

Introduction

Bowland Ecology Ltd was commissioned by Cass Associates to undertake an extended Phase 1 habitat survey of a site off Whiteacre Lane, Barrow, Lancashire (NGR: SD 74082 437821). This report addendum is required to provide additional information regarding the ecological value of ditches at the site. This addendum has been prepared in response to Environment Agency concerns regarding the aquatic ecological value of ditches at the site. This addendum should be read in conjunction with the Ecological Appraisal Survey report for the site (Preliminary Ecological Appraisal, Whiteacre Lane, Barrow – Bowland Ecology Ltd, August 2014).

Background Information

The Ecological Appraisal (Phase 1 Ecological Appraisal Survey, Whiteacre Lane, Barrow– Bowland Ecology Ltd, August 2014) was informed by the following;

- Collation of desk study information including a data search with LERN the Lancashire Environment Records Network.
- An extended Phase 1 habitat survey carried out by Claire Wilson MSc, BSc (Hons), ACIEEM on the 14th August 2014
- A survey of ditches carried out by Claire Wilson MSc, BSc (Hons), ACIEEM on the 7th October 2014.

Methodology

A further site investigation was conducted to assess the aquatic ecological value of three ditches at the site (**D1**, **D2** and **D3**). This survey was primarily based upon a day time habitat inspection. The survey aimed to identify aquatic ecological features, such as the presence (or previous presence) of water, aquatic fauna and aquatic flora.




The survey also included a habitat suitability assessment for water vole. The method for the water vole assessment followed that of Strachan, Moorhouse & Gelling (2011) *Water Vole Conservation Handbook 3rd Edition*. During the assessment the following evidence of water voles was searched for: sounds of water voles entering the water (a distinctive ‘plopping’ noise), burrow entrances, feeding stations, latrines or droppings, waterside paths, runs in vegetation and footprints. Signs of brown rat (*Rattus norvegicus*), bank vole (*Myodes glareolus*) and field vole (*Microtus agrestis*) were also searched for, as these can easily be confused with those of water vole.

The suitability of the ditches for other notable and protected species such as otter and great crested newt (GCN) was also completed at the time of the survey.

Results

The three ditches were surveyed after a period of heavy rainfall, and were found to be dry and densely vegetated with Yorkshire fog (*Holcus lanatus*), creeping bent (*Agrostis stolonifera*) and cock’s-foot (*Dactylis glomerata*) (see Appendix A for locations of the three ditches).

Table 1 Overview ecological evaluation of ditches

	Description	Aquatic species	Inundation/ moisture dependent species	Legally protected species	Photos
D1	Shallow ditch colonized by terrestrial species, Yorkshire fog (<i>Holcus lanatus</i>), creeping bent (<i>Agrostis stolonifera</i>) and cock's-foot (<i>Dactylis glomerata</i>). No deep channel, lacking aquatic species.	None present	At the north-eastern corner where D1 and D2 meet there is a small area of opposite leaved golden saxifrage (<i>Chrysosplenium oppositifolium</i>), indicating that this area is slightly damper. This species is typical of damp woodland soils in western Britain. Creeping bent grass and small amounts of creeping buttercup (<i>Ranunculus repens</i>) also present in adjacent terrestrial habitats.	Nesting bird habitat only.	
D2	Shallow ditch colonized by terrestrial species, Yorkshire fog (<i>Holcus lanatus</i>), creeping bent (<i>Agrostis stolonifera</i>) and cock's-foot (<i>Dactylis glomerata</i>). Appears to have filled with earth/silt and become colonized by terrestrial vegetation. No deep channel, lacking aquatic species.	None present	None present - creeping bent grass and small amounts of creeping buttercup (<i>Ranunculus repens</i>) also present in adjacent terrestrial habitats.	Nesting bird habitat only.	
D3	Shallow ditch colonized by terrestrial species, Yorkshire fog (<i>Holcus lanatus</i>) and creeping bent (<i>Agrostis stolonifera</i>). Appears to have filled with earth/silt and become colonized by terrestrial vegetation. No deep channel, lacking aquatic species.	None present	None present - creeping bent grass and small amounts of creeping buttercup (<i>Ranunculus repens</i>) also present in adjacent terrestrial habitats.	Nesting bird habitat only.	

The species present within the ditches were representative of surrounding terrestrial habitats (grassland) and as such are considered to be an extension of these.

There was no evidence of aquatic flora or fauna or species that would indicate occasional or regular inundation by water (refer to the photographs at Appendix A). No evidence of water voles or any other protected species was recorded during the survey.

Conclusions

It is considered that the ditches do not offer any aquatic habitat value due to the abundance of terrestrial plant species, absence of aquatic flora and fauna; and absence of species indicative of regular or occasional inundation by water.

The ditches are considered to be unsuitable for water vole due to the absence of water, presence of shallow earth banks and no evidence of field signs. It is also considered that the three ditches on site were unsuitable for otter and great crested newt due to the absence of water and absence of evidence that the ditches hold water on a regular basis.

The hedgerows that are located directly adjacent to the dry ditches do however provide potential for breeding birds.

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Appendix A – Ditch location plan

