APPENDIX 8.1: SPECIES PROTECTION PLAN - OTTERS

1.1	Introduction	2
1.2	Otter Survey Results	2
1.3	Species Protection Protocol	4

Figures

Figure 1 – 2018 Otter Survey Results

Figure 2 – 2013 Otter Survey Results

1.1 Introduction

Background

- 1.1.1 Consent for the Gordonbush Extension Wind Farm was granted in September 2017 for a 15 Turbine Wind Farm with an approximate generation capacity of 52.5 MW.
- 1.1.2 This document supports a s.36c application to vary the consent for the development, allowing for a reduction in turbine numbers from fifteen to eleven, whilst increasing the tip height of the remaining turbines to 149.9m, and the rotor diameter to up to 136m; the Proposed Varied Development is provided in Figure 1. As part of pre-application discussions (see Appendix 6.1: Pre-Application Advice Pack), Scottish Natural Heritage (SNH) advised that:

"We note that previous otter surveys (2010 & 2013) show differences in how otters use the development area and water courses adjacent to it. The most recent survey work (2013) shows an active otter holt approximately 200m from what will be turbine 37. In addition, there are five otter holts within 200m from the proposed works compound, the nearest being c. 75m.

The impacts of this development should be assessed against the [Caithness and Sutherland Peatland] SAC as part of a Habitat Regulations Appraisal...

"A Species Protection Plan will be required within the EIA Report to ensure that this development can be taken forward with SAC otters living alongside. We also recommend that otter surveys within and adjacent to the development boundary should be updated to inform an appropriate mitigation plan..."

Document Aims

- 1.1.3 The aims of this document in meeting the requirements of SNH are to:
 - summarise the results of otter surveys completed for the development to date;
 - set out actions which should be implemented to safeguard otters during the construction of the Proposed Varied Development; and
 - outline monitoring which should be implemented to ensure that the local otter population and their use of the watercourses associated with the Proposed Varied Development and surrounding area are not detrimentally affected.

1.2 Otter Survey Results

1.2.1 Table 1 provides the otter survey results from assessments completed of the proposed wind farm development area and surrounding suitable habitats. Surveys were completed in 2013 and 2018. Figures 1 and 2 provide the results of the 2018 and 2013 surveys, respectively.

Sign Number	Species Sign	Easting	Northing	Brief Description
2013 Surv	vey Results			
1	Holt	2843	9138	4 entrances, 2 with chambers and fresh spraint at entrance and inside.
2	Spraint	2838	9133	30m south of nearby Beauly to Dounreay tower.
3	Spraint	2845	9139	On tussock in the Allt nan Nathraichean burn where small burn joins from south
4	PotentialCouch	2847	9140	Alongside the Allt nan Nathraichean burn, north side
5	Spraints	2833	9127	3 spraints on rock by old hut circle.
6	Prints	2833	9127	Otter prints in sand.

Sign Number	Species Sign	Easting	Northing	Brief Description
7	Spraint	2835	9131	Spraint on rock beside Allta'Mhuilinn.
8	Couch	2839	9137	Fresh and old spraints under overhanging rock by stream 50m west of Beauly- Dounreay tower.
9	Couch	2842	9149	Couch in rock by Allt a' Mhuilinn bank.
10	Couch	2839	9139	Couch under bridge 80m from tower.
11	Potential couch	2851	9118	Potential couch under rock.
12	Spraints	2851	9122	Spraint on rock beside Allt Smeorail.
13	Potential couch	2851	9124	Potential couch under tree.
14	Spraints	2843	9138	Spraints on rock.
2018 Surv	ey Results			
1	Spraint	2843	9138	Very old and grey spraint on rock on east bank.
2	Holt	2843	9138	Holt between boulders on west bank of burn covered in heather and moss. Old spraint inside. Chamber extends 1m into rockface with some bedding material at the back.
3	Spraint	2833	9127	Two old spraints on rock on west bank.
4	Spraint	2835	9134	Old spraint on rock on west bank.
5	Spraint	2844	9142	Old spraint on rock on west bank.
6	Spraint	2841	9147	Recent spraint on moss tussock on west bank.
7	Spraint	2833	9126	1 fresh spraint and 1 recent spraint on rock on east bank.
8	Couch	2837	9135	1 couch under the roots of an over turned silver birch tree 1m from water's edge on east bank
9	Spraint	2837	9135	5 old spraints on rocks inside couch under overturned silver birch roots. 1m from river's edge on east bank
10	Couch	2839	9137	Couch on rock overhang on east bank half a meter from water's edge
11	Spraint	2839	9137	4 old spraints in couch in rock overhang on east bank half a meter from the water's edge
12	Couch	2839	9139	Couch on north bank under old timber bridge.
13	Spraint	2839	9139	5 old spraints on north bank under an old timber bridge. On south bank under the bridge there were 3 old and 1 slightly more recent spraints.
14	Spraint	2840	9141	Old spraint on west bank outside an active badger sett which is possibly used by the otters. However 2 prints were found (possibly badger) and badger hair was found at the entrance to the sett.
15	Couch	2842	9149	Small cave on east bank 1m from water's edge. Cave covered with overhanging heather but is quite open.
16	Spraint	2842	9149	3 old spraints found on rocks in a couch on east bank 1m from water's edge
17	Slide	2824	9107	Half a metre from water's edge on east bank. Half dug hole with slide into water, within 1m there was another half dug hole with an active wasps nest inside along with salmon eggs. Grass in area was well trodden with paths into surrounding grass.
18	Spraint	2824	9107	Fresh spraint at the top of the slide in TN 17 above entrance to half dug hole.
19	Spraint	2824	9106	Recent spraint on small moss mound on a mammal path that follow the line of grass up the watercourse.

1.2.2 As shown in Table 1 and Figures 1 and 2, otter utilisation of the area was similar between survey years. Otter were found to consistently use the Allt a' Mhuilinn and to a lesser extent its associated tributaries. However, the Allt Smeorail to the east of the Proposed Varied Development boundary showed limited evidence of otter use. This is likely due to the steep, gorge-like initial reaches of the burn from Loch Brora inhibiting otter access to the higher ground. Sprainting, couches and holts were found during both survey years.

1.3 Species Protection Protocol

Construction Specific Protection

- 1.3.1 Table 1 details the historical use of the site and surrounding watercourses by otters as collated through surveys for the proposed wind farm development. Use of the site appears to be limited to the western boundary on the Allt a' Mhuilinn and its associated tributaries; however, prior to construction works commencing a pre-construction survey should be undertaken of any watercourse falling within 250m of the development's footprint to ensure a current baseline of otter utilisation is known. Surveys will search for indicative signs as described in Bang and DahlstrØm (2001)¹ and SNH (2008)² and will be undertaken in appropriate weather conditions and as close to the commencement of construction as possible, but no greater than eight months preceding commencement of works.
- 1.3.2 In addition to the pre-construction surveys, the following guidelines should be complied with throughout the construction phase of the wind farm to ensure impacts to otters and their habitats are limited:
 - An Ecological Clerk of Works (ECoW) should be present on site to oversee enabling works and construction and contribute to all relevant construction method statements. They should be a suitably experienced individual, whose role would ensure works are carried out in accordance with the Construction Environmental Management Plan (CEMP) produced for the development, ensuring compliance with international and national legislation and planning conditions. Once works are underway, the ECoW would work full time on site providing ecological and pollution control advice and supervision for all relevant mitigation measures;
 - No work should be carried out within 30m of any otter shelter or 200m of any breeding holt, except under license from SNH. Should a licence be required for any works, the ECoW will be responsible for ensuring compliance with any licensing conditions;
 - No works resulting in large scale noise or vibration such as pile driving or blasting should be undertaken within 100m of any otter shelter, unless under license from SNH;
 - Any excavations, including trenches and trial pits more than 0.5m deep will be covered in the evening to prevent animals falling in. Where pits and trenches cannot be closed or filled on a nightly basis, ensure that a plank is placed into the excavation so an animal can use this as a means of escape if necessary;
 - Any open pipes, whether installed or being stored, should be closed to prevent any animals entering and becoming trapped;
 - Any new or upgraded bridges or culverts within the site boundary which cross watercourses suitable for use by otters for commuting or forage will include suitable ledges to ensure free passage to otters during periods of high water-flow in line with the Scottish Environmental

¹ Bang, P. DahlstrØm, P. (2001) – Animal Tracks and Signs. Oxford University Press. Oxford.

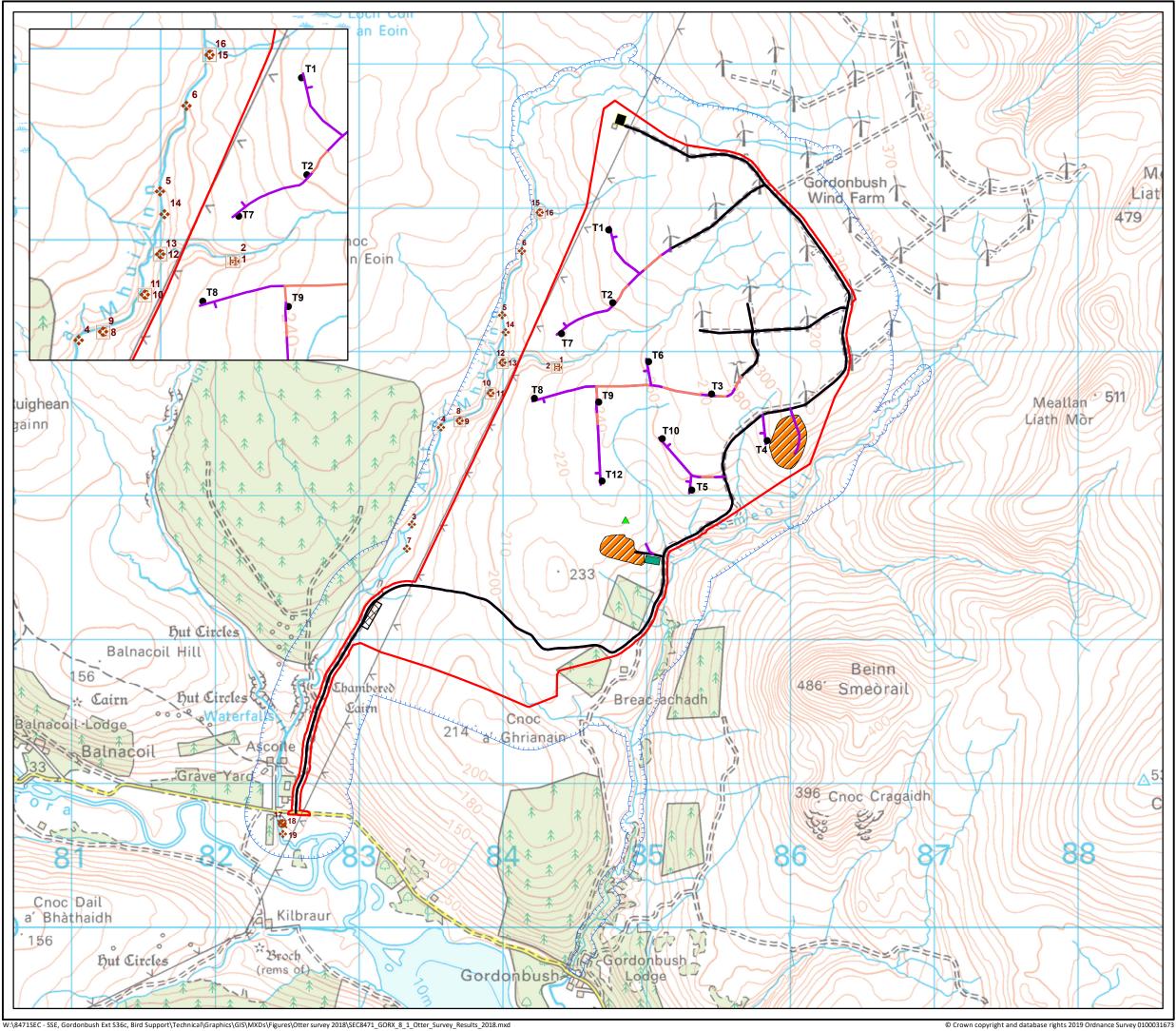
² Scottish Natural Heritage (2008) – Scottish Wildlife Series: Otters and Development. SNH. Inverness.

Protection Agency (SEPA) Best Practice Guidelines (2010)³. The requirement for suitable ledges will be determined by the onsite Ecological Clerk of Works;

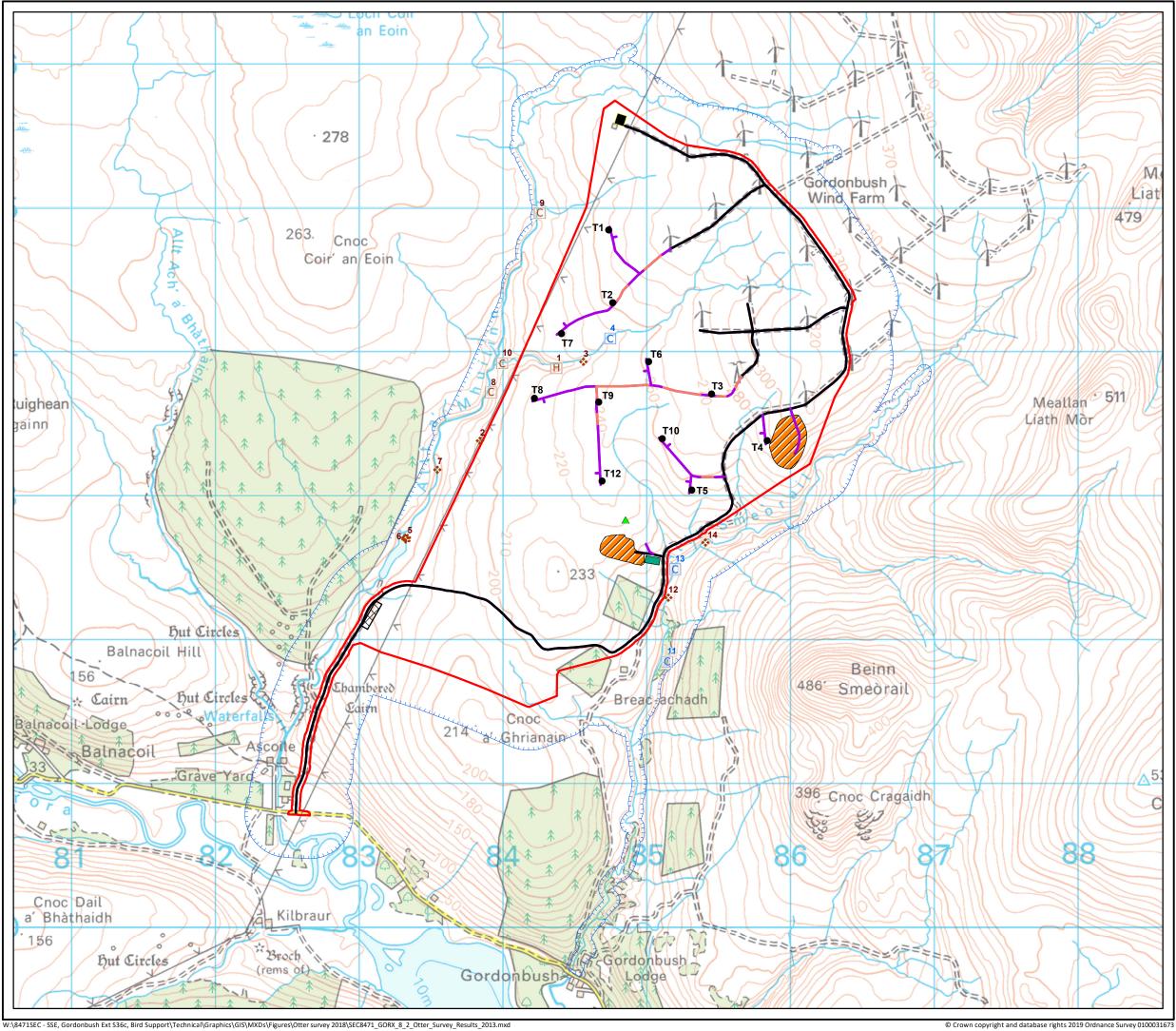
- Ensure all rubbish and materials will be collected and removed from site on a regular basis to prevent trapping or injury of any wildlife;
- In the unlikely event of discovering any evidence suggesting otter presence within the footprint of the works, work must stop immediately and the ECoW should be contacted for advice on how to proceed;
- Speed restrictions on site should be kept to a maximum of 15mph for all vehicles. This should be reduced to 10mph within 25m either side of any mammal paths identified by the ECoW as likely to be used by otters;
- Night working should be avoided where possible. Where this is not possible, lighting should be focussed on the works area(s) and directed away from watercourses and areas of potential otter foraging. Lighting should be kept to an absolute minimum within 100m from any identified otter shelter;
- Works within 100m of an otter shelter should finish one hour before dusk and commence one hour after dawn to ensure minimum disturbance during otter's main activity times;
- Toolbox talks on otters should be given to all construction staff on site and an emergency procedure protocol given to contractors in the event of encountering an otter or discovering a new shelter. If a new otter shelter is found within 30m of the construction footprint, micrositing away from this area or an application to SNH will be required;
- All otter shelters within the site boundary will have a clearly demarcated 30m protection zone surrounding them which will be deemed to be out of bounds to all site personnel. Toolbox talks given during site inductions will clearly highlight these areas to ensure all personnel are aware of these restricted areas. Vegetation will not be cleared from these areas without consultation and appropriate licensing from SNH; and
- In the unlikely event of an otter being injured or killed, or shelters damaged, the ECoW will be contacted immediately. They will attend the site and make a written and photographic record. This will record the time, location, personnel involved, and the details of the incident. This information will be supplied within 24 hours to SNH and the developer.
- 1.3.3 In addition to the above protection measures, commitments have been made to safeguard otter populations and their associated environmental receptors such as watercourses and areas used for foraging and commuting during the construction, operational and decommissioning phases of the wind farm.
- 1.3.4 A water quality monitoring plan has been produced in consultation with the Scottish Environmental Protection Agency (SEPA) as part of the wider remit of the wind farm's Construction Environmental Management Plan (CEMP). Full details and commitments regarding water quality and the monitoring programme during all phases of the development can be seen in the Draft CEMP (see Appendix 4.1), however a synopsis of commitments to ensure protection of all watercourses includes:
 - All equipment, materials and chemicals will be stored well away from any watercourses. Chemical, fuel and oil stores will be sited on impervious bases within a secured bund;
 - Standing machinery will have drip trays placed underneath to prevent oil and fuel leaks causing pollution. Where practicable, refuelling of vehicles and machinery will be carried out in one designated area, on an impermeable surface, and well away from any watercourse;

³ Scottish Environmental Protection Agency (2010) – Engineering in the Water Environment: Good Practice Guide – River Crossings. Second Edition

- Only emergency maintenance to construction plant will be carried out on-site, in one designated area, on an impermeable surface well away from any watercourse or drainage, unless vehicles have broken down necessitating maintenance at the point of breakdown, where special precautions will be taken;
- On-site welfare facilities will be adequately designed and maintained to ensure all sewage is disposed of appropriately. This may take the form of an on-site septic tank with soakaway (in accordance with CAR legislation), or tankering and offsite disposal;
- The use of wet concrete in and around watercourses will be minimised and carefully controlled;
- Plans will ensure that emergency equipment is available on site i.e. spill kits and absorbent materials, and that advice is available on action to be taken and who should be informed in the event of a pollution incident; and
- All relevant personnel will be trained in both normal operating and emergency procedures, and be made aware of sensitive areas on-site.
- 1.3.5 Construction Method Statements would be prepared in accordance with the CEMP to minimise risks to water quality, fish stocks, and otter populations.
- 1.3.6 Further to this, all upgraded culverts crossing watercourses likely to be used by otters within the site boundary will include suitable ledges to ensure free passage to otters during periods of high water flow. Detailed water crossing designs (in line with SEPA Best Practice Guidance) will be prepared following appointment of the Principal Contractor. The requirement for suitable ledges will be determined by the onsite Ecological Clerk of Works.



sse			
rps			
Key Site Boundary ● Turbine ▲ LiDAR Access Track — Existing			
 Cut Float Operational Substation Batching Plant Borrow Pit Search Area Construction Compound Survey boundary Target notes Otter couch (4) Otter balk (1) 			
 H Otter holt (1) Otter slide or play area (1) Otter spraint (13) 			
Scale 1:25,000 @ A3			
Figure 1 Otter Survey Results 2018			
Gordonbush Extension Wind Farm EIA Report			



sse			
rps			
Key Site Boundary Turbine			
▲ LiDAR Access Track — Existing			
Cut Float Operational Substation			
Batching Plant Borrow Pit Search Area Construction Compound Survey boundary			
 C Otter couch (3) H Otter holt (1) C Otter print (1) 			
 Otter spraint (6) Otter potential couch (3) 			
Scale 1:25,000 @ A3			
Figure 2 Otter Survey Results 2013			
Gordonbush Extension Wind Farm EIA Report			