# Landport Bottom, Lewes Site Management Plan 2020-2025



**Prepared for:** 

**The Landport Bottom Management Committee** 



# Contents

10 YEAR VISION	3
1. INTRODUCTION	4
2. DESCRIPTION	5
2.1 GENERAL INFORMATION	5
2.2 LANDOWNER	5
2.3 Site Status	5
2.4 LEGAL AND OTHER CONSTRAINTS	5
3. ENVIRONMENTAL INFORMATION	6
3.1 ECOSYSTEM SERVICES AND CLIMATE CHANGE	6
3.2 GEOLOGY AND SOILS	7
3.3 Hydrology:	7
3.4 LANDSCAPE	7
3.5 HABITATS, FLORA AND FAUNA	7
Pond Field (formerly Comp 3) South	8
Pond Field (formerly Comp 3) North	8
Pond	9
Tumuli Field (formerly Comp 1)	9
Small Field South (formerly Comp 2a)	10
Small Field North (formerly Comp 2b)	10
Scrub and scrubby hedges	10
Woodland (formerly Comp 5)	10
Bats	11
Reptiles	11
Birds	11
Fungi	11
4. CULTURAL INFORMATION	12
4.1 Archaeology and history	12
4.2 RECENT HISTORY	13
4.3 RECREATION AND PUBLIC ACCESS	13
4.4 Main fixed assets:	14
5. CURRENT AND RECENT PAST MANAGEMENT	15
6. MANAGEMENT PLAN 2020-2025	16
6.1 OVERALL MANAGEMENT AIMS:	16
6.2 Management Actions	16

6.2.1 Habitats Wildlife Conservation	16
6.2.2 Archaeological Conservation	19
6.3.3 Recreation and Public Access	19
6.3.4 Public Awareness and Community Involvement	20
6.3.5 Ecosystem Services	21
6.2 HEALTH AND SAFETY	21
6.3 Resources	21
6.4 Research, Survey and Monitoring	22
6.4.1 Priority Surveys	22
6.4.2 Surveys if resources allow	23
6.5 MANAGEMENT PLAN UPDATE	23
7. APPENDICES	24
7.1 LANDPORT BOTTOM LOCATION MAP	24
7.3 LANDPORT BOTTOM FIELD MAP	25
7.4 REGISTERED BATTLEFIELD MAP	26
7.5 ARTICLE 4 DIRECTIVE AREA	27
7.6 Public Rights of Way Network	28
7.7 Higher Level Stewardship Management Prescriptions	29
HK6 - Maintenance of species-rich, semi-natural grassland	29
HK7 - Restoration of species-rich, semi-natural grassland	30
HK15 - Maintenance of grassland for target features	32
7.8 HLS Plant Surveys	34
Pond Field 2020	Error! Bookmark not defined.
Small Field 2020	Error! Bookmark not defined.
Tumuli Field 2020	36
7.9 GEOLOGY MAP FOR SUSSEX.	38
7.10 HISTORIC MAP 1874	39
7 11 LANDPORT BOTTOM LEAFLET — 2 PAGES	40

# 10 year vision

In 10 years time the grassland at Landport Bottom will have increased in biodiversity with a greater number and more varied wildflowers and plants thriving on the chalk downland. Butterflies and other insects will increase including some of the rarer chalk downland specialist species.

The site will continue to have a wild open feel with views across Lewes to the chalk quarry cliffs. Skylarks will nest on the ground and be heard singing above the fields in spring and summer.

Scrub and woodland surrounding the fields will allow shelter for birds, reptiles and amphibians and if too much scrub in the areas surrounding Landport Bottom are lost, more scrub will be allowed to develop inside the fields or around the field edges.

Great crested newts, dragonflies and other insects will continue to breed in the pond. Swallows will be seen swooping down over the pond and fields catching insects and other birds like linnet and yellowhammer will be heard in the surrounding trees and scrub. The fenced area around the pond will be larger to allow more undisturbed rough ground and shelter for the great created newts and creatures that are attracted to the pond area.

The history of the site will continue to be celebrated and interpretation will remain in place.

Local people will visit the site to walk, run ride and watch wildlife and visitors will be attracted from further afield for educational purposes about the nature and history of the place.

There will continue to have a low level of mixed uses beyond this including the annual bonfire celebration and limited cultural historical events that do not damage the chalk downland flora and fauna as they it continue to develop.

It will remain a site primarily for local people and wildlife, not attracting many visitors from further afield. This will be achieved through maintaining the current low level of tourist publicity and low amount of parking facilities.

Landport Bottom will provide valuable ecosystem services to the Lewes area and beyond, absorbing and storing carbon in the soil, supporting pollinator populations, providing food through grazing, clean water through organic soil and chalk filtration, and raising the level of mental health and wellbeing of those who visit.

All visitors to the site will understand their role and how to act responsibly.

# 1. Introduction

Landport Bottom is three fields of priority habitat chalk grassland lying just on the edge of Lewes and much loved by the residents. It hosts many chalk downland flowers such as pyramidal orchid, fairy flax, restharrow, wild thyme, wild basil, kidney vetch and dropworts; and butterflies such as the small blue, marbled white and essex skipper. It is managed by grazing to slowly restore it to high quality flower-rich chalk downland.

It has considerable historic significance being the site of the Battle of Lewes in 1264 which is known as the Battle where Parliament was won. It also has clear burial mounds dating from the Bronze Age. In more recent times it hosted sheep fairs and adjoins the Lewes Old Race Course.

Landport Bottom is a great Natural Capital Asset.

It is managed through the Landport Bottom Management Committee.

# 2. Description

## 2.1 General Information

Name: Landport Bottom

Location: TQ 397110 East Sussex

Area: 44 hectares

## 2.2 Landowner

Lewes Town Council.

HM Land Registry title no ESX13617

# 2.3 Site Status

- Lies within the South Downs National Park
- Lies within the Brighton and Lewes Downs Biosphere<sup>1</sup>
- Registered Battlefield<sup>2</sup> (Historic England)
- Scheduled Ancient Monument SAM<sup>3</sup> on the site (Historic England)
- The southern tip of the site is part of the Lewes Old Racecourse Local Wildlife Site (LWS)

# 2.4 Legal and other constraints

- There are several Rights of Way including Bridleways crossing the site (see appendix for maps).
- The area round the pond is subject to an article 4 direction meaning any changes to fencing in that area must have planning permission.
- Classified as chalk grassland a UK Priority Habitat.
- The motor road and some of the water supply is owned by Lewes Old Racecourse Management Company.

<sup>&</sup>lt;sup>1</sup> https://thelivingcoast.org.uk/about/unesco-biospheres

<sup>&</sup>lt;sup>2</sup> https://historicengland.org.uk/listing/the-list/list-entry/1000018

<sup>&</sup>lt;sup>3</sup> https://historicengland.org.uk/sitesearch?search=lewes+barrow

# 3. Environmental information

# 3.1 Ecosystem Services and Climate Change

Landport Bottom provides a number of ecosystem services to the town and beyond

- **Carbon storage**. As unploughed grassland it naturally sequesters carbon and acts as a long term carbon store. Most carbon storage from grassland is underground in the soil and, if unploughed, the carbon builds up over tens or hundreds of years.
- Climate Change resilience. Landport Bottom has biodiversity that helps provide
  climate change resilience. Rarer habitats such as chalk grassland provide a diversity
  of species not found in commoner habitats. As the climate changes the larger the
  species bank the more likely that there will be some that can adapt to the new
  climatic circumstances.
- **Pollination**. The insect life including butterflies and moths, hoverflies bees, beetles etc supports pollination of crops and wild plants in the wider landscape
- Water purification. Its unfertilized grassland on chalk allows the filtration of rain water through the downs to be used as drinking water. Hundreds of thousands of people across the south downs are dependent on chalk filtered water.
- **Flood relief**: The grassland helps alleviate flooding by slowing surface water run-off and allowing it to drain into the land. The Neville area used to be flooded from surface water run-off when the fields were arable.
- Health and wellbeing. The quiet remote feel of Landport Bottom so close to the town allows a great number of people to walk from Lewes town and experience the mental health and wellbeing benefits that come from access to nature.
- **Food.** Stock grazing provides good quality, local meat.

# 3.2 Geology and Soils

- The underlying geology of the site is Upper and Middle Chalk that are undivided in this area.
- Landport Bottom lies on the dip slope of the South Downs where the soils are
  characteristically thicker than those of the escarpment and most of the site has been
  subject to agricultural enrichment. The alkaline character of the soil is apparent in
  the vegetation however it is lusher and more neutral in character in places than
  much of the scarp slope chalk downland vegetation.

# 3.3 Hydrology:

- The steep slopes channel rain water down towards the Nevill estate, which caused significant flooding problems during the reversion process from arable to grazing land during the late 1990's. However, since the turf has become established this problem has not recurred.
- The underlying chalk within this area provides a well-drained substrate, and associated flora has developed.

# 3.4 Landscape

The South Downs Landscape Character Assessment classifies the area as part of the Ouse to Adur 'Open Downs'<sup>4</sup>

Some key characteristics of this Landscape Character type are:

- Vast open rolling upland chalk landscape of blunt, whale-backed Downs with landscape features clearly revealed and landmarks visible over long distance
- Open views with the urban area directly abutting the open downland
- Ancient historic features
- Some areas of remnant old chalk grassland
- Proximity to urban areas leads to a high degree of public access

# 3.5 Habitats, Flora and Fauna

<sup>&</sup>lt;sup>4</sup> https://www.southdowns.gov.uk/wp-content/uploads/2015/03/ILCA-Appendix-A-Open-Downland.pdf

The site is a significant size (44ha), which is of more conservation value than of a smaller site. The fragmented nature of the fields and being dissected by the road, does not diminish from the landscape scale of the site. Landport Bottom has added value as a chalk grassland site because of its proximity to other downland including the Offham Hill LWS and the Clayton to Offham SSSI. Being part of this ecological network has already allowed the migration of species typical of the downland habitat.

Most of Landport Bottom is ex-arable. The main habitat now is chalk grassland, a national priority habitat which is rare both nationally and internationally. The process of restoration has been going on for over 20 years with original seeding taking place around 2000. The quality is improving but is not comparable to ancient chalk grassland.

Landport Bottom is split into three distinct fields (see appendix map or insert map) which are further subdivided here

## Pond Field (formerly Comp 3) South

The thin well drained soil on the slope toward the South of Pond Field supports one of the richer areas for chalk downland plants with frequent rough hawkbit, fairy flax, kidney vetch and some cowslips and has the highest number of pyramidal orchid of anywhere at Landport Bottom (high count of over 4000 in 2017). Common spotted and fragrant orchid are also occasionally found here and a good deal of restharrow is spreading from the top of the field down through this area. The fencing was moved in 2014 To include an area that had scrubbed over in the field. This small area has enriched soil due partly to past use as a hay-piling area. It has less chalk grassland indicators and more rough grasses with some bramble scrub, tall/ribbed melilot and hawthorn trees .

Large amounts of the ground cover in the South end of Pond Field is forbs (small vegetative plants and flowers that are not grass or scrub). The numbers of chalk grassland indicator species in this field overall has increased in the last 10 years.

A colony of small blue butterflies has been seen in this area in recent years.

# Pond Field (formerly Comp 3) North

Further north in Pond field the grasses increase and the forbs cover decreases, Both the north west and north east part of this field are more lush and less diverse than the southern part. Chalk grassland flowers such as birdsfoot trefoil, fairy flax and rough/lesser hawkbit are still found but in smaller numbers. It is rich in ant hills which is encouraging but is dominated by commoner grasses such as perennial ryegrass, false oat grass, yorkshire fog and cocksfoot, There is false brome *Brachypodium sylvaticum* that has formed a number of mats and is spreading through the field with creeping thistle common throughout the sward.

Hawthorn saplings, small amounts of bramble and cotoneaster are spreading in pond field. Skylarks nest in pond field and corn buntings have also been seen in this field.

#### Jill's Pond

There is a dewpond on the western boundary of this field surrounded by a chestnut post and rail fence. Adjacent to this pond is a small patch of scrub.

The pond was restored and re-profiled in 2001, funded by a grant from the Ministry of Agriculture, Fisheries & Food; contributions from the Town and District Councils and Sussex Downs Conservation Board and generous donations from the family and friends in memory of the late Jill Percival who gives the pond its name. The traditional method of using puddled clay was used but a butyl liner was also added. The banks were reprofiled to remove steep sides which were not ideal for pond wildlife. Vegetation was also imported from a Dew Pond at Keymer, on the South Downs (less than 10 miles away), with support from English Nature. Willow, pondweeds, yellow flag iris, rushes and some cowslips occur in the pond and surrounds. The pond also includes some non-native species such as nuttalls pondweed

Despite the isolated nature of the pond, a breeding population of Great Crested newts has established itself in the last 10 years. These are small for great crested newts and there is a suggestion that the population may be isolated from surrounding populations and therefore inbreeding. Apart from the small patch of scrub directly next to the pond, outside the breeding season the nearest good newt habitat and hibernation potential (rough grass, scrub and trees) are on the land adjacent to Landport Bottom at the Old Racecourse.

#### Tumuli Field (formerly Comp 1)

The north east end of this field supports the most diverse chalk grassland community at Landport Bottom with frequent fairy flax and birdsfoot trefoil and with squiancywort, eyebright, stemless thistle, thyme-leaved sandwort, wild thyme, rough/lesser hawkbit, marjoram, ladies bedstraw and other chalk grassland indicator species<sup>5</sup> also evident. A higher number and frequency of indicator species are seen in ancient and good quality chalk grassland. This area has been the most rich in chalk grassland wildflowers for at least 20 years probably because it adjoins the Offham chalk pit (off-site) which is even more varied.

In recent years *Brachypodium sylvaticum* has started to spread into the field with some mats forming. Creeping thistle has also been common throughout the sward in the northern part of the field with some hawthorn saplings also present,

<sup>5</sup> Indicator species are plants that, in combination, show an area to be classified as a particular habitat. They have been assigned for a number of habitats particularly for national priority habitats such as ancient woodland and chalk grassland.

The southern and central parts of the field contain less chalk grassland indicator species and the east side of the field lower on the hill has a tendency to become lush and rank. There are good patches of marjoram and some squiancywort and wild carrot. A small area at the very south of this field was incorporated into the field in 2014. This area had been ash, bramble and scrub and is still more rank than other areas.

## Small Field South (formerly Comp 2a)

This area has developed from a fairly rank species poor area 15 years ago to include more chalk grassland flowers such a dropwort, ladies bedstraw, birdsfoot trefoil and marjoram with occasional orchids. However it still has a good deal of bramble and is currently cut and collected every year.

#### Small Field North (formerly Comp 2b)

This side of the field looks very different in the summer to the southern area with longer grasses, more flowers and almost no bramble. There are some pyramidal orchids, mats of kidney vetch, rough/lesser hawkbit and birdsfoot trefoil as well as frequent red clover and black knapweed and some wild basil. The bank of the bridleway is probably remnant old chalk grassland. This bank is particularly good for chalk grassland species and is the only place on the site where harebell is found.

Both sides of the field are prone to ragwort which, given the proximity of the horse fields must be controlled by cutting or pulling.

There is a band of mainly hawthorn and blackthorn scrub with old man's beard and bramble running through between the two sides of the field.

#### Scrub and scrubby hedges

The scrub along the bridleways and field edges provide good habitat for birds – common garden birds such as blackbird and goldcrest and those more associated with downland such as yellowhammer and linnet. The scrub also provides further opportunities for invertebrates as well as shelter and forage opportunities for reptiles and amphibians. Reptiles are rarely found in the field proper and are almost always to be found at the woodland and scrub edges or undisturbed areas just outside the field fences.

# Woodland (formerly Comp 5)

This is a strip of woodland that extends beyond the site boundary adjacent to the A259. It is dominated by Ash trees, although Sycamore is frequent and other trees such as Field Maple, Turkey Oak and yew also occur. The under-storey is dominated by mature hawthorn with

frequent elder. The ground flora is poor due to historic heavy shading from the canopy. There is much bare ground with Ivy being the dominant ground cover plant. A third to half of the trees in this woodland were felled in spring 2020 due to ash dieback leaving a large area where light is now reaching the ground and the understory, which could allow a more diverse flora to develop. Sycamore is re-growing and will likely dominate unless it is recoppiced regularly or different tree species planted to compete with it. There are many more ash in the remaining woodland and decisions will need to be made what should happen to these as they die and whether there is sufficient danger to the public that the rest of the woodland should be felled.

In 2018 a mixed species hedge including field maple, wayfaring tree, dogwood, hazel, spindle and holly was planted beside the footpath that runs along the western side of the woodland.

#### Bats

Common pipistrelle bats have been recorded at the woodland edge of tumuli field but no full survey has been done. There are some bat boxes on trees in the woodland.

### Reptiles

Surveys in 2011/2012 showed high numbers of slow worms, medium populations of common lizard and low populations of adder and grass snake. Smaller surveys in 2015/2016 and ad hoc sightings showed lizards, slow worm and adder still on site. Reptiles have been seen near to the motor road in the last 10 years especially adders in the spring. The scrub/secondary woodland strip along the motor road line was severely depleted in 2019. With the loss of potential hibernacula, further reptile surveys should be done in this area to establish if the population is still in existence.

#### **Birds**

No formal bird survey has been done of the site but skylarks are known to nest in the grassland in pond field and some years have been observed in Tumuli and Small field. Peregrine falcons and ravens nest nearby and are sometimes seen flying over. Linnets, yellowhammer, buzzard and common garden and woodland birds have also been observed on site.

#### Fungi

The rare golden-eye fungus has been recorded at two locations at Landport Bottom

# 4. Cultural information

# 4.1 Archaeology and History

At the south of the Tumuli Field there is a platform barrow and two bowl barrows forming a linear barrow group. Platform barrows are funerary monuments dating back to the late Bronze Age. They are the rarest type of round barrow (with fewer than 50 recorded nationally) and are normally considered to be of national importance. They form a Scheduled Ancient Monument (SAM) that has statutory protection from Historic England. The platform barrow is approximately 20m in diameter, slightly raised and surrounded by a ditch. According to the Monument Schedule (see appendix): "The platform barrow survives particularly well and is the best example of its kind in East Sussex." The two bowl barrows are slightly raised, but the ditches around them have been in-filled. The larger of the two is about 20m in diameter and the smaller about 13m. In 2003, the site was stock fenced, to allow grazing of the Tumuli.

They are susceptible to damage by vehicles, machinery and large animals (horse riding and possibly cattle).

Landport Bottom and some of the surrounding downland is the site of a Registered Battlefield, the Battle of Lewes 1264, and is one of only 46 in the country.

The battle was fought between the 5000 strong forces of a number of rebel Barons led by Simon de Montfort, Earl of Leicester, and the 10,000 strong army of King Henry III It was probably the first time an English monarch was defeated by his subjects and in the aftermath, the foundations were laid that led to the formation of our modern parliament.

It is thought that Simon de Montfort used the geography of Landport Bottom to help him overcome these odds. The height of the ground may have given the rebel Barons' forces an advantage and the undulating character of the landscape probably made it impossible for the King's commanders in different parts of the battlefield to see what others were doing and change tactics accordingly.

The Pond field was subject to a transect survey by the Sussex Archeological Society using a local metal detectorists society in 2013. No direct evidence of the battle was found in the areas surveyed.

The Battlefield Register (Historic England, 1995) states: "apart from the expansion of Lewes towards Offham Hill, the landscape of the battlefield is essentially unchanged from the open grassland of 1264."

Parts of the site are listed as Archaeologically Sensitive Areas

There are a number of other monuments, mainly tumuli, which are not listed, that have been damaged as a result of former agricultural operations.

# **4.2 Recent History**

More recently sheep grazing would have shaped the landscape at Landport Bottom and the surrounding area; testimony to this is a dewpond that has been restored. It is thought that in 1829 a special flock of Southdown sheep was bought by Landport Farm and came to graze on Landport Bottom

Lewes Racecourse once had a large impact on the area. The first recorded meeting was held in 1751 and in the 19<sup>th</sup> and early 20<sup>th</sup> centuries it was an important centre for horseracing. The 'motor-roads' that bisect the site were used for the racecourse traffic. The racecourse was closed in 1964 and the site of the grandstand has been developed into housing, although parts of the track remain as training gallops.

More recently most of the site was arable farmland and was 'set- aside' between 1988 and 1993. In 1992 the site was acquired jointly by Lewes District Council and Lewes Town Council "to safeguard it from further development and to keep it usable as a general open space". A management committee was established later that year to co-ordinate the management of the land and in 1993 the land was entered in to the South Downs Environmentally Sensitive Area (ESA) scheme: the objective being to return arable land to downland pasture.

The land was ploughed and reseeded in autumn 1992. High levels of run off during periods of exceptional rainfall caused the flooding of four nearby properties. Soakaways were dug but proved ineffective as flooding again occurred later that winter. Further measures were taken including silt traps and retention tanks and since then flooding has not occurred. Flooding of a similar nature to this was experienced in 1850s/1960s and in 1982/3 when the site was arable farmland, a report concluded that the best protection were if the "catchments area could be converted in to pasture land."

#### 4.3 Recreation and Public Access

There is open access throughout the site for pedestrians, cyclists, and horse riders except on the tumuli where cycling and horse riding is not permitted. Most users of the site are

walkers, dog walkers, runners and families and other users out to sit, watch and talk. There is no provision for disabled access. All the main routes in to the site now have kissing gates and hunt gates rather than stiles.

The Lewes Old Racecourse Management Company (LORMC) owns the 'motor-roads' and the strip of land that runs between them that bisect the site. The Council enjoys a right of way along the road(s) although use by the general public has caused occasional disagreements with the LORMC. Counsel's opinion was sought and supports the view that the general public may enjoy the Council's right as its 'invitee'; given the publicly-declared reasons for purchase as an area of public amenity Downland. Lewes Town Council pay for a proportion of the upkeep of the motor-roads.

Many site users are local and arrive on foot. There are bus services that operate along the A275 and stop near to the site Those arriving by car tend to either park on the Nevill Estate or on the verge of the A275.

In the past there have been sporadic problems with motor bikes using the site. Other typical urban fringe problems include occasional fly-tipping and abandonment of stolen vehicles at the main entrance to the site (with A275) and traveler encroachment.

There are problems with dog walkers who do not keep dogs under control and there have been a number of incidents of sheep worrying (dogs off the lead chasing sheep) as well as dog attacks causing injury and death.

# 4.4 Main fixed assets:

Site furniture itemized below:

- Four Interpretation boards located by the Dew Pond and at 3 entrances near the Tumuli, at the southern end of Pond Field and off Firle Crescent.
- Three agricultural drinking troughs. Two in Pond and Small fields connected to LORMC private water supply. One trough in tumuli field connected to mains on A275 road verge.
- 17 oak gates and stiles. 4 metal field gates
- The Motor Road running through the middle of the site, is privately owned, by the Lewes Old Racecourse Management Committee. Parking is strictly prohibited along the course of the road.
- Three Dog bins
- Bench located next to Dew Pond

# 5. Current and recent past management

All of the site, with the exception of the woodland in compartment 5 and the pond area, is grazed with sheep under the Environmental Stewardship scheme(Higher Level, HLS). The 10 year scheme was entered into by Lewes District Council when they part owned the site in 2011 and LTC now contract LDC to organize the grazing and environmental site management through provision of a Specialist Advisor - Downland and Reserves (SADR). Plumpton College, Lamberts Farm provide the sheep grazing with a negotiation taking place between chalk grassland land management and commercial stock management and welfare priorities.

The landowners bought a small flock of heritage Southdowns breed sheep in 2013 which were given to Plumpton College to help graze the site. These sheep have been bred to still thrive in nutrient poor areas such as the chalk grassland of the South Downs so are particularly suitable for grazing the site. Their descendants still graze here together with other sheep provided by the grazier.

Parts or all of Tumuli and Small field have been cut and collected in the late summer or autumn depending on the growth patterns. The tumuli are strimmed and collected separately in the early autumn. Some years it is been necessary to control creeping thistle through topping or cut and collecting. In recent years *Brachypodium sylvaticum* has been strimmed before seeding to control its spread.

The recreational side of site management is now generally managed by LTC.

A Management committee, that consists of Lewes Town Councillors who meet regularly. There is an annual site visit led by the SADR.

There are some LTC allotments within the landholding of Landport Bottom, but they are not considered specifically within the context of the management plan; except that all opportunities should be sought where possible for landscape and wildlife enhancements.

# 6. Management Plan 2020-2025

# **6.1** Overall Management Aims:

- 1. To conserve and enhance Landport Bottom as an important feature of the local landscape
- 2. Increase biodiversity by appropriate habitat management
- 3. Protect and conserve the SAM, Registered Battlefield and other important historical features.
- 4. Promote quiet, informal enjoyment
- 5. To involve the local community in the development and management of the site
- 6. Increase understanding and awareness of site importance amongst local people and other visitors.
- 7. Ensure that Landport Bottom continues to provide carbon storage, climate change resilience and other ecosystem services.
- 8. To manage the site with the Health and Safety of the visitors, staff and volunteers as a high priority.
- 9. To manage stock with the highest welfare standards.
- 10. To maintain current fixed assets to high standards.

#### 6.2.1 Habitats Wildlife Conservation

Aim: Increase biodiversity by appropriate habitat management

# **6.2 Management Actions**

# Aim: To manage stock with the highest welfare standards.

#### Chalk Grassland

The aim of chalk grassland management is to reduce the nutrients in the soil and prevent build-up of thatch by removing the vegetation while enabling the creation of micro-habitats including the formation of ant hills and different sward lengths. This is achieved by grazing to keep the sward short outside the main flowering season of April/May to July and to prevent rough grasses or scrub from dominating allowing the forbs and chalk grassland specialist flower and other plants to spread and dominate. Where the soil type is right and there is a local seed source as is the case at Landport Bottom being close to other downland areas, the unique mix of chalk grassland flowers, plants, insects and birds is able to become established.

## Grazing

- The grazing at Landport Bottom will continue with some cut and collect or topping where appropriate. The site has been grazed with sheep only in the last 25 years. As the sward develops cattle grazing may become necessary if it becomes too rank to manage with sheep alone. The site has been under Higher Level Stewardship scheme since 2011 and was under ESA for a number of years before that.
- Environmental Land Management (ELM) scheme will be entered into (funding and management advice) when it becomes available. It may be necessary to enter into Countryside Stewardship (CS) until ELM becomes available.
- Ideally stock will be removed or numbers dropped significantly in the spring and summer to allow downland flowers to flower without being grazed off see appended HLS grazing recommendations. In the past this has resulted in a sward too thick to be eaten off before the next spring and prevent rank grass and scrub spreading into the grassland. When this occurs there should be occasional hard grazing years where stock are kept on through the summer. Only one summer grazed field per year.
- Cattle grazing will be considered only if sheep grazing and cutting is not adequate to restore the chalk grassland.
- No supplementary feeding except under extreme circumstances for animal welfare e.g snow
- The stock fencing should to be maintained. If cattle grazing becomes necessary, some parts of the fencing will need the top strand plain wires replaced with barbed wire.
- Water trough problems will be fixed immediately.

 Only one of Tumuli and Pond field will be grazed at a time to allow for dog walking.

#### Cutting

- Small and Tumuli field can be cut and collected if the vegetation is too rank in the autumn to be eaten to a short sward by the following spring.
- If cutting or topping takes place in the pond field, care should be taken not to destroy the ant hills.
- Where cutting to control thistles is necessary, it should take place before setting seed (timing determined by observation usually June).
- Strimming to control Brachypodium to take place before seeding (timing determined by observation usually mid June). Multiple times per year if preferable but once just before seeding is necessary to help prevent further spread.
- Ragwort should be individually pulled and disposed of (burnt or removed form site) but cutting is an option if insufficient resources (volunteers and contractors) available for pulling.
- Before any cutting thistle/ragwort/brachypodium cutting takes place, the area to be cut must be checked for skylark nests.
- Glyphosate should not be used due to its detrimental effect on insects.
- No major cutting in April to July as there are skylarks nesting.

#### Pond

Jill's Pond supports a breeding population of great crested newts, smooth newts and aquatic invertebrates. Great Crested newts require some open water for breeding – ideally at least a third of the pond. They also need rough ground and woodland/scrub to forage and hibernate when not breeding.

- Pond vegetation should be cleared each year in autumn under the watch of a licenced ecologist leaving at least one third of the pond under vegetation.
- Nutalls pond weed particularly should be cleared
- Surrounding vegetation should be cut in autumn particularly the willow to prevent it dominating. Willow and vegetation can be left in habitat piles to provide shelter near the pond.
- Pond fencing should be moved to include a larger area of suitable habitat within the undisturbed fenced area see appendix map.
- Stock Fencing should be maintained to prevent dogs entering the pond area

#### Woodland

Ash trees should be felled following risk assessment for ash dieback. Ecological best practice and legal requirement should be met with regard to bats<sup>6</sup> and birds<sup>7</sup>

Dead wood will be left standing or in piles where safe to do so, to act as feeding nesting and shelter habitat for birds, mammals, reptiles, amphibians, insects and other invertebrates.

Low numbers of mixed native tree species should be planted where ash dieback causes loss of ash trees

# 6.2.2 Archaeological Conservation

Aim: Protect and conserve the Scheduled Ancient Monument, Registered Battlefield and other important historical features.

- These must not be damaged by allowing motor vehicles on them nor by horse riding.
  If cattle are introduced into this field in the future, the county archeologist must be
  consulted. Rank vegetation and scrub has been successfully cleared from the
  monuments by cutting and removal every year since 2003. This should continue to
  protect this monument.
- SAM barrows (known as the Tumuli) to be hand strimmed annually in September to prevent scrub from establishing.
- All vehicles and fires kept away from them.
- Signage should warn horse riders and cyclists to stay off the SAM.
- Digging and earthworks including fencing in other areas of the battlefield Archaeologically Sensitive Areas (eg pond fence movement) should involve consultation with an archeologist.
- Historic England should be consulted on issues that could affect the site's visual appearance and integrity as defined by the battlefield designation

#### 6.3.3 Recreation and Public Access

Aim: Promote quiet, informal enjoyment

<sup>&</sup>lt;sup>6</sup> https://cdn.bats.org.uk/pdf/Bats-Trees.pdf?mtime=20181101151317&focal=none

<sup>&</sup>lt;sup>7</sup> https://www.trees.org.uk/Help-Advice/Public/When-is-the-bird-nest-season

Aim: To manage the site with the Health and Safety of the visitors, staff and volunteers as a high priority.

Aim: To maintain current fixed assets to high standards.

- The footpaths and bridleways will be kept clear by strimming and cutting back overhanging scrub and trees. Work done by contractors and volunteer groups as resources allow.
- Encourage and where needed enable the Friends of Landport Bottom. Promote and accept all offers from group to help with positive site management
- Dog-fouling, fly-tipping, motorbikes and littering should be monitored and signage maintained with temporary signage used for particular issues. Encourage good behavior through links with the local community using social media, local groups and face to face on site communication.
- Clear litter and fly tips quickly
- Pursue opportunities for funding e.g. Changing Chalk Project to have a responsible dog ownership campaign.
- Maintain visibility of waymarker at corner of Neville Road and install additional waymarker at tumuli field entrance to encourage use of fields and discourage use of the Motor Road
- Check and maintain gates regularly for effectiveness and public safety

# 6.3.4 Public Awareness and Community Involvement

Aim: Increase understanding and awareness of site importance amongst local people and other visitors

Aim: To involve the local community in the development and management of the site

- Maintain interpretation boards. When renewal becomes necessary add information about climate change and ecosystem services with the importance of grassland for naturally sequestering and storing carbon and the valuable services the chalk landscape provides for water filtration, pollination and health and wellbeing
- Encourage interpretation events including themed walks eg climate change, the
  ecological emergency, butterflies, download flowers; schools trips; art events;
  natural history events; historical reenactment eg historic farming, 1264 battle and
  historic life.

- To hold (where resources allow) and to encourage others to hold regular activities and events aimed at exploring the ecology, and history of this site, and explaining their importance and significance. Pursuing funding for interpretation events for example through the Changing Chalk project, and encourage partners such as Wildflower Lewes/Sussex Wildlife Trust/Biosphere/South Downs National Park/Sussex Past to use the site for education events.
- Identify and actively encourage local people to lead guided walks and education events at the site.
- Continue to use local conservation groups such as South Downs Volunteer Ranger
   Service and Brighton Conservation Volunteers with practical management of the site and invite the Friends of Landport Bottom to these practical days.
- Link in to the nearest school, which is Wallands, and encourage educational site activities.
- Update leaflet and ensure it continues to be available in tourist office and locally

# 6.3.5 Ecosystem Services

Aim: Ensure that Landport Bottom continues to provide carbon storage, climate change resilience and other ecosystem services.

- Maintain grazing to maintain grassland since this maintains the carbon store do not plough.
- Do not fertilise or treat with pesticide. This will maintain the water purification and pollination support services
- Retain as public space for quiet enjoyment since this this will maintain the health and cultural services.

# **6.2 Health and Safety**

An annual risk assessment should be carried out with particular emphasis on tree safety in the light of ash dieback

## **6.3 Resources**

LTC has been buying in land/habitat management and access work from Lewes District Council (LDC) tied partly to the HLS agreement until 2021. This is provided by a Specialist Advisor (Downland and Reserves) with the help of a Neighbourhood Advisor. LTC also has a Town Ranger who deals with some of the issues involved with fixed assets and community engagement.

The National Park provide assistance with their Volunteer Ranger Service and can also provide advice from an experienced local Area Ranger where needed.

Currently there is no exchange of money between the graziers and LTC for the grazing. This may change after 2021. Historically the landowner has sometimes paid Plumpton College for the grazing.

# 6.4 Research, Survey and Monitoring

Flora surveys and chalk grassland HLS condition assessments have taken place a number of times over the last 15 years. Some are appended below.

The chalk grassland is still developing and there should be a system in place to allow regular monitoring of the vegetation at least every 5 years and ideally more often to inform grazing management

The pond has been surveyed once most years for Great Crested Newts. This protected species monitoring by an experienced surveyor should continue over the next 10 years especially given recent and planned changes to the local habitat.

As a public place, close to a town with a good deal of biodiversity, the study of Landport Bottom should be encouraged both to by professionals and citizens scientists/amateur naturalists. Records can inform site management but should also always be reported to the Sussex Biodiversity Records Centre to form part of the national database used to study trends from Climate Change to ecological collapse or nature recovery. Over the past 10 years there have been ad hoc surveys of the reptiles, RSPB red listed skylarks and reed buntings, and butterflies often conducted by the local community and the Friends of Landport Bottom. There ae also a number of individuals who record individual sightings eg Small blue butterfly and golden-eye lichen. These should be encouraged and expanded over the next 10 years.

## 6.4.1 Priority Surveys

- Flora surveys including Stewardship agreement condition assessment surveys ideally annually but at least every five years.
- Reptile survey every 5 years or more if resources allow. Repeat 2011/2012 survey as far as possible to allow for comparisons.
- Great Crested Newt Survey annual pond torching survey by qualified practitioner in main breeding season – mid-march to mid-may. Timing is weather an vegetation cover dependent

• Bat tree potential surveys when trees are to be felled. Bat emergence/return surveys may be necessary.

# 6.4.2 Surveys if resources allow

- Annual orchid count.
- Full bat survey of woodland
- Butterfly survey
- Pond survey plants and invertebrates
- Breeding bird survey including skylarks
- Moth trap survey

Many of these should be offered to the community as events to watch, help or get involved in.

# **6.5 Management Plan Update**

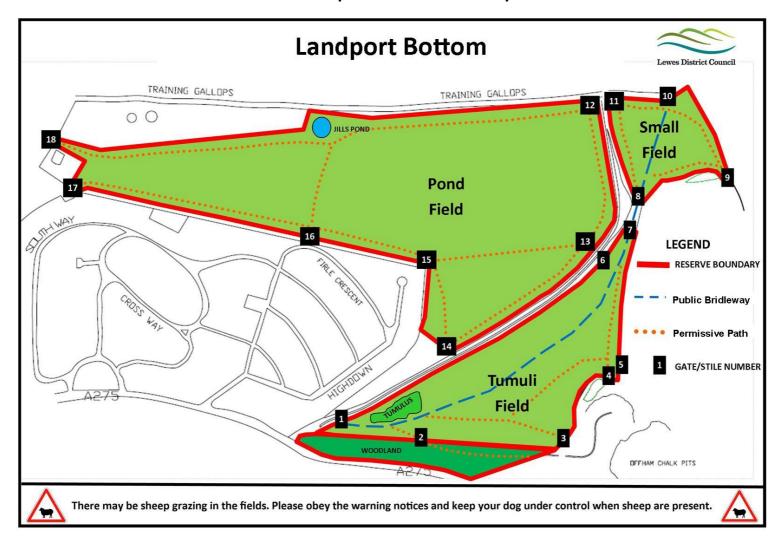
Undertake regular review of this plan and update as needed or at least every 5 years.

# 7. Appendices

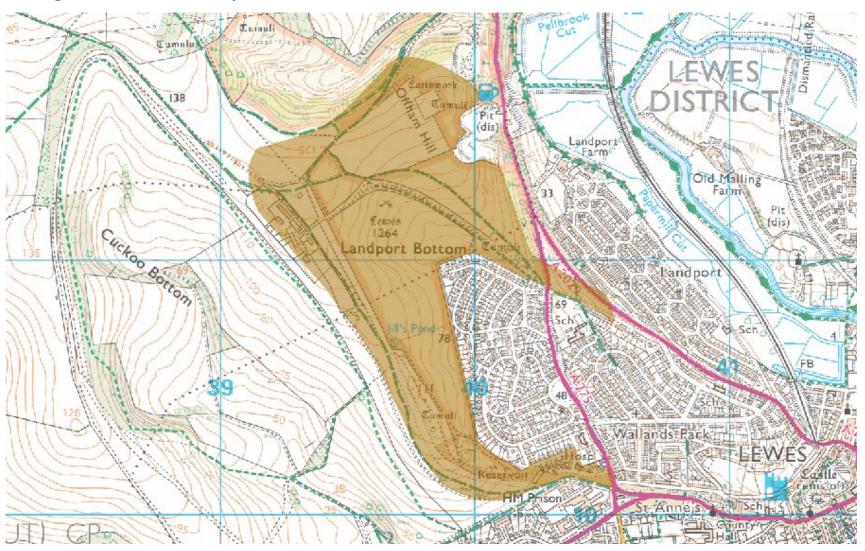
# 7.1 Landport Bottom Location Map



# 7.3 Landport Bottom Field Map



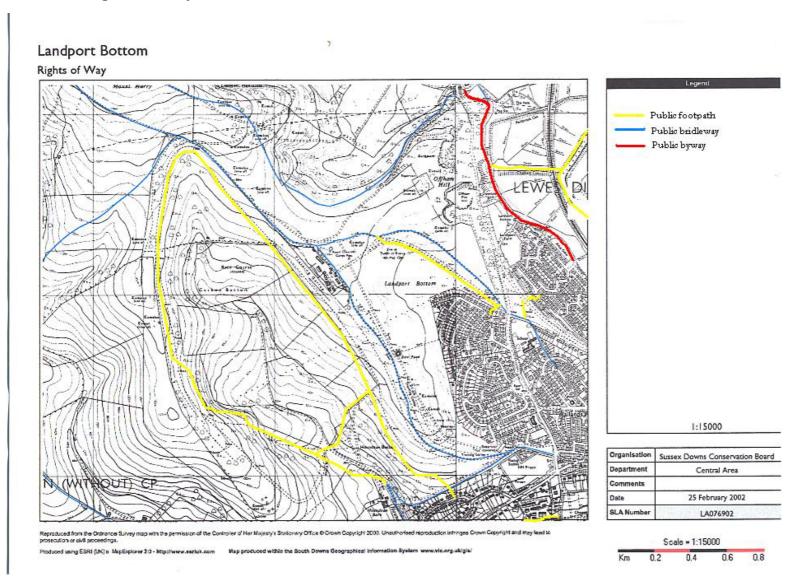
# 7.4 Registered Battlefield Map



# 7.5 Article 4 Directive area



# 7.6 Public Rights of Way Network



# 7.7 Higher Level Stewardship Management Prescriptions

# HK6 - Maintenance of species-rich, semi-natural grassland Land parcels and associated features managed under this option:

RLR Field Number: TQ44005816

Features: C05 Maritime cliff and slope - BAP habitat, G02 Semi-improved grassland, G04 Lowland calcareous grassland - BAP habitat

# General description of the management required:

This option is targeted at the maintenance and protection of areas of species-rich grassland. The importance of species-rich grassland is recognised by the UK Biodiversity Action Plan (BAP). The option can also contribute to protecting valued landscapes and archaeology, and the promotion of good soil conditions.

# **Management Requirements**

The following rules apply across the whole area being managed under this option.

- From year 1, manage the sward by cutting and removing the cuttings, to achieve a sward height of between 2cm and 10cm in November.
- Manage the grassland to achieve the indicators by cutting and removing the field-dried hay only after 15 July.
- Do not install new drainage or modify existing drainage systems unless agreed with your Natural England contact.
- Control undesirable species such as Creeping Thistle ,Spear Thistle ,Curled Dock, Broad-leaved Dock ,Common Ragwort ,Common Nettle so that by year 3 their cover is less than 5% of the area. Control by topping, weed wiping or spot treatment. Ploughing, sub-surface cultivation and reseeding are not permitted except as part of a grassland management plan agreed with your Natural England contact.
- Do not top, roll or harrow more than 30% of the total grassland area in any one year and always leave a minimum of 5% tussocks or longer grass.
- Rabbits must be controlled to achieve the indicators. Where this is impractical due to the nature of the land, the cutting regime must be adjusted to take account of this change to grazing pressure.
- Field operations must not damage the soil structure or cause heavy poaching. Small areas of bare ground on up to 5% of the field are acceptable. Take particular care when the land is waterlogged.
- There must be no application of nutrients such as fertilisers, organic manures or waste materials including sewage sludge.
- Follow the agreed management plan to be produced in year 1 of the agreement.

#### **Indicators of Success**

- By year 1, the average sward height in November should be between 2cm and 10cm.
- The extent of the habitats of interest within the grassland as identified in the Farm Environment Plan should be maintained or increased.
- The Soil Phosphate Index should be 0 or 1. AG00362841 / Version 1.0 / 18 May 2011 / Part 3 / Page 11 of 23
- By year 3, at least 2 high-value indicator species (see list below) for the BAP

habitat Lowland calcareous grassland should be frequent and 2 occasional in the sward.

- By year 2, cover of invasive trees and scrub should be less than 5%
- By year 2, cover of bare ground should be between 1% and 5%, distributed throughout the field in hoof prints or other small patches.

Lowland calcareous grassland – BAP habitat Wildflower Indicator Species betony, bird's-foottrefoil, bloodycrane's-bill, carline thistle, clustered bellflower, common rock-rose, cowslip, dropworts, devil's bit scabious, eyebright, fairy flax, field scabious, gentians, greater knapweed, hairy violet, harebell, hoary plantain, hoary rock-rose, horseshoe vetch, kidney vetch, lady's bedstraw, marjoram, milkworts, mouseear hawkweed, orchids, ox-eye daisy, purple milkvetch, restharrow, rough/lesser hawkbit, salad burnet, saw-wort, small scabious, squinancywort, stemless thistle, thyme-leaved sandwort, wild basil, wild thyme, yellowwort.

# HK7 - Restoration of species-rich, semi-natural grassland Land parcels and associated features managed under this option:

RLR Field Number: TQ39107090

Features: G02 Semi-improved grassland, G04 Lowland calcareous grassland - BAP habitat, H04 Large scale archaeological feature, SB11 Skylark, SB18 Yellowhammer,

W07 Ponds - BAP habitat

RLR Field Number: TQ39119926

Features: G02 Semi-improved grassland, H01 Above ground historic feature, H04

Large scale archaeological feature

#### **General description of the management required:**

This option is targeted at grasslands that are potentially rich in plant and associated animal life. They are often on difficult ground and may have suffered from management neglect or they may have been selected for agricultural improvement. The botanical diversity of such grassland may be enhanced by simply amending existing management practices. However, on many sites pro-active restoration management will be required involving introduction of seeds and creation of gaps for their establishment. Substantial changes of livestock type, timing of grazing or control of dominant species may also be required. The option can also contribute to protecting valued landscapes and archaeology, and the promotion of good soil conditions.

#### **Management Requirements**

The following rules apply across the whole area being managed under this option.

- From year 1, manage the sward by grazing to achieve a sward height of between 2cm and 10cm in November.
- See attached Technical Note Illustrated Guide to lowland chalk and limestone grassland for illustrations of how chalk grassland should best look throughout the year, general guidelines are to graze at a rate of 1 livestock unit (LU), the equivalent of 7 sheep or one cow with calf at heel, per hectare for the **whole year** with reduced or no grazing in the summer months (June to August inclusive), monitored and adjusted depending on sward structure. Follow guidance in attached Technical Note.
- There must be no application of nutrients such as fertilisers, organic manures or waste materials including sewage sludge

- Supplementary feeding is restricted to scattering of hay by hand
- Feeding sites should be moved regularly and never placed on archaeological features. Creep feeding of young stock is permitted.
- Control by topping or spot treatment undesirable species such as Creeping Thistle, Spear Thistle, Curled Dock, Broad-leaved Dock, Common Ragwort, Common Nettle and other invasive species so that by year 5, their cover is less than 5% of the area
- Do not install new drainage or modify existing drainage systems unless agreed with your Natural England contact.

AG00362841 / Version 1.0 / 18 May 2011 / Part 3 / Page 13 of 23

- Ploughing and sub-surface cultivation are not permitted. Reseeding is only permitted as part of a grassland management plan agreed in writing with your Natural England contact.
- Do not top, roll or harrow between 1 October and 30 June. Do not treat more than 30% of the total grassland area in any one year and always leave a minimum of 5% tussocks
- Rabbits must be controlled to achieve the indicators. Where this is impractical due to the nature of the land, the numbers of grazing livestock must be adjusted to take account of this change to grazing pressure.
- Field operations and stocking must not damage the soil structure or cause heavy poaching. Take particular care when the land is waterlogged.
- Retain all standing and fallen dead wood unless it presents a genuine safety hazard.
- All new fences should be marked with bird strike markers.
- To protect the archaeological and historic features, the Tumuli (TQ9926) and Battle of Lewes Site do not place anything likely to cause ground disturbance on or near the features such as fences, feeders, water troughs. Do not locate access routes on or near the features. If the feature is being damaged by the use of a PROW consult the Highway Authority. Maintain under permanent grassland cover. If renewal or reseeding is required this must be done in a non-destructive manner after consultation and agreement with Natural England. Do not allow the development of burrows. Remove any scrub from the tumuli but leave stumps in situ to rot. Keep features free of scrub by grazing or cutting.

#### **Indicators of Success**

- The extent of the habitats of interest within the grassland as identified in the Farm Environment Plan should be maintained or increased.
- By year 3, at least 2 high-value indicator species for BAP grassland habitat chalk grassland (see list below) should be frequent and 2 occasional in the sward.
- By year 5, at least 4 high value indicator species for the BAP habitat feature chalk grassland (see list below) should be frequent and 2 occasional in the sward.
- By year 5 cover of wildflowers in the sward excluding undesirable species should be between 40% and 90% during May-June.
- The sward should look similar to that as shown in the attached Technical Note Illustrated Guide to lowland chalk and limestone grassland
- Archaeological and historic features, the Tumuli (TQ9926) and Battle of Lewes

Site have suffered no further degradation. Detrimental indicators (e.g. burrows, bare patches, scrub growth, poaching and erosion) cover less than 5% of the area.

Lowland calcareous grassland – BAP habitat Wildflower Indicator Species

betony, bird's-foot trefoil, bloodycrane's-bill, carline thistle, clustered bellflower, common rock-rose, cowslip, dropworts, devil's bit scabious, eyebright, fairy flax, field scabious, gentians, greater knapweed, hairy violet, harebell, hoary plantain, hoary rock-rose, horseshoe vetch, kidney vetch, lady's bedstraw, marjoram, milkworts, mouseear hawkweed, orchids, ox-eye daisy, purple milkvetch, restharrow, rough/lesser hawkbit, salad burnet, saw-wort, small scabious, squinancywort, stemless thistle, thyme-leaved sandwort, wild basil, wild thyme, yellowwort,

# HK15 - Maintenance of grassland for target features

Land parcels and associated features managed under this option:

RLR Field Number: TQ39114136

Features: G02 Semi-improved grassland, H04 Large scale archaeological feature

RLR Field Number: TQ41212176

Features: T01 Ancient Tree, V07 Bracken of high environmental value

RLR Field Number: TQ43018105 RLR Field Number: TQ44005816

Features: C05 Maritime cliff and slope - BAP habitat, G02 Semi-improved grassland,

G04 Lowland calcareous grassland - BAP habitat

# General description of the management required:

This option will maintain semi-improved or rough grassland which is known to provide good conditions for target species and to protect other features, such as historic sites. This option can also be used to maintain moderately species-rich semiimproved grassland, where it lacks the potential to be restored to species-rich, seminatural grassland (option HK7), but which is identified as a priority in local targeting statements. This option may be applied to grassland Priority Habitat types, but which occur in land parcels that are extensively managed due to topography and location, for example species-rich upland calcareous grassland in large allotments. It may also be used to manage grassland which has limited biodiversity value, but which has been created under a classic scheme for other objectives, such as protection of the historic environment.

#### **Management Requirements**

The following rules apply across the whole area being managed under this option.

- From year 1 onwards, manage the sward by grazing or cutting to achieve a sward height of between 5cm and 15cm during April and May and between 2cm and 10cm in November. At Landport Bottom (TQ4136) if required remove livestock or do not exceed a stocking density of 0.2 LU per ha for a six week period between 1st May and 31st July.
- Rabbits must be controlled to achieve the indicators. Where this is impractical due to the nature of the land, the numbers of grazing livestock must be adjusted to take account of this change to grazing pressure.
- Field operations and stocking must not damage the soil structure or cause heavy poaching. Small areas of bare ground on up to 5% of the field are acceptable. Take particular care when the land is waterlogged.

- Do not apply fertilisers, organic manures or waste materials (including sewage sludge) unless specifically agreed in writing with your Natural England contact or stated in a management.
- Do not top, roll or harrow between 1 October and 30 June. Do not treat more than 30% of the total grassland area in any one year, and always leave a minimum of 5% tussocks or longer grass.
- Ploughing, sub-surface cultivation and reseeding are not permitted.
   AG00362841 / Version 1.0 / 18 May 2011 / Part 3 / Page 16 of 23
- Do not install new drainage or modify existing drainage systems unless agreed with your Natural England contact. Routine maintenance of functioning drainage systems is allowed.
- Control undesirable species such as Creeping Thistle, Spear Thistle, Curled Dock, Broad-leaved Dock, Common Ragwort, Common Nettle so that their cover is less than 5% of the area. Control by topping or spot treatment.

# **Landport Bottom (TQ4136)**

• By year 3 at least 2 high-value indicator species (see list below) for BAP grassland habitat lowland calcareous grassland should be frequent and 2 occasional in the sward.

Lowland calcareous grassland – BAP habitat Wildflower Indicator Species betony, bird's-foottrefoil, bloodycrane's-bill, carline thistle, clustered bellflower, common rock-rose, cowslip, dropworts, devil's bit scabious, eyebright, fairy flax, field scabious, gentians, greater knapweed, hairy violet, harebell, hoary plantain, hoary rock-rose, horseshoe vetch, kidney vetch, lady's bedstraw, marjoram, milkworts, mouseear hawkweed, orchids, ox-eye daisy, purple milkvetch, restharrow, rough/lesser hawkbit, salad burnet, saw-wort, small scabious, squinancywort, stemless thistle, thyme-leaved sandwort, wild basil, wild thyme, yellowwort.

# 7.8 HLS Plant Surveys

# **Pond Field**

HK7 RLR Field Number: TQ39107090

Features: G02 Semi-improved grassland, G04 Lowland calcareous grassland - BAP

habitat, H04 Large scale archaeological feature, SB11 Skylark, SB18

Yellowhammer,

W07 Ponds - BAP habitat

# **Indicators of Success**

- By year 5, at least **4 high** value indicator species for the BAP habitat feature chalk grassland (see list below) should be frequent and **2 occasional** in the sward.
- By year 5 cover of wildflowers in the sward excluding undesirable species should be between 40% and 90% during May-June.

# **Results Pond Field**

# North End

Indicator Species	Presence in 10 stops 2018	Frequency in 2018	Presence in 10 stops 2020	Frequency
High-value	2010		2020	
indicators				
Bird's-foot trefoil	5	Frequent	7	Frequent
Fairy flax	4	Occasional	6	Frequent
Ladies			1	Rare
Bedstraw				
Orchids				
Restharrow			2	Rare
Rough/lesser	1	Rare	2	Rare
Hawkbit				
Stemless			1	Rare
Thistle				
Wild Basil			1	Rare
40-90% herbs	1	Poor		
Negative				
Indicators				
Creeping thistle	10	Frequent	5	Frequent
Common	2	Rare	3	Rare
Ragwort				
Other indicator species present but not in survey stops				
Kidney Vetch				
Greater				
Knapweed				

Margoram		

2015 Result: Fail 2018 Result: Fail 2020 Result: Fail

This is the most species poor part of the site – probably enriched from previous agriculture – improvement seen since 2011

# South End

Indicator Species	Presence in 10 stops 2018	Frequency in 2018	Presence in 10 stops 2020	Frequency
High-value indicators				
Bird's-foot trefoil	9	Frequent	10	Frequent
Fairy flax	9	Frequent	9	Frequent
Horseshoe Vetch			1	Rare
Lady's bedstraw	1	Rare	4	Occasional
Kidney Vetch	5	Frequent	6	Frequent
Marjoram	0	Absent	4	Occasional
Mouseear hawkweed	1	Rare	2	Rare
Orchids (Pyramidal)	1	Rare	3	Occasional
Ox-eye Daisy			1	Rare
Restharrow	2	Rare		
Rough hawkbit	10	Frequent	9	Frequent
Salad burnet	0	Absent	1	Rare
Mall Scabious			1	Rare
Stemliss thistle	1	Rare	2	Rare
Yellowwort			1	Rare
40-90% herbs	10	Excellent	Estimate 10	Not recorded
Negative Indicators				
Creeping thistle	0	Absent	2	Rare
Common Ragwort	3	Occasional	2	Rare
Other indicator species present but not in survey stops				
Greater Knapweed				
Round-headed				
Rampion				

# 2015 Result: Fail 2018 Result: Fail 2020 Result: Success

But NB Increase in number of frequent high value indicators 2015 to 2018

# **Small Field**

# HK15 - Maintenance of grassland for target features

RLR Field Number: TQ39114136

Features: G02 Semi-improved grassland, H04 Large scale archaeological feature

By year 3 at least 2 high-value indicator species (see list below) for BAP grassland habitat lowland calcareous grassland should be frequent and 2

occasional in the sward

Indicator Species	Presence in 12 stops 2015	Frequency	Presence per 10 stops 2020	Frequency
High-value indicators				Check 2015
				updated!!!
Bird's-foot trefoil	8	Frequent	4	Occasional
Common Rock Rose			1	Rare
Dropworts	1	Rare	1	Rare
Eyebright			3	Occasional
Fairy Flax			6	Frequent
Hairy Violet			1	Rare
Horseshoe vetch <sup>8</sup>			1	Rare
Kidney vetch	5	Frequent	1	Rare
Lady's bedstraw	10	Frequent	4	Occasional
Marjoram	2	Rare	2	Rare
Orchids	1	Rare	1/24 stops	Present
(pyramidal)				
Rough/lesser hawkbit	4	Occasional	4	Occasional
Salad burnet	1	Rare	1/24 stops	Present
Saw-wort			1/24 stops	Present
Thyme-leaved sandwort			1/24 stops	Present
Wild basil	7	Frequent	5	Frequent
Wild Thyme		1	1/24 stops	Present
Yellowwort	1	Rare	•	
Negative Indicators				
Creeping thistle	5	Frequent	2	Rare
Spear thistle	3	Occasional		
Common Nettle			1/24 stops	Present
Curled dock	1	Rare	•	
Common ragwort	9	Frequent	5	Frequent

Result 2015: SUCCESS Result 2020: SUCCESS

36

# **Tumuli Field**

HK7 RLR Field Number: TQ39119926

Features: G02 Semi-improved grassland, H01 Above ground historic feature, H04

Large scale archaeological feature

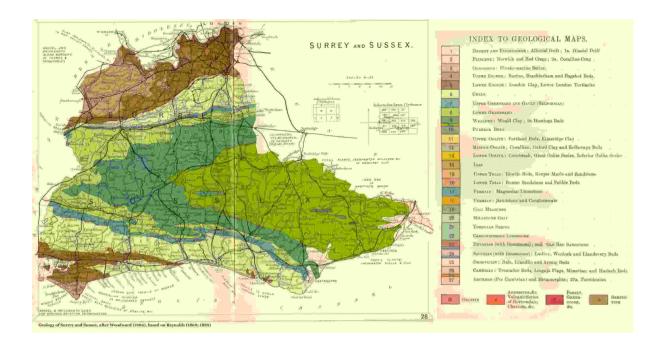
- By year 3, at least 2 high-value indicator species for BAP grassland habitat chalk grassland (see list below) should be frequent and 2 occasional in the sward.
- By year 5, at least **4 high value** indicator species for the BAP habitat feature chalk grassland (see list below) should be **frequent** and **2 occasional** in the sward.
- By year 5 cover of wildflowers in the sward excluding undesirable species should be between 40% and 90% during May-June.
- The sward should look similar to that as shown in the attached Technical Note Illustrated Guide to lowland chalk and limestone grassland
- Archaeological and historic features, the Tumuli (TQ9926) and Battle of Lewes Site have suffered no further degradation. Detrimental indicators (e.g. burrows, bare patches, scrub growth, poaching and erosion) cover less than 5% of the area.

Indicator Species	Presence in 30 stops 2015	Frequency	Presence per 10 stops 2020	Frequency
High-value indicators				
Betony			2	Rare
Bird's-foot-trefoil	21	Frequent	5	Frequent
Common rock-rose	1	Rare		
Eyebright	1	Rare	1	Rare
Fairy flax	21	Frequent	5	Frequent
Kidney Vetch			1	Rare
Lady's bedstraw	7	Rare/Occasi onal	4	Occasional
Marjoram	1	Rare	1/47 stops	Present
Milkworts	1	Rare	1	Rare
Mousear Hawkweed			1/47 stops	Present
Orchids			1/47 stops	Present
Restharrow	1	Rare	1/47 stops	Present
Rough/lesser hawkbit	11	Occasional	3	Occasional
Salad burnet	2	Rare	1/47 stops	Present
Squinancywort	6	Rare	2/47 stops	Present
Stemless thistle	1	Rare	2/47 stops	Present
Thyme-leaved sandwort	5	Rare	2/47 stops	Present
Negative indicators				
Creeping thistle	16	Frequent	3	Occasional
Spear Thistle	3	Rare	1	Rare
Common Ragwort			2/47 stops	Present
Common Nettle			2/47 stops	Present

2015 Result: Success 2020 Result: Fail

NB Indicator species increased but not sufficient to reach increased targets after year 5

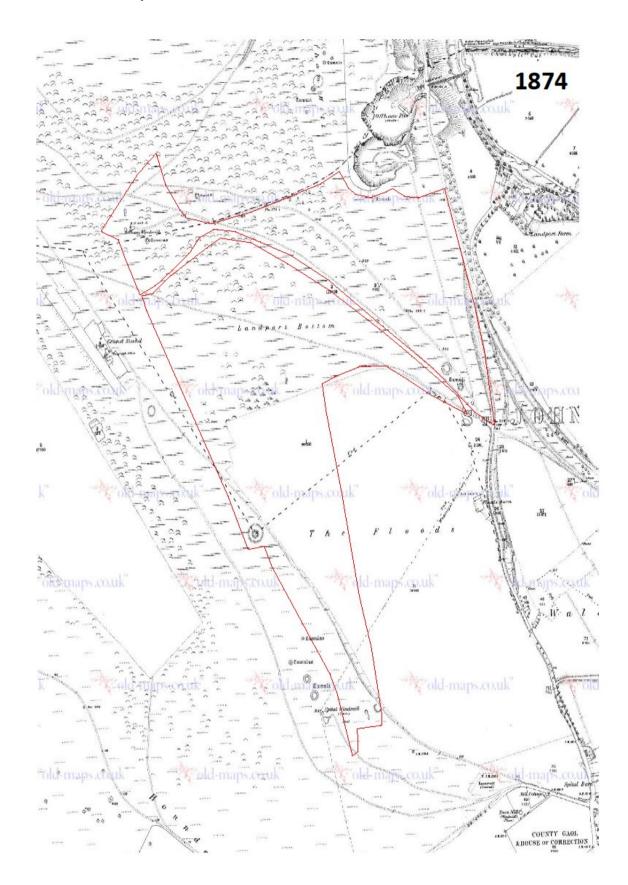
# 7.9 Geology Map for Sussex.



# (Source:

 $http://www.openaccess.gov.uk/wps/portal/!ut/p/\_s.7\_0\_A/7\_0\_GS/.cmd/acd/.ar/sa.map/.\\ pm/-/.c/6\_3\_1EU/.ce/7\_3\_312/.p/5\_3\_2H9/.d/8\#7\_3\_312)$ 

# **7.10 Historic Map 1874**



# 7.11 Landport Bottom leaflet – 2 pages

## LANDPORT BOTTOM

This 44 hectare site offers panoramic views across Lewes, the South Downs and the meandering River Ouse, these gentle grassland slopes are a special place for both people and wildlife.

#### THE BATTLE OF LEWES

On the 14 May 1264 two armies clashed! The rebel army under Simon de Montfort occupied these hills above the town and Henry Ill's army marched out to meet them. At stake, the King's right to rule without taking advice from his subjects

From the King's army, a devastating cavalry charge led by Prince Edward shattered the rebel left wing. But de Montfort's army rallied and were able to push the King's men back to the town, killing hundreds as they did so. The King fled, the Prince was taken hostage and his uncle was captured after hiding from the rebels in a windmill.

The battle was over and the King was forced to agree to call a council of Lords, Churchmen and Merchants to advise him. This council or "parlement – speaking place" forms the basis of the Westminster system of government by Crown, Commons, Bishops and Lords we have today.

THIS IS WHERE PARLIAMENT WAS WON!



# BARROWS AND BONES

3000 years ago in the Bronze Age it was common to bury the dead under mounds. These burial mounds, also called Barrows or Tumuli, were created by digging a ditch around the grave and pilling the spoil into the middle. Newly built mounds would have been very white against the grass making a striking statement in the landscape.

The dead were often buried with flints tools and pots, which may have contained food. Perhaps



these objects were thought to be useful in the afterlife. The burial mounds here are designated as a Scheduled Ancient Monument (SAM).

IN THE SOUTH DOWNS NATIONAL PARK AND BRIGHTON AND LEWES DOWNS BIOSPHERE



#### NATURE IMPROVEMENT AREA PROJECT

In February 2012 a grant was awarded as part of the Government's Nature Improvement Area (NIA) scheme. This project aimed to protect, restore and reconnect endangered chalk downland in the National Park. Lewes District Council was able to carry out a three year conservation project at Landport Bottom. Livestock fencing was extended in some of the fields and scrub cleared to expand the chalk grassland.

We purchased **Southdowns Sheep** which were originally bred for meat in Glynde around 200 years ago. This breed is now used in traditional conservation grazing which helps to create a mosaic of habitats benefiting a variety of chalk downland wildlife. Flora surveys were carried out finding flowering plants such as **Lady's Bedstraw**, **Falry Flax** and **Dropwort** which provide an important nectar source for insects, especially butterflies. **Common Blue**, **Marbled White** and **Small Heath** can be seen here during the summer.

Local schools and residents have been engaged through education days and guided walks to learn about the rare wildlife that lives here. Ground nesting birds such as the Skylark uses long grass to hide their nests, but due to changes in farming practices this species has seen a recent decline in population. Conservation areas like this one across the South Downs are going some way to protecting this iconic songster.

#### BE AWARE, LIVESTOCK GRAZING

Dogs must be kept under control at all times, especially when livestock is present. Please report any sheep emergency to *Plumpton College* on 01273 890454.

For more information contact Lewes District Council on 01273 471600 or visit our website at

# www.lewes.gov.uk

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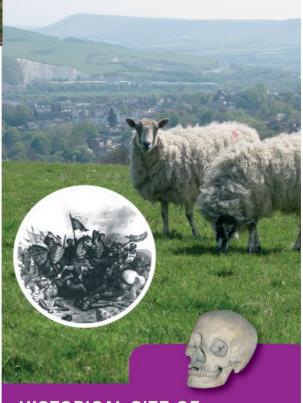
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# LANDPORT BOTTOM



HISTORICAL SITE OF THE BATTLE OF LEWES