HORIZON NUCLEAR POWER

WYLFA NEWYDD

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HORIZON NUCLEAR POWER

Wylfa Newydd Project

Consultancy Report:
Dalar Hir Water Vole Baseline Surveys 2014

November 2014

Mark Jackson

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ORIGINAL	**NAME** Mark Jackson	**NAME** Jonathan Jackson	**NAME** Adrian Hutchings
Approved by	**NAME** Rob Bromley	As Project Manager I confirm that the above document(s) have been subjected to Jacobs' Check and Review procedure and that I **approve them for issue**	**INITIALS** [redacted]
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REVISION 1	**NAME** Jonathan Jackson	**NAME** Iona Pearson	**NAME** Nick Clark
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Executive Summary

Jacobs UK Limited (Jacobs) carried out a water vole survey at land around Dalar Hir, Anglesey, centred on NGR SH32989 78381. Dalar Hir is an area of grazing and cultivated land situated to the north of the A55 on the Holyhead Road, northeast of Junction 4.

The report presents the findings of a survey carried out in March 2014 with the aim of establishing the presence or likely absence of water vole. The survey covered all suitable habitat within the site boundary and a 500m buffer zone around the boundary of the site.

Evidence of water vole was found at 10 locations during the surveys, which included eight ditches and two ponds. Five ditches and one pond showed the most frequent evidence of field signs. Occasional field signs were found on the remaining four locations. The surveys suggest that the study area at Dalar Hir supports a viable population of water vole.

No further survey work has been recommended at this stage.

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1 Introduction

1.1 Overview

Jacobs UK Ltd (Jacobs) was commissioned to undertake water vole (*Arvicola amphibius*) surveys to include all areas of suitable habitat in the development boundary shown by the red line in figure 1, and a 500m buffer around the development boundary. These areas combined are henceforth referred to as "study area". The surveys were commissioned to establish the presence or likely absence of water vole in the study area.

1.2 Site Description

The study area is centred on National Grid Reference SH 32989 78381 and is located near to Junction 4 of the A55, directly north of the Holyhead road (A5), Anglesey, north Wales.

The site boundary covers approximately 24ha and is largely comprised of improved grassland, semi-improved grassland and cultivated fields that are divided by hedgerows. There are also strips of broadleaved woodland plantation on the northern, eastern and southern boundaries of the study area. Other habitats present include three ponds and a ditch that runs from north to south through the centre of the study area.

The site boundary also includes the go-cart track at Cartio Mon to the east and the Dalar Hir Farm to the west.

The buffer zone covers an area of approximately 250ha and is largely pasture fields divided by hedgerows and ditch systems.

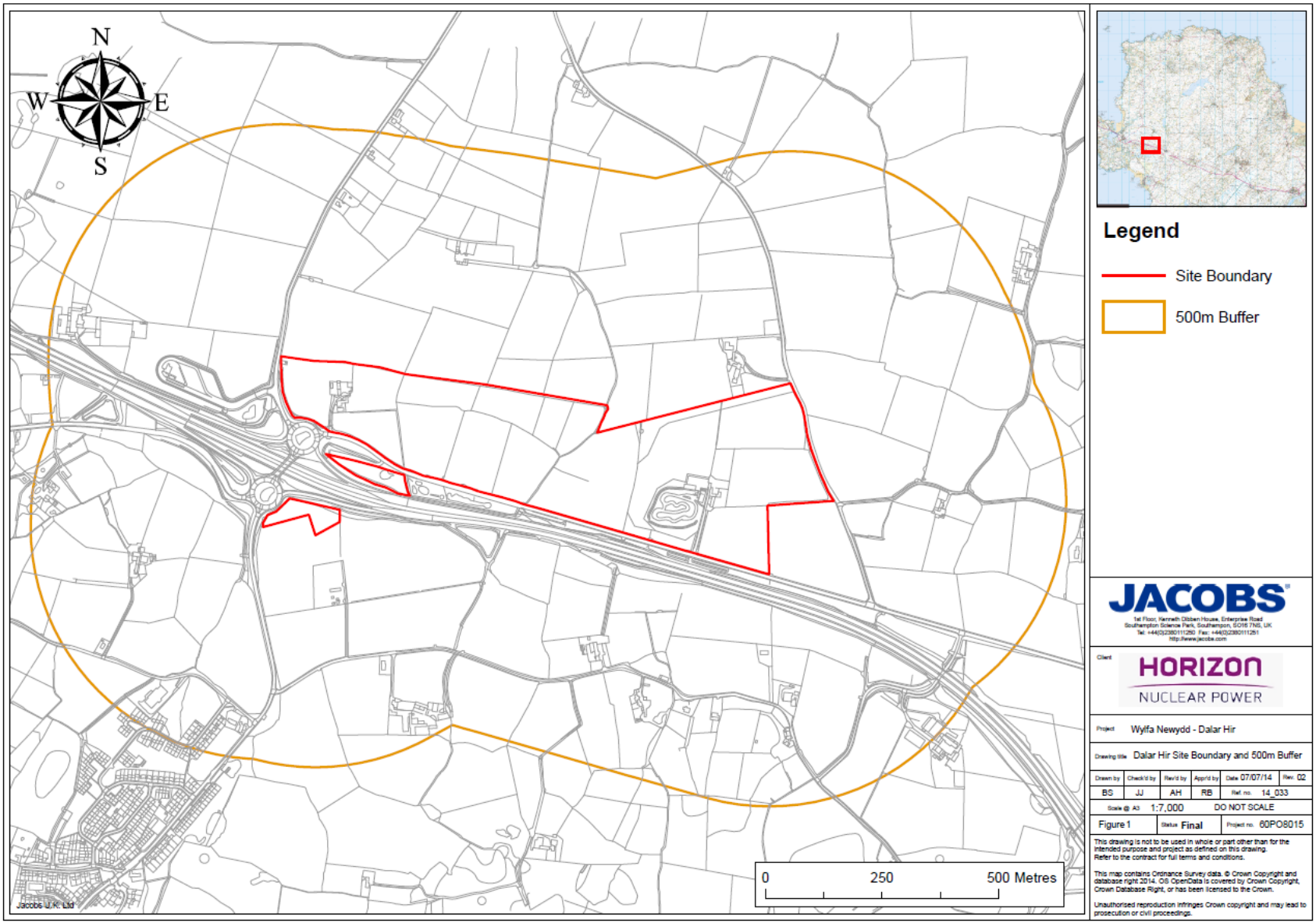

Figure 1: The study area comprising both the site boundary and 500 m buffer

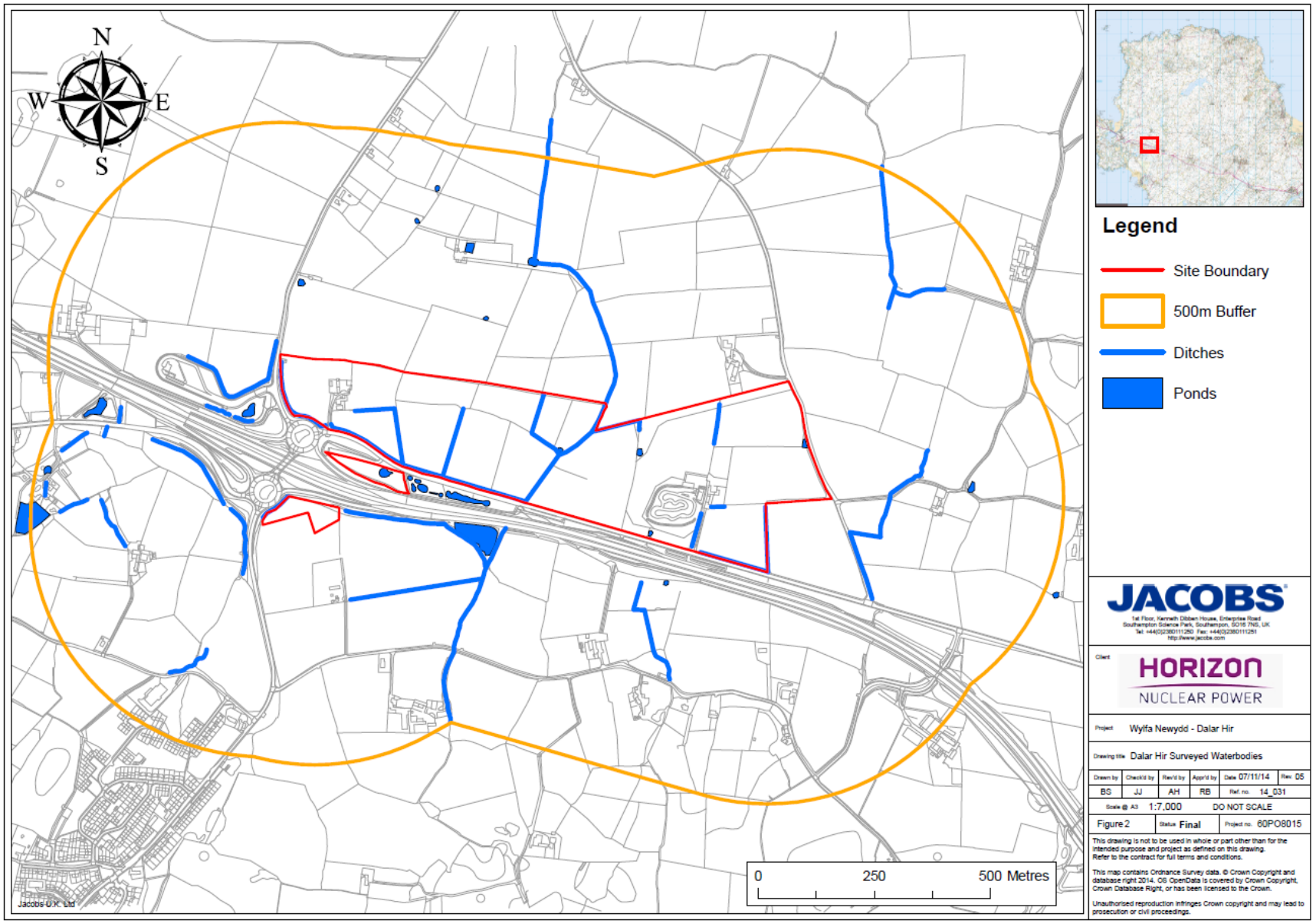

Figure 2: Ponds and ditches in the study area

1.3 Aims and Objectives

As part of the various applications and consents required for potential development of the study area the need for knowledge of temporal and spatial data on water vole was identified.

The specific aims of the surveys were to:

- establish presence or absence of the species in the study area;
- evaluate the results in the context of previous surveys for the species that have been carried out in the study area; and
- inform the need for further survey work.

1.4 Previous Background Data Searches

A background data search has not been completed to support the survey finding of this report. This is because a data search has already been completed as part of a Due Diligence Environmental Assessment Report (Mott MacDonald, 2013) and an extended Phase 1 habitat survey completed in 2013, (Jacobs, 2013) (Application Reference Number 6.6.17). The results from these are summarised below.

1.4.1 Records of water vole

There were no records of water vole provided by the National Biodiversity Network gateway within 2km of the study area. The nearest record of water vole was up to 15km away on the Afon Cefni flood plain. Cofnod (North Wales Environmental Information Service) data listed that water vole have been recorded in 1995 and 1999 within 2km of Dalar Hir (Mott MacDonald, 2013).

1.5 Legislation

As of the 12th August 2008 water voles in Wales were given full protection under Section 9 of the Wildlife and Countryside Act 1981. This legislation protects the animals from intentional killing, injury, capture, sale and disturbance. The Act also provides water vole habitat protection from damage.

Water voles are also included in the UK Biodiversity Action Plan (UK BAP), and in the Anglesey Local Biodiversity Action Plan and listed under Section 42 of the Natural Environment and Rural Communities Act, 2006 (NERC) as a species of principal importance in Wales. This means that they are material considerations within the planning process.

2 Methodology

2.1 Introduction

The survey was carried out between 17th and 21st March 2014 by Mark Jackson from Jacobs, he was supported by Jessica Brooks and Susie Coyle also from Jacobs.

2.2 Field Survey

All suitable watercourses and water bodies within the study area (figures 1 and 2) were searched for evidence of water vole presence; notably burrows, latrines, feeding remains and waterside runways amongst the vegetation in accordance with methods by Strachan and Moorhouse (2011).

The surveys were carried out in spring when the animals would be expected to be territorially active and depositing latrines, which are a diagnostic sign that water vole are present.

2.3 Survey Limitations

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Although the timing of the survey was not consistent with the guidance given in Strachan and Moorhouse (2011), visits were carried out in spring during a period of favourable weather conditions, and it is therefore considered that water vole were sufficiently active to allow robust conclusions to be drawn as to the presence or likely absence of water vole on the waterbodies in the study area.

3 Results

3.1 Field survey results

The results of the field survey are summarised in table 1 and are shown in figures 3, 4, 5 and 6. Evidence of water vole was found in 10 locations, including eight sections of ditch and at two ponds (for grid reference locations see table 2 in Appendix A).

Table 1 Results and vegetation description of ditches with water vole field signs

Location	Description	Results
Ditch 9 (D9)	A stream that had been partly canalised towards the southern end of the reach, with steep banks. The right bank had a covering of dense gorse. There was abundant marginal and in stream vegetation.	Latrines 25 Feeding stations 8 Burrows 7 Prints >40
Ditch 9 North (D9 North)	A short stream that reached to the north of D9 bordering pasture fields.	Latrines 4 Feeding stations 4 Prints 8
Ditch 9 South (D9 South)	A shallow canalised stream that was a continuation of D9 south of the A5. The right bank had a covering of scrub. A pasture field bordered the left bank.	Latrines 5 Feeding stations 1 Burrows 1
Ditch 11 (D11)	A canalised stream that flowed north to south via a pond into D9. The left bank had a covering of dense bramble.	Latrines 3
Ditch 19 (D19)	A short drain that flowed from the northeast to southwest which joined D18 south of the lane west of Bryndu Farm.	Latrines 3 Feeding stations 10 Burrows 2
Ditch 20 (D20)	A short poached section of drain that flowed from a dense thicket of scrub from east to west into D21.	Latrines 4
Ditch 21 (D21)	A spring fed stream that had dense marginal vegetation and rush swards along the banks. The ditch flowed towards in a northerly direction before joining D11.	Latrines 8 Feeding stations 4
Ditch 24 (D24)	A stream that flowed from north to south into D9 South. Marginal vegetation exists on the right bank, the left bank was covered by a dense covering of scrub.	Latrines 2 Feeding station 1
Pond 14 (P14)	A large circular balancing pond that had diverse marginal and abundant open water vegetation.	Latrines 1 Feeding stations 2
Pond 16d (P16d)	This pond appeared to be a large linear Sustainable Drainage Systems (SuDS) pond that had abundant marginal vegetation.	Latrines 3 Feeding stations 5 Burrows 7

Plate 1: Ditch 9 North – A combination of field signs were found on the banks of this ditch

Plate 2: Ditch 19 – Feeding stations were found on the banks of this ditch

Plate 3: Ditch 21 – A ditch with very shallow banks where latrines were found among the rush tussocks

Plate 4: Pond 16d – A pond that had shallow banks where many burrows were found just above the water level

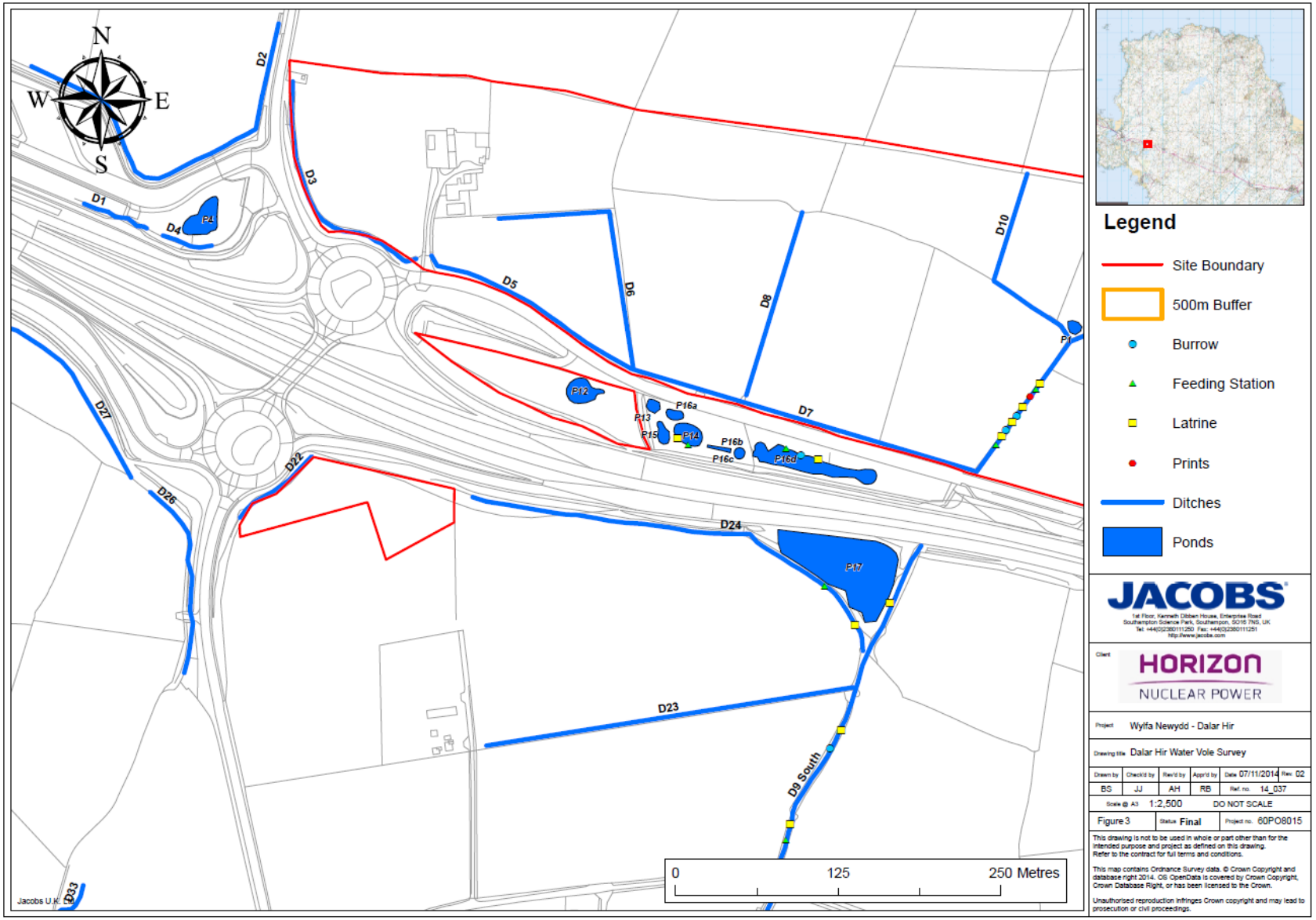

Figure 3: Field signs found at the Pond 14, Pond 16d, Pond 17, Ditch 9, Ditch 24 and Ditch 9 south.

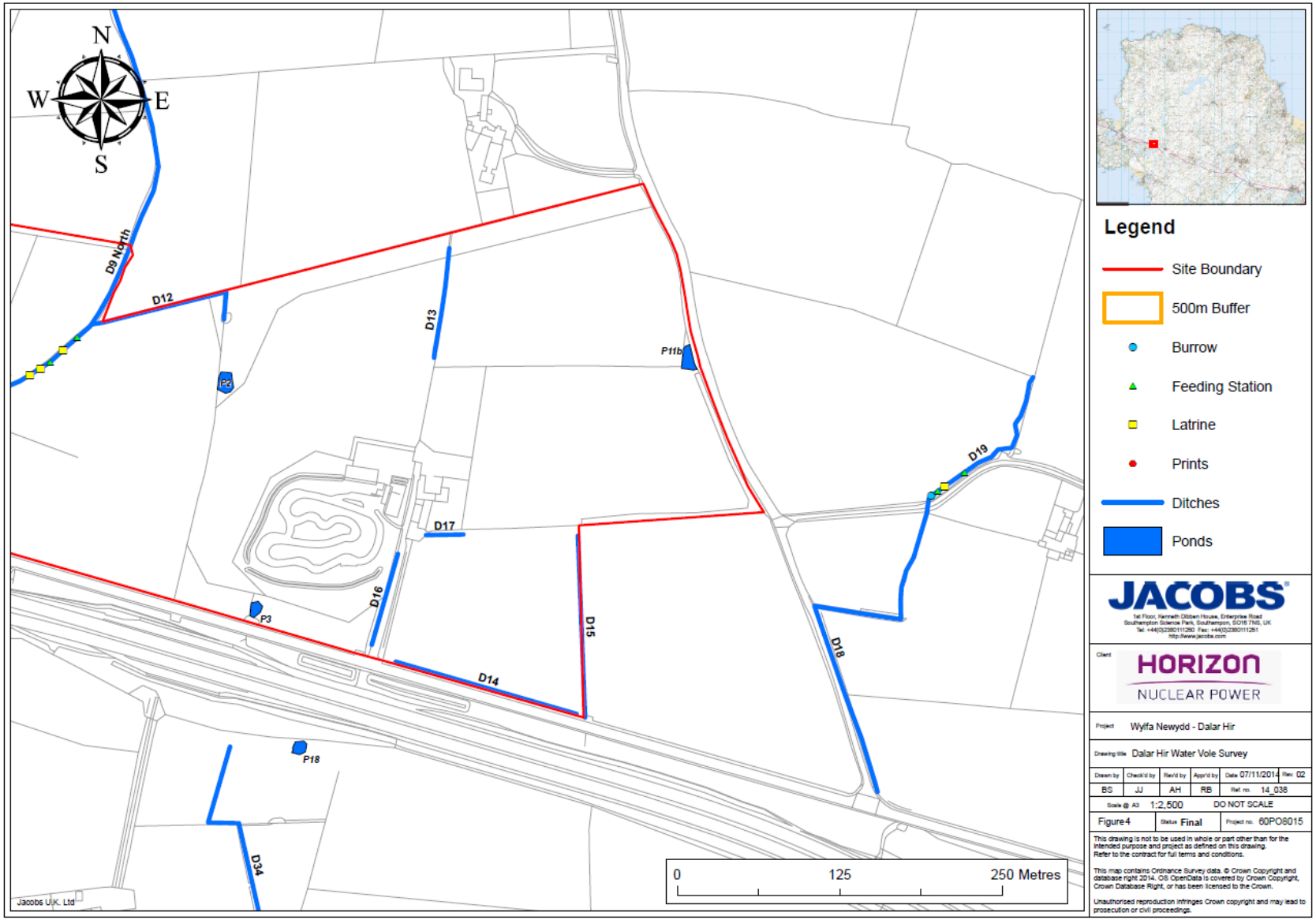

Figure 4: Field signs found at Ditch 9 and Ditch 19.

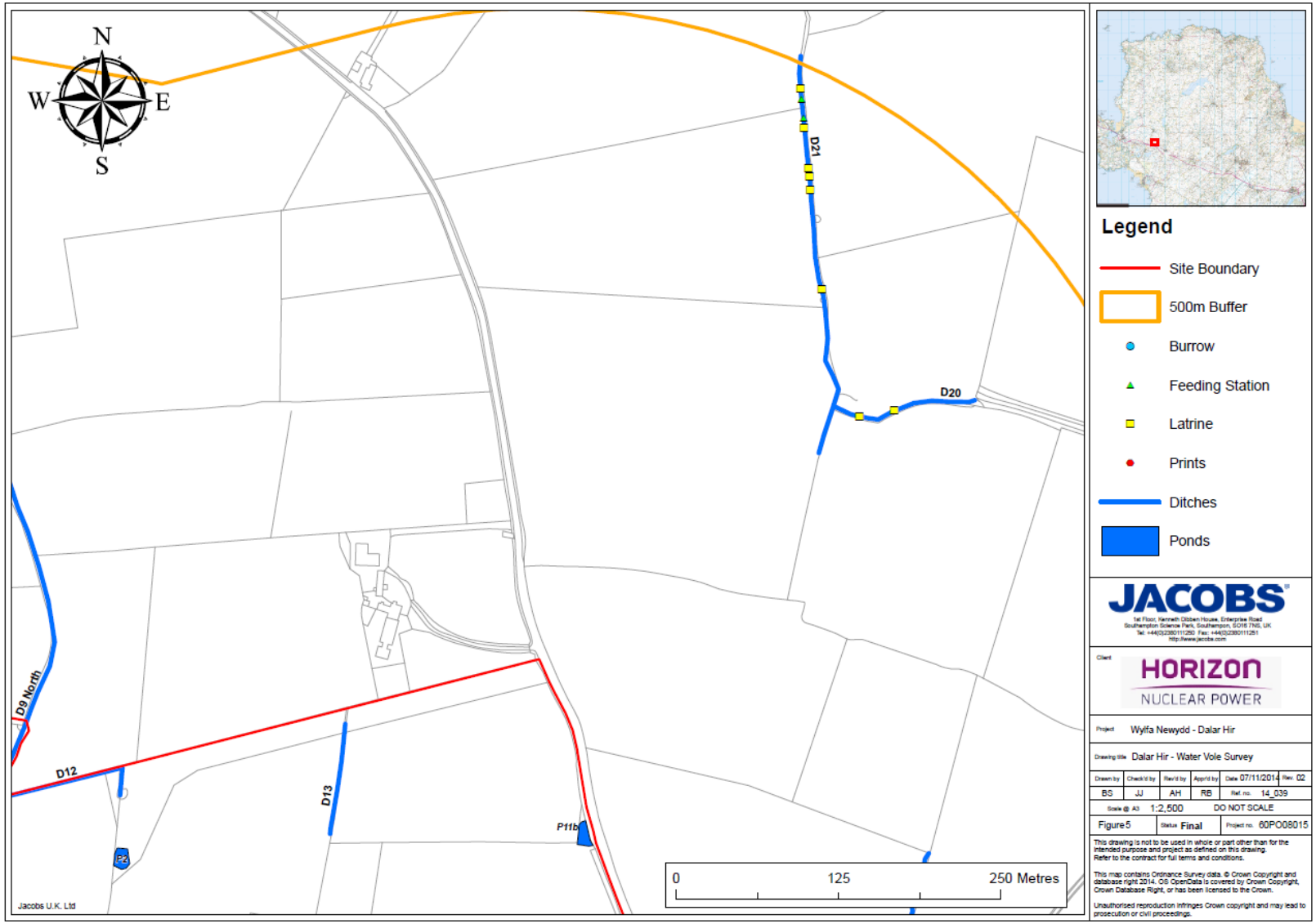

Figure 5: Field signs found at Ditch 20 and Ditch 21.

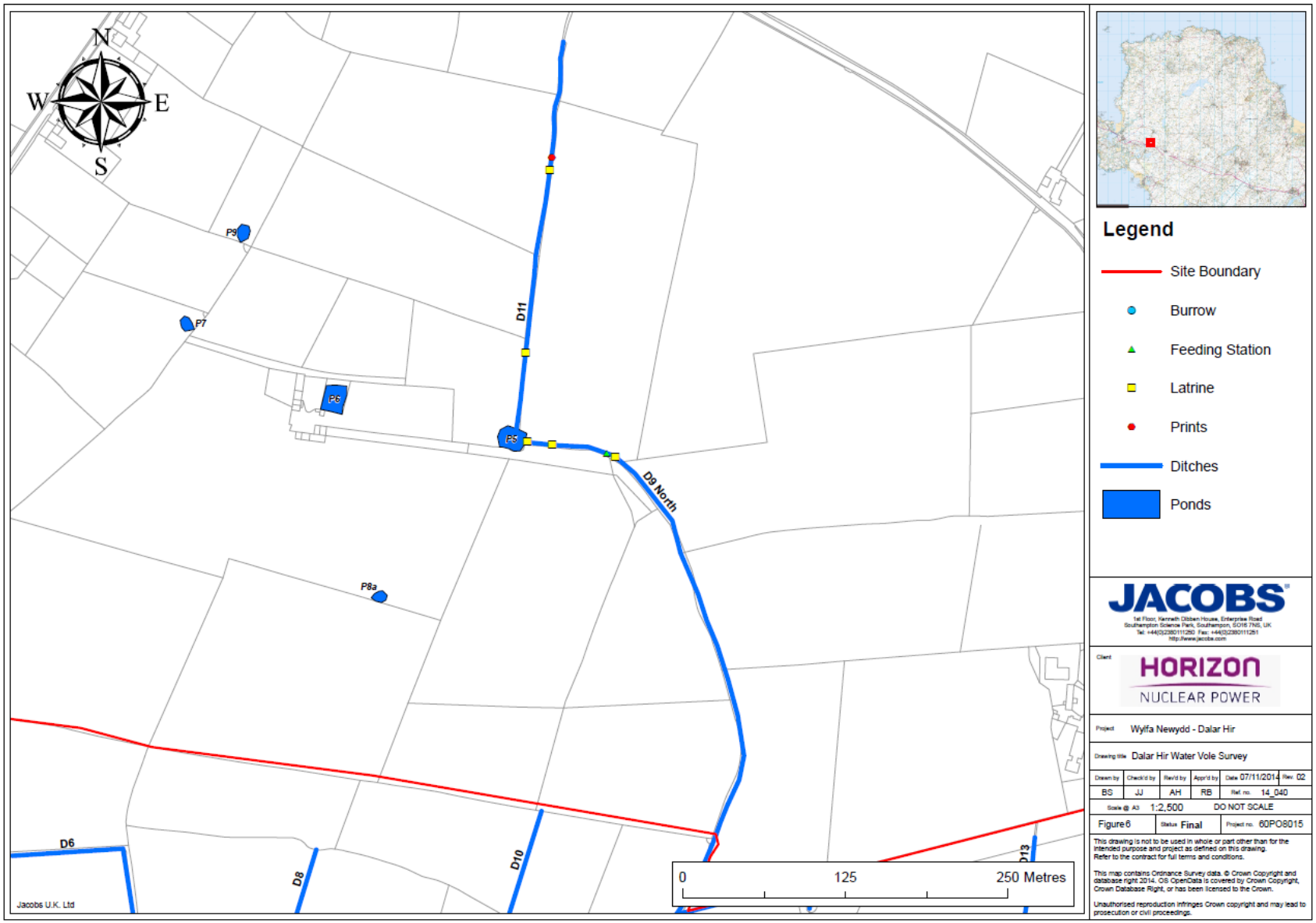

Figure 6: Field signs found at Ditch 9 north and Ditch 11.

4 Conclusion

Evidence of water vole was found at 10 locations during the survey, which included eight ditches and two ponds. These were:

- Ditch 9
- Ditch 9 North
- Ditch 9 South
- Ditch 11
- Ditch 19
- Ditch 20
- Ditch 21
- Ditch 24
- Pond 14
- Pond 16d

These results suggest that the study area at Dalar Hir supports a viable population of water vole.

Ditch 9 is the main watercourse that runs through the centre of the study area and showed the highest abundance of water vole field signs. The number of field signs found on Ditch 9 indicated that this watercourse supports a viable population of water voles and is likely to be the most important habitat feature for ensuring the long term survival of this species within the study area. In addition, Ditches 9 North, 9 South, 11, 20, 21 and Pond 16d are all interconnected allowing for population expansion and juvenile dispersal, further assisting in the maintenance of a population of water voles in the local area.

No further survey work has been recommended at this stage.

5 References

Jacobs, (2013), *Consultancy Report: Dalar Hir – Extended Phase 1 Habitat Survey and Great Crested Newt Habitat Suitability Assessment*, report on behalf of Horizon Nuclear Power Wylfa Ltd.

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Appendix A Waterbody Locations

Table 2: Grid references for waterbody locations

Location	Grid references
Ditch 9	SH 33144 78460 SH 32980 78251
Ditch 9 North	SH 33003 78768 SH 33080 78751
Ditch 9 South	SH 32933 78187 SH 32824 77941
Ditch 11	SH 33025 78990 SH 33003 78768
Ditch 19	SH 33763 78267 SH 33839 78359
Ditch 20	SH 33878 78707 SH 33773 78703
Ditch 21	SH 33764 78686 SH 33748 78980
Ditch 24	SH 32805 78205 SH 32892 78119
Pond 14	SH 32757 78281
Pond 16d	SH 32848 78259