

Appendix 5.7

Otter and Water Vole Survey

Report

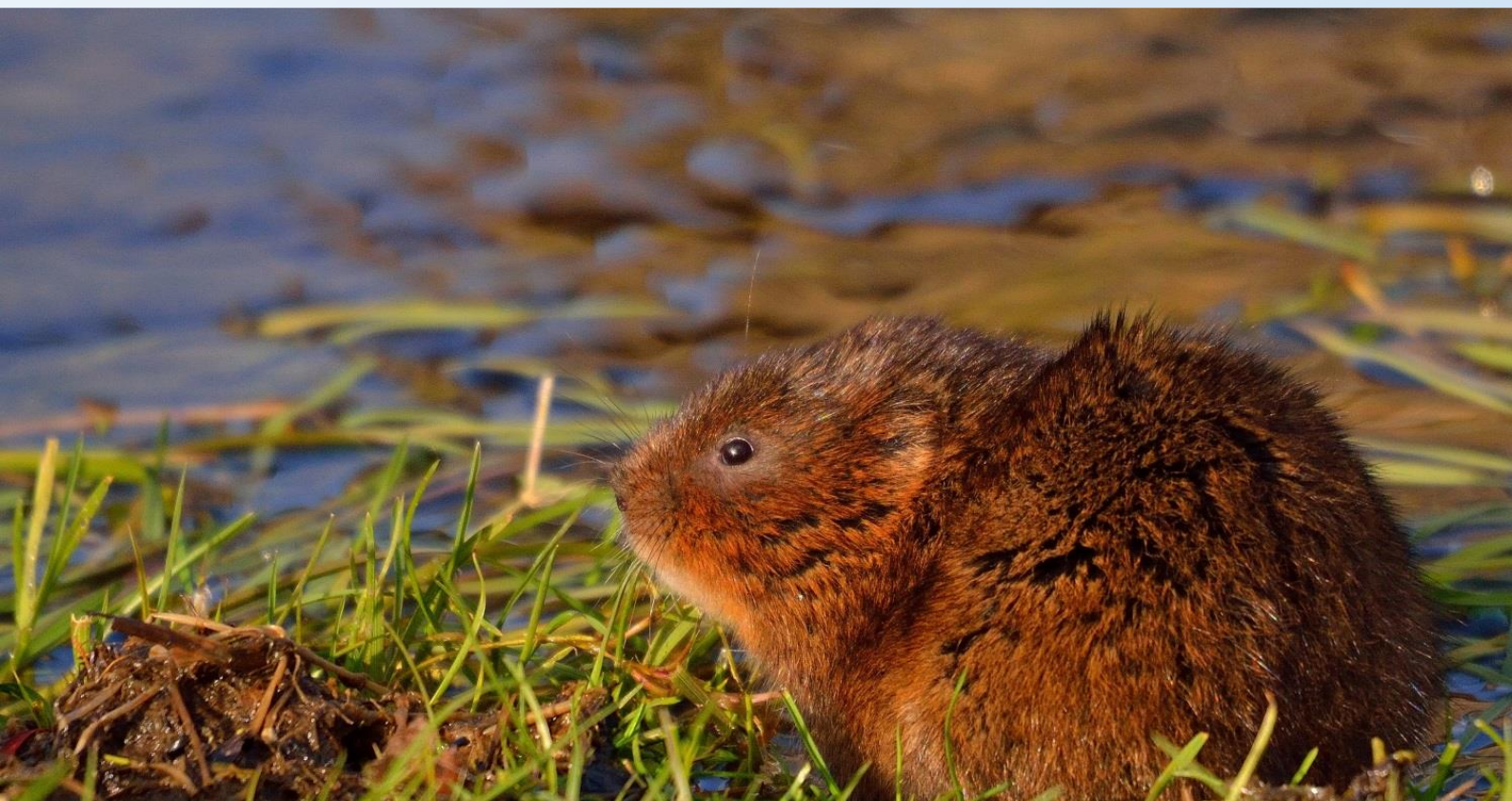




C.GEN Killingholme Limited

NORTH KILLINGHOLME POWER PROJECT

Otter & Water Vole Survey





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Otter & Water Vole Survey

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WSP

Three White Rose Office Park

Millshaw Park Lane

Leeds

LS11 0DL

Phone: +44 113 395 6200

Fax: +44 113 395 6201

WSP.com



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Signature				
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EXECUTIVE SUMMARY

WSP UK Limited ('WSP') was commissioned by C.GEN Killingholme Limited (hereafter referred to as C.GEN) to undertake a riparian mammal (otter and water vole) survey on land in North Killingholme, North Lincolnshire (National Grid Reference: TA 16141 20137); defined as the 'Principle Project Area' and hereafter referred to as 'the Site' (see **Figure 1**). The purpose of the survey was to update the ecological baseline data from the Site to support an application to amend to the Development Consent Order (DCO) of the North Killingholme Power Project, granted in 2014.

The project proposals included the construction and operation of a new 470 megawatt electrical (MWe) thermal generating station and associated development ('the 'Project'). The amendment includes a non-material change application to extend the lifetime of the DCO. In order to ensure the consent remains fit for purpose, other minor modifications to the Order are proposed. However, no changes are sought to the technology used, modes of operation or the Order Limits.

To support the original DCO application, a riparian mammal survey was undertaken on the Site in 2011 which confirmed the presence of water vole. In 2019 and 2020, updated riparian mammal surveys were carried out to confirm the current status of the Site for otter and water vole.

Additional waterbodies to the north and south of the Site surveyed in 2011 were not accessible for survey in 2019/2020 due to access restrictions. Limitations to the updated survey, such as waterbodies being dry, overgrown or unsafe to enter are not considered to have significantly affected the overall outcome of the assessment. The variety of different surveys and the geographical range they cover are considered sufficient to have provided an accurate representation of riparian mammals present within the Survey Area.

An otter spraint was the only piece of evidence recorded throughout the Survey Area in relation to otters, indicating that otter have previously used the Site. This was recorded near the south-western boundary of the Site. It is likely that use of the Site by otter is for occasional commuting purposes only, as habitats within the Survey Area are unlikely to support breeding otter or be of value for foraging. Otter were not recorded on-site during surveys to inform the original DCO submission but were known to use habitats to the immediate north and south of the Site at that time.

Although some of the waterbodies provided suitability for water voles, no evidence of the species was recorded. Water voles were therefore considered likely to be absent or present in very low numbers on the Site during 2019/2020. The 2011 assessment confirmed presence of water vole within the Site. As the updated 2019/2020 found no evidence of water vole, this implies that the Site currently offers reduced suitability for water vole than in 2011. The 2019/2020 assessment requires no mitigation above and beyond that already recommended in the 2014 Environmental Statement. The outcome of the 2019/2020 assessment for otter and water vole therefore remains consistent with the original assessment presented in the 2014 Environmental Statement.

1. INTRODUCTION

1.1. PROJECT BACKGROUND

- 1.1.1. WSP UK Limited (hereafter referred to as 'WSP') was commissioned by C.GEN Killingholme Limited ('C.GEN') to update ecological baseline data in relation to a proposed amendment to the Development Consent Order ('DCO') granted for the North Killingholme Power Project in 2014. The project proposals include the construction and operation of a new 470 megawatt electrical (MWe) thermal generating station and associated development (the 'Project').
- 1.1.2. C.GEN now wishes to apply for a non-material change to extend the timeframe by which the authorised development shall commence. The Project boundary, proposed plant and generation equipment, remain the same as described in the Environmental Statement (referred to as the Principal Project Area). The Principal Project Area is centred at National Grid Reference: TA 157 198; and hereafter referred to as the 'Site' (displayed on **Figure 1**).

1.2. ECOLOGICAL BACKGROUND

- 1.2.1. A Preliminary Ecological Appraisal (PEA) of the Site was carried out in May 2019 (WSP, 2019). As part of the PEA, a Phase 1 habitat survey covered the entire Site including boundary features and was carried out by surveyors who are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) and have experience of completing PEAs of sites containing similar habitat types. Suitable habitat for supporting otter *Lutra lutra* and water vole *Arvicola amphibius* was identified during the PEA. This included aquatic and terrestrial habitat such as ponds and standing water ditches.
- 1.2.2. Six records of otter were returned as part of the desk study within 5km of the Site, the closest record was 580m north-east of the Site. Surveys carried out in 2011 found no evidence of otter within the Site or within habitat near the Humber Estuary.
- 1.2.3. 104 records of water vole were returned from the desk study within 5km of the Site, the closest was 260m south-east of the Site.
- 1.2.4. During a previous riparian mammal survey (PB, 2011), the presence of water voles within the Site was confirmed for waterbodies **W2** and **W15** (displayed on **Figure 2**).

1.3. BRIEF AND OBJECTIVES

- 1.3.1. C.GEN commissioned WSP to carry out a riparian mammal (otter and water vole) survey in accordance with good practice guidance to:
- Establish whether otter and water vole are present or likely absent from the Site; and
 - If present, evaluate the value of the Site for otter and water vole.
- 1.3.2. The results of this survey and conclusions are included within this report.

1.4. LEGISLATION

- 1.4.1. Water vole and otter are fully protected under The Wildlife and Countryside Act (1981) (as amended), meaning it is an offence to kill, injure or take these species; damage or destroy places of rest or shelter, or disturb these species whilst occupying a place of rest or shelter.

- 1.4.2. Otters are afforded a high level of protection under the Conservation of Habitats and Species Regulations 2017 (the 'Habitat Regulations'); the legislation means that it is an offence to:
- Deliberately capture, injure or kill a wild otter;
 - Deliberately disturb wild otters; '*disturbance of animals includes in particular any disturbance which is likely:*
 - (a) *to impair their ability —*
 - (i) *to survive, to breed or reproduce, or to rear or nurture their young; or*
 - (ii) *in the case of animals of a hibernating or migratory species, to hibernate or migrate; or*
 - (b) *to affect significantly the local distribution or abundance of the species to which they belong.'*
 - Damage or destroy a breeding site or resting place used by this species.
- 1.4.3. Water voles and otters are listed as Species of Principal Importance (SPI) for the Conservation of Biodiversity in England, in accordance with Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Under Section 40 of the NERC Act (2006) public bodies (including local planning authorities) have a duty to have regard for the conservation of SPI when carrying out their functions, including determining planning applications.

2. METHODS

2.1. OVERVIEW

2.1.1. To establish whether otter and water vole are present or likely absent, a survey was completed with regard for current good practice guidance (Dean *et al*, 2016; Chanin, 2003) for all waterbodies present within the Site and within 100m of the Site, where access was granted (hereafter referred to as the 'Survey Area'). The survey comprised three visits (the first two visits over a period of two days each) to search for otter and water vole field signs. The location of the waterbodies surveyed, and the results obtained are shown on **Figure 2**. For simplicity the methods used for otter and water vole surveys have been covered separately below.

2.2. OTTER

2.2.1. The survey incorporated the following elements:

- A walked survey of the entire length of each waterbody within the Survey Area to conduct a thorough visual inspection of the banks and immediate vicinity for otters or their field signs. (Field signs include spraints, anal jelly, feeding remains, burrows, otter slides, holts, footprints and couches);
- The recording of habitat variables and features relevant to otters (for example general habitat type, couch/holt potential, bordering land use, vegetation, disturbance level); and
- The recording of any field signs or evidence relating to other relevant wildlife (for example mink *Neovison vison* or brown rat *Rattus norvegicus*).

2.3. WATER VOLE SURVEY

2.3.1. The survey was undertaken within the appropriate season for water vole survey (late April to early October), each incorporating three elements:

- A walked survey of the entire length of the waterbodies within the Survey Area to conduct a thorough visual inspection of the banks and immediate vicinity for water voles or their field signs. (Field signs include faeces, latrines, feeding stations, burrows, 'lawns', nests, footprints and runways in vegetation);
- The recording of habitat variables and features relevant to water voles (for example general habitat type, shore/bank substrate, bordering land use, vegetation, disturbance level, bank profile, water depth); and
- The recording of any field signs or evidence relating to other relevant wildlife (for example otter, mink or brown rat).

2.4. DATES OF SURVEY AND PERSONNEL

2.4.1. The otter and water vole survey were completed by a competent surveyor with eight years' experience of ecological survey, including extensive otter and water vole survey experience, enabling them to develop a strong understanding of the ecology of these species and the ability to identify their field signs.

2.4.2. Surveys were completed on the following dates:

- 28/08/2019
- 29/08/2019

- 29/10/2019
- 30/10/2019
- 07/04/2020

2.5. EVALUATION

- 2.5.1. The value of the Site for otter and water vole was evaluated using the CIEEM guidance (CIEEM, 2016). This guidance recommends that valuation of site importance is made with reference to a geographical framework, e.g. a site is of local, regional, national value etc. To inform the assessment in this report the extent and quality of habitat present was considered in the context of the distribution and abundance of water vole and otter locally and nationally.

2.6. NOTES AND LIMITATIONS

- 2.6.1. Good practice guidelines recommend that otter surveys are carried out during Spring when water levels have receded, and banks are more exposed. Although the first two otter visits were undertaken outside of this window, it is not thought to have significantly affected the surveyor's ability to identify field signs, including with consideration that a visit was completed in April 2020.
- 2.6.2. **W1** was not accessible for any of the surveys as it was situated on the other side of a large fence.
- 2.6.3. Since the August survey visit, **W2** had been subjected to heavy disturbance. While carrying out the October survey visit, it was evident that the banks had been scraped, stripped and profiled using an excavator, with all vegetation having been cleared. **W2** is where water vole presence was previously confirmed in 2011.
- 2.6.4. **W7** was inaccessible during all visits due to overgrown scrub preventing access.
- 2.6.5. The first survey was undertaken during the summer and therefore vegetation along watercourses **W5**, **W2**, **W4** and **W8** was dense and hindered visibility. Excessively dense sections were surveyed as accurately as possible with spot checks undertaken at least every 10m.
- 2.6.6. **W13** was not accessible during the August survey visit due to overgrown scrub preventing access. During the second survey in October, however, scrub had died back, allowing access.
- 2.6.7. Due to land access restrictions (with the exception of **W6**, **W10**, **W11**, **W12** and **W15** immediately adjacent to the Site) watercourses in the wider landscape were not surveyed. During the previous water vole survey in 2011, a large network of ditches was also surveyed to the north and south of the Site.
- 2.6.8. The above limitations are not considered to have significantly affected the outcome of this assessment. The variety of different surveys (with more than the minimum number of survey visits recommended in best-practice guidance completed) and the geographical range they cover are considered sufficient to have provided an accurate representation of any riparian mammals present within the Survey Area.

3. RESULTS AND EVALUATION

3.1. OVERVIEW

- 3.1.1. The waterbodies surveyed and the results of the survey are shown on **Figure 2**. Photographs of waterbodies and field signs identified during the survey are shown in **Appendix A**.

3.2. RESULTS OF OTTER AND WATER VOLE SURVEY

- 3.2.1. Evidence of otter was recorded in **W13** in the form of a spraint during the second survey visit on 30th of October 2019. The location of this field sign is also shown on **Figure 2**. No other evidence of otters was recorded during the surveys.
- 3.2.2. No water voles or evidence of water vole was found. Therefore, water vole are considered likely to have been absent from the Site during 2019/2020. Some of the waterbodies did continue to provide suitable habitat for water voles including connectivity to the wider landscape. It is therefore possible the water vole could recolonise the Site in the future, if they remain present in the wider landscape.

3.3. EVALUATION OF THE SITE FOR OTTER AND WATER VOLE

Otter

- 3.3.1. Suitable aquatic and terrestrial habitat for otter was restricted within the Survey Area. Due to the large amount of hardstanding within the Survey Area, terrestrial habitat was of low suitability and limited to small isolated areas of scrub. Features such as hollowed out tree trunks, that could support resting places/holts were not recorded and the majority of watercourses within the Survey Area were largely ephemeral or with limited flow. Fish were not observed in any of the surveyed watercourses, suggesting that habitats within the Survey Area are unlikely to provide significant foraging opportunities for otter.

Water Vole

- 3.3.2. A small number of waterbodies within the Survey Area provided suitability to support water vole, one of which is no longer suitable due to vegetation being removed by machinery. The majority of waterbodies appeared to be ephemeral or very shallow and lacked emergent vegetation. With the exception of **W2** and **W5** which were dominated by abundant grass species, bank vegetation mostly comprised tall ruderal vegetation or scrub with limited feeding opportunities for water vole. The majority of waterbodies in the Survey Area had good connectivity to the wider landscape, both to the north and south of the Site, and could be used by water vole to recolonise the Site in the future.

3.4. ASSESSMENT AGAINST PREVIOUS FINDINGS

- 3.4.1. With the exception of one waterbody (**W2**), the habitats within the Survey Area have not undergone any significant changes and the Site remains largely the same as when the otter and water vole assessment was carried out in 2011 to inform the Environmental Statement for the original DCO application.
- 3.4.2. The 2011 assessment confirmed the presence of water vole within the Site. The updated survey in 2019 did not confirm the presence of water vole, suggesting that the Site was of reduced importance for water vole in 2019/2020 than at the time of the original DCO application and Examination. During telephone correspondence with the North Lincolnshire Council Ecologist in April 2020, they indicated

there has been a pattern of reduced water vole occurrence more widely across North Lincolnshire since the original DCO was granted.

- 3.4.3. Otter was not recorded within the Site during the original surveys to inform the 2014 DCO application. The single spraint recorded during the October 2019 survey (with no other evidence recorded during August 2019 or April 2020 surveys) suggests the Site continues to be of low importance for the local otter population.

4. IMPLICATIONS FOR DEVELOPMENT

4.1. OVERVIEW

- 4.1.1. As a single otter spraint was the only evidence of otter recorded within the Survey Area, this indicates that use of the Site by otter has not increased significantly since the DCO for the Project was granted. No evidence of holts or other resting sites used by otters was recorded. It is likely that use of the Site by otter is for occasional commuting purposes only as habitats within the Survey Area are unlikely to support breeding otter or provide significant foraging opportunities. No additional mitigation measures for otter are considered necessary. A survey to re-confirm habitat suitability and usage of the Site by otters should be carried out prior to implementation of the Project
- 4.1.2. The survey results indicate that water vole were likely to be absent from the Site in 2019/20, although it is possible that they could recolonise the Site in future. Therefore, the mitigation measures for water vole under Requirement 33 (Water vole mitigation strategy) of the made DCO remain appropriate.

5. CONCLUSIONS

- 5.1.1. Following a riparian mammal assessment in 2011, an updated assessment was carried out on 16 watercourses within the Survey Area (where access was granted) by WSP ecologists in August and October 2019 and April 2020. Appropriate survey methodology was used in accordance with best practice guidelines.
- 5.1.2. An otter spraint was the only evidence of otter recorded within the Survey Area, indicating that otter have previously used the Site. It is likely that use of the Site by otter is for commuting purposes only as habitats within the Survey Area are unlikely to support breeding otter and contain only limited opportunities for foraging. The Site is considered to remain of low importance for otters.
- 5.1.3. Although some of the waterbodies provided suitability for water voles including connectivity to the wider landscape, no evidence of the species was recorded and therefore likely absence of this species from the Site is assumed. There remains potential for water vole to recolonise the Site in future, should they remain present in the wider landscape surrounding the Site.
- 5.1.4. The 2011 assessment confirmed presence of water vole within the Site. As the updated 2019/2020 survey did not confirm presence of water vole, this implies that the Site currently offers lower suitability for water vole than in 2011. The 2019/2020 assessment does not impose restrictions to the scheme or require mitigation above and beyond what has already been recommended in the 2014 Environmental Statement and is secured via Requirement 33 of the made DCO.
- 5.1.5. The outcome of the 2019/2020 assessment for otter and water vole therefore remains the same as per the original assessment presented in the 2014 Environmental Statement.

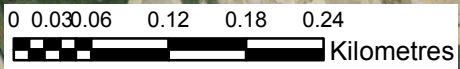
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Key
 Principal Project Area



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DRAWING STATUS: FINAL					

wsp
 Three White Rose Office Park, Millshaw Park Lane, Leeds, LS11 0DL, UK
 Tel: +44 113 395 6200 Fax: +44 113 395 6201
 wsp.com

CLIENT:
C.GEN

PROJECT:
 North Killingholme DCO Amendments

TITLE:
 Site Location Plan

SCALE @ A3: 5,854 @ A3	CHECKED: LR	APPROVED: PD
PROJECT No: 70055743	DESIGNED: JSdS	DRAWN: JSdS
DRAWING No: Figure 1		DATE: 10/01/19
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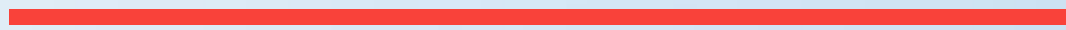
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Key					
		Principal Project Area			
		Waterbodies			
		Otter Sprint			


REV	DATE	BY	DESCRIPTION	CHK	APP
DRAWING STATUS: FINAL					
 Three White Rose Office Park, Millshaw Park Lane, Leeds, LS11 0DL, UK Tel: +44 113 395 6200 Fax: +44 113 395 6201 wsp.com					
CLIENT:					
PROJECT: North Killingholme DCO Amendments					
TITLE: Otter and Water Vole Survey Results					
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PROJECT No: 70055743		DESIGNED: ES	DRAWN: ES	DATE: 10/01/2020	
DRAWING No: Figure 2					REV: -
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Appendix A



PHOTOGRAPHS

Table A-1 - Photographs

Description	Photograph
<p>Waterbody W2 with high suitability for water vole. This waterbody was heavily disturbed on second survey visit in October, greatly reducing suitability for water vole.</p>	
<p>Waterbody W4</p>	

Dense vegetation within Waterbody **W5**



Waterbody **W7** was inaccessible (photo taken through fencing)



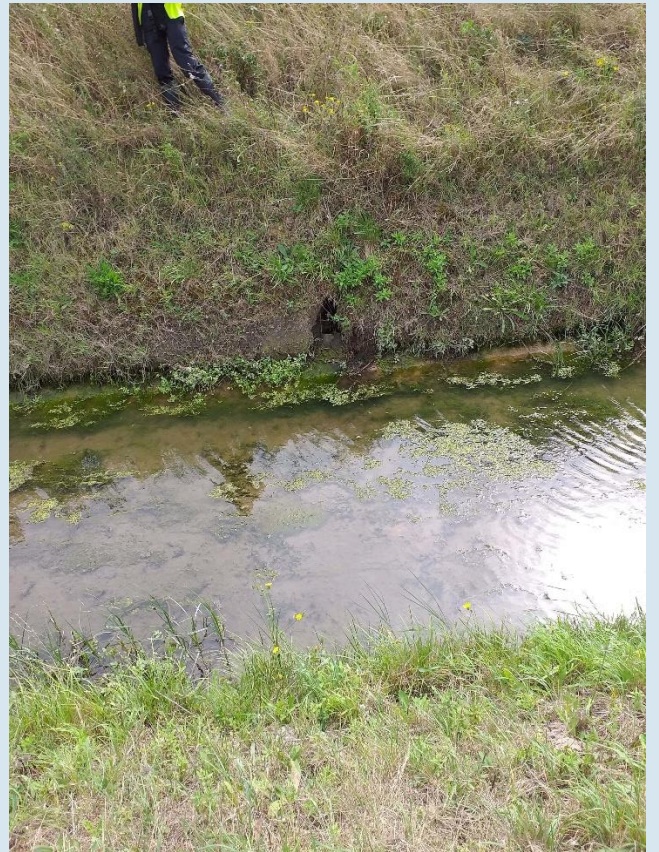
Waterbody **W8**



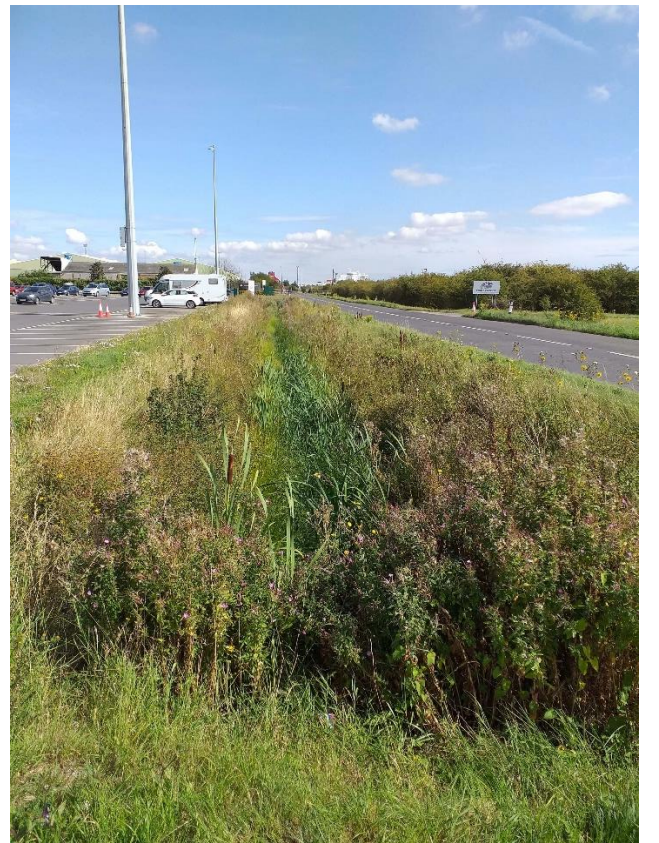
Waterbody **W9**



Waterbody W11



Waterbody W12





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Leeds
LS11 0DL

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