Net Zero Teesside Project

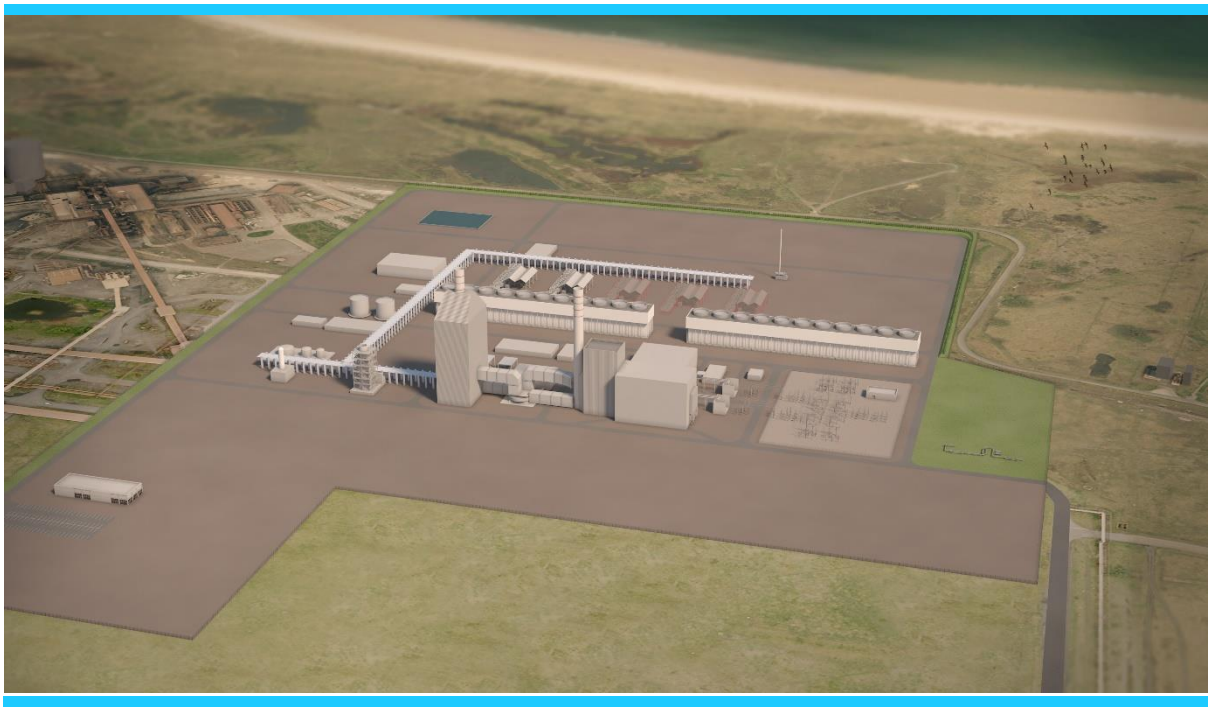
Planning Inspectorate Reference: EN010103

Land at and in the vicinity of the former Redcar Steel Works site, Redcar and in Stockton-on-Tees, Teesside

The Net Zero Teesside Order

Document Reference: 9.26 – Riparian Mammal Survey Report

Planning Act 2008



Applicants: Net Zero Teesside Power Limited (NZT Power Ltd) & Net Zero North Sea Storage Limited (NZNS Storage Ltd)

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GLOSSARY

Abbreviation	Description
AOD	Above ordnance datum
AS-	Additional Submissions
BAT	Best Available Techniques
BEIS	The Department for Business, Energy and Industrial Strategy
CCGT	Combined Cycle Gas Turbine
CCUS	Carbon Capture, Utilisation and Storage
CEMP	Construction and Environmental Management Plan
CTMP	Construction Traffic Management Plan
CO_2	Carbon dioxide
CPO	Compulsory Purchase Order
dB	Decibels
DCO	Development Consent Order
dDCO	Draft Development Consent Order
EIA	Environmental Impact Assessment
EPC	Engineering, Procurement and Construction
ES	Environmental Statement
ETS	Emissions Trading Scheme
ExA	Examining Authority
FEED	Front end engineering and design
FRA	Flood Risk Assessment
Ha	Hectares
HDD	Horizontal Directional Drilling
HIA	Hydrogeological Impact Appraisal
HoT	Heads of Terms
kV	Kilovolts
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
Mt	Million tonnes

NATS	National Air Traffic Services
NSIP	Nationally Significant Infrastructure Project
NWL	Northumbria Water Lagoon
NZT	The Net Zero Teesside Project
NZT Power	Net Zero Teesside Power Limited
NZNS Storage	Net Zero North Sea Storage Limited
PA 2008	Planning Act 2008
PCC	Power Capture and Compressor Site
PDA-	Procedural Deadline A
PINS	Planning Inspectorate
RCBC	Redcar and Cleveland Borough Council
RR	Relevant Representation
SBC	Stockton Borough Council
SEL	Sound Exposure Level
SPA	Special Protection Areas
SoCG	Statement of Common Ground
SoS	Secretary of State
STDC	South Tees Development Corporation
SuDS	Sustainable urban drainage systems
UXO	Unexploded Ordnance
WFD	Water Framework Directive

CONTENTS

1.0 INTRODUCTION

1.1 Overview

1.1.1 This document (Document Ref. 9.26) provides an update to the surveys completed and reported on in ES Appendix 12G Water Vole and Otter Survey Report [APP-309].

1.2 Description of the Proposed Development

1.2.1 The Proposed Development will work by capturing CO_2 from a new the gas-fired power station in addition to a cluster of local industries on Teesside and transporting it via a CO_2 transport pipeline to the Endurance saline aquifer under the North Sea. The Proposed Development will initially capture and transport up to 4Mt of CO_2 per annum, although the CO_2 transport pipeline has the capacity to accommodate up to 10Mt of CO_2 per annum thereby allowing for future expansion.

1.2.2 The Proposed Development comprises the following elements:

- **Work Number ('Work No.') 1** – a Combined Cycle Gas Turbine electricity generating station with an electrical output of up to 860 megawatts and post-combustion carbon capture plant (the **'Low Carbon Electricity Generating Station'**);
- **Work No. 2** – a natural gas supply connection and Above Ground Installations ('AGIs') (the **'Gas Connection Corridor'**);
- **Work No. 3** – an electricity grid connection (the **'Electrical Connection'**);
- **Work No. 4** – water supply connections (the **'Water Supply Connection Corridor'**);
- **Work No. 5** – waste water disposal connections (the **'Water Discharge Connection Corridor'**);
- **Work No. 6** – a CO_2 gathering network (including connections under the tidal River Tees) to collect and transport the captured CO_2 from industrial emitters (the industrial emitters using the gathering network will be responsible for consenting their own carbon capture plant and connections to the gathering network) (the **'CO_2 Gathering Network Corridor'**);
- **Work No. 7** – a high-pressure CO_2 compressor station to receive and compress the captured CO_2 from the Low Carbon Electricity Generating Station and the CO_2 Gathering Network before it is transported offshore (the **'HP Compressor Station'**);
- **Work No. 8** – a dense phase CO_2 export pipeline for the onward transport of the captured and compressed CO_2 to the Endurance saline aquifer under the North Sea (the **'CO_2 Export Pipeline'**);
- **Work No. 9** – temporary construction and laydown areas, including contractor compounds, construction staff welfare and vehicle parking for use during the construction phase of the Proposed Development (the **'Laydown Areas'**); and

- **Work No. 10** – access and highway improvement works (the **'Access and Highway Works'**).

1.2.3 The electricity generating station, its post-combustion carbon capture plant and the CO_2 compressor station will be located on part of the South Tees Development Corporation ('STDC') Teesworks area (on part of the former Redcar Steel Works Site). The CO_2 export pipeline will also start in this location before heading offshore. The generating station connections and the CO_2 gathering network will require corridors of land within the administrative areas of both Redcar and Cleveland and Stockton-on-Tees Borough Councils, including crossings beneath the River Tees.

1.3 The Purpose of this Document

1.3.1 The purpose of this document is to provides an update to the surveys completed and reported on in ES Appendix 12G Water Vole and Otter Survey Report [APP-309]

1.3.2 This document is structured to update the Riparian Mammal field survey results. The update confirms the findings of Chapter 12 Biodiversity [APP-094]) of the ES in relation to the effects of the Proposed Development on riparian mammals, whereby in Table 12-5 (Identification of Relevant Terrestrial Biodiversity Features Requiring Further Assessment of Impacts and Effects), effects on Water Vole and Otter were scoped out of further assessment because the Order Limits and work associated with the Proposed Development did not interact with the location of the Otter and Water Vole signs identified.

2.0 OVERVIEW OF WATER VOLE AND OTTER SURVEYS

2.1.1 This report describes the approach and findings of the spring 2022 survey undertaken for the riparian mammal species water vole (*Arvicola amphibius*) and otter (*Lutra lutra*). All survey work was completed by suitably experienced AECOM ecologists on behalf of Net Zero Teesside Power Ltd. and Net Zero North Sea Storage Ltd. (together the 'Applicants').

2.1.2 The Applicants are seeking development consent for the construction and operation (including maintenance) and decommissioning of a Carbon Capture Usage and Storage (CCUS) facility comprising a gas-fired generating station with an electrical output of up to 860 MWe, together with equipment required for the capture and compression of carbon dioxide (CO_2) emissions from the power generating station. In addition, there is a need for the provision of supporting infrastructure and connections to support the power generating station and to facilitate the development of a wider industrial carbon capture network on Teesside, the construction of which also forms part of the Proposed Development. The Proposed Development also includes high-pressure compression of CO_2 and the onshore section of a pipeline to export the captured CO_2 for off-shore storage. Refer to Chapter 4 (Proposed Development) of the Environmental Statement (application document APP-086).

2.1.3 This report provides further water vole and otter survey data and assessment in relation to proposed construction activities on the River Tees waterfront and along pipeline corridors to the north of the River Tees. Other locations, in the area of the Proposed Development Site to the south of the River Tees, were considered in relation to these species previously (APP-309) and scoped out on the basis of both a lack of evidence for the presence of these species and the absence of a likely pathway for impact.

2.1.4 The survey area encompassed all potentially suitable habitats within and adjacent (within 100 m, which was considered a precautionary distance for searches for habitat suitable as breeding sites) to the red line boundary for the Proposed Development, where suitable riparian mammal data was lacking. The survey therefore encompassed the following waterbodies and their associated riparian habitats (see also Appendix A - Figures):

- Dabholm Gut;
- River Tees waterfront at the Redcar Bulk Terminal (otter only, the River Tees at this location is unsuitable for water vole);
- River Tees waterfront at the Exolum Terminal at Seal Sands (otter only, the River Tees at this location is unsuitable for water vole);
- Belasis Beck; and
- an Unnamed Watercourse and associated tributaries in the vicinity of the roundabout at the junction of the A1185, Seaton Carew Road and Seal Sands Road.

3.0 LEGISLATION, PLANNING POLICY AND RELATED GUIDANCE

Otter

3.1.1 Otter is fully protected as a European Protected Species (EPS) under the provisions of Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). It is also protected under Sections 9 and 11 of the Wildlife and Countryside Act 1981 (as amended). Taken together this legislation makes it an offence to:

- capture, kill, disturb or injure otters (on purpose or by not taking enough care);
- damage or destroy a breeding or resting place (deliberately or by not taking enough care);
- obstruct access to their resting or sheltering places (deliberately or by not taking enough care); and
- possess, sell, control or transport live or dead otters, or parts of otters.

3.1.2 The disturbance offence incorporates two elements. The first is that disturbance must be likely to have a significant adverse effect on the animals involved; and the second is that the disturbance must significantly impact on the local distribution or abundance of the species. For disturbance to occur, either one of these conditions must be met. The offence clearly excludes individual animals from its scope. The only circumstances in which the deliberate disturbance of an individual could be an offence is if it significantly affects the ability of a significant group of animals to survive, breed, or rear or nurture their young, or significantly affects the local distribution or abundance of that species. In practice, this seems unlikely. (Natural England, 2007). Therefore, unless a breeding site is involved, it is very unlikely that disturbance from temporary construction activities (e.g. installation of a pipeline on an existing rack system) would constitute an offence.

3.1.3 Where development cannot avoid potential offences, then it is possible to apply for a European Protected Species Mitigation Licence (EPSML). A licence is only likely to be granted for developments that can demonstrate compliance with the relevant standing advice.

3.1.4 The otter is also a 'Species of Principal Importance for Nature Conservation in England' pursuant to Section 41 of the NERC Act 2006.

3.1.5 The Government has published standing advice (Natural England and Defra, 2019) to guide decision-makers on the determination of proposals with potential to affect protected species such as otter. The guidance sets out responsibilities and minimum requirements for survey and mitigation.

Water Vole

3.1.6 The water vole is protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) (the Act). This makes it an offence to:

- intentionally capture, kill or injure water voles;

- damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care);
- disturb them in a place of shelter or protection (on purpose or by not taking enough care); and
- possess, sell, control or transport live or dead water voles or parts of them (excluding water voles bred in captivity).

3.1.7 The Act provides a defence against the offences outlined above. However, the defence is only sustained if it can be argued that the potential offence was 'the incidental result of a lawful operation' and 'could not reasonably have been avoided' as set out in the Act. The Natural England (2007) advice on disturbance, as summarised above for otter, is also applicable to water vole.

3.1.8 It is generally regarded that a place of shelter or protection includes a network of active burrows and/or any nests that have been constructed within the burrow system or above ground amongst dense vegetation.

3.1.9 A licence is required from Natural England to intentionally damage or destroy burrows or displace water voles from their burrows for lawful development. There is no provision for licencing development or other construction activities under the Act. Such works should therefore be undertaken under a conservation licence. This licence requires demonstration of a conservation benefit for water voles and this benefit can be achieved by delivering a net gain in the amount of habitat available to the water vole population

3.1.10 The Government has published standing advice (Natural England and Department for Environment, Food and Rural Affairs (Defra), 2015) to guide decision-makers on the determination of proposals with potential to affect protected species such as water vole. The guidance sets out responsibilities and minimum requirements for survey and mitigation.

3.1.11 The water vole is also considered a 'Species of Principal Importance for Nature Conservation in England' pursuant to Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act requires that local planning authorities have regard to the conservation of biodiversity in England, when carrying out their normal functions.

4.0 METHODOLOGY

4.1.1 The water vole and otter survey of the identified relevant waterbodies was undertaken with reference to guidance given in Dean et al. (2016) for water vole, and Chanin (2003) and Crawford (2010) for otter.

4.1.2 The surveys were undertaken on the 12th May and the 16 and 17th June 2022.

4.1.3 The relevant waterbodies were surveyed from within the channel where possible, or on the bank face or bank top (as accessibility and other safety considerations permitted), and searched for the following signs that would indicate the presence of these species:

Water Vole

- direct sightings;
- burrows and nests;
- faeces and latrines;
- feeding remains;
- lawns - around burrows there is often an area of grazed vegetation;
- footprints;
- runways - low tunnels within the vegetation; and
- auditory noises - characteristic 'plop' sound as animals enter a waterbody.

Otter

- direct sightings;
- suitable habitat for holts (breeding sites);
- feeding remains;
- footprints;
- slides;
- spraints (faeces); and
- evidence of couches (resting or laying-up sites).

4.1.4 In the case of otter, consideration was given to the suitability of other habitats nearby (within a precautionary 100m) as a place of refuge. Where present and accessible, such habitats were included in the survey scope.

4.1.5 In most cases, the presence of faeces/ latrines and footprints are the most reliable field evidence for riparian mammals, in the absence of direct sightings. Not all the other field signs are necessarily definitive to species level, or other factors may prevent a conclusive identification. Where the latter evidence was detected, in the absence of these more reliable field signs, then this evidence has been used with caution to infer the presence of riparian mammals.

4.1.6 The presence/ absence of mink (*Neovison vison*) and brown rat (*Rattus norvegicus*) was also recorded through their field signs, where present. These species may influence habitat suitability for water vole in particular and may help to explain an absence of field signs in habitats that otherwise appear to be highly suitable.

5.0 LIMITATIONS

5.1.1 All of the surveys were undertaken at an appropriate time of year when water vole and otter are active, and during suitable weather conditions. There was no substantive rainfall prior to the surveys that might have washed field signs away.

5.1.2 However, some limitations to the work undertaken were encountered and are discussed below:

- In accordance with landowner requirements for working along and adjacent to the existing pipeline rack corridors, photographs could only be taken at specific agreed locations. As such, in some instances it was not possible to obtain photographic evidence in support of some of the conclusions presented within this report.
- Sections of the channel of Belasis Beck, Dabholm Gut and the Unnamed Watercourse could not be entered as either the water or sediment level was too deep, or the banks were too steep to allow for safe access/egress. Within these areas, the relevant watercourses were subject to survey from the top of the bank, which may have led to evidence of these species being missed. However, such areas were limited in extent. The evidence for presence/absence of these species is considered robust despite this limitation.

6.0 RESULTS

Dabholm Gut

6.1.1 Dabholm Gut is a small tidal creek which flows within an artificially realigned channel within the Wilton International industrial complex (Photograph 1). The eastern section of the watercourse was approximately 4 m in width and shallow (less than 0.2 m in depth), with the base of the channel comprised of a silt and large stone substrate. The banks were reinforced with large boulders and in-channel and marginal aquatic vegetation was generally absent.

Photograph 1 - Dabholm Gut (Eastern Section)

6.1.2 Further downstream, it merges with a number of large outfalls associated with consented discharges from Northumbrian Water Ltd's Bran Sands Wastewater Treatment Works and other industrial site discharges. This, in addition to the tidal influence within this section, creates a larger watercourse, approximately 60 m in width with the substrate formed of silt, sand and larger rocks (Photograph 2). The banks throughout this section of the watercourse and surrounding its mouth at the confluence with the River Tees, are comprised of small rocks affording negligible refuge opportunities.

6.1.3 Dabholm Gut runs parallel to the existing pipeline corridor, but with a standoff distance of approximately 30 m throughout, comprising mown grassland and an access road (Photograph 3). The pipeline route does not cross the Dabholm Gut.

6.1.4 The wider terrestrial habitat along the existing pipeline corridor is formed of rank semi-improved grassland with occasional areas of scattered scrub and small bramble patches. However, the bramble stands were relatively small and generally only afforded thin cover. The grassland areas associated with the pipeline corridor also appeared to be routinely managed through regular cutting (Photograph 3).

Photograph 2 - Dabholm Gut (Western Section)

Photograph 3 - Managed grassland areas within the pipeline corridor

6.1.5 No water vole field signs were found along Dabholm Gut. Given this and the sub-optimal habitat conditions (tidal influence, general absence of aquatic vegetation and unsuitable bank habitat), water vole is considered absent.

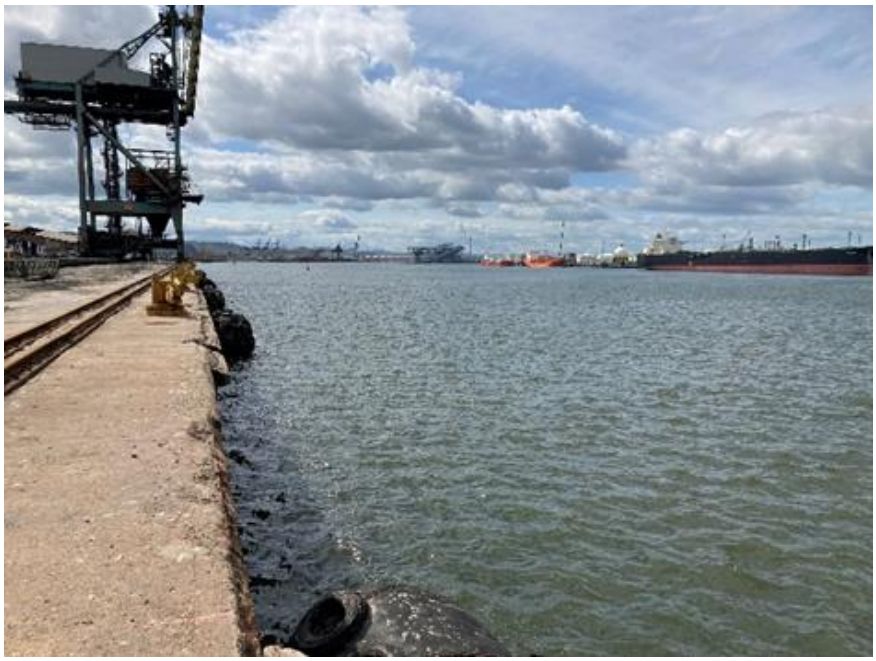
6.1.6 A single otter spraint (NZ 56402 23885) was recorded within the eastern section of Dabholm Gut. However, throughout this area, the terrestrial habitat does not provide sufficient cover or other habitat features suitable for use by otters as couches or holts. Given this, although otter will likely forage and or commute along this watercourse, it is highly unlikely to rest within these areas.

River Tees Waterfront - Redcar Bulk Terminal

6.1.7 The survey for otter was restricted to inspections of suitable terrestrial habitat within the Proposed Development Site, access was not possible into adjacent port/industrial areas. Water vole was not a relevant consideration.

6.1.8 The banks of the River Tees at this location are within the Redcar Bulk Terminal which is used to offload shipping cargo (Photograph 4). Within the survey area the banks were vertical (approximately 5 m in height) and made of concrete, offering no potential refuge opportunities. The vertical banks also pose a potential barrier to otters accessing terrestrial areas from the river. The associated terrestrial habitat is formed of hardstanding, buildings and infrastructure associated with the Bulk Terminal operation (Photograph 5).

6.1.9 No evidence of otter was recorded at this location and the banks and terrestrial habitats are considered highly unsuitable for this species given the lack of cover and the high levels of disturbance associated through regular ship traffic and associated operational activities. Accordingly, otter is considered absent. Given this, no direct or indirect disturbance impacts on otter are likely as a consequence of the Proposed Development.



Photograph 4 - The waterfront at Redcar Bulk Terminal

Photograph 5 - The terrestrial habitat associated with Redcar Bulk Terminal

River Tees Waterfront - Exolum Terminal

6.1.10 The banks of the River Tees at this location are adjacent to the Exolum Terminal which is used to offload shipping cargo. Within the survey area the banks of the River Tees are comprised of small rocks on the lower foreshore, with areas of concrete present in upper areas. Strandline deposits and other evidence (as readily apparent in Photographs 6 and 7) indicate that the majority of this area is submerged at high tide, making it unsuitable for resting or breeding otter.

6.1.11 The associated terrestrial habitats and landuses comprise hardstanding, buildings, and infrastructure associated with the Exolum Terminal (Photograph 6). There are some areas of semi-natural habitat associated with the existing pipeline corridor and the land to the south of the Exolum Terminal. However, these habitats do not provide sufficient cover or other habitat features suitable for use by otters as couches or holts. Although brambles are present in this area, they were not well established and only afforded thin cover.

6.1.12 No evidence of otter was recorded at this location and the bank and terrestrial habitats are considered highly unsuitable for this species given the lack of cover and the high levels of disturbance associated through regular ship traffic and associated terminal activities. As such, otter is considered absent. Given this no direct or indirect disturbance impacts on otter are likely as a consequence of the Proposed Development.

Photograph 6 - Waterfront at the Exolum Terminal

Photograph 7 - The waterfront and semi-natural habitats south of the Exolum Terminal

Belasis Beck

6.1.13 A 1.4 km section of Belasis Beck is associated with the Proposed Development. Within the western section of the survey area (approximately 600 m long), the watercourse is a small drainage ditch with little to no flow. The wetted channel was up to 2 m wide and shallow (less than 10 cm deep), with a deep substrate of silt. There was emergent vegetation throughout this area, dominated by reed sweet-grass (*Glyceria maxima*). The banks were earth and shallow in profile (<45°), with the bank tops supporting areas of tall ruderals and brambles (Photograph 8).

6.1.14 Within the remaining areas, the watercourse flows through a large area of swamp. This area was again dominated by reed sweet grass, was very shallow (less than 5 cm deep) with a flat bank profile (<10°).

6.1.15 Throughout these areas, it is considered likely that water levels will fluctuate throughout the year, and that the watercourse is likely to dry up completely at times.

6.1.16 The habitats associated with the existing pipeline rack are comprised of hardstanding, which includes two access roads. The wider habitat surrounding the Belasis Beck is dominated by grazing pasture and swamp which supported only occasional scattered scrub (Photograph 9).

Photograph 8 - Belasis Beck

Photograph 9 - Habitats adjacent to Belasis Beck

6.1.17 Evidence of water vole was found at three discrete locations along the length of the watercourse (Appendix A - Figures). These locations were:

- between from NZ 48080 23105 NZ 48289 523178 (approximately 225 m total length) 18 latrines and numerous feeding remains were found;
- a single latrine at NZ 48587 23481; and
- from NZ 48774 23586 to NZ 48791 23590 (approximately 25 m total length) two latrines and two feeding remains were found

6.1.18 Given these findings, it appears that the water voles have a healthy but patchy distribution across the surveyed length of this watercourse. Based on this, it is considered that the surveyed section of the Belasis Beck supports at least 15 water vole territories.

6.1.19 To determine if this water vole population is a relevant constraint, further consideration needs to be given to the locations of the evidence found and suitable habitat relative to the Proposed Development. Throughout the survey area, there is a standoff distance of at least 5 m between the existing pipeline rack and the banks of Belasis Beck, although in many areas this distance is greater. As discussed further in Section **Error! Reference source not found.**, 5 m represents the minimal good practice standoff distance to avoid impacts to water vole, so the pipeline rack is prevailingly located beyond the likely zone of influence for an impact on water vole.

6.1.20 As such, the only risk from the Proposed Development to this species is at the watercourse crossing points where these standoff distances are reduced. Even so, not all crossing points coincide with water vole habitat. There are five discrete locations where the pipeline rack crosses Belasis Beck as described below:

- Crossing Point 1 (NZ48060 23110). The watercourse flows under the existing pipeline within a culvert too small to permit maintenance of a 5 m stand-off. However, the closest water vole field sign, a latrine, to Crossing Point 1 was located approximately 40 m away (NZ 48106 23116). So, based on current data, water vole is not occupying habitat immediately adjacent to this crossing;
- Crossing Point 2 (NZ 48308 23191). At this location the watercourse is within culvert for approximately 55 m. This ensures a suitable stand-off between the bank of Belasis Beck and the existing pipeline rack. Therefore, water vole would not be affected at this location;
- Crossing Point 3 (NZ 48504 23348). The watercourse is within culvert for approximately 35 m at this crossing point. This ensures a suitable stand-off between the bank of Belasis Beck and the existing pipeline rack. Therefore, water vole would not be affected at this location ;
- Crossing Point 4 (NZ 48551 23430). The watercourse flows under the existing pipeline within a too small to permit maintenance of a 5 m stand-off. The closest water vole field sign, a latrine, to Crossing Point 4 was approximately 60 m away (NZ 4858723481). Therefore, water vole is not currently occupying habitat immediately adjacent to this crossing; and
- Crossing Point 5 (NZ 49081 23550). The watercourse flows under the existing pipeline within a too small to permit maintenance of a 5 m stand-off. The closest

water vole field sign, a latrine, to Crossing Point 5, was approximately 180 m away (NZ 48901 23603). This again, means water vole is not currently occupying habitat immediately adjacent to this crossing.

6.1.21 No otter signs were recorded within the survey area. While otters will explore small waterbodies in their territories, such use would be transitory only unless there is suitable foraging habitat to encourage more regular use. In this case, the habitat conditions present are sub-optimal for otter given this section of watercourse contains minimal water and is dominated by emergent vegetation and is likely to dry further during the summer. Consequently, it is not attractive foraging habitat for otter as it is not likely to support suitable fish species. There was also no habitat suitable to provide locations for breeding holts as the limited scrub and bramble cover was not cohesive or dense enough to provide adequate cover for breeding. Couches used by individual otters are also not likely to occur given the unfavourable foraging habitat, and regardless meaningful disturbance (Natural England, 2007) would not be likely if otter occurs in the vicinity of temporary pipeline construction works.

6.1.22 Given the above, no direct or indirect impacts on otter are likely as a consequence of the Proposed Development.

Unnamed Watercourse

6.1.23 A drainage ditch and its associated small tributaries coincide with the Proposed Development to the north of RSPB Saltholme and the land surrounding Seal Sands Roundabout. For the purposes of this assessment, given their proximity and connectivity, these watercourses are all considered together.

6.1.24 The western section of this watercourse had little to no flow, with the wetted channel approximately 1 m in width and shallow (less than 10 cm deep). Emergent vegetation was present throughout this area with the substrate consisting of silt. The banks were earth and steep in profile (>45^{o}) with the bank tops supporting areas tall ruderals, scattered scrub and brambles (Photograph 10).

6.1.25 Further along its course to the east, it merges with two other minor drainage ditches becoming deeper and wider (>1 m and 5 m respectively). Emergent vegetation was again present, but mostly restricted to the margins (Photograph 11).

6.1.26 The habitats associated with the existing pipeline rack were comprised of hardstanding, which included a number of access roads and associated pipeline infrastructure (Photograph 12). The wider habitat surrounding this watercourse is dominated by grazing marsh and rank semi-improved grassland with occasional areas of bramble.

6.1.27 Along the length of the proposed pipeline corridor there was a stand-off of at least 5 m between the existing pipeline rack and the banks of the watercourse, although again in many areas this distance was greater (Photograph 13).

Photograph 10 - Unnamed watercourse (western end)

Photograph 11 - Unnamed watercourse (eastern end)

Photograph 12 - Standoff between the watercourse and the existing rack

Photograph 13 - Pipeline corridor and adjacent habitats and access track

6.1.28 No water vole field signs were identified within this area and as such they are considered absent.

6.1.29 No otter signs were recorded within the survey area. Again, the majority of this watercourse is sub-optimal foraging habitat for otter given the shallow water depth

limits the availability of suitable fish species. But otter may forage in the deeper section of this watercourse. Throughout this open water section, bankside cover was negligible, making it unlikely that otter will rest within these areas and there is no suitable cover for breeding. Accordingly, no direct or indirect impacts on otter are likely as a consequence of the Proposed Development.

7.0 CONCLUSION

Water Vole

7.1.1 Water vole signs were only found in association with Belasis Beck. However, despite the absence of field signs, the Unnamed Watercourse does provide suitable habitat for this species, so it is therefore possible that water vole could establish a population along this watercourse prior to the start of construction.

7.1.2 No in-channel or bankside working is anticipated to be needed for the construction of the Proposed Development, with works restricted to the existing pipeline rack corridor. Furthermore, throughout this area, there are already suitable 5m plus standoff zones between the existing pipeline racks and the watercourses. Therefore typical good practice standoff distances (Dean et al., 2016) can be achieved at construction through the use of the existing racks.

7.1.3 The Proposed Development is not likely to have a significant adverse effect on water vole, as the crossing point location identified in Section 4.4 are not constrained by the presence of water voles. Crossing points 2 and 3 are not relevant given Belasis Beck is in a long culvert at these locations. At crossing points 1, 4 and 5 (Appendix A - Figures) no evidence of water vole was found, and the only field signs were at distances of more than 40m from the crossings. This will need to be reviewed again later when planning the construction of the pipeline, and allowance for further surveys has been made.

7.1.4 Pre-construction surveys, as identified in Table 5A6 (Terrestrial Ecology and Nature Conservation) of Document no. 6.4.5 Appendix 5A-Framework CEMP Rev 2 [EN010103/6.4.5 Rev 2] in accordance with Requirement 16 of the Draft DCO [EN010103/2.1 Rev 5] will be used to update information on the constraint posed by water vole and to inform specification of the final mitigation requirements, including consideration of the need for a development licence. These surveys will be completed sufficiently far in advance of construction works to account for seasonality constraints and to allow time for the implementation of any necessary mitigation prior to construction.

7.1.5 If water voles are still present at the time of construction and need to be displaced or relocated from construction working areas, a protected species licence will be applied for and obtained prior to undertaking any works likely to affect the conservation status of this species.

7.1.6 Should the pre-construction surveys identify that water voles have migrated and will now interact with the construction area, in accordance with Table 5A6 (Terrestrial Ecology and Nature Conservation) of Document no. 6.4.5 Appendix 5A-Framework CEMP Rev 2 [EN010103/6.4.5 Rev 2] in accordance with Requirement 16 of the Draft DCO [EN010103/2.1 Rev 5], an appropriate Water Vole Impact Avoidance Strategy will be prepared with reference to the updated survey data. It will set out all of the measures and supervision required to deliver legislative compliance during construction of the Proposed Development. Including:

- the latest updated survey data of Belasis Beck and the Unnamed Watercourse;
- any requirements for ongoing further surveys;
- appropriate construction stand-offs from watercourses, or in the case of watercourse crossings, until such time that an Ecological Clerks of Works advises that the relevant construction works can proceed;
- appropriate timings to minimise potential for disturbance impacts on water vole;
- site inductions and toolbox talks as appropriate; and
- requirements (if relevant) for displacement, trapping, exclusion and relocation of water voles from relevant construction areas under a conservation licence, and habitat enhancement to deliver a benefit for water vole.

Otter

7.1.7 The survey only found limited evidence of otter within the watercourses surveyed and identified no potential for destruction, damage or obstruction of resting places, or meaningful disturbance of otter when resting or breeding.

7.1.8 The Proposed Development will not result in significant adverse effects to otter. However, pre-construction surveys, as secured in Table 5A6 (Terrestrial Ecology and Nature Conservation) of Document no. 6.4.5 Appendix 5A-Framework CEMP Rev 2 [EN010103/6.4.5 Rev 2] in accordance with Requirement 16 of the Draft DCO [EN010103/2.1 Rev 5] will be required to reconfirm the status of the species and the suitability of riparian habitats present within the zone of influence of pipeline construction activities. No further survey of the River Tees waterfront is considered necessary given the habitat conditions described in this report.

8.0 REFERENCES

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APPENDIX A – FIGURES

Project Management Initials: RL Designer: LC Checked: CW Approved: IC

River Tees Waterfront - Redcar Bulk Terminal

River Tees Waterfront - Exolum Terminal

Dabholme Gut

Tees Mouth

Teesport

Scale @ A3 1:10,000

0 250 500 m

AECOM

PROJECT
NET ZERO TEESSIDE PROJECT

Net Zero Teesside

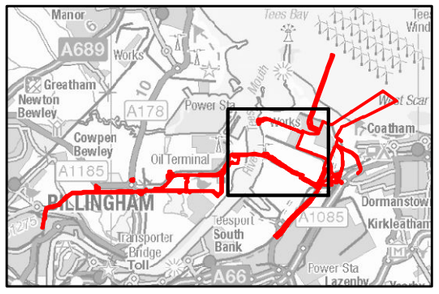
APPLICANTS
NZT POWER LTD. AND NZNS STORAGE LTD.

KEY

- Proposed Development Boundary
- Otter and Water Vole Survey Boundary
- Watercourse / Water Body

Otter Survey Sign

- Spraint



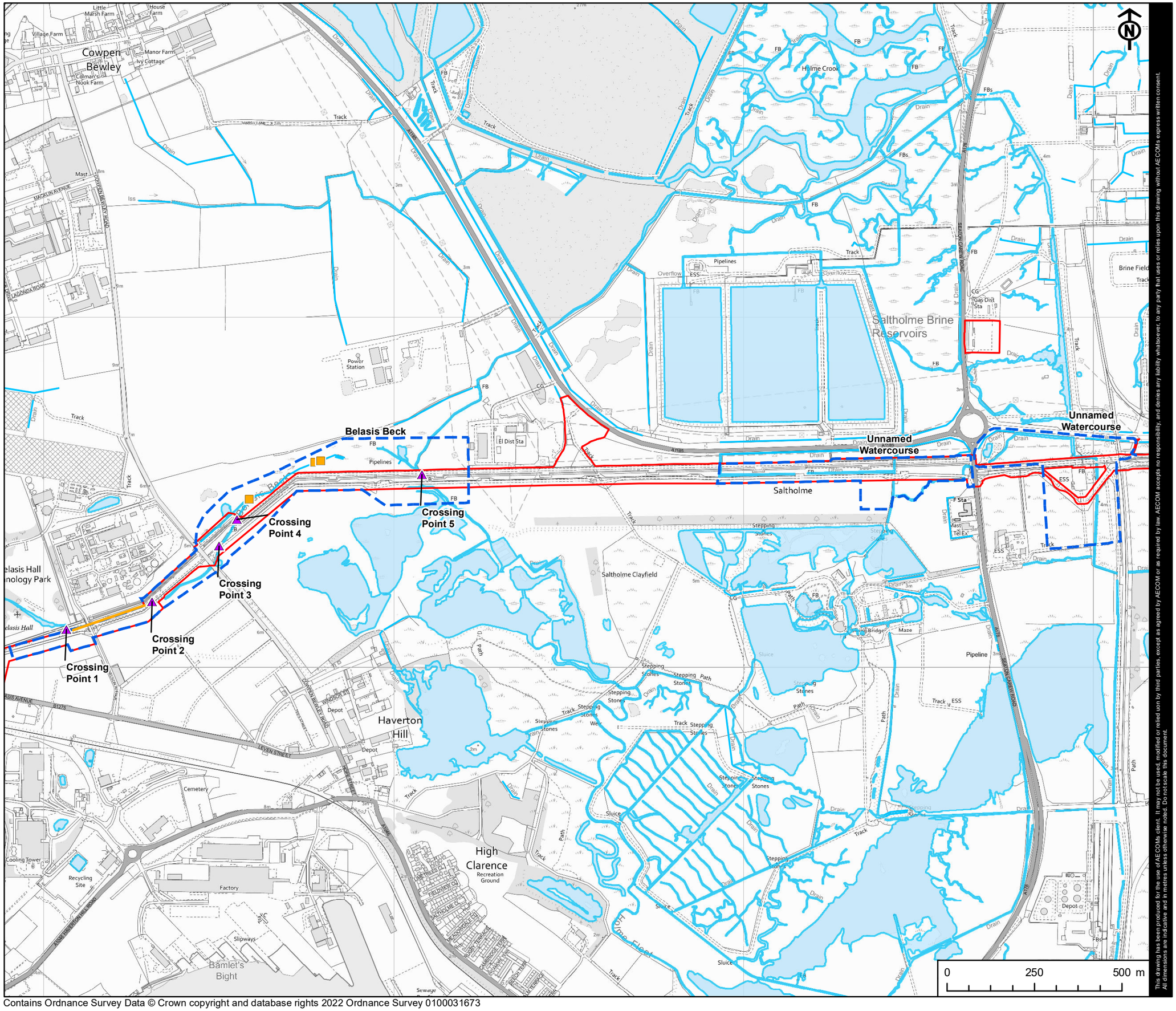
TITLE
FIGURE 1
OTTER AND WATER VOLE SURVEY RESULTS

REFERENCE
NZT_220719_OWV_1_v3

SHEET NUMBER
1 of 2

DATE
19/07/2022

Project Management Initials: RL Designer: LC Checked: CW Approved: IC



Scale @ A3 1:10,000

AECOM

PROJECT
NET ZERO TEESSIDE PROJECT

Net Zero Teesside

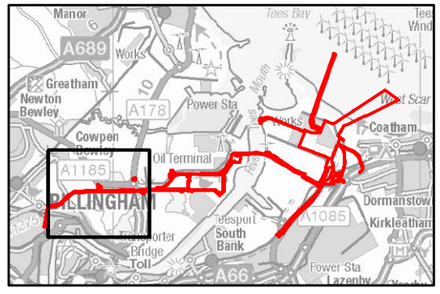
APPLICANTS
NZT POWER LTD. AND NZNS STORAGE LTD.

KEY

- Proposed Development Boundary
- Otter and Water Vole Survey Boundary
- Watercourse / Water Body
- Pipeline Crossing Point

Water Vole Survey Sign

- Latrine
- Latrine (18 within section)



TITLE
FIGURE 1
OTTER AND WATER VOLE SURVEY RESULTS

REFERENCE
NZT_220719_OWV_1_v3

SHEET NUMBER
2 of 2

DATE
19/07/2022