

Appendix 7.2

Confidential sections of this report
are included in Annex C.1

2014/2015 Otter and Water Vole Survey of the Proposed Douglas West & Dalquhandy DP Renewable Energy Project, South Lanarkshire



Dunnock Environmental Services

Final Report

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1. Introduction

A planning application is being drawn up by 3R Energy for a 15-turbine wind farm and associated wood drying facility at Douglas West and Dalquhandy DP, located to the north west of the village of Douglas in South Lanarkshire (central OS grid reference: NS 820 325, see Figure 1).

In addition to the turbines and wood drying facility the proposed development would contain associated infrastructure, such as substation/control building, hardstandings, crane pads, access tracks, etc. It is anticipated that the grid connection would be laid largely underground along the former Dalquhandy access road which leaves the north-eastern corner of the site and runs northwards past the Dewars bonded warehouses towards the M74 motorway.

The turbines would be sited largely on land disturbed by the former Dalquhandy Opencast Coal Site and to the north-east of the operational Hagshaw Hill Wind Farm.

As part of this planning application, a suite of ecological and ornithological surveys is being carried out to feed into the Environmental Impact Assessment process. Dunnock Environmental Services (DES) were commissioned by 3R Energy in September 2014 to document and evaluate evidence of use of the site by otters (*Lutra lutra*) and water voles (*Arvicola amphibius*). This report describes the methods and results of that survey.

2. Site Description

The site (excluding the access track) is 245 ha and consists of two distinctive sections: a northern section and a southern section, which are separated by the former coal haul road, now a tarmac road that crosses the site in an east-west direction.

The northern half of the site consists of previously worked opencast coal land which was restored in the mid-1990s and which has reverted predominantly to a rough grassland consisting of a mixture of Soft-rush (*Juncus effusus*) and Tufted Hair-grass (*Deschampsia cespitosa*) with patches of more open and improved grassland scattered in between. A number of small waterbodies, including former settlement lagoons, and running streams are scattered across the site. The concrete hardstanding of the former dispatch point (DP) in the north-east corner of the site and the tarmac road are remnants of the previous opencast coal infrastructure.

The southern section of the site consists of unworked land that is more semi-natural in character, although has been gripped in the past, and consists of a mixture of Purple Moor-grass (*Molinia caerulea*) dominated wet heath, marshy grassland and acidic grassland. There is also a band of young mixed woodland plantation along the southwestern site boundary.

The Poniel Water corridor, deeply incised in the west, runs north of the northern boundary of the site in a diverted channel, while dense Sitka Spruce plantation borders the western boundary and a mixture of broadleaved woodland, coniferous woodland and a disused railway flanked by broadleaved trees border the eastern boundary. The access track to the Hagshaw Hill Wind Farm forms the southern boundary of the site beyond which the rough grassland of the southern section continues south-eastwards for some distance.

The entire site is grazed by sheep and there is some informal recreational use of the site, primarily along the former coal haul road in the centre of the site.

3. Legislation

The following paragraphs provide a summary of the protection afforded to otters and water voles. The summary is not comprehensive and is included here for illustrative purposes only. For a definite list of offences, the reader is referred to the original legislative texts.

3.1 Otters

Otters are legally protected by the EC Habitats Directive, which is transposed into domestic law by the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended). The Conservation (Natural Habitats, &c.) Amendment (Scotland) Regulations 2007 enhanced this protection. It is illegal, amongst other offences, to deliberately or recklessly:

- kill, injure or capture an otter
- disturb or harass an otter
- disturb an otter in a holt or any other structure or place it uses for shelter or protection
- disturb an otter in a manner that is likely to significantly affect the local distribution of the species
- disturb an otter in a manner that is likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young
- damage, destroy or obstruct access to a breeding site or resting place of an otter. This does not need to be deliberate or reckless to constitute an offence and is so regardless of whether otters are present or not.

The Wildlife and Natural Environment (Scotland) Act (2011) (WANE Act) further strengthened the protection afforded to otters by making it an offence, amongst others, to knowingly cause or permit an unlawful act to be carried out.

3.2 Water Voles

Water vole shelters are legally protected under Schedule 5 of the Wildlife and Countryside Act 1981 (Section 9(4) only), as amended by the Nature Conservation (Scotland) Act 2004 and the 2011 WANE Act. In Scotland, there is no legislation to directly protect water voles. It is an offence to intentionally or recklessly:

- damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection
- disturb water voles while they are using such a place.

4. Survey Limitations

Surveys were carried out in suitable weather conditions and when watercourses were not in spate conditions. Although the 2014 surveys continued into October, just past the recommended survey period for water voles, all minor watercourses which are likely to be suitable for water voles were surveyed in September within the recommended time period.

The southern half of the site has numerous small ditches throughout the wet heath and marshy grassland area. Some of these run partially underground, are fragmented or obscured by vegetation. The main ones were inspected and it is considered highly unlikely that minor ones, which at most consisted of a trickle of water through a level area of rushes, presented suitable burrow habitat for water voles.

5. Methodology

The approach adopted consisted of a desk exercise and a field survey, as described in sections 5.1 and 5.2 below.

5.1 Desk Study

For the desk study the SNHi web site (<http://www.snh.gov.uk/publications-data-and-research/snh-information-service/map/>) was consulted for records of otters and water voles.

5.2 Field Survey

Field survey methods for otters and water voles followed standard methodologies, as described in section 5.2.1 and 5.2.2 below.

5.2.1 Otters

An otter survey was carried out on all watercourses and standing waterbodies within the site boundary and a surrounding buffer zone of at least 250 m (Figure 1). The 2014 survey was carried out on 26th September and 8th and 10th October. On 26th September it was dry and sunny, on 8th October it was overcast with occasional rain showers while on 10th October it was overcast with some rain showers in late afternoon. Incidental records of otters found during the 22nd April 2015 water vole survey as well as other surveys carried out at the site were also recorded. None of the watercourses were in spate condition on any of these dates.

The following field signs were looked for using the standard methodology (Chanin, 2003):

- spraints
- footprints
- holts, i.e. enclosed resting sites
- lying up sites (couches), i.e. temporary rest sites above ground
- sign heaps (e.g. scraped piles of substrate topped with spraint)
- feeding signs.

All otter signs were recorded using a hand-held GPS.

5.2.2 Water Voles

The water vole survey was carried out on suitable watercourses and standing waterbodies within the site boundary and a surrounding buffer zone of at least 250 m (Figure 1). The Poniel Water along the north of the site is too fast flowing and generally has stony banks unsuitable for water vole burrows, therefore survey effort was concentrated on smaller burns flowing through the site. Dean *et al.* (2014) recommend at least two survey visits for water voles, one in the first half of the season and the other in the second half, with the visits being at least two months apart.

Due to the late commission of the survey, the first survey was carried out on 26th September 2014 and the second survey on 22nd April 2015. Both surveys were carried out on dry days which were preceded by dry weather conditions, therefore signs of water voles would not have been washed away.

The following field signs were looked for using the standard methodology (Strachan *et al.*, 2011):

- burrows
- latrines
- droppings
- feeding stations
- feeding lawns
- footprints¹

Sections 6 and 7 and Figure 1 are included in confidential Annex C.1

8. Recommendations

Based on the desk study and current field survey, it is recommended that a pre-development survey for otters should be carried out within 6 months of work commencing to establish that the present situation has not changed and to confirm the status of the holt and potential resting sites in order to inform any license requirements.

9. References

Chanin, P. (2003) *Monitoring the Otter*, *Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No. 10. English Nature: Peterborough.

¹ Footprints are not reliable enough signs when found without other supporting evidence, as tracks of adult water voles are very similar to those of juvenile brown rats (Strachan *et al.*, 2011). If found, these therefore need to be supported by other field evidence.

Dean, M, Gow, D. & Andrews, R. (2014) Water voles - a preview of new guidelines for survey and mitigation. *In Practice*: **84**: 19-22. Chartered Institute of Ecology and Environmental Management: Winchester.

Strachan, R., Moorhouse, T. & Gelling, M. (2011) *The Water Vole Conservation Handbook* (3rd edition). Wildlife Conservation Research Unit: Oxford.