

For Marine Harvest Scotland Ltd

**For proposed Fish Feed Factory, at Allt Anavaig Quarry, Kyleakin, Isle of Skye
Survey for Otters & other legally-protected Mammal species in June 2016**

by Dr Mary Elliott



Existing pier by Allt Anavaig Quarry, otter spraints were found on rip-rap boulders on both sides of the pier near the security fence which is at the beginning of the piled section, Skye Bridge is to the east of the pier and visible in the background; 8th June 2016, photo 27.

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1. Introduction

Marine Harvest Ltd intends to build a fish feed plant at Allt Anavaig Quarry, Kyleakin, on the Isle of Skye. The development would involve modifications to the existing pier and other structures would be located mainly in what is open, sheltered (from the sea), ground in the existing quarry partly where timber is currently being stored for onward transportation.

The proposed development could have effects on natural heritage features : in the Lochs Duich, Long and Alsh Nature Conservation Marine Protected Area and Special Area of Conservation; Cetaceans in the Inner Hebrides and the Minches proposed Special Area of Conservation; and landscape and visual impacts relating to the Kyle – Plockton Special Landscape Area. These issues will be addressed in the Environmental Impact Assessment (EIA) as will potential impacts on protected mammal species.

In preparation for the EIA for this development, *Marine Harvest Ltd* appointed Dr Mary Elliott to carry out a terrestrial survey for Otters in June 2016. In the survey she also included a search for signs of shelters of other mammal species protected under European laws (EPS), which may be within disturbance range from the development. This report contains the results and recommends specific mitigation measures to minimise disturbance to the local otter population during the construction and in operation of the fish feed plant development.

2. Summary Site Description of the Terrestrial Habitats

The proposed fish feed plant development would involve modifications to the existing pier and quay, and the construction of various buildings and other structures such as a power generator plant, on the quarry floor and with some incursion into the scrub woodland on the seaward, northern boundary, steep remnant of coastal hillside.

Modifications to the existing pier and quay with a side extension would be accompanied by the rest of the development on stoney ground previously formed during quarrying. It would affect a small fraction of the scrub woodland which grows around the periphery of the areas where ongoing uses of the quarry occur; and a small section of the steep retained boundary coastal hillside between the quarry and the seashore to the north. There is a freshwater pond at the west end of the proposed development area in the middle of the present base of the quarry, and this has scrub woodland developing around it. The scrub woodland is composed of whin (gorse *Ulex europeaus*) and broom shrubs and thickets, with a mixture of native trees such as birch, willow and rowan and self-seeded conifers (from nearby plantations – mainly spruces). Where there is ground flora, it contains remnants of the heath and coastal woodland vegetation which forming the quarry removed or destroyed or disturbed.

3. Survey Methods

The methods used for detecting signs of protected mammals and the survey distances from water and the proposed development, were in accordance with SNH guidance on its website and advised in its letter of 12th May 2016 to The Highland Council in Portree. The survey was carried out when suitable weather conditions were forecast.

The signs of mammal activities searched for are summarised in the following paragraphs.

Otters

A search was made for evidence of otters in the following areas : the development area apart from the fenced off northern part of the pier which is out into the sea; and a radius of at least 50 metres from structure boundaries – depending on the terrain and if the habitat was suitable for protected mammal shelters; also, the coastal woodland and shore line was surveyed to over 250 metres west and east of the existing pier for signs of otters such as :

- Spraints, these are otter droppings.
- Remnants of their feeding.
- Paw prints.
- Otter shelters : referred to as holts if underground; and called couches if above ground.
- Slides are where otters enter watercourses on a regular basis.
- Actual sightings of otters.

Bats

The following features often associated with bat roosts were looked for from the ground in the few possibly-suitable trees on the periphery, or near, the development area :

- Cavities such as obvious holes or splits in tree trunks where bats could roost.
- The marks of bat urine or droppings at cavity entrances.
- Actual sightings of bats emerging from or entering roosts or flying and foraging.

Other EPS

A search was also made for activities of other legally-protected mammals, for instance :

- Droppings, dung.
- Paw prints eg on mammal paths.
- Remains of their feeding.
- Shelters
- Actual sightings of these species.

The positions of protected mammal signs were noted using a hand-held Global Positioning System (GPS). Digital photographs were taken of pertinent features.

4. Survey Results

This survey for protected mammals, in particular for otters, was undertaken on 8th June 2016 in the middle of the day with good visibility to find mammal signs. It was dry, sunny, and hot – the temperature was around 18°C; with a pleasant north-westerly breeze by the shore.

Otters

The search for evidence of otter activity, and other protected mammals, included the accessible woodland and banks within 250 metres of the pier or across open ground from the development or to inaccessible ground (eg sheer, bare rockfaces). This distance was covered in case an otter holt used for breeding was located sufficiently close to the proposed development such that the animals could be disturbed by the construction works; and following SNH on-line guidance. The survey did not include the pier north of the security fence, (that is the section over the sea,) as there was not safe access.

Otter activities were looked for, like feeding, dung and marking territory, resting, sliding or paddling into the freshwater pond and the burn; particularly on or by larger stones by freshwater or the sea.

The evidence of otter activity, found in the survey on 8th June 2016, consisted of four spraint sites, a probable holt with just one spraint mark on a stone at the entry, otter paw marks entering the freshwater pond; and 3 potential couch sites near or on the shore. There were no signs of otters round the freshwater culvert exit onto the beach. The data is summarized in Table 1.

Table 1. Otter evidence recorded in June 2016 survey.

| Otter ref no. | O.S. Grid Ref – NG Easting / Northing | Descriptions |
|--|---------------------------------------|--|
| Otter signs on the Coast | | |
| 1 | 73830 / 26575 | Otter spraints (dried) on a rip-rap boulder at west end & south of locked security fence blocking off the northern section of the pier. Photos 18 & 19 show more details. |
| 2 | 73825 / 26559 | Otter spraint and food remains a crab claw on pier track top of rip-rap to south of point 1. |
| 3 | 73836 / 26568 | Bits of dried otter spraints on rip-rap boulder just downhill and east of the security fence across the pier. |
| 4 | 73845 / 26550 | Potential couch but no actual otter signs in rip-rap behind a willow tree near the track to the pier. Photos 75-78. |
| Potential otter resting places on Coast not in use at present. Outwith proposed construction area | | |
| 5 | 74022 / 26530 & around 74040 / 26535 | Remains of an otter spraint on large, broken concrete slab by MHWS. Possible couch sites under these large slabs but no actual signs of otter usage at present (high tides will enter). |
| 6 | 73650 / 26455 | Potential couch but no actual otter signs at an 80cm overhang in ground in a wee recess in the coastal woodland strip, adjacent to beach, photo 30. But humans had used this area recently (excreta, toilet tissue & smell!) |
| 7 | 73520 / 26400 | Probable Holt (as has underground part) – not currently in use, old spraint mark on a stone; behind a willow bush on the shoreline woodland edge. Photos 32 & 35. |
| Otter signs at Pond in Quarry | | |
| 8 | 73651 / 26340 | Otter prints in mud at east end of quarry pond; photos 53& 57 |

Digital Photos are included in this report to illustrate features at otter reference numbers : 1,4,7 and 8.





Otter Ref 4. Potential couch but no actual otter signs in rip-rap behind a willow tree by the track to the pier – security fence visible; photo 78.

There is a cavern behind the willow tree, the surrounding rip-rap crevices etc. were checked but no current signs of otter. 8th June 2016, Φ 75

Bats

This survey was undertaken in the middle of the day and may have missed foraging bats [ME saw bats flying round dusk near Kyleakin years ago], however, no roosts were evident in the surveyed area. Most of the trees within the surveyed area are young and lacking typical bat-roost features. The larger-trunked trees were checked visually from the ground for crevices or other potential bat roosting sites, but none with signs such as bat droppings underneath were found.

Other animals noted

No signs of other protected mammal species were found in, or adjacent to, the development area during this survey.

There are paths used by mammals and humans in the scrub at the foot of the coastal hillside and mammal paths into the developing scrub woodland around the edges of the quarry working-area. The beach and shoreline is popular for walking dogs (from local information), and several dog droppings were seen. During this survey, dogs were brought by car and exercised with their owners along the beach to the west of the pier.

Other animals noted during the survey were birds, amphibians and Odonata insects.

- ✚ A pair of red-breasted mergansers swimming along in the shallows; four species of gulls on the shore and over the sea; a heron flying past along the shore; and a sandpiper calling at the west end of the pond.
- ✚ Frog tadpoles were swimming amongst vegetation in the shallows at the east end of the quarry pond; potential food for otters.
- ✚ Two blue-tailed damselflies (*Ischnura elegans*) were hunting above the shallows in the pond where the tadpoles were; and two golden-ringed dragonflies (*Cordulegaster boltonii*) were patrolling in separate territories along a whin-lined dis-used quarry track which ends uphill to the south of the proposed development.

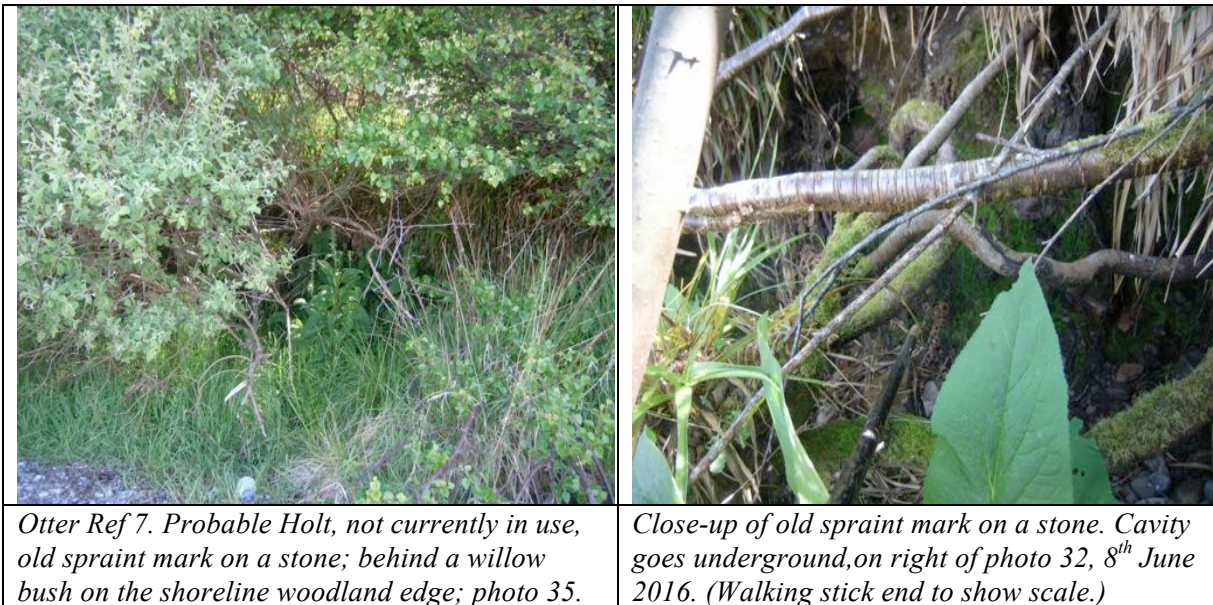
5. Discussion

The discussion concentrates on otters as the only protected mammal species for which signs were found during the survey in part of the Kyleakin Quarry in June 2016.

Otters

The evidence of otter activities found in the survey on 8th June 2016 in and beside the proposed development area consisted of four spraint sites, otter paw marks by the freshwater pond; a probable holt and three potential couch sites near or on the shore line.

A coastal path, tracks in the quarry, and potential access routes amongst whin and broom bushes around the quarry and along the strandline, were investigated but no otter lie-ups were observed. Undisturbed vegetation round the bases of thickets was not penetrated as this could have damaged potential resting places.

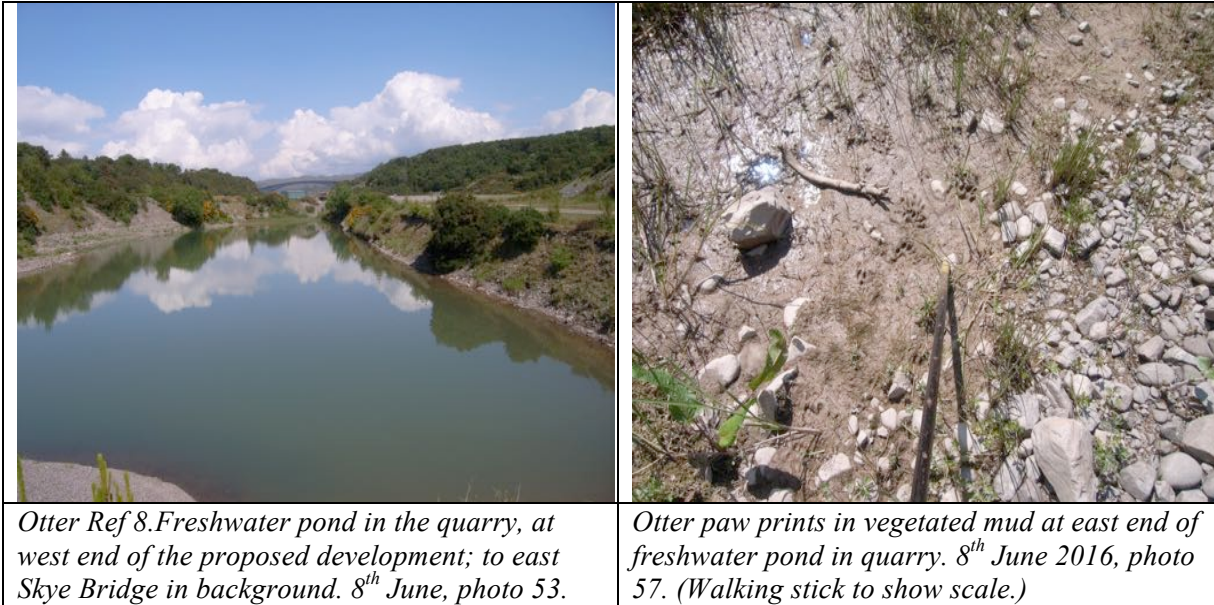


No otter resting places with evidence of current occupancy were found in the surveyed area. However, the holt had a spraint mark on a stone at the entry indicating that an otter had visited this location, estimated from the state of the mark as within the last six months or so. The holt and the potential couches may have been used more in the past before the quarry track made access to the area easier for humans and their pets. This holt might be used on rare occasions or when there is a period with fewer human and canine visitors such as during poor winter weather. The three potential couches may not be used at present or may be used sporadically and not during the day because some off-lead dogs could pose a threat to otters resting; and as was found at one of them, human and dog presence along the coast can be intrusive and appears to be frequent (from what was seen during the survey and comments that it is popular area with dog-walkers). There are alternative, sheltering positions for otters in less-disturbed areas in the nearby coastland, islets and skerries, which may account for resting places in the development area not being in use at present.

The four spraint sites on the landward edge of the shoreline and on the pier indicate that otter are feeding and passing along this section of the Skye coast. The recent pawprints in the wet mud at the quarry pond signify that an otter has been using this freshwater for bathing /feeding in the last week. Therefore an open corridor should be maintained between the coastal area by the pier and the pond to allow otters to continue to use the pond, more likely at night, throughout the construction and operation periods.

This survey shows that otters are active in the area despite the human activities, such as timber storage and movements of big lorries, during the day in the open quarry area and along tracks; human activities in and around a fish supplier’s building; and the presence of dogs including some roaming off-lead during day time.

Some of the signs and potential resting places are within the proposed construction areas and because otters may be about at any time, especially at night, the working site should be kept tidy and safe for wildlife. Mitigation measures are recommended (and listed in section 6), to allow otters to continue to use the area unhindered during the construction and operation of the proposed fish feed plant. Mitigation which should protect otters should also safeguard other ground-roaming protected mammals should they enter the works.



Legal background

Otters (*Lutra lutra*) receive special protection status under various laws and forms the basis for why mitigation needs to be in place to safeguard this species :

- under the European Habitats and Species Directive Annex II & IV as a species which resides in Europe in need of strict protection, and implemented through the Conservation (Natural Habitats) Regulations 1994 (as amended, Scotland 2007);
- and under the Wildlife & Countryside Act 1981, Schedule 5, as modified by the Nature Conservation (Scotland) Act 2004; and changes to licensing is covered in the Wildlife and Natural Environment (Scotland) Act, 2011.
- Also, otter is a ‘priority’ species in the UK Biodiversity Action Plan (BAP) and in the Highland and local BAPs.

It is a criminal offence in most circumstances to :

- deliberately or recklessly harass, capture, injure or kill an otter;
- deliberately or recklessly disturb an otter in a holt or any other structure or place it uses for shelter or protection;
- disturb an otter while it is rearing its young;
- obstruct access to a breeding site or resting place, or deny the animal use of the breeding site or resting place;
- disturb an otter in a manner that is likely to significantly affect the local distribution or abundance of the species to which it belongs;
- or 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;
- or damage or destroy a breeding site or resting place of such an animal.

Other Protected Mammals

No signs of other legally-protected mammal species were found in, or around, the proposed development area during this survey. This included potentially-suitable trees being checked for signs of bats roosting, but no evidence was seen.

6. Conclusions and Recommendations for Mitigation Measures

A survey for mammals protected under European and UK legislation was undertaken for the proposed fish food plant to be situated at the Allt Anavaig Quarry, Kyleakin, Isle of Skye. No protected mammal shelters were found to be currently in use but there was evidence of otters on the coast and at the freshwater pond in the quarry. This indicates that otters are passing through and using parts of the proposed development area. Therefore suitable mitigation measures should be implemented during the construction works and while in operation, to avoid or minimise potential impacts on otters.

Recommended Mitigation Measures to protect Otters in particular

Here is a summary of recommended mitigation actions to minimize disturbance to otters, and other terrestrial legally-protected mammals, during construction works and in the operation of the fish feed plant :

1. This report contributes to the Environmental Report for the Environmental Impact Assessment to be made and its recommendations should be incorporated in the Species Protection Plan which will be needed for Otters.
2. The workforce should be informed eg in a toolbox talk, that otters could be present at any time during the works and what appropriate actions should be taken to avoid damage or minimise disturbance to this and other protected species.
3. SNH should be contacted for advice if signs are found indicating that otters, or other protected species, may be resting within or near construction areas.
4. During the works, all relevant best practices, for example as in SEPA guidance, should be followed, such as : pollution prevention should be implemented, with effective filters or settlement containment to avoid contaminated run-off flowing into fresh or sea water.
5. An open corridor should be maintained between the coastal area by the pier and the pond, this is to allow otters to continue to use the pond, (more likely at night,) throughout the construction and operation periods.
6. Otters could be about at any time, the working site should be kept tidy and safe for wildlife to allow otters to continue to use the area unhindered during the construction and operation of the proposed fish feed plant. Mitigation to protect otters, should also safeguard other ground-roaming protected mammals should they enter the works.
7. If steep-sided holes are left overnight, there should be a ramp eg a wooden plank, to allow animals to escape should they enter therein.
8. During construction, if incomplete pipelines are left overnight, or over week-ends or holidays, the ends should be capped to prevent nosey mammals from entering and possibly becoming trapped.
