape and should in no way detract from the local distinctiveness of the area. Issues that the plan will address include:

- Future tree planting, particularly any proposed amenity planting of exotic species.
- Balancing any future planting with the need to maintain an open landscape.
- The visual impact of any proposed woodland management in the West Common.

2.10 Historic Features – implications for management

One historic feature still evident on the common is the remnant gravel pit on the West Common. The plan supports non-intervention in this area to protect the site. Apart from the historic settlement around its edges there are no other significant sites of archaeological interest across the site.

2.11 Access -

The Countryside and Rights of Way Act 2000 (CRoW Act 2000) applies to England and Wales only, with the provisions it contains being brought into force in incremental steps over subsequent years. The Act provides for public access on foot to certain types of land, amends the law relating to public rights of way, increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation, provides for better management of Areas of Outstanding Natural Beauty (AONB). The Act is compliant with the provisions of the European Convention on Human Rights, requiring consultation where the rights of the individual may be affected by these measures.

In addition to the public footpaths and bridleway that pass across the site, the common provides an area of "open access" for both walkers and horse-riders. This shared use of the common is a source of potential conflict between users. Furthermore the "open access" rights presents challenges in terms of visitor management and likely conflict with the wildlife value of the site.

Implications for management

Previously there have been problems of trespass by motorbikes and cars. This resulted in the construction of the present boundary ditches to help prevent this problem. Access onto the common subsequently became largely restricted to sleeper-bridge crossing points on the main desire lines. These bridges have been improved for access for all, including horse-riders requirements and DDA users.

The Act improves the rights of way legislation by encouraging the creation of new routes and clarifying uncertainties about existing rights. Of particular relevance to nature conservation, the Act introduces powers enabling the diversion of rights of way to protect SSSIs.

2.12 Context

Studham Common is set in a predominantly quiet rural area of the Chilterns, much of which remains reasonably well wooded. The very attractive village of Studham, itself listed as a Conservation Area, lies to the northwest of the common. Much of the surrounding area is now predominantly arable land, utilised for largely wheat and barley production. However an extensive network of species-rich hedgerows provide links to habitats further afield, including the ancient woodlands of Dedmansey and Great Bradwin's Wood.

Although close to the "honey pot" sites of the Chilterns Gateway Centre on Dunstable Downs and Whipsnade Wild Animal Park, the common remains an area used largely by local visitors and residents. The common is one of a series of locally important public green-spaces; others include Whipsnade Green and Whipsnade Heath to the north.

2.13 Human Influence / Recent Management

Stephen Coleman (Historic Environment Information Officer, CBC) indicated that Studham Common was probably in existence from as early as the 12th or 13th Centuries. Common rights have clearly extended for centuries and are likely to have comprised grazing, possibly stinted (regulated), cutting of gorse (furze) for fuel, the

removal of turf and digging for stone and other materials. Up to the mid/late 19th Century the common was considerably larger than its current size, and extended south into Hertfordshire. However two thirds of the overall site was lost around this time through enclosure. The Bedfordshire part of the common was never enclosed and remains today.

Several areas of the common (particularly the north-east corner of East Common and the middle of West Common) are known to have at one time contained pockets of high quality red gravels. These were extracted at various times throughout the 19th Century, it is thought, for local road building.

Records suggest that Studham Common had been used for grazing by local commoners up until 1939. The decline in grazing during the early 1900's caused considerable changes to the character of the remaining common. These included an increase in tree and scrub cover and the spread of invasive species, notably Bracken and Gorse. The common was requisitioned in 1941 and both the Middle and East Commons were ploughed for arable use. This had a significant impact upon the original flora of the area with only the West Common remaining largely unscathed (from notes supplied by Clifford Groves). Recent records have indicated limited cattle grazing was carried out on the Middle Common in the 1970's.

Management efforts have been renewed in recent years with the former SBDC and now CBC co-ordinating a regular programme of annual hay cutting from the Middle and East Common. Since October 1997, The Friends of Studham Common have also been actively involved in a variety of practical conservation projects and monthly work parties aimed at improving both access and wildlife.

2.14 Obligations

Scheme of management and byelaws:

- Scheme for the regulation & management of Studham Common dated 5
 January 1911
- Commons Registration Act of 1965
- Bylaws regulating the use of Studham Common dated 17 April 1967
- Bylaws prohibiting flying of model aircraft 13 December 1988
- Licence to mow annual licence (Ref:L196)
- Traditional commoner's rights
- Access and Management Agreement.

There are a number of public rights of ways (as listed in Section 1.1) for which the standard legal duties apply. These are the responsibilities of Central Bedfordshire Council and in particular the 'Rights of Way' (RoW) team, located within Countryside Access Team (CAT).

2.15 Intrinsic Appeal & Potential Value

Studham Common makes a significant contribution to the character and diversity of wildlife in the area. As noted earlier, the site provides a rich mosaic of habitats including clay-with- flints and acidic grassland, woodland, and hedgerows.

Despite some dramatic changes over the past 100 years, most notably the ploughing up of a large section of the common during the Second World War, and the general decline in grazing, the site remains important for wildlife. The grassland flora, whilst not fully representative of its original sward, is improving steadily in species richness. It has potential to improve further with appropriate management. The history and ecology of the common go hand in hand. Continued management of the site is essential if the wildlife, and in turn amenity value of the area, is to be preserved and enhanced. Non-intervention could be costly in terms of species richness, with a likely increase in bracken and subsequent reduction in species biodiversity.

In addition to the sites individual value, it is one of a series of commons that characterise the Chilterns Natural Area. Collectively the Chilterns Commons make up a significant proportion of the Chilterns, with a large number like Studham Common, located on the acidic plateau. They provide an important strategic resource with considerable landscape, recreational, historic and wildlife value.

2.16 Limits

There is clearly a very strong local interest in the site and some concern over its long-term future management. Any proposed works should be sympathetic to local opinions, whilst ensuring that the common's intrinsic value is not lost.

The emphasis of the plan is very much on enhancing the wildlife value of the site, whilst encouraging opportunities for public enjoyment as an area of common land. The site has important historic and visual values and any improvements for wildlife will need to take these issues on board.

From a wildlife perspective the site has a rich mosaic of complimentary habitats. These should be actively managed to maximise the sites biological diversity. Particular attention needs to be applied to the clay-with-flints grassland, vulnerable heath bedstraw communities and the hedgerow dormouse habitat.

3. RECOMMENDED MANAGEMENT

3.1 Site maintenance and management

The site should be maintained in accordance with a site maintenance framework to ensure that high standards of maintenance occur throughout the site and operate in accordance to 'Value for Money' guidelines and as agreed by all partners. On behalf of CBC, maintenance work is undertaken and overlooked by The Greensand Trust.

All works and materials associated with the management of Studham Common and its promotion should, where appropriate, be in accordance with the Council's Environmental Policy (see Appendix C, 8.1) and should where applicable fully comply with the environmental aims and principles described, thereby supporting and assisting the Council in its goal to achieve EMAS (Eco Management and Audit Scheme) certification.

It is CBC's aim to ensure all working methods, equipment, materials and consumables used at Studham Common must, wherever feasible, be those that minimise environmental damage. The use of chemicals, such as herbicides, should be avoided or at the very least minimised. If this is not possible then care must be taken to ensure that treatments involve substances and methods that are likely to involve the least environmental risk. All path works should be low maintenance and either made from recycled materials when replaced, or any timber used should be from a sustainable, FSC certified source or local supply.

3.2 Objectives

This management plan has five principal objectives:

- To Protect and enhance the wildlife diversity of the common.
- Improve and maintain public access and amenity facilities in and around the common.
- Protect the historic, landscape and bio-diversity values of the common.
- Raise awareness of the value and importance of the common and encourage its continued use as a place for public enjoyment and education.
- Continue to foster local interest and community support in safeguarding the common.

These management proposals have been developed through careful consideration of a wide range of influencing factors and interests and include:

- The need to safeguard and enhance the existing wildlife value of the site, making links to wider strategic targets such as those identified in Biodiversity Action Plans, Chilterns AONB Management Plan 2008-13 – 'A Framework For Action', CBC developing updated OAIP.
- The consideration of the site's importance, and potential, as a resource for informal recreation, public enjoyment and education, both locally and within the wider AONB setting.

- The desire to preserve, and where possible, restore the historic and landscape features of the site.
- The strong community interest and involvement in the site, including The Friends of Studham Common and Studham Parish Council.
- Central Bedfordshire Council's (as the legal owners of the common) aspirations for the future of the site.
- Legal obligations and existing commoners' rights.
- Current financial constraints and future funding sources that include access to Higher Level Stewardship schemes and to support any FoSC funding applications from external sources.

3.3 Proposals

Objective 1: To protect and enhance the wildlife diversity of the common.

These are listed according to habitat mosaics and subdivided by area.

1.1 Woodland Management

West Common

- 1.1.1 Area opposite school Regeneration, clearance and replanting Selective thinning of existing woodland, particularly sycamore trees to enhance diversity of flora by increasing light and allowing growth of understory and natural recolonisation from native trees. Retain standing and fallen dead wood where possible as habitat for flora and fauna. Fell only where safety dictates. No new tree planting required but plant shrubs such as hazel to suppress bramble and enhance diversity for wildlife. Minimise impact of Dutch Elm disease, promote development of younger growth to provide bird habitat and promote ground flora.
- 1.1.2 North boundary between bridleway and Church Rd Selective thinning to create a series of natural chokes that allows specimen trees to develop and bays should be encouraged to provide sheltered sites for butterflies and other flying insects to enhance diversity of flora by increasing light and allowing growth of understory and natural recolonisation from native trees. Retain all standing and fallen dead wood where possible as habitat for flora and fauna. Fell only where safety dictates. Consider some tree planting in areas of thinned sycamores would recommend native species such as English oak.
- 1.1.3 **Main wooded area (south of bridleway)** The pathways within the larger block of woodland should be maintained as part of the existing network of walkways / rides that will benefit ground flora and access. Thin existing

woodland to allow space for specimen trees. Enhance diversity of flora by increasing light and allowing growth of understory and natural recolonisation from native trees. A series of natural chokes and bays should be encouraged to provide sheltered sites for butterflies and other flying insects.

1.1.4 **Bluebell regeneration,** using seed and bulbs from other parts of Common to establish new planted areas

Middle / East Common

1.1.5 **Jubilee Copse** - General maintenance, including removal of self sown saplings. Ensure that Millennium Yew is kept free from crowding by other trees.

Sensitive tree surgery may be necessary to maintain the site's appearance and for safety reasons. Tree surgery should however be kept to the minimum that is essential for the maintenance of the tree or for Health and Safety reasons. All essential arboriculture works, such as crown lifting, removal of deadwood and pruning will be completed at the appropriate time, according to the species and location, and should be in accordance with B.S.3998 'Recommendations for tree work'. Wherever possible, and where safety permits, dead wood should be retained on trees to encourage fungi, saproxylic organisms and other wildlife such as woodpeckers. Where this policy is not feasible, the tree should be pollarded, coppiced or, as a last option, removed. The wood and branches can be stacked on site to create wildlife habitats and ecotones.

Cut stumps should be treated with a herbicide to prevent re-growth. Chemicals and treatments should be approved substances and application should be undertaken by persons with the correct and appropriate certification.

Newly planted areas should be kept clear of weeds and rank vegetation and trees and stakes should be examined and adjusted as required. Unless agreed otherwise, all trees should be native and local stock and should be of a species that typifies the local area and soil conditions.

1.2 Scrub Management

Scrub is often under-valued as a landscape and habitat type, it is beneficial in providing good nesting sites for a variety of birds, and a plentiful supply of berries for winter food. However selective scrub clearance and coppicing is required to prevent encroachment into areas of important grassland and to encourage a variety of stand ages and facilitate access. Recommended management includes:

West Common

1.2.1 **Bridleway** - Thin and coppice on a rotational basis. Ensure that the bridleway is maintained to create open rides that will benefit ground flora and access. The wild raspberry patch should be preserved and/or

^{*} The term "coppicing" refers to the traditional woodland management practise of regularly cutting the stems of broadleaved trees to create further growth from the cut stool.

transplanted.

1.2.2 **Treeless area fronting badger pit -** Clear bracken to create glade for possible bramble colonisation and birch planting from seedlings, this will increase habitat diversity in the woodland area as bramble is a good source of nectar and bird habitat and a sunny glade improves flowering potential.

Middle Common

- 1.2.3 **South boundary** Continue to maintain scalloped areas up to and including around selected tree line and planted hedgerow.
- 1.2.4 **West boundary** control encroachment and retain footpath, works to be done mainly but not exclusively by hand to preserve nesting bird wildlife area and to be managed on a rotation to encourage a variety of stand ages. Maintain height and width reduction from roadside as necessary for road / traffic safety.

East Common

1.2.5 **South boundary – from Car park to Eastern Hedgerow**Continue to maintain scalloped areas up to and including around selected tree line and planted hedgerow.

1.3 Invasive Species Control

The loss of historic grazing on the site has led to increases in invasive species, particularly sallow, bracken. Bracken is particularly problematic on West Common and its rapid spread in recent years has reduced the area of open grass-land available and is threatening habitat diversity. This is of special concern due to the close proximity of several acidic glades containing heath bedstraw. Japanese knotweed is a particularly virulent non-native plant that is also present on the site. Action has already been taken to prevent its encroachment and continued monitoring and further treatment is necessary.

West Common

- 1.3.1 **North boundary between bridleway and Church Rd** continue bracken control by the use of mechanical cutting and spraying.
- 1.3.2 Continue the programme of regeneration (cutting)/ gorse planting to maximise age diversity & reduce the risk of fire.

Middle Common

1.3.3 **South boundary** – Continue selected clearance of bracken, scallop areas around selected trees by cutting or spraying.

East Common

1.3.4 **South boundary** – Continue selected clearance of bracken, scallop areas around selected trees by cutting or spraying.

General

1.3.5 Maintain the ongoing spray programme for Japanese knotweed and bracken to eradicate this species. This involves additional seasonal applications of glyphosate to the existing patches on East and West Commons.

1.4 Grassland Management on Common

Ideally, the nature conservation value of the grassland area would benefit most by a return to traditional grazing patterns. In the meantime the continued cut and removal of grassland areas is essential in order to prevent any likely build up of nutrients and subsequent unwelcome changes to the sward such as 'thatching' as the competitive species (particularly the coarser grasses), become more dominant.

It is recognised that any re-introduction of grazing is a sensitive issues for many users of the Common, this will raise concern about access and safety for users and pets and wildlife. Therefore any initiative will need to be considered after public information and a consultation process to gauge opinion. Any potential outcome would be trialled in a small area of either the Middle / East Commons.

CBC would only be in a position to undertake any consultation process if funds were available under Natural England's Higher Level Stewardship scheme, and CBC have sufficient match funding to support any future development.

West Common

- 1.4.1 Grass area in front of Old School House Continue regeneration of grass in order to restore hay meadow / play area for the enhancement of wildlife diversity, public amenity value and restore historic and landscape value. Gradually reduce mowing as grasses become established. Mowing on a rotational basis: 1 side once a year, 1 side several times a year.
- 1.4.2 **Recovered grassy areas to south and west of football pitch** Maintain and establish bracken control measures, to recover grass Areas. Thereafter maintain annual mowing schedule.

Middle Common

A return to traditional common grazing patterns would be the ideal future management for this area. In the meantime the continued cut and removal of hay on grassland areas is essential.

- 1.4.3 Sallow control Continue control, to include removal of female sallow trees, removal or treatment of young plants with glyphosate and cutting big growth before haycut
- 1.4.4 Haycut cut as late as possible and leave areas uncut on a rotation basis.

1.4.5 Verges - Cut and rake on rotation short lengths of flower-rich verges along Byslips Rd and Kensworth Rd to increase diversity.

East Common

A return to traditional common grazing patterns would be the ideal future management for this area. In the meantime the continued cut and removal of grassland areas is essential.

- 1.4.6 Haycut cut as late as possible and leave areas uncut on a rotation basis.
- 1.4.7 Verges Cut and rake on rotation short lengths of flower-rich verges along Byslips Rd and Kensworth Rd to increase diversity.

1.5 Hedgerow & Boundary Management

West Common

- 1.5.1 **Southern Boundary** continue to implement a hedgerow restoration project using traditional hedgerow species mix and prioritising the planting-up of gaps along the southern boundary.
- 1.5.2 **East Boundary by Clements End Rd/football pitch** Clearance and regeneration, clear bramble to allow for gorse regeneration. scrub clearance and coppicing to prevent encroachment. Recover leggy overgrown gorse and plant new gorse to maximise age diversity.

It has been identified New proposed footpath to connect to playing field.

Middle Common

- 1.5.3 **West boundary** Mature mixed hedgerow. Control encroachment and maintain height and width reduction from roadside as necessary for road / traffic safety.
- 1.5.4 **Eastern Boundary** Gorse in hedgerow Continuing care of new saplings and plan new planting in gaps further down the hill.

1.5.5 **Southern Boundary**

- Undertake hedge after-care during establishment period of 1-5 years.
- Review hedge laying of whips after the 5 years if required.

East Common

1.5.6 **Gorse Planting** - Plant more gorse between new bollards erected on southern boundary with field.

1.5.7 **Southern boundary –**

- Undertake hedge after-care during establishment period of 1-5 vears.
- Review hedge laying of whips after the 5 years if required.

- Reduce height of mature hawthorn and gap up as required.
- 1.5.8 **Western boundary -** General cutting back to control encroachment Spray and or cut as necessary along whole length.
- 1.5.9 **Eastern Boundary Surroundings** rotational cutting back especially of Blackthorn. Specific management plan for this sensitive dormouse habitat is needed, haloing of specimen oaks at southern end of eastern boundary. ensuring work does not infringe on the historic or landscape value of the site. This work needs to be based on the recommendations of the 'Dormouse Management Action Plan (appendix 7.5)
- 1.5.10 **Northern boundary** north and south of concrete track, Control encroachment along roadside. Sculpture bays along edge to create microhabitats. No intervention on the northern side of the track.
- 1.5.11 **Car Park area** Maintain previously cleared areas, maintain scrub clearance to prevent encroachment and offer community safety and site visibility.

Objective 2: Improve and maintain public access and amenity facilities in and around the common.

- 2.1 Ensure that all the pathways presently used throughout the site are kept open and free from encroaching vegetation. Maintain Public Rights of Way in collaboration with Central Bedfordshire Council's Rights of Way team.
- 2.2 Review all major access points onto the common with a view to providing improvements, where possible to meet national 'Access for All' Standards.
- 2.3 Ensure that all the existing and future countryside furniture, including bridges and signage, are appropriately maintained and geographically plotted on relevant ¹GIS layers for the site.
- 2.4 Continue the maintenance of the site as a place of open access and informal recreation for walkers and horse-riders.
- 2.5 Review measures to minimise conflict between walkers and horse-riders.
- 2.6 Replace goal posts to create less formal looking pitch
- 2.7 Regularly empty litter and dog bins
- 2.8 Support future 'Natural Play' areas on the commons, consideration needs to be given in respect of the impact on intrusion in to CWS registered areas of

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¹ Geographical Information Systems – helps maintain council asset management list of sites

Objective 3: Protect the historic, landscape and bio-diversity value of the common.

- 3.1 Ensure that any practical works undertaken for reasons of nature conservation does not infringe on the historic or landscape value of the site, including the remnant gravel pit on the West Common.
- 3.2 New boundary planting restoration projects should be sympathetic to the local flora and surrounding landscape. Avoid further planting within the Middle and East Common to help preserve the open nature of the site, which typifies the historic Chilterns commons.
- 3.3 Ensure support for 'Natural Play' areas on the commons, consideration needs to be given in respect of the impact on intrusion in to CWS registered areas of interest, flora and fauna and does not infringe on the historic or landscape value of the common.
- 3.4 To protect, manage and enhance habitat of the east common hedgerow for the protection of the recorded Dormice. Install more nesting boxes and continue monitoring.
- 3.5 Support only the planting of native species when planting works are undertaken.

Future Site Surveys

- 3.6 Co-ordinate / Undertake to update appropriate survey work, including regular monitoring of:
 - Grasses / Wildflowers
 - Butterflies
 - Birds and Mammals
 - Visitor surveys
 - County Wildlife Site (Condition/Improvement)

Objective 4: Raise awareness of the value and importance of the common and encourage its continued use as a place for public enjoyment and education.

Local residents, particularly FoSC, GST and CBC play an instrumental role in helping to raise the awareness of the importance of the site for both its wildlife and amenity value.

With external funding, most recently from CBC, the Friends have produced welcoming interpretive panels, which are displayed in the two car parks, and an information leaflet, including a guided walk which is made available at several outlets in Studham

and beyond.

- 4.1 Promote and highlight the Common's 'Management Plan' to a range of locally interested groups/ village residents. Ensure continued local support of the Parish Council, Greensand Trust and the Chilterns Conservation Board.
- 4.2 Promote and highlight the common using a range of media. Ensure continued local coverage in The Parish Link, Central Bedfordshire Council / Get Out magazine, press and other publications wider afield including The Chilterns Society News Magazine and Chilterns AONB publications.
- 4.3 Studham Common has great potential as a learning resource with Studham Lower School in close proximity. This school should be encouraged to use the site as frequently as possible. Access to The 'Chilterns Commons Education Resource Pack' aims to link with the national curriculum.
- 4.4 Support the CAONB in its 'Heritage Lottery Fund' bid for the role of a 'Commons Project Officer' that would be beneficial to support individuals and groups who want to regenerate their commons but, who may not have the time, the expertise or the resources to do so. If the bid is successful the project is expected to run from 2011 2015.
- 4.5 The emergence of the new 'Unitary Authority' 'Central Bedfordshire' has required the updating of publicity and information materials. New 'Interpretation Panels' at the car parks were completed in 2010, New leaflets need to be developed and their continued availability in local outlets ensured.
- 4.6 Ensure CBC Countryside Access Team incorporate themes of the 'OAIP' and its 'Service Business Plan' and any local developed 'Performance Indicators' (PI's) in to this and subsequent management plans.
- 4.7 Continue to raise awareness of the site as a place of open access and informal recreation for walkers and horse-riders.
- 4.8 Continue to support FoSC in achieving 'Green Pennant Award', this is a national award that recognises high quality green spaces in England and Wales that are managed by voluntary and community groups. Green spaces are different so each site is judged on its own merits and suitability to the community it serves.

Objective 5: Continue to foster local interest and community support in safeguarding the common.

Again local residents, particularly FoSC, have played an instrumental role in undertaking a wide range of practical enhancements on the common. A general concern for the area led to the establishment of The Friends of Studham Common in

1997. Their aims have been to protect and improve the common for the benefit of people and wildlife. There are over fifty members, of whom up to a third regularly attend practical projects.

- 5.1 Continue to encourage and support FoSC in undertaking further practical projects and public events on the common. Practical tasks will be coordinated by the GST and will work towards agreed targets, as laid out in the agreed management plan.
- 5.2 Links with neighbouring landowners, residents of the village and Parish Council should be actively encouraged to make them aware of future projects, invite comment and welcome, where possible, their involvement.
- 5.3 Encourage opportunities for maximising future local community interest and involvement in the common. This could include the development of a video/audio project featuring stories about the common from some of the older residents of Studham.

4. PROJECT MANAGEMENT & MONITORING CONTROL

4.1 Management & Monitoring the Project

The Greensand Trust will continue to play a lead role in co-ordinating the future implementation of this plan on behalf of Central Bedfordshire Council, including co-ordination of voluntary projects undertaken by The Friends of Studham Common.

4.2 Annual Report

CBC in co-ordination with the GST will produce an annual report outlining the identified 'Management Objective' actions / outcomes and report back to the local community through the FoSC AGM and Studham Parish Council – Parish Link.

The tables overleaf summarise in more detail the future management proposals of the site by answering the questions: What? How? Why? and Who?

This plan sets out a series of recommendations to maximise the potential of the site for both wildlife and recreation. Successfully delivered, these will ensure the long-term survival of the common for its wildlife and local people.

4.2 Summary of Management Proposals

Abbreviations used in the following text:

Key:

Seasonal Guideline of works to be undertaken 1 st March – 31 st July Nesting Season				
CBC – Central Bedfordshire Council	FoSC - The Friends of Studham Common	CWS – County Wildlife Site		
CAT – Countryside Access Team	CTs – Contractors	SPC – Studham Parish Council		
CAONB – Chilterns Area Outstanding Natural Beauty	CCB – Chilterns Conservation Board	GST – Greensand Trust		

	Objective 1 - To Protect and enhance the wildlife diversity of the common.					
Management Objective	Description of Works	Reason	Lead	Time Line		
1.1 Woodland	Management					
1.1.1	Area opposite school - Regeneration, clearance and replanting – Selective thinning of sycamore within existing woodland, Retain standing and fallen dead wood where possible as habitat for flora and fauna. Fell	Enhance diversity of flora by increasing light allowing growth of understory and natural recolonisation from native trees.	GST / FoSC Work Parties	2013		
	only where safety dictates. Minimise impact of Dutch Elm disease, promote development of younger growth, plant shrubs such as hazel.	As habitat for flora and fauna, plant shrubs such as hazel to suppress bramble and enhance diversity for wildlife. Minimise impact of Dutch Elm disease, promote development of younger growth to provide bird habitat and promote ground flora.	GST / FoSC Work Parties	2013		
1.1.2	North boundary between bridleway and Church Rd — Thinning and coppicing of trees to thin existing woodland, particularly sycamore trees.	Enhance diversity of flora by increasing light and allowing growth of understory and natural recolonisation from native trees.	GST / FoSC Work Parties	2013		
	Retain standing and fallen dead wood where possible as habitat for flora and fauna. Fell only where safety dictates. No new tree planting required	Plant shrubs such as hazel to suppress bramble and enhance diversity for wildlife.				

Management Objective	Description of Works	Reason	Lead	Time Line
1.1.3	Main wooded area (south of bridleway) - The pathways within the larger block of woodland should be maintained as part of the existing network of walkways / rides that will benefit ground flora and access.	This could bring wildlife and landscape benefits through increasing habitat diversity and aiding the growth and visual appreciation of certain individual trees.	GST / FoSC Work Parties	2012
	A series of natural chokes and bays should be encouraged to provide sheltered sites for butterflies and other flying insects.		GST / FoSC Work Parties	2012
	Selective thinning is recommended within the large woodland block, with emphasis on glade creation and providing adequate space for standards to mature.		GST / FoSC Work Parties	2012
1.1.4	Bluebell regeneration - Use of seed and bulbs from other parts of Common	Bluebell regeneration - Increase amenity value and biodiversity by use of local seed and bulbs from other parts of Common	GST / FoSC Work Parties	Annual
1.1.5	Jubilee Copse - General maintenance, including removal of invasive species, avoid further planting especially of non-native varieties.	Protect historic and landscape value of the Common.	GST / FoSC Work Parties	Annual
1.2 Scrub Mana	igement			
1.2.1	Bridleway - Selective scrub clearance and coppicing on both sides of bridleway. Northern edge is to be widened to assist the dual	The scrub areas should be managed on a rotation basis to encourage a variety of stand	GST / FoSC Work Parties	2012 / Annually
	use of walking / riding along route. Thin and transplant wild raspberry patch along route. Ensure that the bridleway is maintained to create a network of rides that will benefit ground flora and access.	ages and is required to prevent further encroachment of scrub into areas of important grassland.	GST / FoSC Work Parties	2012

Management Objective	Description of Works	Reason	Lead	Time Line
1.2.2	Treeless area fronting badger pit — Clear bracken to create glade for possible bramble colonisation, hazel and birch planting from seedlings.	Increase habitat diversity in woodland area, bramble is a good source of nectar and bird habitat, sunny glade improves flowering potential.	GST / FoSC Work Parties	2012
1.2.3 / 1.2.5	South boundary — Continue to maintain scalloped areas up to and including around selected tree line and planted hedgerow.	Control encroachment and create mosaic areas of habitat diversity.	GST / FoSC Work Parties	Annual
1.2.4	West boundary — Control encroachment and retain footpath. Maintain height and width reduction from roadside as necessary for road / traffic safety.	Works to be done mainly but not exclusively by hand to preserve nesting bird wildlife area and to be managed on a rotation to encourage a variety of stand ages	CBC / GST / FoSC Work Parties	Annual
1.3 Invasive Spo	ecies Control			
1.3.1	North boundary between bridleway and Church Rd – Continue bracken control	This could bring wildlife and landscape benefits through increasing habitat diversity.	GST / FoSC Work Parties	Annual
1.3.2	Continue the programme of gorse regeneration by cutting and planting.	To maximise age diversity & reduce the risk of fire	GST / FoSC	Annual
1.3.3 / 1.3.4	South boundary – Continue selected clearance of bracken, scallop areas around selected trees	Maintain wildlife and landscape benefits through increasing habitat diversity and aiding the growth and visual appreciation of certain individual trees.	GST / FoSC Work Parties	Annual
1.3.5	General — Maintain the ongoing spray programme for Japanese knotweed. This involves additional seasonal applications of glyphosate to the existing patches on East and West Commons.	To eradicate this species	GST	Annual

Management Objective	Description of Works	Reason	Lead	Time Line
1.4 Grassland M	lanagement on Common			
1.4.1	Grass area in front of Old School House - Continue regeneration of grass in order to restore hay meadow / play area — Gradually reduce mowing as grasses become established. Mowing on a rotational basis: 1 side once a year, 1 side several times a year alternating.	For the enhancement of wildlife diversity, public amenity value and restore historic and landscape value.	GST / FoSC Work Parties	Annual
1.4.2	Recovered grassy areas to south and west of football pitch – Maintain and establish bracken control measures, to recover grass areas, thereafter maintain annual mowing schedule.	Maintain wildlife and landscape benefits through increasing habitat diversity and aiding the growth and visual appreciation of certain individual trees.	GST / FoSC Work Parties	Annual
1.4.3	Sallow control – Continue control, to include removal of female sallow trees, removal or treatment of young plants with glyphosate and cutting big growth before haycut	To eradicate this specie	GST / FoSC Work Parties	Annual
1.4.4 / 1.4.6	A return to traditional common grazing patterns would be the ideal future management for this area. To review the option of introducing 'Grazing' to the Middle / East Commons when funding is available, to be discussed with the village residents, FoSC members when applicable. In the meantime, rotation hay cutting of the Common remains as the most viable option.	Opportunity to explore HLS funding towards improved maintenance, EMAS opportunity, Improve flower meadows and protect against being overtaken by scrub.	СВС	
	Haycut – cut as late as possible and leave areas uncut on a rotation basis,	This would ensure that habitat is provided for over wintering insects / mammals. (Caution- timing of operation needs to be sensitive to nesting skylarks / ground birds)	CBC / CTs	Annual
1.4.5 / 1.4.7	Verges – Cut and rake short lengths of flower-rich verges along Byslips Rd and Kensworth Rd.	Increase diversity of roadside verge	CBC / CTs	Annual

Management Objective	Description of Works	Reason	Lead	Time Line
1.5 Hedgerow	& Boundary Management			
1.5.1	Southern Boundary – Continue to implement a hedgerow restoration project using traditional hedgerow species mix and prioritising the planting-up of gaps along the boundary.	Planting-up of gaps to maintain a continuous hedge to allow for animal movement.	GST / FoSC Work Parties	2012
1.5.2	East Boundary by Clements End Rd/football pitch — Scrub and bramble clearance to allow for regeneration of overgrown gorse and new plantings. New proposed footpath (Rural cut alongside roadside verge, outside of 40mph zone)	To prevent encroachment and to regenerate gorse to maximise age diversity and improve bird nesting habitat. To create a safe route between common and sports playing field	GST / FoSC Work Parties SPC/CBC	2012 / onwards
1.5.3	West boundary – along Clements End Rd Mature mixed hedgerow.	Control encroachment and maintain height and width reduction from roadside as necessary for road / traffic safety.	GST / FoSC CBC / CTS	Annual / 2014
1.5.4	Eastern Boundary – Byslips Road Gorse in hedgerow, plan new planting in gaps further down the hill	Continuing care of new saplings, planting up of gaps to maintain a continuous hedge to create a corridor for wildlife.	GST / FoSC Work Parties	Annual
1.5.5	 Southern boundary – Undertake hedge after-care during establishment period of 1-5 years. Review hedge laying of whips after the 5 years if required. 	To maintain a continuous hedge to improve habitat for green corridor for wildlife.	GST / FoSC Work Parties	Review 2014
1.5.6	Gorse Planting – Plant more gorse between new bollards erected on southern boundary with field.	Continuing care of new saplings, planting up of gaps to maintain a continuous hedge to create a corridor for wildlife.	GST / FoSC Work Parties	2011-12

Management Objective	Description of Works	Reason	Lead	Time Line
1.5.7	 Southern boundary – Undertake hedge after-care during establishment period of 1-5 years. Review hedge laying of whips after the 5 years if required. Reduce height of mature hawthorn and gap up as required 	To maintain a continuous hedge to provide habitat for green corridor for wildlife	GST / FoSC Work Parties	Review 2014
1.5.8	Western boundary — Bracken control - Spray and or cut as necessary along whole length.	Maintain wildlife and landscape benefits through increasing habitat diversity	GST / FoSC Work Parties	Annual
1.5.9	Eastern Boundary Hedgerow Survey – Implement recommendations of the Dormouse Management Action Plan, rotational cutting back especially of Blackthorn,	Specific management plan for the sensitive Dormouse habitat is needed, ensuring work does not infringe on the historic or landscape value of the site.	GST / FoSC Work Parties	2012
1.5.10	Northern boundary – Control encroachment along roadside. north and south of concrete track,	Maintain wildlife and landscape benefits through increasing habitat diversity and aiding the growth and visual appreciation of certain individual trees.	GST / FoSC Work Parties	2011 / Annual
1.5.11	Car Park area – Maintain previously cleared areas,	Maintain scrub clearance to prevent encroachment	GST / FoSC Work Parties	Annual

	Objective 2 - Improve and maintain public access and amenity facilities in and around the common					
Management Objective	Description of Works	Reason	Lead	Time Line		
2.1	Ensure that all the pathways presently used throughout the site are kept open and free from encroaching vegetation. Maintain Public Rights of Way in collaboration with Central Bedfordshire Council's Rights of Way	To ensure easy access for visitors and minimise user conflict and visitor impact on wildflower areas etc.	GST / FoSC Work Parties	Annual		
2.2	Continue to review all major access points onto the common with a view to providing improvements, where possible to meet national 'Access for All' Standards.	Ensuring safe and easy access for visitors. Indicates to visitors that the area is of value and that it is well looked after.	CBC	Annual		
2.3	Ensure that all the existing and future countryside furniture, including bridges and signage, are appropriately maintained and geographically plotted on relevant GIS layers for the site.	Maintains councils management asset list of sites	CBC / CTs	Annual		
2.4	Continue the maintenance of the site as a place of open access and informal recreation for walkers, local users, visitors and horse-riders.	To encourage new visitors to use and become interested in the common.	GST / FoSC / CBC	Annual		
2.5	Review measures to minimise conflict between walkers, dog walkers and horse-riders.	Could help to improve the safety of the site for all visitors and improve the understanding between different user groups.	CBC	Annual		
2.6	Replace goal posts on West Common	To create less formal looking pitch	CBC	2011		
2.7	Regularly empty litter and dog bins.	To ensure the site is clean and tidy for visitors.	CBC / CTs	Annual		
2.8	Support future 'Natural Play' areas on the commons, consideration needs to be given in respect of the impact on intrusion in to CWS registered areas of interest, flora and fauna, historic or landscape value of the common.	Increase options available for local children to engage with the common, supporting the 'Children's and Young People Plan'	CBC	As funding opportunities arise		

Management Objective	Description of Works	Reason	Lead	Time Line
3.1	Ensure that any practical works undertaken for reasons of nature conservation does not infringe on the historic or landscape value of the site, including the remnant gravel pit on the West Common.	Safeguards the historic features themselves (including the remnant gravel pits) and prevents any dramatic alteration to the character of the common.	GST / FoSC Work Parties	Annually / Every Activity undertaken
3.2	New boundary planting restoration projects should be sympathetic to the local flora and surrounding landscape. Avoid further planting within the Middle and East Common to help preserve the open nature of the site, which typifies the historic Chilterns commons.	Safeguards the historic features themselves (including the remnant gravel pits) and prevents any dramatic alteration to the character of the common.	GST / FoSC Work Parties	Annually / Every Activity undertaken
3.3	Ensure support for 'Natural Play' areas on the commons, consideration needs to be given in respect of the impact on intrusion in to CWS registered areas of interest, flora and fauna and does not infringe on the historic or landscape value of the common.	To help preserve the open nature of the site, which typifies the historic Chilterns commons.	GST / FoSC Work Parties	On-going
3.4	To protect, manage and enhance habitat of the east common hedgerow for the Conservation of the recorded Dormice. Install further nesting boxes and continue monitoring.	Dormice are a BAP priority species and in severe decline nationally	GST / FoSC Work Parties	Ongoing 2011-16
3.5	Support only the planting of native species when planting works are undertaken.	To maintain the intrinsic landscape value of the common.	GST / FoSC Work Parties	Ongoing 2011-16
3.6	Co-ordinate / Undertake to update appropriate survey work, including regular monitoring of wildflowers, butterflies, birds and mammal and visitor surveys. Undertake a CWS report.	Maintain / update records to demonstrate bio-diversity improvements towards management of the common.	GST / FoSC	Ongoing 2011-16

Objective 4 -	Objective 4 - Raise awareness of the value and importance of the common and encourage its continued use as a place for public enjoyment and education.			
Management Objective	Description of Works	Reason	Lead	Time Line
4.1	Promote and highlight the Common's 'Management Plan' to a range of locally interested groups/ village residents.	Ensure continued local support of the Parish Council, Greensand Trust and the Chilterns AONB.	CBC / GST / FoSC	Ongoing / Annually
4.2	Promote and highlight the common using a range of media. Ensure continued local coverage in The Parish Link, Central Bedfordshire Council / Get Out magazine press and other publications wider afield including The Chilterns Society News Magazine and Chilterns AONB publications.	Ensure continued local support of the Parish Council, Greensand Trust and the Chilterns AONB.	CBC / FoSC	Ongoing / Annually
4.3	Studham Lower School should be encouraged to use the site as frequently as possible. Access to The 'Chilterns Commons Education Resource Pack' aims to link with the national curriculum.	Studham Common has great potential as a learning resource with Studham Lower School in close proximity.	CBC / FoSC	Ongoing / Annually
4.4	Support the CAONB in its successful application for 'Heritage Lottery Fund' for the role of a 'Commons Project Officer'.	Would be beneficial to support individuals and groups who want to regenerate their commons but, who may not have the time, the expertise or the resources to do so. If the bid is successful the project is expected to run from 2011 – 2015	CBC / GST / FoSC	2011-15
4.5	The emergence of a new 'Unitary Authority' – 'Central Bedfordshire' has required the updating of publicity and information materials. New leaflets need to be developed and their continued availability in local outlets ensured.	To inform people about the common , its ownership and management responsibilities and its working partnership with the local community.	CBC / FoSC	2011
4.6	Ensure CBC 'Countryside Access Team incorporate themes of the 'OAIP' and its 'Service Business Plan' and any local developed 'Performance Indicators' (PI's) in to this and subsequent management plans.	Would be beneficial to support individuals and groups who want to regenerate and get involved in their local areas and community	CBC	2011-12

Management Objective	Description of Works	Reason	Lead	Time Line
4.7	Continue to raise awareness of the site as a place of open access and informal recreation for walkers and horse-riders.	To encourage new visitors to use and become interested in the common.	CBC / FoSC	Anually
4.8	Continue to support FoSC in achieving 'Green Flag Community Award'	This is a national award that recognises high quality green spaces in England and Wales that are managed by voluntary and community groups.	FoSC	Annually

C	Objective 5 - Continue to develop community interest and wider support in safeguarding the common.				
5.1	Continue to encourage and support the Friends of Studham Common in undertaking further practical projects and public events on the common. Practical tasks will be co-ordinated by the GST and will work towards agreed targets, as laid out in the management plan.	To maintain the community interest in the site and maximise the delivery of many of the practical elements of the management plan.	CBC / GST	Annually	
5.2	Links with neighbouring landowners, residents of the village and Parish Council should be actively encouraged to make them aware of future projects, invite comment and welcome, where possible, their involvement.	The long-term future of the common can be strengthened with all sections of society enjoying and getting involved in the active enhancement of the site.	CBC / FoSC	Annually	
5.3	Encourage opportunities for maximising future local community interest and involvement in the common. This could include the development of a DVD / audio project featuring stories about the common from some of older residents of Studham.	The long-term future of the common can be strengthened with all sections of society enjoying and getting involved in the active enhancement of the site.	CBC / Local groups / individuals	Subject to CAONB Commons Bid	

Project Management & Monitoring Control

4.2	Annual Report - CBC in co-ordination with the GST	Report back outlining the identified	CBC / GST	Annually
	will produce an annual report.	'Management Objective' actions / outcomes		-
		to the local community through the FoSC		
		AGM and Studham Parish Council – Parish		
		Link.		

5. Funding

5.1 Suitable sources of funding

CBC have a site revenue / works budget available for Studham Common. This helps cover some of the current costs for the site including cutting of the common, maintenance of signage, roadside tree clearance, and the ongoing spray treatment for Japanese Knotweed.

Funds are clearly limited and further sources of funding need to be explored to help implement further recommendations in this management plan.

The Friends of Studham Common, working with the authority's Senior Funding Officer and Senior Countryside Access Team sites officers have opportunity to secure external additional funds for the support of both practical and interpretative projects.

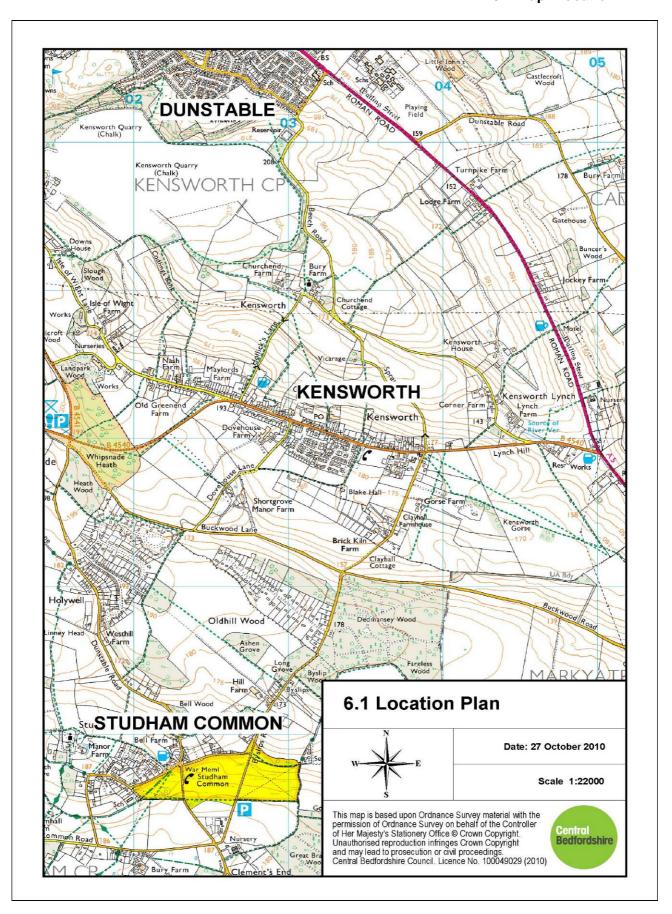
Further funding opportunities include:

- ➤ English Nature Species Action BAP related dormouse Work
- ➤ Designation as a Local Nature reserve, if pursued, could open up a number of funding options, including English Nature funding Higher Level Stewardship (HLS)
- Local Heritage Initiative
- > Woodland Grants Scheme

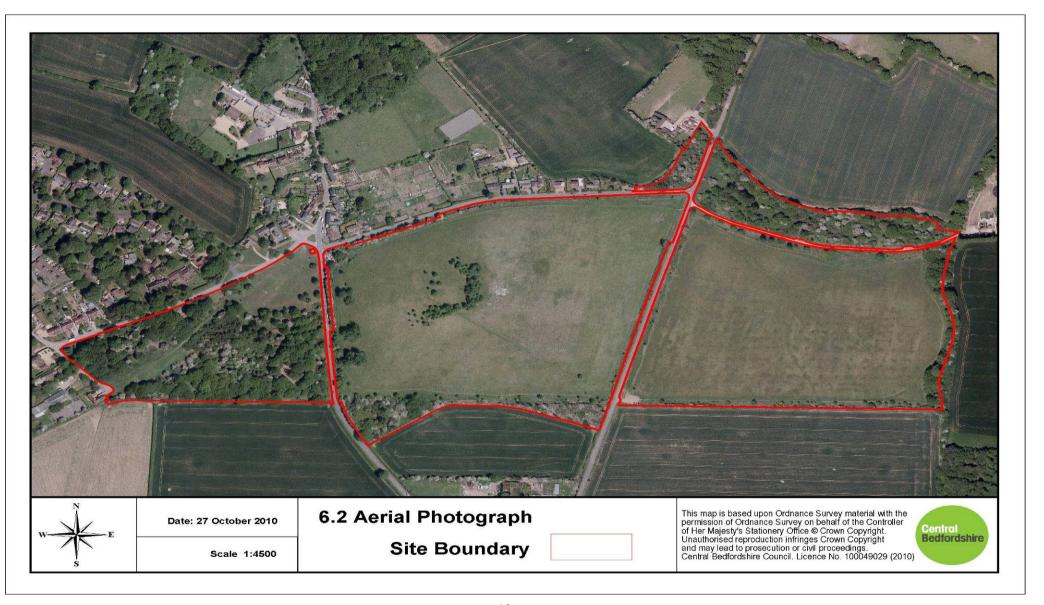
> P3 funding for tools and their maintenance, refreshments, village hall hire, leaflets etc

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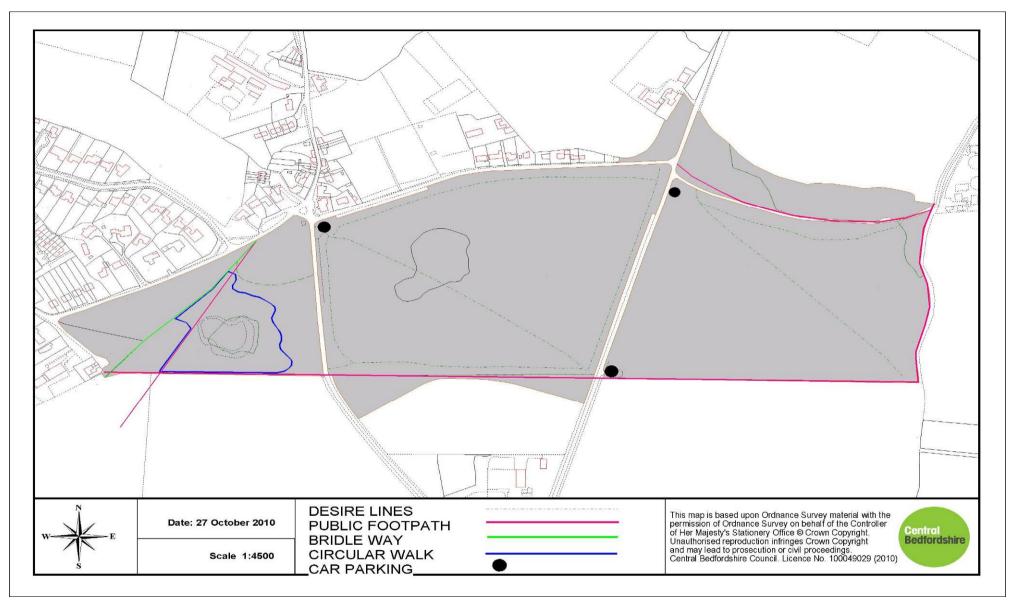
Appendix A



6.2 Map: Aerial Photograph



6.3 Map: Access



Appendix B

7.1 CWS report

Site name: Studham Common CWS

Status(es): County Wildlife Site

Gridref: TL025157 Area: 30.8 hectares

Council(s): Central Bedfordshire History: 9/1997 CWS recognized

CWS recognized for: A mosaic of species rich habitats

Main habitats present:

UK BAP Priority Neutral Grassland (Broad Habitat)

Acid Grassland (Broad Habitat)

Lowland Mixed Deciduous Woodland

Other habitat(s) Bracken, Scrub

Site Description:

Site Description

The site comprises an area of acidic grassland containing abundant scrub and trees (dense in places), much scattered bracken and some embankments; two small blocks of dense scrub to west and east of Byslips Road at TL027158; and a strip of ruderal vegetation and scattered scrub extending from TL027158 east to TL030158. The common was ploughed during World War II.

CWS Survey May 1997

Studham Common is an area of open common land on a clay-with-flints soil, slightly acidic in places. The grassland comprises MG6 *Anthoxanthum odoratum* sub-community. The common is divided by two minor roads and is in three sections; the east and central sections are MG6 grasslands, whilst the west section comprises a mixture of MG6, heavily mown amenity grassland and an area of W10 *Quercus robur-Pteridium aquilinum-Rubus fruticosus* woodland/W8d *Fraxinus excelsior-Acer campestre-Mercuralis perennis-Hedera helix* sub-community.

The grasslands are not particularly species-rich consisting of grasses such as meadow foxtail (*Alopecurus pratensis*), sweet vernal grass (*Anthoxanthum odoratum*), soft brome (*Bromus hordeaceus* ssp.), Yorkshire fog (*Holcus Ianatus*), cocksfoot (*Dactylis glomerata*) and perennial rye-grass (*Lolium perenne*). Other species include field woodrush (*Luzula campestris*), pignut (*Conopodium majus*), black knapweed (*Centaurea nigra*) and ox-eye daisy (*Leucanthemum vulgare*).

The W10 communities are very scattered and contain areas of open gorse (*Ulex europaeus*), and bracken (*Pteridium aquilinum*); the ground flora includes common hemp-nettle (*Galeopsis tetrahit*), heath bedstraw (*Galium saxatile*), honeysuckle (*Lonicera periclymenum*) and wood millet (*Milium effusum*).

A small area of W8d woodland has a dense canopy and casts a heavy shade creating a poor floristic community, but species such as dog's mercury (*Mercurlalis perennis*), ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), bluebell (*HyacIntholdes non scripta*), and male fern (*Dryopteris filix-mas*) all occur.

Other interesting species such as hop (*Humulus lupulus*), hornbeam (*Carpinus betulus*) and yellow archangel (*Lamium galeobdolon*) also occur in the wooded areas.

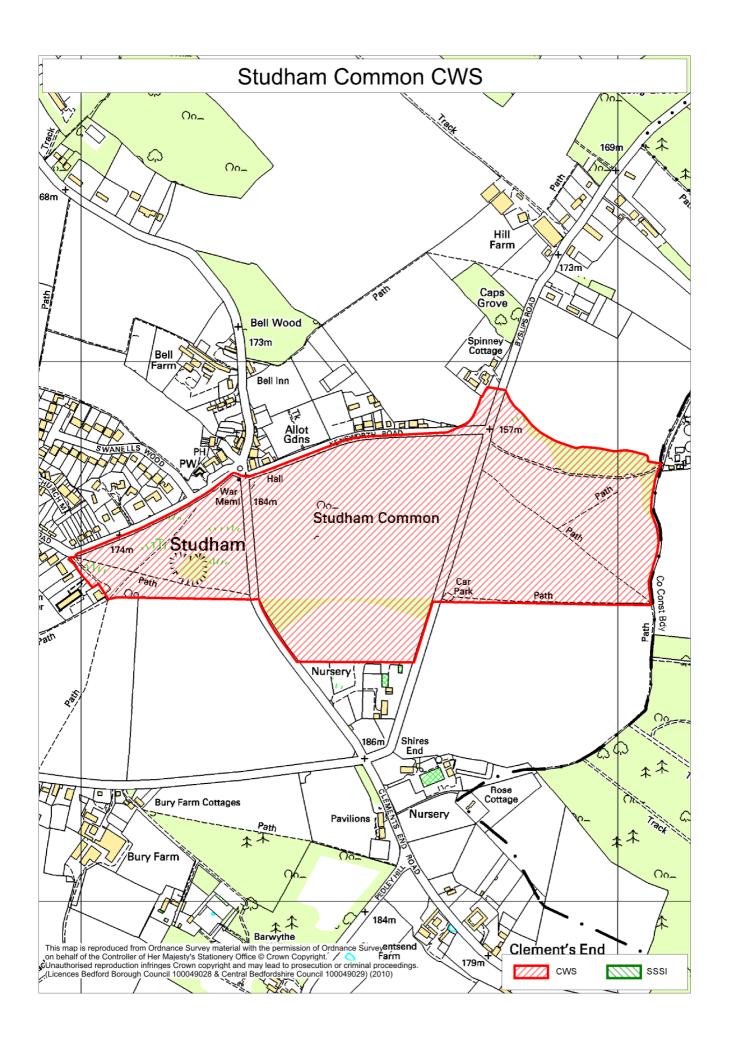
A small area of trees - Norway Maple (*Acer platanoides*), silver Birch (*Betula pendula*) and lime (*Tilia vulgaris*) have been planted in the central portion of the common. Scattered gorse bushes occur throughout the area, particularly common on the western section.

Along the eastern edge of the common is a well-developed thick hedge of hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*) and dog rose (*Rosa canina*) which also contains many standards of pedunculate oak (*Quercus robur*), ash and beech (*Fagus sylvatica*).

This is a diverse and interesting site and the grasslands will hopefully continue to develop an interesting flora in time. The site as a whole contains 5 woodland indicator species and 7 grassland indicator species, 2 of these strong indicators. There are also 3 heathland indicators species giving a total of 15 indicator species for the whole area.

CWS recognized September 1997

The site was recognized as a County Wildlife Site in September 1997 because of the mosaic of species rich habitats present.



7.2 List of Recorded Site Flora

Scientific Name

Acer campestre Acer platanoides Acer pseudoplatanus Achillea millefolium Aegopodium podagraria Aesculus hippocastanum

Aethusa cynapium Agrimonia eupatoria Agrostis capillaris Agrostis stolonifera Alchemilla mollis Alliaria petiolata Allium ursinum

Alnus glutinosa Alopecurus myosuroides Alopecurus pratensis Anagallis arvensis Anemone nemorosa Anisantha sterilis

Alnus cordata

Anthoxanthum odoratum Anthriscus sylvestris

Arctium minus Armoracia rusticana Arrhenatherum elatius Artemisia vulgaris

Arum maculatum Atriplex prostrata Barbarea vulgaris

Bellis perennis

Betula pendula Betula pubescens Bromopsis ramosa Bromus hordeaceus Calystegia sepium

Campanula rotundifolia

Capsella bursa-pastoris Cardamine flexuosa Cardamine hirsuta Cardamine pratensis Carduus crispus Carex sylvatica Carpinus betulus Castanea sativa Centaurea nigra Cerastium fontanum

Common Name

Field Maple Norway Maple Sycamore Yarrow

Ground-elder Horse-chestnut Fool's Parsley Agrimony Common Bent Creeping Bent

Garlic Mustard Ramsons Italian Alder

Lady's-mantle

Alder Black-grass Meadow Foxtail Scarlet Pimpernel Wood Anemone Barren Brome Sweet Vernal-grass

Cow Parsley Lesser Burdock Horse-radish False Oat-grass Mugwort

Lords-and-ladies Spear-leaved Orache

Winter-cress

Daisy

Silver Birch Downy Birch Hairy Brome Soft-brome Hedge Bindweed

Harebell

Shepherd's-purse Wavy Bitter-cress Hairy Bitter-cress Cuckooflower Welted Thistle Wood-sedge Hornbeam Sweet Chestnut Common Knapweed Common Mouse-ear

Cerastium glomeratum Cerastium tomentosum

Chaerophyllum temulum

Chamerion angustifolium Chionodoxa sp.

Cirsium arvense

Cirsium vulgare Conium maculatum Conopodium majus

Convolvulus arvensis Cornus sanguinea

Corylus avellana Crataegus monogyna

Crepis capillaris Crepis vesicaria

Crocus tommasinianus Crocus vernus

Crocus vernus
Cynosurus cristatus
Dactylis glomerata
Dactylorhiza fuchsii

Daucus carota

Deschampsia caespitosa

Digitalis purpurea

Dryopteris dilatata Dryopteris filix-mas Elymus caninus Elytrigia repens

Epilobium hirsutum
Epilobium montanum

Epilobium montanum Eranthis hyemalis

Euphorbia exigua Fagus sylvatica

Fallopia japonica Festuca arundinacea

Festuca rubra agg. Forsythia x intermedia

Fragaria vesca

Fraxinus excelsior Fumaria officinalis

Galanthus nivalis

Galeopsis tetrahit

Galium aparine Galium saxatile

Galium verum Geranium dissectum

Geranium molle Geranium pyrenaicum Geranium robertianum

Geum urbanum

Common Name

Sticky Mouse-ear Snow-in-summer Rough Chervil

Rosebay Willowherb Glory of the Snow Creeping Thistle Spear Thistle Hemlock Pignut

Field Bindweed Dogwood Hazel Hawthorn

Smooth Hawk's-beard Beaked Hawk's-beard

Early Crocus Spring Crocus Crested Dog's-tail Cock's-foot

Common Spotted-orchid

Wild Carrot Tufted Hair-grass

Foxglove

Broad Buckler-fern Common Male-fern Bearded Couch Common Couch Great Willowherb

Broad-leaved Willowherb

Winter Aconite Dwarf Spurge

Beech

Japanese Knotweed

Tall Fescue Red Fescue Forsythia

Wild Strawberry

Ash

Common Fumitory

Snowdrop

Common Hemp-nettle

Cleavers

Heath Bedstraw Lady's Bedstraw

Cut-Leaved Crane's-bill Dove's-Foot Crane's-bill Hedgerow Crane's-bill

Herb-robert Herb Bennet

Glechoma hederacea

Hedera helix

Helictotrichon pubescens

Heracleum sphondylium

Hieracium agg. Holcus lanatus Holcus mollis

Humulus lupulus Hyacinthoides non-scripta

Hypericum maculatum Hypericum perforatum Hypericum pulchrum Hypochaeris radicata

Ilex aquifolium Juncus effusus Knautia arvensis

Lamiastrum galeobdolon argentatum Lamiastrum galeobdolon montanum

Lamium album
Lamium purpureum
Lapsana communis
Lathyrus pratensis
Leontodon autumnalis
Leucanthemum vulgare

Linaria vulgaris Linum catharticum

Lolium perenne

Lonicera periclymenum Lotus corniculatus

Luzula campestris Lysimachia punctata Malus domestica

Malus domestica Malva moschata

Malva sylvestris Matricaria discoidea Medicago arabica Medicago lupulina Mercurialis perennis

Milium effusum Moehringia trinervia Myosotis arvensis

Narcissus pseudonarcissus

Odontites vernus Orchis morio Ophrys apifera

Papaver rhoeas Persicaria maculosa Phleum bertolonii

Phleum pratense

Common Name

Ground-ivy

Ivy

Downy Oat-grass

Hogweed Hawkweed Yorkshire-fog Creeping Soft-grass

Hop Bluebell

Imperforate St. John's-wort Perforate St. John's-wort Slender St. John's-wort

Cat's-ear Holly Soft Rush Field Scabious

Yellow Archangel (variegated form)

Yellow Archangel White Dead-nettle Red Dead-nettle Nipplewort

Meadow Vetchling Autumnal Hawkbit Oxeye Daisy Common Toadflax

Fairy Flax

Perennial Rye-grass

Honeysuckle

Common Bird's-foot-trefoil

Field Wood-rush Dotted Loosestrife

Apple

Musk-mallow Common Mallow Pineapple Weed Spotted Medick Black Medick Dog's Mercury Wood Millet

Three-nerved Sandwort Field Forget-me-not

Daffodil Red Bartsia

Green-winged Orchid

Bee Orchid Common Poppy Redshank

Smaller Cat's-tail

Timothy

Pilosella officinarum Pimpinella major

Pimpinella saxifraga

Plantago lanceolata Plantago major

Poa angustifolia

Poa annua Poa nemoralis Poa pratensis Poa trivialis

Polygonum arenastrum

Polygonum aviculare Populus tremula Potentilla anserina Potentilla erecta Potentilla reptans

Potentilla sterilis Primula vulgaris Prunella vulgaris

Prunus avium
Prunus domestica

Prunus spinosa Pteridium aquilinum

Quercus robur
Ranunculus acris
Ranunculus auricomus
Ranunculus bulbosus
Ranunculus ficaria
Ranunculus repens

Raphanus raphanistrum Rhamnus cathartica

Rhus typhina Ribes uva-crispa

Rosa arvensis
Rosa canina agg.
Rubus fruticosus agg.

Rubus idaeus Rumex acetosa

Rumex acetosella Rumex crispus Rumex obtusifolius

Salix caprea

Sambucus nigra

Scrophularia nodosa Sedum album

Senecio jacobaea Senecio vulgaris

Silene latifolia Silene vulgaris **Common Name**

Mouse-ear-hawkweed Greater Burnet-saxifrage

Burnet-saxifrage Ribwort Plantain Greater Plantain

Narrow-leaved Meadow-grass

Annual Meadow-grass Wood Meadow-grass Smooth Meadow-grass Rough Meadow-grass Equal-leaved Knotgrass

Knotgrass Aspen Silverweed Tormentil

Creeping Cinquefoil Barren Strawberry

Primrose
Selfheal
Wild Cherry
Wild Plum
Blackthorn
Bracken

Pedunculate Oak
Meadow Buttercup
Goldilocks Buttercup
Bulbous Buttercup
Lesser Celandine
Creeping Buttercup

Wild Radish Buckthorn

Gooseberry

Stag's-horn Sumach

Field Rose Dog Rose Bramble Raspberry Common Sorrel Sheep's Sorrel Curled Dock

Broad-leaved Dock

Goat Willow

Elder

Common Figwort White Stonecrop Common Ragwort

Groundsel

White Campion Bladder Campion

Sinapis arvensis Sison amomum

Sisymbrium officinale Solanum dulcamara

Solidago canadensis Sonchus asper Sonchus oleraceus

Sorbus aria

Sorbus aucuparia Sorbus intermedia

Spiraea douglasii Stachys sylvatica Stellaria graminea Stellaria holostea

Stellaria media

Symphytum tuberosum Tamus communis Tanacetum parthenium Taraxacum officinale agg.

Taxus baccata Tilia cordata

Tilia x vulgaris

Torilis japonica
Tragopogon pratensis
Trifolium dubium
Trifolium micranthum
Trifolium pratense

Trifolium repens

Tripleurospermum inodorum Trisetum flavescens

Tussilago farfara Ulex europaeus Ulmus procera Urtica dioica

Veronica atotca
Veronica arvensis
Veronica chamaedrys
Veronica filiformis
Veronica hederifolia
Veronica persica
Veronica serpyllifolia

Viburnum lantana Vicia cracca Vicia hirsuta Vicia sativa Vicia sepium Vicia tetrasperma Vinca major

Vinca minor Viola arvensis **Common Name**

Charlock Stone Parsley Hedge Mustard Bittersweet

Canadian Goldenrod Prickly Sow-thistle Smooth Sow-thistle

Whitebeam Rowan

Swedish Whitebeam

Steeple-bush

Hedge Woundwort Lesser Stitchwort Greater Stitchwort Common Chickweed Tuberous Comfrey Black Bryony Feverfew

Yew

Dandelion

Small-leaved Lime

Lime

Upright Hedge-parsley

Goat's-beard Lesser Trefoil Slender Trefoil Red Clover White Clover

Scentless Mayweed Yellow Oat-grass

Colt's-foot Gorse English Elm Common Nettle Wall Speedwell

Germander Speedwell Slender Speedwell Ivy-leaved Speedwell Common Field-speedwell Thyme-leaved Speedwell

Wayfaring-tree
Tufted Vetch
Hairy Tare
Common Vetch
Bush Vetch
Smooth Tare
Greater Periwinkle
Lesser Periwinkle

Field Pansy

Viola odorata Viola reichenbachiana Viola riviniana Vulpia bromoides

Common Name

Sweet Violet Early Dog-violet Common Dog-violet Squirrel-tail Fescue

7.3 List of recorded Fungi

- joint foray with Hertfordshire Fungi Group and Friends of Studham Common 08.10.2006.
 The foray was led by Alan Outen, Recorder of fungi for Bedfordshire and Hertfordshire
- two new species found by Charles Baker and confirmed by Alan Outen in March 2010

	Associated species/ habitat	2006	2010
Agarics & Boleti			
Agaricus arvensis	grassland	•	
Agaricus campestris	grassland	•	
Agaricus lutosus	grassland	•	
Boletus cisalpinus (=chrysenteron s.l. auct)	Quercus robur	•	
Clitocybe dealbata	grassland	•	
Clitocybe rivulosa	grassland	•	
Clitopilus prunulus		•	
Collybia confluens	Fagus sylvatica	•	
Collybia dryophila	Fagus sylvatica	•	
Collybia fusipes		•	
Coprinus hiascens		•	
Cortinarius alboviolaceus		•	
Cortinarius anomalus		•	
Cortinarius flexipes var flabellus	Fagus sylvatica	•	
(=C.paleaceus)			
Cortinarius hemitrichus	Betula pendula	•	
Cortinarius purpurascens	Fagus sylvatica	•	
Crepidotus variabilis		•	
Entloma exile (=Nolanea)	grassland	•	
Entoloma jubata (=Trichopilus)	grassland	•	
Hebeloma sacchariolens		•	
Hebeloma velutipes		•	
Hygrocybe conica	Grassland	•	
ygrocybe flavipes	Grassland	•	
Hygrocybe miniata	Grassland	•	
Hygrocybe pratensis	Grassland	•	
Hygrocybe psittacina	Grassland	•	
Hgrocybe reidii	Grassland	•	
Hypholoma fasciculare		•	
Inocybe brunneoatra	Fagus sylvatica	•	
Laccaria amethystea	Fagus sylvatica	•	
Laccaria laccata	Fagus sylvatica	•	
Lactarius blennius	Fagus sylvatica	•	

Lactarius glyciosmus	Betula pendula	•	
Lactarius turpis	Betula pendula	•	
Lepiota cristata	·	•	
Lepista flaccida (=Clitocybe)		•	
Lyophyllum decastes		•	
Macrolepiota mastoidea	grassland	•	
Marasmiellus ramealis		•	
Marasmius oreades	grassland	•	
Mycena aetites	grassland	•	
Mycena galopus		•	
Mycena olivaceomarginata	grassland	•	
Mycena sanguinolenta		•	
Mycena vitilis		•	
Panaeolus rickenii	grassland	•	
Paxillus involutus	Salix, Fagus sylvatica	•	
Pluteus cervinus		•	
Rickenella fibula	Moss carpet	•	
Russula mairei	Fagus sylvatica	•	
Russula parazurea		•	
Tephrocybe rancida		•	
Tricholoma album		•	
APHYLLOPHORALES (Brackets, fairy clubs etc) Clavaria acuta	grassland	•	
Clavulina rugosa	grassland	•	
Daedaleopsis confragosa	Salix caprea	•	
Hapalopilus nidulans	Comit Corp. Co.	•	
Hyphodontia sambuci	Sambucus nigra	•	
Peniophora incarnata	Ulex europaeus		•
Peniophora quercina	Olex datepadde	•	
Phellinuus ferruginosus		•	
Schizopora paradoxa		•	
Stereum gausapatum	Quercus robur	•	
Stereum hirsutum	Ulex europaeus	•	
Stereum rugosum	Quercus robur	•	
Thelephora terrestris		•	
Trametes versicolor (=Coriolus)	Ulex europaeus		•
, ,	'		
GASTEROMYCETES (Puffballs, Stinkhorns etc)			
Lycoperdon perlatum		•	
Scleroderma areolatum		•	
Scleroderma citrinum		•	
Scleroderma verrucosum		•	
Vascellum pratense			
Vascellatti praterise		•	

HETEROBASIDIOMYCETES (Jelly Fungi)			
Tremella mesenterica		•	
TELEOMYCETES (Rusts & Smuts)			
Melampsora caprearum	Salix caprea	•	
Melampsoridium betulina	Betula pendula	•	
Phragmidium violaceum	Rubus fruticosus agg.	•	

ASCOMYCETES (cup fungi & allies)			
Diatrype disciformis		•	
Erisiphe heraclei	Heracleum sphondylium	•	
Erisiphe sordida	Plantago major	•	
Guignardia aesculi (as leaf blotch only)	Aesulus hippocastanum	•	
Leptosphaeria acuta	Urtica dioica	•	
Microsphaeria alphitoides	Quercus robur - leaf	•	
Otidea alutacea		•	
Rhopographis filicinus	Pteridium aquilinum	•	
Trochila ilicina	Ilex aquifolium	•	
Venturia inaequalis (as scab on fruit only)	Malus	•	
HYPHOMYCETES			
Ramularia pratensis		•	
Sepedonium chrysospermum	Rotting Boletus sp.	•	

SUMMARY

		Total spp 2006	New spp 2010
Agarics & Boleti	Mushrooms, Toadstools etc	53	
Aphyllophorales	Bracket Fungi & relatives	12	2
Gasteromycetes	Puffballs, Stinkhorns etc.	5	
Heterobasidiomycetes	Jelly Fungi	1	
Teleomycetes	Rusts & Smuts	3	
Ascomycetes	Cup Fungi & relatives	10	
Hyphomycetes		2	
Coelomycetes		0	
Phycomycetes	Pin Moulds	0	
Myxomycetes	Slime-Moulds	0	
Total		86	2

Comments by Alan Outen on the foray of 2006

This is quite an impressive tally. The 6 species of waxcaps (*Hygrocybe*) would rank the Common as at least of local importance as a waxcap grassland but I am sure there may be other species of

this genus to add, especially since this was just one visit and it was early for waxcaps to be appearing

7.4 List of recorded site Fauna

Butterflies (Recorded by CRB & PM Baker 2009/10)

White Letter Hairstreak Small Skipper Comma

Essex Skipper Small Copper Speckled Wood Large Skipper **Brown Argus** Wall Brown Brimstone Common Blue Marbled White Large White Holly Blue Gatekeeper Small White Red Admiral Meadow Brown Green-veined White Painted Ladv Small Heath Ringlet Small Tortoiseshell Orange Tip

Purple Hairstreak Peacock

26 species

Total 26 species but Wall Brown has declined nationally and has not been seen on the Common for at least 15 years.

Other insect groups have not been recorded systematically but a short search for leaf-mines in autumn 2009 revealed mines of the larvae of 16 species of micro-moths.

Birds (recorded by J Hanna and others since 2005) Using the Common:

Red-legged Partridge Wren Jay Common Pheasant Dunnock Magpie Jackdaw Red Kite Robin Goshawk Common Stonechat -Rook

Sparrow hawk on passage **Carrion Crow** Common Buzzard Northern Wheatear -Common Starling House sparrow Kestrel on passage Peregrine Falcon Blackbird Common Chaffinch

Herring Gull Fieldfare Greenfinch Black-backed Gulls Song Thrush Goldfinch Wood Pigeon Redwing Linnet Collared dove Mistle Thrush Bullfinch Cuckoo Blackcap Yellowhammer

Common Whitethroat Little Owl

Tawny Owl Seen in the past but not Common Swift Willow warbler recently: Green Woodpecker Goldcrest Turtle Dove

Great Spotted Spotted Flycatcher Woodpecker Long-tailed Tit Flying over regularly:

Common Chiffchaff

Skv Lark Blue Tit Lapwing Barn Swallow Great Tit Barn Owl Pied Wagtail Cole Tit Meadow Pipit

Mammals

The presence of Hazel Dormouse has been recorded by regular monitoring nest boxes since 2004.

The following species have been recorded during surveys from over-night mammal trapping:

Hazel Dormouse Field vole Woodmouse

Common shrew Bank vole

The following mammals were recorded by casual observation:

Pygmy Shrew Grey Squirrel Weasel Mole Badger Muntjac deer

Rabbit Fox

Hare Stoat Pipistrelle bat

and other bats not identified to

species

Reptiles and Amphibians:

Local residents have reported seeing grass snakes and slow worms on the Common. A hibernating common toad was dug up during hedge planting in 2008.

Studham Common

East Hedgerow Dormouse survey and management recommendations



Steve Halton, Countryside Access Service, March 2010

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1. Introduction

In 2005 South Bedfordshire District Council, the then owners of Studham Common, commissioned the North Chilterns Trust to carry out a survey of potential dormouse habitat and dormouse presence across the Common.

This work has now been updated, with a focus in the known area of dormouse presence on the Common, the eastern hedgerow. This work was kindly funded by a grant provided by the Chilterns Conservation Board (CCB) Conservation Fund.

Fieldwork and the writing of this report was carried out by Stephen Halton, Senior Project Officer, Countryside Access Service, Central Bedfordshire Council, in March / April 2010.

2. Acknowledgements

Thanks go to:
Chilterns Conservation Board
The Greensand Trust
Pat and Charles Baker
Pam Rumfitt – Chair of FOSC
Bedfordshire Dormouse Group
Central Bedfordshire Council

3. Contact

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Countryside Access Service
Central Bedfordshire Council

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Tel: 0300 300 6135

4. Abbreviations used in text

CBC Central Bedfordshire Council

GST The Greensand Trust

FOSC Friends Of Studham Common BDG Bedfordshire Dormouse Group

Studham Common East hedgerow, north end. [Picture]

East hedgerow, central section – main dormouse area [Picture]

East hedgerow, south section, showing dense blackthorn thicket

[Picture]

5. Studham Common – summary and history

Studham Common comprises 62ha (154 acres) of trees, woodland, scrub, hedgerows, bracken and open grassland set in the Chilterns AONB and in south Bedfordshire, just south of Studham village. The common is owned and managed by Central Bedfordshire Council (CBC). The site is also managed by the Greensand Trust (GST) a local conservation organisation and the Friends of Studham Common (FOSC) a local volunteer/P3 community group.

The common is designated as a County Wildlife Site (CWS) for its wildlife, plant species and habitats, many of which are unusual due to the underlying geology and soils. These are mainly clay-with-flints and the soils tend towards acidic in areas thus encouraging plants unusual in this part of Bedfordshire such as gorse, bracken and lesser stitchwort.

The parishes of Studham and Whipsnade have long been known to be a stronghold for the hazel or common dormouse (*Muscardinus avellanarius*) but it has never been recorded on the common. A survey was carried out by Steve Halton together with members of the Bedfordshire Dormouse Group in November 2002, and again in 2010, as part of the 'Great Nut Hunt' and dormouse-opened hazelnuts were found and these helped to identify one area of the common (the east hedgerow) which is obviously used by the species.

As a result of this, NCT volunteers made some dormouse boxes of which 8 were erected in the winter of 2003, and several more since, in the strip of woodland/hedgerow along the boundary of the east common. Boxes were checked monthly from April to October by a local volunteer from FOSC (Pam Rumfitt) and Steve Halton (a registered and licensed dormouse handler) from CBC and in October 2004 a dormouse nest was discovered in a box so confirming the presence of the species on the common.

Since that time more boxes have been erected in the eastern boundary hedge and all boxes have been monitored by Pam Rumfitt, Chair of FOSC. Dormice and nests were again discovered in the (newer) boxes during the summer of 2009.

The eastern hedgerow appears to have remained surprisingly constant from at least 1942 to the present day though with increasing density due to tree growth and in-fill by scrub. The hedgerow forms part of the county boundary between Bedfordshire and Hertfordshire

and therefore is probably historically always been an important boundary and feature in the landscape.

6. Description of the Eastern hedgerow

The eastern hedgerow is a wide (over 10m average) and extensive linear habitat running along the length of the eastern side of the East Common, and part of Studham Common.

The hedgerow contains interesting habitats and vegetation, most closely resembling NVC W10 Oak – Bracken – Bramble and W8 Ash – Field Maple - Dog's Mercury plant communities.

The vegetational structure of the hedgerow is very varied and ranges from tall, mature oak, ash, beech and holly through open areas of coppiced hazel to areas of dense blackthorn.

Particular features of note relevant to dormice are:

- Mature trees such as oak, ash, beech, sycamore and field maple.
- Individual trees such as goat willow and holly.
- Areas of mature hazel coppice.
- Dense stands of hawthorn and blackthorn scrub.
- Extensive populations of honeysuckle.
- Areas of dense bramble and bracken.
- Canopies and lower branches of trees touching each other.
- Open, sunny areas and areas of dense vegetation.

The hedgerow also contains important heritage features such as a woodbank and ditch running along much of the eastern edge of the hedgerow and a large pit at the northern end, possibly created through excavation of flints.

See Appendix 1 for map of features and vegetation of the hedgerow.

[Picture]

East hedgerow showing dormouse box on hazel and woodbank

[Picture]

7. Survey methods

The east hedgerow was surveyed during March 2010 for the following components:

- Habitat survey of vegetation for structure, position and species.
- Presence of significant plant species for dormice (ie: hazel, honeysuckle etc).
- Presence of dormouse-opened hazelnuts.
- Any other signs of dormouse presence (ie: stripped honeysuckle etc).

See map for further information (Appendix 1).

8. Dormouse conservation and ecology – a brief overview

The confirmation of the presence of hazel dormouse on Studham Common means that the Common assumes considerable importance in Bedfordshire and some importance in a UK context also. The hazel dormouse is a rare and declining species in the UK and is a Red Data Book species. The animal is also a UK National Biodiversity Action Plan (BAP) species and is heavily protected by legislation both in the UK and Europe. The dormouse is listed in Appendix 3 of the Bonn Convention and Annex Iva of the EC Habitats Directive. It is also protected under Schedule 2 of the Conservation (Natural Habitats etc.) Regulations, 1994 (Regulation 38) and Schedule 5 of the Wildlife and Countryside Act (WCA) 1981.

In summary, the relevant parts of the Act and Regulations make it illegal to:

- Intentionally or deliberately kill, injure or capture dormice
- Deliberately disturb dormice (whether in a nest or not)
- Damage or destroy dormouse breeding sites or resting places

This legislation ensures that the species, and its habitat is protected and there is a duty of care to the animal on the Common placed on the landowners of the Common, partner organisations and other local people and communities.

Significant plant species for dormice

Hazel is the dominant, and most important species for dormice and provides food (nuts and insects), shelter and hibernation sites under the root system. However, it is surprisingly scarce across much of the common with only a small amount growing in the pit on the west common, none on the middle common and the largest amounts on the east common (in the newly planted hedgerow and in the eastern hedgerow).

Need to retain areas of abundant honeysuckle for nest building and food

Survey of Eastern hedgerow for dormice

Areas of hazel in the hedgerow were searched for the presence of distinctively opened nuts by searching through the leaf litter under the trees. The area of hazel in the eastern boundary hedgerow again produced dormouse-opened hazelnuts.

In addition, plant species were recorded and assessment made of the positioning of tree/shrub species of relevance to dormice.

Other signs of dormouse presence

The ideal time to survey for other signs is when dormice are most active ie: May to October but some survey work can still be carried out during the rest of the year. Searches were made for the presence of finely stripped bark from honeysuckle and

woven 'summer nests' in areas of dense bramble, hawthorn and /or blackthorn. No sites or signs were found.

Good scrub edge with varied structure and connectivity

9. East hedgerow – present dormouse population and ecology

This area contains a known dormouse population (for history, see above). The area is narrow and linear but, in many respects, provides a typical habitat for dormice. There is good tree cover with interconnectivity of overhead branches and a wide range of tree and shrub species providing cover and food. The following species are present in the hedgerow, wild cherry, pedunculate oak, ash, holly, beech, sycamore, blackthorn, haxel and honeysuckle.

Dormice will utilise a range of plant species for food, cover or nesting materials and the following appropriate species were found during the survey:

- Sycamore food supply (aphids and flowers)
- Honeysuckle (scattered throughout woodland areas, very common in some areas) nest building materials (stripped bark)
- Bramble food supply (flowers and fruits)
- Ash food supply (ash seeds)
- Blackthorn (large, dense stands in parts of the eastern hedgerow) food supply (fruits)
- Hawthorn (dense in areas) food supply (flowers and fruits)
- Cherry, crab apple food supply (flowers and fruits)
- Beech food supply (flowers and mast).

Ideal dense, varied scrub edge for species ecology

The east hedgerow is currently being managed as part of Studham Common and as a partnership between Central Bedfordshire Council (the landowners), the Greensand Trust (a third sector conservation organisation), the Friends of Studham Common (a local community/P3 group) and the Bedfordshire Dormouse Group (a local group of interested volunteers).

It is difficult to estimate the dormouse population size currently utilising the hedgerow but it is probably small although there are good links with adjoining habitats, especially to the south which may help with dispersal and gene flow. To the north the habitat is unfortunately interrupted by the concrete track to the water company compound which may provide a barrier to dispersal in this direction. However, linkages have recently been put in place to enable possible movement of dormice through this area and the provision of aerial ropeways and the planting of areas of hazel and honeysuckle may, in future, help. This may enable movement of individuals between the hedgerow and Dedmansey Wood (a known area of good dormouse population) and other, adjoining habitats such as hedges, copses and areas of scrub.

Inside the eastern boundary hedgerow showing diverse tree/shrub species in dormouse area but with some bare areas that may need planting to encourage shrub species diversity

Presently, the population is being helped and monitored by the use of nestboxes but the species may need more work to enable it to survive, and increase, in the hedgerow and surrounding areas (see below).

Inside the eastern boundary hedgerow showing fine coppiced hazels providing nesting and feeding sites for dormice.

9. East hedgerow – Conservation plan for dormice

The eastern hedgerow boundary of the east common is currently the focus of dormouse work on the Common due to the known presence, and breeding, of the species there. The species is known to be very vulnerable when existing in small, often isolated populations and it is important to avoid genetic stagnation as the species can be prone to viruses which can wipe out small populations and natural spread/colonisation/influx should be encouraged whenever possible through appropriate conservation measure and other techniques.

It would probably also be useful to erect further nestboxes in areas of suitable woodland, scrub and hedgerows to the south and north of the existing area as further areas for survey and it is known that dormice often prefer new, clean boxes.

The main management prescriptions are as listed below (see also Appendix 1):

- Inside the hedgerow, there may be a need to get more light in to enable the hazels to
 produce more nuts and some careful removal of mature tree branches and areas of
 dense blackthorn and hawthorn scrub on the sunny side may be necessary.
- Careful and precise coppicing of small areas of some of the hazels will also become necessary – the increased light and regeneration of the trees will enable the hazels to produce a greater crop of nuts.
- Erection of further nestboxes (including replacement of existing old, dirty and worn boxes) would be useful and may help the species.
- Leave honeysuckle whenever possible during all operations.
- Outside the hedgerow, areas of dense blackthorn and other shrubs could be carefully scalloped and/or cut to create structural diversity and increased fruiting to benefit dormice.
- Where there are areas of tangled vegetation such as bracken, bramble, hawthorn, bramble and honeysuckle (particularly along the sunny, west edge of the hedgerow) it would be best to leave these and try to encourage this habitat to spread along the hedge through judicious and careful coppicing of scrub to create a dense, thick microhabitat.

More general comments:

- Openness, warmth and sun are generally good; dark, shady and cold are generally bad for dormice.
- Leave honeysuckle whenever possible.

- Always think 'linkages' and 'connectivity' when carrying out any management work.
 Leave areas where canopy branches touch or where there are tangled areas of
 bramble/bracken/scrub especially where these climb up or intermingle with the lower
 tree branches (ie; along the western outer edge of the hedgerow).
- Always try to aim for a rich and diverse mix of species of differing heights, ages and structures. It's not good to be able to see to far through, or along, the hedgerow. So, dense is best – but not so dense that the habitat becomes dark and sparse with limited numbers of species.
- As can probably be guessed from the above, dormouse conservation and habitat management can be a case of 'suck it and see'. It is highly recommended that, before any work is carried out on the Eastern hedgerow, a site visit is made with a knowledgeable dormouse expert who can best advise on micro-management of the habitat.

All the above should be carried out in close co-operation with partners such as GST, BDG and FOSC to ensure that the habitat is managed correctly for the species.

Good tree/scrub connectivity needs to be maintained/improved

All partners in this project, CBC, FOSC and GST will continue to work together to ensure that this rare and declining mammal always has a much valued place on and around Studham Common.

Summary

The presence of hazel dormice in the Eastern Hedgerow of Studham Common is a considerable positive attribute both for the Common and its users and managers whilst also bringing challenges and opportunities.

The area, at present, is used by a small population of dormice but there are opportunities through habitat management, provision of nestboxes and linking up with adjacent sites, to potentially increase the population. However, it must also be remembered that the species is prone to population fluctuations outside the site manager's remit such as weather, disease and food supply which can particularly affect small, vulnerable, and potentially isolated populations of dormice.

The main aim is to increase the size of the current dormouse population and opportunities for the spread and flow of other, local, populations through careful habitat management, provision of new nestboxes and monitoring of the effects of this, and other, work through box checking and surveys.

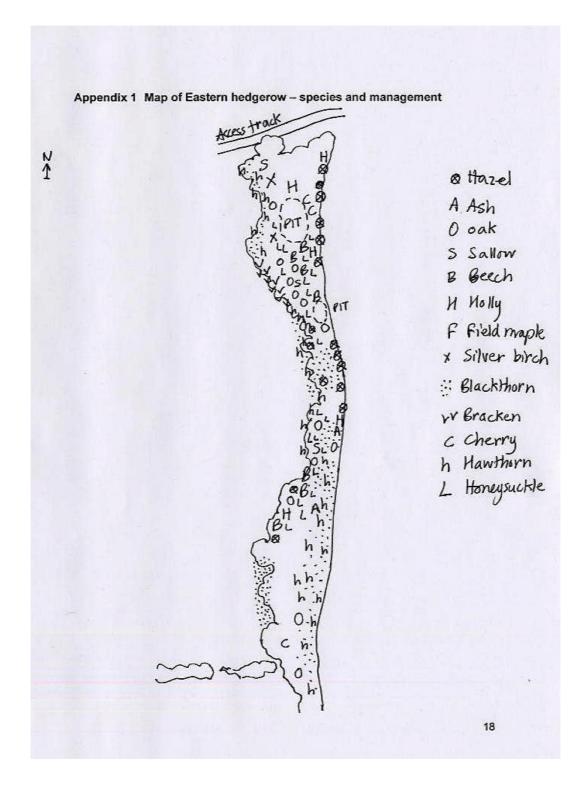
The challenge now is to begin to achieve this through taking forward the suggestions in this document and working with local organisations and experienced individuals through a partnership approach to help make this happen.

12. Recommended reading

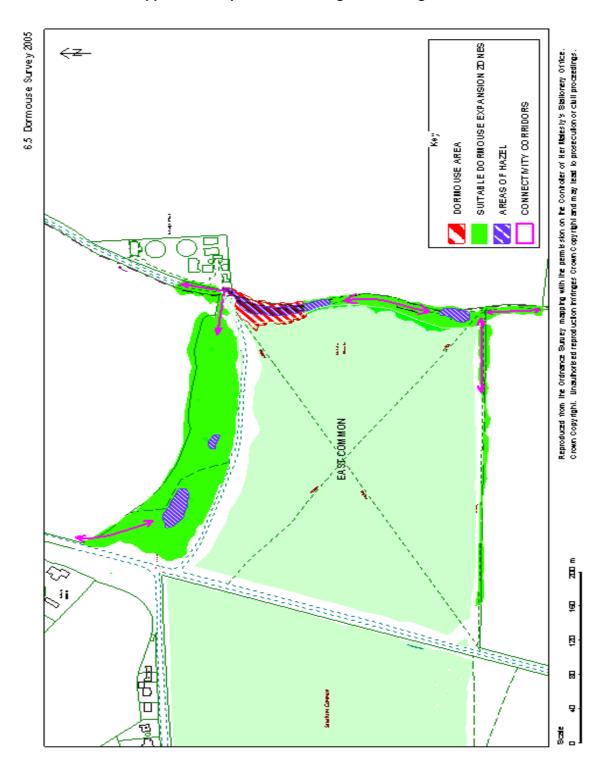
Bright, P. W., & P.A Morris (1993) 'Conservation of the dormouse', *British Wildlife* 4: 154 – 162

Bright, P.W., P. Morris & T. Mitchell-Jones (2006) *The Dormouse Conservation Handbook,* Second Edition, (Natural England)

Morris, P (2004) Dormice, (Whittet Books)



Appendix 2 Map of Eastern Hedgerow - linkages



Appendix C

8.1 South Bedfordshire District Council CORPORATE ENVIRONMENTAL POLICY

South Bedfordshire District Council is one of the key service providers and largest employers in the district. In the light of this, we recognise that we have a vital role to play in delivering a better quality of life and environment for everyone in South Bedfordshire, now and for future generations. In order to take this forward, we are committed to achieve continuous environmental improvement in all our activities and services. We will strive to reduce our own impacts and make every effort to work with our community.

We are doing this by adopting a formal environmental management system. This sets out practical and specific objectives to make sure that environmental considerations are integrated into day-to-day management.

We will apply the following working principles in delivering our Environmental Policy:

- A. Promote awareness and a sense of environmental responsibility amongst employees, Councillors and local residents leading by example
- B. Liaise and co-ordinate throughout the authority and with other organisations on environmental issues
- C. Assess the environmental impact of all existing and proposed activities, policies and practices
- D. Take steps to review and manage all significant environmental effects
- E. Provide environmental information and encourage open dialogue on environmental issues within our community
- F. Encourage and work with our contractors to help them apply environmental standards equivalent to our own
- G. Seek to prevent pollution and environmental accidents from our activities
- H. Comply and where possible, exceed the requirements of all relevant environmental legislation
- I. Provide budgets and resources for environmental improvements, where economically viable to do so
- J. Set up monitoring procedures to ensure compliance with this Policy
- K. Secure continuous environmental improvements
- L. Report performance and set publicly available objectives and targets
- M. Periodically review our policy through the Committee process

AS A REGULATOR, PROVIDER OF SERVICES AND A KEY EMPLOYER, OUR ENVIRONMENTAL AIMS ARE TO:

1 Minimise resource consumption by:

- 1.1 reducing the amount of waste we produce through reducing our consumption
- 1.2 promoting recycling and encouraging the purchase of goods that can be used and disposed of in an environmentally responsible way
- 1.3 practising responsible water and energy management
- 1.4 exploring options to develop the use of locally generated renewable energy
- 1.5 reviewing supplier products and services for environmental impact

2 Promote more sustainable forms of transport by:

2.1 encouraging the best environmental option such as walking, cycling, the use of public transport and car sharing - as an alternative to the private car

3 Promote sensible land use and protect our built environment by:

- 3.1 reflecting local characteristics and distinctiveness
- 3.2 promoting locations and forms of development which minimise environmental impact
- 3.3 improving the safety, security and appearance of the physical environment

4 Protect, maintain and enhance natural areas by:

- 4.1 promoting land management practices which respect our environment
- 4.2 working with our community to maintain and improve existing wildlife habitats, parks, gardens and open spaces

5 Minimise air, noise, land and water pollution and improve health by:

- 5.1 monitoring and taking action against all forms of pollution within our legislative scope
- 5.2 promoting healthy living and working conditions for all in the District
- 5.3 encourage sound environmental practice in the local economy

8.2 Byelaws for Studham Common

Made by the RURAL DISTRICT COUNCIL OF LUTON. In Pursuance of a Scheme made by them and approved by the Board of Agriculture under the provisions of the COMMONS ACT, 1899, with respect to S T U D H A M C O M M O N

- 1. In these byelaws the expression the "Council" means the Rural District Council of Luton; the expression "the common" means the pieces of land with the ponds, paths and roads thereon commonly known as Studham Common situate in the parish of Studham in the County of Bedford, and referred to as "the common" in the scheme for the regulation and management of such common, approved by the Board of Agriculture; the expression the "Scheme" means the scheme for the regulation and management of the common hereinbefore referred to.
- 2. No person shall on any part of the common deposit any road sand, dung, wood or materials for repair of roads.
- 3. No person shall, without lawful authority, dig, cut, or take any turf, sods, gravel, sand, clay or other substance on or from the common, or cut, fell, or carelessly or negligently injure any gorse, heather, timber, or other tree, shrub, brushwood, or other plant growing thereon.
- 4. No person shall deface or remove or carelessly or negligently injure any seat, fence, or any other thing put up or maintained by the Council on the common.
- 5. No person shall without lawful authority
 - (1) Set any trap or net, or lay any snare of any description whatsoever for animals;
 - (2) Shoot or chase game or other animals on the common.
- 6. No person shall, without lawful authority, draw upon the common, any carriage, cart, caravan, truck, or other vehicle, or erect or permit to remain on the common, without the consent of the Council or other lawful authority, any building, shed, tent, fence, post, railing, or other structure, whether used in connection with the playing of games or not, and it shall be lawful for any officer of the Council to remove from the common, any vehicle drawn upon the common, and any structure erected thereon in contravention of this byelaw.
- 7. No person shall except in the case of a fair, lawfully held, place on the common any show exhibition, swing, roundabout, or other like thing, and it shall be lawful for any officer of the Council to remove from the common, anything placed thereon in contravention of this byelaw.
- 8. No person shall without lawful authority light any fire or place or throw or let fall any lighted match, substance or thing on the common.
- 9. No person shall on the common
 - (a) except in the exercise of any lawful right or privilege fire or discharge any firearm:
 - (b) wilfully, carelessly or negligently throw or discharge any missile to the damage or danger of any person.

- 10. No person shall, without lawful authority, turn out or permit to remain on the common, any cattle, sheep, or other animals, and it shall be lawful for any officer of the Council to remove from the common any cattle, sheep, or other animals, being thereon in contravention of this byelaw.
- 11. No person shall at any time exercise any horse on the common to the damage or danger of any other person on the common.
- 12. It shall be lawful for any officer of the Council, after due warning, to remove or exclude from the common, any person who, within his view, commits, or whom he reasonably suspects of committing any offence against any of the foregoing byelaws, or against the Vagrancy Act, 1824.
- 13. No person shall hinder or obstruct an officer of the Council in the exercise of his powers or duties under the scheme, or under any byelaws made thereunder.

PENALTIES

14. Every person who shall offend against any of the foregoing byelaws shall be liable on summary conviction to a fine not exceeding five pounds and in the case of a continuing offence a further fine not exceeding forty shillings for each day during which the offence continues after conviction therefore.

DATED THIS 17TH DAY OF APRIL, 1967

The Common Seal of the Rural District Council of Luton in the County of Bedford, was hereunto affixed in the presence of: -

(Signed) Thomas J. Strange

Presiding Chairman

THE SEAL OF THE RURAL DISTRICT COUNCIL OF LUTON

(Signed) Peter M. Green

Clerk to the Council

The Secretary of State this day confirmed the foregoing byelaws and fixed the date on which they are to come into operation as the first day of September, 1967

N. CAIRNCROSS

An Assistant Under Secretary of State

THE COMMONS ACT, 1899

8.3 BYELAWS FOR PROHIBITING

THE FLYING OF MODEL AIRCRAFT ON STUDHAM COMMON

SOUTH BEDFORDSHIRE DISTRICT COUNCIL BYELAWS

Made by the South Bedfordshire District Council under Section 1 of the Commons Act 1899, and in pursuance of the Scheme of Management made under the Act on 5 January 1911, with respect to Studham Common.

1. In these byelaws:

"the Council" means the South Bedfordshire District Council;

"the Common" means the area of land known as Studham Common, and referred to as "the common" in the scheme of management of Studham Common approved on 5 January 1911;

"model aircraft" means an aircraft which either weighs not more than 5 kilogrammes without its fuel or is for the time being exempted (as a model aircraft) from the provisions of the Air Navigation Order;

"power driven" means driven by the combustion of petrol vapour or other combustible substances or by one or more electric motors or by compressed gas; and

"radio-controlled" means controlled by a radio signal from a wireless transmitter or similar device.

- 2. (1) No person shall on the Common release any power-driven model aircraft for flight or control the flight of such an aircraft.
 - (2) No person shall cause any power-driven model aircraft to take off or land on the Common.
- 3. Every person who shall offend against any of these byelaws shall be liable on summary conviction to a fine not exceeding level two on the standard scale.
- 4. Any person offending against these byelaws may be removed from the Common by any officer of the Council, or any constable.

THE COMMON SEAL of SOUTH BEDFOR	DSHIRE) C.S.6991
DISTRICT COUNCIL was hereunto affixed)	
on the 13 th day of December 1988)	
in the presence of:-)	

P.R. Rawcliffe

Chairman

T.D. Rix

Chief Executive

The foregoing byelaw is hereby confirmed by the Secretary of State and shall come into operation on the 15^{th} day of May, 1989.

Signed by authority of the Secretary of State

C.L. Scoble An Assistant Under-Secretary of State

17th April, 1989

Home Office London, S.W.1

I hereby certify that this printed copy of the byelaw is a true copy of the byelaw as confirmed.

Signed:

T.D. Rix Chief Executive

Plan attached to byelaws.

8.4 Scheme for the Regulation and Management of Studham Common

LUTON RURAL DISTRICT COUNCIL, COUNTY OF BEDFORD

PARISH OF STUDHAM SCHEME

FOR THE REGULATION AND MANAGEMENT OF STUDHAM COMMON

- 1. The piece of land with the ponds, paths, and roads thereon, commonly known as Studham Common, situate in the parish of Studham, in the County of Bedford, and hereinafter referred to as "the common", as the same is delineated in a plan deposited at the office of the Rural District Council of Luton, hereinafter called "the Council", and thereon coloured green, being a "Common" within the meaning of the Commons Act, 1899, shall henceforth be regulated by this scheme, and the management thereof shall be vested in the Council.
- 2. The powers of the Council generally as to appointing or employing officers and servants and paying them under the general Acts applicable to the Council shall apply to all such persons as in the judgment of the Council may be necessary and proper for the preservation of order on and the enforcement of bye-laws with respect to the common and otherwise for the purposes of this scheme, and the Council may make rules for regulating the duties and conduct of the several officers and servants so appointed and employed and may alter such rules as occasion may require
- 3. The Council may execute any works of drainage, raising, levelling, or fencing, or other works for the protection and improvement of the common, and shall preserve the turf, shrubs, trees, plants, and grass thereon, and for this purpose may for short periods enclose by fences such portions as may require rest to revive the same, and may plant trees and shrubs for shelter or ornament and may place seats upon and light the common, and otherwise improve the common as a place for exercise or recreation, but the Council shall do nothing that may otherwise vary or alter the natural features or aspect of the common or interfere with free access thereof, and shall not erect upon the common any shelter, pavilion, or other building, without the previous consent of the person entitled to the soil of the common.
- 4. The Council shall maintain the common free from all encroachments and shall not permit any trespass on or partial or other enclosure of any part thereof.
- 5. The inhabitants of the district and neighbourhood shall have a right to access to every part of the common and a privilege of playing games and of enjoying other species of recreation thereon, subject to any byelaws made by the Council under this scheme.
- 6. The Council shall have power to repair and maintain the existing paths and roads on the common, and to set out, make, and maintain such new paths and roads on the common as appear to the Council to be necessary or expedient, and to take any proceedings necessary for the stopping or diversion of any highway over the common.
- 7. The Council may, for the prevention of accidents fence any quarry, pit, pond, or other like place on the common.
- 8. The Council may set apart for games any portion or portions of the common as they may consider expedient, and may form cricket grounds and may allow the same to be

temporarily enclosed with any open fence, so as to prevent cattle and horses straying thereon, but such grounds shall not be laid out so near to any dwelling house as to create a nuisance or to be an annoyance to the inhabitants thereof.

- 9. The Council may, for the prevention of nuisances and the preservation of order on the common, and subject to the provisions of section 10 of the Commons Act, 1899, make, revoke, and alter bye-laws for any of the following purposes, viz.:
 - a. For prohibiting the deposit on the common or in any pond thereon of road-sand, materials for repair of roads, dung, rubbish, wood, or other matter;
 - b. For prohibiting any person without lawful authority from digging, cutting, or taking turf, sods, sand, gravel, clay, or other substance on or from the common, and from cutting, felling, or injuring any gorse, heather, timber, or other tree, shrub, brushwood, or other plant growing on the common;
 - c. For regulating the place and mode of digging and taking turf, sods, gravel, sand, clay, or other substance, and cutting, felling, and taking trees or underwood on or from the common, in exercise of any right of common or other right over the common:
 - d. For prohibiting the injury, defacement, or removal of seats, fences, notice-boards, or other things put up or maintained by the Council on the common;
 - e. For prohibiting and regulating the posting or painting of bills, placards, advertisements, or notices on trees or fences or notice-boards on the common;
 - f. For prohibiting any person without lawful authority from bird-catching, setting traps or nets or liming trees or laying snares for birds or other animals, taking birds' eggs or nests, and shooting or chasing game or other animals on the common;
 - g. For prohibiting or regulating the drawing without lawful authority upon the common of any carriage, cart, caravan, truck, or other vehicle, and the erecting or permitting to remain on the common, without the consent of the Council or other lawful authority, any building, shed, tent, fence, post, railing, or other structure, whether used in connection with the playing of games or not, and for authorising an officer of the Council to remove from the common any vehicle drawn upon the common and any structure erected thereon in contravention of any such bye-law;
 - h. For prohibiting or (except in the case of a fair lawfully held) regulating the placing on the common of any photographic cart, or of any show, exhibition, swing, roundabout, or other like thing, and for authorising an officer of the Council to remove from the common anything placed upon the common in contravention of any such bye-law;
 - *j.* For prohibiting or regulating the lighting of any fire on the common;
 - *k*. For prohibiting or regulating the firing or discharge of firearms or the throwing or discharge of missiles on the common;

- *l.* For regulating games to be played and other means of recreation to be exercised on the common, and assemblages of persons thereon;
- *m*. For regulating the use of any portion of the common temporarily enclosed or set apart under this scheme for any purpose;
- *n*. For prohibiting or regulating horses being exercised or broken in without lawful authority by grooms or others on the common;
- o. For prohibiting any person without lawful authority from turning out or permitting to remain on the common any cattle, sheep, or other animals; and for authorising an officer of the Council to remove from the common any cattle, sheep or other animals, being upon the common in contravention of any such bye-law;
- p. Generally, for prohibiting or regulating any act or thing tending to injury or disfigurement of the common or to interference with the use thereof by the public for the purpose of exercise and recreation;
- q. For authorising an officer of the Council, after due warning, to remove or exclude from the common any person who within his view commits, or whom he reasonably suspects of committing, an offence against any bye-law under this scheme or against the Vagrancy Act, 1824;
- r. For prohibiting the hindrance or obstruction of an officer of the Council in the exercise of his powers or duties under this scheme or under any bye-laws made thereunder.
- 10. All bye-laws made under this scheme shall be published on notice-boards placed on such parts of the common (not less than two) as to the Council may appear desirable.
- 11. Nothing in this scheme or any bye-law made thereunder shall prejudice or affect any right of any person entitled as lord of the manor or otherwise to the soil of the common or of any person claiming under him, which is lawfully exerciseable in, over, under, or on the soil or surface of the common, in connection with game or with mines, minerals, or other substrata, or otherwise, or prejudice or affect ant rights of the commoners in or over the common or the lawful use of any highway or thoroughfare on the common, or affect any power or obligation to repair any such highway or thoroughfare.
- 12. Printed copies of this scheme shall at all times be sold at the office of the Council to all persons desiring to buy the same at a price not exceeding sixpence each.

Given under the official Seal of the Luton Rural District Council this second day of January, one thousand nine hundred and eleven, at a meeting of the said Council, by Edward Barnard, Chairman of the said Council.

(signature of Edward Barnard) Chairman (Seal affixed here)

(signature of William Austin) Clerk

NOTE:- These regulations are not framed to stop any lawful custom or rights of either Farmers or Cottagers, but to prevent any misuse of the common by persons having no right on the common.

Approved by Order of the Board of Agriculture and Fisheries, the fifth day of January, 1911.

FRIENDS OF STUDHAM COMMON

Guidelines for management of the Common Revised version agreed at Committee meeting 13 April 2011

No Scrub/Hedge/Woodland cutting works shall be permitted in the 'Nesting Season' 1st March to 31st July unless identified as an Emergency / Health & Safety action.

- 1. All the work we undertake must meet designated objectives and programmes of work as set out in the 5-yr Management Plan and in accordance with the seasonal guidelines above and attached.
- 2. Exceptions can be made after referral to sources of conservation expertise within the Greensand Trust, Central Beds Authority or other relevant organisations and after agreement by FOSC Committee members (not necessarily at a formal meeting).
- 3. Activities such as scrub clearance, boundary restoration and glade creation must be sensitively managed and have a clear conservation or amenity objective, not merely to make things look tidy or to allow for easier mowing.
- 4. Volunteers using brushcutters and other mechanised tools must be fully briefed and closely monitored to avoid unnecessary clearance or destruction of valuable habitat or flora. Demarcate and protect vulnerable plants or habitats where appropriate.
- 5. Sensitive habitats should be cut back under the close guidance of conservation experts (eg East Common's dormouse hedgerow or the western hedgerow of Middle Common).
- 6. Remove cut material to improve diversity of flora. Wherever possible consideration should be given to the creating of habitat stacks within the working areas before all material is removed from site. Use mower boxes wherever possible. Ensure that mechanical cutting at work parties stops early enough for clearance to be completed.
- 7. Dispose of green waste by dumping in the spoil pits rather than burning, where possible /practical.
- 8. Work plans for the year should be presented to and agreed by the Committee to improve their understanding and 'ownership'. Consider a 'walk the common' event for the Committee, where plans can be outlined in situ and any specific queries or concerns dealt with.

SEASONAL	SEASONAL GUIDELINES FOR WORK PLANNING				
MONTH	TYPE OF WORK	COMMENTS			
January	All types of scrub clearance, mowing and planting work permitted.	Winter is best for all heavier cutting and clearance work as well as hedgelaying and cutting as well as tree and shrub planting.			
February	All types of scrub clearance, mowing and planting work permitted	Potential for bird nesting at the end of the month			
March	No scrub clearance and no mowing work permitted except paths and close around ornamental trees. Cutting of isolated small trees and planting can continue.	1 ST March to 31 st July is the bird- nesting season. <u>Small</u> areas of bracken can be pulled or cut provided that the areas are checked and the risk to birds assessed beforehand			
April	No scrub clearance and no mowing work permitted except paths and close around ornamental trees.				
May	No scrub clearance and no mowing work permitted except paths, close around ornamental trees and around site of May Fair.				
June	No scrub clearance and no mowing work permitted except paths and close around ornamental trees if needed.	June and July are good months for organising wildlife surveying or guided walks in place of work parties.			
July	No scrub clearance and no mowing work permitted except paths and close around ornamental trees. Vegetation obstructing paths may be trimmed to maintain a minimum of 1 m width. Bracken growing immediately alongside the planted hedges may be cut or trampled. Handweeding around recently planted gorse etc - ok.	Dense vegetation around the base of young hedges can suppress shoots and leave the bottom of the hedge thin and unsuitable for nesting birds and other wildlife.			
August	Light scrub clearance only - avoid working in dense stands of scrub. Mowing of grassy areas and bracken should be done this month.				
September	Light scrub clearance work only - continuing to avoid working in dense stands of scrub. Aim to complete mowing of grassy areas and bracken this month.				
October	All types of scrub clearance, mowing and planting work permitted				
November	All types of scrub clearance, mowing and planting work permitted				
December	All types of scrub clearance, mowing and planting work				