



**LIFE 13 BIO/UK/000315**

**LIFE Waders for Real**

## **Deliverable C1. Report on new habitat works completed**

First draft June 2017, updated December 2017.  
Updates February 2020

Lizzie Grayshon  
Andrew Hoodless

### **Abstract**

Document outlining all habitat works completed during the LIFE Waders for Real project. Details on why work was undertaken and where different measures were used. Targets set for habitat creation and restoration have been achieved across four main hotspot sites, one new hotspot sits and two sites adjacent to hotspots.

## Table of Contents

<b>2. Priority actions identified for hotspot sites .....</b>	<b>2</b>
Main actions for hotspot sites.....	2
Original project targets.....	3
<b>3. Activities undertaken and outputs achieved .....</b>	<b>4</b>
Habitat work timelines .....	4
Habitat work totals.....	4
Ogber hotspot complications .....	6
<b>4. Habitat for Redshank and Snipe .....</b>	<b>6</b>
<b>5. Monitoring of benefits of habitat works .....</b>	<b>7</b>
Annex 1 Locations of the four hotspot sites.....	8
Annex 2 Original hotspot management plans.....	10
Annex 3 Habitat plans for new northern hotspot site, Standlynch Farm.....	14
Annex 4 Habitat plans for new hotspot Ogber.....	15
Annex 5 Completed habitat work on original 4 hotspot sites.....	16
Annex 6 Completed habitat work on Avon Tyrell South and Sopley Island, adjacent to Avon Tyrell North hotspot .....	21
Annex 7 Completed habitat work on Standlynch Farm.....	22
Annex 8 Table 4 Schedule of habitat works conducted to date.....	23
<b>6. Photographs illustrating habitat works .....</b>	<b>25</b>

## 2. Priority actions identified for hotspot sites

Following meetings with statutory authorities, it was clear that both Natural England (NE) and the Environment Agency (EA) were supportive of the LIFE Waders for Real project and believed that it broadly complemented their ambitions for the improvement of ecological condition of the Avon Valley. The project provides scope for synergies and added value for some taxa (meadow flora preferring wetter conditions, aquatic invertebrates, other ground-nesting birds, bats, some fish), but also potential conflict with some fish and bats. Assessing the balance of benefits was discussed, along with the possible need for statutory authorities to conduct site visits prior to works on a case-by-case basis. For the sites proposed as hotspots (Annex 1), the capital works elements of their HLS agreements were all complete, so there was no issue with additional habitat works.

### **Main actions for hotspot sites**

Brief details of the main actions agreed with the statutory authorities, and discussed with the farmers, for each of the hotspot sites are given below:

#### *Hucklesbrook-Ibsley hotspot*

Some of the fences separating the fields south of the Ibsley-Harbridge road were removed. Two of these were tenancy boundaries and could not be removed, but the others were derelict and no longer stock-proof and were becoming overgrown by scrub. There were also several hawthorns which could be removed. Target date for removal was August 2015, this meant that estate manager/river keeper could top the tall vegetation at the field edges after the fences had been removed.

Details of ditch restoration and creation of new foot drains and scrapes on the Hucklesbrook meadows were discussed with relevant parties. A meeting was set up with Mike Porter at the EA because they had plans for some river restoration work adjacent to the Hucklesbrook meadows and there was scope for some collaborative work. The estate was happy for us to proceed with ditch restoration and foot drain creation in autumn 2015. In addition discussion with NE resulted in agreement to increase the livestock rate on the Hucklesbrook meadows to ensure a short enough sward for lapwing into May.

#### *Kingston hotspot*

Capital works under an HLS agreement had resulted in the removal of several large oak and birch trees along and adjacent to the Kingston drain through the middle of this site, making adjacent fields more attractive to lapwing and redshank. However, a lot of willow at heights of 3-6 m and several alders, which were largely dead, remained. The willow and alders were acting as perches for predators such as corvids and raptors. Agreement was reached to remove the willow and these alders.

Chick survival at this site could be improved through changes in habitat management. Scrapes rather than foot drains were deemed most appropriate for this site and the best locations were determined. Better liaison over the timing of introduction of young cattle on wader nesting fields was modified to prevent these cattle trampling of late nests and broods. Two fields which tended to remain relatively damp in autumn were identified as sites where autumn grazing to remove rush would be beneficial as it would create a more attractive sward for waders in spring.

#### *Watton's Ford hotspot*

Trees acting as perches are less of an issue at this hotspot than the others and historically lapwings and redshank have bred better here in some years than most other places in the valley. However, rapid drying out of the favoured fields and inappropriate timing of the introduction of livestock have been issues. Disturbance by fisherman can be a problem in one field.

It was therefore thought that chick survival at this site could be improved through changes in habitat management. The priority here was creating wet features, scrapes rather than foot drains, in the largest field. Through better liaison it was possible to modify the timing of introduction of young cattle on wader nesting fields to prevent these cattle trampling of late nests and broods.

#### *Avon Tyrell hotspot*

The grazing levels on both farms was appropriate for breeding waders, producing attractive swards in spring. However, the lapwings were concentrated on a small number of fields and large numbers of corvids and gulls roost nearby. It is believed that the nearby outdoor pig unit at Court Farm supports corvids through the winter as it supplies ready access to food. The feed hoppers were changed in winter 2015/16 to reduce the number of corvids.

There is scope for more foot drains at this site and these could be targeted at fields adjacent to those in which birds currently nest. Parts of this hotspot support high density mollusc populations and sensitive ditch management coupled with foot drain creation could provide benefits for the molluscs as well as the waders.

#### **Original project targets**

In our original proposal we aimed to double the current area of in-field wet features (carriers/footdrains and scrapes) over at least 120 ha, to provide more attractive nesting areas for lapwings and redshank and better access to brood rearing areas. It was proposed that the area of habitat suitable for nesting redshank should be increased by 20 ha. in the Avon Valley in order to halt the decline in the number of breeding pairs.

We also aimed to create at least four patches of optimal habitat for breeding snipe, totalling c.20 ha, situated close (within c. 500 m of the edge) to our 'hotspots' and record whether this is successful in encouraging birds back to breed. If successful, a prescription describing the management required would be documented for promotion at other sites across the country.

Finally, each hotspot site was required to have a comprehensive conservation plan drawn up and implemented, including approximately 1,000 m of new boundary ditching and 1,000 m of in-field carrier/wet feature restoration.

### 3. Activities undertaken and outputs achieved

#### Habitat work timelines

Hotspot management plans were agreed with statutory authorities in 2015 (Annex 2). Flood Defence Consents were required from the Environment Agency for ditch and scrape works at all sites, as well as approval from Natural England. Site visits by Natural England staff took place at most sites where habitat management was undertaken, especially where tree felling was involved.

Habitat works commenced in August 2015. To facilitate this work a mutually beneficial agreement with Sparsholt College was reached, whereby their students assisted with some of the habitat tasks in return for lectures from GWCT staff on wildlife management. Groups of 12-15 students assisted with scrub removal, learned new skills and, in particular, had the opportunity to use chainsaws in difficult conditions.

Habitat works were largely complete at all four hotspot sites by spring 2017, with the exception of some work at the southern end of Ibsley, due to a delay in receiving Environment Agency consent, and of works on the northern end of Avon Tyrell, which required additional consultation with the landowner. Inevitably, some changes to the original management plans took place at the implementation stage. These mainly involved creating a smaller number of larger scrapes rather than lots of smaller ones, particularly at Kingston. This was done to aid management of the fields in late summer by the farmers.

Habitat works were entirely complete on the four original hotspot sites by March 2019 (Annex 5). Habitat works were also completed on two sites adjacent to our original hotspot sites: Avon Tyrell South and Sopley Island (Annex 6). The new hotspot site, Standlynch Farm was identified in the project extension in 2018 to target wintering waders and wildfowl and allow for future breeding wader population expansion.

In October 2018 a considerable amount of ditch reprofiling was undertaken on this new hotspot site (Annex 7). See the habitat work diary in Table 4 in Annex 8 and see section 5 for photographs illustrating habitat works.

#### Habitat work totals

We have improved 229 ha. of habitat across all sites, creating water-meadows better suited to lapwing and redshank nesting/brood rearing largely through increasing the amount of accessible wet features. Habitat work on hotspot sites created 200 ha. of improved habitat for breeding waders through creating new, or restoring existing, wet features (ditches/scrapes). Wet features have at least doubled compared to what was originally available per field, this exceeds our original proposal of improving 120 ha. of habitat for breeding lapwing and redshank, see Table 1.

We have also been able to carry out habitat work on two sites adjacent to hotspot sites, creating 29 ha. of improved breeding wader habitat. On these sites we have again at least doubled the amount of in field wet features available to breeding waders.

Table 1. Size of areas improved with wet features across sites.

Site	Site Area ha	Fields with wet features added ha
Avon Tyrell North - Hotspot	132	34
Avon Tyrell South	78	8
Hucklesbrook - Hotspot	53	53
Ibsley - Hotspot	68	30
Kingston - Hotspot	109	45
Sopley Island	40	9
Watton's Ford - Hotspot	115	38
Standlynch Farm	64	12
Hotspot	477	200
<b>Total</b>	<b>595</b>	<b>229</b>

Our original proposal outlined that we would create approximately 1000 m of new boundary ditching and 1000 m of in-field carrier/wet feature restoration. All scrapes were created in the middle of fields, ditches were sometimes along field boundaries and sometimes infield, however all ditches created were appropriate for use from wader chicks, i.e. not deep carrier boundary ditches running alongside woodland or other unsuitable habitat. On average we created 39.5m of new or restored boundary ditch and 158.5 m<sup>2</sup> of boundary scrapes. Although this does not meet our target, we have exceeded in in field features, these arguably are more beneficial for our sites. We have created or restored an average of 1279 m<sup>2</sup> of in field ditching per hotspot sites, and 2430 m<sup>2</sup> of infield scrapes on average per hotspot site (see Table 2). Although this measurement is not directly comparable with the proposed 1000 m of new of new boundary ditching and 1000 m of in-field carrier/wet feature restoration, we are confident that this has had achieved the same overall outcome, especially when considered in the context of the overall amount of habitat which has been made appropriate for breeding waders.

Table 2. Length and area of boundary and in field features.

Site	Boundary ditch m	Boundary Scrape m <sup>2</sup>	Infield ditch m	Infield scrape m <sup>2</sup>
Avon Tyrell North	0	0	866	998
Avon Tyrell South	0	0	108	0
Hucklesbrook Ibsley	158	634	3905	2411
Kingston	0	0	0	4937
Sopley Island	232	0	506	562
Standlynch Farm	0	0	2226	285
Watton's Ford	0	0	345	1377
<b>Average Hotspot</b>	<b>39.5</b>	<b>158.5</b>	<b>1279</b>	<b>2430.75</b>
<b>Total</b>	<b>390</b>	<b>634</b>	<b>7956</b>	<b>10570</b>

Each hotspot site has received an average of 421.5 m of new ditching and 919.5 m of ditch re-profiling and 2589.25 m<sup>2</sup> of new scrapes, see Table 3. For further details on habitat work see the habitat works diary in Table 4 in Annex 8, and section 5 for photographs illustrating the habitat works.

Table 3. Habitat management work completed since project beginning.

Site	Fence Removed m	Scrub removed m	Scrape Added m <sup>2</sup>	Ditch added m	Ditch reprofiled m	Trees removed
Avon Tyrell North - Hotspot		4944	998	83	866	
Avon Tyrell South					110	
Hucklesbrook - Hotspot			1955	1603	2463	
Ibsley - Hotspot	1012		1090			5
Kingston - Hotspot		1294	4937			3
Sopley Island			562		738	
Watton's Ford - Hotspot			1377		349	5
Standlynch Farm			285		2226	2
Total Hotspot	1012	6238	10357	1686	3678	13
Hotspot average	253	1559.5	2589.25	421.5	919.5	3.25
<b>Total</b>	<b>1012</b>	<b>6238</b>	<b>11204</b>	<b>1686</b>	<b>6752</b>	<b>15</b>

#### Ogber hotspot complications

During our project extension we proposed a new hotspot site, Ogber. Unfortunately, our proposed plans were unable to be completed due to landowner complications. We were unable to resolve these complications during the final year of the project and consequently unable to complete our proposed habitat work.

We were able to use the funds to conduct further scrape creation on Kingston and Watton's Ford in autumn 2019 instead.

## 4. Habitat for Redshank and Snipe

The improvement of 229 ha. of water meadow carried out through the Wader for Real project has benefited redshank alongside the lapwing. This is evidenced by the increase of redshank pairs over the 5 years of the project. Redshank chicks rely on wet features to facilitate feeding and a mosaic of vegetation to provide cover from predators. Both of these habitat features were improved through habitat works undertaken as part of the project.

Through the project farmers have become more aware of the management needed to make these important water meadows suitable for waders. Consequently, grazing regimes have been improved to make some fields more appropriate for snipe. In two later years of the project drumming snipe were observed, this demonstrates that some sites have become more suitable for breeding snipe.

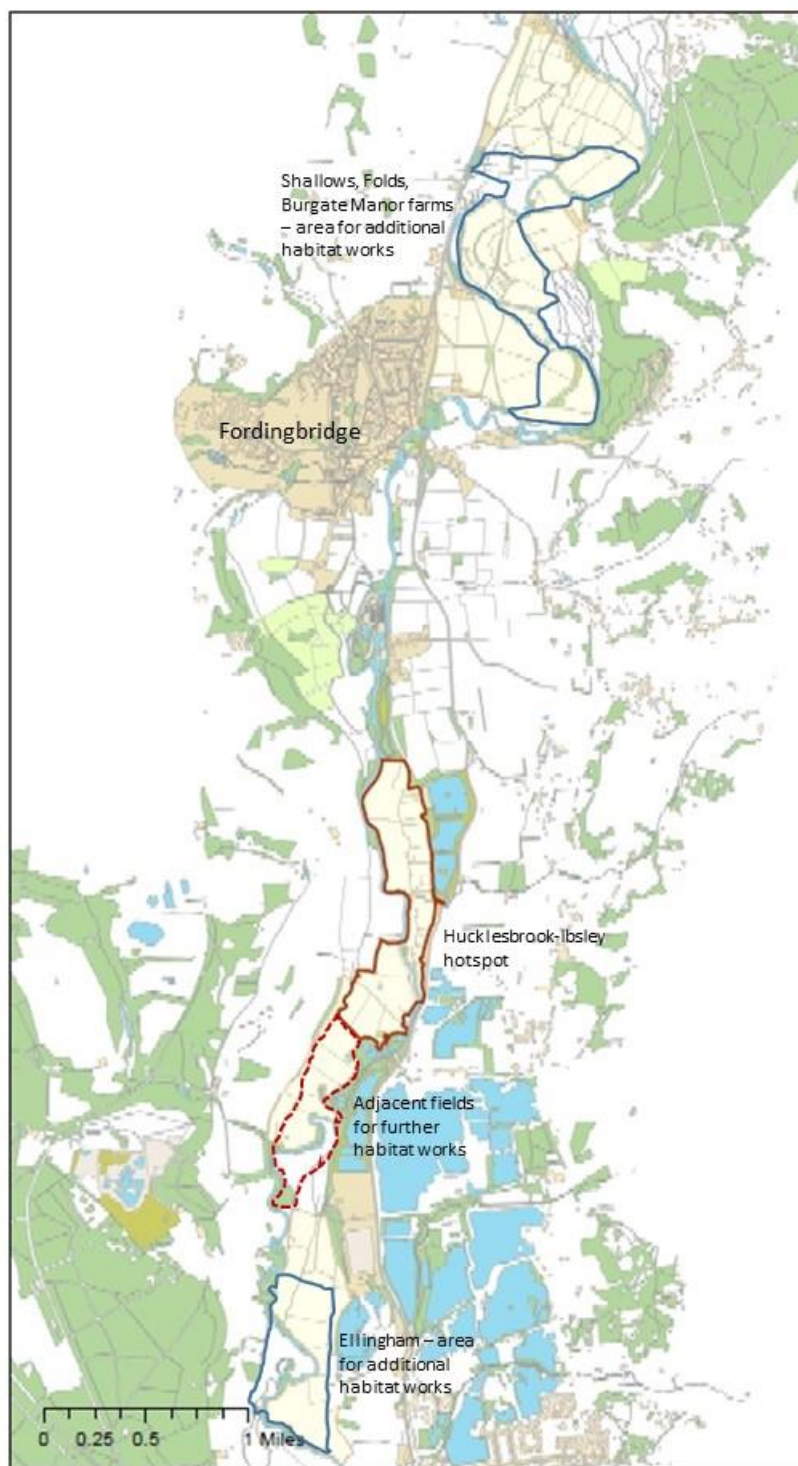
## 5. Monitoring of benefits of habitat works

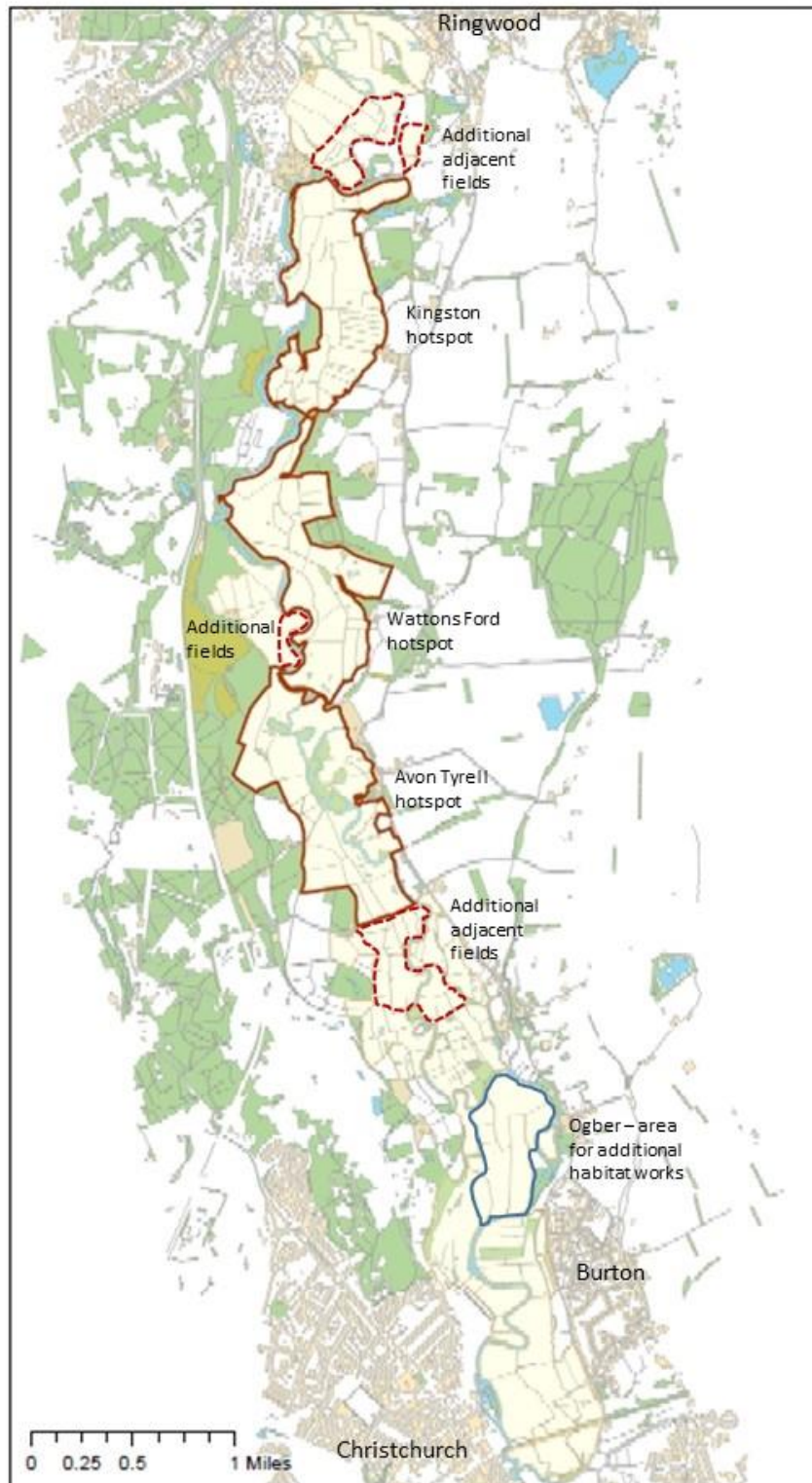
Our aim with this report is simply to record the habitat works undertaken in action C1 of our project. In deliverable D2, “Effect of habitat actions at hotspots on habitat suitability for waders” we aim to explain the effects of these habitat improvements on the waders in more detail. Through monitoring of numbers of wader pairs and annual productivity we intend to be able to fully document the effect of habitat works implemented during the project. It is already clear that lapwing pair settlement is affected by recent ditch and scrape work; in the spring following the work pairs moved to nest near new features. Additional data collection undertaken throughout the project should allow us to better understand how these habitat works have benefitted breeding waders. Through recording fine-scale habitat features at brood locations and paired random sites we gained a better understanding of the vegetation structures favoured by chicks. Radio-tracking of chicks enabled us to document the use of in-field wet features. We have undertaken a formal analysis of lapwing chick survival in relation to distance moved from the nest and use of wet features, we hope this will be published within the next few months.



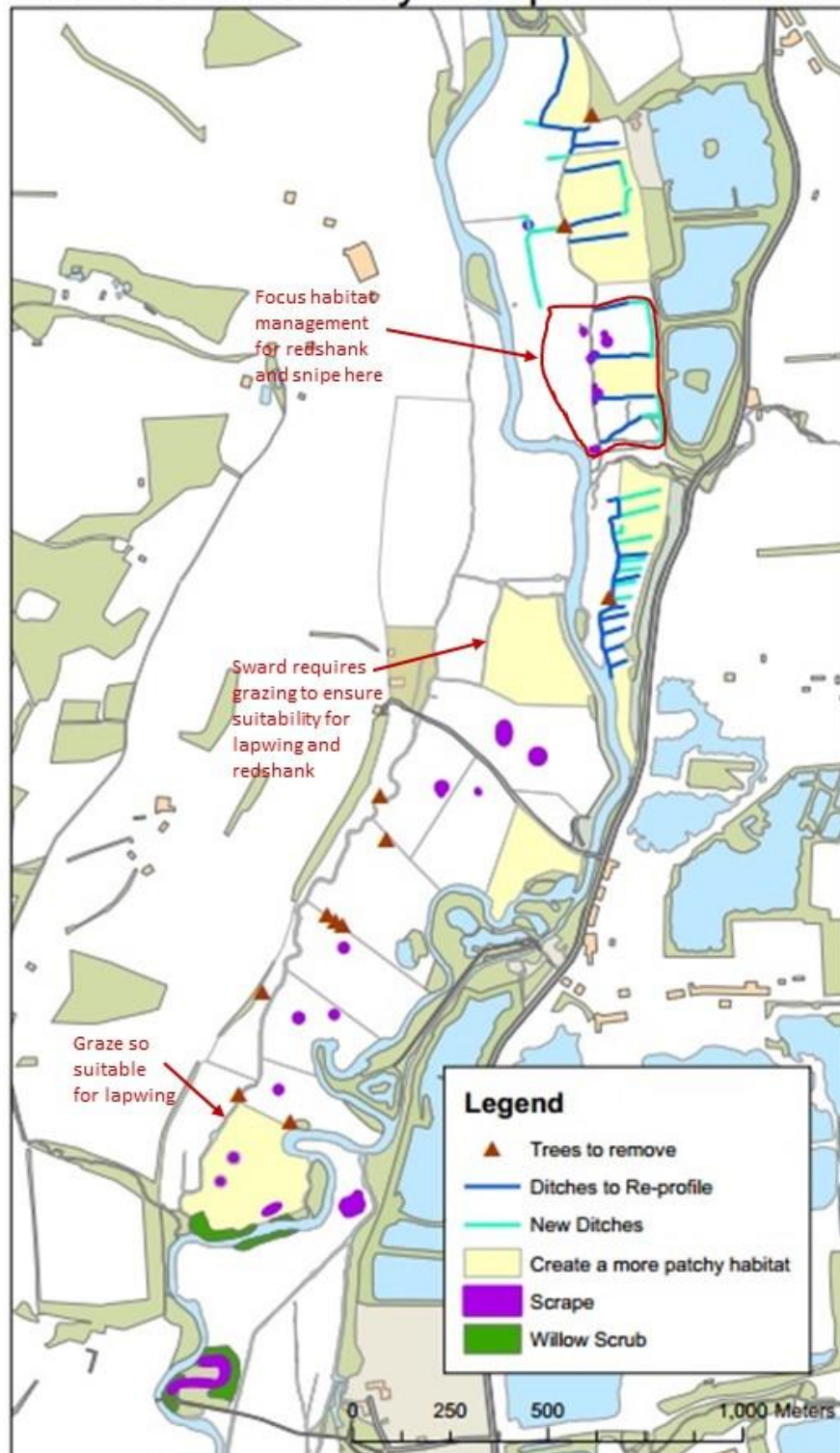
## Annex 1 Locations of the four hotspot sites.

Along with adjacent fields and possible additional sites for further habitat work.



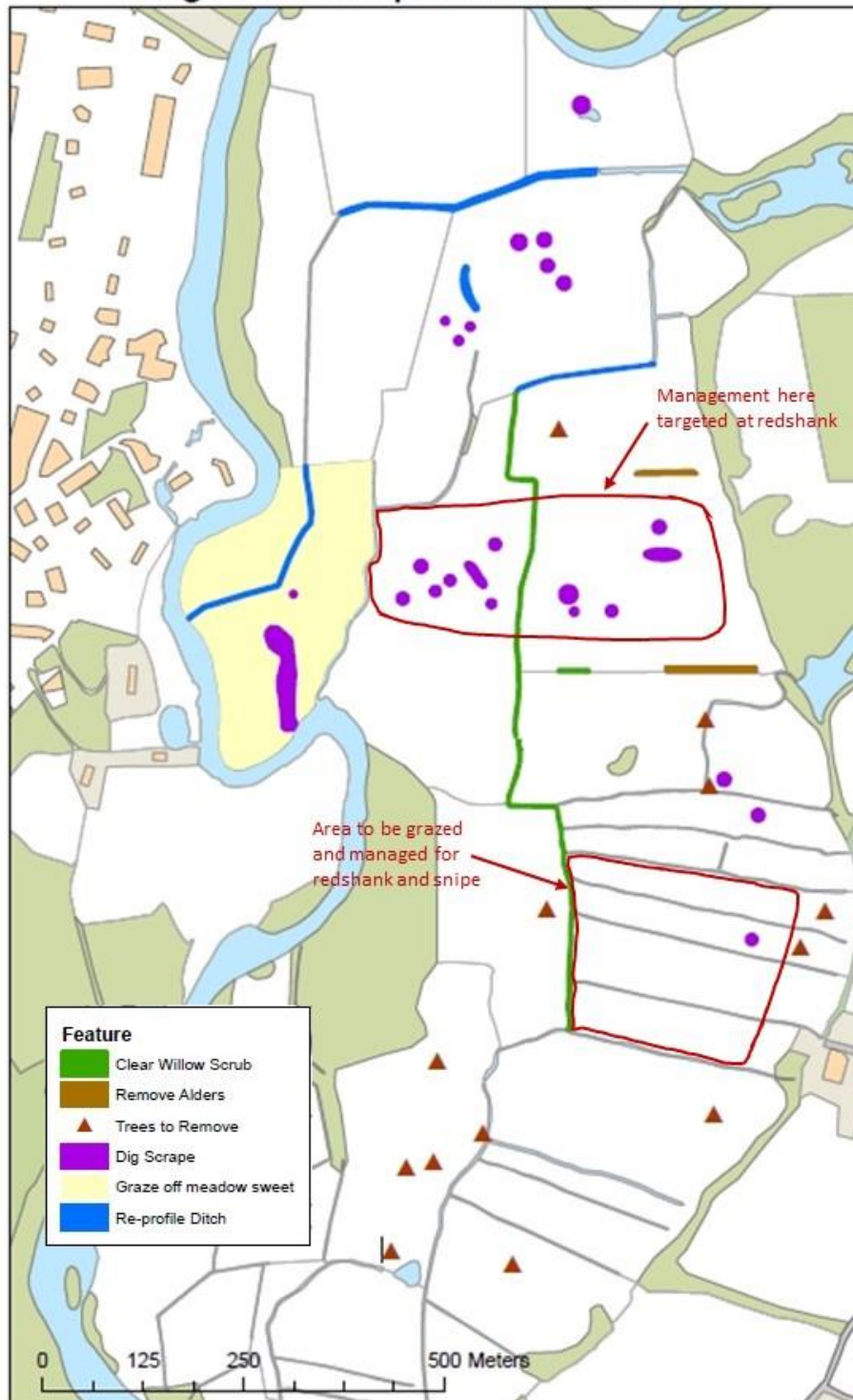


## Hucklesbrook/Ibsley Hotspot Habitat Plan

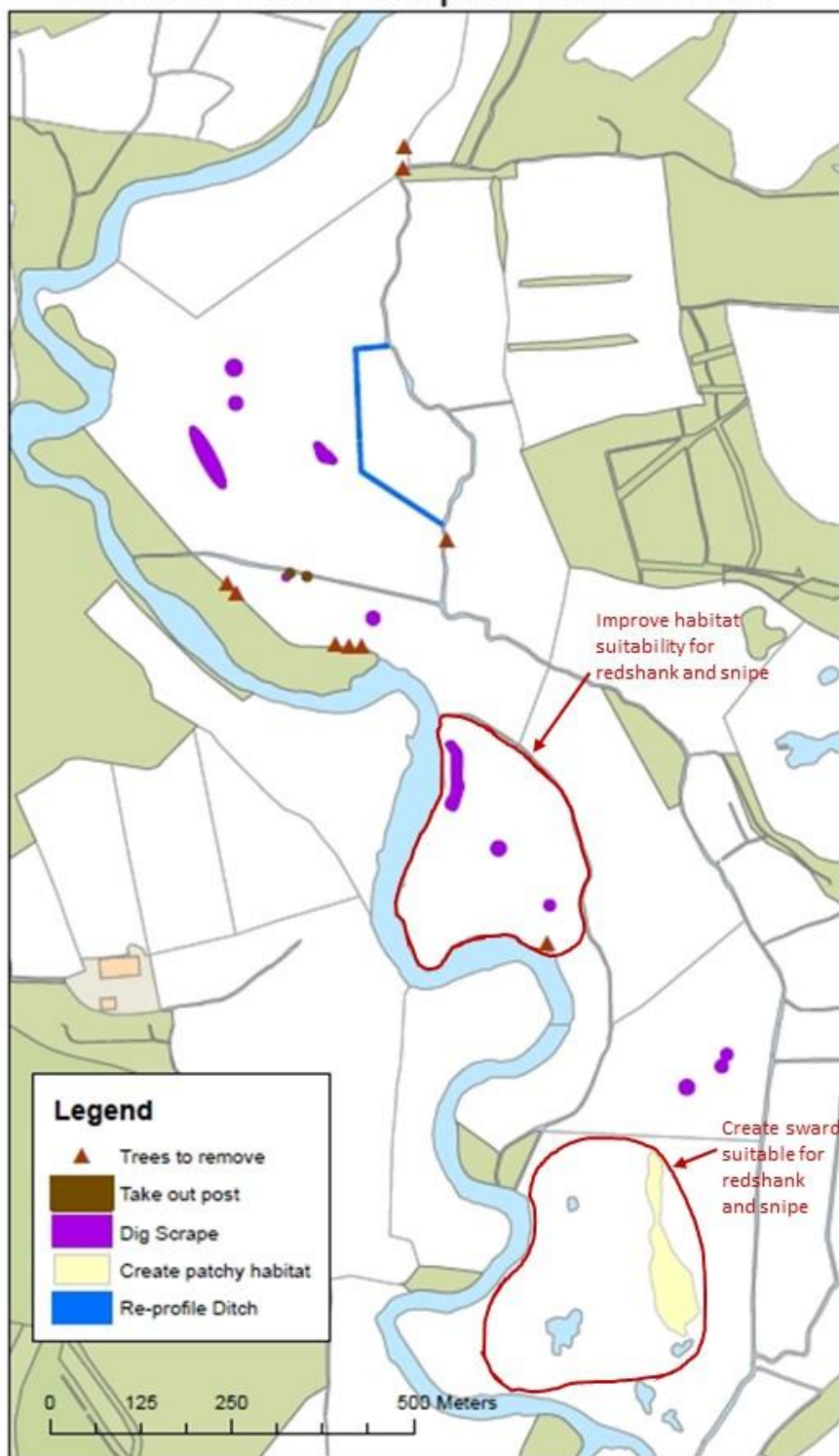




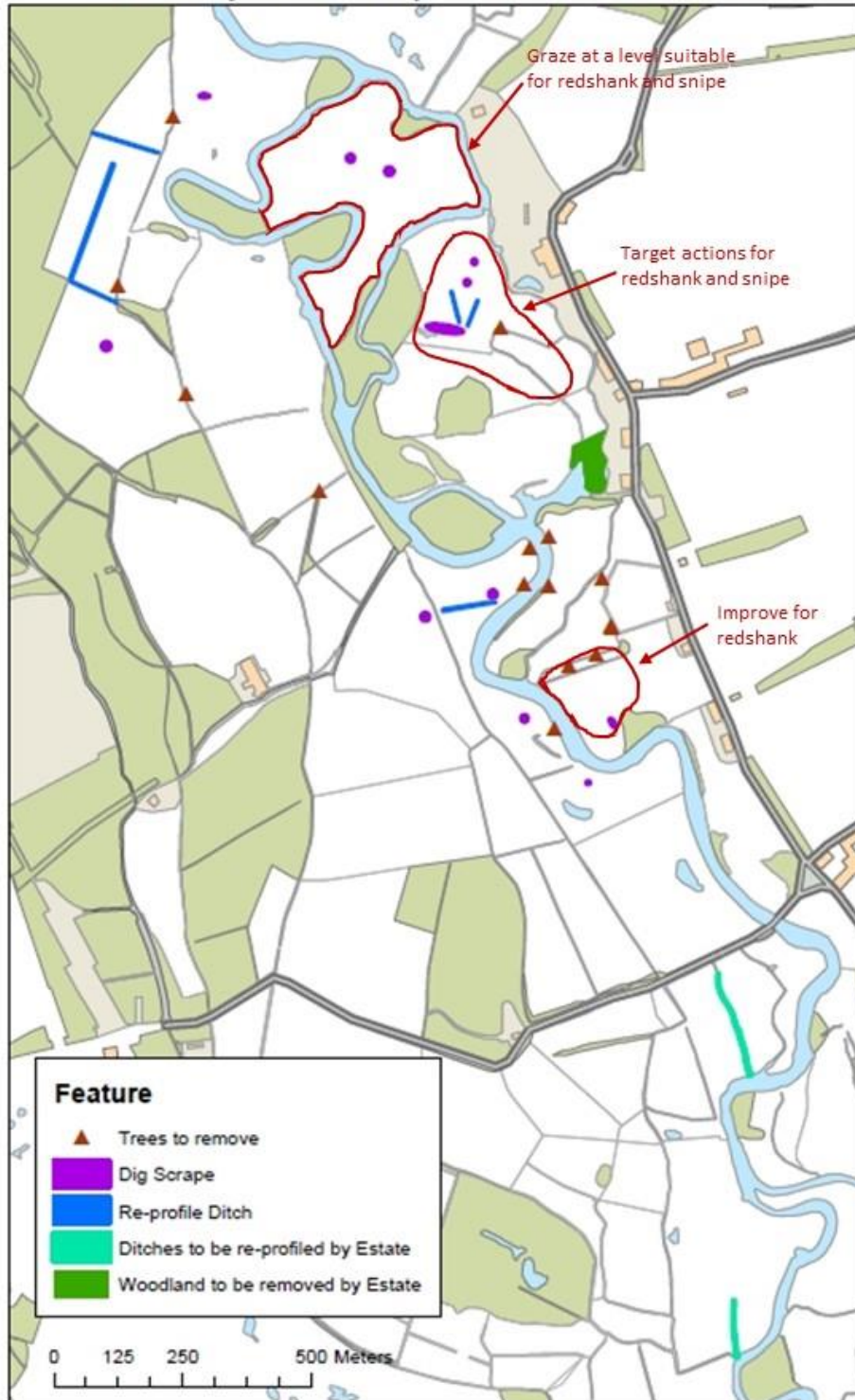
## Kingston Hotspot Habitat Plan



## Watton's Ford Hotspot Habitat Plan



## Avon Tyrell Hotspot Habitat Plan

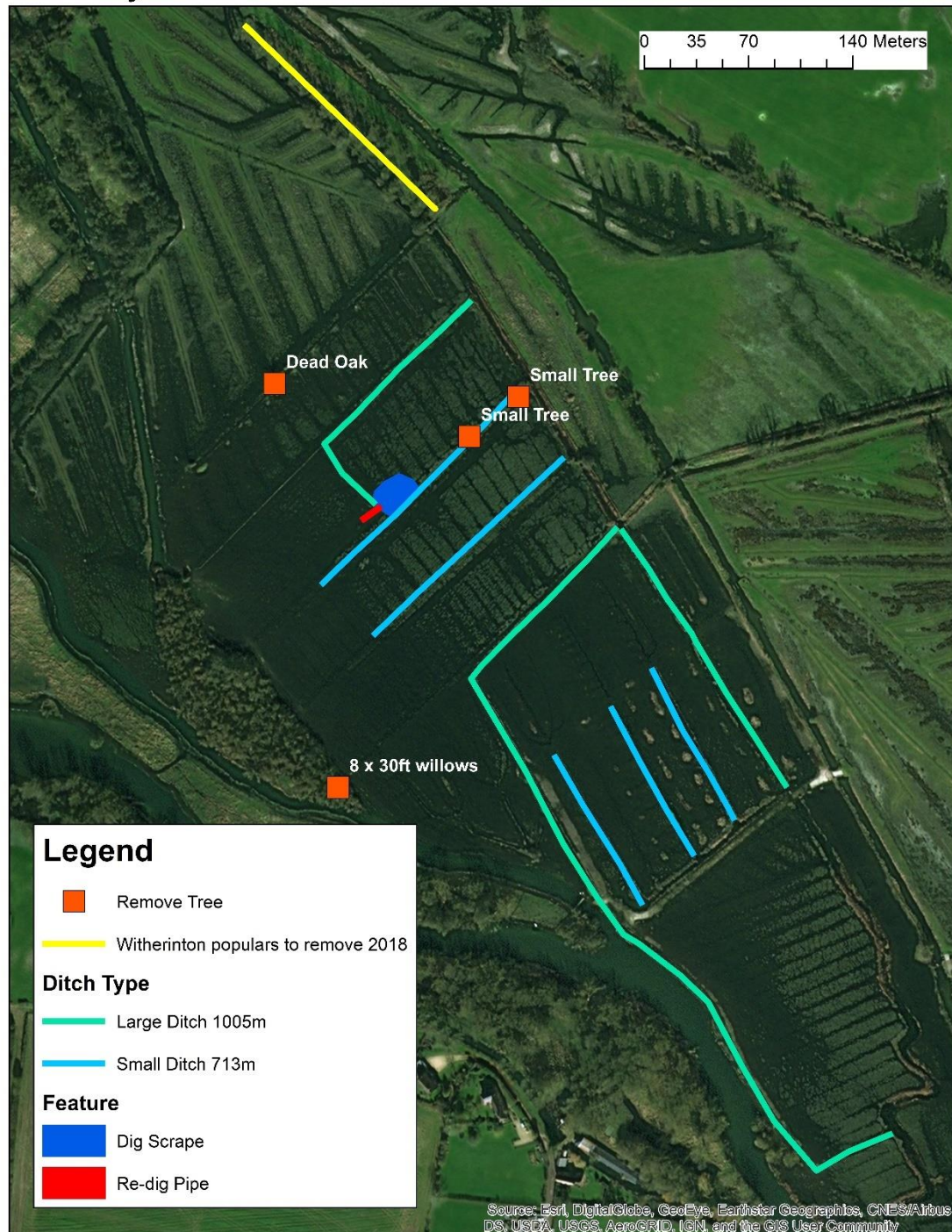




Annex 3 Habitat plans for new northern hotspot site, Standlynch Farm.



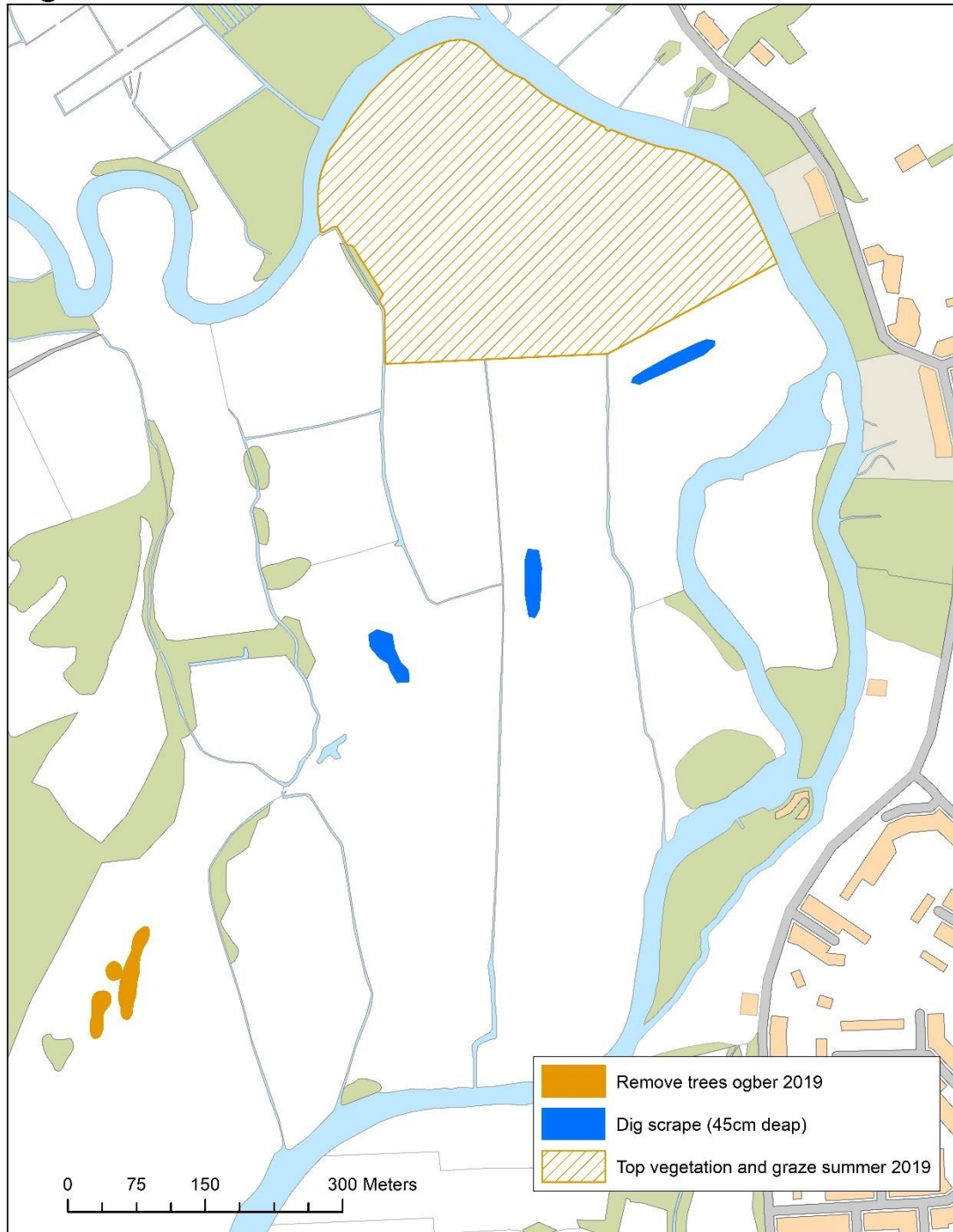
## Standlynch Habitat Plans Autumn 2018



Annex 4 Habitat plans for new hotspot Ogber.



## Ogber Habitat Plans 2019

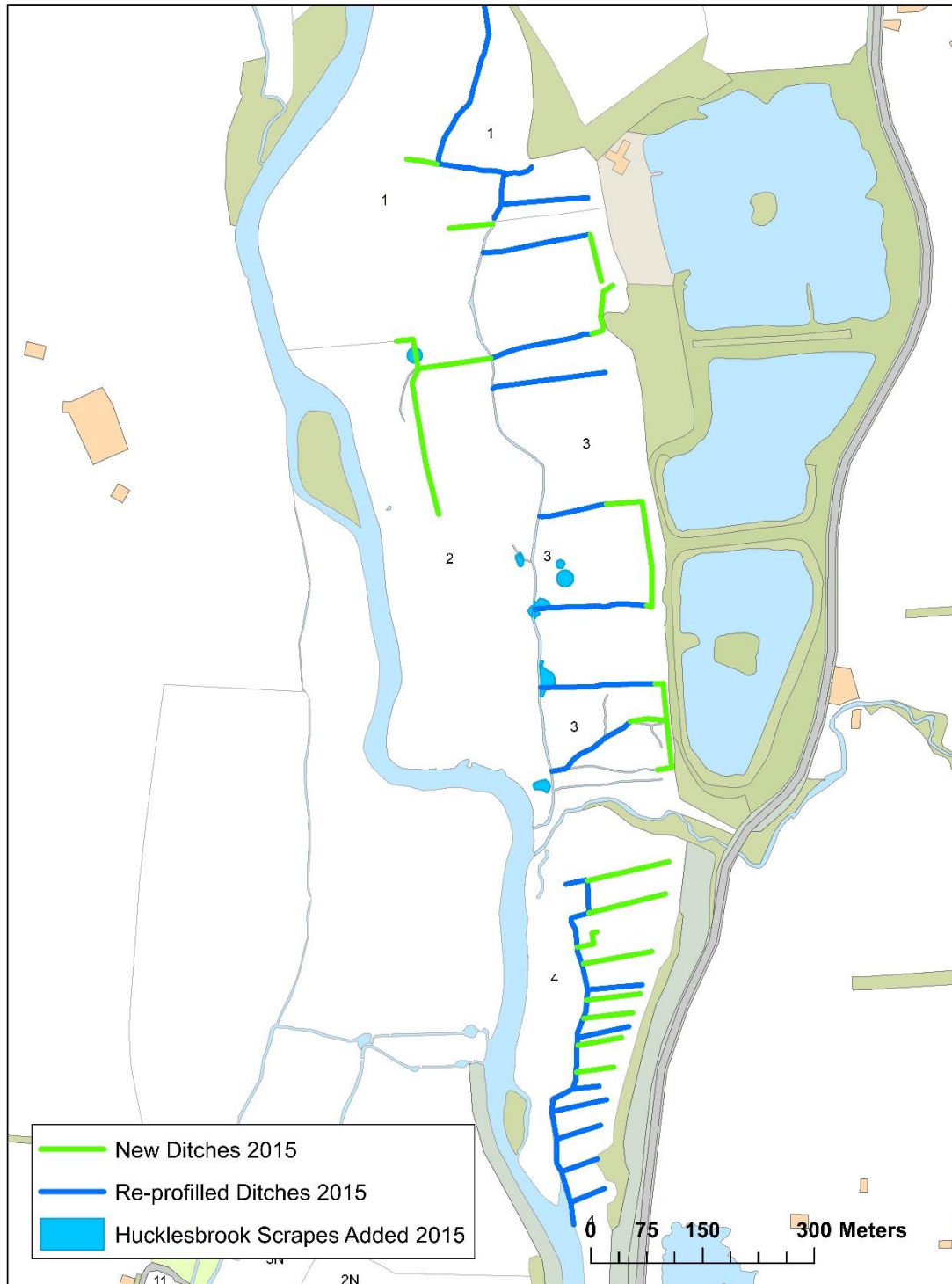


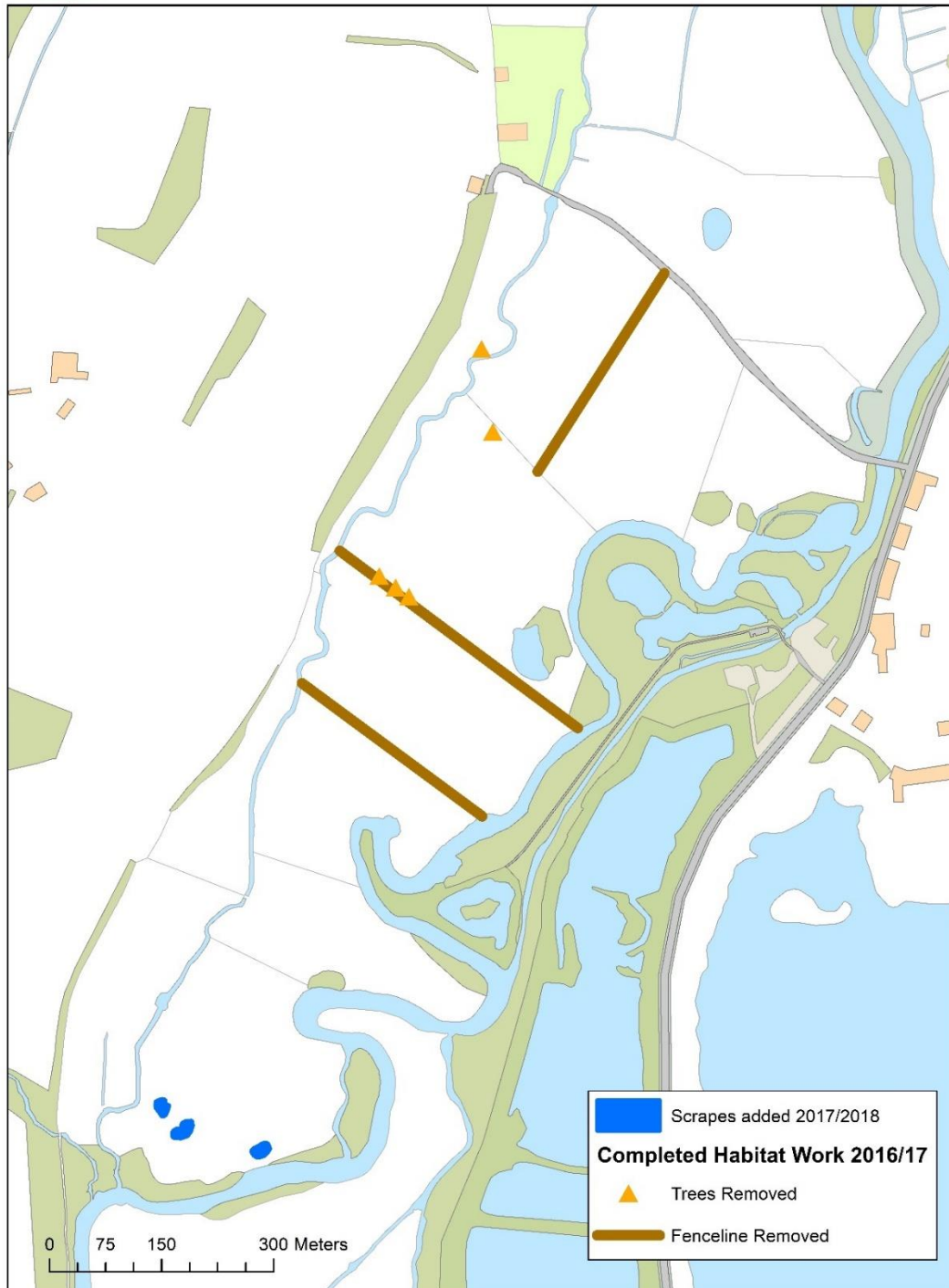


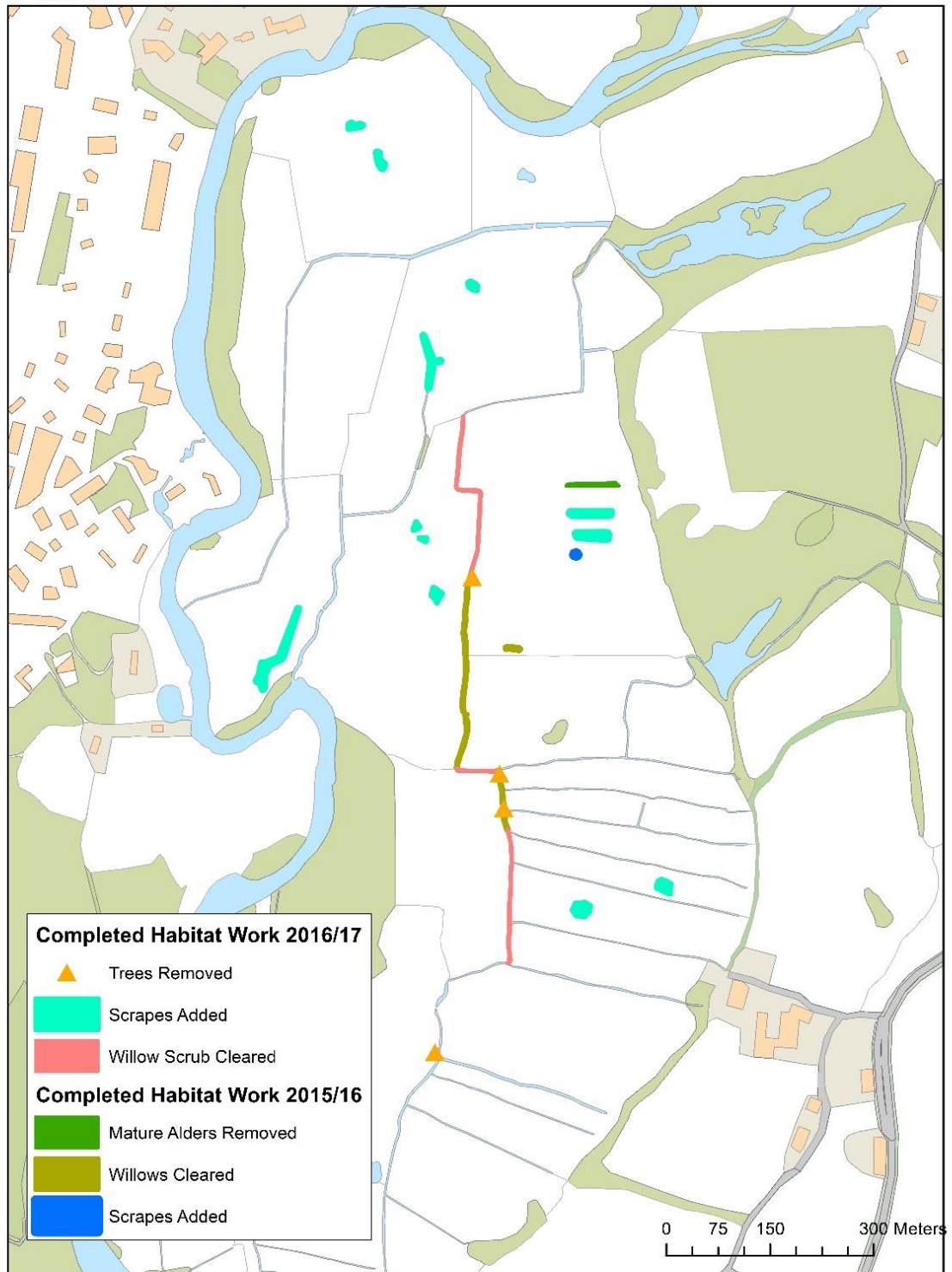
Annex 5 Completed habitat work on original 4 hotspot sites.



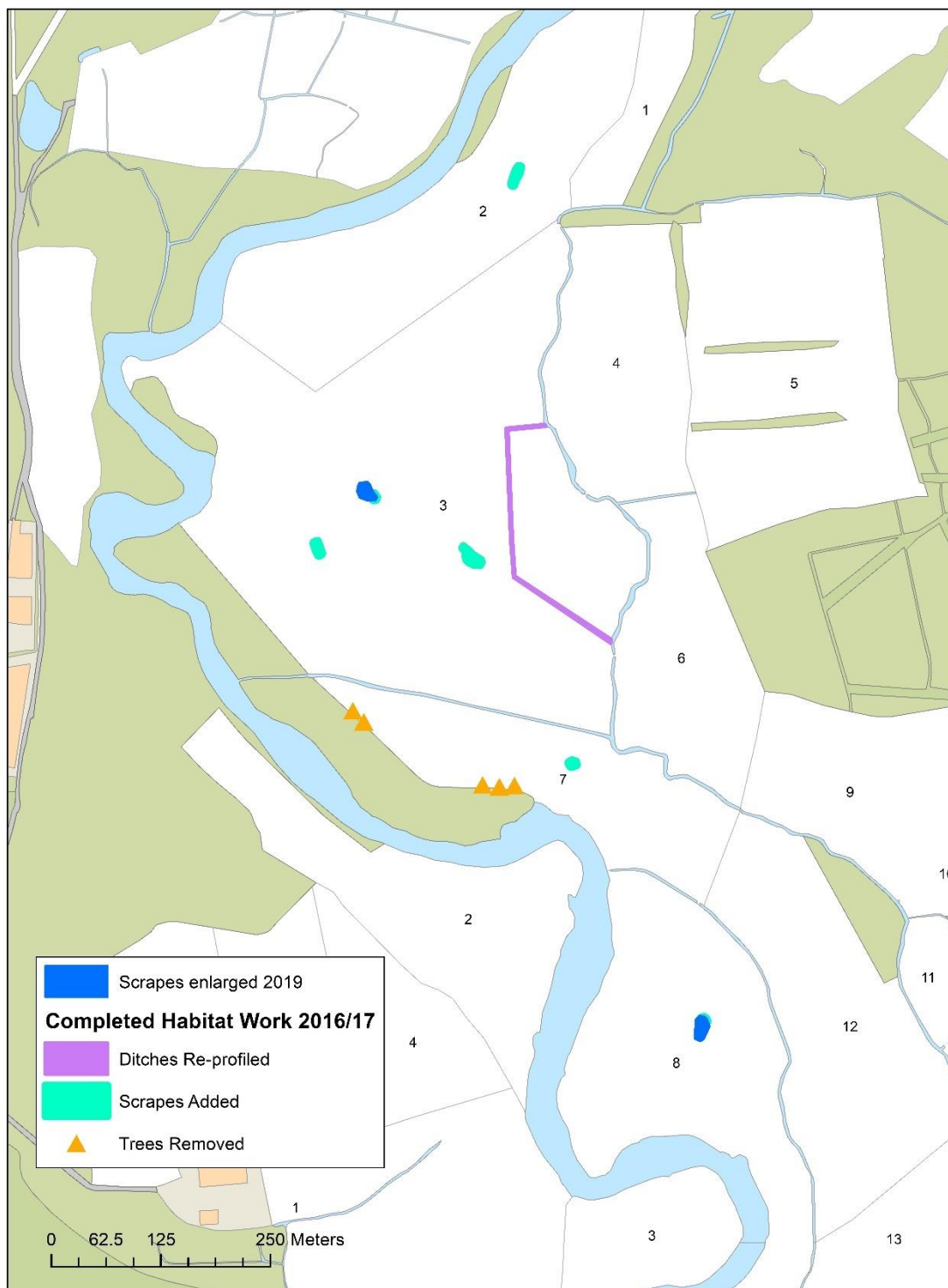
## Hucklesbrook Habitat Work



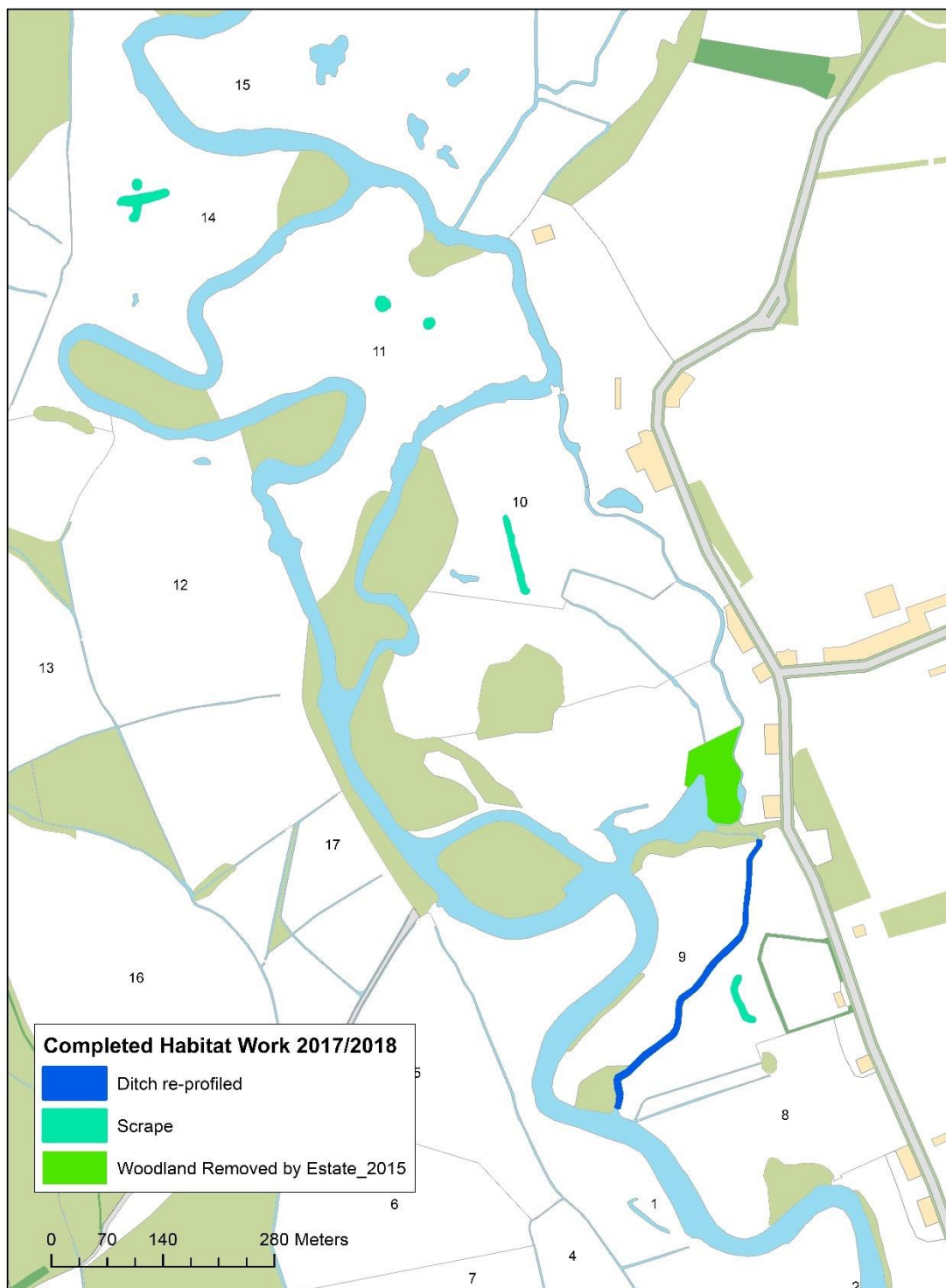




# Watton's Ford Habitat Work



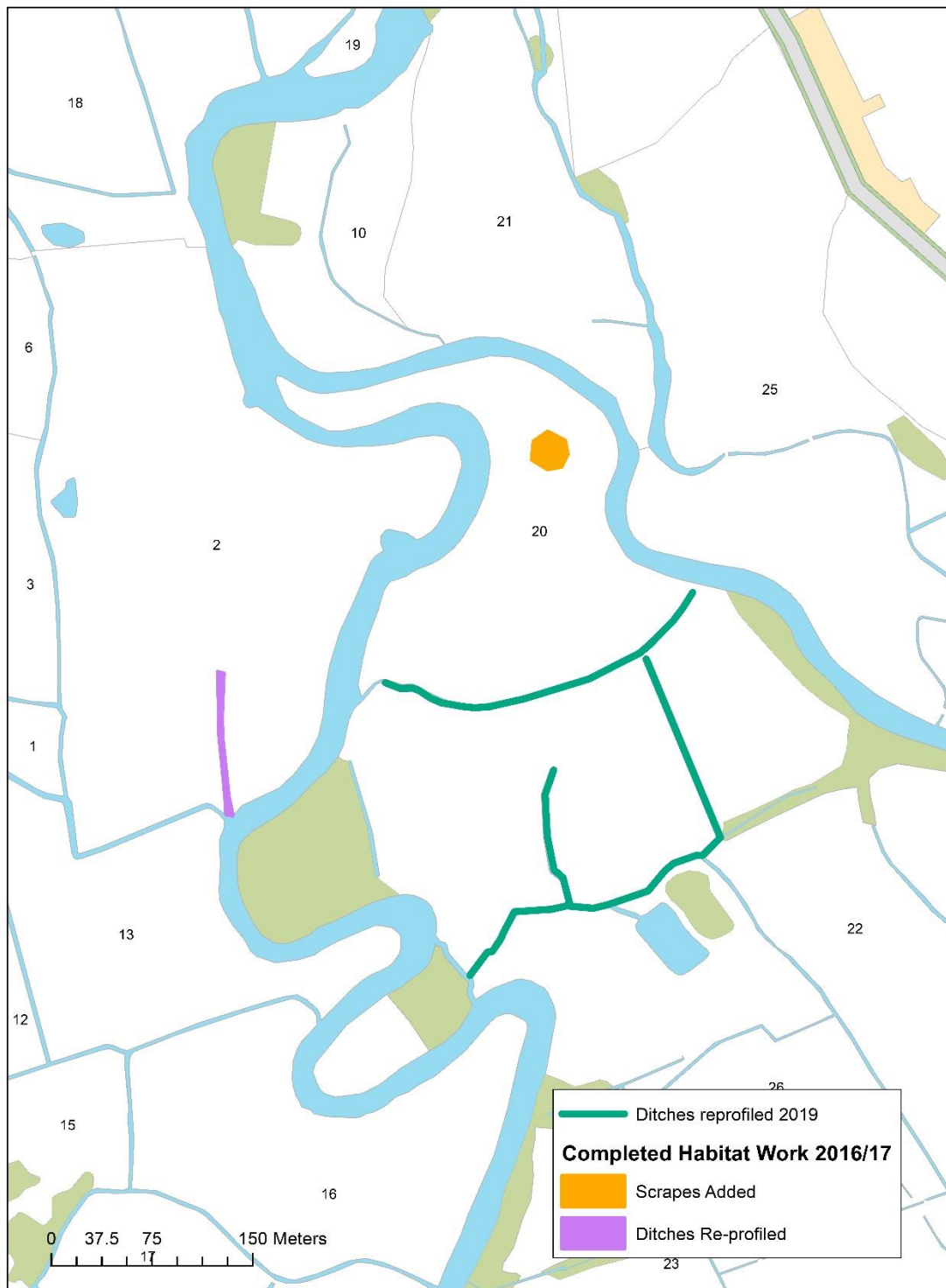




Annex 6 Completed habitat work on Avon Tyrell South and Sopley Island, adjacent to Avon Tyrell North hotspot



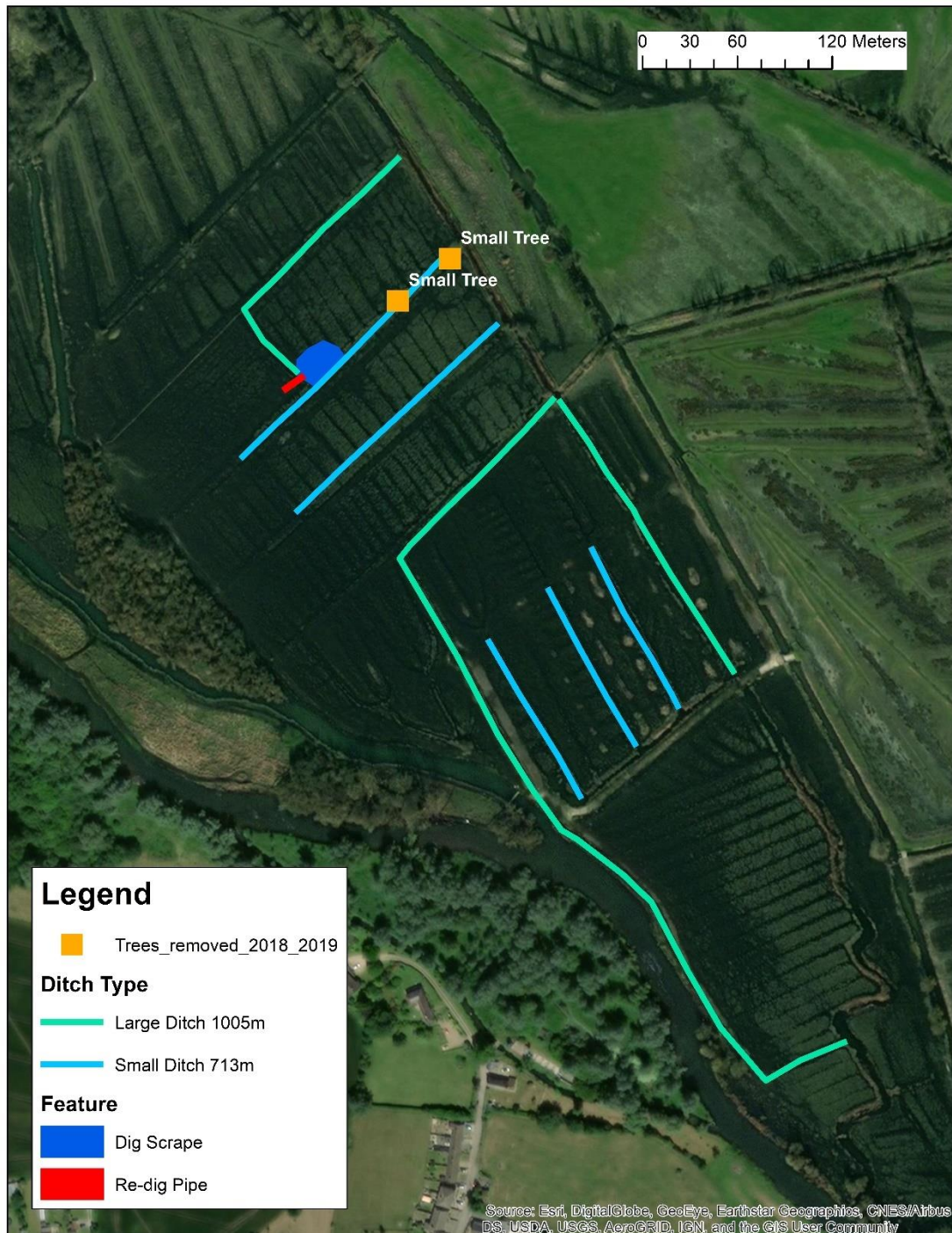
# Sopley Island and Avon Tyrell South Habitat Work



## Annex 7 Completed habitat work on Standlynch Farm.



## Standlynch Completed habitat work autumn 2018/2019



Annex 8 Table 4 Schedule of habitat works conducted to date.

Site	Date	Planned by	Carried out by	Field	Item	Comments
Ibsley	17/09/2015	GWCT	Sparsholt College	4	Fence S boundary	Begin taking out fence line
Ibsley	17/09/2015	GWCT	Sparsholt College	5	Fence S boundary	Begin taking out fence line
Ibsley	17/09/2015	GWCT	Sparsholt College	4	Trees out S boundary	
Ibsley	24/09/2015	GWCT	Sparsholt College	4	Fence S boundary	Finish taking out fence line
Ibsley	24/09/2015	GWCT	Sparsholt College	5	Fence S boundary	Finish taking out fence line
Ibsley	24/09/2015	GWCT	Sparsholt College	2	Fence W boundary	Begin taking out fence line
Ibsley	01/10/2015	GWCT	Sparsholt College	2	Fence W boundary	Finish taking out fence line
Kingston	16/10/2015	GWCT John	Sparsholt College Contract digger	10	Scrub and trees on E boundary	Scrub removed and willows pollared
Hucklesbrook	22/10/2015	Level/GWCT		1 2 3 4	ditches	Old ditches redug and some new added
Avon Tyrell North	28/10/2015	Estate Snail	Estate	10	woodland removed	Not planned by us
Avon Tyrell South	10/12/2015	conservation	Farmer Sparsholt	2	Ditch dug	Ditch dug designed to help rare aquatic snail, ditch could also be very good for lapwing
Kingston	03/03/2016	GWCT	Sparsholt College	10	Fence E boundary	scrub removed and willows pollared
Kingston	03/03/2016	GWCT	Sparsholt College	17	Scrape	Small scrape dug by hand (much harder than expected)
Kingston	02/11/2016	GWCT	Sparsholt College	10	Remove willow scrub	Scrub removed and willows pollared
Kingston	09/11/2016	GWCT	Sparsholt College	10	Remove willow scrub	Scrub removed and willows pollared
Wattons	10/11/2016	GWCT	Ditch Contractor	3	Ditch re-dug	Ditch through field joined back up and widened



Kingston/Wat tons	11/11/2016	GWCT	Ditch Contractor		Scrapes dug	Scrapes dug in naturally low points 10/11/2016 for 2 weeks
Avon Tyrell North	Feb-17	Will Mitchel	Ditch Contractor	8	Ditch re-dug	
Burgate	08/02/2017	GWCT	Sparsholt College	over river	scrub and alders	
Kingston	15/02/2017	GWCT	Sparsholt College		scrub and alders	
Kingston	29/03/2017	GWCT	Craig Morris Ditch		Alders	Chainsaw alders
Avon Tyrell North	16/10/2017	GWCT	Contractor Ditch		Ditch and scrapes	
Ibsley	25/10/2017	GWCT	Contractor		Scrapes dug	
Sopley Island	01/11/2017	Farmer	Farmer		Scrape added	
Sopley Island	31/08/2018	GWCT	Farmer	20	Ditches reprofiled	Overgrown vegetation taken off ditches
Standlynch	25/10/2018	GWCT	Meeting Ditch			Discuss planned habitat works - ditches, scrape, trees out
Kingston/Wat tons	01/02/2019	GWCT	Contractor Ditch		Scrapes dug	
Standlynch	01/02/2019	GWCT	Contractor		Ditches dug	

## 6. Photographs illustrating habitat works

Examples of the habitat works which have been undertaken as part of this project are illustrated below.

Emergent vegetation and a hawthorn establishing along a derelict fence-line, leading to increased field enclosure (left). Removal of old fence posts and digging out of buried barbed wire at Ibsley to enable cutting of vegetation with a mower (right).



Willows along the entire length of a field boundary at Kingston in summer 2015, resulting in field enclosure and slower water flow in the boundary ditch. Note also the dead alders at both ends of the boundary (left). The same field boundary during tree and willow clearance in winter 2015/16 (right).



An example of the use of temporary electric fencing in late July-August at Kingston to contain cattle in order to graze off undesirable vegetation (in this case meadowsweet) and restore the sward to a higher proportion of grasses.





An example of dead alders along a field boundary, which can provide a vantage point for corvids and raptors to prey upon waders nesting in adjoining fields (top left). A work party of GWCT staff and Sparsholt College students ready to clear more willows (top right). Felling of selected dead trees at Kingston where the priority for waders outweighs the possible benefits of the trees to other biodiversity (below left and right).



Low points in fields that naturally remain damp into summer were identified from LiDAR data. Exact locations that were suitable for foot drains or scrapes were verified on the ground based on the amount of bare ground and a difference in sward composition (left). A foot drain at Avon Tyrell, created to accommodate the needs of both wader chicks and aquatic molluscs (right).



Views of part of the same field at Hucklesbrook showing field conditions in July (left) and October (right), before and after the creation of a foot drain.





Views of part of another field at Hucklesbrook showing field conditions in July (left) and October 2015 (right), before and after the creation of a foot drain with an incorporated scrape.



Scrapes created at Kingston and Watton's Ford, illustrating the variable depth designed ensure uneven drying out of the scrapes in summer. Note the deliberately sinuous edges of scrapes, which it is hoped will afford some shelter from the wind and make wader chicks less obvious to avian predators once vegetation establishes around the edges.







Examples of ditch creation and reprofiling at Watton's Ford.

