

Studham Common

Management Plan

2017 -2021



(© Geoff Shute)





CONTENTS

Introduction	Page
Acknowledgements	3
Abbreviations	3
Introduction	4
Summary	4
Linking Strategies and Documents	5
Guiding principles for management	7
Contact Details	8
 1 General Information	

1.1	Site Definition	9
1.2	Location	9
1.3	Land Tenure	9
2	Environmental Information	
2.1	Geology and Soils	9
2.2	Flora	10
2.3	Fauna	11
2.4	Recorded History	11
2.5	Public Interest	12
2.6	Designated Status of Site	12
2.7	Ecology – Implications for management	13
2.8	Grazing	14
2.9	Landscape – Implications for management	14
2.10	Historic Features – Implications for management	15
2.11	Access – Implications for management	15
2.12	Context	15
2.13	Human Influence / Recent Management	16
2.14	Obligations	16
2.15	Intrinsic Appeal & Potential Value	16
2.16	Limits	17
3	Recommended Management	
3.1	Site Maintenance and Management	17
3.2	Objectives	18
3.3	Proposals	19
4	Project Management & Monitoring Control	
4.1	Managing and Monitoring the Project	27
4.2	Summary of Management Proposals	28
5	Funding	
5.1	Suitable sources of funding	38
6	Appendix A	
6.1	Map: Location	39
6.2	Map: Aerial photograph of site	40
6.3	Map: Access	41
7	Appendix B	
7.1	County Wildlife Site Report	42
7.2	List of recorded site flora	49
7.3	List of recorded fungi	54
7.4	List of recorded site fauna (birds and small mammals)	57
7.5	East Hedgerow Dormouse Management Plan	59
8	Appendix C	
8.1	Copy of byelaws for Studham Common	65
8.2	Byelaws prohibiting the flying of model aircraft on Studham Common	67
8.3	Scheme for the Regulation and Management of Studham Common	69

Acknowledgments

The Friends of Studham Common
Pat & Charles Baker
John Hanna
Pam Rumfitt
The Greensand Trust

Abbreviations used in the following text:

CAONB – Chilterns Area Outstanding Natural Beauty
CBC – Central Bedfordshire Council
CCB – Chilterns Conservation Board
CST – Countryside Sites Team
CTs – Contractors
FOSC - The Friends of Studham Common
GST – Greensand Trust
SPC – Studham Parish Council
CWS – County Wildlife Site

1. INTRODUCTION & SUMMARY

Introduction

This management plan sets out the proposals for Studham Common over the period 2017-2021 and is a revision of the previous site management plan produced in 2011-2016 by Central 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 2017-2021.

Summary

Studham Common is a locally cherished 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 conservation, 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 dormouse conservation and the production of interpretive material.

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 Central Bedfordshire Council Local

Plan, and any future developed overriding Central Bedfordshire policies / plans and the Countryside Sites Team (CST) Outdoor Access Improvement Plan (OAIP) as may develop 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**

Central Bedfordshire Council's CST 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:*** Central 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:** Central 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:** Central 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 Flag Community 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 (CROW)	The Act provides a new right of public 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.

Contact Details:

Steve Halton
Countryside Sites Team
Central Bedfordshire Council
Priory House
Monks Walk
Chicksands
Shefford
SG17 5TQ

Tel: 0300 300 6135

Email: steve.halton@centralbedfordshire.gov.uk

**The Greensand Trust
Friends of Studham Common
Studham Parish Council**

**01525 237760
01582 872650
01582 758576**

Internet Links

CCB - <http://www.chilternsaonb.org/>

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

CBC - <http://www.centralbedfordshire.gov.uk/leisure/countryside/landing.aspx>

1. GENERAL INFORMATION

1.1 Site Definition

Studham Common is an area of predominantly 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 025157

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 acid. Very probably chalk or lime would have been applied to the areas of the Common ploughed during WW2. Some coarser gravel deposits were also present prior to their extraction (see section 2.10).

Soils in the Studham area contain a variable amount of fine drift material transported into the area by winds blowing off the Pleistocene ice sheets. More extensive deposits of this drift are known as 'brickearth' and have been used locally for brick-making, for example in Caddington. Presumably there may have been deposits on the Common supplying a brickworks at the north-western corner of East Common (SMR 10932) that operated in the early nineteenth century.

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 is designated as a County Wildlife Site (CWS) (see section 2.6) due to the variety of species rich habitats and biodiversity. Over 200 species of flowering plants, grasses and ferns have been recorded, many typical of 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 MG5 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*) and a 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 some planting of ash, alder, oak and beech on areas of both the East and Middle Common.

Some locally significant plant species have been recorded for Studham Common, many typical of acidic soils. These include small amounts of heather (*Calluna vulgaris*), heath-spotted orchid (*Dactylorhiza maculate*), green-winged orchid (*Anacamptis morio*), trailing St Johns wort (*Hypericum humifusum*), imperforate St Johns wort (*H. maculatum*), slender St Johns wort (*H. pulchrum*), tormentil (*Potentilla erecta*) and heath bedstraw (*Galium saxatile*). Five other species of orchid have also been found: common spotted orchid (*Dactylorhiza fuchsii*), bee orchid (*Ophrys apifera*), and single spikes of pyramidal orchid (*Anacamptis pyramidalis*), fragrant orchid (*Gymnadenia conopsea*), and southern marsh orchid (*Dactylorhiza praetermissa*).

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. The Summary of Recorded Fauna in Appendix B, 7.4, updated in 2016, includes over 400 species of invertebrates.

Over fifty species of bird have been recorded breeding and/or using the Common for foraging. The open grassland areas provide breeding habitat for skylarks, a Red-listed species of special conservation concern listed in the UK Biodiversity Action Plan (BAP) and on the UK Red List. Flocks of fieldfares, redwings and a variety of finches and tits are known to make use of the scrub and hedgerow habitats during the winter months. The updated list is shown in Appendix B, 7.4

There is a 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 and Bedfordshire Dormouse (now Mammal) Group. A 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. Larger mammals also use the Common. A few species of reptiles and amphibia have also been recorded.

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.

A number of historic maps are held at the Bedfordshire and Luton Archives and Record Service (BLARS). These include tithe, estate and parish plans dating from the mid/late 18th Century - early 20th 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
- Chris Boon and Alan Outen *Flora of Bedfordshire* 2011
- Plant and Invertebrate Surveys – Pat and Charles Baker and members of the Bedfordshire Natural History Society 1994 - 2016
- 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 2004-16

2.5 Public Interest

The village and residents of Studham have an integral link to the Common. As described in section 2.13 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, both as 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 other species. Other smaller community planting projects include extensive linear plantings of mixed species of trees about 30m north of the southern boundaries of the Middle and East Commons.

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 works closely with The Greensand Trust. It was established in 1997 on the initiative of Studham Parish Council with support from the then District and County Councils 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, events and activities. 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 plantings on Middle and East Commons

Clay-with-Flints grassland, hay/flower meadows

The large extensive clay-with-flints acid 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 would have been lost under the twenty years of cultivation following the "Dig for Victory" campaign, the number of species has steadily increased over the years.

The area is currently being cut mechanically for hay in late summer.

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 & Glades

Aerial photographs from the 1942 onwards show that the woodland areas of the West Common contained few trees. The present tree cover developed from the 1960s, probably due to the removal of rabbits by myxomatosis disease. The changes are especially evident in the area on the east side of West Common that was ploughed in WW2. Active woodland management is recommended in order to maintain and enhance the diversity of the woodland ground flora.

Bracken and brambles are invasive species that need to be kept in check, particularly on the West Common, if the site's ecological potential is to be maximised although consideration needs to be given to local concerns that the West Common should not be over managed and made to look like an urban park rather than a natural 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.

Hedgerows & Boundaries

The species-rich hedgerow on the eastern boundary of East Common provides a habitat of value to a wide variety of insects, birds and small mammals. As noted earlier, dormice are 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 the North Chilterns Trust and has recently been updated by Steve Halton from CBC in partnership with FOSC and the Bedfordshire Mammal Group.

The hedgerow along the southern boundary of both the Middle and East Commons is over-mature and tree and shrub cover had become sparse along this probable Enclosure-aged hedge. Most gaps have now been planted with native species and the resulting hedge has started to become old enough to be laid in the traditional manner. The hedge should 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. Further planting of trees on the Common should be restricted to within the wooded areas.

2.8 Grazing – an option for future grassland management

Lack of appropriate grassland management remains one of the main threats to the grassland habitats, especially on East and Middle Commons. Most wild flowers require a soil low in nutrients to thrive. It is essential that a late summer hay cut is maintained every year to remove natural nutrients and also to counteract the additional man-made nutrients arriving with the rain. The hay cut also restricts natural colonisation from the surrounding trees and scrub and encroachment from aggressive species including coarser grasses and bracken.

Following the hay cut traditional aftermath grazing would be the ideal future management for this area. However, this is not likely to be achieved within the duration of this plan because (a) the lack of local enthusiasm to counterbalance the local hostility towards the concept of grazing, (b) the lack of local graziers and (c) the lack of funding for both start-up and ongoing expenses. In recent years the grassland on Middle Common has been extensively dug up by rooks and other corvids leading to changes in the composition of the vegetation. However, to some extent this mimics poaching by grazing animals.

2.9 Landscape – implications for management

Studham Common is one of the most prominent landscape features in the parish of Studham. 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.

2.10 Historic Features – implications for management

One historic feature still evident on the Common is the remnant gravel pits on the East and West Commons which should be protected. Apart from the historic settlement around its edges there are no other significant sites of archaeological interest on 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), strengthens wildlife enforcement legislation and 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 possible 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 but trespass by motorbikes continues. Access onto the common is subsequently 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.

2.12 Context

Studham Common is set in a predominantly quiet rural area of the Chilterns, much of which remains reasonably well wooded. The 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 largely for 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 Woods.

Although close to the ‘honey pot’ sites of Dunstable Downs and Whipsnade Zoo, 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.

Records suggest that Studham Common had been used for grazing by local commoners up until 1939. 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). Some verbal comments suggest limited cattle grazing may have been 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 CBC Highways.

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 part of the West Common during the Second World War, and the general decline in grazing, the site remains important for wildlife. The grassland flora is improving steadily in species richness and has the 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 result in a likely increase in bracken and a 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 plant species, declining bird species 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 supervised 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.**
- **To improve and maintain public access and amenity facilities in and around the Common.**
- **To protect the historic, landscape and biodiversity values of the Common.**
- **To raise awareness of the value and importance of the Common and encourage its continued use as a place for public enjoyment and education.**
- **To 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 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 understorey 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 glades that allow 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 glades and bays should be encouraged to provide sheltered sites for butterflies and other insects.
- 1.1.4 **Bluebell regeneration**, using native seed and bulbs from other parts of the Common to establish new planted areas

Middle / East Common

- 1.1.5 **Jubilee Copse** - General maintenance, including removal of self sown saplings. Ensure that the 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 should be completed at the appropriate time, according to the species and location, and 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 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 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 and bracken. Bracken is particularly problematic on West Common and its rapid spread in recent years has reduced the area of open grassland 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 aggressive 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 may be 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 issue for many users of the Common, this will raise concern about access and safety for users and pets and wildlife.

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.
- 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 rotational 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. Liaise with CBC Highways.

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 rotational 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. Liaise with CBC Highways.

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.

A need has been identified for a 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 aftercare 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.
- 1.5.8 **Western boundary** - General cutting back to control encroachment – Spray and or cut as necessary along the whole length.
- 1.5.9 **Eastern Boundary Surroundings** – rotational cutting back especially of Blackthorn. See the specific management plan for this sensitive area of dormouse habitat. 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 and amongst scrub to create micro-habitats. 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 to 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 GIS¹ 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 interest, flora and fauna.

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, continue monitoring and some habitat management.
- 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:
 - Flora
 - Butterflies
 - Birds and Mammals
 - Visitor surveys

¹ A geographic information system (or GIS) is a system designed to capture, store, manipulate, analyse, manage, and present spatial or geographic data mapping.

- 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 and partners, particularly FoSC, GST and CBC play an instrumental role in helping to raise the awareness of the importance of the Common 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, press and other publications 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 Ensure CBC Countryside Sites Team incorporate themes of the OAIP and its Business Plan and any local developed 'Performance Indicators' (PI's) in to this and subsequent management plans.
- 4.5 Continue to raise awareness of the site as a place of open access and informal recreation for walkers and horse-riders.
- 4.6 Continue to support FoSC in achieving Green Flag Community Award status; 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 the Friends of Studham Common (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 FoSC in 1997. Their aims have been to protect and improve the common for the benefit of people and wildlife. There are over 150 members, of whom some 10 – 15 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 co-ordinated 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 their involvement wherever possible.
- 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.

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:

<i>CAONB – Chilterns Area of Outstanding Natural Beauty</i>	<i>CCB – Chilterns Conservation Board</i>	<i>GST – Greensand Trust</i>
<i>CST – CBC Countryside Sites Team</i>	<i>CTs – Contractors</i>	<i>SPC – Studham Parish Council</i>
<i>CBC – Central Bedfordshire Council</i>	<i>FoSC - The Friends of Studham Common</i>	<i>CWS – County Wildlife Site</i>

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 West Common	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 only where safety dictates. Minimise impact of Dutch Elm disease, promote development of younger growth, plant shrubs such as hazel.	Enhance diversity of flora by increasing light allowing growth of understory and natural recolonisation from native trees. 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	2021
			GST / FoSC Work Parties	2021
1.1.2 West Common	North boundary between bridleway and Church Rd Thinning and coppicing of trees to thin existing woodland, particularly sycamore 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	Enhance diversity of flora by increasing light and allowing growth of understory and natural recolonisation from native trees. Plant shrubs such as hazel to suppress bramble and enhance diversity for wildlife.	GST / FoSC Work Parties	2021

Management Objective	Description of Works	Reason	Lead	Time Line
1.1.3 West Common	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	2021
	A series of natural chokes and bays should be encouraged to provide sheltered sites for butterflies and other flying insects.		GST / FoSC Work Parties	2021
	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	2021
1.1.4 West Common	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 West Common	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

Management Objective	Description of Works	Reason	Lead	Time Line
1.2 Scrub Management				
1.2.1 West Common	Bridleway Selective scrub clearance and coppicing on both sides of bridleway. Leave blackthorn on southern edge – is currently good habitat. Ensure that the bridleway is maintained to create a network of rides that will benefit ground flora and access.	The scrub areas should be managed on a rotation basis to encourage a variety of stand ages and is required to prevent further encroachment of scrub into areas of important grassland.	GST / FoSC Work Parties GST / FoSC Work Parties	2021 / Annually 2021
1.2.2 West Common	Down slope from hedge planting area Clear bracken to create glade for possible bramble colonisation, hazel and birch planting from seedlings. Leave bracken in central areas.	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	2021
1.2.3 / 1.2.5	South boundary Continue to maintain scalloped areas (cut by contractor) 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 – cut back bramble with care annually. Maintain height and width reduction from roadside (Highways) 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/ Highways	Annual
1.3 Invasive Species Control				
1.3.1	North boundary between bridleway and Church Rd – Continue bracken control to create glades; not always annual.	This could bring wildlife and landscape benefits through increasing habitat diversity.	GST / FoSC Work Parties	2021

Management Objective	Description of Works	Reason	Lead	Time Line
1.3.2	Continue the programme of gorse regeneration by cutting and planting.	To maximise age diversity & reduce the risk of fire	GST / FoSC	2021
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/ Ongoing
1.4 Grassland Management 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.	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	Woody plant control Continue control, to include removal of trees, removal or treatment of young plants with glyphosate and cutting big growth before haycut.	To eradicate this species from grassland.	GST / FoSC Work Parties	Annual

Management Objective	Description of Works	Reason	Lead	Time Line
1.4.4 / 1.4.6	<p>A return to traditional common grazing patterns would be the ideal future management for this area.</p> <p>Haycut – cut as late as possible and leave areas uncut on a rotation basis.</p> <p>The breaking up of turf by rooks has emulated poaching by grazing animals but does not control invasion by woody plants; this will need removal or treatment of young plants with glyphosate and cutting big growth before haycut.</p>	<p>Improved maintenance, EMAS opportunity, Improve flower meadows and protect against being overtaken by scrub.</p> <p>This would ensure that habitat is provided for over wintering insects / mammals. (Caution- timing of operation needs to be sensitive to nesting skylarks / other ground nesting birds)</p>	<p>CBC</p> <p>CBC / CTs</p>	Annual
1.4.5 / 1.4.7	Verges – Cut and (ideally) rake short lengths of flower-rich verges along Byslips Rd and Kensworth Rd.	Increase diversity of roadside verge	CBC / CTs / Highways	Annual
1.5 Hedgerow & Boundary Management				
1.5.1 West Common	<p>Southern Boundary</p> <p>Continue to implement a hedgerow restoration project using traditional hedgerow species mix and prioritising the planting-up of gaps along the boundary (may be shading issues here).</p>	Planting-up of gaps to maintain a continuous hedge to allow for animal movement.	GST / FoSC Work Parties	2021
1.5.2 West Common	<p>East Boundary by Clements End Rd/football pitch</p> <p>Maintain some gorse cover to maximise age diversity.</p> <p>New proposed footpath</p>	<p>To prevent encroachment and to regenerate gorse to maximise age diversity and improve bird nesting habitat.</p> <p>To create a safe route between common and sports playing field</p>	<p>GST / FoSC Work Parties</p> <p>SPC/CBC</p>	2021 / onwards
1.5.3 Middle Common	<p>West boundary – along Clements End Rd</p> <p>Mature mixed hedgerow.</p>	Control encroachment and maintain height and width reduction from roadside as necessary for road / traffic safety.	GST / FoSC CBC / CTS Highways	Annual / 2021

Management Objective	Description of Works	Reason	Lead	Time Line
1.5.4 Middle Common	Eastern Boundary – Byslips Road Plant some gorse in hedgerow gaps. Done.	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 Middle Common	Southern boundary <ul style="list-style-type: none"> • Maintain hedge through laying (underway since 2016). • 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 2021
1.5.6 East Common	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	2021
1.5.7 East Common	Southern boundary <ul style="list-style-type: none"> • Undertake hedge after-care during establishment period of 1-5 years ie; clearing of bracken. • Review hedge laying of whips after the 5 years if required. • Maintain height of mature hedgerow (after allowing for adequate regrowth). 	To maintain a continuous hedge to provide habitat for green corridor for wildlife	GST / FoSC Work Parties	Review 2021
1.5.8 East Common	Western boundary Bramble control - Spray and or cut as necessary along whole length.	Maintain wildlife and landscape benefits through increasing habitat diversity	GST / FoSC Work Parties	Ongoing
1.5.9 East Common	Eastern Boundary Hedgerow Survey Implement recommendations of the Dormouse Management Action Plan, rotational cutting back especially of Blackthorn and occasional hazel/other species.	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	2021
1.5.10 East Common	Northern boundary Control encroachment (mainly blackthorn) 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	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	2018
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
------------	---	--	-----	--------------------------------

Objective 3 - Protect the historic, landscape and bio-diversity value of the common.				
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 2021
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 2021

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 2021
------------	--	---	------------	--------------

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	Continue to develop new leaflets and other publicity when required. .	To inform people about the Common , its ownership and management responsibilities and its working partnership with the local community.	CBC / FoSC	2021
4.5	Ensure CBC Countryside Sites 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	2021

Management Objective	Description of Works	Reason	Lead	Time Line
4.6	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	Annually
4.7	Continue to support FoSC in achieving 'Green Flag Community Award' status.	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

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	2021

5. Funding

5.1 Suitable sources of funding

CBC have a sites 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 Countryside Sites Team Countryside 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.
- Local Heritage Initiative
- Woodland Grants Scheme
- P3 funding for tools and their maintenance, refreshments, village hall hire, leaflets etc

Appendix A

6.1 Map: Location



6.2 Map: Aerial Photograph



Date: 27 October 2010

Scale 1:4500

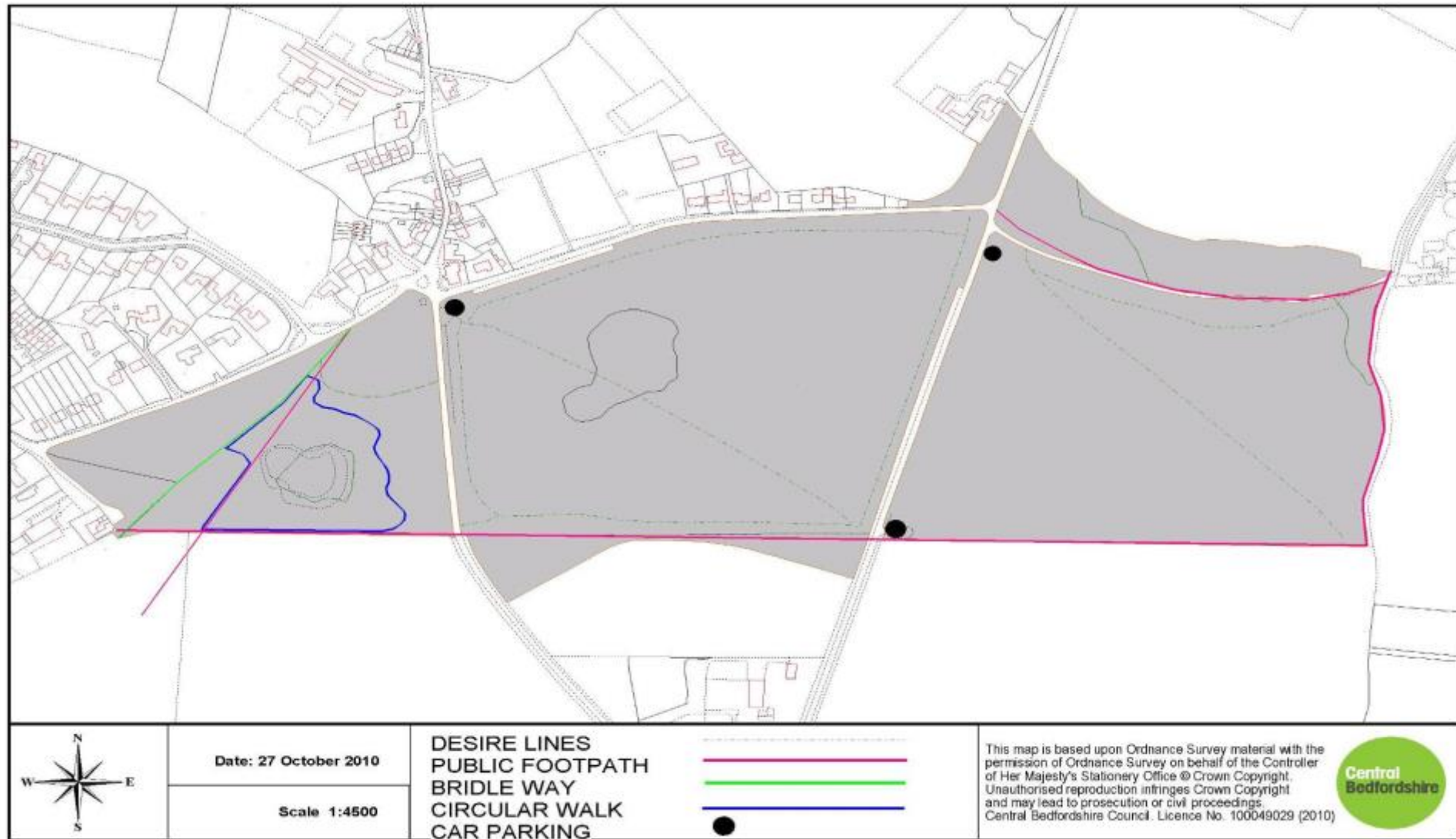
6.2 Aerial Photograph
Site Boundary



This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Central Bedfordshire Council. Licence No. 100049029 (2010)



6.3 Map: Access



Appendix B

7.1 CWS report

Site name: **Studham Common CWS**

Status(es): County Wildlife Site
Grid ref: 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
Acid Grassland
Lowland Mixed Deciduous Woodland

Other habitat(s) Bracken, Scrub

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*-*Mercurialis 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 lanatus*), 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 (*Mercurialis perennis*), ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), bluebell (*Hyacinthoides 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 (as at January 2017)

Includes planted forms and garden escapes

Species recorded before 2000 but not later are marked with *

Scientific Name	Common Name
<i>Acer campestre</i>	Field Maple
<i>Acer platanoides</i>	Norway Maple
<i>Acer pseudoplatanus</i>	Sycamore
<i>Achillea millefolium</i>	Yarrow
<i>Aegopodium podagraria</i>	Ground-elder
<i>Aesculus hippocastanum</i>	Horse-chestnut
<i>Aethusa cynapium</i> *	Fool's Parsley
<i>Agrimonia eupatoria</i>	Agrimony
<i>Agrostis capillaris</i>	Common Bent
<i>Agrostis stolonifera</i>	Creeping Bent
<i>Ajuga reptans</i>	Bugle
<i>Alchemilla mollis</i>	Lady's-mantle
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Allium ursinum</i>	Ramsons
<i>Alnus cordata</i>	Italian Alder
<i>Alnus incana</i>	Grey Alder
<i>Alopecurus myosuroides</i>	Black-grass
<i>Alopecurus pratensis</i>	Meadow Foxtail
<i>Anacamptis morio</i>	Green-winged Orchid
<i>Anacamptis pyramidalis</i>	Pyramidal orchid
<i>Anagallis arvensis</i> *	Scarlet Pimpernel
<i>Anemone nemorosa</i>	Wood Anemone
<i>Anisantha sterilis</i>	Barren Brome
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass
<i>Anthriscus sylvestris</i>	Cow Parsley
<i>Arabidopsis thaliana</i>	Thale Cress
<i>Arctium minus</i>	Lesser Burdock
<i>Armoracia rusticana</i>	Horse-radish
<i>Arrhenatherum elatius</i>	False Oat-grass
<i>Artemisia vulgaris</i>	Mugwort
<i>Arum maculatum</i>	Lords-and-ladies
<i>Aster x salignus</i>	Michaelmas Daisy
<i>Atriplex prostrata</i>	Spear-leaved Orache
<i>Avena fatua</i>	Wild-oat
<i>Avenula pubescens</i>	Downy Oat-grass
<i>Barbarea vulgaris</i>	Winter-cress
<i>Bellis perennis</i>	Daisy
<i>Betula pendula</i>	Silver Birch
<i>Betula pubescens</i>	Downy Birch
<i>Bromopsis ramosa</i> *	Hairy Brome
<i>Bromus hordeaceus</i>	Soft-brome
<i>Calluna vulgaris</i>	Heather
<i>Calystegia sepium</i>	Hedge Bindweed
<i>Campanula rotundifolia</i>	Harebell
<i>Capsella bursa-pastoris</i>	Shepherd's-purse
<i>Cardamine flexuosa</i>	Wavy Bitter-cress
<i>Cardamine hirsuta</i>	Hairy Bitter-cress
<i>Cardamine pratensis</i>	Cuckooflower

<i>Carduus crispus</i>	Wetted Thistle
<i>Carex sylvatica</i>	Wood-sedge
<i>Carpinus betulus</i>	Hornbeam
<i>Castanea sativa</i>	Sweet Chestnut
<i>Centaurea nigra</i>	Common Knapweed
<i>Centaureum erythraea</i>	Common Centaury
<i>Cerastium fontanum</i>	Common Mouse-ear
<i>Cerastium glomeratum</i>	Sticky Mouse-ear
<i>Cerastium tomentosum</i>	Snow-in-summer
<i>Chaerophyllum temulum</i>	Rough Chervil
<i>Chamerion angustifolium</i>	Rosebay Willowherb
<i>Chenopodium album</i>	Fat-hen
<i>Chionodoxa sp.</i>	Glory of the Snow
<i>Cirsium arvense</i>	Creeping Thistle
<i>Cirsium vulgare</i>	Spear Thistle
<i>Conium maculatum</i>	Hemlock
<i>Conopodium majus</i>	Pignut
<i>Convolvulus arvensis</i>	Field Bindweed
<i>Cornus sanguinea</i>	Dogwood
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Crepis capillaris</i>	Smooth Hawk's-beard
<i>Crepis vesicaria</i>	Beaked Hawk's-beard
<i>Crocus chrysanthus</i>	Golden Crocus
<i>Crocus tommasinianus</i>	Early Crocus
<i>Crocus vernus</i>	Spring Crocus
<i>Cynosurus cristatus</i>	Crested Dog's-tail
<i>Dactylis glomerata</i>	Cock's-foot
<i>Dactylorhiza fuchsii</i>	Common Spotted-orchid
<i>Dactylorhiza maculata</i>	Heath-spotted orchid
<i>Dactylorhiza praetermissa</i>	Southern marsh-orchid
<i>Dactylorhiza x grandis</i>	Common Spotted-orchid x Southern marsh-orchid hybrid
<i>Daucus carota</i>	Wild Carrot
<i>Deschampsia caespitosa</i>	Tufted Hair-grass
<i>Dianthus barbatus</i>	Sweet-William
<i>Digitalis purpurea</i>	Foxglove
<i>Dryopteris dilatata</i>	Broad Buckler-fern
<i>Dryopteris filix-mas</i>	Common Male-fern
<i>Elymus caninus</i>	Bearded Couch
<i>Elytrigia repens</i>	Common Couch
<i>Epilobium ciliatum</i>	American Willowherb
<i>Epilobium hirsutum</i>	Great Willowherb
<i>Epilobium montanum</i>	Broad-leaved Willowherb
<i>Epilobium tetragonum</i>	Square-stalked Willowherb
<i>Eranthis hyemalis</i>	Winter Aconite
<i>Euphorbia exigua</i> *	Dwarf Spurge
<i>Euphrasia agg.</i>	Eyebright
<i>Fagus sylvatica</i>	Beech
<i>Fallopia convolvulus</i>	Black Bindweed
<i>Fallopia japonica</i>	Japanese Knotweed
<i>Festuca ovina</i>	Sheep's Fescue
<i>Festuca rubra agg.</i>	Red Fescue
<i>Ficaria verna</i>	Lesser Celandine

Forsythia x intermedia
Fragaria vesca *
Fraxinus excelsior
Fumaria officinalis
Galanthus elwesii
Galanthus nivalis
Galeopsis tetrahit
Galium aparine
Galium saxatile
Galium verum
Geranium dissectum
Geranium molle
Geranium pyrenaicum
Geranium robertianum
Geum urbanum
Glechoma hederacea
Gymnadenia conopsea
Hedera helix
Heracleum sphondylium
Hieracium agg.
Holcus lanatus

Holcus mollis
Humulus lupulus
Hyacinthoides non-scripta
Hypericum humifusum
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
Leontodon hispidus
Leucanthemum vulgare
Linaria vulgaris
Linum catharticum
Lolium perenne
Lonicera periclymenum
Lotus corniculatus
Luzula campestris
Lysimachia punctata
Malus domestica
Malva moschata
Malva sylvestris *
Matricaria discoidea

Forsythia
Wild Strawberry
Ash
Common Fumitory
Greater Snowdrop
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
Ground-ivy
Fragrant orchid
Ivy
Hogweed
Hawkweed
Yorkshire-fog

Creeping Soft-grass
Hop
Bluebell
Trailing St Johns wort
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
Autumn Hawkbit
Rough 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

<i>Medicago arabica</i>	Spotted Medick
<i>Medicago lupulina</i>	Black Medick
<i>Mercurialis perennis</i>	Dog's Mercury
<i>Milium effusum</i>	Wood Millet
<i>Moehringia trinervia</i>	Three-nerved Sandwort
<i>Mycelis muralis</i>	Wall Lettuce
<i>Myosotis arvensis</i>	Field Forget-me-not
<i>Myosotis sylvatica</i>	Wood Forget-me-not
<i>Narcissus pseudonarcissus</i>	Daffodil
<i>Narcissus agg.</i>	Daffodil (cultivated)
<i>Odontites vernus</i>	Red Bartsia
<i>Ophrys apifera</i>	Bee Orchid
<i>Papaver rhoeas</i>	Common Poppy
<i>Persicaria maculosa</i>	Redshank
<i>Phleum bertolonii</i>	Smaller Cat's-tail
<i>Phleum pratense</i>	Timothy
<i>Pilosella officinarum</i>	Mouse-ear-hawkweed
<i>Pimpinella major</i>	Greater Burnet-saxifrage
<i>Pimpinella saxifraga</i>	Burnet-saxifrage
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Plantago major</i>	Greater Plantain
<i>Poa angustifolia</i>	Narrow-leaved Meadow-grass
<i>Poa annua</i>	Annual Meadow-grass
<i>Poa nemoralis</i> *	Wood Meadow-grass
<i>Poa pratensis</i>	Smooth Meadow-grass
<i>Poa trivialis</i>	Rough Meadow-grass
<i>Polygonum arenastrum</i>	Equal-leaved Knotgrass
<i>Polygonum aviculare</i>	Knotgrass
<i>Populus nigra cultivars</i>	Cultivated Black Poplar
<i>Populus tremula</i>	Aspen
<i>Potentilla anserina</i>	Silverweed
<i>Potentilla erecta</i>	Tormentil
<i>Potentilla reptans</i>	Creeping Cinquefoil
<i>Potentilla sterilis</i>	Barren Strawberry
<i>Primula vulgaris</i>	Primrose
<i>Prunella vulgaris</i>	Selfheal
<i>Prunus avium</i>	Wild Cherry
<i>Prunus domestica</i>	Wild Plum
<i>Prunus laurocerasus</i>	Cherry Laurel
<i>Prunus spinosa</i>	Blackthorn
<i>Pteridium aquilinum</i>	Bracken
<i>Quercus robur</i>	Pedunculate Oak
<i>Ranunculus acris</i>	Meadow Buttercup
<i>Ranunculus auricomus</i> *	Goldilocks Buttercup
<i>Ranunculus bulbosus</i>	Bulbous Buttercup
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Raphanus raphanistrum</i>	Wild Radish
<i>Rhamnus cathartica</i> *	Buckthorn
<i>Rhus typhina</i>	Stag's-horn Sumach
<i>Ribes uva-crispa</i>	Gooseberry
<i>Rosa arvensis</i>	Field Rose
<i>Rosa canina agg.</i>	Dog Rose
<i>Rosa rugosa</i>	Japanese Rose
<i>Rubus fruticosus agg.</i>	Bramble

<i>Rubus idaeus</i>	Raspberry
<i>Rumex acetosa</i>	Common Sorrel
<i>Rumex acetosella</i>	Sheep's Sorrel
<i>Rumex crispus</i>	Curled Dock
<i>Rumex obtusifolius</i>	Broad-leaved Dock
<i>Rumex sanguineus</i>	Wood Dock
<i>Salix caprea</i>	Goat Willow
<i>Salix cinerea</i>	Grey Willow
<i>Sambucus nigra</i>	Elder
<i>Schedonorus arundinaceus</i> *	Tall Fescue
<i>Scilla siberica</i>	Siberian Squill
<i>Scrophularia nodosa</i>	Common Figwort
<i>Sedum album</i>	White Stonecrop
<i>Senecio erucifolius</i>	Hoary Ragwort
<i>Senecio jacobaea</i>	Common Ragwort
<i>Senecio vulgaris</i>	Groundsel
<i>Silene latifolia</i>	White Campion
<i>Silene vulgaris</i>	Bladder Campion
<i>Silene x hampeana</i>	Pink Campion
<i>Sinapis arvensis</i>	Charlock
<i>Sison amomum</i>	Stone Parsley
<i>Sisymbrium officinale</i>	Hedge Mustard
<i>Solanum dulcamara</i>	Bittersweet
<i>Solidago canadensis</i>	Canadian Goldenrod
<i>Sonchus asper</i>	Prickly Sow-thistle
<i>Sonchus oleraceus</i>	Smooth Sow-thistle
<i>Sorbus aria</i>	Whitebeam
<i>Sorbus aucuparia</i>	Rowan
<i>Sorbus intermedia</i>	Swedish Whitebeam
<i>Spiraea douglasii</i>	Steeple-bush
<i>Stachys sylvatica</i>	Hedge Woundwort
<i>Stellaria graminea</i>	Lesser Stitchwort
<i>Stellaria holostea</i>	Greater Stitchwort
<i>Stellaria media</i>	Common Chickweed
<i>Symphytum tuberosum</i>	Tuberous Comfrey
<i>Tamus communis</i>	Black Bryony
<i>Tanacetum parthenium</i> *	Feverfew
<i>Taraxacum officinale</i> agg.	Dandelion
<i>Taxus baccata</i>	Yew
<i>Thlaspi arvense</i>	Field Penny-cress
<i>Tilia cordata</i>	Small-leaved Lime
<i>Tilia x europaea</i>	Lime
<i>Torilis japonica</i>	Upright Hedge-parsley
<i>Tragopogon pratensis</i>	Goat's-beard
<i>Trifolium dubium</i>	Lesser Trefoil
<i>Trifolium pratense</i>	Red Clover
<i>Trifolium repens</i>	White Clover
<i>Tripleurospermum inodorum</i>	Scentless Mayweed
<i>Trisetum flavescens</i> *	Yellow Oat-grass
<i>Tussilago farfara</i>	Colt's-foot
<i>Ulex europaeus</i>	Gorse
<i>Ulmus procera</i>	English Elm
<i>Urtica dioica</i>	Common Nettle
<i>Veronica arvensis</i>	Wall Speedwell

<i>Veronica chamaedrys</i>	Germander Speedwell
<i>Veronica filiformis</i>	Slender Speedwell
<i>Veronica hederifolia</i>	Ivy-leaved Speedwell
<i>Veronica persica</i>	Common Field-speedwell
<i>Veronica serpyllifolia</i>	Thyme-leaved Speedwell
<i>Viburnum lantana</i> *	Wayfaring-tree
<i>Vicia cracca</i>	Tufted Vetch
<i>Vicia faba</i>	Broad Bean
<i>Vicia hirsuta</i>	Hairy Tare
<i>Vicia sativa</i>	Common Vetch
<i>Vicia sepium</i>	Bush Vetch
<i>Vicia tetrasperma</i>	Smooth Tare
<i>Vinca major</i>	Greater Periwinkle
<i>Vinca minor</i>	Lesser Periwinkle
<i>Viola arvensis</i>	Field Pansy
<i>Viola odorata</i>	Sweet Violet
<i>Viola reichenbachiana</i>	Early Dog-violet
<i>Viola riviniana</i>	Common Dog-violet
<i>Vulpia bromoides</i>	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			
<i>Agaricus arvensis</i>	grassland	•	
<i>Agaricus campestris</i>	grassland	•	
<i>Agaricus lutosus</i>	grassland	•	
<i>Boletus cisalpinus</i> (=chrysenteron s.l. auct)	<i>Quercus robur</i>	•	
<i>Clitocybe dealbata</i>	grassland	•	
<i>Clitocybe rivulosa</i>	grassland	•	
<i>Clitopilus prunulus</i>		•	
<i>Collybia confluens</i>	<i>Fagus sylvatica</i>	•	
<i>Collybia dryophila</i>	<i>Fagus sylvatica</i>	•	
<i>Collybia fusipes</i>		•	
<i>Coprinus hiascens</i>		•	
<i>Cortinarius alboviolaceus</i>		•	
<i>Cortinarius anomalus</i>		•	
<i>Cortinarius flexipes</i> var <i>flabellus</i> (=C.paleaceus)	<i>Fagus sylvatica</i>	•	
<i>Cortinarius hemitrichus</i>	<i>Betula pendula</i>	•	
<i>Cortinarius purpurascens</i>	<i>Fagus sylvatica</i>	•	
<i>Crepidotus variabilis</i>		•	
<i>Entoloma exile</i> (=Nolanea)	grassland	•	
<i>Entoloma jubata</i> (=Trichopilus)	grassland	•	
<i>Hebeloma sacchariolens</i>		•	

Hebeloma velutipes		•	
Hygrocybe conica	Grassland	•	
Hygrocybe flavipes	Grassland	•	
Hygrocybe miniata	Grassland	•	
Hygrocybe pratensis	Grassland	•	
Hygrocybe psittacina	Grassland	•	
Hygrocybe reidii	Grassland	•	
Hypholoma fasciculare		•	
Inocybe brunneoatra	Fagus sylvatica	•	
Laccaria amethystea	Fagus sylvatica	•	
Laccaria laccata	Fagus sylvatica	•	
Lactarius blennius	Fagus sylvatica	•	

Lactarius glycosmus	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		•	
Hyphodontia sambuci	Sambucus nigra	•	
Peniophora incarnata	Ulex europaeus		•
Peniophora quercina		•	

Phellinus 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		•	
HETEROBASIDIOMYCETES (Jelly Fungi)			
Tremella mesenterica		•	
TELEOMYCETES (Rusts & Smuts)			
Melampsora caprearum	Salix caprea	•	
Melampsorium 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	
Aphylophorales	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)

Small Skipper	White Letter Hairstreak	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 Lady	Small Heath
Orange Tip	Small Tortoiseshell	Ringlet
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
Red Kite	Robin	Jackdaw
Goshawk	Blackbird	Rook
Sparrow hawk	Song Thrush	Carion Crow
Common Buzzard	Mistle Thrush	Common Starling
Kestrel	Common Stonechat –	House sparrow
Peregrine Falcon	(on passage)	Common Chaffinch
Herring Gull	Northern Wheatear –	Greenfinch
Black-backed Gulls	(on passage)	Goldfinch
Wood Pigeon	Fieldfare	Linnet
Collared dove	Redwing	Bullfinch
Cuckoo	Blackcap	Yellowhammer
Little Owl	Common Whitethroat	
Tawny Owl	Common Chiffchaff	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:
Sky Lark	Blue Tit	Lapwing
Barn Swallow	Great Tit	Barn Owl
Pied Wagtail	Coal 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

All Species Summary

Numbers of Species Recorded			
Insects:			
Beetles	(Coleoptera)	32	
Two-winged Flies	(Diptera)	52	
Hoppers etc	(Hemiptera)	9	
True Bugs	(Heteroptera)	39	
Bees, Wasps, Ants etc	(Hymenoptera)	25	
Butterflies & Moths	(Lepidoptera)	250	
Grasshoppers & Crickets	(Orthoptera)	4	
Earwigs	(Dermaptera)	1	
Barkflies	(Psocoptera)	3	
Caddis flies	(Trichoptera)	7	
Thrips	(Thysanoptera)	10	
			All insects total = 432
Mites	Acari	6	
Spiders	Arachnida	21	
Slugs & Snails	Mollusca	4	
Woodlice	Crustacea	2	
			Other invertebrates total = 33
Amphibians		2	
Reptiles		3	
Mammals		16	
Birds - seen on the Common or hunting overhead		58	
			Other animals total = 79
Flowering Plants, Ferns etc.		280	
Fungi		94	
Lichens		13	
Total including confirmed 2016 records		931	

7.5 Dormouse Management Action Plan

Studham Common East Hedgerow Dormouse Survey and Management Recommendations

Steve Halton, Countryside Access Service, March 2010

Contents	Page
1. Introduction	3
2. Acknowledgements	3
3. Contact	3
4. Abbreviations used in text	4
5. Studham Common - summary and History	7
6. Description of the Eastern hedgerow	8
7. Survey methods	9
8. Dormouse conservation and ecology – a brief overview	9
9. East hedgerow – present dormouse population and ecology	12
10. East hedgerow – conservation plan for dormice	14
11. Summary	17
12. Recommended reading	17
Appendix 1 – Map of Eastern hedgerow – species and management	18
Appendix 2 – Map of Eastern hedgerow – linkages	19



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

Bedfordshire Dormouse Group

Central Bedfordshire Council

3. Contact

Steve Halton

Senior Project Officer

(Ecology and Community Engagement)

Countryside Access Service

Central Bedfordshire Council

Email: steve.halton@centralbedfordshire.gov.uk

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

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.

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.

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, hawthorn, hazel 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).

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.

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).

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.

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.

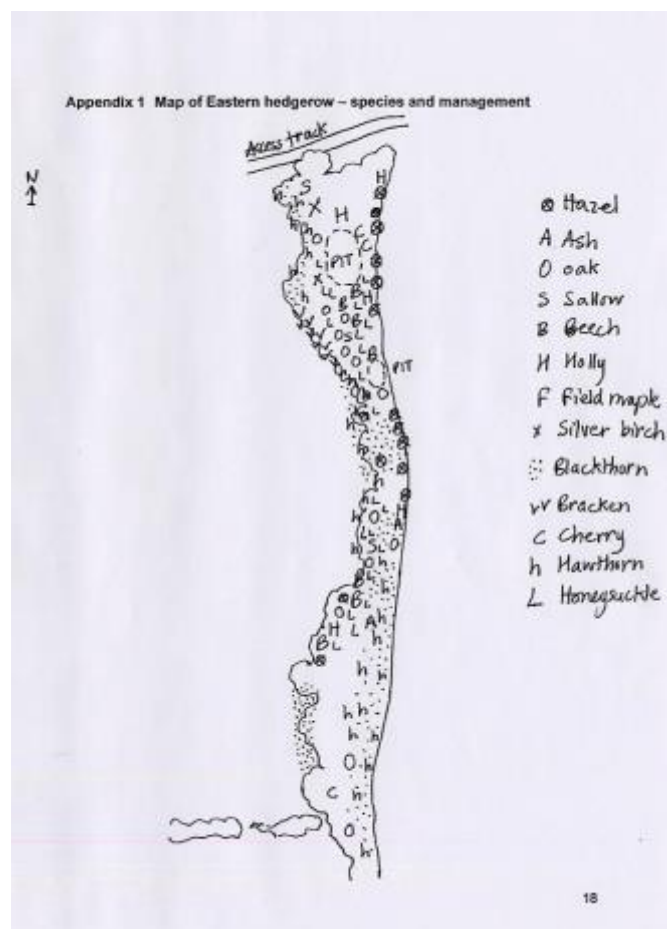
The challenge now is to begin to achieve this through taking forward the suggestions in this document and working with local organisations and experienced individuals through a partnership approach to help make this happen.

12. Recommended reading

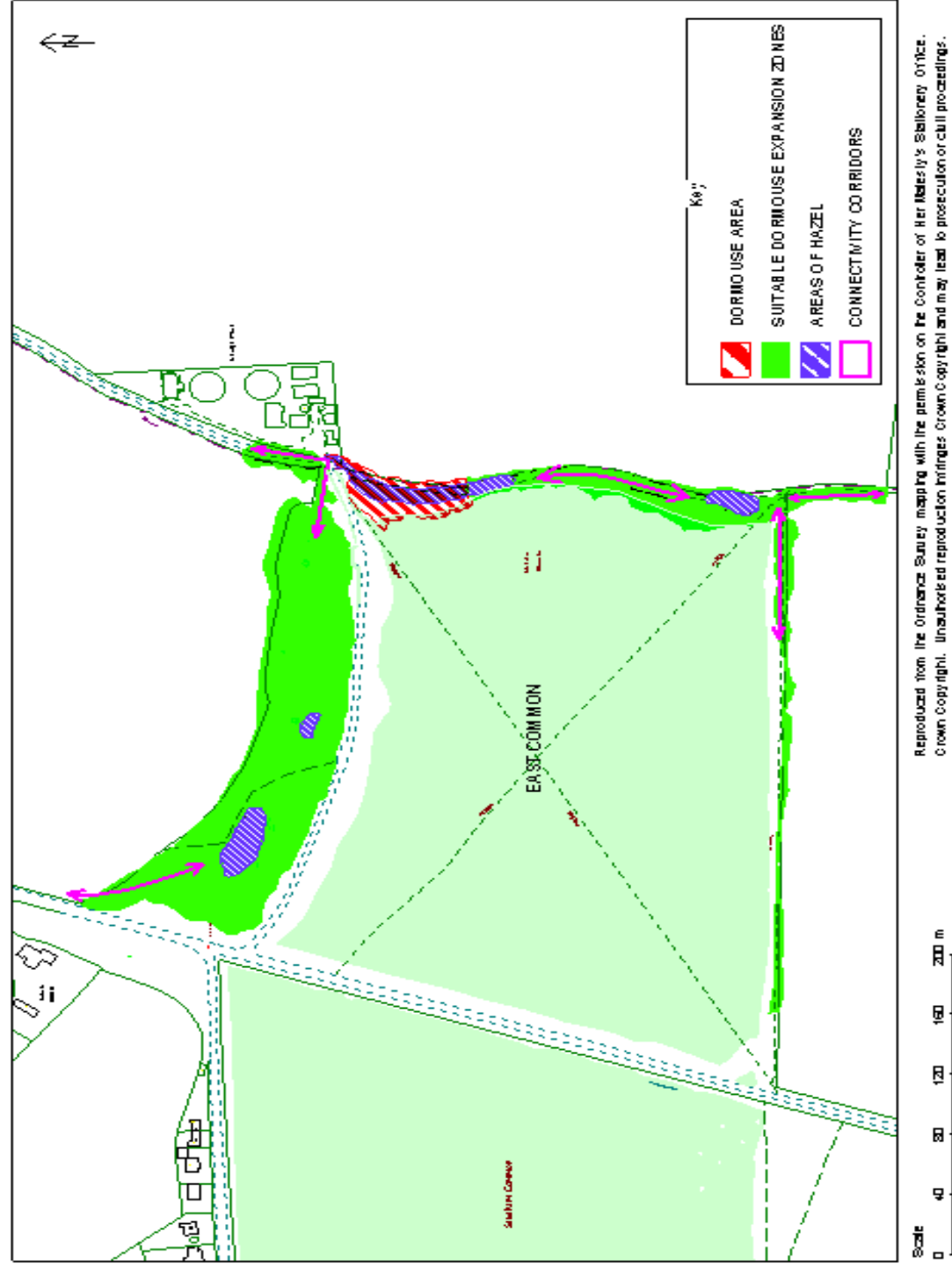
Bright, P. W., & P.A Morris (1993) 'Conservation of the dormouse', *British Wildlife* 4: 154 – 162

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 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

**8.2 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 BEDFORDSHIRE
DISTRICT COUNCIL was hereunto affixed)
on the 13th day of December 1988)
in the presence of:-)

) C.S.6991

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 15th 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.

8.3 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 any 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.*

8.4 Guidelines for the Management of the Common

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 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. Hand-weeding 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	

