

**RSPB Higham Marshes
Habitat Enhancement Project**



Water Vole (Rob Budgen, 2016)

**Planning Statement
Planning Application Proposal Supporting Documentation
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1. Introduction

1.1 Background

Higham Marshes is a 177.2 hectare area of predominantly, grassland, bisected (North to South) by an area of common land, and Environment Agency Main river (East to West). The northern boundary comprises the Thames and its associated flood defences and to the south the Village of Higham and agricultural land.

The land is used for the conservation of various species of conservation concern, with active habitat management carried out by the RSPB to ensure the habitats are in the right and best condition for them to thrive. The RSPB entered into a management agreement with the Landowner in 2013. Work was carried out to isolate the site from the surrounding drainage system in 2014. Various other small-scale habitat improvement works have been carried out in the following years. In 2019 the RSPB purchased the land from the landowner, excluding Higham Common.

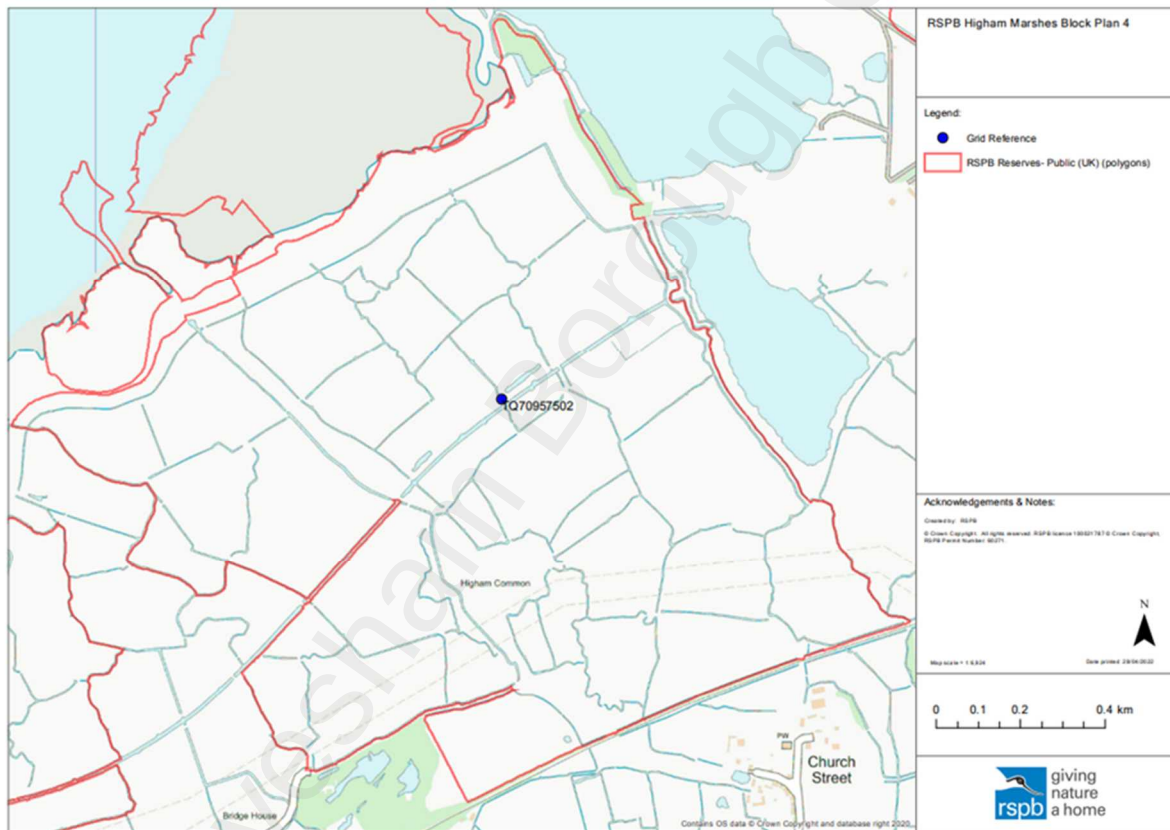


Figure 1: Higham Marshes Location

The site is also the subject of a formal Partnership comprising the membership of RSPB, other Conservation NGOs and private land owners through the DEFRA funded The Green Recovery Challenge Fund.

This project will deliver landscape-scale habitat restoration and innovative solutions for climate resilience in the Greater Thames Estuary. The RSPB working with partner organisations; Kent Wildlife Trust, Essex Wildlife Trust, Kent Wildfowling & Conservation Association and Elmley Nature Reserve Community Interest Company will restore and enhance 1,805 ha across 24 important Coastal and

Floodplain Grazing Marsh (C&FGM) sites. This project seeks to make better use of freshwater across the landscape implementing 29 innovative smart solar pumps at 14 of the project sites, while also improving habitat

Across all 24 sites habitat conditions are failing to meet the needs of waders & other priority species. This project will work to address the below key issues facing the project sites:

- Surface pools dry out, depriving wader chicks of food and habitat for other species. Existing hydrological systems are inefficient and do not provide the volume of water required to maintain wet features throughout the spring and summer, this is getting worse through climate change;
- The lack of infrastructure to support grazing regimes which create the optimal grass sward structure that breeding waders need;
- Lack of nesting habitat for waders;

1.2 Overarching objectives

1. To enhance Higham Marshes SSSI Favourable condition where applicable and, concurrently, to become high quality examples of these habitats. This will include delivering appropriate long-term management solutions i.e. grazing, as well as introducing new hydrological controls by undertaking groundworks and the installation of appropriate infrastructure to achieve the objective.
2. To make the site more climate resilient the effects of predicted effects of climate change.
3. To support breeding birds that have been in decline across the Greater Thames.

1.3 Overarching outcomes

- To support biodiversity and habitats of regional and national importance, the hydrology of Higham will be modified to produce optimal hydrological management for breeding waders such as lapwing and redshank, wintering wildfowl such as teal and wigeon and passerines such as skylark and grasshopper warbler. The headline species list will also include non-avian species such as water vole, European eel, rare bumblebees where applicable
- Where not already in place, suitable grassland, reedbed, scrub and ditch management will be introduced to produce optimal grazing marsh habitat for target species:
- Grassland, scrub and reedbed management will be provided by targeted grazing and mechanical management regimes. This will include sourcing and installing suitable graziers as required
- Ditch management will be provided by the sympathetic restoration of the ditch network initially as required and/or the creation of a rotational management regime.

Defined by the UK Government's Green Recovery Challenge Fund (GRCF) administered by the National Lottery Heritage Fund (NLHF) the proposal will be delivered in one phase during the second half of 2021 to comply with the GRCF's deadline for project completion by 31st March 2023. This proposal seeks to address the currently underperforming biological performance, based on the lack of suitable grazing, hydrology and topographical features.

1.4 Site Assessment

The vast majority of Higham Marshes is protected under the following designations

1. The South Thames Estuary and Marshes Site of Special Scientific Protection (SSSI)
 - a. Citation found in Higham_Marshes_SSSI_Citation
2. The Thames Estuary and Marshes Special Protected Area (SPA)
 - a. Citation found in Higham_Marshes_SPA_Citation
3. The Thames Estuary and Marshes Ramsar Site
 - a. Citation found in Higham_Marshes_Ramsar_Citation

Appendix 1 shows the map for SSSI, SPA and Ramsar.

The South Thames estuary and Marshes SSSI citation cites the following:

The South Thames Estuary and Marshes SSSI from Gravesend to the eastern end of the Isle of Grain forms a major component of the Greater Thames Estuary. The site consists of an extensive mosaic of grazing marsh, saltmarsh, mudflats and shingle characteristic of the estuarine habitats of the north Kent marshes. Freshwater pools and some areas of woodland provide additional variety and complement the estuarine habitats. The site supports outstanding numbers of waterfowl with total counts regularly exceeding 20,000. Many species regularly occur in nationally important¹ numbers and some species regularly use the site in internationally important² numbers. The breeding bird community is also of particular interest. The diverse habitats within the site support a number of nationally rare and scarce invertebrate species and an assemblage of nationally scarce plants.

The following summarises the SSSI site condition assessments for the SSSI units where the enhancements are proposed:

HIGHAM MARSH W -Unit 027 – Favourable

Cattle grazing at time of survey giving rise to areas of short turf interspersed with taller tussocks, juncus and areas of tall herbaceous vegetation. Lots of ephemeral standing water and more permanent areas of water in the many ditches and drains with marginal emergent vegetation including common reed and reed mace. Scrub was occasional, less than 5%. No negative indicators. Unit assessed for value as breeding and over wintering bird habitat.

HIGHAM MARSHES NE -Unit 028 – Favourable

Sheep grazing at time of survey giving rise to areas of short turf interspersed with taller tussocks, juncus and areas of tall herbaceous vegetation. Lots of ephemeral standing water and more permanent areas of water in the many ditches and drains with marginal emergent vegetation including common reed and reed mace. Scrub was occasional, less than 5%. No negative indicators. Unit assessed for value as breeding and over wintering bird habitat.

HIGHAM MARSHES SE – Unit 029 – Favourable

Sheep grazing at time of survey giving rise to areas of short turf interspersed with taller tussocks, juncus and areas of tall herbaceous vegetation. Lots of ephemeral standing water and more permanent areas of water in the many ditches and drains with marginal emergent vegetation including common reed and reed mace. Scrub was occasional, less than 5%. No negative indicators. Unit assessed for value as breeding and over wintering bird habitat.¹

The date of the last condition assessment was on 12/02/2009

2. The Project

2.1 Aims

This project aims to undertake engineering works to enhance the in-field topography and to repair hydrological bunds and culverts.. This will allow the retention of surface water, being the foremost element of a wetland habitat restoration/enhancement, at the key times of the year – the breeding and wintering seasons. Since the early 1980s at Elmley Marshes on the Isle of Sheppey, this approach to converting wetland habitats has been tried and tested throughout the RSPB's tenure along the North Kent coast – and many other places in the UK. Other successful transformations have been delivered at Shorne Marshes, , Northward Hill and Great Bells Farm where wetland fauna and flora now proliferate at levels not experienced previously or since the turn of the century – within an environment of widespread species declines.

2.2 Sites

Currently Higham Marshes is a functioning wetland system after works carried out by the RSPB in conjunction with the land owner in 2013/14. Work was carried out to isolate the marsh from the surrounding landscape drainage system. A abstraction licence was gained from the Environment Agency.

The site does have wildlife value hence its designation as internationally important as part of The South Thames Estuary and Marshes SSSI and Thames Marshes and Estuary Ramsar. However, nature was in a very different state at the time of the original designation as a SSSI in 1981 and its review in 1991. Higham Marshes as a whole comprises a fraction of the SSSI, and as a consequence, necessitates that the habitat must be of the very highest quality to ensure that it has real value for all of the designated and undesignated features that should be utilising the reserve and maximising its potential.

The site is split by Higham Common, with the whole site being SSSI, with the eastern 'Side' being within the Thames Estuary and Marshes SPA and Ramsar.

Wetlands, like farmland, become tired if the land is used over and over again. This is reflected in the breeding bird results, see Figure 2 and 3. Productivity drops off significantly from 2016 as nutrients gets locked up in the soil after the initial flush from flooding.

¹<https://designatedsites.naturalengland.org.uk/siteunitlist.aspx?SiteCode=s1003874&SiteName=&countyCode=&responsiblePerson=&unitId=1007043&SeaArea=&IFCAArea=>

These works will release the nutrients that have become locked up which will in turn increase invertebrate numbers such as non-biting midges and their lava which are a key food source for breeding wader chicks.

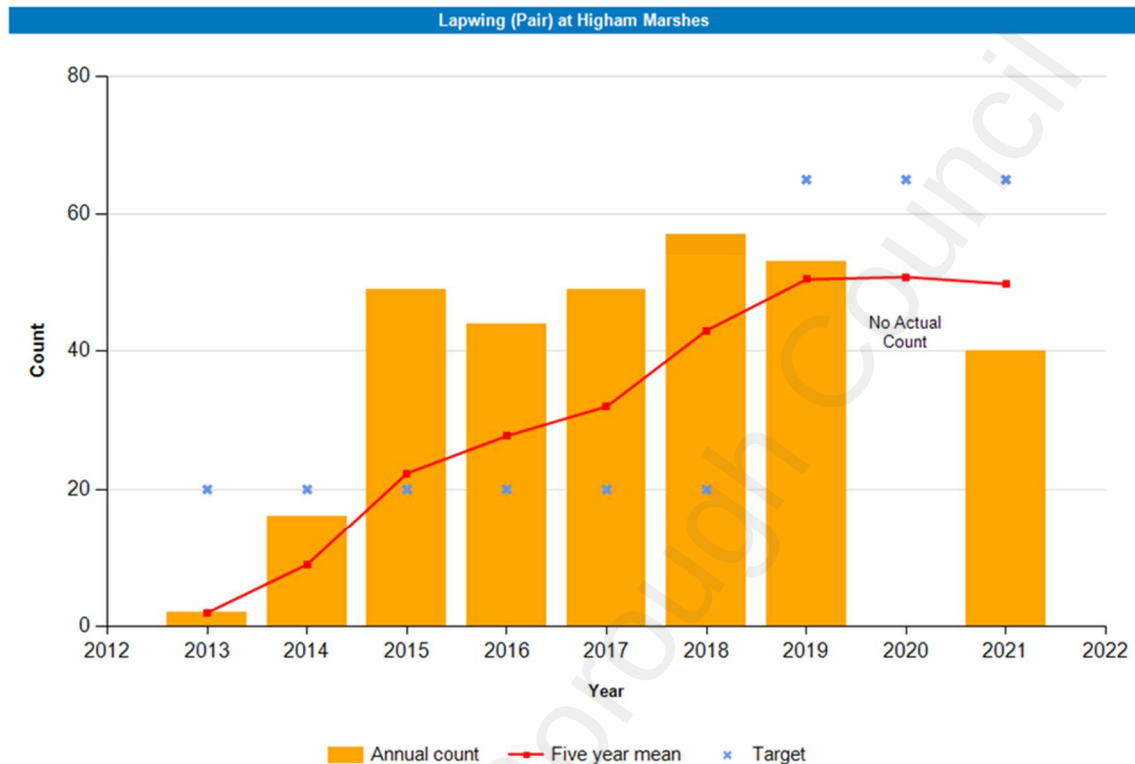


Figure 2: Lapwing pairs Higham Marshes, since the RSPBs involvement in the site

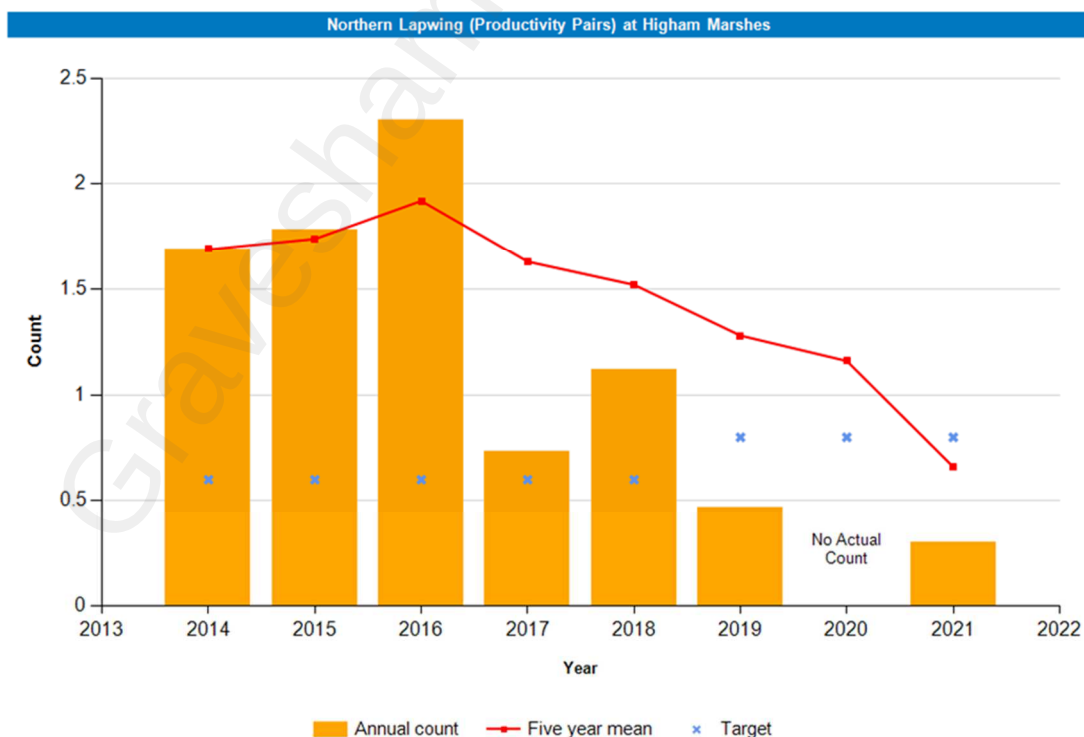


Figure 3: Lapwing productivity at Higham Marshes since the RSPBs involvement in the site.

2.3 Description

This project seeks to improve the topography of the site to allow for better standing/surface water retention on site for the benefit of breeding waders.

The features listed above constitute the prime step in the hydrological strategy whilst another set of elements augments the strategy and constitute the enhancements that will bring the habitat up to the highest quality. These are:

Some of the hydrological control systems put in place during the initial restoration phase in 2013/14 have been damaged from use and now need replacing and upgrading. Drawings found in document Higham_Marshes_Design_Specification

NE4 – Install Culvert – **Drawing CUL2**
SE5 – Install Culvert – **Drawing CUL1**
NW – Repair bund – **Drawing BUN1 & BUN2**
NE – Repair bund – **Drawing BUN1 BUN2**

The features listed above constitute the hydrological strategy whilst another set of elements augments the strategy and constitute the enhancements that will bring the habitat up to the highest quality. These are:

- **Rills and scrapes** – shallow excavations that will provide increased topographical variation and resilience to maintain surface water as water draws down over the breeding season. Starting in November, water levels will be raised to reach the peak extent by January/February and, beginning in April, water levels will be lowered steadily under full control until July when no, or little, surface water will be present across the fields. Subject to rainfall, some water will remain in the base of the rills and scrapes, but this will not be actively managed. Good levels of water will remain in the ditch network within the hydrological units, but the field surface will remain dry, or predominantly so, until November when the cycle is repeated. Whilst extensive surface water is highly valuable, if it is too shallow, such as would be created if only the strategy element was delivered, the surface water will evaporate too early for breeding waders to complete reproductive cycles. This will become more pronounced according to climate change predictions. Therefore, the increased topographical variation will compensate for this and provide much improved feeding opportunities. Design principles for rills and scrapes include:
 - Crest height is -100mm - 200mm above the peak surface water level per hydrological unit.
 - Batters of the islands are either 1:10 or 1:20
- **'Islands'** – shallow features that will remain above the peak surface water level to provide safe roosting and nesting locations. These are most necessary where the surface water becomes too extensive. Design principles for islands are relatively basic:
 - Crest height is -100mm - 200mm above the peak surface water level per hydrological unit.
 - Batters of the islands are either 1:10 or 1:20
- Using the natural topography of the site, from remnants of when the site saltmarsh/land drainage systems to expand the rills system. Field and length below including scape size. Using a tractor mounted spoil spreader to carry out the works.
- The rill system will mainly be made through the use of a tractor mounted soil spreader. Some rills will be created using a 22 tonne 360 to produce the spoil for the crossing points and plugs.

- Works have been broken down into Priority 1 and Priority 2. Priority one

Priority 1 works

- **NE1**
 - Rill length – 440 meters – soil spreader
 - Scrape size
- **NE4**
 - Rill length - 465 meters – soil spreader
 - Rill length – 100 meters – 360 – **Drawing RIL2**
 - Rotovate – 0.2 hectares
- **NE5**
 - Rill length – 581 meters – soil spreader
 - Scrape size – 0.4ha
- **NE6**
 - Rill length -450 meters – soil spreader
- **NE7**
 - Rill length – 330 meters soil - spreader
 - Scrape size
- **NE8**
 - Rill length - 148 meters soil spreader
 - Rotovate - 0.4 hectare
- **NE9**
 - Rill length – 150 meters – 360 - **Drawing RIL2**
 - Rotovate – 0.8 hectares
 - Islands – create 8 islands within scrape with site won material
- **NE10**
 - Rill length – 300 meters – soil spreader
 - Scrape size – 0.2 hectares
 - Rotovate – 0.4 hectares
- **NW1**
 - Rill length – 400 meters– soil spreader
 - Scrape size – 0.1 hectare
- **NW2**
 - Rill length – 500 meters– soil spreader
- **NW3**
 - Rill length - 380 meters– soil spreader
 - Scrape size – 0.12 hectares
- **NW4**
 - Rill length – 400 meters – soil spreader
 - Rill length – 65 meters – 360 - **Drawing RIL2**
 - Scrape size – 0.12 hectares
- **SE4**
 - Rill length – 900 meters
 - Scrape size – 1.2 hectares
- **SE8**
 - Rill length – 600 meters of new rills
 - Scrape size – 0.3 hectares

Priority 2

- **NE1**
 - Rill length – 4 meters – soil spreader
 - Scrape size – 0.12 ha
- **NE4**
 - Rill length - 250 meters – soil spreader
 - Scrape Size – 0.9 hectares
- **NE5**

- Rill length –280 meters – soil spreader
- Scrape size – 0.18ha
- **NE6**
 - Rill length -60 meters – soil spreader
 - Scrape Size – 0.15 ha
- **NE7**
 - Rill length – 360 meters soil - spreader
 - Scrape size – 0.06ha
- **NE8**
 - Rill length - 148 meters soil spreader
 - Rotovate - 0.4 hectare
- **NE10**
 - Rill length – 300 meters – soil spreader
 - Scrape size – 0.2 hectares
 - Rotovate – 0.4 hectares
- **NW2**
 - Rill length – 200 meters– soil spreader
 - Scrape size – 0.2 hectares
- **NW3**
 - Rill length - 630 meters– soil spreader
 - Scrape size – 0.15 hectares
- **NW4**
 - Rill length – 150 meters – soil spreader
- **SE4**
 - Rill length – 50 meters
 - Scrape size – 0.05 hectares
- **SE5**
 - Rill length – 970 meters
 - Scrape size – 0.25 ha
- **SE8**
 - Rill length – 200 meters of new rills
 - Scrape size – 0.05 hectares

3. Planning Policy Context

3.1 National planning policy

The National Planning Policy Framework (NPPF), paragraph 109 states that:

‘The planning system should contribute to and enhance the natural and local environment by:

- *protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *recognising the wider benefits of ecosystem services;*
- *minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government’s commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures’*

The application fulfils all three of these aims of the NPPF. Enhancing a wetland nature reserve is in keeping with the surrounding landscape characteristics of open, low-lying grassland with ditches as wet fences. Allowing water to be retained on the site in times of high water levels will mean it acts as a flood storage area with ecosystem service benefits to surrounding land uses. Improvement and restoration of the habitats on the application site will provide net gains in biodiversity, and by increasing the size of the functional wetland in the area, the application will make the existing nature conservation designations more resilient to the effects of climate change.

The NPPF goes on to state, at paragraph 118, that:

'When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest;*
- development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;'*

The application is within the SSSI and the designation cites the following:

The South Thames Estuary and Marshes SSSI from Gravesend to the eastern end of the Isle of Grain forms a major component of the Greater Thames Estuary. The site consists of an extensive mosaic of grazing marsh, saltmarsh, mudflats and shingle characteristic of the estuarine habitats of the north Kent marshes. Freshwater pools and some areas of woodland provide additional variety and complement the estuarine habitats. The site supports outstanding numbers of waterfowl with total counts regularly exceeding 20,000. Many species regularly occur in nationally important¹ numbers and some species regularly use the site in internationally important² numbers. The breeding bird community is also of particular interest. The diverse habitats within the site support a number of nationally rare³ and scarce⁴ invertebrate species and an assemblage of nationally scarce plants.

Wet Grassland

Wet grassland requires active management if it is to retain its conservation interest. Generally, each year's growth of vegetation must be removed. Otherwise the sward becomes dominated by tall, vigorous grasses and rushes which, together with an associated build up of dead plant matter, suppress less vigorous species and lower the botanical richness of the sward. Traditionally, this management is achieved by grazing. Cattle are often the preferred stock, being relatively tolerant of wet conditions and able to control tall grasses and rank vegetation. Cattle also tend to produce a rather uneven, structurally diverse sward. However, ponies, or even hill sheep, can be used if necessary. Grazing usually takes place at times between late spring and early autumn, but the precise timing and intensity will depend on local conditions and requirements, such as the need to avoid trampling ground-nesting birds. Heavy poaching should be avoided but light trampling can be beneficial in breaking down leaf litter and providing areas for seed germination. Agricultural operations in general should be avoided before mid-June to minimise disturbance to breeding birds or the destruction of nests. An element of managed scrub, both within and fringing a field can be of importance to birds and invertebrates, as can a surrounding hedge.

Partial winter flooding is important in maintaining suitable habitat conditions for wintering birds. A mosaic of winter flooded grassland and permanently un-flooded grassland is desirable, with both temporary and permanent pools present. The maintenance of a mosaic of shallow surface pools and un-flooded areas during the winter will provide roosting and feeding habitat for wintering wildfowl and waders. From April onwards, the area of standing surface water should be reduced to increase

the area available for nesting waders and also by concentrating aquatic invertebrates in small pools to provide suitable feeding areas for their young. Some shallow areas of flooding should be maintained until late June to provide patches of bare muddy ground on which the birds and their young can feed as raised sward height makes feeding on the drier areas more difficult. The birds using these features are directly vulnerable to disturbance, which can cause them to lose time spent feeding or drive them to areas with a poorer supply of food. Management should seek to minimise any harmful disturbance, especially at times when bird populations are under stress, such as severely cold conditions. Predators, especially crows and related species, should be controlled and this may be best achieved by limiting their nesting sites. Careful maintenance of existing ditches and drains is usually acceptable practice, but abandonment or deepening of ditches can be harmful.

Ditches

If left unmanaged, silt accumulates in the bottom of the ditches, and emergent plants such as reeds are able to colonise across the width of the ditch, leading to a loss of aquatic plant diversity and a gradual drying out of the ditch. To prevent this, periodical removal of sediment and vegetation may be necessary to return the ditch to an early stage of the management cycle.

The removal of both sediment and vegetation is usually better than simply cutting the vegetation, which does not recreate the earliest stages of the ditch management cycle. Where possible, management should aim to create shallow shelving margins rather than steep ditch sides.

3.2 Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

The Natural Environment and Rural Communities (NERC) Act became law in 2006 and Section 41 of the Act requires the Secretary of State to maintain and publish statutory lists of species and habitats of:

'principal importance for the purpose of conserving biodiversity.'

In July 2012 Defra and JNCC jointly announced the launch of a new 'UK Post-2010 Biodiversity Framework' which replaced the previous UK BAP. As such, S41 of the NERC Act 2006 provides the definitive lists of priority species and habitats that are most threatened, in greatest decline, or where the UK holds a significant proportion of the world's total population. However, the S41 lists mainly derive from those originally drawn up for the UK BAP. Therefore, although the terminology has changed, the relevant habitats and species remain the same and references to BAP remain widely used.

The habitat creation and maintenance work at Higham Marshes will benefit coastal and floodplain grazing marsh priority BAP habitat through the provision of extensive and fully-functional lowland wet grassland and sub-habitats. The project planned for Higham Marshes will directly benefit a number of priority UK BAP species including:

- **Water vole** *Arvicola amphibious*
 - Enhanced ditch environments with improved water levels for colonisation.
- **Harvest mouse** *Micromys minutus*
 - Enhanced peripheral rough grassland and ditch environments with increased reed-fringe sub-habitat for breeding and wintering nests.
- **Skylark** *Alauda arvensis*
 - Appropriate grassland environment for breeding and wintering.
- **Yellow wagtail** *Motacilla flava subsp. flavissima*

- Appropriate grassland environment for foraging and nesting with enhanced rough grassland environment in combination with a tailored grazing regime in compartments 19 and 22 for nesting.
- **Common cuckoo** *Cuculus canorus*
 - Enhanced ditch environments with increased reed-fringe sub-habitat for brood parasitizing nesting reed warblers.
- **Reed bunting** *Emberiza schoeniclus*
 - Enhanced ditch environments with increased reed-fringe sub-habitat for nesting.
- **Northern lapwing** *Vanellus vanellus*
 - Appropriate grassland environment with increased surface water needed for breeding and wintering.
- **Black-tailed godwit** *Limosa limosa*
 - Appropriate grassland environment with increased surface water needed for passage and wintering.
- **Eurasian curlew** *Numenius arquata*
 - Appropriate grassland environment with increased surface water needed for passage and wintering.
- **European white-fronted goose** *Anser albifrons subsp. albifrons*
 - Appropriate grassland environment with increased surface water needed for wintering.
- **Slow worm** *Anguis fragilis*
 - Enhanced peripheral rough grassland environment in combination with a tailored grazing regime in compartments 19 and 22.
- **Grass snake** *Natrix natrix*
 - Enhanced ditch environments with improved water levels.
- **Common (Viviparous) lizard** *Zootoca vivipara*
 - Enhanced peripheral rough grassland environment in combination with a tailored grazing regime in compartments 19 and 22.
- **European eel** *Anguilla Anguilla*
 - Enhanced ditch environments with improved water levels.
- **Shrill carder-bee** *Bombus sylvarum*
 - Enhanced rough grassland environment via a tailored grazing regime for increased forage, nesting and hibernation opportunities in compartments 19 and 22.
- **Brown-banded carder-bee** *Bombus humilis*
 - Enhanced rough grassland environment via a tailored grazing regime for increased forage, nesting and hibernation opportunities in compartments 19 and 22.
- **Red-shanked carder-bee** *Bombus rudarius*
 - Enhanced rough grassland environment via a tailored grazing regime for increased forage, nesting and hibernation opportunities in compartments 19 and 22.
- **Moss carder-bee** *Bombus muscorum*
 - Enhanced rough grassland environment via a tailored grazing regime for increased forage, nesting and hibernation opportunities in compartments 19 and 22.
- **Divided sedge** *Carex divisa*
 - Appropriate grassland environment with increased surface water for colonisation.
- **Tubular water-dropwort** *Oenanthe fistulosa*
 - Enhanced ditch environments with improved water levels for colonisation.

3.3 Local Planning Policy

Gravesham Council Local Plan 2014

2.10 Climate Change

2.10.1 Climate change is expected to lead to hotter, drier summers and wetter, warmer winters with increased storm and flood events. Similar to the rest of Kent and the South East, the Borough experiences less rainfall/drier weather than other parts of the UK. On occasions, Gravesend has been recorded as the hottest place in the UK. The parts of the Borough alongside the River Thames are within areas where there is a high risk of flooding.

The very ethos of this project is climate change resilience for wetlands and therefor to promote biodiversity and aligns with the Council's intentions towards climate change in this regard. The works will relieve flooding up and down stream of the site by having a higher capacity to hold water.

2.11 Natural Environment, Sport and Recreation

2.11.1 Gravesham has significant natural resources. These include sites of international and national significance for wildlife such as the Thames Estuary and Marshes as well as local wildlife sites.

2.11.2 As a result of the above, there is a need to conserve and enhance the Borough's high quality natural environment. There is also a need to protect, enhance and make adequate provision for greenspaces.....In addition, it will be important to prevent adverse impacts on the birds and habitats of the internationally important wildlife sites, including disturbance to birds from uncontrolled recreational intrusion on the marshes.

3.2 Strategic Objectives

3.2.3 Rural Area

SO9 Conserve and enhance the diverse rural landscape

3.2.4 Across the Borough

SO16 Safeguard and enhance the biodiversity of the Borough.

This project is to conserve and enhance the natural environment of Higham Marshes through improving the habitat for declining breeding birds and associated wetland species.

5.3 culture and tourism

Walking and cycling.

5.5.11 Policy CS12 on Green Infrastructure seeks to create, protect and enhance a multifunctional linked network of green spaces, footpaths, cycle routes and wildlife stepping stones and corridors, i.e. a green grid.

Higham, alongside Shorne Marshes to the west, Cliffe Pools to the east create a landscape of protected wetland sites that provide stepping stones for the wildlife. The also provide the access to nature through the PRow that run through them via the Saxon Shoreway and new England Coastal Path.

Policy CS07: Economy, Employment and Skills

5.1.37 The Council will support proposals that promote the appropriate expansion and diversification of the rural area economy.

5.1.38 The Council will work with its regeneration partners to enhance opportunities for all local people to access the greater range of higher skilled jobs that will arise as a result of the policies above.

Though not directly linked to the works, The Greener Thames project is providing opportunities to local people through the Traineeship that is running along side the capital works programme. The trainees are coming from a diverse background whom do not normally get the opportunity to work with the conservation sector. They will be involved in the delivery of this project through helping with consenting and working with contractors to deliver it on the ground. Upskilling them for a future career in the sector.

Policy CS12: Green Infrastructure

5.7.22 A multifunctional linked network of green spaces, footpaths, cycle routes and wildlife steppingstones and corridors will be created, protected, enhanced and maintained.

5.7.24 There will be no net loss of biodiversity in the Borough, and opportunities to enhance, restore, re-create and maintain habitats will be sought, in particular within the Biodiversity Opportunity Areas shown on the Strategic Green Infrastructure Network map and within new development.

5.7.26 The overall landscape character and valued landscapes will be conserved, restored and enhanced.

Higham, alongside Shorne Marshes to the west, Cliffe Pools to the east create a landscape of protected wetland sites that provide stepping stones for the wildlife. The also provide the access to nature through the PRow that run through them via the Saxon Shoreway and new England Coastal Path.

The development seeks to enhance the original landscape character – a fully-functioning wetland habitat – in this part of the landscape and will have a significant positive impact on the area's nature conservation interests.

Policy CS13: Green Space, Sport and Recreation

5.8.7 The Council will seek to make adequate provision for and to protect and enhance the quantity, quality and accessibility of green space,

Green Grid

5.7.3 There has been a long term aspiration to develop a linked network of open spaces and routes across the Borough, joining with a wider network beyond the Borough's boundaries. This is known as the Green Grid. The focus of the Green Grid in Gravesham is on building a network that:

- Links green spaces to create green continuity, including ecological continuity, wherever possible;
- Improves access within the urban area, between the urban area and the rural area and along the River Thames for leisure and sustainable travel purposes; and
- Creates safe and attractive routes for walkers, cyclists and mobility-impaired people.

5.7.13 The strategy is to ensure that there is no net loss of biodiversity in the Borough and to take every opportunity to improve biodiversity. Existing sites of biodiversity value will be protected according to their importance. Where development is proposed, ecological surveys must be conducted and mitigation strategies produced, where applicable, prior to seeking planning permission. Development will then be expected to be designed, laid out and constructed in a manner which protects habitats and important species and also includes features to enhance biodiversity. Biodiversity Opportunity Areas have been identified across Kent and the wider South East which incorporate areas of the greatest biodiversity value. In Gravesham, these comprise: North Kent Marshes; Thames-side Green Corridors; and Medway Gap and North Kent Downs. These areas give opportunities for the restoration or creation of new priority habitats and will be the focus for improvement where opportunities arise, for example through the Local Nature Partnerships and the Nature Improvement Area.

Higham, alongside Shorne Marshes to the west, Cliffe Pools to the east create a landscape of protected wetland sites that provide stepping stones for the wildlife. The also provide the access to nature through the PRow that run through them via the Saxon Shoreway and new England Coastal Path.

The development seeks to enhance the original landscape character – a fully-functioning wetland habitat – in this part of the landscape and will have a significant positive impact on the area's nature conservation interests.

Policy CS18: Climate Change

Flood risk

Section 5.14.7 states

- the development provides wider sustainability benefits to the community that outweigh flood risk; and
- the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

Carbon Reduction

5.14.20 The Core Strategy seeks to reduce greenhouse gas emissions through the appropriate location and design of future development in the Borough.

The very ethos of this project is climate change resilience for wetlands and therefor to promote biodiversity and aligns with the Council's intentions towards climate change in this regard. The works will relieve flooding up and down stream of the site by having a higher capacity to hold water.

Alongside solar pumps we will use on site to abstract excess winter rainfall we will be reducing carbon usage on site as well as increasing carbon sequestration through having a functioning wetland habitat.

Policy CS20: Heritage and the Historic Environment

5.16.10 The Council will accord a high priority towards the preservation, protection and enhancement of its heritage and historic environment as a non-renewable resource,

5.16.11 Proposals and initiatives will be supported which preserve and, where appropriate, enhance the significance of the Borough's heritage assets, their setting where it contributes to the significance of the asset and their interpretation and enjoyment, especially where these contribute to the distinct identity of the Borough.

As explained in section 3.2.6 in 'Higham Marshes Design and Access Statement', the preservation of our archaeological assets is a prime design consideration. The project will protect and enhance the preservation of unscheduled features and return them to a setting more in keeping with their environment at the time of creation – surrounded by water, albeit fresh, not saline and only for part of the year.

3.3.3 Kent Nature Partnership

In February 2020, the Kent Nature Partnership (KNP) approved its 'Kent Biodiversity Strategy 2019-2044'² setting out its 25-year mission and goals:

'The Kent Biodiversity Strategy aims to deliver, over a 25 year period, the restoration and creation of habitats that are thriving with wildlife and plants, ensuring the county's terrestrial, freshwater, intertidal and marine environments regain and retain good health.

The Strategy looks to protect and recover threatened species and enhance the wildlife habitats that Kent is particularly important for. It also aims to provide a natural environment that inspires citizen engagement and is well used and appreciated, so that the mental and physical health benefits of such a connection can be realised by the people of Kent.'

The Strategy identifies four categories where delivery will achieve its goals:

1. Terrestrial habitats, ecosystems and species

² <https://www.kentnature.org.uk/biodiversity-strategy.html>

2. Freshwater and intertidal, ecosystems and species
3. Marine habitats, ecosystems and species
4. Connecting people with the natural environment

The Higham Marshes Restoration and enhancement is relevant to Category 2, 'Freshwater and intertidal, ecosystems and species'. The objective for this category is:

'Our objectives for freshwater and intertidal habitats, ecosystems and species are, by 2044:

- *75% freshwater SSSIs restored to favourable condition, securing their wildlife value for the long term.*
- *Over half of Local Wildlife Sites in good management, securing their local wildlife value for the long term.*
- *Reaching or exceeding objectives for rivers, lakes, coastal and ground waters that are specially protected, whether for biodiversity or drinking water as per our River Basin Management Plans.*
- *No deterioration in the status of any water body in Kent. If deterioration of any element's classified status occurs, actions will be implemented to reverse the decline.*
- *Improve 15 km per year of waters in Kent (rivers, lakes, canals, groundwater, transitional and coastal waters). The enhancements include work to improve ecological, chemical and/or physical quality, e.g. reducing pollution, restoring flows and improving habitat.*
- *Kent-specific threatened and iconic species of freshwater and intertidal animals and plants are recovering, including those that support ecosystem services (for details, see Species table below).*
- *More, bigger and less fragmented areas of wildlife-rich habitat outside the protected sites network for wildlife, with an increase in the overall extent of priority habitats (as detailed below in the habitat-specific targets) to ensure greater connectivity and resilience to climate change, including minimising the loss of intertidal habitat due to coastal squeeze.'*

Six priority habitats are identified of which the Higham Marshes is relevant to the habitat of 'Coastal and floodplain grazing marsh'. The strategy aims to achieve the restoration of 2000 hectares of this habitat by 2025 and specifically identifies the North Kent Marshes on the Hoo Peninsula as one of the most likely opportunities for restoring grazing marsh in Kent.

Of the three priority species identified for 'Coastal and floodplain grazing marsh', three are directly relevant to the Higham Marshes:

1. European eel
 - a. *'Demonstrable progress to silver eel escapement targets in all catchments that we influence; secure access for eel to an additional 200 km of habitat.'*
2. Lapwing
 - a. *'> 1,000 pairs of breeding lapwing populations.'*
3. Water vole
 - a. *'To retain water vole populations on all known sites and demonstrate progress in assessing county-specific status through encouraging involvement in the National Water Vole Monitoring Programme (evidenced by all existing sites being monitored and the addition of new sites to the register). This will enable subsequent assessment of the population across Kent and enable specific actions to be identified.'*

The project will add, albeit in a small way, to the European eel target of 'an additional 200 km of habitat' with the ditch revitalisations planned. However, the contribution that the project can make to Lapwing (*et al*) is much more significant when taken into context. The Strategy states:

'Breeding lapwing are a good proxy for wet grassland management. There are approximately 800 pairs of breeding lapwing in North Kent, and this area should be the focus for landscape-scale conservation management, involving improvements to hydrological management and grazing management. The target of 1,000 pairs by 2025 would be delivered by more farms entering agri-environment schemes and more habitat enhancement and creation projects.'

Our current 5-year target to achieve ≥65 pairs in pairs of lapwing breeding at Higham Marshes 6.5% of north Kent's target for 2025 on one site.

The document also presents nine successful case studies from the county that either demonstrate innovation or success for nature and/or success for people through nature. One of these case studies is the Great Bells Farm project which has been used as both inspiration and example throughout the life of this project and the documents that make up this planning permission application.

Overall, the Higham Marshes restoration project through the DEFRA funded Green Recovery Challenge Fund is not just a worthy project that aligns with the KNP's strategy, it is an inherent facet in the delivery of the KNP's nature and biodiversity goals.

4. Consultation

The following organisations and individuals have been consulted as part of the assessment process and/or as part of the works alongside the Royal Society for the Protection of Birds and Kent Wildfowling and Conservation Association:

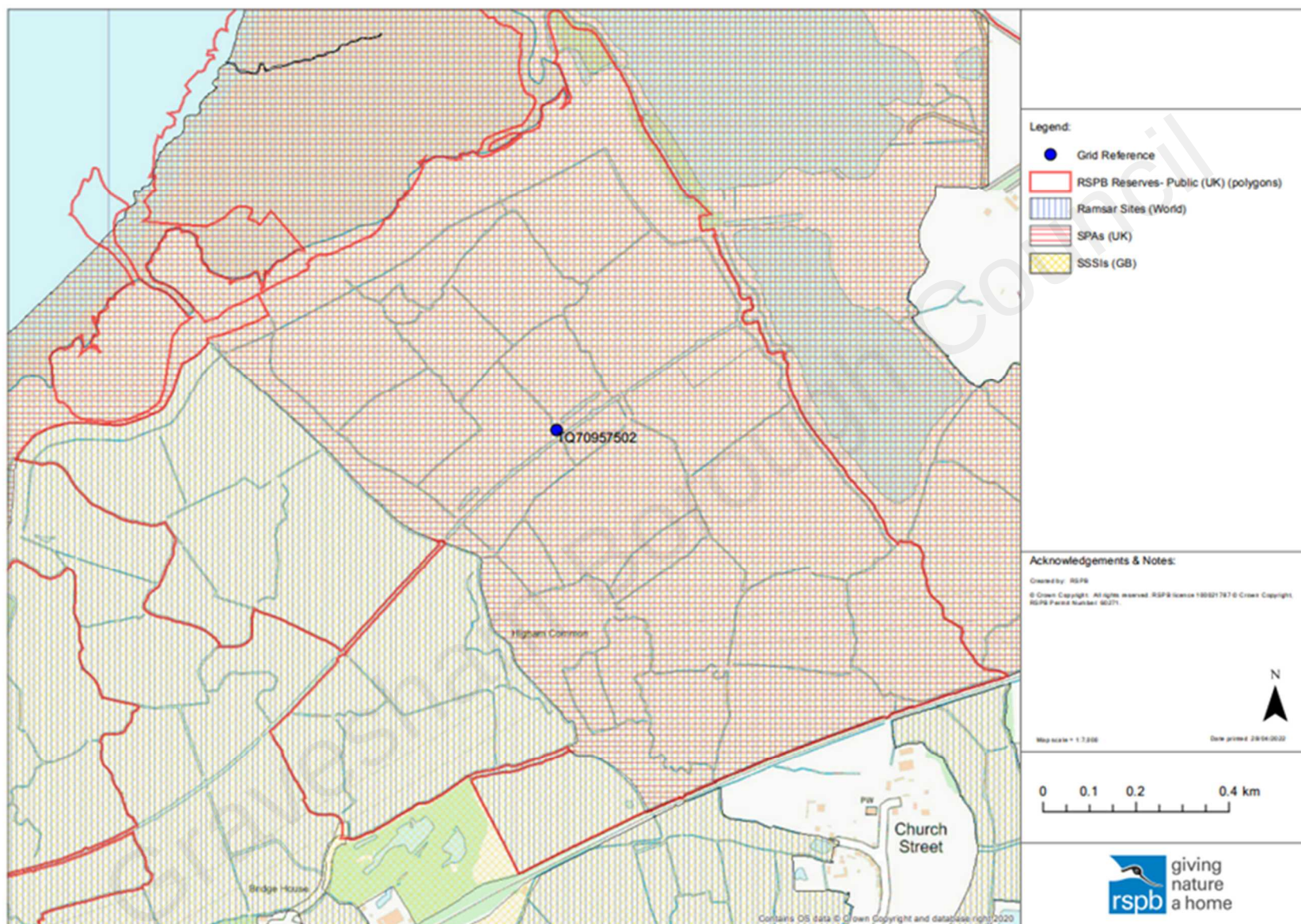
- Natural England.
- The Environment Agency (EA).
- North Kent Marshes Drainage Board (LMIDB)
- Department of Environment, Farming and Rural Affairs

5. Conclusion

This habitat enhancement and restoration of Higham Marshes is shown to, not only align with various policies both national and local, but underpins particular relevant local policies and strategies

Gravesham Borough Council

Appendix 1 - Designations



Appendix 2 – Compartments

