

THE RUNTON COMMONS EAST/WEST RUNTON NORFOLK

10 YEAR MANAGEMENT PLAN



On behalf of: West Runton Parish Council

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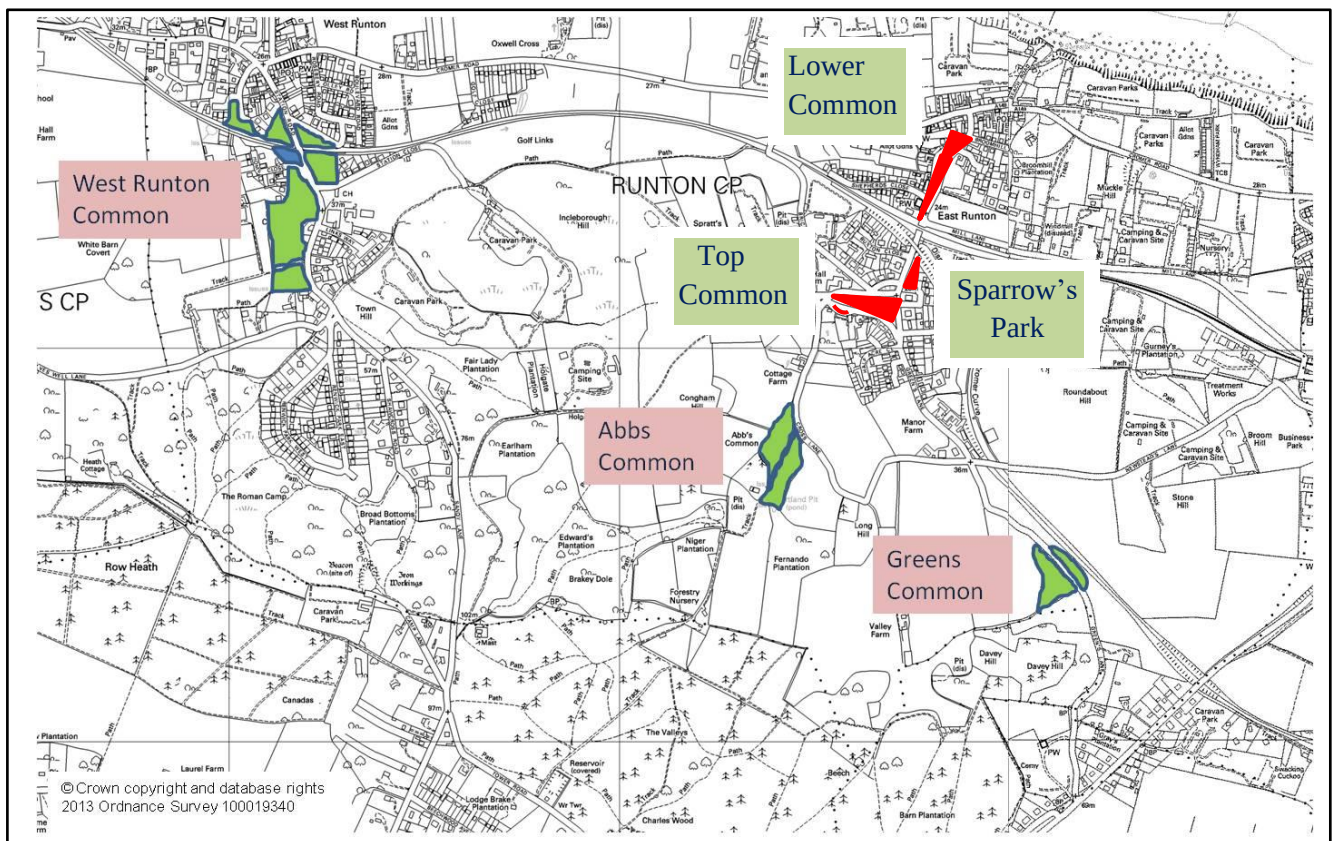
1.0 BACKGROUND

This management plan is an amalgamation of the 2014 Hawk and Owl Trust management plan and the Norfolk Wildlife Trusts 2019 Wildlife in Common Project surveys updated in 2023 with an assessment of their present conditions together with a 10-year Management Prescription calendar.

It primarily relates to three separate areas of common land in Runtun Parish. The three sites are: West Runtun Common, (WRC) Abbs Common (AC) and Greens Common (GC) (the latter two of which are within the parish of East Runtun). All are notified as County Wildlife Sites (CWS) and were selected because they met the criteria for CWS Status based on their wide range of habitats and native flora and fauna. The relative locations of the three sites are shown in Map 1 below. Between them they incorporate a range of habitats including mature secondary woodland, scrub, acid and neutral grassland, marshy fen, streams and a number of ponds. They cover a total area of approximately 7.5 Hectares.

Three further sites also in the parish of East Runtun are Top Common, Lower Common and Sparrow's Park, however these have no associated designations.

The CWS notification highlights sites of interest for wildlife in a county context and does not carry any statutory protection, although all CWS will have some protection through the planning system and through regulations on uncultivated land.



Map 1: Relative location of the three CWS sites (green) and the additional sites (red)

2.0 HISTORY

Although not specifically named, all three areas of land appear on Faden’s map of Norfolk from 1797 (published on the internet by Norfolk County Council) with very similar shape and location. West Runton Commons is coloured as common land, while Abbs and Green’s commons are shown in outline but are not coloured as common.

The first named reference to the West Runton Common found is on Bryant’s 1826 map of Norfolk (published on the internet by Norfolk County Council) where it is referred to simply as Runton Common. Green’s Common appears to be marked on the same map as a small area of common or heathland but is not named. There is no indication of any specific naming or land use at the current location of Abbs Common but on the Tithe Map of Norfolk from circa 1840 (also published online by NCC) there is an area marked as Beales Common at a similar location.



Map 2: Bryant’s 1826 map showing (West) Runton Common

The Commons are now in the ownership of Mr. Robert Batt of East Beckham and are managed for the benefit of the people of East and West Runton by Runton Parish Council. Management is overseen by the Council Commons Committee.

West Runton Common was designated as a County Wildlife Site (CWS 1149) in 1980’s. In 2013, the designation was extended to incorporate Station, Cooper’s and Blacksmith’s Commons to the north of the Cromer to Sheringham railway line. At the same time, Abbs Common (CWS 2233) and Green’s Common (CWS 2234) were also separately designated.



WEST RUNTON COMMON

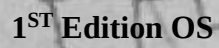


ABBS COMMON

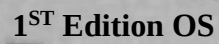
The following maps are adapted from the Norfolk County Council website Norfolk Historic Maps Explorer. They compare the Tithe Maps dated 1836 – 1850 with the 1st Edition O S Map 1879 – 1886.



GREENS COMMON



LOWER COMMON



LOWER COMMON

Initially the Commons were managed more for quiet enjoyment of the local population, but in recent years biodiversity has become an overriding principle.

In 2012, the Hawk and Owl Trust's Baling for Biodiversity project supported the Parish Council and the WRENS in the management of the Commons. In 2013 the West Runtun Commons and Abbs Common were all cut and baled at the end of the flowering season under the Entry Level Stewardship agreement with Natural England, Sheep and Shetland ponies from the nearby Hillside Animal Sanctuary aftermath grazed parts of the site after cutting.

In 2014 a management plan was drawn up in collaboration between the Hawk and Owl Trust and the Norfolk Wildlife Trust (NWT) with additional surveys by NWT in 2019 for Abbs Common.

Regular volunteer work parties have been held in the past to manage scrub, trees and water courses on the Commons with a countryside contractor undertaking the cutting/collect of the grasslands with aftermath grazing continuing with help from Hillside Animal Sanctuary.

3.0 HABITATS & CURRENT SITE CONDITION

3.1 West Runton Commons

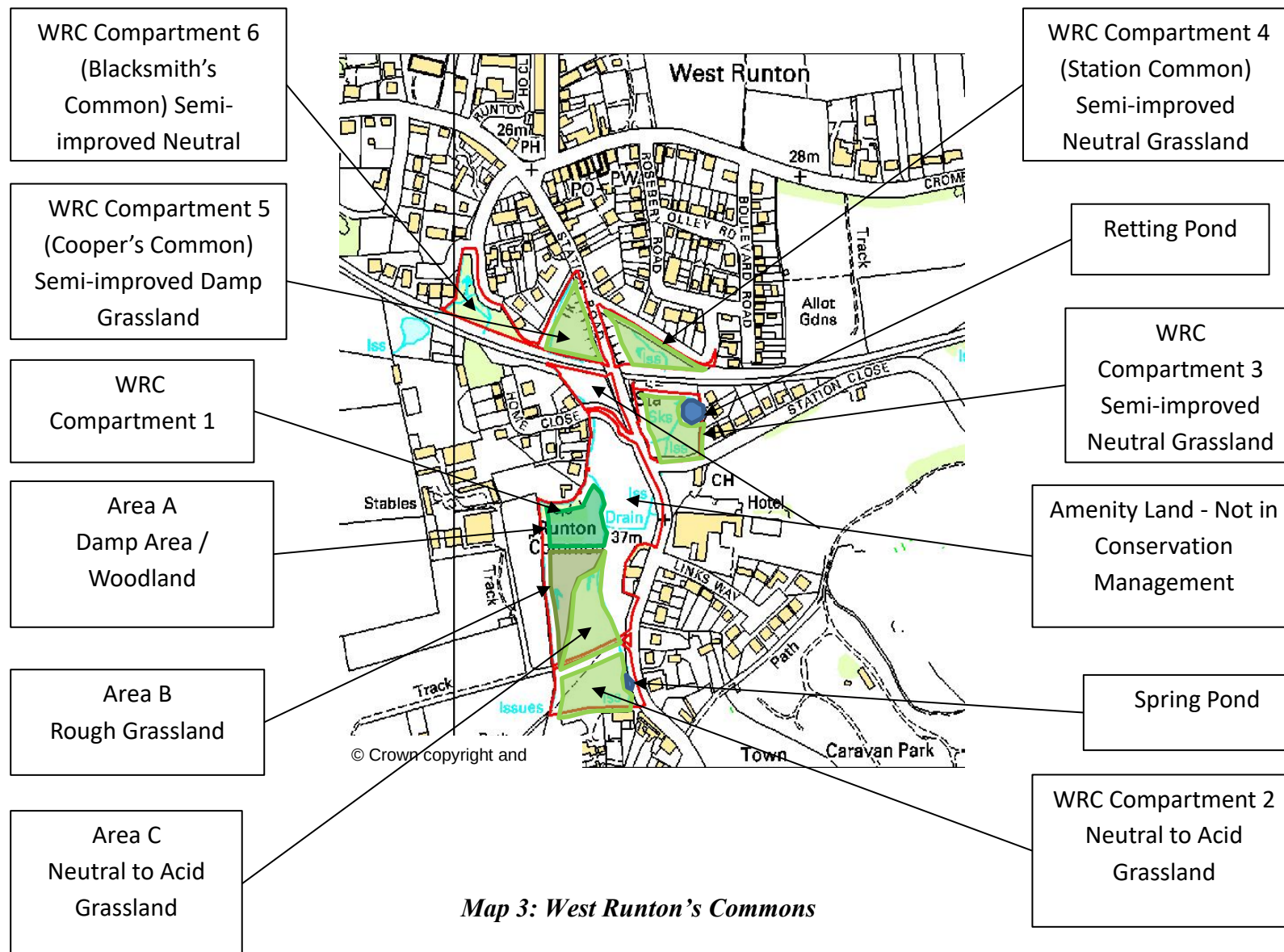
The West Runton's commons form a contiguous area of approximately 4.5 hectares of mixed habitat bisected north to south by Station Road/Sandy Lane and east to west by the Cromer to Sheringham railway line. A small stream, of variable flow, runs south to north in a channel of widely varying depth and width.

Map 3 below shows the various compartments of land which comprise the Commons.

The main West Runton Common is all the land south of the railway line and comprises a mosaic of unimproved dry acidic to neutral grassland and semi-improved neutral grassland with impeded drainage. However, not all the land is to be managed for primarily for conservation.

The land to the east of the stream and west of the road is treated as an amenity area for the use of residents and visitors. It is cut short by contractors on a regular basis through the growing season to facilitate pedestrian routes across the common.

However, there is an area of acid grassland at the northern end of the main area which is known to be relatively species rich therefore from 2024 this will be included in the cut and collect grassland management regime and will be surveyed annually to monitor positive change.



Map 3: West Runtun's Commons

Compartment 1 is the land to the west of the stream and north of the track to Hillside Animal Sanctuary. It contains three distinct areas of habitat:

- **Damp Area with Woodland (Area A).** This is a wetter area supporting mixed tall fen and ruderal vegetation with coarse patches of nitrophilous herbs, **[PHOTO 1]** including great willowherb (*Epilobium hirsutum*), nettle (*Urtica dioica*) and creeping thistle (*Cirsium arvense*). More species-rich patches are present with yellow rattle (*Rhinanthus minor*), meadowsweet (*Filipendula ulmaria*), ragged-Robin (*Lychnis flos-cuculi*), greater bird's-foot trefoil (*Lotus uliginosus*) common fleabane (*Pulicaria dysenterica*) marsh pennywort (*Hydrocotyle vulgaris*) and hard rush (*Juncus inflexus*). Scattered reedmace is also present, perhaps marking the location of a now dry pond beds.



There is a copse of alder (Plateau Alder Woodland?) with two distinct ages – mature trees to the west and, spreading east, self-seeded secondary growth from the last 20-25 years. These are of similar age and height and are densely packed – limiting the amount of light reaching the lower storey and limiting the vegetation. There is extensive bramble cover along with dense nettle in the under storey of the mature part of the copse and several impeded water courses.

- **Rough Grassland (Area B).** The area to the west of the footpath which crosses Compartment 1 is relatively poor in flora species compared to the rest of the site. There are patches of short rabbit grazed grass and extensive nettle and bramble along the western boundary. This area is to be managed primarily as rough grassland to encourage small mammal populations and their predators. A survey of the area in September 2013 by Nigel Middleton of the Hawk and Owl Trust found Short-tailed Vole (*Microtus agrestis*), Wood Mouse (*Apodemus sylvaticus*), Common Shrew (*Sorex araneus*) and Water Shrew (*Neomys fodiens*) to be

present. A mature, hawthorn-dominated hedge forms the western boundary of the site with holly (*Ilex aquifolium*) and elder (*Sambucus nigra*). A stream bed follows the hedgeline but this appears to be dry for most of the year.

- **Acid to neutral grassland (Area C).** The area east of the footpath and to the west of the stream is acid to neutral grassland. **[PHOTO 2]** It is relatively species rich. Areas characterised by harebell (*Campanula rotundifolia*), selfheal (*Prunella vulgaris*), common cat's-ear (*Hypochoeris radicata*), mouse-ear hawkweed (*Hieracium pilosella*), creeping cinquefoil (*Potentilla reptans*), common mouse-ear (*Cerastium fontanum*), sheep's fescue (*Festuca ovina*) and sand sedge (*Carex arenaria*), contrast with those supporting meadow vetchling (*Lathyrus pratensis*), greater bird's foot trefoil (*Lotus uliginosus*), meadow buttercup (*Ranunculus acris*), knapweed (*Centaurea nigra*). There is a shallow, flora-rich ditch along both sides of the road. These were introduced in relatively recent times to prevent vehicular access rather than to aid drainage and are generally dry except at the wettest times.



- **Compartment 2** is the land to the south of the track to Hillside Animal Sanctuary and west of the stream. **[PHOTO 3]** It has similar habitat and flora to Area C and also has a shallow ditch running along the northern edge. A dense hedge forms the western and part of the southern boundary, the remainder being the frontage of adjoining houses.

A large area dominated by common fleabane lies at the eastern end of the compartment. During the small mammal survey referenced above, evidence of Harvest Mouse (*Micromys Minutus*) was found in this area.



- **The Spring Pond.** A small circular pond at the eastern edge of Compartment 3, [PHOTO 4] formed by damming the spring line with a stone and concrete structure. In 2012, the pond was de-silted and the dam repaired to stop leakage. However, in c2015 the installation of a borehole by Anglian Water caused the spring line and pond to become dry. The water authority is to install a piped supply 2024.



- **Compartment 3** is an area of semi-improved neutral grassland to the east of the road divided by drainage ditches which flow into the Retting Pond (see below). **[PHOTO 5]** The area immediately around the pond has a bench. This area and the perimeter paths are kept short through regular mowing by nearby residents - but the remainder of the areas is managed for flora. The area directly to the south of the pond is quite rank with extensive bindweed and cleavers.



The Retting Pond. A small pond in the north-east corner of Compartment 3.

[PHOTO 6] It has patchy broad-leaved pond weed (*Potamogeton natans*). Emergent vegetation includes pure stands of Reedmace (*Typha latifolia*), with branched bur-reed (*Sparganium erectum*) locally present. The margins support a shorter assemblage of aquatic/inundation plants, including water-violet (*Hottonia palustris*), water plantain (*Alisma plantago-aquatica*), water forget-me-not (*Myosotis scorpioides*). Some ornamental and invasive species including New Zealand pygmyweed (*Crassula helmsii*) giant rhubarb (*Gunnera Manicata*) and floating pennywort (*Hydrocotyle ranunculoides*) have been introduced at some point.

A small sluice built to control the outflow of water from the pond has been damaged by tree root movement and is not functioning. This has allowed pond to become extremely silted which in turn has encouraged the spread of the reedmace. During the winter of 2023 a mini digger was used to remove the flote grass (*Glyceria fluitans*) and Reedmace from the south and western side of the pond. This is in preparation for hand picking of the *Crassula* over the next few years. The pond is used by Toads *Bufo bufo* for breeding.

Three small commons lie to the North of the railway line and were added to the original CWS designation in 2013.



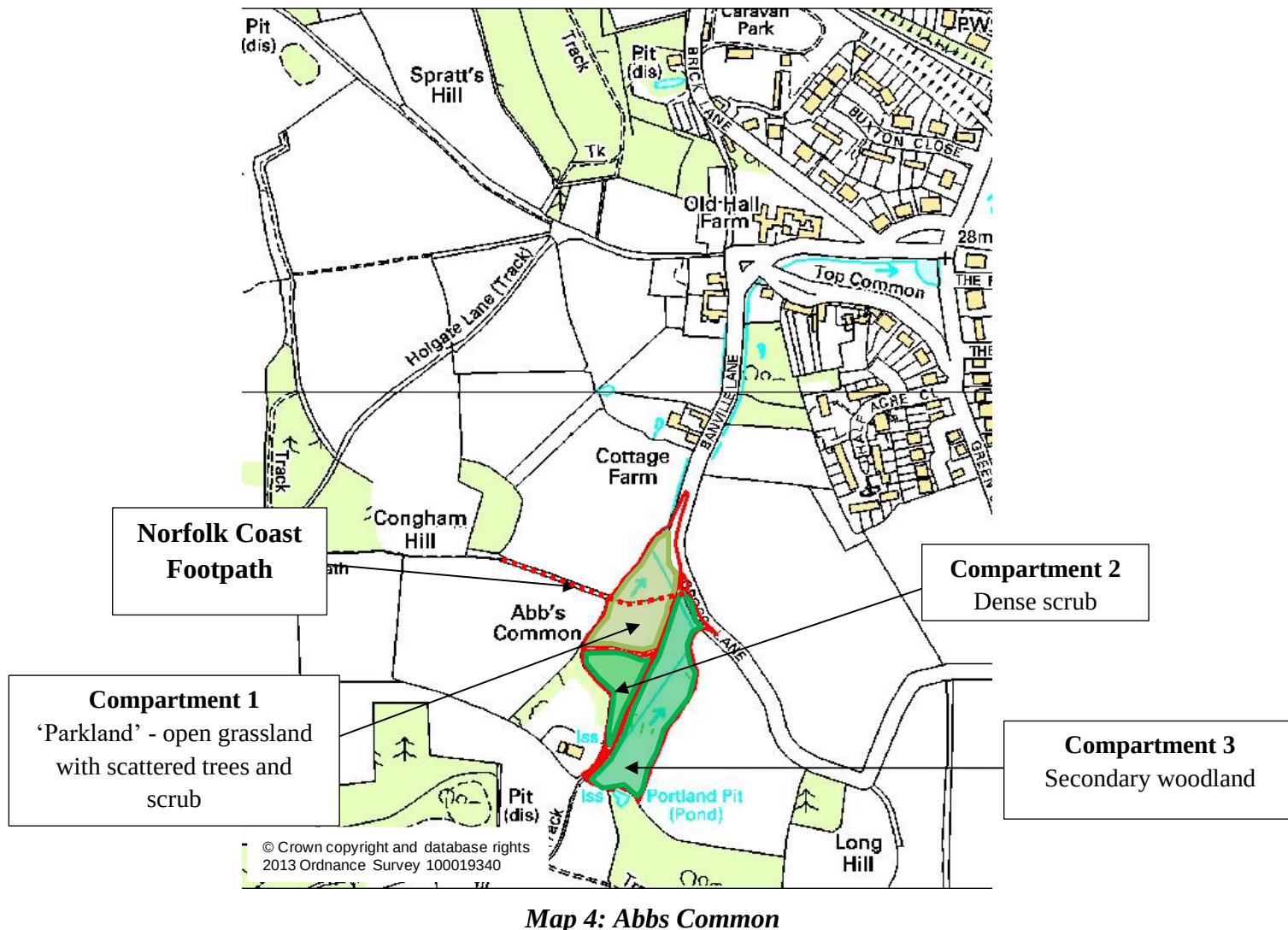
- **Compartment 4 (Station Common)** is only moderately species rich. The open areas contain a range of grasses including meadow foxtail, false oat grass and Yorkshire fog. A ditch, which varies in depth and is dry for most of the year, runs along the northern edge beside the access track for the houses. There is a dense stand of a cultivated variety of Hebe along the boundary with the railway which is starting to encroach onto the common.
- **Compartment 5 (Cooper's Common)** is damper and more species-rich; frequent species include sweet vernal grass, meadow foxtail, meadow vetchling, common fleabane, germander speedwell, knapweed and hogweed along with the invasive dotted loosestrife. **[PHOTO 7]**

An impeded ditch runs along the western edge into a stand of willow. Along the southern boundary with the railway line there is frequent Himalayan balsam (*Impatiens glandulifera*) which needs to be controlled. common spotted orchid are also occasional here.

- **Compartment 6 (Blacksmith's Common)** is a small, heavily wooded area accessed by a damp path from Cooper's Common. It is not included in this management plan.



3.2 Abbs Common



Abbs Common is a small area (approximately 1.75 Ha) of registered common (CL5) at the end of Banville Lane in East Runton. The site is composed largely of neutral grassland, [PHOTO 8] but with small areas of impeded drainage and patches of more free-draining, sandy soils. Map 4 above shows the layout of the site.

Compartment 1. To the north and west of the lane which bisects the site, are two areas of open neutral grassland with occasional scrub and scattered trees including crab apple *Malus sylvestris* and English oak *Quercus robur*. In common with the other Commons these areas have been topped but the arisings have been left to rot and, particularly to the south of the Norfolk Coast Path and the north of the ditch, the vegetation is quite rank with limited flora. **Compartment 2.** An area of dense blackthorn scrub with limited understorey. **Compartment 3.** To the east of the lane is an area of mainly secondary woodland dominated by sycamore with very little ground vegetation.

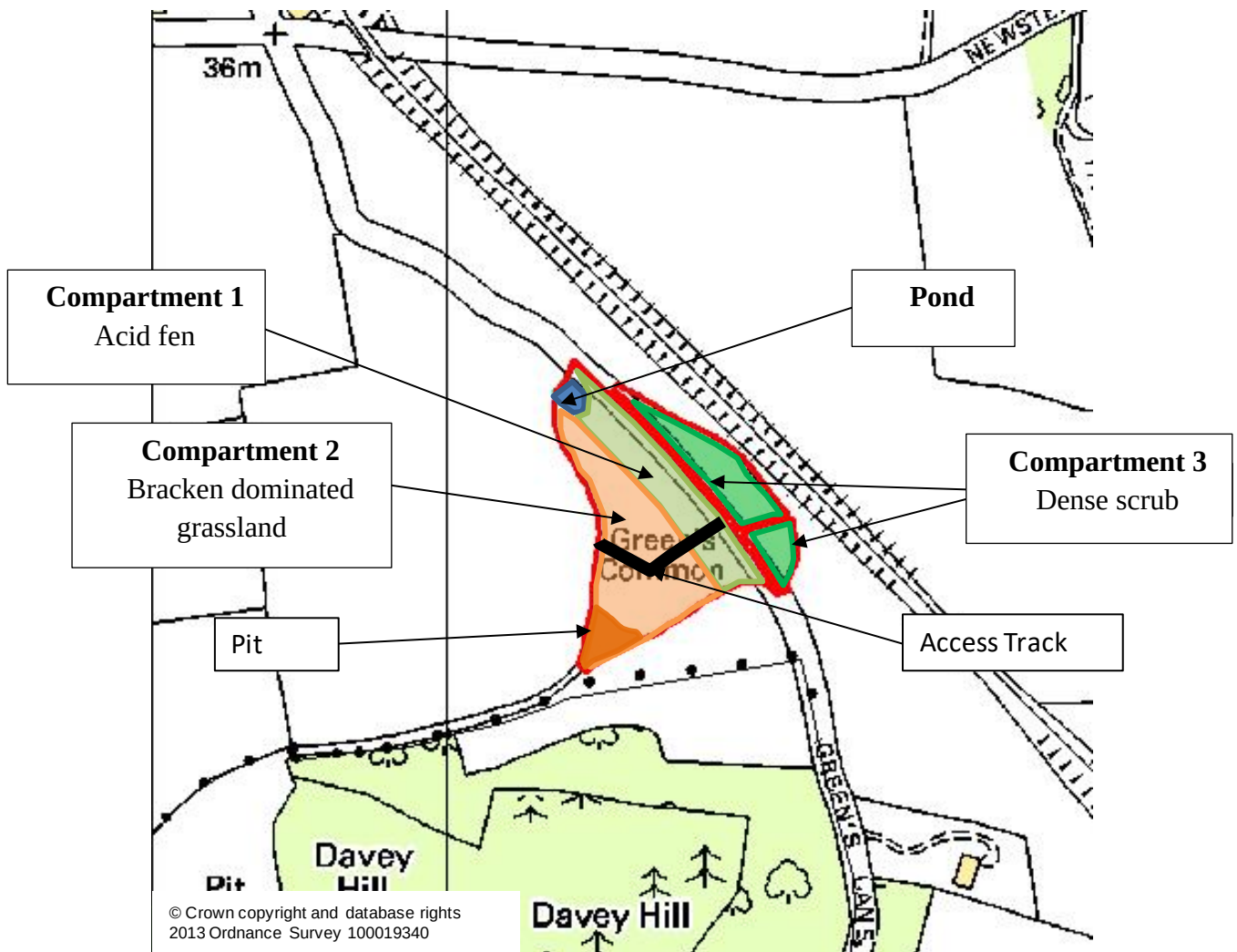
PHOTO 8



3.3 Green's Common

Green's Common is a small area (approximately 1.3 Ha) of common land which straddles Green Lane in East Runt. Map 5 below shows the layout of the site.

Compartment 3. To east of the lane is a compartment of dense scrub. To the west of the lane the plot is roughly triangular. Closest to the lane is an area of species-rich, marshy grassland/acid fen. **[PHOTO 9]**



Map 5: Green's Common

Compartment 1. The fen is in relatively good condition despite only being topped. **[PHOTO 10&11]** Species abundant throughout this area include soft rush, water mint *Mentha aquatica* marsh pennywort *Hydrocotyle vulgaris*, common fleabane *Pulicaria dysenterica*, common sedge *Carex nigra*, lesser spearwort *Ranunculus flammula*, hairy sedge *Carex hirta*, marsh bedstraw *Galium palustre* and greater bird's foot trefoil *Lotus pedunculatus*.

Greater willowherb is occasional, as are sorrel *Rumex acetosa*, ragged robin *Lychnis flos-cuculi*, and common spike rush *Eleocharis palustris*. Species occurring rarely throughout include common spotted orchid *Dactylorhiza fuchsii*, meadow buttercup *Ranunculus acris*, lady's smock *Cardamine pratensis* and bog stitchwort *Stellaria uliginosa*. Dominant grasses include Yorkshire fog *Holcus lanatus* and cock's foot *Dactylis glomerata*, with occasional rough meadow grass *Poa trivialis*.

Frequent species found here include common vetch *Vicia sativa*, redshank *Persicaria maculosa* and marsh thistle *Cirsium palustre*.

Compartment 2. To the south and west of the site, the land rises sharply to an area of drier, free-draining sandy soils. Much of this area is dominated by dense, tall bracken with open areas of short, rabbit-grazed sward. In the south-west corner is a deep, dry pit dominated by bracken. There is a dense layer of bracken litter build up on the slopes, but bluebells are frequent in spring.



Pond. In the northern corner of the site is a medium sized pond which was cleared out in 2012 however, it is now dominated by dense Reedmace which requires attention once again. **[PHOTO 11]**

A grass track bisects the site to allow vehicular access to arable fields behind.

PHOTO 10



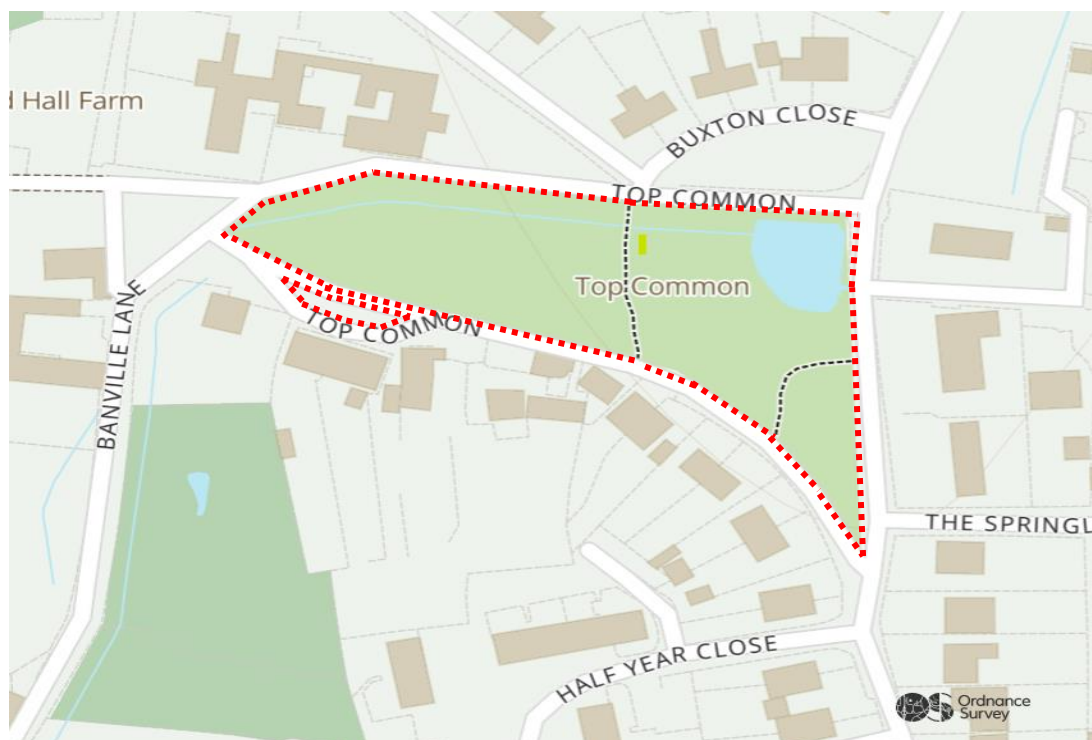
PHOTO 11



3.4 ADDITIONAL COMMONS - EAST RUNTON

Two other areas not officially classified as Commons or County Wildlife Sites both contain ponds. However, as the Parish Council are tasked with their management they are described here.

Top Common An area of mainly amenity grassland containing a children's play area totalling c0.9ha with a large well vegetated natural pond situated in the north-eastern corner. The grassland is managed primarily for amenity especially in the proximity of the play area however, **[PHOTO 12]** the seepage lines to the south of the pond contains numerous common spotted orchids and therefore could be included in a cut and collect conservation grassland regime.



Map 6 Top Common

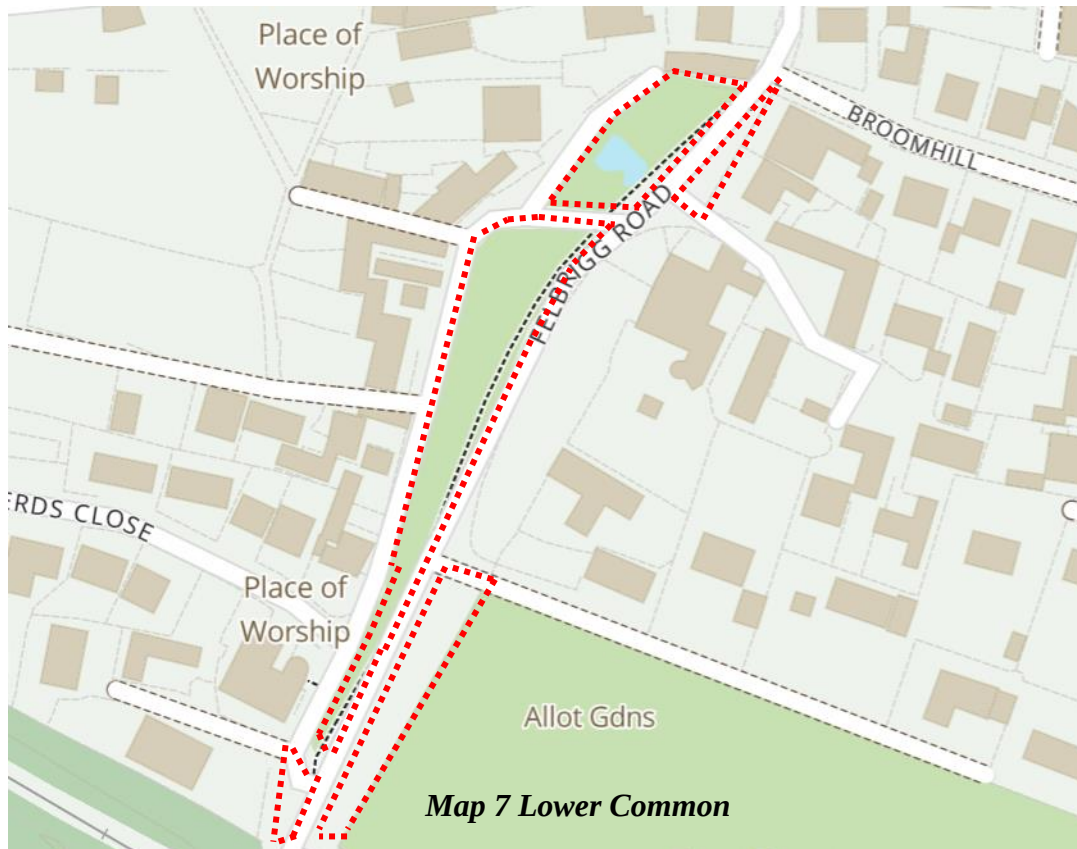
The pond is shown on the first edition OS map (c1879-1886) although is absent on the earlier Tithe maps (c1836-1850) however as the typical building materials of the locality is brick and sea-washed pebbles and not clay lump its excavation is assumed to be for agricultural purposes and may have been constructed on a natural spring/seepage lines . **[PHOTO 13]**

The pond measures approximately 600m² in extent and has a well vegetated perimeter. It has mainly gently sloping sides except for at the south-eastern corner where it has been riveted with timber where an in-flow is situated. It is also fed via a shallow open ditch along the northern edge of the Common. However, the southern input brings with it large accumulations of silt resulting in the pond being only 150mm deep. (winter 2024) Whilst silting could be alleviated via the construction of a silt trap the issue of who would be responsible for the regular maintenance remains.

Typical bankside and emergent vegetation include purple loosestrife (*Lythrum salicaria*) yellow flag (*Iris pseudacorus*) reed sweet-grass (*Glyceria maxima*) and great willowherb (*Epilobium hirsutum*) along with both mature and sapling willows.

PHOTO 12**PHOTO 13**

Lower Common The oddly named Lower Common is to be found c220m to the north of Top Common and lies along Felbrigg Road. It forms a ribbon of amenity grassland totalling c0.26ha (excluding tracks) and a man-made pond constructed possibly on a spring line first recorded on the first edition OS map (c1879-1886)



The semi-improved sward is grass dominated but does contain numerous common forbs such as Dandelion (*Taraxacum officinale*) Common Sorrel (*Rumex acetosa*) Germander speedwell (*Veronica chamaedrys*) and Ribwort Plantain (*Plantago lanceolata*)

[PHOTO 14]

The pond accepts spring water via a c300mm dia pipe situated in the brickwork on its southern edge and excess is exited via a 150mm dia pipe adjacent to the road. To the north of this pipe is a second pipe of similar dia which was installed by NCC Highways. This pipe brings water off the roadway and with-it pollutants such as phenols hydrocarbons and heavy metal which are highly damaging to the aquatic environment.

The pond became completely dry during the drought of 2020 and into 2023 (as shown on Google Street Scenes) where its unusual ‘key-hole’ shape and potential depth can clearly be seen. However, by mid-August 2023 it held around 300mm of duckweed (*Lemna minor*) covered water and contained stands of branched bur-reed (*Sparganium erectum*) common spike rush (*Eleocharis palustris*) reed sweet-grass (*Glyceria maxima*) and great willowherb (*Epilobium hirsutum*). **[PHOTO 15]**

PHOTO 14



PHOTO 15



3.5 Present Condition of the Commons by Compartments

WEST RUNTON COMMON	
Compartment No	Condition
1a	Unmanaged
1b	Favourable
1c	Favourable
2	Favourable
2 [Spring pond]	Unfavourable [Anglia Water connection piped water supply Feb 2024]
3	Amenity
3 [Retting pond]	Unfavourable [de-silt and remove encroaching aquatic vegetation – liaise with NCC re silt trap]
4 [Station Common]	Favourable
5 [Coopers Common]	Favourable
6 [Blacksmith Common]	Not included in management plan
ABBS COMMON	
1	Declining [requires occasional cutting]
2	Unmanaged dense scrub
3	Unmanaged secondary woodland
GREENS COMMON	
1	Favourable
2	Declining [requires occasional cutting to limit Bracken]
3	Unmanaged
Pond	Declining [remove encroaching aquatic vegetation]
TOP COMMON	
Grassland	Amenity [Introduce conservation management to the wet seepage lines the south of the pond]
Pond	Declining [Liaise with NCC Highways re silt trap and de-silting]
LOWER COMMON	
Grassland	Amenity
Pond	Declining [remove encroaching aquatic vegetation + block input pipe from the road]
SPARROW'S PARK	
Grassland	Amenity

3.6 Soils

The soils found at the Runtons are a complex amalgamation of sands, gravels and clays deposited by numerous glacial interactions bringing material from as far away as Northern England and even Scandinavia. This complex soil structure has geologists and soil scientist debating its timings and origin to this day and has been given the name of the Cromer Ridge.

The main soil types at the macro level for the West Runtons Commons are the Newport 1 (551d) and Newport 4 (551g) Series situated on a north facing slope of the Cromer Ridge. **[PHOTO 16]** Such soils are predominantly well draining sands and gravels. Newport 1 well drained sandy soils derived from glacial deposition with often windblown (aeolian) sand whilst similar in being well drained the Newport 4 Series is often very acidic. Other minor soil incursions from the glacial interactions have given rise to clay rich laminations which may be one of the reasons there are numerous ponds found in what is ostensibly well draining sandy soils along with a brick works and clay pit in E Runton. The wet Alder woodland in Compartment 1 may have developed on such a clay lens along with isolated stands of reedmace in open grassland indicating long gone ponds.



[Adapted from Soil Survey of England and Wales – soils and their uses in Eastern England]

However, ponds have long been associated with commons having been used for centuries for washing down and watering working horses and to swell the wooden cartwheels onto their metal rims. Many such ponds are often man-made and often have a lining of large pebbles to stop the feet of the heavy horses from sinking and puncturing the clay lining - this can be used to mark the original base of the pond.

Occasionally such pond may be natural ‘perched ponds’ siting in a lens of clay above the sand in both cases care must be exercised whilst undertaking clearance work using a 360° machine not to break through the clay into the permeable substrate.

3.7 Access and Public Rights of Way (PRoW)

There is only one PRoW that of Runton FP19 which crossed Abbs Common in an east/west direction and is part of the Norfolk Coastal Footpath. However, there are

various de facto footpaths on the commons which are maintained by the respective Parish Councils.

4.0 VISION FOR RUNTON’S COMMONS

Within its 10 year lifetime the management plan is designed to ensure an overall increase of species diversity both in grassland of conservation priority and the aquatic environment. This will be secured on the grasslands via cut and collect followed by aftermath grazing and green hay/hand seeding and in the aquatic environment via removal of non-native and invasive native aquatic vegetation to maintain areas of open water. Areas of woodland will be selectively cut to maintain structural diversity.

The preferred approach, which has been approved by the Parish Council, is to find a compromise solution where the use is divided. Some of Runton’s Commons will be managed for amenity and be cut on a regular basis by contractors. The Commons of highest potential conservation value were entered into Environmental Stewardship with Natural England in 2013 which is ongoing. Whilst this generates a modest income to pay for contractors much of the work is currently funded by the Parish Council.

The grassland component of the Commons will require differing management techniques ranging from annual topping only through to annual mechanical cutting and removal of arisings followed by aftermath grazing (where applicable). Areas of amenity grassland will be regularly cut throughout the growing season and the species poor grassland will be enhanced via hand sowing in autumn of seeds of target species obtained from more species rich areas.

Over the next few years, it is important that our knowledge of other species groups such as bats, bees, reptiles etc and other invertebrates is increased, and that the data gained is used to further influence the management.

A longer-term vision should be to link up the Commons across the wider countryside via liaison with adjacent landholders and via a ‘wish list’ of sites for future procurement should they become available in the future.

5.0 Aim of Management Plan

The aim of this management plan is to set out a methodology based on a period of 10 years for restoring the grassland sites to favourable condition and maintaining them in a sustainable, cost-effective manner with community volunteer participation. In parallel, the structure of the surrounding woodland and edge habitat will be improved.

The work plan will be reviewed every year and the overall management plan will be reviewed and amended as appropriate after 10 years with the support of Norfolk Wildlife Trust personnel.

6.0 CONSERVATION PRIORITIES & AIMS OF MANAGEMENT WORK

The conservation priorities of management work within the sites should be to:

6.1 West Runton Commons

- Maintain the site's structure and diversity of habitat by encouraging a balance of variable-aged scrub, woodland and open fen and grassland.
- Gradually over several years, create greater diversity of age and structure within the alder copse by thinning and coppicing. Open up glades to allow the under-storey to regenerate.
- Expand the damp area in Area A which has been reduced through encroaching scrub and trees. Create more variety of structure by opening up small clearings and removing some bramble and scrub.
- Manage areas of open grassland and fen through a programme of cut/collect - and aftermath grazing where appropriate. Create a mosaic of different grassland ages and structures balancing the needs of flora and fauna. Collect seeds from target species and introduce into areas of species poor grassland.
- Maintain the stream courses which cross the site by removing silt and controlling vegetation. Ensure they are free flowing in times of high rainfall and do not impact nearby properties.
- Restore and maintain ponds. De-silt the Retting Pond and restore the silt trap structure and liaise with Norfolk CC re annual clearance. Control invasive non-native species and algae in Retting Pond.
- Meet the requirements of the ten-year Environmental Stewardship scheme entered into in October 2013 and rolled-over 2023.

6.2 Abbs Common

- Manage areas of open grassland through a programme of annual cutting.
- Prevent encroachment of trees and scrub into the open areas.

6.3 Green's Common

- Manage the area of acid grassland/fen through a programme of annual cut/collect.
- Control bracken and restore the area to grassland.
- Prevent encroachment of trees and scrub into the open areas.

- Maintain open water in the pond by removing silt and controlling native invasive species.
- Consider feasibility of grazing the acid grassland/fen.

7.0 INDICATORS OF SUCCESS

West Runt Common TG18421617 & TG18421835

Indicators of Success

- The extent of the habitats of interest within the acid/neutral grassland and fen meadow mosaic as identified in the Site Management Plan should be maintained or increased.
- The Soil Phosphate Index should be 0 or 1.
- By year 3, at least 2 high-value indicator species for the grassland habitat mosaic should be frequent and 2 occasional in the sward.
- By year 3, cover of invasive trees and shrubs (including Bramble) should be less than 5%.
- By year 3, cover of bare ground should be between 1% and 5%, distributed throughout the field in hoof prints or other small patches.
- By year 3, cover of undesirable species e.g. Creeping thistle, Spear thistle, Common ragwort should be less than 5%.

Greens Common TG20411242

Indicators of Success

- The extent of the habitats of interest within the dry acid grassland and fen mosaic as identified in the Management Plan should be maintained or increased.
- The Soil Phosphate Index should be 0 or 1.
- By year 3, at least 2 high-value indicator species for the grassland habitat mosaic, as identified by the Site Survey should be frequent and 2 occasional in the sward.
- By year 3, cover of invasive trees and shrubs including Bramble should be less than 5%.
- By year 3, cover of bare ground should be between 1% and 5%, distributed throughout the field in small patches.
- By year 3, cover of Bracken should be less than 25%, and by year 6 cover should be reduced to less than 10%.

Ponds of conservation value

Indicators of Success

- There should be no obvious signs of pollution, such as a film of fuel oil, total cover with green algae or rubbish.
- By year 3, undesirable species particularly invasive, non-native species such as Parrot's feather or New Zealand pigmyweed should cover less than 1% of the pond area or preferably be absent.
- Percentage cover of marginal vegetation (marginal and emergent species), should be between 25% and 75% in the period May to mid-September.

Bracken Control

Indicators of Success

- By year 6, cover of bracken on feature Dry acid grassland should be between 5% and 15%.

The above indicators of success have been taken from the Stewardship Agreement - Agreement number AG00449692

8.0 CONSTRAINTS

- **Public Access**

These are open access sites, and this must be maintained. If any areas or paths need to be closed for work, hazard signs and appropriate precautions need to be taken to ensure public safety.

- **Grazing**

The sites are not suitable for extensive grazing due to the absence of permanent fencing, but temporary electric fencing can be used to lightly aftermath graze some areas with sheep or ponies in August to October. At West Runtun, Compartments 1 and 2 are the prime candidates. Compartments 4 and 5 are possible candidates – although Hillside Animal Sanctuary, who will provide the sheep/ponies, are concerned about the security of their animals at locations further away from their premises. Consideration should also be given to adopting a similar approach at Green's Common if a suitable grazer can be found. Temporary fencing on the site requires Secretary of State permission and only 10% of the total land area can be enclosed at any time. However, as the Commons are included in the large acreage of Ingleborough Hill Common, fencing should not be an issue.

- **Felling licences**

No felling licence will be required for any tree removal work as the volumes in question will not exceed the 5 cubic metres per quarter limitation.

- **Powerlines and other Utilities (See 12.0 Hazard Map)**

Both underground and above ground utilities are present at West Runtun Common, Abbs Common, Top Common and Lower Common. Often both electricity and telephone services are carried on a Joint Utility Pole (JUP)

Low/medium Voltage Power Lines: - traverse West Runtun Common in two localities Compartment 1 – the norther half (amenity area) servicing the residential properties of Home Close and Compartment 2 servicing the Hillside Animal Sanctuary. Also, Abbs Common running north/south to Banville Cottage/Barn? Located at the southern tip of the common. (JUP)

Telephone wires: - at West Runtun Common a telephone line crosses Comp 1c almost parallel to the access track to Hillside from a pole located in a triangle of lane adjacent to Sandy Lane. Two poles are located midway along Top Common and three poles are located in the northern part of Lower Common.

Gas: – a yellow marker post is located on the verge west of Sandy Lane at OS Grid Ref: TG 18231 42361.

Water: - a Victorian cast iron standpipe/hand pump is located on the western verge of Sandy Lane opposite the junction of Station Close at OS Grid Ref: TG 18211 42412.

Note not all underground services are accurately marked – contractors should check before any ground works are attempted.

9.0 MANAGEMENT PRESCRIPTIONS

Conservation Priorities	Prescriptions	Year's	Timing	Who to deliver	Details
WEST RUNTON COMMON (CWS No 1149)					
Manage grassland via cut and collect	Top using tractor/flail /pickup box Comp 1b & 1c, 2, 3, 4, and 5	Annual	Aug - Oct	PC/Contractor	Either cut and collect and remove off site or place in designated site to be used by grass snakes and slowworms
Regularly mow all public rights of way and footpaths (PRoW)		As&when	If required – however footfall may negate the need	PC/Contractor/Vols	Mow when necessary to keep de facto footpaths to c2m wide
Erect permanent electric fencing post/isolators for aftermath grazing	Comps 1b & 1c	2023	Oct-Nov	PC/Hillside or Contractor	Install 100mm Dia x 1.5m long tanalised posts and screw in ring isolators Stewardship funding?
Manage site via grazing animals	Shetland ponies or sheep Comp 1b & 1c	See below	October after cut and collect	PC/Grazier (Hillside)	Grazier to supply intermediate plastic
Extend conservation grassland into amenity area	Comp 1c Erect marker post to delineate extension for cut and	2024 Onwards	Aug - Oct	PC/Contractor	Aftermath grazing may prove difficult? Without

	collect or erect permanent post for electric fencing				blocking footpaths - but consider
Review Environmental Stewardship Scheme	Ensure all obligations under the scheme have been met	2023	Oct/Nov	PC/Natural England	Updated for 2025 - add additions
Submit new Environmental Stewardship Scheme application	New application to cover any additions is silt traps etc	2023	ASAP	PC/Natural England	Rolled over from previous year – Additional funding should be considered for the installation of a silt trap (Retting Pond) and electric fence post for 2025
Observe H&S legislation re electric fencing and public access	Comps 1b; 1c and 2	All years	As&when	Parish council Grazier	Erect warning signage on the fence every 50m or less especially along footpaths
Control Ragwort in areas to be grazed	Comps 1b; 1c and 2 (especially near Hillside)	Annually	Early August	Parish council Volunteers	Hand-pull prior to seeding in August – good for inverts especially bees and the larva of Cinnabar Moth
Improve botanical composition of grasslands	Introduction of green hay from areas of high botanical value from within the site	2023,25,27	Aug-Oct	NWT/Contractor NWT can offer training	Green hay/hand sourced seeds from relatively species rich compartment can be utilised to enhance more species poor areas (See 10.1)
Maintain areas of open water on the ponds	Hand or machine removal of encroaching aquatic vegetation ie Reedmace and Flote Grass (Glyceria)	2024/25 2030/31	Nov-late Jan Prior to toad migration	PC/NWT/Volunteers	Allow all vegetation to remain on the bankside for ½ day to allow inverts to return to the water (See 10.4)

Control input of silt into pond	Retting Pond – install new silt trap	2024 or 2025	Summer	PC/Ed Stocker/NE	Stewardship funding may be available - Liaise with NCC and County Highways re emptying silt trap
<i>Control invasive aquatics</i>	<i>Retting Pond Removal of Crassula and Floating Pennywort?</i>	<i>2023/24/26</i>	<i>Summer when water levels are low</i>	<i>NWT, PC/Volunteers</i>	<i>Crassula and Pennywort are difficult species to effectively eradicate – see advice (See 10.3)</i>
<i>Monitor Toad population</i>	<i>‘Torching’ using a high-powered torch after dark in Retting Pond</i>	<i>Annual</i>	<i>Feb-March</i>	<i>PC/Ecologist/Volunteers if available</i>	<i>Carry out Toad patrols from late Jan-Aprl especially on wet night if crossing roads</i>
Increase the area of damp woodland	Comp 1	2025, 2028 and 2033	Winter	PC/Contractor/Volunteers	Thin Alders and remove encroaching scrub – mark areas with tape on the trees
Control invasive non-native flora ie Himalayan Balsam Dotted Loosestrife and Hebe	Comps 2 (Balsam) Comp 5 (Balsam and Loosestrife) Comp 4 (Hebe) As all three plants are good bee plants control only if deemed a problem	2023/24	Summer prior to seeding	PC/Volunteers	Control by cutting or had pulling prior to seeding if they are considered to becoming a problem. Dispose off-site.
Coppice /thin Alders to produce age structure and produce clearings	Comp 1 – mark areas with tape	2024/25 & 27/28 30/32	Nov-Feb	PC/Contractor/Volunteers	Undertake one 50m ² clearing every 2 years. Treat stumps chemically to prevent regrowth. (See 10.2) Sell or give firewood to elderly parishioners

Coppice /thin trees to produce scalloped edges – grade from open grassland via short scrub through to high woodland	Comp 1	Map need?	Nov-Feb	PC/Contractor/Volunteers	The scalloped edges will give a warm sheltered environment for inverts etc Treat stumps chemically to prevent regrowth. (See 10.2)
Regularly mow amenity and areas close to public highways	Amenity grassland Comp 1	Map need?	May - Oct	PC/Contractor	Use Compartment maps to for contractor areas to cut
Update botanical surveys	All Commons	2024 - 2029	May - Aug	PC/Ecologist/Volunteers	
Maintain footpaths by strimming/topping etc if required	All sites	All years	Monthly or when required	PC/Contractor Foot traffic by the general public may keep the vegetation short	Strim/top 2/3m wide – rake arising and remove or disposed under adjacent trees
Maintain reserve infrastructure (seats, bridges etc)	Walk-over survey - monitor	Annual or Bi-annual	Nov-March or when required	PC/volunteers/Contractor	PC to undertake to ensure H&S directives are complied with - collate info
Monitor site condition -	via walk-over	Bi-Annual	Summer	PC/Ecologist/NWT	To monitor effect of reserve management both positive and negative.
Consider guided walks/events (linked in with produce show?) or a BioBlitz/Art/Sculpture Trail events	West Runtun Common	2024 or 2025	Summer	PC/NWT	To explain to the public the aims of the Commons and their management and to help build a strong volunteer group

Abbs Common (CWS No 2233)					
Manage grassland via top or flail/collect	Top using tractor/sideswipe flail	Annual or bi-annual	Sept/Oct	PC/Contractor/Volunteers	Either cut and leave in situ or place in designated site to be used by grass snakes and slowworms
Install reserve interpretation signs	Greens and Abbs Commons	2024/25	Any	PC/Contractor/Sign manufacturer - Shelly Signs (www.shelleysigns.co.uk) Fitzpatric Woolmer (www.fpd.co.uk) Landmark Signs (http://madebylandmark.com)	Add What3words and a description of the main habitats and species present – similar to W Runton. Consider ‘Marguard’ polycarbonate sheet if vandalism a major issue – but v/expensive
Update botanical survey	Walk-over	2024/26/28	May-July	PC/Ecologist/NWT NWT will support	PC to collate and ecologist to up-date the MP
<i>Instigate guided walk/events</i>	<i>West Runton & Greens(?)</i>	<i>2026/27</i>	<i>Summer</i>	<i>PC/NWT</i>	
Review management plan	To ensure the objectives contained in the plan are being met or if changes are required	2028 & 2032	-	PC/NWT	Collate all new site information to ensure that the objectives are being met (amend MP if not)

Greens Common (CWS No 2234)					
Manage grassland via cut and collect	Comp 1 (Avoid damaging acid fen habitat if too wet)	Annually	September	PC/Contractor	Either cut and collect and remove or place in designated site to be used by reptiles
<i>Install permanent electric fencing if grazier can be found</i>	<i>Comp 1 (Avoid damaging acid fen habitat if too wet however some poaching acceptable)</i>	<i>Annually</i>	<i>October</i>	<i>PC/Grazier</i>	<i>PC add to Stewardship if NE allow (awaiting confirmation) Grazier to supply intermediate poly posts</i>
Maintain areas of open water on the pond	Hand or machine removal of encroaching aquatic vegetation	2024/25 2030/31	Dec-Feb	PC/Ecologist/Volunteers	Allow all vegetation to remain on the backside for ½ day to allow inverts to return to the water
<i>Monitor Toad population</i>	<i>‘Torching’ using a high-powered torch after dark in Pond</i>	<i>Annually</i>	<i>Feb-March</i>	<i>PC/Ecologist/Volunteers</i>	<i>Funding may be available from Frog Life for hi-vis jackets buckets etc</i>
Control encroaching Bracken and monitor	Cutting or crushing of growing fronds Comp ??	2024/25 Monitor 2026 repeat when necessary	Mid/late May onwards	PC/Contractor/Volunteers	As an alternative to chemical treatments regular crushing of emerging frond can be effective. (See 10.7)
Update botanical survey	Walk-over surveys – all sites	2023/24/28	May-July	PC/Ecologist	Collate and ecologist to up-date the MP
Implement mammal surveys (bats, mammals etc)	Via bat detector and mammal trap surveys	When specialists are available	May-Oct	PC//Specialist Ecologist	NWT to advise on ecologists and ecologist to up-date the MP

Monitor/remove encroaching scrub from grassland and coppice under storey	Comp 1	2028	Nov - Feb	PC/Contractor/Volunteers	To minimise encroachment into grassland – check for early nesting birds if late in season
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ALL COMMONS					
Keep all stream beds and ditches free from encroaching vegetation to ensure an unimpeded flow in times of heavy rainfall – only clear one side per year	All Compartment where ditches occur	Annually or biennially where residential properties arent at risk	winter	PC/Volunteers	Check after periods of heavy rainfall to ensure good movement of water to ensure flooding of adjacent residential properties doesn't occur
Review Public Liability Insurance	Review and update when necessary	Annually		PC	
Monitor site condition -	via walk-over survey	Bi-Annual	summer	PC/NWT Ecologist	To monitor effect of reserve management both positive and negative.
Monitor Phosphate levels in grassland in compliance with the Stewardship agreement	All Commons subject to cut and collect	2024/26/28/	??	PC	Phosphate levels should be between 0 - 1
Update Botanical Surveys	All Commons	2024/28/32	May-July	NWT Ecologist/Volunteers	Two surveys one early in the season a second late in the season
Instigate Invertebrate base-line surveys (all inverts - focus on bees and beetles?)	All Commons	2025 onwards	May-Aug	Specialist surveyor	

Review Health and Safety (Risk Assessments)	Identify all risks and produce relevant risk assessments	2024	-	PC/NWT	For volunteers especially whilst working in or near water – NWT can supply initially (See 10.6)
<i>Commission drone footage of the Commons or review on latest aerials</i>	<i>To review scrub/grassland ratio over the life of the management plan</i>	<i>2024 – then every 4/5 years</i>	<i>winter</i>	<i>PC/Volunteer/Specialist</i>	<i>Specialised company or volunteer with equipment</i>
Monitor ponds and scrub interface via fixed point photography	To assist in the monitoring of invasive species control	2024/25	summer	PC/Volunteer	Install 4” square oak posts adjacent to ponds (See 10.7)
Photographic Records	Collate data-base of any photographs taken on the reserve – species, habitat etc	All years	Throughout	PC/Volunteers/Visitors etc Encourage locals to send in their photographs – have annual photographic competition	Can be used to identify unusual species via experts (ie inverts etc) or other events workparties weather etc.
<i>Investigate the possibility of starting a ‘Friends of the Commons’ group assist in voluntary conservation works</i>	<i>http://www.tcv.org.uk Also see below</i>	<i>2024</i>		<i>PC/TCV</i>	<i>Article in local press or via local event training days</i>
<i>Instigate insurance for the ‘Friends of’ group via The Conservation Volunteers (TCV)</i>	<i>Affiliation to TCV has the benefit of public liability and Personal Injury Liability under their Community Network</i>	<i>2024</i>	<i>Oct/Nov</i>	<i>Parish council/Volunteer Coordinator</i>	
<i>Subscribe to TCV practical guides on how to manage the</i>	<i>A series of practical handbooks on topics ranging from woodland</i>	<i>2024</i>	<i>Nov/Dev</i>	<i>Parish council Volunteer Coordinator</i>	<i>A yearly subscription for a Community Network member is £5pa</i>

<i>countryside and green spaces</i>	<i>& wetland management, tree planting & aftercare and tool maintenance.</i>				<i>All Handbooks are fully printable</i>
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Conservation Priorities	Prescriptions	Year's	Timing	Who to deliver	Details
TOP COMMON (East Runton)					
Manage amenity grassland via cut and leave	Top using tractor/sideswipe x 3 or 4 times per year or when necessary	All	Late May to Oct	PC/Contractor	Instigate a 'no mow' - to help early bee foraging etc
Leave uncut strip (c10m wide) in the seepage lines south of the pond – cut annually	Top using tractor/sideswipe	All	Late summer when dry	PC/Contractor	This area contains numerous common spotted orchids
Investigate adding silt trap at inlet and who is responsible for emptying		All	2024	PC liaise with Norfolk CC	Urge NCC to install and empty silt trap regularly – stressing failure to do so may lead to flooding issues
<i>De-silt and remove encroaching vegetation from the pond perimeter</i>		2024		<i>PC/Contractor/Volunteers</i>	
Coppice Willow to south-west of pond	Allow prevailing winds to create disturbance to limit Duckweed	2025 and 2030	Winter	PC/Volunteers	

Leave a 2/3m refuge uncut around the pond perimeter	For the protection of amphibians			PC to advise contractor	
Check on Way-leave compensation ie. Gas, electricity, telephone etc		2024		PC check with owner of the commons if they already obtain such compensation	Compensation should be available either annually or as a one-off payment

LOWER COMMON (East Runton)					
Manage amenity grassland via cut and leave	Top using tractor/sideswipe x 3 or 4 times per year or when necessary	All	Late May to Oct	PC/Contractor	
Remove encroaching aquatic vegetation from the pond perimeter	Hand pull to decrease vegetation by c50%	2025/28/31	Winter	PC/Volunteer	Dispose off site
<i>Raise outflow flow to allow greater depth of water?</i>	<i>Investigate feasibility</i>	2025	<i>Summer</i>	<i>PC</i>	

*The timing of the above conservation priorities are not set in stone. If for any reason they cannot be undertaken as described, ie lack of funding resources etc they can be put back to the following year.

10.0 ANNUAL COSTINGS - RUNTON COMMONS 10 YEAR PLAN

Works to be completed under with grant funding from Norfolk County Council (FIPL) Natural England (Stewardship Agreements)					
Year 1 (2023/24) WEST RUNTON COMMON					
<i>Month</i>	<i>Project</i>	<i>Location</i>	<i>Cost</i>	<i>Additional Notes</i>	<i>Who To Deliver</i>
September	Top or cut/collect grassland	Compartments 1a and 1b (with its extension See Appendix III)	£300 (1day@£300/day)	Annual or bi-annual according to growth/weather	Contractor overseen by PC
Any	Install post and isolators for electric fencing	Comps	?	Delay to see if it can be included in next years stewardship agreement?	Contractor overseen by PC
Late summer	Install new silt trap	Retting pond	Delay until 2025/26 if funding available under stewardship agreement?	Funding under FIPL or under Stewardship Agreement	PC/Contractor
Early winter	Remove encroaching aquatic vegetation	Retting pond	No cost (vols) or £200 contactor (1day@£300/day)	Divert Stewardship funding from Top Common pond	PC/Contractor/volunteers NWT to investigate money under District Level Licensing?
Any	Install information boards	Abbs and Greens	c£3000 +VAT grant aid	Possible funding from Lottery Community Fund	PC to apply
March-May	Survey for Toad spawning	Retting pond	No cost (vols)	Possible Frog Life funding	Use volunteers?/NWT
May-September	Implement invertebrate baseline surveys – beetles' bees etc	All Commons	? days at £300/350/day	??	Specialist Ecologist

<i>May-September</i>	<i>Implement mammal surveys bats small mammals reptiles etc</i>	<i>Whole reserve</i>	<i>Volunteer surveys</i>	<i>If specialist surveyors are available – check with NWT otherwise volunteers if possible</i>	<i>NWT</i>
July-September	Collect seeds of ‘target’ species and sow in species poor areas ie 1b	Collect Comp 1c and 2 Sow Comp 1b & lower area of new extension	No cost (vols)	See 10.1 for list of Target Species	PC/Volunteers
June - September	Top amenity grasslands 3 times per year	Amenity areas	£900 (3days@£300/day)		Contractor overseen by PC
Winter	Coppice small coups in Comp 1a and create edge effect (ie sheltered bays)	Comp 1a	£300 (1day@£300/day)		Contractor overseen by PC

ABBS COMMON

Oct-Nov	Top Comp 1 to retain a 20/70% ration scrub to grassland	Compartments 2	£600 2days@£300/day	Use compartment map from Management Plan	Contractor overseen by PC
Any	Install site display board	Install adjacent to Norfolk coastal footpath and	c£1500+VAT	Similar design to West Runton add What3words etc	PC

GREENS COMMON					
September	Top or cut/collect	Comp 1 (acid grassland/fen)	£450 1.5day@£300/day	Annual	Contractor overseen by PC
Any	Install site signage at main access to the common		c£1500+VAT	Similar design to West Runton add What3words etc	PC
<i>April- Sept</i>	<i>Implement reptile surveys</i>	Comp 1	<i>No cost (vols) if recycled corrugated sheet or c£50 in felts</i>	No prior experience/qualification needed – beware Adders wear welders gloves	PC/Vols

TOP COMMON					
June - September	Top amenity grasslands 3 times per year	Amenity areas	£900 (3days@£300/day)		Contractor overseen by PC

LOWER COMMON					
June - September	Top amenity grasslands 3 times per year	Amenity areas	£900 (3days@£300/day)		
Winter	Control encroaching aquatic vegetation and remove from site	Pond	c£300 if 360 ⁰ machine required	Delay	PC/Contractor/Volunteers

Items in italics are aspirational and need further discussion.

On-going works years 2-10						
Years 2 (2024/25) to 10 (2032/33)						
YEAR	MONTH	PROJECT	LOCATION	COST	ADDITIONAL NOTES	WHO TO DELIVER
All	Any	Maintain reserve infrastructure; visit quarterly to assess work needed. [signs, fences, pathways etc]	Whole reserve	£500 [float]	Keep monies available for urgent repairs	PC/Contractor/Vols
All	April-Oct	Implement mammal amphibian and reptile and invertebrate surveys	All Commons after trial at Greens Common	Volunteers	If specialist surveyors are available – check with NWT	PC/Vols?NWT
All	July-September	Cut & collect	Comp 3 & 5	£2000		Contractor overseen by PC
All	September	Top grassland	Comps 2,3 & 4	£2000	Annual or bi-annual according to growth/weather	Contractor overseen by PC
All	September-January	Control scrub in open areas and around ponds as required.	All compartments		Agree at annual work planning meeting	Volunteers overseen by PC
All	Sept-Nov	Control invasive aquatics (Crassula and Pennywort)	Retting Pond		Obtain advice from NWT	Volunteers or contractor overseen by PC
2, 4, 6, 8	July-August	Introduce green hay or re-seed	Comps 3 & 5			PC/Volunteers

3	May-July	Up-date botanical survey	All Commons		Volunteers or ecologist where available @ c£250/day + expenses	PC/Volunteers/Ecologist
2 & 4	May-Oct	Implement invertebrate survey	Whole Commons		If specialist ecological surveyors are available – check with NWT	PC/Ecologist/Volunteers
3,5,7	Sept-Nov	Remove encroaching pond vegetation	Retting Pond and Greens Pond	£1000	Purchase safety lines posts etc	PC/Volunteers
6	Any	Review management plan	Whole reserve			PC
6	Sept-Nov		Comps 1 & 5	No cost (vols) c£400 2days@	Use volunteers if available	PC/Contractor/Volunteers
				Total annual cost approx.: £**** annually, note that some costs are not in every year. <i>Not including public liability insurance costs etc.</i> Note: PC to review contactors costing therefore this section needs to be revised later		

11.0 DETAILED SPECIFICATIONS FOR MANAGEMENT TASKS

11.1 Cut/collect grassland management regime

Large areas of the Commons comprise grassland which should be cut and the arisings collected using a tractor/flail/pick-up box or similar although on smaller areas hand raking can often be undertaken by volunteers. The resultant cuttings should not be burnt but removed from the site – if the latter is impractical, they can be placed in sunny sacrificial areas to form habitat piles where it can rot down naturally and become refuges and breeding sites by Slow Worms, Common Lizards and Grass Snakes. Such areas should be marked out by members of the Parish Council Management Committee.

Re-seeding in the less species rich areas (ie1b) can be carried out using seeds of ‘target species’ hand collected from other areas of more species rich grasslands (1c and 2) in late summer. Such ‘target’ species should include but not restricted to Black Knapweed, Birdsfoot Trefoil, Meadow Vetchling, Harebell, Selfheal and Common Fleabane. Many of these plants are important nectar plants for bees and butterflies with one the Harebell having an specialised association with the Small Scissor bee, a small solitary bee on the northern edge of it UK range in North Norfolk. Both Lesser and Greater Birdsfoot Trefoil is the food plant of the Common Blue and the Dingy Skipper caterpillars.

11.2 Stump treatment

To prevent regrowth from the cut scrub herbicide needs to be applied however, there are instances where stump regrowth is desirable ie coppicing of hedgerows.

The most commonly used stump treatment is Roundup (Glyphosate), It should be applied to the dilution rated recommended by the supplier (30%) either by hand brushing or spaying via a knapsack sprayer for larger areas. A stain can be added to ensure effective coverage.

- Wear appropriate PPE
- It should be applied to the cut stumps during their dormant period (winter)
- It should be applied on a calm day to avoid spray drift and one where rain is not expected within the following 24 hours.

11.3 Control of invasive none-native aquatic

Both New Zealand pygmyweed (*Crassula helmsii*) and floating pennywort (*Hydrocotyle ranunculoides*) are present in the Retting Pond and if control measures are not implemented these two invasive species will tend to dominate the native flora.

The control of both of these plants has long been investigated by scientist and both have proven difficult to completely eliminate, requiring constant attention over a period of years.

New Zealand pygmyweed – Past method have included the use of liquid nitrogen. Liquid nitrogen (-196 °C) can kill vegetation by freezing, and has the advantage that no harmful residues are left in the environment. It could therefore be used for targeted treatment of localized patches of *C. helmsii*. However, a small trial suggested that only parts of the plant that came into direct contact with liquid nitrogen were killed (Leach & Dawson 2000, no data given). Dense mats of *C. helmsii* are therefore likely to insulate all but the top layer of vegetation from the effects of freezing. Specialist training is also required for operators applying liquid nitrogen. (Conservation Evidence)

However, they go on to say 'No evidence' for an action means we have not yet found any studies that directly and quantitatively tested this action during our systematic journal and report searches. Therefore, we have been unable to assess whether or not the action is effective or has any harmful impacts.

Whilst studies at Thompson Common where *Crassula* has invaded the pingos, a student working under the auspices of Norfolk Wildlife Trust has suggested that hand picking, whilst labour intensive, may have real merit in its control.

It is suggested that this may be a suitable method at the Retting pond when the low summer water level makes this easier and before the surface bakes hard leading to fragments of the plant being broken off and forming new growth. If larger areas are present removal with a mini-digger followed by 'hand picking' may prove necessary.

Floating Pennywort – This invasive plant from North America shares similarities with *Crassula* in that it has proven difficult to eradicate due to its ability to regenerate from plant fragment although studies show that hand picking can be successful.

Hand picking should take place preferably fortnightly throughout the period of March through to September with all material being disposed off-site and regrowth monitored and repeated over a second year. This method had some success at Gillingham Marshes in Suffolk but did not completely eliminate the target species – although this was trialled on a particularly large area.

Recent studies have focussed on biological control using a small beetle from South America. The weevil, *Listronotus elongatus*, is a floating pennywort specialist, evolved to only feed and develop on floating pennywort in its centre of origin. The Defra-funded research began in 2011 and after a decade of safety testing and research, a South American beetle has finally been approved for release in England to act as a natural pest control.

11.4 Removal of Invasive Native Aquatic Vegetation

The Hawk and Owl Trust report (2014) states that the pond on Greens Common had recently been cleaned out however the 2023 survey would indicate this needs to be done again – give roughly an 8-10 year period between clearances.

To produce the areas of open water which are required by amphibians etc and to check the succession process. The vegetation which has been identified as encroaching (Reedmace etc) should be removed during the winter months. This can be carried out using supervised volunteers after the relevant 'working near water' risk assessment has been undertaken.

All Ponds with the exception of Spring Pond and Lower Common Pond are particularly deep* which should be borne in mind when vegetation removal is discussed. If individuals have to enter the water they should be wearing chest waders and tethered to a line stretched across the pond and firmly anchored at either end (trees or road pins) in case they get into difficulties ie sinking into the substrate. A buddy working on the bank should oversee their safety.

* *Top Common Pond is relatively shallow at present due to silt build-up however when cleaned out would fall into the 'particularly deep' category.*

Chromes or muckrakes should be used although garden rakes will suffice. An alternative method would be a rake head (with blunt tines) firmly tied to 10m of 5mm dia polypropylene rope which is thrown out into the vegetation and dragged to the shoreline by one or two volunteers where it should be left for 24 hours to allow any freshwater invertebrates to return to the water. Reedmace can be controlled via spot treatment of herbicide on felt glove. (Refer to NWT for further info)

11.5 Fixed Point Photography (FPP)

FPP can be used to monitor changes over time which in turn can inform the ongoing management of the reserve. Initially it can be used to monitor population changes in aquatic vegetation but extended to monitor scrub encroachment into the grassland.

At suitable locations a 4” square oak post should be knocked in the ground leaving at least 1m above, the locations to be decided beforehand to allow the correct panorama for the area to be surveyed paying particular attention to the sun direction and its reflection off the water.

With the correct light condition photographs depicting the growth conditions of the invasive flora (Crassula and Reedmace being two species of particular interest) A file containing the relevant photos from the previous year can be used in the field to frame the next years photo. A library of photographs taken on the Commons should be collated.

11.6 Reserve Health and Safety

Health and Safety is an important facet of reserve ownership and management with a duty of care to users and volunteers. However, contractors employed to undertake specific tasks such as fencing, scrub removal etc will be obliged to provide risk assessments to the site manager prior to that particular task being undertaken.

Risk assessments are required when volunteer work parties are present on the reserve especially when undertaking tasks on or near the water bodies or scrub removal. However, NWT can supply such risk assessments which can be utilised or modified as required.

A walk over survey should be undertaken annually to ensure that the PC is taking its H&S obligations responsibility. Issues such as slippery sleeper bridge – this should be covered by chicken mesh and stapled in place on the underside to avoid issues re sharp wire ends and dogs. Also, handrails at crossing points may be beneficial for less able people.

11.7 Bracken Control

Whilst chemical control methods are available the best way to control Bracken is via topping/crushing/bashing the young fronds using volunteers armed with scythes, grasshooks, slashers, hockey sticks or size 10 and above army boots. When the first fronds show above the litter which is usually mid- late May, the volunteers armed with the above-mentioned implements and footwear should set about the fresh fronds, which having used much of their stored energy to first unfurl will be weakened and a further session 2/3 weeks later will set the ferns back – however this method needs to be utilised over a period of several years to achieve a measure of success.

This method avoid the problems associated with cutting later in the season from the

spores which are considered carcinogens.

11.8 Monitor Spread of Midwife Toads

This non-native amphibian has been released into the UK since 1919 and in several Norfolk sites in recent years with the Sheringham area being one such site. However, this was an accidental release when the toads which had been obtained by Harold Hems a local teacher for photography escaped from captivity. The adult toads are relatively small much smaller than adults of our native toad they get their name from the males habit of carrying around the eggs stuck to their hind legs prior to them being deposited into a pond just prior to hatching.

The adult toads are quite secretive, but their presence is often given away due to the high-pitched staccato call emitted by the males after dusk which is often described as a loud far carrying electronic beeping or the huge overwintering tadpoles (can be up to 70mm in length) which are characteristic of the species. However, they are not considered a threat to our native amphibians and may provide a tasty meal for a passing Heron.

11.9 Common Reptile Surveys and refuges

Common reptiles Grass Snake, Slow Worm, Adder and Common Lizard (often referred to as the Viviparous Lizard) all occur locally in the area (NBN Gateway Atlas) and being cold blooded they will seek out a warm area in early spring in which to warm up. This action can help the ecologist in monitoring the presence/absence with little or no training – the exception being an awareness of the presence of Adders)

Such warm site ‘refuges can be c1m squares of corrugated tin (often referred to as ‘tins’) or similar sized squares of a mineralised roof felt which are laid out in sheltered areas that catch the early morning sun – ‘hot spot’s banks etc on short or flattened vegetation and away from footpath and therefore the general public. The best time of the year to do this is April, May or September (when juveniles will be present) and the best time of day to check them is early morning before they get too hot as once the reptiles have attained the required body temperature, they will of course move off to forage. However, differing weather condition may make the reptiles use them later in the day. Another method but one which is not as productive is to watch and listen for rustling at likely basking sites

Where tins are used especially where Adders possibly present ie Greens Common the tins should be inspected using a hooked stick thereby placing the tin between any Adders and the surveyor also beware the cryptic pattern on a Adder especially juveniles blends in well with dry Bracken fronds. For identification see ARG reptile guide Appendix VI.

Reptiles will often use compost heap in which to lay their eggs (Grass Snakes) or give birth to live young (Slow Worms, Adder and Common Lizard) therefore piles of grass cuttings (arising) can be placed in a sacrificial sunny area to rot down particularly where reptiles have been recorded. This may alleviate some of the contractor costs if they do not have to remove them from the site.

12.0 SITE PERSONNEL CONTACTS

Carole Davidson (Chairperson of West Runton PC)

Email: cgd1959@gmail.com

Mr. Stephen Gurney (Vice Chair East Runton PC)

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Ed Stocker (NCC & FIPL Grants - Norfolk County Council)

Phone: 0344 800 8020

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Anne Vincent (Grazing Contact - Hillside Animal Sanctuary)

Phone 01603 736200

Ben Newton (Wider Landscape Advisor - NWT)

Phone: Direct Dial 07471 487643

Email: benn@norfolkwildlifetrust.org.uk

Adam Jones (Preferred Contractor)

ajonescountryside@gmail.com

John Service (Main contractor – ponds)

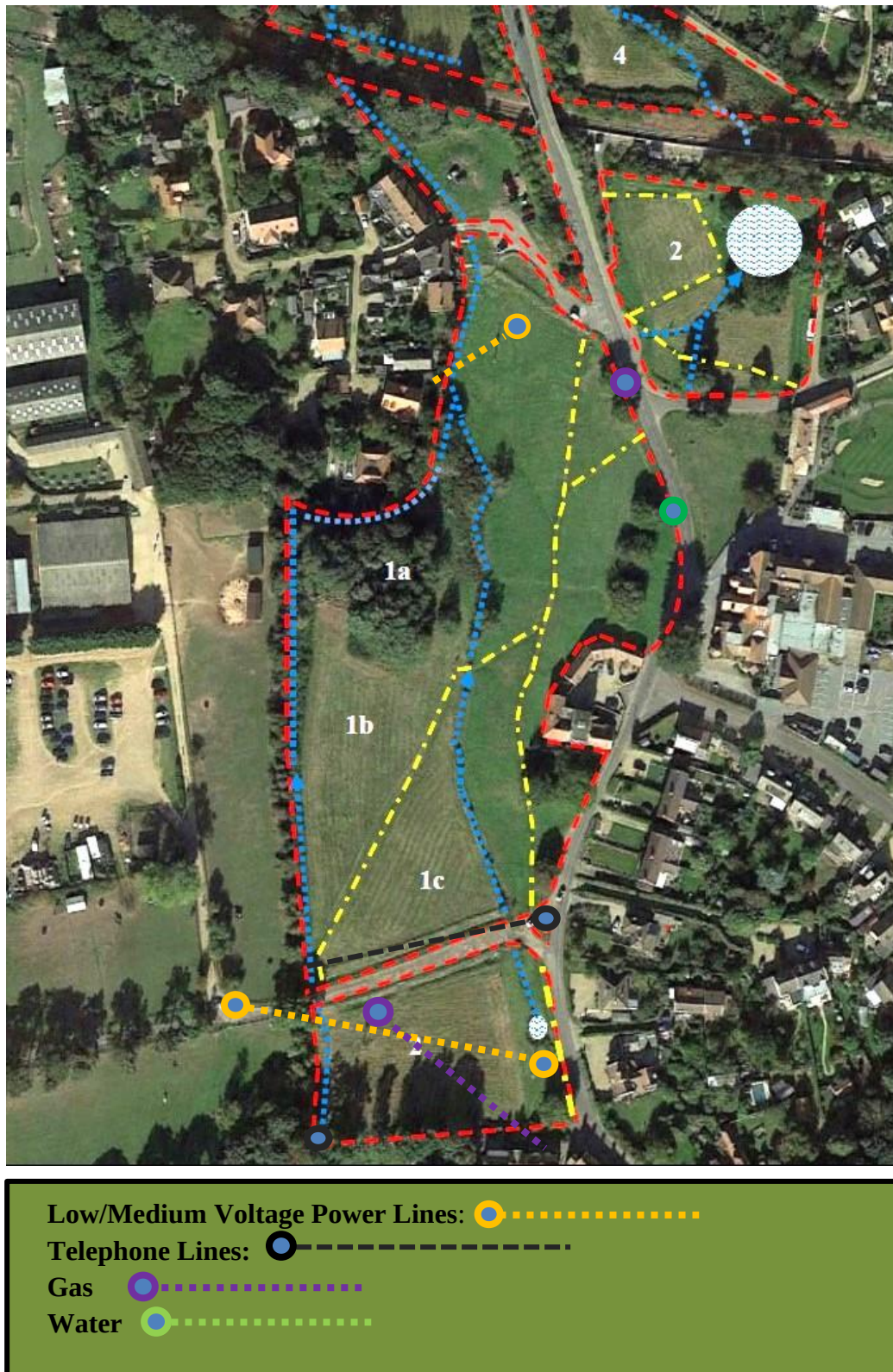
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Bethany Ramm (Stewardship Agreement Advisor - Natural England)

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13.0 HAZZARD MAP WEST RUNTON COMMON

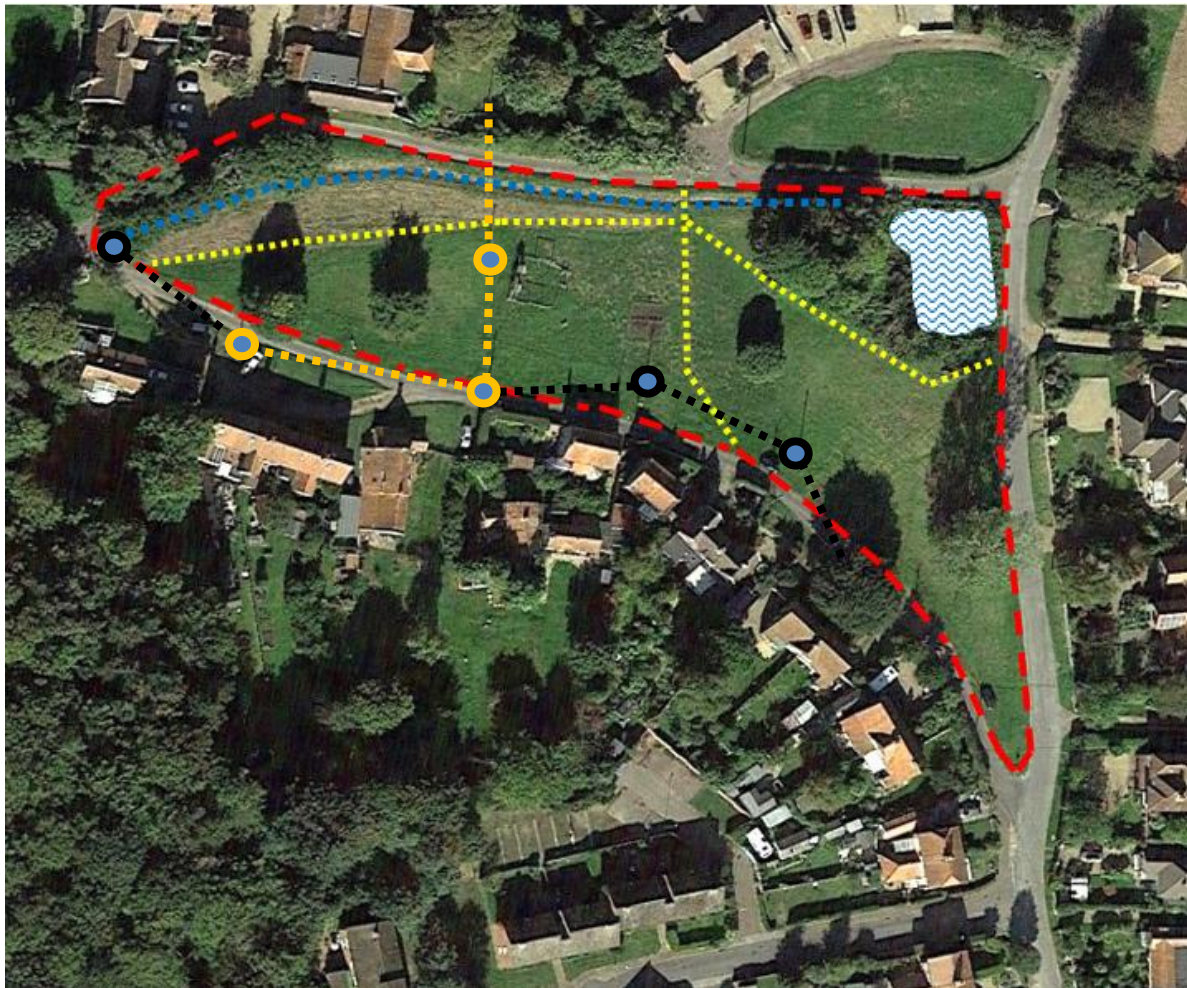


HAZARD MAP ABBS COMMON



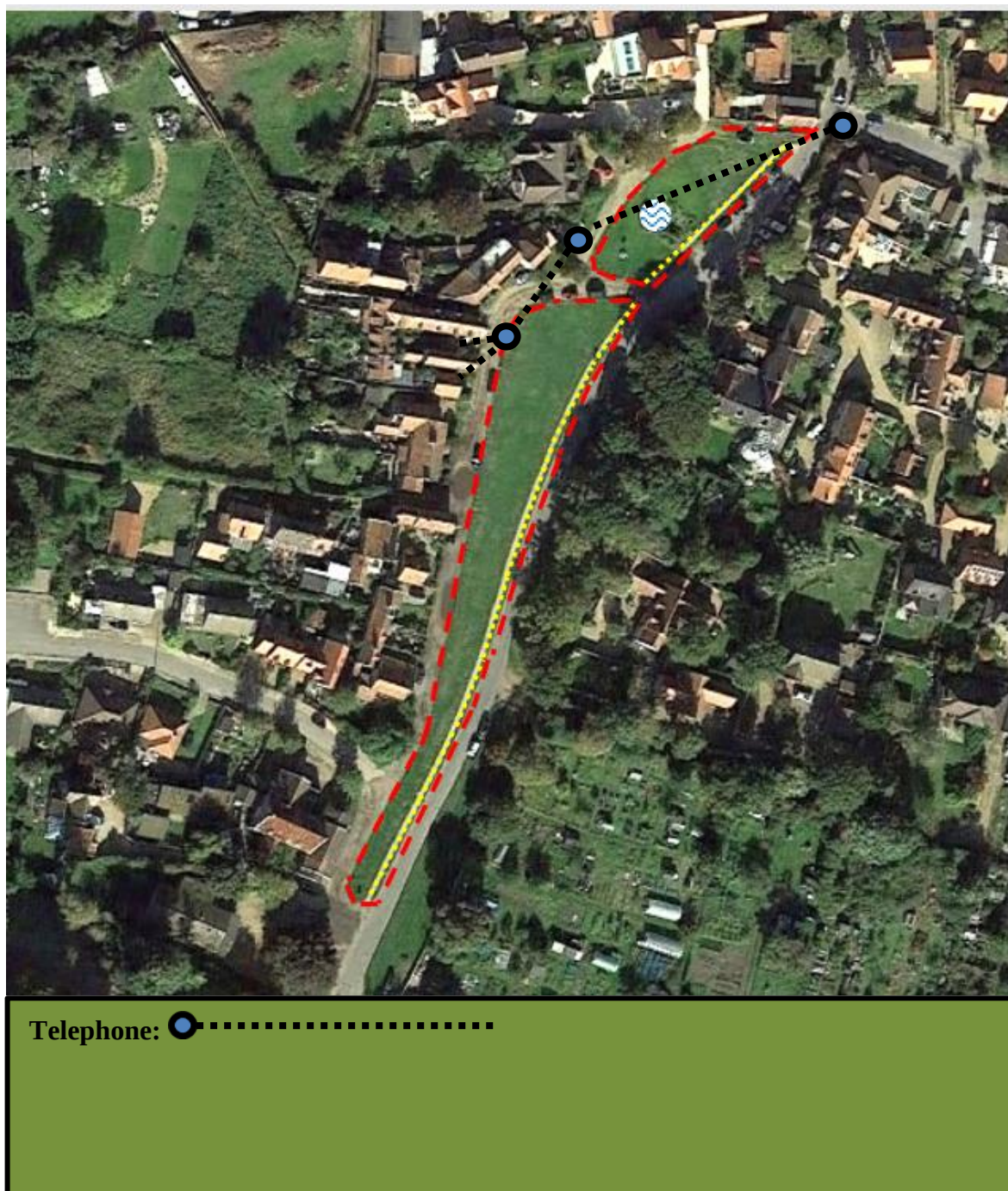
Low/medium voltage power line/telephone line (JUP)
Note: Actual line shown here is not considered accurate therefore it will need ground truthing

HAZARD MAP TOP COMMON



Low/medium voltage power line: ●
Telephone: ●

HAZARD MAP LOWER COMMON



14.0 APPENDIX I - CITATIONS

County Wildlife Site (Ref No: 1149)

Site Name: West Runton Common
Grid Reference: TG 183422
District: North Norfolk

Parish: Runton
Area: 4.55 ha

Site Description:

West Runton Common is a well-used site containing a variety of habitats including neutral and acidic grassland, mixed tall fen, broad-leaved semi-natural woodland and a small mesotrophic pond and with associated inundation communities.

The majority of the site comprises a mosaic of well-grazed unimproved dry acidic to neutral grassland and semi-improved neutral grassland with impeded drainage. Areas characterised by harebell (*Campanula rotundifolia*), selfheal (*Prunella vulgaris*), common cat's-ear (*Hypochaeris radicata*), mouse-ear hawkweed (*Hieracium pilosella*), creeping cinquefoil (*Potentilla reptans*), common mouse-ear (*Cerastium fontanum*), sheep's fescue (*Festuca ovina*) and sand sedge (*Carex arenaria*), contrast with those supporting meadow vetchling (*Lathyrus pratensis*), greater bird's foot trefoil (*Lotus uliginosus*), meadow buttercup (*Ranunculus acris*), knapweed (*Centaurea nigra*).

A small pond in the north-east has patchy broad-leaved pond weed (*Potamogeton natans*). Emergent vegetation includes pure stands of bulrush (*Typha latifolia*), with branched bur-reed (*Sparganium erectum*) locally present. The margins support a shorter assemblage of aquatic/inundation plants, including water-violet (*Hottonia palustris*), water plantain (*Alisma plantago-aquatica*), water forget-me-not (*Myosotis scorpioides*).

Midway along the western boundary, wetter ground supports mixed tall fen and ruderal vegetation with coarse patches of nitrophilous herbs, including great willowherb (*Epilobium hirsutum*), nettle (*Urtica dioica*) and creeping thistle (*Cirsium arvense*). More species-rich patches are present with yellow rattle (*Rhinanthus minor*), meadowsweet (*Filipendula ulmaria*), ragged-Robin (*Lychnis flos-cuculi*), greater bird's-foot trefoil (*Lotus uliginosus*) common fleabane (*Pulicaria dysenterica*) marsh pennywort (*Hydrocotyle vulgaris*) and hard rush (*Juncus inflexus*). Scattered bulrush is also present, perhaps marking the location of a now occluded pond. Adjacent to this stand is a mature copse of alder (*Alnus glutinosa*) with occasional hawthorn (*Crataegus monogyna*). The field layer consists of bramble (*Rubus fruticosus* agg.), with soft rush (*Juncus effusus*), cleavers (*Galium aparine*) and greater stitchwort (*Stellaria holostea*). A shallow ditch passing north-south is dominated by fool's water-cress and great willowherb.

A hawthorn dominated hedge forms the western boundary with holly (*Ilex aquifolium*) and elder (*Sambucus nigra*). Other species which have been recorded include marsh marigold (*Caltha palustris*), bog pimpernel (*Anagallis tenella*), common spotted-orchid (*Dactylorhiza fuchsii*),

twayblade (*Listera ovata*), bogbean (*Menyanthes trifoliata*), and bristle club-rush (*Isolepis setacea*).

The CWS also includes 3 smaller areas of common: Station Common is only moderately species-rich, with meadow foxtail (*Alopecurus pratensis*), cocksfoot (*Dactylis glomerata*), Yorkshire fog (*Holcus lanatus*) and false oat grass (*Arrhenatherum elatius*) dominant, large clumps of lesser bird's foot trefoil (*Lotus corniculatus*) are frequent and meadow vetchling is abundant. Cooper's Common is damper and more species-rich; frequent species include sweet vernal grass (*Anthoxanthum odoratum*), meadow foxtail, meadow vetchling, common fleabane, germander speedwell (*Veronica chamaedrys*), knapweed and hogweed (*Heracleum sphondylium*). Occasional species include lesser bird's foot trefoil and common spotted orchid. Blacksmith's Common is reached by a track through damp woodland, where the diverse ground flora includes occasional ramsons (*Allium ursinum*) with cock's foot, foxglove (*Digitalis purpurea*), soft rush (*Juncus effuses*) and pendulous sedge (*Carex pendula*). Blacksmith's Common is a very small area dominated by nettles (*Urtica dioica*), cow parsley (*Anthriscus sylvestris*) and cleavers.

APPENDIX I - CITATIONS**County Wildlife Site
(Ref No: 2233)****Site Name: Abbs Common
Grid reference: TG 195416
District: North Norfolk****Parish: East Runton
Area: 1.75 ha****Site description:**

Abbs Common is a small area of registered common (CL5), composed largely of neutral grassland, but with small areas of impeded drainage and patches of more free-draining, sandy soils. Scrub is scattered across the site and the south west of the site is wooded.

The two main areas of grassland are divided by the North Norfolk Coast Path, which crosses the site and links the common to Congham Hill. The south-eastern section of grassland is largely open, with a few mature trees. A small damp ditch at the edge of this area is dominated by greater willow herb *Epilobium hirsutum*, nettles *Urtica dioica* and cleavers *Galium aparine* and the scattered trees include crab apple *Malus sylvestris* and English oak *Quercus robur*, in places bramble *Rubus fruticosus* agg. is associated with the trees, as is red campion *Silene dioica*. The dominant grasses of this area are Yorkshire Fog *Holcus lanatus*, cocksfoot *Dactylis glomerata* and meadow foxtail *Alopecurus pratensis*, with sweet vernal grass *Anthoxanthum odoratum* and annual meadow grass *Poa annua* being occasional. A few patches are dominated by rose bay willow herb *Chamerion angustifolium* and species occurring rarely in this area include English bluebell *Hyacinthoides non-scripta*, water figwort *Scrophularia auriculata* and common spotted orchid *Dactylorhiza fuchsii*. Black knapweed *Centaurea nigra*, common mouse ear *Cerastium fontanum* and lesser bird's foot trefoil *Lotus corniculatus* are frequent throughout, but cow parsley *Anthriscus sylvestris* is occasional. Broad buckler fern *Dryopteris dilata* and sorrel *Rumex acetosa* are also occasional, as are common vetch *Vicia sativa* and germander speedwell *Veronica chamaedrys*; hairy tare *Vicia hirsute* is rare, as is climbing corydalis *Ceratocapnos claviculata*, which is associated with areas of more sandy soils.

A single clump of alexanders *Smyrniololus atrum* occurs to the east of the grassland and in small patches of impeded drainage redshank *Persicaria maculosa* and creeping buttercup *Ranunculus repens* dominate, along with frequent silverweed *Potentilla anserina* and occasional marsh thistle *Cirsium palustre*; some damper patches are dominated by greater bird's foot trefoil *Lotus pedunculatus* with bog stitchwort *Stellaria alsine* being rare. The area of grassland west of the path is smaller, but very similar in character, grading gradually in scrub, with hawthorn *Crataegus monogyna* and blackthorn *Prunus spinosa* dominant; nettles and bramble are occasional here. Other species occasional in this area include garlic mustard *Alliaria petiolata*, white dead nettle *Lamium album* and rarely, common hemp nettle *Galeopsis tetrahit*.

The hedge to the north of the common is dominated by bramble and hawthorn, with frequent dog rose *Rosa canina* agg.; the hedge is dense and mature, with a notable large coppice of sycamore *Acer pseudoplatanus*. Male fern *Dryopteris filix-mas* is common along the hedge, but red campion

and hedge woundwort *Stachys sylvatica* are rare. A shallow, muddy stream runs through the hedge.

South of the main track that bisects the common is an area of woodland; this is probably secondary woodland in the main, although the ditch and bank to the south have some mature trees associated with them. Mature sycamore dominates the tree species in the woodland, although hawthorn, bramble and ash *Fraxinus excelsior* all occur. Much of the ground has bare soil with abundant young sycamore, however Yorkshire fog is frequent in the woodland, as is foxglove *Digitalis purpurea* and a large patch of English bluebell is evident. Broad buckler fern, cleavers and common chickweed *Stellaria media* all occur here, but are rare, as is field wood rush *Luzula campestre*.

APPENDIX I - CITATIONS

County Wildlife Site Survey Form (Ref. No. 2234)

Site Name: Greens Common
Grid reference: TG 201413
District: North Norfolk

Parish: East Runton
Area: 1.32 ha

Site Description:

A small, broadly triangular area of registered common land bisected by a lane; to the east of the lane the site is almost entirely dense blackthorn *Prunus spinosa* scrub, with hawthorn *Crataegus monogyna*, mature English oak *Quercus robur* and occasional sycamore *Acer pseudoplatanus*. Where open areas remain, bracken *Pteridium aquilinum* dominates with occasional bluebell *Hyacinthoides non-scripta* and red campion *Silene dioica*. Alexanders *Smyrnium olusatrum* occur on the road edge, along with frequent bramble *Rubus fruticosus* agg.

On the western part of the site, the northern boundary of the site is marked by a medium sized pond, which had been restored a few months before survey; some reedmace *Typha latifolia* was still evident on the fringes of the pond and greater willowherb *Epilobium hirsutum* was present, but rare. A large tussock of pendulous sedge *Carex pendula* was also noted, but otherwise little marginal vegetation remains; no aquatic vegetation was visible at time of survey. Both frogs *Rana temporaria* and toads *Bufo bufo* have been recorded breeding in the pond.

South of the pond is a low-lying, species-rich area with damp hollows, comprised mostly of marshy grassland/acid fen. A shallow ditch crosses the site near the pond and was wet at the time of survey; soft rush *Juncus effusus* and hard rush *J. inflexus* dominate the ditch. Species abundant throughout the fen area include soft rush, water mint *Mentha aquatica* marsh pennywort *Hydrocotyle vulgaris*, common fleabane *Pulicaria dysenterica*, common sedge *Carex nigra*, lesser spearwort *Ranunculus flammula*, hairy sedge *Carex hirta*, marsh bedstraw *Galium palustre* and greater bird's foot trefoil *Lotus pedunculatus*. Greater willowherb is occasional, as are sorrel *Rumex acetosa*, ragged robin *Lychnis flos-cuculi*, and common spike rush *Eleocharis palustris*. Species occurring rarely throughout include common spotted orchid *Dactylorhiza fuchsii*, meadow buttercup *Ranunculus acris*, lady's smock *Cardamine pratensis* and bog stitchwort *Stellaria uliginosa*. Dominant grasses include Yorkshire fog *Holcus lanatus* and cock's foot *Dactylis glomerata*, with occasional rough meadow grass *Poa trivialis*. Frequent species found here include common vetch *Vicia sativa*, redshank *Persicaria maculosa* and marsh thistle *Cirsium palustre*.

To the south and west of the site, the land rises sharply to an area of drier, free-draining sandy soils. Much of this area is dominated by bracken *Pteridium aquilinum*, which is spreading to the edge of the fen. Where bracken is absent/rare there is a short, rabbit grazed sward, the dominant grass being Yorkshire fog, with cock's foot being abundant and annual meadow grass *Poa annua* less common. Frequent species here include: field wood rush *Luzula campestris*, sheep sorrel *Rumex acetosella*, germander speedwell *Veronica chamaedrys*, lesser stitchwort *Stellaria*

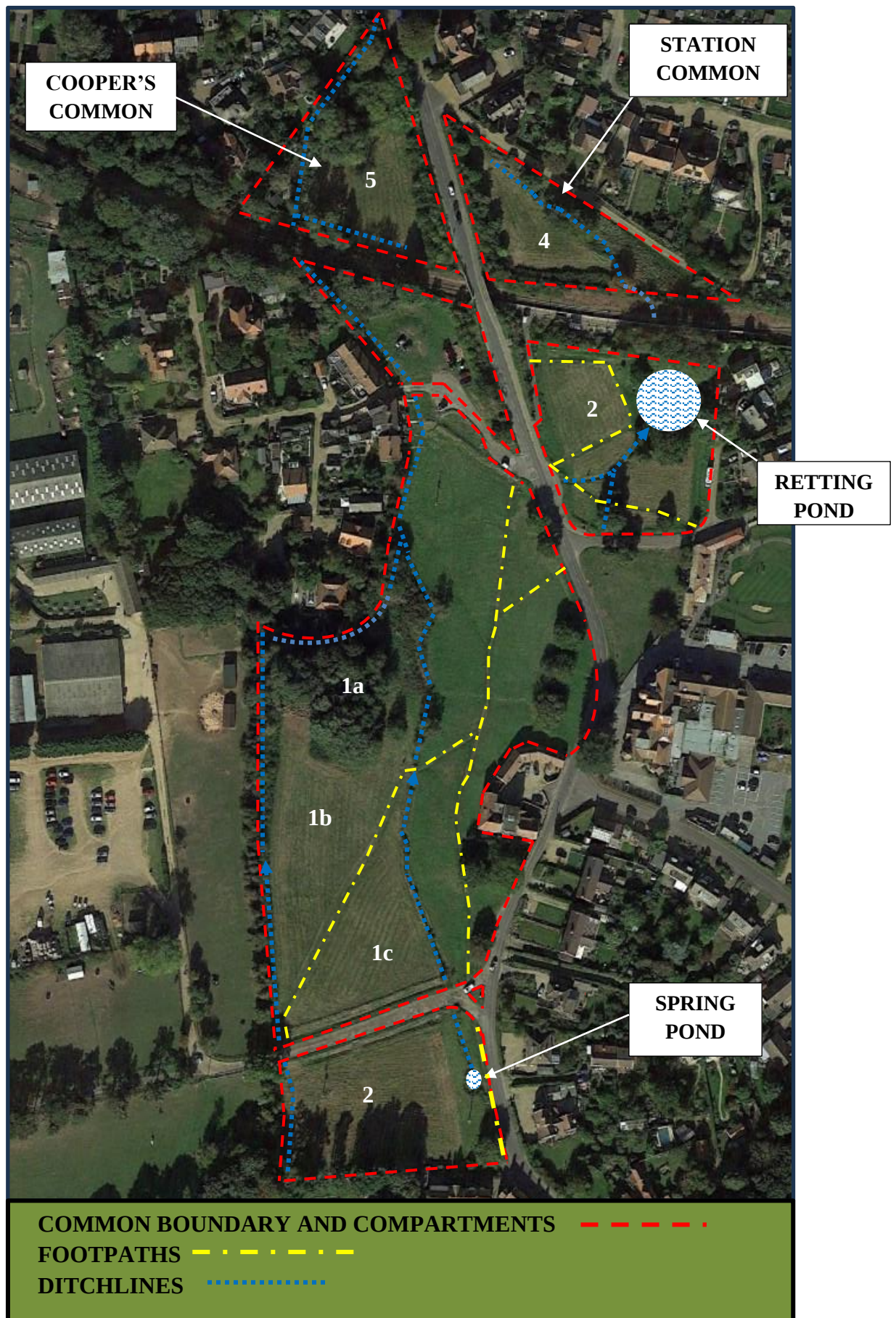
graminea, and heath bedstraw *Galium saxatile*. Nettle *Urtica dioica* is occasional here; ground ivy *Glechoma hederacea* occurs rarely, but in patches and gorse *Ulex europeaus* is present, but also rare. Species occurring rarely in the grassland include creeping cinquefoil *Potentilla reptans* and common toadflax *Linaria vulgaris*. Between the fen and the roadside is a large clump of dogwood *Cornus sanguinea*.

To the north and south of the site, the boundaries consist of defunct hedges, with ash *Fraxinus excelsior*, elder *Sambucus nigra* and hawthorn all frequently occurring. A small amount of scrub occurs in a few clumps across the western portion of the site, including rare scattered oaks, two or three small clumps of gorse and occasional bramble. A solitary silver birch *Betula pendula* stands at the centre of the site.

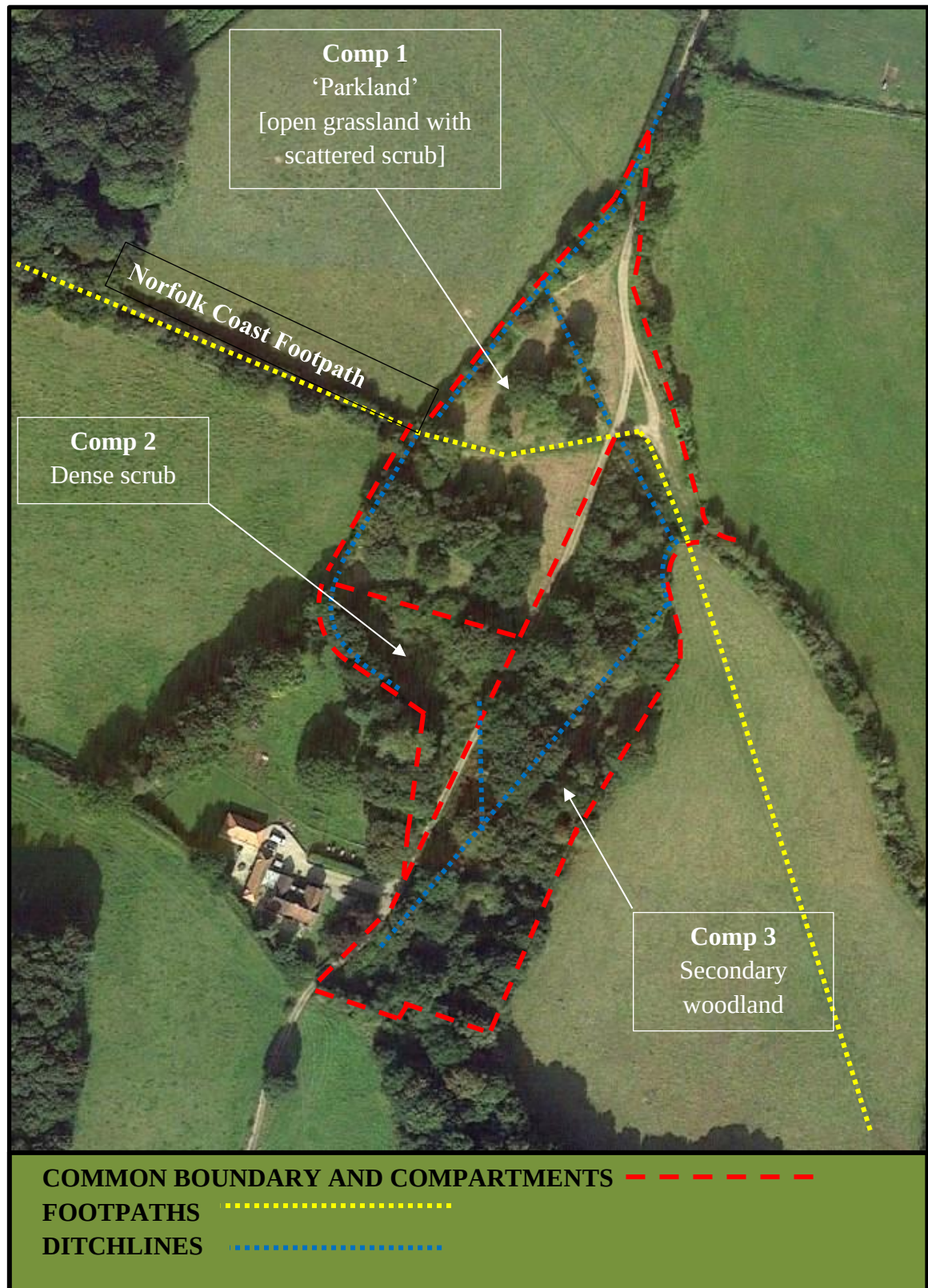
At the extreme west of the site is a dry pit, which was inaccessible at the time of survey, but appears to be dominated by bracken.

APPENDIX II

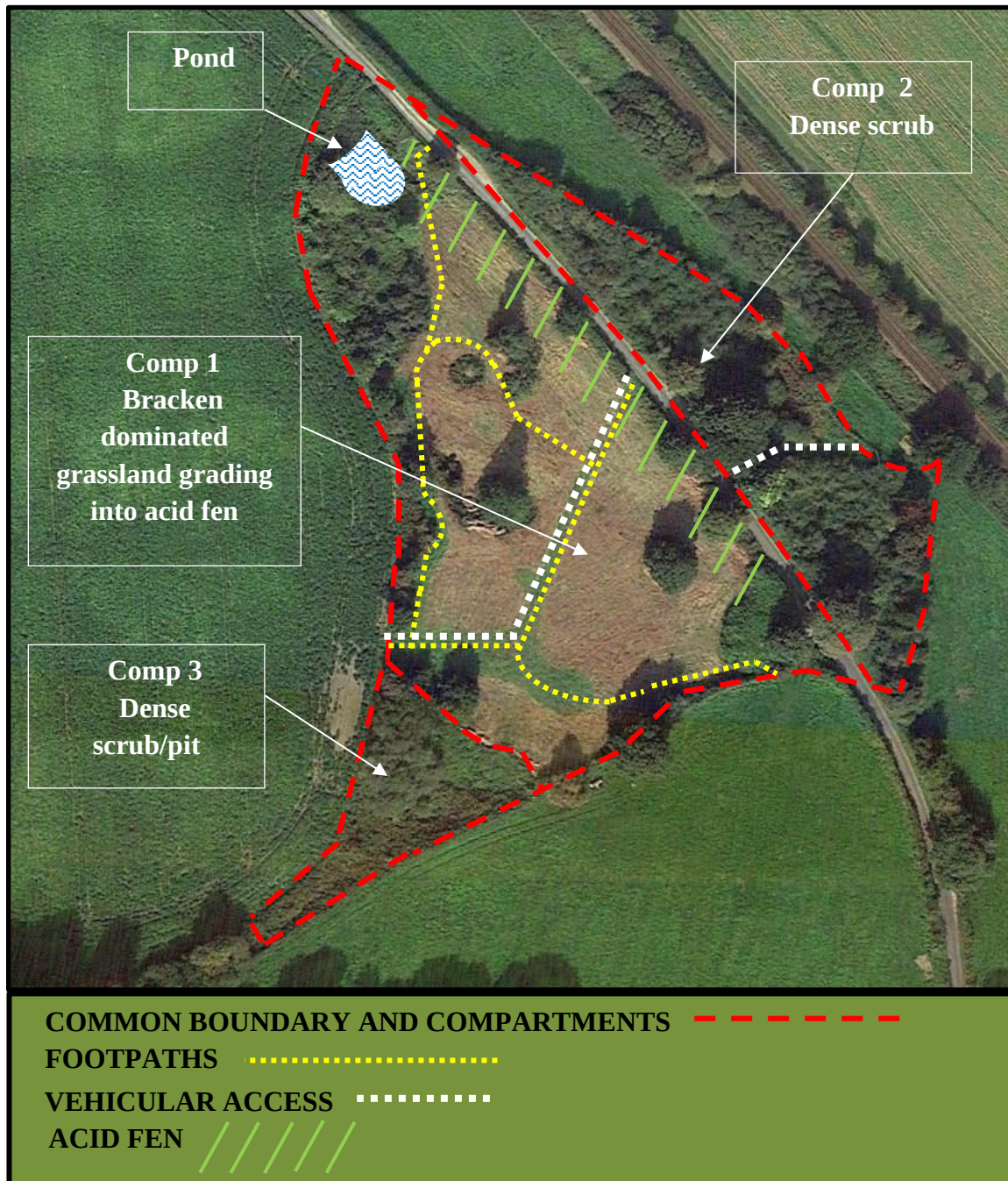
Compartment Maps - West Runtun Common



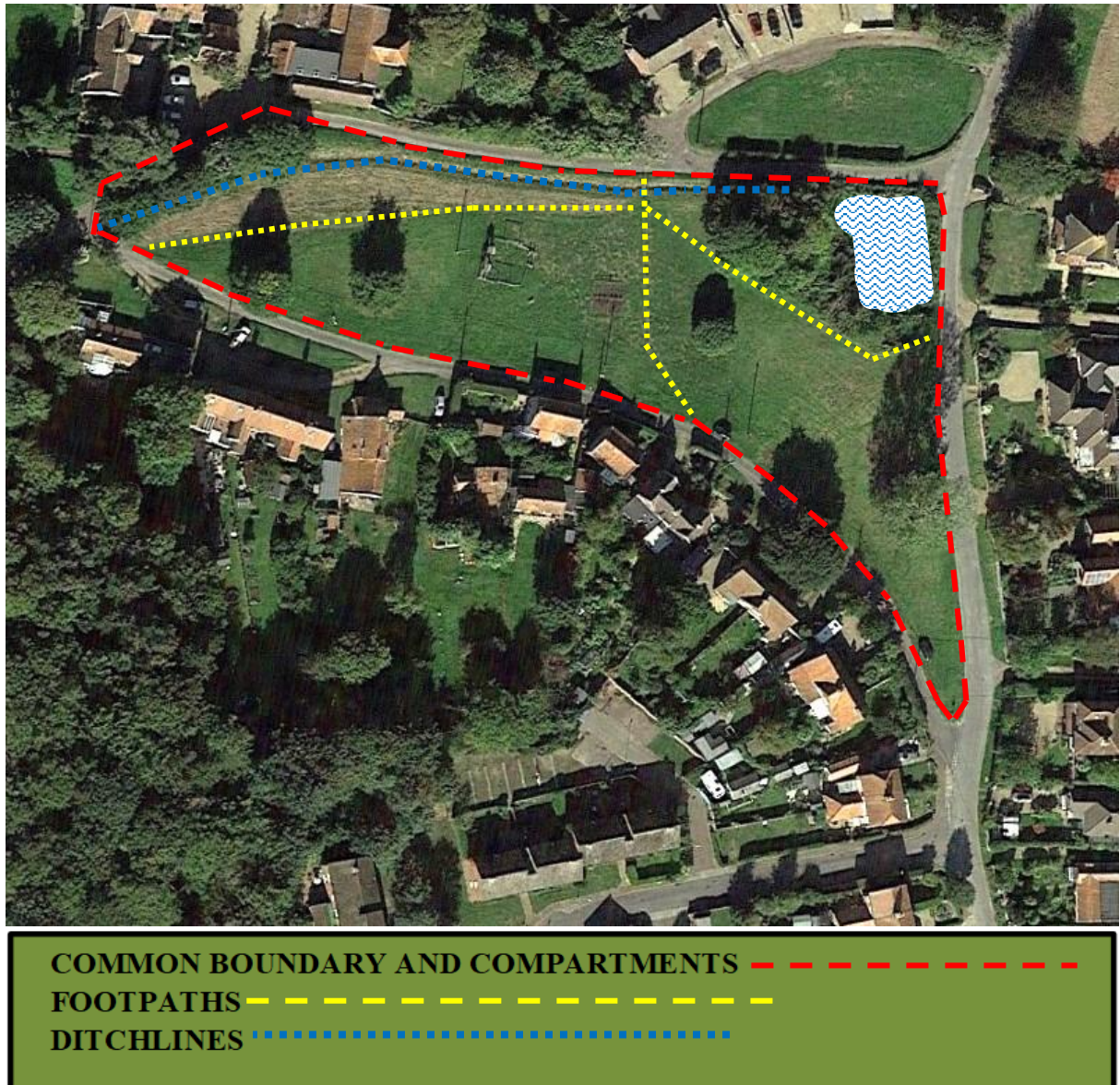
COMPARTMENT MAP - ABBS COMMON



COMPARTMENT MAP - GREENS COMMON



COMPARTMENT MAP TOP COMMON – EAST RUNTON

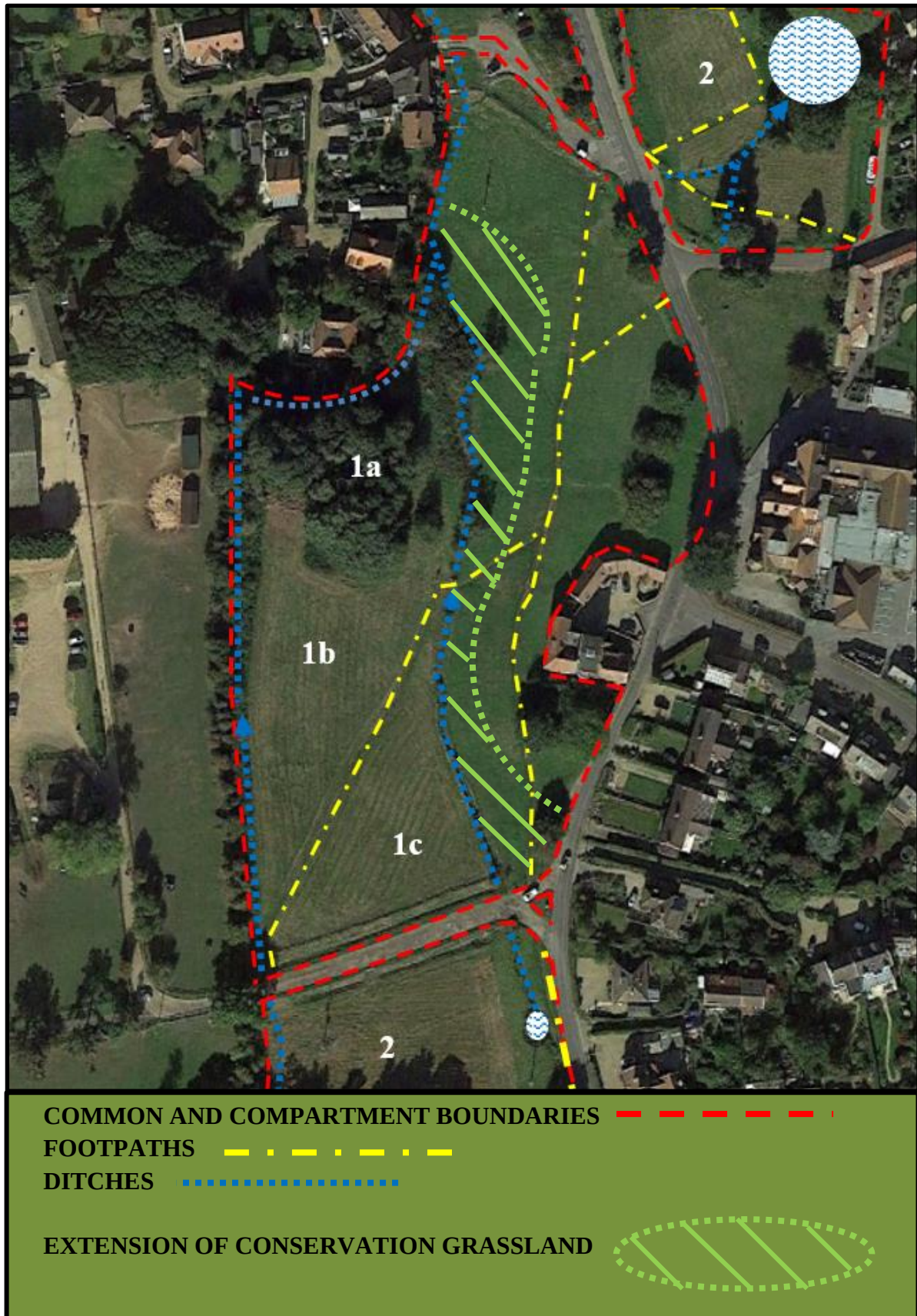


COMPARTMENT MAP LOWER COMMON – EAST RUNTON



COMMON BOUNDARY AND COMPARTMENTS - - - - -
FOOTPATHS

APPENDIX III EXTENSION OF CONSERVATION GRASSLAND COMPS 1B AND 1C



APPENDIX IV RESERVE SPECIES LIST [BOTANICAL]

Scientific Name	Common Name	*1West Runton Comp 1 [a/b/c]	*1West Runton Comp 2	*1West Runton Comp 3	*1West Runton Comp 4	*1West Runton Comp 5	*1West Runton Comp 6	*2Abbs Common	*3Green Common
<i>Acer campestre</i>	Field Maple							O	
<i>Acer pseudoplatanus</i>	Sycamore						O	LF	O
<i>Achillea millefolium</i>	Yarrow							R	
<i>Aegopodium podagraria</i>	Ground Elder							LA	
<i>Agrostis capillaris</i>	Common Bent							O	
<i>Alliaria petiolata</i>	Garlic Mustard								
<i>Alnus glutinosa</i>	Alder	A[a]						O	
<i>Alisma plantago-aquatica</i>	Water Plantain			O					
<i>Alopecurus geniculatus</i>	Marsh Foxtail								
<i>Alopecurus pratensis</i>	Meadow Foxtail								
<i>Anisantha sterilis</i>	Barren Brome								
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass				F	F		O	
<i>Anthriscus sylvestris</i>	Cow Parsley							O	
<i>Apium nodiflorum</i>	Fool's-watercress								
<i>Arrhenatherum elatius</i>	False Oat-grass							A	
<i>Artemisia vulgaris</i>	Mugwort							O	
<i>Arum maculatum</i>	Lords and Ladies								
<i>Ballota nigra</i>	Black Horehound							O	
<i>Bellis perennis</i>	Daisy							O	
<i>Betonica officinalis</i>	Betony								
<i>Betula pendula</i>	Silver Birch							O	R
<i>Brassica napus</i>	Rape								
<i>Bromus hordeaceus</i>	Soft-brome								
<i>Calystegia sepium</i>	Hedge Bindweed								
<i>Calystegia silvaticum</i>	Large Bindweed							O	
<i>Campanula rotundifolia</i>	Harebell	F[c]							
<i>Cardamine flexuosa</i>	Wavy Bitter-cress							O	
<i>Cardamine hirsuta</i>	Hairy Bitter-cress								
<i>Cardamine pratensis</i>	Lady's Smock								O

<i>Carex arenaria</i>	Sand Sedge	F[c]							
<i>Carex flacca</i>	Glaucous Sedge								
<i>Carex hirta</i>	Hairy Sedge								F
<i>Carex nigra</i>	Common Sedge								
<i>Carex pendula</i>	Pendulous Sedge								R
<i>Castania sativa</i>	Sweet Chestnut							O	
<i>Centaurea nigra</i>	Common Knapweed	A[c]				F		F	
<i>Cerastium glomeratum</i>	Sticky Mouse-ear							O	
<i>Cerastium fontanum</i>	Common Mouse-ear	F[c]						O	
<i>Ceratocephalus claviculata</i>	Climbing Corydalis							O	
<i>Chaerophyllum temulum</i>	Rough Chervil							O	
<i>Chamerion angustifolium</i>	Rosebay Willowherb							O	O
<i>Crassula helmsii</i>	New Zealand Pigmyweed								
<i>Crataegus monogyna</i>	Hawthorn	A[b]						F	F
<i>Cirsium arvense</i>	Creeping Thistle	F[a]						F	O
<i>Cirsium vulgare</i>	Spear Thistle							O	
<i>Cirsium palustre</i>	Marsh Thistle								F
<i>Convolvulus arvensis</i>	Field Bindweed								
<i>Cornus sanguinea</i>	Dogwood							O	LF
<i>Corylus avellana</i>	Hazel								
<i>Cytisus scoparius</i>	Broome							O	
<i>Dactylis glomerata</i>	Cock's-foot							F	D
<i>Dactylorhiza fuchsii</i>	Common Spotted- orchid					O		O	O
<i>Dactylorhiza praetermissa</i>	Southern Marsh-orchid								
<i>Daucus carota</i>	Wild Carrot								
<i>Deschampsia cespitosa</i>	Tufted Hair-grass								
<i>Digitalis purpurea</i>	Foxglove							F	
<i>Dryopteris dilatata</i>	Broad Buckler Fern							O	
<i>Dryopteris filix-mas</i>	Male Fern							O	
<i>Eleocharis palustris</i>	Common Spike Rush								O

<i>Epilobium hirsutum</i>	Great Willowherb	F[a]		F			A	O	O
<i>Epilobium palustre</i>	Marsh Willowherb								
<i>Epilobium parviflorum</i>	Hoary Willowherb								
<i>Equisetum arvense</i>	Field Horsetail							O	
<i>Eupatorium cannabinum</i>	Hemp-agrimony								
<i>Fagus sylvatica</i>	Beech							O	
<i>Festuca rubra</i>	Red Fescue								
<i>Festuca ovina</i>	Sheeps Fescue	D							
<i>Ficaria verna</i>	Lesser Celandine								
<i>Filipendula ulmaria</i>	Meadowsweet	O[a]							
<i>Fraxinus excelsior</i>	Ash							O	F
<i>Galium aparine</i>	Cleavers							F	
<i>Galium mollugo</i>	Hedge Bedstraw								
<i>Galium palustre</i>	Marsh Bedstraw								A
<i>Galium saxatile</i>	Heath Bedstraw								LF
<i>Gallium uliginosum</i>	Fen Bedstraw								
<i>Galium verum</i>	Lady's Bedstraw								
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill								
<i>Geranium pratense</i>	Common cranesbill								
<i>Glechoma hederacea</i>	Ground-ivy							O	O
<i>Glyceria fluitans</i>	Floating Reed-grass								
<i>Gunnera Manicata</i>	Giant Rhubarb								R
<i>Hebe Spp</i>	Hebe Spp				LF				
<i>Hedera helix</i>	Ivy							F	
<i>Heracleum sphondylium</i>	Hogweed					F		O	O
<i>Hesperis matronalis</i>	Dames Violet							O	
<i>Hieracium pilosella</i>	Mouse-eared hawkweed	F[c]							
<i>Hieracium sp.</i>	Hawkweed sp.								
<i>Holcus lanatus</i>	Yorkshire-fog				F			A	A
<i>Holcus mollis</i>	Creeping Soft-grass							O	
<i>Hottonia palustris</i>	Marsh Violet								O
<i>Humulus lupulus</i>	Hop							F	
<i>Hyacinthoides agg</i>	Bluebell spp							LF	LF

<i>Hydrocharis morsus-ranae</i>).	Frogbit								
<i>Hydrocotyle vulgaris</i>	Marsh Pennywort	O[a]							F
<i>Hydrocotyle ranunculoides</i>	Floating Pennywort								
<i>Hypericum perforatum</i>	Perforate St. John's-wort			O					
<i>Hypochaeris radicata</i>	Cat's-ear	F[c]						O	
<i>Ilex aquifolium</i>	Holly	O[b]						O	
<i>Impatiens glandulifera</i>	Himalayan Balsam			O		LF			
<i>Iris pseudacorus</i>	Yellow Iris								
<i>Iris foetidissima</i>	Stinking Iris							R	
<i>Juncus bufonius</i>	Toad Rush							O	
<i>Juncus effusus</i>	Soft Rush							O	A
<i>Juncus inflexus</i>	Hard Rush	F[a]							O
<i>Lamium album</i>	White Deadnettle								
<i>Lamium purpurium</i>	Red Dead-nettle								
<i>Lapsana communis</i>	Nipplewort							O	
<i>Lathyrus pratensis</i>	Meadow Vetchling	O[c]				F		O	
<i>Lemna minor</i>	Common Duckweed								
<i>Leucanthemum vulgare</i>	Oxeye Daisy								
<i>Linaria vulgaris</i>	Common Toadflax								O
<i>Lysimachia punctata</i>	Dotted loosestrife					O			
<i>Lolium perenne</i>	Perennial Ryegrass							O	
<i>Lotus corniculatus</i>	Common Bird's-foot Trefoil								
<i>Lotus uliginosus</i>	Greater Bird's-foot Trefoil	O[a/c]						O	O
<i>Lychnis flos-cuculi</i>)	Ragged Robin	F[a]							O
<i>Lycopus europaeus</i>	Gypsywort								
<i>Luzula campestris</i>	Field Wood-rush								F
<i>Malus sylvestris</i>	Crab Apple							O	
<i>Malva moschata</i>	Musk-mallow								
<i>Matricaria discoidea</i>	Pineapple Mayweed							O	
<i>Medicago lupulina</i>	Black Medick								
<i>Merculralis perenne</i>	Dog's mercury								
<i>Mentha aquatica</i>	Water Mint			F					A

<i>Menyanthes trifoliata</i>	Bogbean								
<i>Moehringia trinervia</i>	Three-nerved Sandwort							O	
<i>Myosotis scorpioides</i>	Water forgetmenot			O					
<i>Odontites vernus</i>	Red Bartsia								
<i>Ophrys apifera</i>	Bee Orchid								
<i>Oxalis acetosella</i>	Wood Sorrel							LF	
<i>Papaver rhoeas</i>	Common Poppy								
<i>Persicaria maculosa</i>	Redshank							LF	F
<i>Plantago lanceolata</i>	Ribwort Plantain							O	
<i>Plantago major</i>	Greater Plantain							O	
<i>Phleum bertolonii</i>	Lesser Timothy							O	
<i>Phleum pratense</i>	Timothy				O	F		O	
<i>Pinus nigra</i>	Corsican Pine							O	
<i>Poa annua</i>	Annual meadow-grass							O	O
<i>Poa pratensis</i>	Smooth Meadow-grass								
<i>Poa trivialis</i>	Rough Meadow-grass							A	O
<i>Polygonum aviculare</i>	Knotgrass								
<i>Populus tremula</i>	Aspen							LA	
<i>Potentilla anserina</i>	Silverweed							O	
<i>Potentilla erecta</i>	Tormentil								
<i>Potentilla reptans</i>	Creeping Cinquefoil	F[c]							O
<i>Potamogeton natans</i>	Broad-leaved Pondweed			O					
<i>Primula veris</i>	Cowslip								
<i>Prunus cerasifera</i>	Cherry Plum								
<i>Prunella vulgaris</i>	Sealfheal	F[c]							
<i>Prunus domestica spp</i>	Bullace								
<i>Prunus spinosa</i>	Blackthorn							LA	LD
<i>Pteridium aquilinum</i>	Bracken							LA	LD
<i>Pulicaria dysenterica</i>	Common Fleabane	F[a/c]				F			F
<i>Quercus robor</i>	Pedunculate Oak							F	O
<i>Ranunculus acris</i>	Meadow Buttercup	F[c]						O	O
<i>Ranunculus lingua</i>	Greater Spearwort								A
<i>Ranunculus repens</i>	Creeping Buttercup							O	
<i>Rorippa nasturtium-aquaticum</i>	Water Cress								
<i>Rorippa palustris</i>	Yellow Cress								

<i>Rhinanthus minor</i>	Yellow Rattle	O[a]							
<i>Rosa agg</i>	White cultivar							O	
<i>Rosa canina</i>	Dog-rose							O	
<i>Rubus fruticosus agg.</i>	Bramble	A[a] LD[b]						A	O
<i>Rumex acetosa</i>	Common Sorrel							O	
<i>Rumex acetosella</i>	Sheep's Sorrel								O
<i>Rumex conglomeratus</i>	Clustered Dock								
<i>Rumex crispus</i>	Curled Dock								
<i>Rumex obtusifolius</i>	Broad-leaved Dock							O	
<i>Rumex sanguinea</i>	Wood Dock							O	
<i>Salix caprea</i>	Goat Willow								
<i>Salix cineria</i>	Grey Willow							F	
<i>Salix × fragilis</i>	Crack Willow								
<i>Salix viminalis</i>	Osier							R	
<i>Sambucus nigra</i>	Elder	O[b]						O	F
<i>Saxifraga granulata</i>	Meadow Saxifrage								
<i>Scrophularia auriculata</i>	Water Figwort							O	
<i>Senecio jacobaea</i>	Common Ragwort								
<i>Senecio vulgaris</i>	Groundsel								
<i>Silene dioica</i>	Red Campion							O	O
<i>Smyrniolum olustrum</i>	Alexander							F	
<i>Solanum dulcamara</i>	Bittersweet								
<i>Sonchus arvensis</i>	Perennial Sow-thistle								
<i>Sorbus aucuparia</i>	Rowan							O	
<i>Sparganium erectum</i>	Erect Burreed			F					
<i>Stachys sylvatica</i>	Hedge Woundwort							O	
<i>Stellaria uliginosa</i>	Bog Stitchwort								O
<i>Stellaria graminea</i>	Lesser Stitchwort							O	LF
<i>Stellaria holostea</i>	Greater Stitchwort								
<i>Stratiotes aloides</i>	Water Soldier								
<i>Taraxacum agg.</i>	Dandelion							O	
<i>Torilis japonica</i>	Upright Hedge-parsley								
<i>Tragopogon pratensis agg.</i>	Goat's-beard								
<i>Trifolium pratense</i>	Red Clover							O	
<i>Trifolium repens</i>	White Clover							O	
<i>Typha latifolia</i>	Greater Reedmace	O[a]		LD					A

<i>Utricularia vulgaris</i>	Greater Bladderwort								
<i>Ulmus minor</i>	English Elm							LF	
<i>Ulex europaeus</i>	Common Gorse								O
<i>Urtica dioica</i>	Common Nettle	F[a] F[b]						LD	
<i>Valeriana officinalis</i>	Common Valerian								
<i>Verbascum pulverulentum</i>	Hoary Mullien								
<i>Veronica beccabunga</i>	Brooklime								
<i>Veronica chamaedrys</i>	Germander Speedwell					F			LF
<i>Vicia cracca</i>	Tufted Vetch							O	
<i>Vicia hirsuta</i>	Hairy Tare								
<i>Vicia sativa</i>	Common Vetch							O	F
<i>Vicia tetrasperma</i>	Smooth Tare								
<i>Viola arvensis</i>	Field Pansy								
<i>Vulpia bromoides</i>	Squirrel-tail Fescue								
DAFOR: D = dominant; A = abundant; F = frequent; O = occasional; R = rare; (L = locally ie as in locally dominant)									
*1 – Hawk and Owl Trust Survey [2014] *2 – Pryce and Gorton [2018]									

APPENDIX V AGRI-ENVIRONMENT SCHEMES

ENVIRONMENTAL STEWARDSHIP

Entry Level and Higher Level Stewardship Agreement

Agreement number AG00449692

This Agreement is between Runton Parish Council
of
The Reading Room
Felbrigg Road
East Runton
Norfolk
NR27 9PE

and the Rural Payments Agency
of

Foss House
Kings Pool
1-2 Peasholme Green
York
YO1 7PX

This Agreement covers all of the land parcels listed on the table entitled 'Parcel based options summary' at Part 2A.

This Agreement will run from 01/10/2013 to 30/09/2028.

The Rural Payments Agency agrees to pay you according to the schedules in Part 1 and 4.

This Agreement is made up of the following parts:

- Part 1A ELS annual payments
- Part 1B Annual payment schedule for HLS options (excluding capital works)
- Part 1C Annual payment schedule for all options (excluding capital items)
- Part 2A Parcel based options summary
- Part 2B Whole farm, rotational, farm buildings and access base payment options
- Part 3 HLS Management of Environmental Features - Specific options, prescriptions and Indicators of Success
- Part 4 HLS Capital Works Plan and payments (if applicable)
- Part 5 Capital works specifications (if applicable)
- Part 6 Grassland Management
- Part 7 Maps, including Historic Environment Features map

ENVIRONMENTAL STEWARDSHIP**Entry Level and Higher Level Stewardship Agreement****PART 1A****Annual payments for ELS****Your annual payment for ELS is as follows:**

Land Description	Payment per Ha	Area (Ha)	Target Points	Payment
Area of land in agreement, excluding parcels of 15 ha or more above the Moorland Line	£30.00	8.00	240	£240.00
Area of parcels of 15 ha or more above the Moorland Line		0	0	0

Annual Payment		£240.00
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Total Target Points	240	
Actual Points	262	

PART 1B**Annual payment schedule for HLS options (excluding capital items)**

Options \ Period(s) covered	01/01/23 to 31/12/23	01/01/24 to 31/12/24	01/01/25 to 31/12/25	01/01/26 to 31/12/26	01/01/27 to 31/12/27	01/01/28 to 30/09/28
HK6 Maintenance of species-rich, semi-natural grassland	£370.00	£370.00	£370.00	£370.00	£370.00	£276.74
HQ1 Maintenance of ponds of high wildlife value < 100 sq m	£90.00	£90.00	£90.00	£90.00	£90.00	£67.32
HR5 Bracken control supplement	£24.50	£24.50	£24.50	£24.50	£24.50	£18.32
Total HLS payment	£484.50	£484.50	£484.50	£484.50	£484.50	£362.38

PART 1C
Annual payment schedule for all options (excluding capital items)

Period(s) covered	ELS payment	HLS payment	Total payment
01/01/23 to 31/12/23	£240.00	£484.50	£724.50
01/01/24 to 31/12/24	£240.00	£484.50	£724.50
01/01/25 to 31/12/25	£240.00	£484.50	£724.50
01/01/26 to 31/12/26	£240.00	£484.50	£724.50
01/01/27 to 31/12/27	£240.00	£484.50	£724.50
01/01/28 to 30/09/28	£179.51	£362.38	£541.89

PART 2A
Parcel based options summary

RLR field number	Field name	RLR field size (ha)	OPTIONS					
			Code	Description	Quantity (ha/100m/no.)	Start date	End date	Duration (years/months)
TG18421356		0.38	EK3	Permanent grassland with very low inputs: outside SDA & ML	0.18	01/10/13	30/09/28	15 Years
			A13	Non payment option - permanent grassland for Article 13	0.37	01/10/13	30/09/28	15 Years
TG18421617		0.54	A13	Non payment option - permanent grassland for Article 13	0.50	01/10/13	30/09/28	15 Years
			HK6	Maintenance of species-rich, semi-natural grassland	0.42	01/10/13	30/09/28	15 Years
TG18421835		2.24	A13	Non payment option - permanent grassland for Article 13	2.00	01/10/13	30/09/28	15 Years
			HK6	Maintenance of species-rich, semi-natural grassland	0.73	01/10/13	30/09/28	15 Years
TG18422153		0.35	EK3	Permanent grassland with very low inputs: outside SDA & ML	0.11	01/10/13	30/09/28	15 Years
			A13	Non payment option - permanent grassland for Article 13	0.25	01/10/13	30/09/28	15 Years
TG18422344		0.51	EK3	Permanent grassland with very low inputs: outside SDA & ML	0.38	01/10/13	30/09/28	15 Years
			A13	Non payment option - permanent grassland for Article 13	0.46	01/10/13	30/09/28	15 Years
			HQ1	Maintenance of ponds of high wildlife value < 100 sq.m	1	01/10/13	30/09/28	15 Years

PART 2A
Parcel based options summary

RLR field number	Field name	RLR field size (ha)	OPTIONS					
			Code	Description	Quantity (ha/100m/no.)	Start date	End date	Duration (years/months)
TG19412087		0.83						
TG19414072		1.83	EK3	Permanent grassland with very low inputs: outside SDA & ML	0.45	01/10/13	30/09/28	15 Years
			A13	Non payment option - permanent grassland for Article 13	0.45	01/10/13	30/09/28	15 Years
TG20411242		1.01	HK6	Maintenance of species-rich, semi-natural grassland	0.70	01/10/13	30/09/28	15 Years
			HR5	Bracken control supplement	0.70	01/10/13	30/09/28	15 Years
TG20411644		0.31						

PART 2B**Whole farm, rotational, farm buildings and access base payment options summary**

Code	Description	Quantity (ha/100m/no.)	Start date	End date	Duration (years/months)
EA1	Farm Environment Record (FER)	8.00	01/10/13	30/09/28	15 Years
EB2	Hedgerow management for landscape (on one side of a hedge)	175	01/10/13	30/09/28	15 Years
EB6	Ditch management	295	01/10/13	30/09/28	15 Years

PART 3**HLS - Management of environmental features****General conditions on all HLS agreement land**

On your HLS agreement land you must follow the general management conditions set out below, unless specifically stated otherwise in a subsequent section of this agreement. HLS agreement land is all land on which Higher Level Stewardship management prescriptions apply, including items within a Capital Works Plan

- Do not apply lime.
- On the conventional land that you manage: do not apply pesticides, except for the control of spear thistle, creeping thistle, curled dock, broad-leaved dock, common ragwort, nettles or other undesirable species named in your agreement. Herbicides may only be applied to these species by weedwiper or by spot treatment.
- Do not allow your agreement land to be levelled, infilled, used for the storage or dumping of materials or used by motor vehicles or machinery (except where necessary for the management of the land), if this is likely to cause long-term damage from rutting or compaction of the soil, or otherwise damage areas being managed under the scheme.
- Do not light fires (including burning brash or cuttings) where they could cause damage to features of archaeological or historic interest, or within ten metres of tree canopies or on any areas managed for their wildlife habitat interest. (This does not restrict your ability to manage heathland vegetation by controlled burning in compliance with the Heather and Grass Burning Regulations 1986 and accompanying Code.)
- Do not allow your agreement land to be used for organised games or sports, rallies, camping or caravanning, shows or sales where this is likely to damage areas being managed for their wildlife habitat interest or features of archaeological or historic interest; where this is likely to cause excessive or unreasonable disturbance to wildlife being encouraged under your agreement; or where this would cause unreasonable restriction to Public Rights of Way or "access land" as designated under the Countryside and Rights of Way Act 2000.
- Do not carry out or permit metal detecting or archaeological fieldwork on any of the archaeological sites on your holding identified in your Farm Environment Plan, unless agreed with your Natural England adviser in writing. In some cases a derogation will also be required.

APPENDIX VI – ARG Reptile Guide

Reptile Identification



Viviparous lizard

Adults 13-15 cm. Coloration and markings variable. Background coloration generally brown.

Males tend to have a flecked pattern on back.

Females tend to have stripes.

Some individuals have solid coloration of brown, black.

Occasionally green, leading to mistaken identification as sand lizard.

Newborn young are dark in colour, almost black. 4 cm.

Male

Female

Young male

Sand lizard

Larger and more heavily-built than viviparous lizard. Adults 16-19 cm. Most have three rows of eyespots, one along the back, one on either flank.

A rare species, almost entirely confined to heathland sites in Dorset, Hampshire and Surrey, and sand dunes on the Mersey Coast.

Breeding male has vivid green flanks (late spring).

Male

Female

Strictly protected, requiring a licence to handle or disturb.

Wall lizard

A non-native species found at relatively few, but an increasing number of, sites mainly in southern England.

Grows to 17-18 cm, but most of length is tail. Body length 6 cm. Some have bright green mottling on the back, others are brown.

Prefers south-facing, vertical habitat such as walls and cliffs.

amphibian and reptile conservation



Slow-worm

Adults 35-40 cm. Generally grey or brown, very rarely black. Small, shiny scales, giving a metallic appearance.

Blue spots on some males.

The most common reptile in the UK, found in a variety of habitats, including gardens. It spends most of its time underground or in vegetation litter. Most likely to be found underneath objects lying on the ground, or in compost heaps.

Young have similar markings to the females, but better defined.



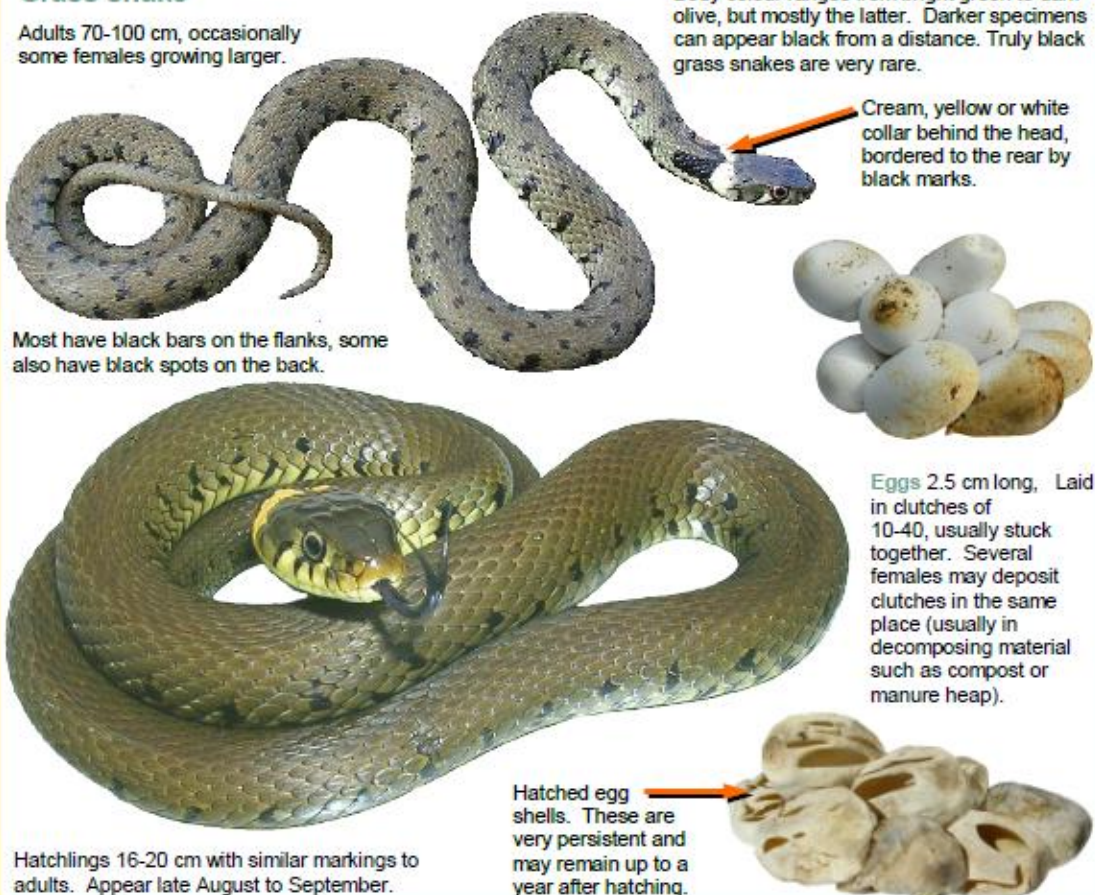
Females have darker coloured flanks and often a black line running along the back.

Grass snake

Adults 70-100 cm, occasionally some females growing larger.

Body colour ranges from bright green to dark olive, but mostly the latter. Darker specimens can appear black from a distance. Truly black grass snakes are very rare.

Cream, yellow or white collar behind the head, bordered to the rear by black marks.



Most have black bars on the flanks, some also have black spots on the back.

Eggs 2.5 cm long. Laid in clutches of 10-40, usually stuck together. Several females may deposit clutches in the same place (usually in decomposing material such as compost or manure heap).

Hatched egg shells. These are very persistent and may remain up to a year after hatching.

Hatchlings 16-20 cm with similar markings to adults. Appear late August to September.

Smooth snake

Restricted to heathlands in Dorset, Hampshire and Surrey. Males predominately brown, females grey. Dark butterfly shape on top of head. Pairs of spots, sometimes fused as bars, running along back. Black line running through eye.

Female

Male

Grows to 45-55 cm, slender.
Strictly protected, requiring a licence to handle or disturb.

Young 14-16 cm, resemble adults but with better defined markings.

Adder

A stocky snake, adults 40-70 cm.

Female

Male

Variable coloration. Males typically grey with a black zigzag stripe, females generally brown with a dark brown zigzag stripe. Black adders are found in some areas.

Young

Wide distribution, but restricted to specific habitats (heathland, down, scrub, woodland edge, road and rail embankments).

New-born 16 cm. Some young are brick-red, others have similar coloration to adults.

Head profiles

Slow-worm

Grass snake

Smooth snake

Adder

Pale collar

Line through eye

Vertical pupil

Note that many snake species are kept as pets and so escaped or released non-native snakes are occasionally encountered.

Reptile sloughs

Reptiles periodically shed (slough) their skins, to allow for growth and to replace ageing tissue. The shed (sloughed) skins can be useful in identifying species.

Lizards



Viviparous lizard (left)

Sand lizard (right)

Skin sloughed in fragments, often much smaller than those shown.
Dorsal (back) patterning evident. Large scales on ventral surface (underside) – but single scales not spanning the width of the body.



Slow-worm (right)

Uniformly small scales on dorsal and ventral surfaces.



Shed pieces of skin are rolled up, like a removed sock.

Snakes

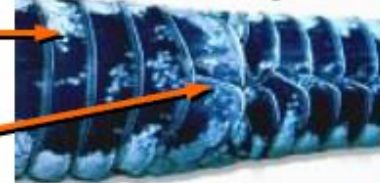
Large ventral scales (underneath), spanning the width of the body.



Grass snake

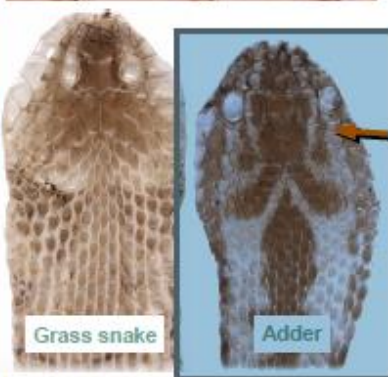
- Keel on dorsal scales.
- Divided anal/pre-anal scale.
- Large plates on head (e.g. behind eye).

Underside of grass snake



Adder

- Dorsal zigzag pattern usually visible, especially when viewed on light background.
- Keel on dorsal scales.
- Large plates, but also small scales, on head (e.g. behind eye).
- Undivided anal/pre-anal scale.



Grass snake

Adder



Smooth snake

- No obvious markings on slough and no keel on dorsal scales.

Sexing snakes

Male snakes have relatively longer tails than do females – hence males have more ventral tail (sub-caudal) scales. These are easily counted on sloughed skins.

Adder		Grass snake		Smooth snake	
Male	Female	Male	Female	Male	Female
32-46	24-38	61-73	49-64	50-64	43-57

Source: Beebee, TJC and Griffiths, RA (2000). *Amphibians and Reptiles. A Natural History of the British Herpetofauna. The New Naturalist Library.*

Amphibian and Reptile Conservation 655A Christchurch Road, Boscombe, Bournemouth, Dorset BH1 4AP, 01202 391319, www.arc-trust.org.uk, registered charity no. 1130188.
Amphibian and Reptile Conservation and Fred Holmes (2010).

ef Esmée Fairbairn
FOUNDATION

APPENDIX VII COMMONS RIGHTS – FURTHER INFORMATION SOURCES

The following are sources for further information on Common Rights and the law:-

<https://www.oss.org.uk> - The **Open Spaces Society** is a campaign group that works to protect public rights of way and open spaces in the United Kingdom, such as common land and village greens. It is Britain's oldest national conservation body and a registered charity.

legalordersandregisters@norfolk.gov.uk. - It is the legal service email address ..you have to send details and they will respond with relevant info.

APPENDIX VIII RISK ASSESSMENTS

To be obtained from NWT

APPENDIX IX Sparrow's Park - East Runton

Sparrow's Park is a small parcel of semi-improved grassland [c0.35ha (0.87 acres)] situated directly north-east of top Common and to the east of Green's Lane. Whilst not registered as a common it is managed under the auspices of East Runton Parish Council.



The northern boundary of the site is the embankment of the disused viaduct part of the the former Norfolk and Suffolk Joint Railway (Northern Section) which closed in the early 1960's. and the eastern boundary is The Paddocks. It was planted up with a number of ornamental trees and shrubs c25 years ago and during the height of the tourist season it has been used for ad hoc parking.

Management

Since the mid 2000's a pathway has been mown around the perimeter and the central area has been topped most years. –

Future wildlife enhancement

Several Kent style timber or similar design bat boxes erected high inside the embankment arches if permission could be granted from the present owner.

