

PORTISHEAD BRANCH LINE PRELIMINARY
ENVIRONMENTAL INFORMATION REPORT
VOLUME 4

APPENDIX 9.8

Otter Survey Report



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Acronyms and Abbreviations

AWT	Avon Wildlife Trust
BRERC	Bristol Regional Environmental Records Centre
IEEM	Institute of Ecology and Environmental Management
NE	Natural England
NSDC	North Somerset District Council
SNCI	Site of Nature Conservation Importance
SSSI	Site of Special Scientific Interest
WCA	Wildlife and Countryside Act 1981

Executive Summary

CH2M was commissioned by North Somerset District Council ("NSDC") to undertake an otter *Lutra lutra* survey and assessment for the Portishead Branch Line (MetroWest Phase 1) DCO Scheme ("the DCO Scheme"). The need for an otter survey was recommended by the Environment Agency in the Scoping Opinion issued by the Planning Inspectorate in response to the scoping and baseline reports (CH2M HILL 2014a and b) associated with the environmental assessment for the DCO Scheme.

An otter survey and assessment was undertaken by two experienced ecologists on 14th and 15th October 2015. The habitat identified near Pill and Ham Lake is considered optimal otter habitat with presence of otters possible near Pill and confirmed through survey at Ham Lake. The habitat along the River Avon adjacent to the operational railway line between Royal Portbury Dock and the south west main line between Bristol and Exeter (known as the Portbury freight line) is suitable otter habitat but no signs of otter were observed. This area is disturbed by regular use by pedestrians along the River Avon Tow Path on the left hand bank of the River Avon. The River Avon and Bristol floating harbour are also well known for use by otters.

SECTION 1

Introduction

1.1 Background to the DCO Scheme

- 1.1.1 The Portishead Branch Line was built in the 1860s. Passenger services continued between Portishead and Bristol until 1964, and freight services continued to 1981. The Royal Portbury Dock opened in 1978 and in 2002 the currently operational part of the former Portishead Branch Line was re-opened to service the port for freight only. The owner of the Royal Portbury Dock, Bristol Port Company, has commercial rights to run up to 20 freight trains per day in each direction along the operational railway line. The current volume of freight trains operating is substantially less than this.
- 1.1.2 MetroWest Phase 1 proposes to re-open the disused section of the Portishead Branch Line from Portishead to Pill and operate an hourly passenger service between Portishead and Bristol Temple Meads. In order to reintroduce passenger services the remaining section of disused railway between Portishead and Pill has to be rebuilt including a new station at Portishead and the re-opening of the former Pill station. The project is a nationally significant infrastructure project (“NSIP”) as defined by the Planning Act 2008 and therefore a Development Consent Order (“DCO”) is required for powers to build and operate the railway, as well as to acquire land, where it cannot be acquired by negotiation.
- 1.1.3 The DCO Scheme also comprises a number of associated improvements to the rail network from Pill to Ashton Vale (Ashton Junction) to enable the operation of an hourly train service (or an hourly service plus) between Portishead and Bristol Temple Meads.
- 1.1.4 The NSIP as defined under the Planning Act 2008, is a permanent railway of approximately 5,450 metres long from Quays Avenue, Portishead, North Somerset (OSGR ST471765) to Pill in North Somerset (OSGR ST520762). It comprises the reconstruction of 4,750 metres of disused railway from Quays Avenue in Portishead to the existing operational railway (the Portbury freight line) to the east of the M5 Motorway). The NSIP then comprises 750 metres of new track through Pill village parallel to the operational railway line from Portbury Dock. The NSIP terminates at a new junction east of Pill Viaduct (Pill Junction), where it connects with the existing operational railway.
- 1.1.5 The associated permanent works in summary include:
- A new station, station building, forecourt, car parks and highway modifications in Portishead,
 - New Trinity Primary School footbridge in Portishead,
 - A new maintenance compound and road rail access point off the highway of Sheepway near Portishead,
 - A new access for agricultural purposes to the west of Station Road, Portbury from the Portbury Hundred,
 - Minor works to bridges and structures along the disused railway,
 - Works to widen and strengthen the embankment where the disused railway meets the operational railway at Lodway Close, Pill,
 - Replacing an existing rail bridge over the Avon Road / Lodway Close pedestrian and cycle underpass (to the west of Pill station) with a new wider bridge to support a new double track section of railway,
 - Minor alterations to the Bridleway (LA8/66/10) and National Cycle Route 26 south of Royal Portbury Dock,

- Extension of bridleway LA8/67/10 north of the M5 underbridge to connect with the National Cycle Route 41 to the east of the M5 that connects with Pill,
- Construction of a new station at Pill on the site of the existing southern platform, with new access, forecourt and car park located on Monmouth Road,
- A new emergency and maintenance accesses to Pill Tunnel eastern portal,
- A new vehicular maintenance road rail access point from the highway of Clanage Road, Bower Ashton to the Portishead Branch Line Railway,
- Various improvement works along the operational railway line between Pill and Ashton Junction,
- Whilst the Ashton Vale Road (Ashton Junction) level crossing will remain operational the following works are proposed to reduce the highway traffic from the increased use of the level crossing:
 - Extension of the left turn flare lane on Winterstoke Road,
 - Optimisation of the Ashton Vale Road signals, and upgrade of signals to “MOVA”, and
 - Provision of a ramp to the north of the level crossing to connect pedestrians and cyclists from Ashton Vale Road to Ashton Road.
- In light of the possibility that Baron’s Close pedestrian level crossing may not be closed permanently before MetroWest Phase 1 opens, MetroWest Phase 1 is proposing to close it as part of the DCO Scheme. Alternative pedestrian access will be provided, using a pedestrian and cycle path (currently under construction by the MetroBus scheme) linking to the Ashton Vale Road level crossing and the proposed MetroWest Phase 1 pedestrian / cycle ramp.
- Improvements are also required along the operational railway line between Pill Junction and Ashton Junction, including replacement of ballast, minor works to bridges and structures, minor modifications to the vertical and horizontal alignment of the railway and new signalling, telecommunications including a mast in Avon Gorge and aerials at Pill Tunnel and Portishead station and new fencing for the entire branch line, where natural boundaries are not sufficient.

1.1.6 Refer to the Preliminary Environmental Information Report (“PEI Report”) Chapter 4 for the fully detailed project description.

1.2 Protected Species Survey

1.2.1 CH2M was commissioned by NSDC to undertake an otter *Lutra lutra* assessment and survey along the route of the Portishead Branch Line (MetroWest Phase 1) DCO Scheme, hereafter referred to as the DCO Scheme. The need for an otter survey was recommended by the Environment Agency in the Scoping Opinion issued by the Planning Inspectorate (2015) in response to the scoping and baseline reports (CH2M HILL 2015a and b) associated with the environmental assessment for the DCO Scheme.

1.2.2 The section considered in this report encompasses land within the existing railway corridor beginning from a disused section of track at Harbour Road, Portishead, North Somerset (OSGR ST471765), to Pill, North Somerset (OSGR ST520762) and the existing railway line used by freight trains from Pill to Ashton Gate in Bristol (OSGR ST567713).

1.3 Purpose of this Report

1.3.1 The aims of this report are:

- To review the existing baseline data for the DCO Scheme;
- To assess the suitability of the habitat and watercourses for otter;
- To survey for presence of otter using a nationally recognised survey methodology;
and
- Where the presence of otter is confirmed, to make a preliminary assessment of the likely need for a Natural England licence.

SECTION 2

Methodology

2.1 Desk Study

- 2.1.1 A desk study was carried out as part of the Ecological Appraisal Report (CH2M Hill, 2015c). This included the collation and review of otter records provided by the Bristol Regional Environmental Records Centre (“BRERC”).
- 2.1.2 A review of information related to Portbury Wharf Nature Reserve where otters are known to be present was also undertaken.

2.2 Field Survey

- 2.2.1 An otter survey to identify suitable habitat and signs of the presence of otters was undertaken by two experienced ecologists on 14th and 28th October 2015. Field signs indicating the presence of otter are:
- Holts (underground dens), such as cavities in the roots of trees, piles of logs, flood debris, drains, caves and holes in rockfalls;
 - Above-ground resting sites (also referred to as couches, or lying up areas) which may be located in reedbeds, tall herb vegetation and scrub, especially bramble and blackthorn;
 - Spraints (usually black or dark greenish faeces, tar-like when new, usually containing fish bones, distinctive musky/fishy odour often described as smelling similar to jasmine tea);
 - Footprints;
 - Slides and runs; and
 - Feeding signs (mostly fish, generally >80%), also crustaceans, molluscs, amphibians, birds and small mammals).
- 2.2.2 The survey involved a search for the above signs from accessible bank-sides, examining the watercourses, banks and vegetation. Particular attention was given to structures, debris or riverside trees likely to be used for spraint marking. Areas of trees and scrub that provide suitable resting sites were also searched methodically for signs of otter.

2.3 Limitations

- 2.3.1 Otter populations are often transient in nature and a single survey visit can only provide details of activity present on site at the time of survey.
- 2.3.2 Where vegetation was extremely dense, watercourses steep or substrate very silty, safe access was not always possible to areas in order to search for otter signs and carry out a thorough survey. Watercourses were accessed where safe to do so or surveyed from the top of the bank. It is possible that additional signs may be present within the dense vegetation.
- 2.3.3 All work carried out in preparing this report has used and is based upon CH2M’s current professional knowledge and understanding of current relevant UK standards, best practice and legislation. Changes in this legislation and guidance may occur in the future and cause

any conclusions to become inappropriate or incorrect. CH2M does not accept responsibility for advising of these changes or implications of any such changes.

2.4 Evaluation

- 2.4.1 The habitats and species evaluations are based on the guidance from the Institute of Ecology and Environmental Management (IEEM, 2006). The value of specific ecological receptors is assigned using a geographic frame of reference, i.e. international value being most important, then national, regional, county, district, local and lastly, within the immediate zone of influence of the proposals only.
- 2.4.2 Value judgements are based on various characteristics that can be used to identify ecological resources or features likely to be important in terms of biodiversity. These include site designations (such as Sites of Special Scientific Interest (“SSSI”)), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological resource. In terms of the latter, ‘quality’ can refer to habitats (for instance if they are particularly diverse or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats), or species populations or assemblages.

SECTION 3

Legislative Framework

- 3.1.1 Otters are fully protected by three pieces of legislation: Wildlife and Countryside Act 1981 (and subsequent amendments), The Conservation (Natural Habitats) Regulations and the Countryside Rights of Way (“CRoW”) Act 2000. The legislation makes it illegal to:
- intentionally or deliberately capture or kill, or intentionally injure an otter;
 - deliberately disturb an otter or intentionally or recklessly disturb them in a place used for shelter or protection;
 - damage or destroy a breeding site or resting place;
 - intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection; and
 - Possess or control (live or dead animal, part or derivative).
- 3.1.2 Measures can be taken to avoid harming otters or damaging or blocking access to their habitats. If this can not be avoided a licence will be required from Natural England in order to undertake certain works needed for the construction of the DCO Scheme.

SECTION 4

Baseline Conditions

4.1 Context

- 4.1.1 The railway corridor between Portishead in the west and Parson Street Junction in the east is approximately 14.8 km long. The DCO Scheme passes through (from west to east):
- a currently disused section of railway bordered by commercial and residential areas at Portishead;
 - rural fields;
 - commercial areas at Portbury Dock;
 - the village of Pill where the DCO Scheme will include a new car park and station, and join the operational freight line between Pill Viaduct and the western portal of Pill Tunnel;
 - along the western edge of the River Avon and the footslopes of the steep woodlands of the Avon Gorge Special Area of Conservation (“SAC”), Avon Gorge SSSI, and Leigh Woods National Nature Reserve (“NNR”); and
 - then into commercial, industrial and residential areas on the outskirts of Bristol towards Parson Street Junction where the branch line joins the south west main line between Bristol and Taunton.
- 4.1.2 BRERC (2014) returned one record of an otter spraint on the saltmarsh of the River Avon near Ashton Avenue swing bridge at Ashton Gate in Bristol. Otters are known to use the River Avon and floating harbour in Bristol. Otter are also present at the Portbury Wharf Nature Reserve which extends from immediately adjacent to the west side of the disused railway between Portishead and Sheepway towards the Severn Estuary.

4.2 Survey

- 4.2.1 The ecologists walked around waterbodies close to the disused section of the DCO Scheme between Portishead and Pill and walked along the operational freight line as well as the River Avon Tow Path between the freight line and the River Avon from Pill to Ashton Gate. The habitat was assessed for suitability for otters and observations of otter signs were noted.
- 4.2.2 Three waterbodies were identified around the disused railway line comprising the Portbury Wharf Nature Reserve, the fishing lake at Station Road and the habitat to the east of the M5 at Pill which were potentially suitable for otters and surveyed for otter signs. Waterbodies close to the disused railway line near Portbury Wharf Nature Reserve were considered unsuitable for otters due to their small area, the lack of fish and disturbance from walkers using the nature reserve in this vicinity. No signs of otters were found at the fishing lake at Station Road and the habitat is open and disturbed surrounding the fishing lake. The owner reported no issues with otters taking the fish from the lake. These two sites are not considered further.
- 4.2.3 Habitat suitable for otters and locations where otter signs were found have been mapped and are presented in the PEI Report, Volume 3 , Figure 9.4, with Target Notes (“OT”) and photographs presented in Table 1 below.

Table 4-1: Otter Survey







Target Note	Description	Plate
OT1	<p>Habitat to the east of the M5 is good otter habitat with two large waterbodies, scrub, trees and rank grassland. The habitat is possibly connected to the land east of the freight line (Target Note OT2) via a culvert under the railway but this was not accessible. A mammal pathway and possible lying up site was identified close to the waterbody.</p> <p>Photo taken 15/10/15</p>	
OT2	<p>Dense scrub, ponds and saltmarsh habitat between River Avon and Portbury Freight Line. Land to the west of a flood bank is inaccessible due to dense scrub. Suitable otter habitat.</p> <p>Photo taken 15/10/15</p>	
OT3	<p>Fresh otter spraint on a stone at the edge of Ham Lake. Ham Lake links to the River Avon and the fishing lake and adjacent woodland is good otter habitat.</p> <p>Photo taken 15/10/15</p>	

Table 4-1: Otter Survey

Target Note	Description	Plate
<p>OT4 Mammal pathways from River Avon Tow Path into woodland. Fallen tree may provide a good laying up site but it is close to the Avon Walkway so may be too much disturbance.</p> <p>Photo taken 14/10/15</p>		
<p>OT5 Several old quarry entrances pass under the freight line into the woodland which allow access for otters. The area is fairly disturbed by walkers and cyclists using the Avon Towpath however.</p>	<p>No photograph available</p>	
<p>OT6 Mammal pathway between saltmarsh and woodland. Good otter sprainting site on boulders on saltmarsh but no spraint found.</p>	<p>No photograph available</p>	
<p>OT7 Dense scrub between River Avon Tow Path and River Avon may provide suitable lying up habitat for otters. However, no signs were found.</p> <p>Photo taken 14/10/15</p>		
<p>OT8 Good otter habitat along the River Avon, associated saltmarsh and wooded area alongside the freight line. Evidence of regular tidal inundation which will remove evidence of use by otters. Human disturbance from regular use of the River Avon Tow Path.</p> <p>Photo taken 14/10/15</p>		

SECTION 5

Discussion and Conclusions

5.1 Discussion

- 5.1.1 Evidence of the presence of otters along the River Avon and associated habitats have been found. The habitat is suitable along the River Avon but there is regular disturbance by cyclists and walkers using the River Avon Tow Path which may limit the use of the area immediately adjacent to the freight line for otter holts. However, there are areas that provide suitable lying up sites. There are links into the Avon Gorge woodlands via old quarry entrances where less disturbed sites are available.
- 5.1.2 The area to the east of the M5 in the Pill area is particularly good otter habitat due to lack of disturbance, dense vegetation and links via the saltmarsh to the River Avon (OT1 and OT2). A mammal pathway and possible otter lying up site was found along one of the waterbodies (OT1).
- 5.1.3 An otter spraint was found at Ham Lake (OT3); the lake and adjacent woodland is particularly good otter habitat which is less disturbed than the River Avon Tow Path.
- 5.1.4 Otters are well known to use the River Avon and Bristol floating Harbour and the habitat is considered to be of **District** value due to the extent of habitat and regular use by otters.

5.2 Conclusion

- 5.2.1 The results of the otter survey suggest that there is a population of otters throughout the study area. The ES will identify and assess any likely significant effects on Otter, including proposed mitigation measures.

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