CALEDONIA
Offshore Wind Farm

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Volume 7E Proposed Development (Onshore) Appendices

Appendix 3-6 Otter and Water Vole Survey Report

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Volume 7E Appendix 3-6 Otter and Water Vole Survey Report

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Acronyms and Abbreviations

EIAR	Environmental Impact Assessment Report
HDD	Horizontal Directional Drilling
INNS	Invasive Non-Native Species
JNCC	Joint Nature Conservation Committee
MLWS	Mean Low Water Springs
NESBReC	North East Scotland Biological Records Centre
NPF4	National Planning Framework 4
ONEC	Onshore Export Cable Corridor
OnTI	Onshore Transmission Infrastructure
RLB	Red Line Boundary
SBS	Scottish Biodiversity Strategy
SPP	Scottish Planning Policy
SSEN-T	Scottish and Southern Electricity Networks Transmission
SSSI	Sites of Specific Scientific Interest
SQE	Suitably Qualified Ecologist
TJBs	Transition Joint Bays
WCA	Wildlife and Countryside Act 1981

1 Introduction

1.1.1.1 This technical appendix supports Volume 5, Chapter 3: Terrestrial Ecology and Biodiversity of the Environmental Impact Assessment Report (EIAR).

1.1.1.2 This technical appendix describes the methods used to gather and record data pertaining to otter (*Lutra lutra*) and water vole (*Arvicola amphibius*) throughout the Onshore Transmission Infrastructure (OnTI) Red Line Boundary (RLB) and provides details of the results. A description of the OnTI, outlining the components included within the Proposed Development (Onshore) is presented in Volume 1, Chapter 4: Proposed Development Description (Onshore).

1.1.1.3 This technical appendix contains baseline information only, with no evaluation of potential impacts that may arise from the Proposed Development (Onshore). The assessment of potential impacts to otter and water vole is provided in Volume 5, Chapter 3: Terrestrial Ecology and Biodiversity.

1.1.1.4 This technical appendix is supported by the following annexes:

- Annex 1– Otter and water vole field signs; and
- Annex 2- Supporting Figures:
  - Figure 3-6.1: Otter & Water Vole Survey Named Watercourses;
  - Figure 3-6.2: Otter Survey; and
  - Figure 3-6.3: Water Vole Survey.

1.2 The Proposed Development (Onshore)

1.2.1.1 Within the OnTI RLB, a proposed Landfall Site has been identified along with an Onshore Export Cable Corridor (ONEC) and Onshore Substation Site. The Onshore Export Cable Route (the area where the infrastructure would be located and would be required for construction activities) for the Onshore Export Cable Circuits will be up to 100 metre (m). The Onshore Export Cable Route will be defined at detailed design stage through further technical studies. At this stage, the ONEC is identified to allow for micro siting of the Onshore Export Cable Circuits at detailed design and allow for flexibility within individual locations for differing construction methodologies such as Horizontal Directional Drilling (HDD).

1.2.1.2 The OnTI RLB encompasses:

- The Landfall Site: the area from Mean Low Water Springs (MLWS) where the Offshore Export Cable Circuits are connected to the Onshore Export Cable Circuits via HDD ducts within Transition Joint Bays (TJBs) (buried box-like structures which house the jointing between the Offshore and Onshore Export Cable Circuits). The Landfall Site is located at a rocky bay named Stake Ness, 1 kilometre (km) west of the village of Whitehills and approximately 5km west of Banff;

- The ONEC: where the Onshore Export Cable Circuits will be located which connects the TJBs at the Landfall Site to the Onshore Substation Site. The ONEC extends approximately 37km from Stake Ness to an area in the vicinity of the existing New Deer Substation;
- The Onshore Substation Site: comprising two co-located Onshore Substations located adjacent to the existing New Deer substation. Each substation aligns with the two project phases; and
- An Onshore Grid Connection Cable Corridor connecting the Onshore Substation to the Grid Connection Point at the existing New Deer Substation (for Phase 1).

2 Legislation, Planning Policy and Guidance

2.1.1.1 There is a comprehensive system of legislation, both domestic and international, which aims to protect biodiversity at the landscape, habitat and species level. Much of this legislation exists within, and also independently of, the planning process.

2.2 Legislation

2.2.1.1 Otter and water vole are protected through their inclusion in Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 (as amended) (UK Parliament, 1981[1]). Under the legislation it is an offence to:

- Intentionally kill, injure or take (capture) an otter;
- Possess or control alive or dead otter, or any part of an otter;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which otter and/or water vole use for shelter or protection, or to intentionally or recklessly disturb otter and/ or water vole while they are using such a place; or
- Sell, offer for sale or advertise for live or dead otter.

2.2.1.2 In Scotland, this legal protection is currently restricted to water vole's places of shelter or protection and does not extend to the animal itself.

2.2.1.3 The Nature Conservation (Scotland) Act 2004 (Scottish Parliament, 2004[2]) has also amended the Wildlife and Countryside Act by the addition of the term 'recklessly' to Section 1(5) and Section 9 (4) which has resulted in additional obligations with respect to protected species. As such, it is now an offence to intentionally or recklessly disturb protected species listed on the relevant Schedules of the Act, such as otter and water vole.

2.3 Planning Policy

2.3.1.1 The National Planning Framework 4 (Scottish Government, 2023[3]), adopted in February 2023, outlines under Policy 4f the following in relation to protected species:

2.3.1.2 "Development proposals that are likely to have an adverse effect on species protected by legislation will only be supported where the proposal meets the relevant statutory tests. If there is reasonable evidence to suggest that a protected species is present on a site or may be affected by a proposed development, steps must be taken to establish its presence. The level of protection required by legislation must be factored into the planning and design of development, and potential impacts must be fully considered prior to the determination of any application."

2.3.1.3 Further planning policy relevant to the species includes the Scottish Planning Policy (Scottish Government 2014[4]), Scottish Biodiversity Strategy (Scottish

Executive, 2004; Scottish Government, 2013[5,6]) and Aberdeenshire Local Development Plan 2023 (Aberdeenshire Council, 2023[7]), which all highlight among other aims, that it is necessary for developments to consider impacts to species and habitats, and to protect and restore biodiversity.

2.4 Guidance

2.4.1.1 Guidance relevant to this technical appendix includes:

- Monitoring the Otter: Survey Guidance (Chanin, 2003[8]); and
- Water Vole Mitigation Handbook (Dean et al., 2016[9]).

2.4.1.2 The survey guidance documents for otter and water vole provided information necessary on the techniques, methods and timings for surveys to be undertaken adequately for both species.

3 Methodology

3.1 Desk Study

3.1.1.1 Biological records covering an earlier design iteration of the OnTI RLB and 500m buffer area were requested from the North East Scotland Biological Records Centre (NESBReC) in February 2023.

3.1.1.2 Due to the transient nature of otter and water vole, records older than ten years are not considered a reliable source of information upon which to inform current baseline conditions.

3.2 Field Survey

3.2.1.1 Extended Phase 1 habitat surveys were undertaken from May 2023 to October 2023 within the OnTI RLB and 500m buffer. During these surveys, watercourses and ditches were assessed for their potential to support both otter and water vole. If signs of either species were identified during these surveys, they were recorded.

3.2.1.2 The surveys assessed the following features for otter suitability:

- Fresh and flowing watercourses;
- Availability of food sources such as fish and crustaceans;
- Secluded vegetation (including marshy, reedy vegetation) for resting and sheltering young; and
- Holts, burrows, caves or other sheltering and breeding structures (NatureScot, 2024a[10]).

3.2.1.3 The surveys assessed the following features for water vole suitability:

- Small, slow flowing burns, canals, ditches, or overgrown field drains;
- Suitable grasses and herbs growing on watercourse banks to provide for a food source and shelter;
- Steep or stepped bank profiles where burrows can be created above the water table; and
- Softer bank soils for burrow creation (NatureScot, 2024b[11]).

3.2.1.4 Any watercourses or ditches within the OnTI RLB that did not contain suitable habitat features for otter or water vole, were scoped out of targeted species surveys.

3.2.2 Otter Surveys

3.2.2.1 Dedicated otter surveys were undertaken from June to September 2023, during a period of typical flow for the River Deveron and its associated tributaries[i]. Otter surveys were also repeated alongside water vole surveys in May 2024 (Section 3.2.3.1).

3.2.2.2 Where access allowed, otter surveys were conducted 250m upstream and downstream from the OnTI RLB.

3.2.2.3 A total of 13 individual survey transects for otter were carried out across seven ditches and seven watercourses, noting some of these locations were the same as for water vole.

3.2.2.4 These surveys were undertaken in accordance with current guidance (Chanin, 2003[8]; Dean et al., 2016[9]). This involved a thorough search for otter activity along the banks of all of the watercourses and up to a minimum of 2m away from the bank top. Where optimal habitat was present at the top of the bank, the survey area was extended to an appropriate distance of 10m, to encompass all suitable habitat within this buffer of the bank. This therefore allowed any otter activity that may occur away from the banks (such as the presence of sheltering or resting sites) to be recorded.

3.2.2.5 During each survey, the following information was recorded:

- Sightings of individual otter;
- Lying-up areas (couches);
- Places of rest (holts and shelters);
- Anal jelly;
- Slides (i.e. species movement into and out of the water);
- Feeding remains;
- Spraints; and
- Footprints.

3.2.3 Water Vole Surveys

3.2.3.1 Water vole surveys were undertaken between June and September 2023 and repeated in May 2024.

3.2.3.2 Where access allowed, water vole surveys were conducted 250m upstream and downstream from the OnTI RLB.

[i] The usual range of the River Deveron is between 0.22m and 3.07m. The typical level of the River Deveron at this location over the previous 12 months has been between 0.29m and 1.11m.

3.2.3.3 There was a total of 13 individual survey transects for water vole across seven ditches and seven watercourses, noting that some locations were the same as otter (Section 3.2.2.3).

3.2.3.4 These surveys were undertaken in accordance with best practice guidance (Chanin, 2003[8]; Dean et a., 2016[9]). This involved a thorough search for water vole activity along the banks of the watercourses and a minimum of 2m from the bank top.

3.2.3.5 During each survey, the following information was recorded:

- Footprints
- Burrows;
- Droppings and latrines; and
- Feeding remains of grasses and sedges (feeding stations).

3.3 Assumptions and Limitations

3.3.1.1 Ecological surveys are limited by factors which affect the presence of plants and animals, such as the time of year, migration patterns and behaviour. The absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future. However, professional judgement allows for the likely presence of these species to be predicted with sufficient certainty as to not significantly limit the validity of these findings.

3.3.1.2 Portions of four watercourses (WC03, WC09, WC10 and WC12) and two ditches (Ditch05 and Ditch06) could not be safely accessed for survey for reasons such as overgrown vegetation, bank instability and the presence of farming and/or agricultural equipment causing a blockade. Inaccessible areas were noted, and best practice judgement was made on suitability for otter and water vole at these sites. These are outlined below:

- Burn of Brydock (WC03): Majority of watercourse was densely overgrown with vegetation, making it difficult to survey banks and identify field signs;
- Burn of Muiryfold (WC09): Portions inaccessible as the channel becomes culverted in the downstream survey extent for approximately 120m under a farmyard;
- Burn of Monquhitter (WC10): Approximately 350m of channel at the downstream end of the planned survey extent was not accessible due to presence of giant hogweed (*Heracleum mantegazzianum*);
- Burn of Balquholly (WC12): Approximately 200m of channel at the downstream end of the planned survey extent was not accessible due to steep earth banks and obstructive fencing;

- Ditch05: Portions inaccessible due to presence of barbed wire fencing and densely overgrown vegetation; and
- Ditch06: Approximately 100m of ditch was not accessible due to presence of livestock and electric fencing around field boundary.

3.3.1.3 Access to certain land parcels could not be obtained prior to the field survey. Where access to such parcels was not possible, ecologists surveyed both banks from the accessible side of the watercourse/ditch where this was possible. This method was adopted for WC10 and was aided using binoculars.

3.3.1.4 Weather events, particularly intense rain prior to and during a survey, can wash away evidence of species presence such as footprints on sandy banks. Therefore, surveys were undertaken on days when rain was limited to absent. It was unavoidable that some surveys followed periods of small rain showers the night before and it is acknowledged that this may have limited signs of otter or water vole on some instances. Nonetheless, a holistic survey approach was applied which included looking for an array of species signs to ensure that confidence in determining the presence or absence of each species was possible, despite preceding weather conditions. As visits to each watercourse were undertaken on multiple occasions for a range of surveys (e.g. extended phase 1 habitat surveys, fish, badger (*Meles meles*), otter and water vole), the results of the surveys can be stated with a high degree of confidence.

3.3.1.5 Some signs that were recorded for water vole (such as burrows) may belong to other more common vole (*Microtus arvalis*) or rat (*Ratus* species). Survey guidance was followed, and burrows of the general guidance size were precautionarily identified as water vole burrows to ensure species presence was not disregarded in areas where they might occur.

3.3.1.6 An update to the OnTI RLB in July 2024 meant that a section of the Unnamed Tributary of the Burn of Asleid (WC14), that was previously outside of the OnTI RLB, now falls within the OnTI RLB. The section of WC14 that fell within the previous OnTI RLB was found not to have suitability for otter or water vole and was scoped out of further survey and assessment. It is likely that the section of WC14 now within the OnTI RLB is also unsuitable but as it was not part of the 2023 and 2024 surveys, it will need to be surveyed at detailed design. There is the potential that this section of watercourse holds suitability for both otter and water vole.

3.3.1.7 The data gathered for this technical appendix was collected between June 2023 and May 2024. As per the Chartered Institute of Ecology and Environmental Management (CIEEM)' s advice note on the age of surveys[12], should works not commence within the 18 months following survey, or paused for the same duration, it will be necessary to repeat the surveys.

4 Results

4.1 Desk Study

4.1.1 Otter

4.1.1.1 The desk study returned no records of otter within the OnTI RLB or 500m buffer within the last 10 years. However, the absence of desk study records should not suggest that this species is not present within this area in suitable habitat.

4.1.2 Water Vole

4.1.2.1 The desk study returned no records of water vole within the OnTI RLB or 500m buffer within the last 10 years. However, the absence of desk study records should not suggest that this species is not present within this area in suitable habitat.

4.2 Field Survey

4.2.1 Watercourse Suitability

4.2.1.1 Table 4-1 provides a summary for each watercourse and ditch surveyed of their suitability to support otter and water vole. This includes a description of characteristics including stream flow, presence of riparian vegetation as well as any species-specific habitat features. These characteristics, alongside the presence of any otter or water vole field signs, were used to then determine the suitability of each watercourse and ditch for otter and water vole and whether they were therefore scoped in or out for further survey.

4.2.1.2 The information used to support this watercourse suitability assessment includes detail from the initial Phase 1 habitat surveys as well as those conducted for Technical Appendix Volume 7E, Appendix 3-5: Fish and Freshwater Peal Mussel.

4.2.1.3 The watercourses and ditches that were surveyed are identified in Appendix 3-6 Annex 2 to this technical appendix within Figure 3-6.1.

Table 4-1: Otter and water vole watercourse/ditch suitability summary

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
Ditch01	Dry ditch with shallow banks and limited connectivity to wider riparian corridor provide low otter suitability. Steep banks may provide habitat for water vole. Dominant species include gorse (*Ulex europaeus*), nettle, spear thistle (*Cirsium vulgare*), broad leaved dock (*Rumex obtusifolius*), cocks foot (*Dactylis glomerata*), false oat grass (*Arrhenatherum elatius*) and soft rush (*Juncus effusus*).		No	Yes

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
Ditch02	Ditch with shallow stream, approx. 3 centimetre (cm) deep, slow flow and less than 0.5m wide. Steep banks and inundated with terrestrial grasses all provide low suitability habitat for otter. Adjacent pond has overflow to this ditch. Suitable water vole habitat with shallow stream and steep banks. Dominant species include cleavers (*Galium aparine*), common nettle, hogweed (*Heracleum sphondylium*), Yorkshire fog (*Holcus lanatus*), cocks foot, false oat grass.		No	Yes

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
Ditch03	Nearly dry ditch running between arable fields. Overgrown, remnants of hedge species. Unsuitable for otter with steep earth banks, dense vegetative cover, shallow, slow flow less than 0.5m wide. Suitable for water vole with steep earth banks, good vegetative cover, shallow, slow flow less than 0.5m wide. Dominant species include hawthorn (*Crataegus monogyna*), dog rose (*Rosa canina*), creeping thistle (*Cirsium arvense*), cock's-foot and false oat-grass.		No	Yes

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
Ditch04	Ditch with steep earth banks, shallow approx. 0.1m deep, fast flow, 0.5m wide. Grassy banks and wide margin up to crop provide unsuitable otter habitat, particularly within lower reaches. Grassy banks and wide margin up to crop provide suitable water vole habitat, particularly within lower reaches. Dominant species include cow parsley (*Anthriscus sylvestris*), lady's bedstraw (*Galium verum*), broad leaved dock, tufted vetch (*Vicia cracca*), cock's foot and Yorkshire fog.		No	Yes

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
Burn of Brydock: WC03	Watercourse with fast flow, 2-3m wide, 50cm deep in areas and densely vegetated field margins. This habitat is considered suitable for otter. Access restricted across majority of the eastern bank and overgrown banks make it difficult to identify field signs, however unlikely to contain water vole due to fast flowing water. Overhanging trees are present providing shade and cover for fish and some large woody debris to the channel. Just upstream of a confluence with another burn, the channel flows through a culvert under a bridge which is passable for fish, an essential resource for otter. Dominant species include hogweed, common knapweed (*Centaurea nigra*), sweet cicely (*Myrrhis odorata*), reed canary grass (*Phalaris arundinacea*), common nettle, cock's foot and		Yes	No

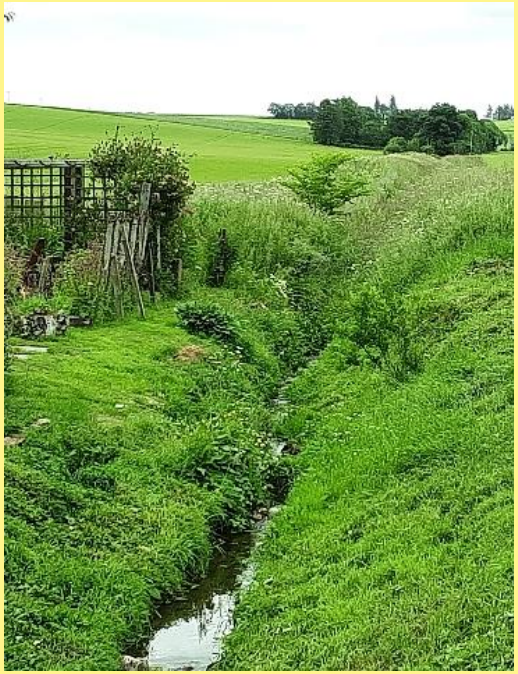
Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
	rosebay willowherb (*Chamaenerion angustifolium*).			
Unnamed tributary of Burn of Brydock: Ditch05	Drainage ditch with shallow earth banks, <0.5m depth and wide margins of rank vegetation offering suitable shelter for otter. Densely overgrown vegetation and some areas of suitable bank habitat make it suitable for water vole. Dominant species include rosebay willowherb, cow parsley, common nettle, hogweed and cleavers.		Yes	Yes

River Deveron: WC04 (including part of the Burn of King Edward)	The River Deveron meanders through a mix of woodland and agricultural land as it flows north toward Banff. Overhanging trees/ scrub are present through most of the survey extent and wide grassy margins offer suitable habitat for otter. As this watercourse is fast flowing with a large depth across the majority of its length, it is not highly suitable for water vole. However, wide grassy margins and scrub/bracken could provide more suitable habitat. This watercourse is fast flowing with a large depth across the majority of its length, resulting in substantial bank erosion in places. Dominant species include alder (*Alnus* sp.), willow (*Salix* sp.), common comfrey (*Symphytum officinale*), reed sweet grass (*Glyceria maxima*) and large areas containing Himalayan balsam (*Impatiens glandulifera*).	 	Yes	No

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
Craigston Burn: WC15	The watercourse flows through mixture of arable field, scrub and mixed woodland habitat with multiple ditches feeding into the watercourse. Overhanging trees are present along the left-hand bank for large portions of the survey extent, providing cover and shade for fish. This watercourse provides suitable otter habitat. Overhanging trees are present along the left-hand bank for large portions of the survey extent, providing cover and shade. This watercourse provides suitable water vole habitat. Dominant species include gorse, broom (*Cytisus scoparius*), foxglove (*Digitalis purpurea*), common comfrey, meadowsweet (*Filipendula ulmaria*), common nettle and germander speedwell (*Veronica chamaedrys*). Giant hogweed (*Heracleum mantegazzianum*)		Yes	Yes

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
	and Himalayan balsam are also scattered in areas throughout.			
Burn of Kinminty: Ditch06	Ditch inundated with watercress and rough grassy steep and shallow earth banks, up to 0.5m deep with limited opportunities for foraging. This is considered unsuitable otter habitat and as a result. Good vegetative cover and grassy steep banks make it suitable for water vole sheltering and for food.		No	Yes

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
Burn of Burnside: WC16	Watercourse is approximately 1m wide with vegetated banks passing between two woodland blocks but not totally shaded. Less than 10cm deep, slow flow with glides, riffles and stony earth banks. Watercourse is suitable for otter for commuting only, as overgrown and slow flowing. Suitable for water vole with vegetated banks and slow flow on suitable banks for feeding. Steep earth banks, up to 0.5m deep, largely inundated with reed canary grass, monkey flower, watercress, rank grass and tall ruderal vegetation along banks. Suitable ditch for otter for commuting only, as overgrown and slow flowing. Dominant species include common comfrey, cow parsley, cleavers, reed canary grass and common nettle.		Yes	Yes

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
Burn of Muiryfold: WC09	The channel is straightened and incised down to the bedrock in places. The watercourse flows along the side of a minor road, flowing south-west through agricultural land and a farmyard. Hard reinforcement is evident in places to support the road, especially in the lower extent. The channel is culverted in the downstream survey extent for approximately 120m under a farmyard. Due to the length of this culvert, it is potentially impassable for fish migration, an essential resource for otter. Some areas densely overgrown with vegetation which may provide a suitable feeding resource for water vole. Dominant species include cow parsley, nettle, broadleaved dock, creeping buttercup (*Ranunculus repens*), soft rush and cock's foot.		Yes	Yes

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
Burn of Monquhitter: WC10	The channel flows through rough pasture and is both straightened and embanked along the survey extent. There is an abundance of substrates, such as gravel/pebble and cobble, that supports salmonid spawning habitat throughout the survey extent with 15 salmonid spawning points recorded. Therefore, offering suitable foraging habitat for otter. However, access was limited due to presence of giant hogweed. Overall low water vole habitat suitability due to excessive erosion, access was also limited due to presence of giant hogweed. Dominant species include Sitka spruce (*Picea sitchensis*), gorse, common nettle, comfrey, rosebay willowherb, wild angelica (*Angelica sylvestris*) and cock's foot.		Yes	No

Watercourse/Ditch Name	Characteristics and Suitability	Photographs	Scoped in for Further Surveys	
			Otter	Water vole
Burn of Balquholly: WC12	Fenced off ditch, width 0.5m, depth 20cm, steep vegetated earth banks. Watercourse found to be suitable for otter. Substrates are primarily gravel/pebble and cobble creating good salmonid spawning habitat as 20 points are present throughout the survey extent. A culvert under a minor road approximately halfway along the rapid survey extent was also present which would likely be passable for fish in the right conditions, as a good food source for otter. Steep vegetated earth banks, and areas of slow flowing water are suitable for water vole. Dominant species include gorse, reed canary grass, nettle, red campion (*Silene dioica*), cow parsley and rosebay willowherb.		Yes	Yes

4.2.2 Otter Surveys

4.2.2.1 Appendix 3-6 Annex 2, Figure 3-6.2 illustrates the otter field signs recorded along watercourses surveyed in 2023 and 2024.

4.2.2.2 Annex 1, Table 1-1 outlines the results obtained from each otter survey undertaken during the 2023 and 2024 survey seasons.

4.2.2.3 A total of 53 otter field signs were recorded (32 spraints, 9 tracks and footprints, 3 couches, 4 slides, 2 anal jelly, 1 sighting, 1 path and 1 lying up site). These were recorded across five watercourses and one ditch (Graph 4-1).

4.2.2.4 Graph 4-1 illustrates otter field signs across the areas surveyed. This shows the watercourses along which otter activity was focussed and therefore which areas are likely to be preferred by otter.

4.2.2.5 Otter activity and potential otter field signs were recorded most prevalently along watercourses WC04 (31 field signs observed) and WC15 (14 field signs observed), towards the centre of the OnTI RLB.

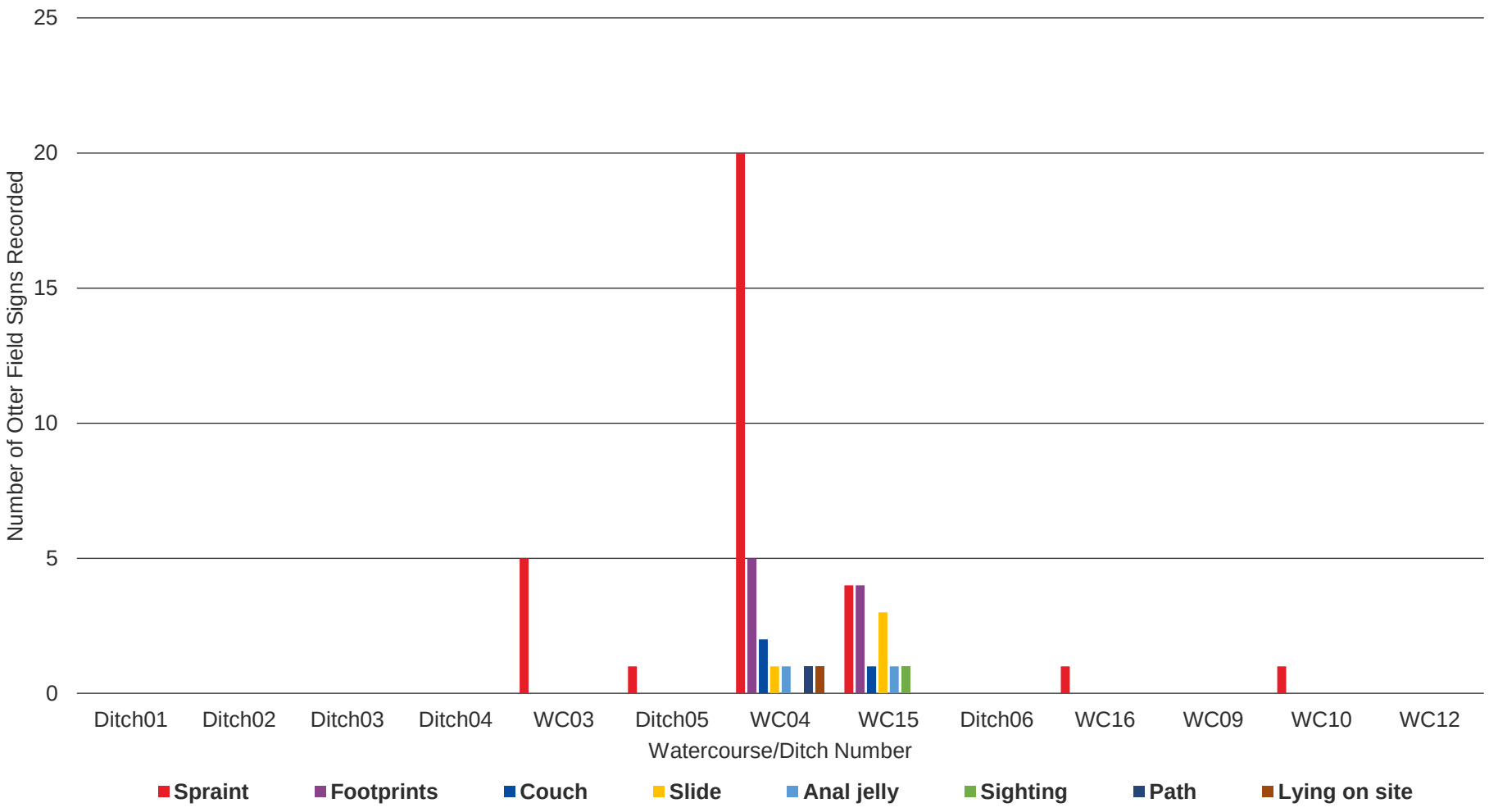
4.2.2.6 Two otter couches were recorded along the River Deveron (WC04). The first was in an area of flattened grass on the edge of the River Deveron (WC04), with direct access to the watercourse. A spraint was located adjacent to the couch. The lying up site field sign was found within the same area as this couch, as included a sheltered area of flattened grass within the vegetated banks of the watercourse. The second couch was located further north on the banks of the watercourse within the vegetated banks.

4.2.2.7 A potential otter was sighted at River Deveron (WC04), where a mammal was seen entering the watercourse from a distance. In the same area as this potential sighting, tracks/footprints were found along sandy banks alongside numerous spraints. A potential couch and resting area were also recorded further east along the River Deveron (WC04), which was found beneath a muddy bank, with exposed tree roots and vegetation.

4.2.2.8 Surveys along Craigston Burn (WC15) found several field signs that indicate a high use by otter. Spraints of varying ages, footprints, slides, anal jelly and a potential couch were all recorded.

4.2.2.9 Watercourses with fewer field signs (WC03, Ditch05, WC16 and WC10) contained only spraints. It is likely from this evidence that otters may use their habitat for transient commuting opportunities only, rather than for sheltering and breeding opportunities.

4.2.2.10 Watercourses with no signs for otter (such as Ditch 01-03) were largely smaller ditches with slow flowing water and dry in some areas. These watercourses also contained steep heavily vegetated banks.



Graph 4-1: Number and type of otter field signs recorded at each watercourse or ditch surveyed within the OnTI RLB.

4.2.3 Water Vole Surveys

4.2.3.1 Appendix 3-6 Annex 2, Figure 3-6.3 identifies the watercourses and ditches along which water vole field signs were recorded during the 2023 and 2024 surveys.

4.2.3.2 Appendix 3-6 Annex 1, Table 1-2 provides the results obtained from each water vole survey undertaken during the 2023 and 2024 survey seasons.

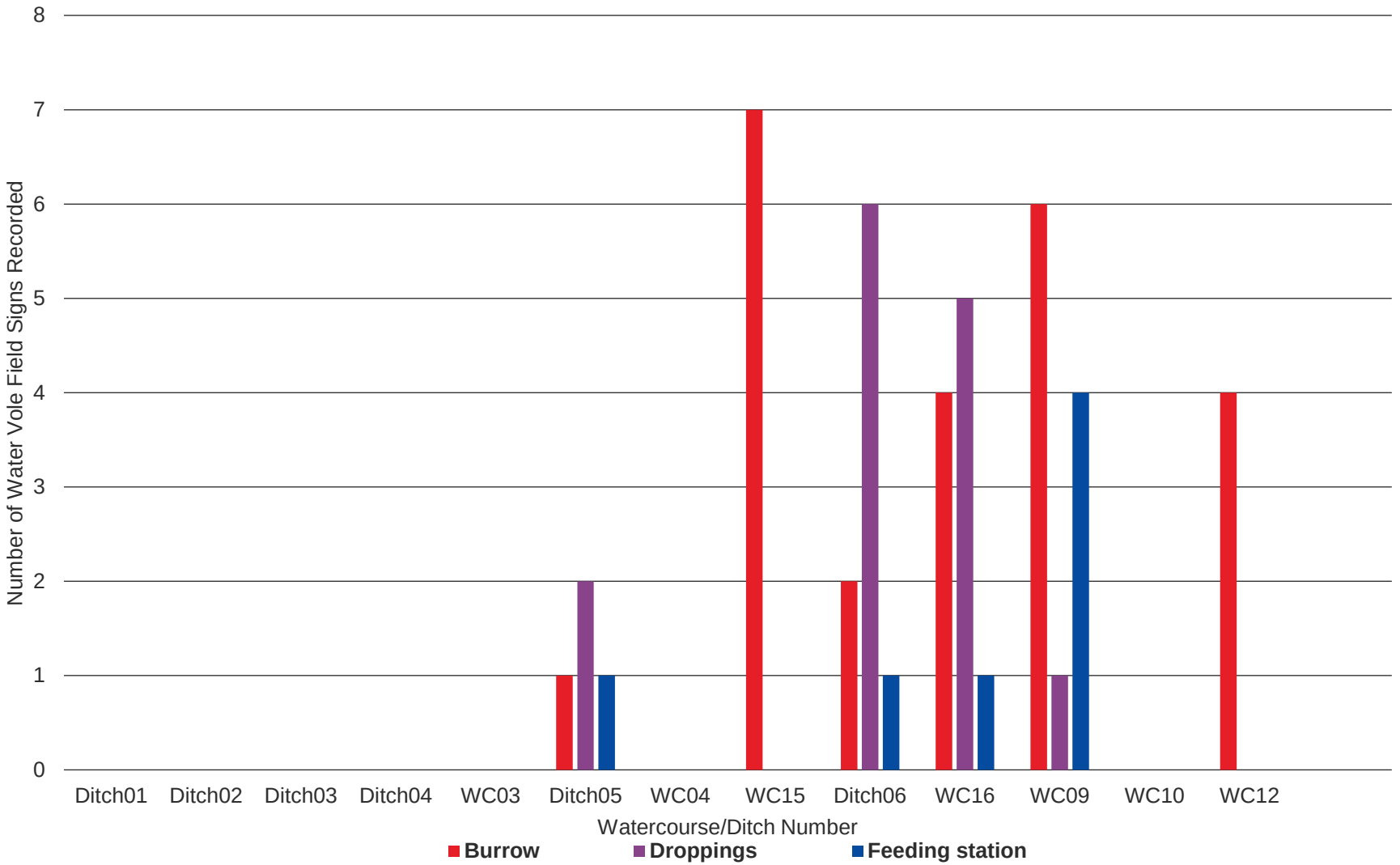
4.2.3.3 A total of 45 water vole field signs were recorded (24 burrows, 14 droppings and seven feeding stations). These were recorded across six of the 13 watercourses and ditches surveyed (Graph 4-2).

4.2.3.4 Graph 4-2 illustrates the presence of water vole field signs across the watercourses and ditches surveyed and therefore illustrates where higher levels of water vole presence was identified.

4.2.3.5 Water vole field signs were most predominately recorded along two watercourses and two ditches: WC15 - Craigston Burn (seven field signs observed); WC09 - Burn of Muiryfold (11 field signs observed); Ditch06 - Burn of Kinminty (eight field signs observed); and WC16 - Burn of Burnside (10 field signs observed).

4.2.3.6 These watercourses and ditches included steep banks with opportunities for water vole to burrow. The watercourses included areas such as flattened muddy banks with suitable grassy species, necessary for water vole feeding.

4.2.3.7 The watercourses and ditches that contained no field signs (Graph 4-2) comprised largely fast flowing water with limited steep banks which are necessary for water vole burrowing and shelter. The banks were often overgrown with vegetation, or heavily modified by grazing, with limited opportunities for water vole.



Graph 4-2: Number and type of water vole field signs recorded at each watercourse or ditch surveyed within the OnTI RLB.

5 Discussion and Conclusion

5.1.1.1 From the results, it can be concluded that the OnTI RLB provides suitable habitat for both otter and water vole, with field signs observed for both species along several watercourses. The majority of watercourses scoped in for dedicated surveys were found to have field signs.

5.1.1.2 The results of the otter surveys found a total of 54 field signs (32 spraints, 10 tracks/footprints, 4 couches, 3 slides, 2 anal jelly, 1 direct sighting, 1 path and 1 lying up site), across six of the 13 individual transects surveyed.

5.1.1.3 The field signs and direct sighting of otter were predominantly localised to larger watercourses with flowing water and presence of riparian vegetation that could shelter and provide safe breeding sites for the species, such as the River Deveron (WC04). This is generally indicative of the habitat preferences for the species (NatureScot, 2024a[10]).

5.1.1.4 The results of the water vole surveys found a total of 45 field signs (24 burrows, 14 droppings and 7 feeding stations), across six of the 13 individual transects surveyed.

5.1.1.5 The field signs of water vole were found across a variety of smaller watercourses, including ditches and smaller streams that contained taller grasses upon steep sediment banks. This is generally indicative of the habitat preferences for the water vole (NatureScot, 2024b[11]).

5.1.1.6 Comparatively to the otter, the suitability of watercourses within the OnTI RLB for water vole was greater. Watercourses in the OnTI RLB were predominately smaller streams and ditches that contained the necessary bank conditions with riparian vegetation, including grasses, that provide adequate food and shelter sources for the species. While there were no direct sightings of water vole, numerous signs were observed and recorded which are consistent with recent and current activity of the species both within, and directly adjacent to, the OnTI RLB.

5.1.1.7 An assessment of the potential impacts of the Proposed Development (Onshore) on otter and water vole has been carried out and can be found in Volume 5, Chapter 3: Terrestrial Ecology and Biodiversity of the EIAR.

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