

Loch Kemp Storage - EIA Report (Additional Information)

Confidential AI Appendix 10.8: GI Otter Survey Report (Redacted)

September 2024

ash



**Loch Kemp
Storage**
A STATERA COMPANY



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SLR Project No.: 428.V04707.00036

Client Reference No.: ASH design+assessment

RE: KEMP PUMPED STORAGE SCHEME – GI WORKS: OTTER SURVEY

1.0 Introduction

SLR Consulting was commissioned on 17th May 2023 to conduct a pre-construction otter *Lutra lutra* survey and produce an otter species protection plan in advance of planned Ground Investigation (GI) works at the proposed construction area in and around Loch Kemp.

The GI works will involve drilling seven boreholes within the proposed powerhouse area, and two boreholes within the proposed Dam 1 construction area, within Ness Woods Special Area of Conservation (SAC) / Easter Ness Forest Site of Special Scientific Interest (SSSI). Further boreholes are also proposed in and around Loch Kemp, outside of the SAC / SSSI. Equipment (a small excavator and small drilling rig) would be brought in for the powerhouse area by boat, with a landing made on the beach on the Loch Ness shoreline, close to the proposed powerhouse area. Equipment for the Dam 1 location would be brought in via the existing estate tracks. Seismic survey is also required along geophysics lines between the borehole locations, involving placing handheld seismic device probes (geophones) into the ground at a spacing of 1 to 4 m, which are left in place for several days. Seismic sources are generated during the survey, using a sledgehammer striking a nylon plate or buffalo gun. The handheld devices shall be installed on foot.

Baseline surveys conducted in summer 2021 had identified four otter lay-ups (i.e., above ground 'couches') within Ness Woods SAC / Easter Ness Forest SSSI, close to the Loch Ness shoreline and along the Allt an t-Sluichd watercourse.

1.1 Survey Scope

The survey focussed on the proposed GI works, as provided by the Client, and suitable otter habitat within 250m, including watercourses within this buffer: Loch Kemp, Loch Ness, Allt an t-Sluichd and the Allt Leachd Gowrie. All previously identified lay-ups were revisited and any new evidence of otter was recorded.

2.0 Methodology

Otter surveys were undertaken in areas of suitable habitat within the study area by an experienced surveyor in suitable weather conditions. Otter field signs that were searched for,

as described in Bang & Dahlstrøm (2001)¹, Sargent & Morris (2003)² and Chanin (2003)^{3,4}, included:

- Holts – these are underground shelters where otters live. They can be tunnels within bank sides, underneath root plates or boulder piles and even man-made structures such as disused drains. They can also be excavated from pre-existing badger setts, rabbit burrows and fox earths as well as above ground shelters in dense scrubby vegetation. Holts are used by otters to rest during the day and may be used as natal or breeding sites. Otters may use holts permanently or temporarily;
- Couches/lay-ups – these are above ground resting-up sites. They may be partially sheltered or fully exposed. Couches may be regularly used, especially in reed beds and on in-stream islands. They may be used as natal and breeding sites. Couches can be very difficult to identify and may comprise an area of flattened grass or earth. Where rocks or rock armour are used as couches, these can be almost impossible to identify without observing the otter in-situ;
- Prints and tracks – otters have characteristic footprints that can be found in soft ground and muddy areas;
- Spraints – otter faeces are often used to mark territories, usually deposited on in-stream boulders or similarly prominent features such as raised ground close to water, under tree roots, beneath bridges and at crossing points of fences or walls. They can also be present within or outside the entrances of holts and couches. Spraints have a characteristic smell and often contain fish remains;
- Feeding signs – the remains of prey items may be found at preferred feeding stations. Remains of fish, crabs or skinned amphibians can indicate the presence of otter;
- Paths – these are terrestrial routes that otters take when moving between resting-up sites and watercourses, or during high flow conditions when otters travel along bank sides in preference to swimming; and
- Slides and play areas – slides are typically worn areas on steep slopes where otters slide on their bellies; slides are often found between holts/couches and watercourses. Play areas are used by juvenile otters in play and are usually evident as trampled vegetation and the presence of slides. These are often positioned in sheltered areas adjacent to the natal holt.

Any of the above signs are diagnostic evidence of the presence of otter; however, it is often not possible to identify couches with confidence unless other field signs are also present. Spraint is the most reliable identifiable evidence of the presence of this species.

2.1 Survey Dates and Personnel

The survey was conducted on 24th-25th May 2023 by Stuart Abernethy, ACIEEM. Stuart is a Senior Field Ecologist and NatureScot otter licence holder with 5 years' professional consultancy experience. He was accompanied by Euan MacRae, QCIEEM for health and safety. Euan is an Assistant Ecologist with 1 years' professional consultancy experience.

The survey was conducted in sunny weather of 18°C with no rainfall having occurred in the preceding days.

¹ Bang, P. & Dahlstrom, P. (2001). *Animal Tracks and Signs*. Oxford University Press, Oxford.

² Sargent, G & Morris, P. (2003). *How to Find and Identify Mammals*. 2nd Edition. The Mammal Society

³ Chanin, P. (2003a). *Ecology of the European Otter*. Conserving Natura 2000 Rivers Ecology Series No. 10. English Nature, Peterborough.

⁴ Chanin, P. (2003b) *Monitoring the Otter Lutra lutra*. Conserving Natura 2000 Rivers Monitoring Series No. 10. English Nature, Peterborough.



A follow-up site visit was made on 14th June 2023 by Euan MacRae to survey the GI works areas to the east and south of Loch Kemp. This survey was also conducted in sunny weather of 22°C with no rainfall occurring in the preceding days.

2.2 Limitations

Some sections of the Loch Ness bankside could not be surveyed due to steep slopes and dense vegetation. However, these sections did not include any of the proposed GI works locations.

An ecological study provides only a 'snapshot' of the conditions prevailing at the time of survey. Lack of evidence of a protected species does not necessarily preclude it from being present on site later. Whilst it is considered unlikely that any significant evidence of otter has been overlooked, due to the nature of the subjects of ecological surveys it is feasible that some evidence may not have been recorded by virtue of their seasonality, cryptic behaviour, habit, or random chance. It is considered unlikely, however, that additional surveys of the site at this time would materially alter the conclusions of this report.

3.0 Results

The map provided in **Figure 1** shows the location of otter evidence using target notes (TN) and distances from proposed works with indicative buffers. Proposed works include borehole locations, geophysics lines for seismic survey and direction of travel for the ground investigation (GI) drilling rig. The previously identified lay-up (TN1) [REDACTED] was revisited but there was no evidence of current use by otter.

Spraint was identified on a large, semi-submerged boulder on the north-west bank of Loch Kemp (TN2). This spraint was old and dry, but intact. No fresh spraint indicating current otter presence was noted around the northern or western banks of Loch Kemp.

The previously identified lay-up (TN3) [REDACTED] was revisited with no evidence of current use by otter noted. A new lay-up was identified nearby beneath a fallen silver birch tree and overhanging boulder (TN4). Here, a partially sheltered space has been created with a flattened bed of leaf litter. No further evidence of otter in this area was observed.

A lay-up and potential holt were identified [REDACTED] A lay-up (TN5) had multiple spraints on top of the overlying boulder, indicating active otter territorial marking [REDACTED] A potential holt (TN6) was further inland [REDACTED] Here, a well-sheltered gap between boulders extends underground and may provide seasonal use as a holt. Potential bedding material was identified upon internal inspection. The cavity was not extensive, extending underground for approximately 0.5m, and limiting the suitability as a breeding site.

A lay-up (TN7) was identified between two rocks, [REDACTED] Bedding material was noted but no further evidence of use by otter was identified here.

No new evidence of otter was noted at the previously identified lay-up [REDACTED] (TN8), nor [REDACTED] (TN9).

A potential holt was identified [REDACTED] (TN10). The exposed root system of a tree stump here creates a well-sheltered internal space which may provide temporary shelter for commuting otter using a small stream approximately 15m to the southeast. Internal inspection using an endoscope identified flattened soil with chipped bark and feathers. The cavity did not extend underground, and no other evidence of otter was noted.



A potential lay-up was identified [REDACTED] (TN11). A fallen silver birch has created a hollow with flattened soil clear of vegetation. While dry at time of survey, this feature is likely prone to flooding and may not be suitable as a lay-up during periods of regular rainfall. No evidence of otter was noted here. The nearby section of the Allt Leachd Gowrie was noted for its suitability for otter with undercut banks, exposed tree roots, and large rocks in the flow. However, no additional evidence of otter was identified in the area.

An incidental sighting of a red squirrel *Sciurus vulgaris* was recorded in the Scots pine plantation, east of Loch Kemp (TN12). Pine marten *Martes martes* scat was recorded along the access track on the northern bank of Loch Kemp (TN13).

4.0 Discussion

Evidence of otter using Loch Kemp, Loch Ness, and the Allt an t-Sluichd and Allt Leacht Gowrie watercourses was noted during both the 2021 baseline surveys and follow-up 2023 surveys. Otter presence was most apparent along [REDACTED]

As was noted during the preliminary surveys, the distribution of otter field signs indicated that the most important habitat for otter within the Site is within the broadleaved woodland cover of Ness Woods SAC, particularly close to the Loch Ness shoreline and along the Allt an t-Sluichd.

The habitat at the western edge of Loch Kemp is characterized by a diverse combination of bracken, scrubby trees, and rocks. The combination of vegetation and geological features creates foraging and shelter opportunities for otter. One spraint was identified here on a rock close to the mouth of the Allt an t-Sluichd.

Habitat to the south of Loch Kemp was also largely characterized by bracken and rock. However, a small section of the Allt Leacht Gowrie, close to the southernmost proposed GI works, was noted as having high suitability for otter and a potential, though likely ephemeral, lay-up was identified.

Habitat along the south-eastern bank of Loch Ness, where most new lay-ups were recorded, is a sandy and stony beach with scattered boulders presenting many potential sites of shelter for resting otter. Scattered silver birch here presents potential habitat with exposed root systems often providing sheltered enclaves. One lay-up was noted [REDACTED]

4 lay-ups on the site lie within 30m of the proposed seismic survey lines. 3 of these lay-ups were newly identified during these most recent 2023 surveys. Additionally, 2 potential holts identified during the 2023 surveys also lie within 30m of the proposed seismic survey lines. However, neither potential holt was considered suitable for breeding as they did not extend underground beyond the reach of the endoscope. As the proposed seismic activities will include some vegetation clearance, manual planting of geophones every 1 to 4m, and use of the hammer/plate seismic source; a disturbance licence will be a necessary requirement for the proposed GI works. This has been prepared by SLR for submission to NatureScot upon receipt of the SAC/SSSI consent by the client.

An otter species protection plan has been produced in conjunction with this report and sets out mitigation to be adhered to during the proposed GI works.

Incidental records of pine marten and red squirrel recorded during the survey indicate the potential presence of both protected species within the working area. As such, mitigation for both species has been included as an addendum to the otter species protection plan.

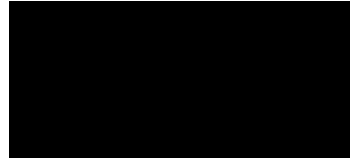


Closure

Regards,
SLR Consulting Limited



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Figures

Figure 1. Otter GI Works Overview

REDACTED



Appendix

Table A1 – Otter Survey Target Notes

REDACTED

