

PORTISHEAD BRANCH LINE PRELIMINARY
ENVIRONMENTAL INFORMATION REPORT
VOLUME 4

APPENDIX 9.3C

Ornithology Survey Report – WCA Schedule 1



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SECTION 1

Introduction

- 1.1.1 CH2M was commissioned by North Somerset District Council (“NSDC”) to undertake a survey of birds listed under Schedule 1 of the Wildlife and Countryside Act 1981 (“WCA”) and to report findings in relation to the Portishead Branch Line (Metro West Phase 1) Development Consent Order Scheme (“the DCO Scheme”).
- 1.1.2 There are records of two species listed under WCA Schedule 1 in the vicinity of the DCO Scheme, barn owl *Tyto alba* and peregrine falcon *Falco peregrinus*.
- 1.1.3 This document provides a final report on the survey work undertaken to date.

SECTION 2

Methodology

- 2.1.1 Walkover visits were undertaken by two experienced ornithologists checking for any signs of peregrine or barn owl activity or potential roosting/nesting locations on site (plus signs of any other Wildlife and Countryside Act (1981) WCA Schedule 1 bird species).
- 2.1.2 The methodology and survey technique were informed by the *Barn Owl Conservation Handbook* (Barn Owl Trust, 2012) and British Trust for Ornithology's 2014 Peregrine survey methodology (BTO, 2014).
- 2.1.3 *Barn owls* - The 'three step' approach recommended for this species was applied to the survey due to the known difficulty in surveying for barn owls, comprising:
- 1. walkover visits for detailed searching of potential roost/nest locations,
 - 2. desk study and
 - 3. enquiries with local experts.
- 2.1.4 *Peregrines* – A minimum of three hours of observation on site was made per visit. This is regarded as adequate to have a good chance of encountering signs of peregrine presence where nesting (BTO 2014). During the walkover all suitable roosting/nesting features were identified on or close to the DCO Scheme area, and the sky was scanned to check for presence of the species.

2.2 Walkover Survey

- 2.2.1 All visits commenced at 5.00 am, and a steady walkover was made of the entire length of the project area (see Figure 1 for walkover route), following public rights of way and public open space along the railway alignment, starting at the Portishead end, proceeding through the Avon Gorge, and finishing at Bedminster in Bristol. Both surveyors scanned the surrounds carefully for any signs of barn owl and peregrine and also checked for any possible nesting and/or roosting locations. Any accessible potential roosting/nesting sites were also checked closely for any evidence which could confirm breeding/roosting such as pellets, droppings, feathers, etc.
- 2.2.2 *First visit: 19/05/17* (Start time 5.00 am) - 'early breeding' visit, to check especially for territorial behaviour suggesting breeding activity.
- 2.2.3 *Second visit: 23/06/17* (Start time 5.00 am) – mid-breeding period visit, to check especially for possible feeding of young at nests. This visit including walkover inspection along the active section of railway from Ham Green and through the Avon Gorge to the survey end-point in Bristol and thus enables a closer view of this part of the project area.
- 2.2.4 *Third visit: 26/07/17* (Start time 5.00 am) – late breeding period visit, to check especially for presence/signs of any fledged/ independent young birds.

2.3 Desk Study

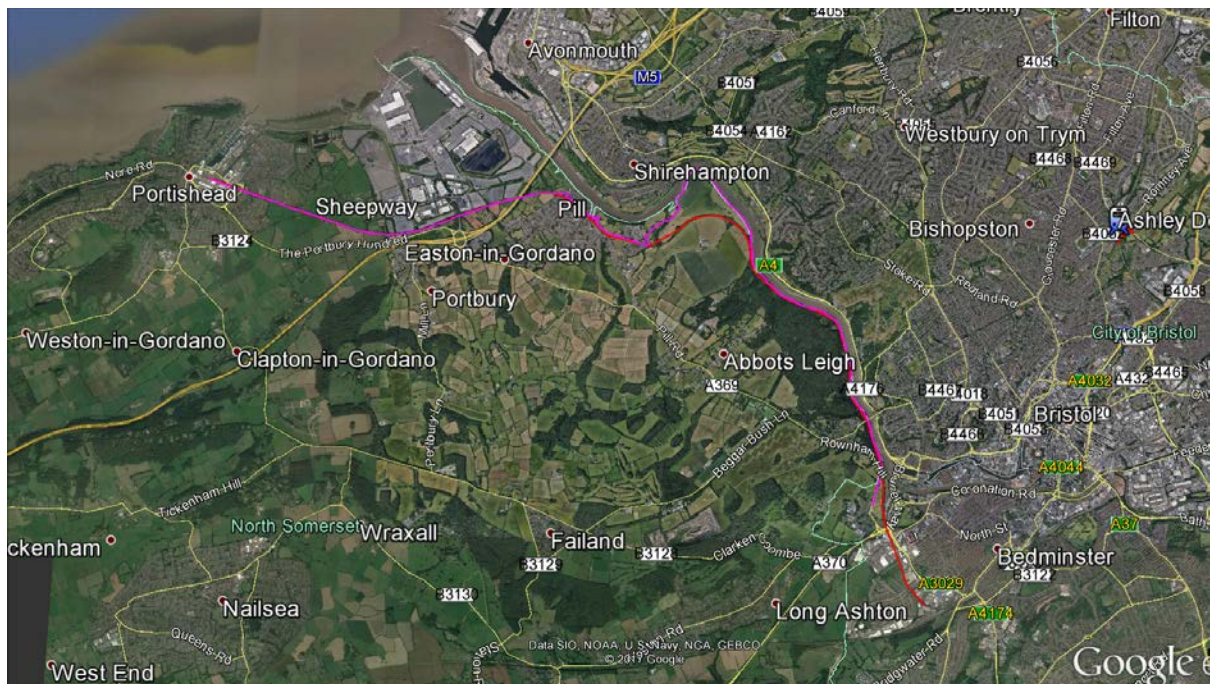
- 2.3.1 Available relevant records and reporting from the surrounding area were consulted:
- Landmark Practice (November 2016), Court House Farm, Marsh Lane, Easton-in-Gordano - Ecological Impact Assessment. Report for The Bristol Port Company
 - Desk study data obtained from Bristol Regional Environmental Records Centre
 - Portbury Wharf Nature Reserve, Avon Wildlife Trust ("AWT") Barn Owl Activity Survey data.

2.4 Consultation with Local Experts

2.4.1 The following local experts were contacted via telephone/email to draw on their knowledge of the species in the local area:

- Ed Drewitt - a recognised local authority on peregrines who undertakes annual surveys of this species in Avon Gorge.
- Chris Sperring MBE/ Hawk and Owl Trust – Mr Sperring is the Conservation Officer of the Hawk and Owl Trust (“HaOT”) and undertakes surveys of barn owls close to the DCO Scheme area.

Figure 1 – Aerial view showing the DCO Scheme route (red) and the area walked during surveys (Pink)



(copyright – Google Maps)

2.5 Summary of Legislative/Planning Context

- 2.5.1 Birds are protected by the WCA 1981 (as amended). This legislation makes it an offence to intentionally or recklessly kill, injure or take away any wild bird. It is also an offence to take, damage or destroy the nest of any wild bird while it is in use or being built or to take or destroy the egg of any wild bird.
- 2.5.2 In addition, certain species such as peregrine and barn owl are listed on Schedule 1 of the WCA. This makes it an additional offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young. Such species are considered to be in greater need of legal protection or of high nature conservation priority.

SECTION 3

Results

3.1 Walkover Results

3.1.1 Table 3-1 summarises the results of the walkover surveys.

Table 3-1: Key locations identified during walkover

Feature	Grid reference/ location	Description	Potential for presence of species
T1/ Barn owl trees	ST 47990 76191	Several hybrid black poplars along north side of tracks with potential for barn owl roost/ nesting sites (splits etc.)	Low potential
T2/ Barn owl tree	ST 48198 76117	Cavity in hybrid black poplar trunk. Good surrounding foraging habitat	Low potential
B1/ Barn owl structure	ST 48646 75955	Farm building complex with some older barns with potential entry points	Moderate potential
B2/ Barn owl structure	ST 49547 75698	Small abandoned railway sidings signaller's shed with dense growth of ivy ¹	Inspected inside and out and no evidence of roosting/ nesting found
B3/ Barn owl structure	ST 50385 75864	Small shed by road crossing with large entry point	Low potential
T3/ Barn owl trees	ST 51467 76228	Mature oak on south side of tracks with potential roost/ nesting features. Good surrounding foraging habitat. Another similar oak opposite on north side	Low/moderate potential
T4 Barn owl trees	ST 53360 75510 to ST 55110 74900	Multiple large mature trees on embankments alongside active railway line (viewed closely on visit 2) - some with potential as barn owl roosting/nesting sites. Also good surrounding foraging habitat.	Inspected during walkover along railway trackside and all trees considered to have only Low/moderate potential for barn owls (even though numerous trees with extensive cover of ivy few suitable opportunities for roosting/nesting birds)
T5 Barn owl trees	A group of c.10 trees centred on ST 54453 76042	Multiple large mature trees within grassland field, one in particular with a potentially suitable aperture for roosting barn owls.	Moderate potential
B4/ Barn owl structure	ST 53759 76007	Older style barn with potential entry points/good surrounding foraging habitat.	Moderate potential

¹ A structure identified as a bat roost and to be retained within the scheme design

Table 3-1: Key locations identified during walkover

Feature	Grid reference/ location	Description	Potential for presence of species
P1/ Peregrine habitat	ST 53894 76771	Potential nesting feature for peregrine (and possibly barn owl) in rocky outcrop with overhanging trees on opposite side of river.	Moderate potential
P2/ Peregrine habitat	ST 54839 75402	Cliff face above railway tracks with potential as peregrine nesting/roosting location.	Moderate potential
P3/ Peregrine habitat	ST 55671 74823 to ST 56210 74400	Tall/steep inaccessible cliff face with potential as peregrine nesting/roosting location.	High potential
P4/ Peregrine habitat	ST 55760 74430 (centroid)	Tall/steep inaccessible cliff face with potential as peregrine nesting/roosting location on opposite side of river.	High potential
P5/ Peregrine habitat	ST 5597 7427 (centroid)	Ex rifle range site in a former quarry with good potential peregrine habitat.	High potential
P6/ Peregrine habitat	ST 56163 73755 (centroid)	Tall/steep inaccessible cliff face above tracks with potential as peregrine nesting/ roosting location. N.B. Potentially active peregrine nest present here with pair of adults seen in visit 2, but no sign of feeding behaviour or young at/near nest, and no signs of peregrine observed on visit 3.	High potential
P7/ Peregrine habitat	ST 56480 73180 (centroid)	St Vincent's Rocks by suspension bridge - Tall/steep inaccessible cliff face with potential as peregrine nesting/ roosting location on opposite side of river from railway.	High potential

3.2 Desk Study

Review of Data Searches

3.2.1 Table 3-2 summarises the results of the desk study.

Table 3-2: Key locations identified during desk study

Note	Grid Reference / Location	Description	Potential
BH1/ Barn owl habitat	Centroid ST 48307 76076 (SE site boundary directly adjacent to disused section of scheme area)	Portbury Wharf Nature Reserve – know location of barn owl breeding activity with 3 artificial nest boxes present (one of these within 200 m of disused railway line). Breeding confirmed by AWT in at least one of these boxes going back as far as 2010. Barn owls considered ‘resident’ by AWT in 2015, and bred on site raising four owlets that year, but no evidence of breeding within the reserve since then ² .	High potential (both breeding and potentially non-breeding period). Walkover undertaken on evening prior to visit 3 (i.e. 25/07/17) and one adult bird seen flying in rough grassland field near derelict farm buildings at ST 48742 76520 (c.550 m from disused railway line) at around 9.00pm).
BH2/ Barn owl habitat	Veteran oak tree at ST 50834 75882 (c.130 m from disused railway line) within a grassland field which lies adjacent to disused section of the DCO Scheme.	Barn owl recorded during breeding bird surveys of Court House Farm site - an individual was flushed from a cavity roost in a veteran oak tree on 08/07/16. Barn owl were also recorded hunting on other occasions during summer 2016. Concluded in EclA report that barn owl is currently a non-breeding species within the site.	High potential (non-breeding period). Viewed from railway line during walkovers and tree confirmed as still appearing to have high roost potential for barn owls.

Further Information on Court House Farm Development

- 3.2.2 An ecological mitigation strategy was produced as part of supporting documents for a planning application by Royal Portbury Dock for a cargo storage facility and access at Court House Farm. The planning application was successful and the scheme is under construction. The mitigation strategy was developed in consultation with Natural England.
- 3.2.3 The following elements are likely to be of relevance to barns owls in the area:
- New hedgerow planting to create a new section of dense species-rich woody habitat along the boundary between the Court Farm site and the disused railway line – this is designed to infill the gap in hedge layer vegetation currently beneath the line of poplar trees present here.
 - Creation of a new Green Infrastructure Corridor – to be functionally linked to the Court Farm site via the disused rail line, which aims to create a new and robust wildlife corridor through Sheepway Gate Farm comprising hedgerow, species and structurally diverse field margin habitats as well as two new ponds.

² Information from and email sent from Bernie D’Arcy/ AWT on 21 October 2015, and personal telephone communication with Chris Sperring/HaOT

Consultation with Local Experts

Barn Owl

- 3.2.4 Chris Sperring was able to confirm the following in relation to recent barn owl surveys:
- 3.2.5 *There is potential for barn owl to turn up just about anywhere along the route with the exception of course of the section along the Avon Gorge that's wooded - barn owls have been observed hunting within all the red areas [see Figure 1]. Nest sites and potential nest sites are located in the first section (in the vicinity of Portbury Wharf Nature Reserve) - this year the Barn owls are still hunting the reserve though have nested off site. It is most likely that this Portishead section will be the most used by the owls as this is where the best food is situated, but nesting in other sections may occur and has occurred in the past, especially in the area around Royal Portbury Dock (i.e. Pill Marshes).*
- 3.2.6 *In terms of perceived level of risk to barn owls, the road systems (A369 and M5) are likely to be a much bigger threat than the railway. If trains approaching or leaving the area of the Portbury Wharf Nature Reserve are travelling slowly, then the threat to barn owls is likely to be much lower than where owls cross the A369 or even Sheepway Lane. The map below shows red-outlined areas where Barn Owls may come into conflict with the re-opening of the railway line.*



Figure 2 – Barn owl hunting areas identified by the Hawk and Owl Trust

- 3.2.7 Overall Mr Sperring advised that in his opinion barn owl are unlikely to be impacted upon to a significant degree by the re-opening of this railway line.

Peregrine Falcon

- 3.2.8 Ed Drewitt was able to confirm the following (email sent 11.07.17):

- *For most years over the past 20 years peregrines have nested on the Clifton side of the Avon Gorge. This year they had 3 eggs which didn't hatch. Occasionally they nest on the Leigh Woods side, most recently a few years ago when they used an old raven's nest.*
- *Interestingly the photo you have taken ³ is where the ravens have nested for the past 3 or 4 years and someone else had noticed the peregrines taking some interest down there.*
- *We did in one year have two pairs of peregrines nest in the Gorge, one also down by the suspension bridge. And they will nest within a mile of each other.*
- *However, unless the pair re-laid or a different pair have nested in this raven's nest, I don't have any further information to suggest any successful nesting this year. A pair did rear two chicks under the M5 motorway bridge in Avonmouth.*
- *The peregrines in the gorge are very much used to traffic, trains, engineering works, boats, climbers and people generally so I wouldn't envisage the works (presumably at ground level by the railway?) causing any problems with the peregrines, especially as they usually (but not always) nest on the Clifton side.*

3.2.9 In a subsequent telephone conversation on 24/07/17 Mr Drewitt advised the following:

- *That observation of the nest site on visit 3 would be highly likely to reveal peregrine activity if nesting had taken place as either the parents would be busy feeding the nestlings, or if already fledged the young birds would still be in close proximity to the nest site and would be very active and noticeable.*
- *That if peregrine nesting takes place in the year when construction work is planned at the bridge replacement location, it is likely that impacts will be relatively low, but that the degree to which the birds will be disturbed by this activity is hard to predict, and in his experience sensitivity to disturbance varies greatly from one pair of birds to another.*

3.3 Summary of Results

3.3.1 Key findings:

- No positive sightings were made of barn owls during the walkovers of the DCO Scheme (although an adult bird was observed on 25/07/17, approximately 550 m from the disused section of the railway at the Portbury Wharf Nature Reserve).
- During the walkovers nine potential barn owl roosting/nesting locations and seven potential peregrine roosting/nesting locations were identified, and the desk study revealed one known location of barn owl breeding activity (Portbury Wharf Nature Reserve) and one nearby barn owl roosting location (oak tree at Court House Farm site).
- The barn owl features were all within the section from Portishead to the start of the Avon Gorge, where there is suitable foraging habitat (rough meadow and grassland) in good quantities nearby in addition to the potential roost/nest features.
- The peregrine locations represent cliff habitats within the Avon Gorge where these birds could potentially nest.
- A potential peregrine nesting site was identified directly above the planned operational works corridor on nest know to have been formerly occupied by breeding

³ This refers to the photograph on the front cover of this report, taken of Peregrine habitat/P6 as detailed in Table 1

ravens, and an adult bird was seen sitting on the nest with another nearby on visit 2. However no sign of young birds or feeding behaviour was seen either at or near the nest and no signs of peregrine activity were observed on visit 3 (the location was watched for c.1 hour on both occasions), so peregrine breeding appears not to have occurred here in 2017 (but may potentially occur in future years).

SECTION 4

References

Barn Owl Trust, 2012 Barn Owl Conservation Handbook

British Trust for Ornithology, 2014. The 2014 Peregrine Survey Guideline for Contributors.

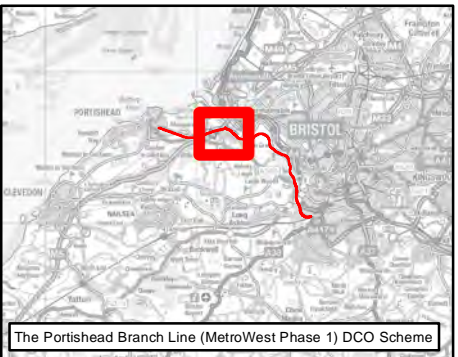
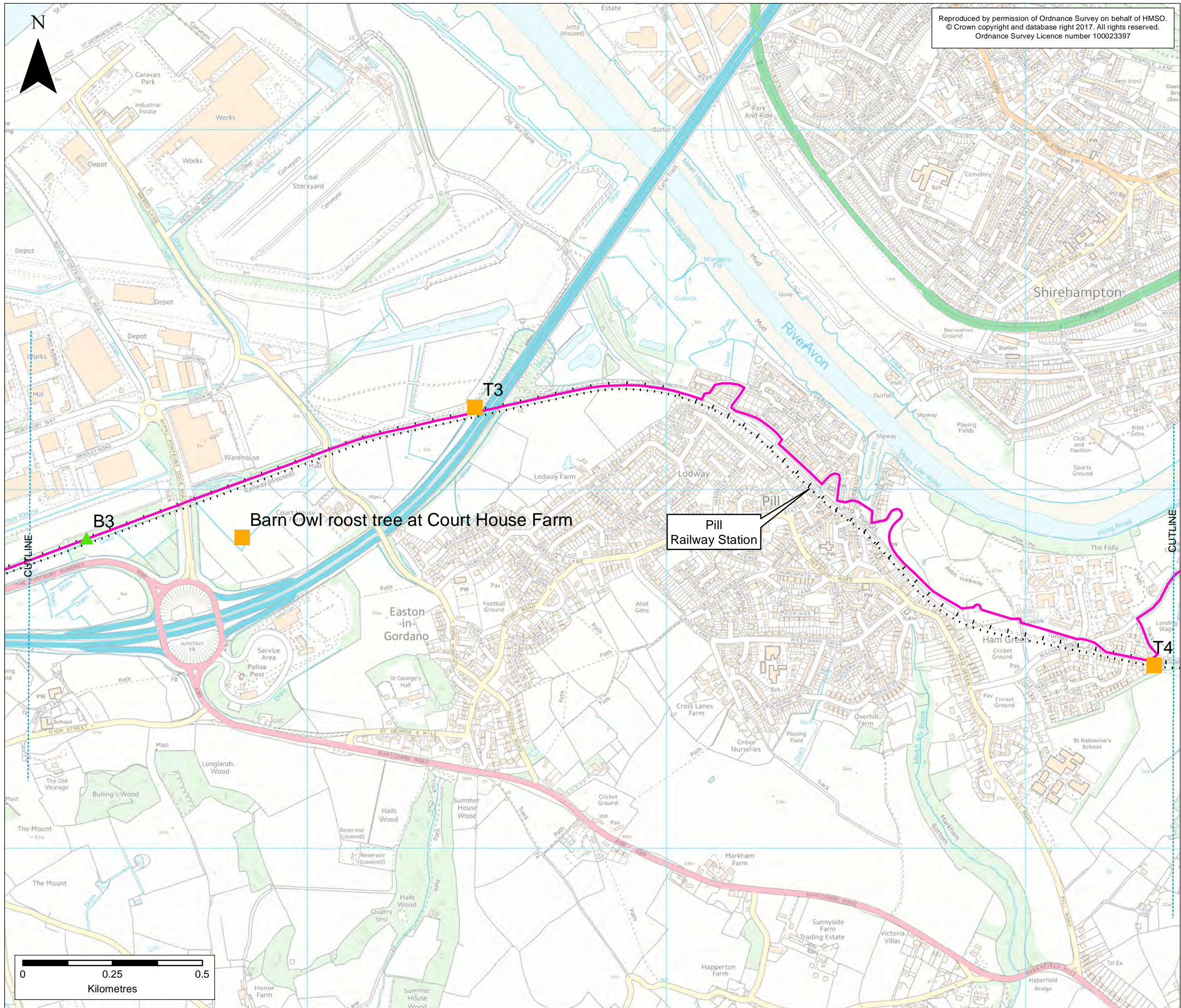
Landmark Practice, 2016. Court House Farm. Ecological Impact Assessment. Report for the Bristol Port Company

SECTION 5

Abbreviations

BTO	British Trust for Ornithology
DCO	Development Consent Order
EclA	Ecological Impact Assessment
HaOT	Hawk and Owl Trust
NSDC	North Somerset District Council
WCA	Wildlife and Countryside Act

Annex 1 Site Mapping



KEY

- Bird Survey Route 19th of May 2017
- Chainage
- Barn owl structure, Low Potential
- Barn owl trees, Low/Moderate Potential

Client

travelwest
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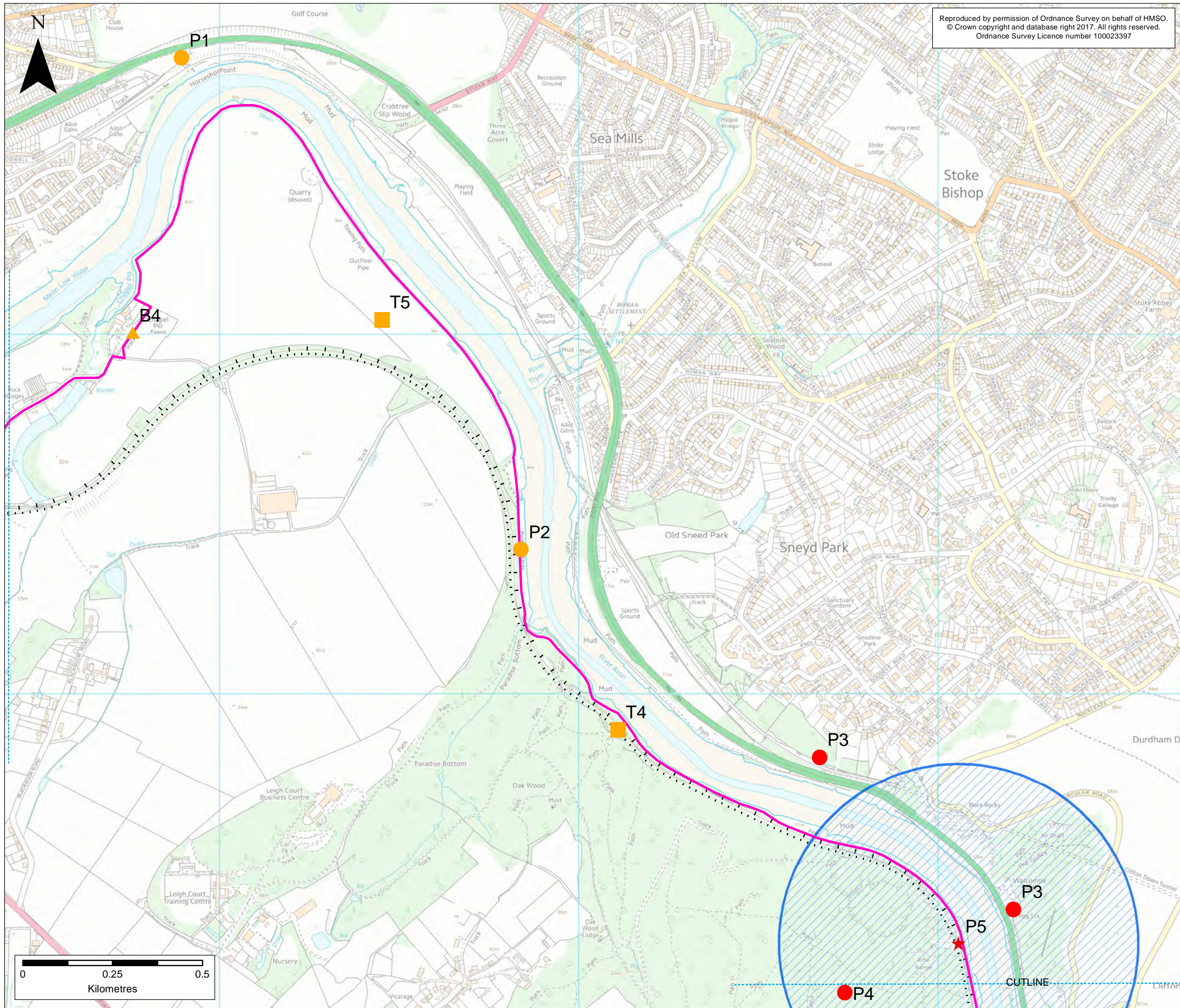
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(MetroWest Phase 1)

Drawing : Figure 2: Schedule 1
Bird Surveys Sheet 2 of 4
Portishead to Portbury

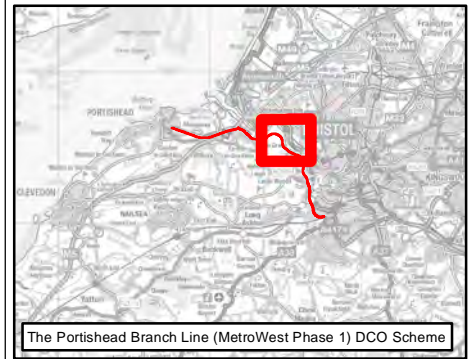
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Checked By : Martin Costello Date: 31/08/2017
Approved By : Carolyn Francis Date: 31/08/2017

Drawing No. : 490327-004-001 - A Revision 1

Drawing Scale : 1:10,000 @ A3



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KEY

- Bird Survey Route 19th of May 2017
- Chainage
- Barn owl structure, Moderate Potential
- Barn owl trees, Low/Moderate Potential
- Barn owl trees, Moderate Potential
- Peregrine habitat (on/around ravens nest), High Potential
- Peregrine habitat, High Potential
- Peregrine habitat, Moderate Potential
- Peregrine_Nesting_Site_Buffer

Client

travelwest

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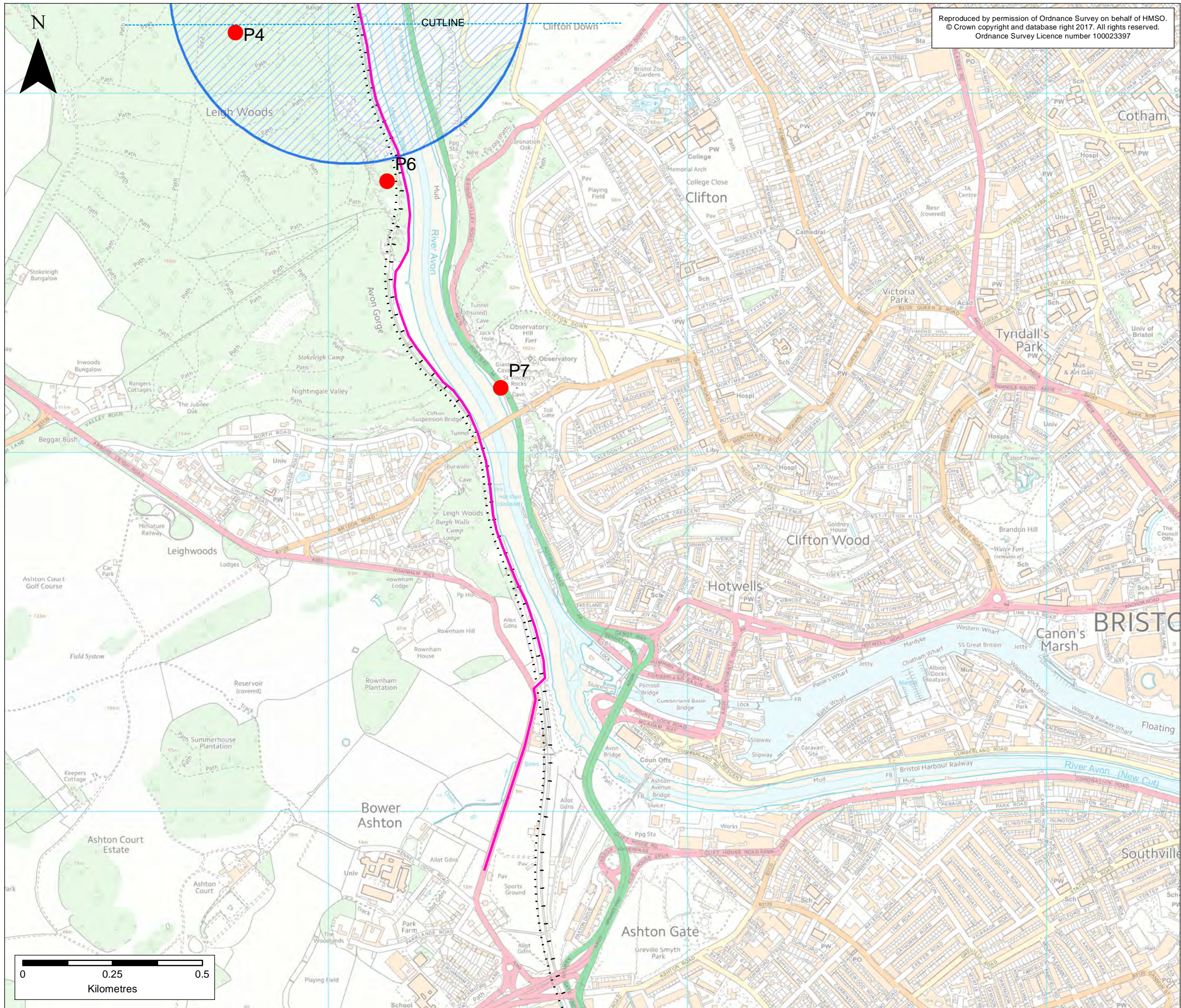
Project : Portishead Branch Line (MetroWest Phase 1)

Drawing : Figure 2: Schedule 1
Bird Surveys Sheet 3 of 4
River Avon Gorge (North)

Drawn By : Elijah Jeary Date: 31/08/2017
Checked By : Martin Costello Date: 31/08/2017
Approved By : Carolyn Francis Date: 31/08/2017

Drawing No. : 490327-004-001 - A Revision 1

Drawing Scale : 1:10,000 @ A3



KEY

Bird Survey Route 19th of May 2017

Ch.18 250m Chainage

Peregrine habitat, High Potential

Peregrine_Nesting_Site_Buffer

Client

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Drawing : Figure 2: Schedule 1
Bird Surveys Sheet 4 of 4
River Avon Gorge (South)

Drawn By : Elijah Jeary Date: 31/08/2017

Checked By : Martin Costello Date: 31/08/2017

Approved By : Carolyn Francis Date: 31/08/2017

Drawing No. : 490327-004-001 - A Revision 1

Drawing Scale : 1:10,000 @ A3