Waddingham Watercourse Bank Repair - Water Vole Survey Report

Final

July 2023

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Contract

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This report describes work commissioned by Ancholme Internal Drainage Board, on behalf of Lincolnshire County Council. The Client's representative for the contract was Paul Jones of Ancholme Internal Drainage Board. Susannah Reid and Martyna Grochulska of JBA Consulting carried out this work.

Purpose and Disclaimer

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1 Introduction

1.1 Background

JBA Consulting was commissioned by the Ancholme Internal Drainage Board (IDB), on behalf of the Lincolnshire County Council (LCC) to undertake Water Vole surveys following the recommendations highlighted in the Preliminary Ecological Appraisal (PEA) (JBA Consulting, 2022) conducted for the scheme. The proposed works are in relation to works to repair two watercourse banks in Waddingham, Lincolnshire.

The habitat was assessed as being suitable for Water Vole, and as Water Vole could be present along the ditches on site and ta survey was necessary to determine their presence or absence. This report details the results of this Water Vole survey only.

1.2 Project Location

The site is located adjacent to Clay Lane, north-east of Waddingham, Lincolnshire (Ordnance survey grid reference: SK 98633 96627), as shown in Figure 1-1 below.

1.3 Proposed works

Currently, the first bank has experienced slippage and ground depression caused by scouring. As a result, this has caused the undermining and undercutting of the bank toe at three locations along a 160m section of the bank. A design is required to repair the bank slopes to; improve slope gradient and to prevent future toe erosion. The design will use the combined engineering solutions of bank reinforcement(geo-grids), soil erosion protection matting and pre-seeded coir rolls (where feasible).

The bank will be regraded and benched to allow suitable site won material to be compacted in layers with the geo-grids. The coir rolls (where feasible) will be installed at the toe of the bank to provide toe protection against scouring preventing the loss of ground material. The site won material will be placed on the slope with the soil erosion protection matting. The site won material and coir rolls will be pre-seeded to promote vegetation growth and providing an environmentally friendly finish.

At the second watercourse bank, there are multiple ground depressions present at the bank top along the entire bank length. As well as increasing the crest width, the bank top will be regraded and back filled to ensure the ground levels are sufficiently meeting the existing bank ground levels east and west of the depression. The arising site won and topsoil material from bank one will be transported and reused to enhance the bank slope and the surrounding ground levels.

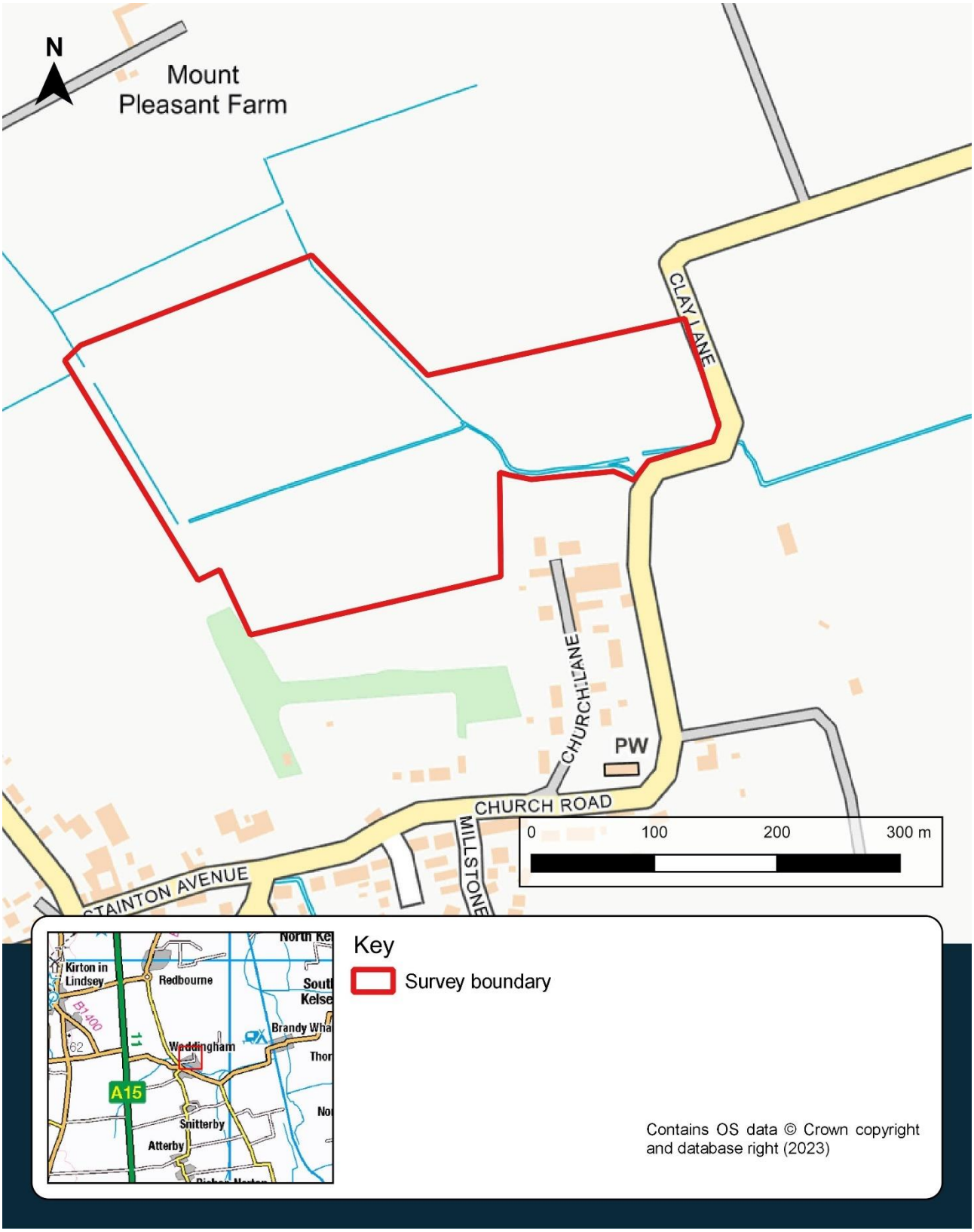


Figure 1-1: Site Location

2 Legislation

Water Voles are protected under Section 9 of the Wildlife and Countryside Act 1981 (as amended). As such it is illegal to intentionally kill, injure, or take (capture) a Water Vole; possess or control live or dead Water Vole, or any part of a Water Vole or anything derived from a Water Vole; intentionally or recklessly damage, destroy, or obstruct access to any structure or place which a Water Vole while It is occupying a structure or place which it uses for shelter or protection.

In addition it is also illegal to sell, offer or expose for sale, or have in one's possession or transport for the purpose of sale, any live or dead Water Voles, or any part of a Water Vole or anything derived from a Water Vole; publish any advertisement, or cause any advertisement to be published, which is likely to be understood as conveying that a person buys or sells, or intends to buy or sell, any of the above things.

If Water Voles are found to be present within the scheme area and could be affected by the proposed works, appropriate mitigation would be required, and it may be necessary to apply to Natural England for a licence if effects cannot be avoided and displacement and/or translocation of Water Vole is required.

3 Methodology

3.1 Survey Methodology

The survey extent was searched for any field signs of recent Water Vole activity, such as burrows, feeding remains, droppings and latrines (Strachan, Moorhouse & Gelling, 2011). In line with the new Water Vole mitigation guidelines, two visits are required (Dean, 2021).

3.2 Limitations

Due to the steep sided banks and very dense vegetation, access to the drains was limited at some points of the site, therefore, not all ditches could be checked thoroughly to determine if there were definite burrows.

Very dense vegetation also limited visibility of the ditches, and only one side of the ditches was visible at some points of the survey.

4 Results

4.1 First check: 17th May 2023

The first monitoring visit was undertaken on the 17th May 2023 by JBA ecologist Susannah Reid BSc and assistant ecologist Martyna Grochulska BSc QCIEEM.

No Water Vole signs were noted.

4.2 Second check: 12th July 2023

The first monitoring visit was undertaken on the 12th July 2023 by JBA ecologist Susannah Reid BSc and assistant ecologist Martyna Grochulska BSc QCIEEM.

No Water Vole signs were noted.

4.3 Habitat Suitability

The ditches present on site all have steep sided banks. The ditches present at the southern end of the site are partially shaded by the presence of trees on the right bank. The banks of all ditches are heavily vegetated, species included Buttercup *Ranunculus sp*, Willow Herb *Epilobium sp*, Horsetail *Equisetum sp*, Nettle, Clever *Galium aparine* and Cow's Parsley *Anthriscus sylvestris*. The water levels in the ditches was approximately 60cm deep and supported a limited amount of in-channel vegetation including Algae *Archaeplastida* and Fools-water-cress *Apium nodiflorum*. All of these habitat conditions are considered suitable to support Water Vole.

During the second survey, all the ditches were relatively dry and supported limited amount of water, approximately 5cm deep. The in-channel vegetation was dense and therefore access to assess the drains was limited. In-channel vegetation included Nettle, Lesser Skullcap *Scutellaria minor* and Great Willowherb *Epilobium hirsutum.* The vegetation present on the banks of the ditches has significantly grown since the last survey, the species of vegetation remained the same since the last survey with the addition of Hogweed *Heracleum spondylium* and Common Poppy *Papaver rhoeas.*

4.4 Other Environmental Observations

No other environmental observations were noted during the surveys.

5 Conclusions and Recommendations

5.1 Conclusions

No Water Vole field signs were identified during the surveys. No Water Vole burrows were identified on the banks, although dense vegetation did obscure the view in some locations.

5.2 Recommendations

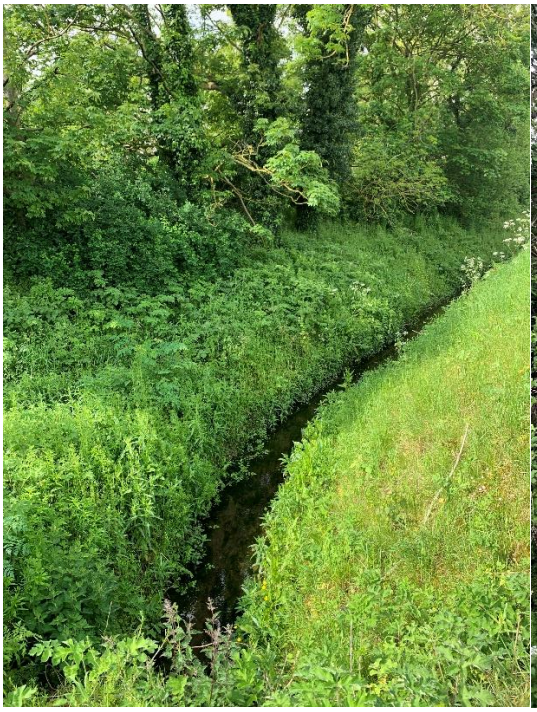
5.2.1 Precautionary Working Method

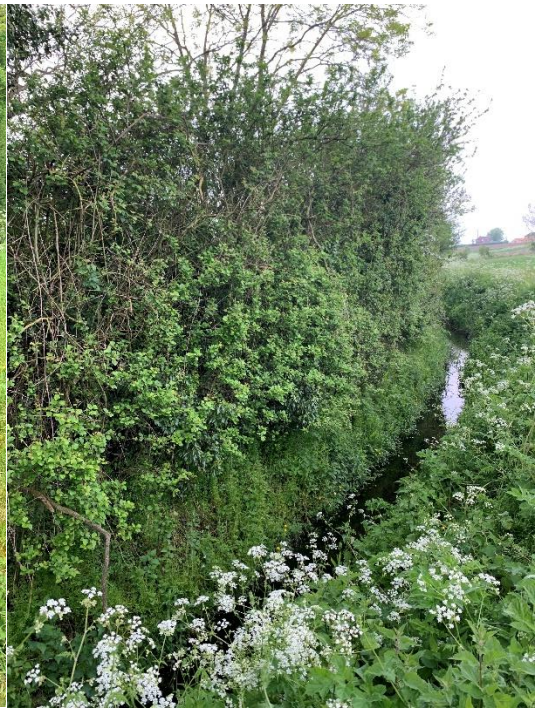
Although no Water Vole field signs were identified during the survey, and is considered unlikely that they are present, a precautionary working method is still recommended due to the limitations faced during the survey. The following precautionary working method is recommended:

- A toolbox talk delivered to all site contractors to make them aware of Water Vole identification and what to do if one is seen on site.

A Photographs

A.1 17th May 2023





A.2 12th July 2023

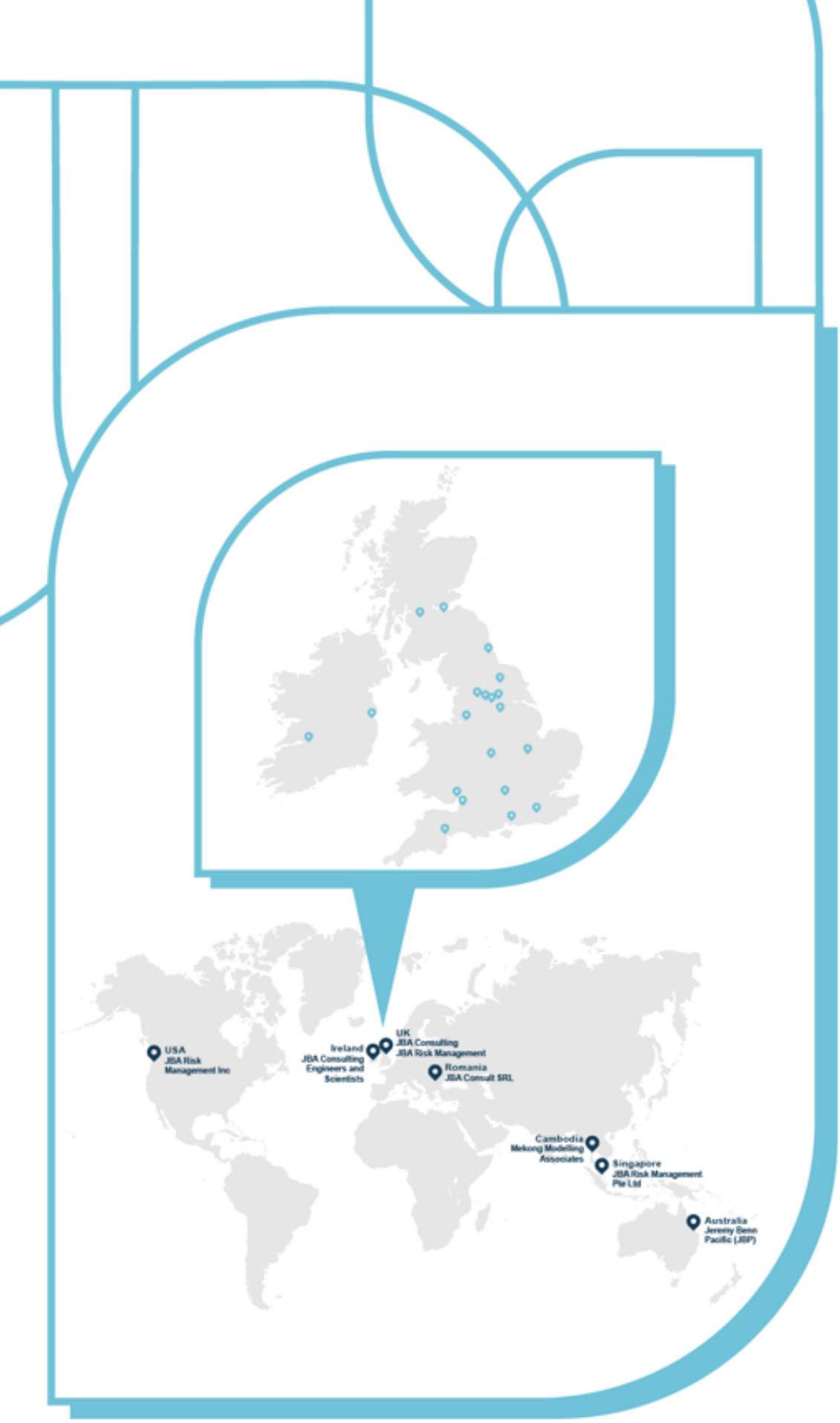
References

Dean, M. (2021). *Water Vole Field Signs and Habitat Assessment. A Practical Guide to Water Vole Surveys.* Pelagic Publishing. London.

Dean, M., Strachan, R., Gow, D, and Andrews, R. (2016) *The Water Vole Mitigation Handbook (Mammal Society Mitigation Guidance Series).* Eds Fiona Mathews and Paul Chanin. Mammal Society, London.

JBA Consulting (2022) *JHJ-JBAU-00-00-RP-EN-0001-A1-C01-PEA*. JBA Consulting, Doncaster.

Strachan, R., Moorhouse, T. & Gelling, M. (2011) *Water Vole Conservation Handbook (third edition).* WildCRu: Oxford.



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