

# **THE OTTER CONSULTANCY**

## **PROPOSED DEVELOPMENT:**

### **ECO-POWER PROJECT BLACKBRIDGE, MILFORD HAVEN.**

## **PROPOSED NEW ROAD INTO SITE: OTTER SURVEYS & MITIGATION REPORT**

**JUNE 2017**

**A report for: EGNEDOL LTD**

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## **INTRODUCTION**

As part of the ecological assessment for the proposal by Egnedol Ltd to develop an ecopower project at the former RNAD mine depot site at Blackbridge, otter surveys of the site were undertaken in 2015 & 2017 by the author. The site lies alongside the Daugleddau estuary, part of the Pembrokeshire Marine/Sir Benfro Forol Special Area of Conservation (SAC); the otter (*Lutra lutra*) is a feature of the SAC.

A new road access into the site is proposed at a point upstream from the reservoirs, to connect with the existing West Perimeter Road (Fig 1).

**Fig 1** Location of proposed new road.



The new road will lie adjacent to the inflow stream that flows into the reservoirs and continues down to the Daugleddau. An otter survey was undertaken to assess potential impacts on otters, and to identify mitigation measures.

## **METHODOLOGY**

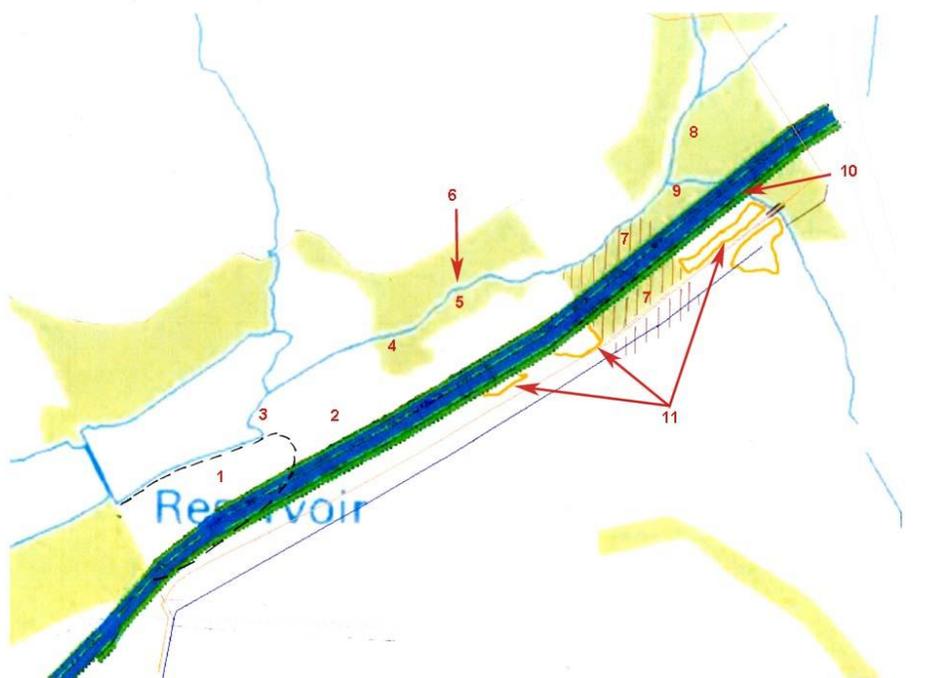
Habitats between the proposed road and the stream were searched for evidence of otter use (i.e. otter paths from stream to cover; spraints; evidence of resting sites).

Surveys were carried out in March 2017 in good weather, and again in April 2017 with Laura Bowen ExCAL Ltd.

**RESULTS** (Please see Fig 2 for target sites).

Site	Description
1.	Block of dense bramble that extends from the shore of reservoir 2 up to the foot path (Plate 1). <b>Potential Resting Site</b> , but scrub may be disturbed by dogs if allowed to run free from the FP.
2.	Rough grassland on slope down to narrow bramble fringe along bank top (Plate 2).
3.	Bank edge dominated by small area of willows with little ground cover (Plate 3).
4.	Long thicket of blackthorn / bramble with little cover at ground level (Plate 4). Scrub may be disturbed if dogs allowed to run free from the FP.
5.	Dense bramble thicket with alders along bank edge (Plate 5). Signs of mammal paths through edge of bramble (badger prints found in mud nearby).
6.	Stream is 1 – 2m wide with good flow. Bank height approx 300 mm (Plate 6). No cover for otter resting sites.
7.	Extensive gorse thicket with willows & alder (Plate 7). The gorse / willow scrub along stream is leggy and open at ground level.
8.	Stream-sides with woodland, fallen trees & bramble scrub but with little ground cover (Plate 8).
9.	Stream & small tributary confluence in leggy wet woodland with fallen trees (Plate 9). Little suitable dense ground cover for otters.
10.	Small tributary to be culverted for the new road flows through wet woodland with fallen trees and sparse ground cover (Plate 10). No resting sites found.
11.	Discrete thickets of bramble within the grassland (Plate 11).

**Fig 2 Map showing locations of target sites.**



**CONCLUSIONS**

1. Road construction will result in the loss of bramble scrub extending down the field slope from the footpath – mainly the upper part of Site 1 & discrete thickets in the grassland (Site 11). The main area of bramble scrub along the south bank of Reservoir 2 (Site 1) would remain intact.
2. The bramble scrub along Reservoir 2 (Site 1) is potential cover for otters but there is no evidence that it has been used by otters for lying-up. (Suitable sprinting sites exist along the bank but there are no signs of previous use by otters).

3. The long stretch of scrub (Site 4) is too tall and 'leggy' to provide suitable resting cover for otters, but could be improved by coppicing & installation of an artificial holt.
4. The proposed road is close to the stream at Site 7. The habitat at this location is tall (approx 2m high), leggy gorse with no ground cover so that the vegetation cover will not provide a screen between road and stream.
5. Because of the close proximity of the scrub to the foot path it is possible that the cover is presently disturbed by dogs. (The foot path is apparently well-used. Although dogs are supposed to be kept on leads some do roam free – pers obs).
6. The new road will introduce noise disturbance into a previously quiet area close to the stream. However, otters are able to tolerate noise disturbance so long as the noise is not associated with a direct threat. With proper screening (solid fencing) erected before construction works begin disturbance will be minimised during both construction & operational phases.
7. The proposed road will separate the foot path from the reservoirs / stream and will result in an undisturbed area of cover that can be improved for otters.

### **MITIGATION MEASURES**

The following mitigation measures should be included in the scheme design to ensure that:

- Noise & movement disturbance does not prevent otter use of the stream during construction & operation;
  - Otters can travel safely up the small tributary stream to the off-site reservoir;
  - Pollution during construction, and from vehicles during operation, cannot enter the watercourse;
  - Scrub habitats between the new road and the stream are improved by installing artificial holts, and coppicing of leggy blackthorn.
1. A solid 1.8m high wooden fence should be erected along the length of the new road (from the LNG road to the reservoir) adjacent to the stream & reservoir (as shown in Fig 1).
  2. At an early stage in the scheme the 'leggy' gorse at Site 7 should be coppiced to encourage dense re-growth, with cut gorse etc used as a 'dead hedge' between what will be the edge of the new road and the scrub.
  3. The culvert over the small stream should be oversized to provide an otter ledge on one side of the culvert, and to ensure that there is always at least 400mm headroom between top of culvert & high water flows. Otter guide fencing should be installed to ensure that otters cannot gain access to the road.
  4. The road design should include a drainage system to capture runoff that links into a 3 stage oil interceptor & sediment trap so that clean water can be safely discharged into the stream.
  5. An artificial holt should be installed in the bramble scrub (Site 1) and the blackthorn / bramble scrub (Site 4 / 5). In addition, 1/3<sup>rd</sup> of the blackthorn thicket should be coppiced during the winter with cut brush piled on the installed artificial holt.
  6. If lighting is required anywhere along the road it must be directed away from the reservoir / stream, with no 'overspill' of light into the area between road and stream.
  7. Pre-clearance / construction surveys to check for otter activity must be undertaken before any works along the road corridor adjacent to the reservoirs & stream. The start of works should be delayed if signs of otter activity are found. Surveys for otter activity should also be carried out at intervals during the construction, and particularly if construction works are interrupted for any length of time.

**PLATES.**

**Plate 1 Dense bramble down to reservoir 2.**



**Plate 2 Rough grassland with bramble fringe**



**Plate 3 Small area of willows.**



**Plate 4 Long bramble thicket.**



**Plate 5 Dense bramble thicket with alders.**



**Plate 6 Stream with little otter cover.**



**Plate 7 Leggy gorse thicket.**



**Plate 8 Woodland along stream, little otter cover.**



**Plate 9 Confluence of stream & small trib.**



**Plate 10 Small tributary to be culverted.**



Geoff Liles  
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