

BEST PRACTICE GUIDANCE - MODEL BADGER PROTECTION PLAN (BPP)

WHEN WILL A BPP BE REQUIRED?

A BPP will be required as per the flow diagram attached to the Inverness Badger Policy Guidance Note.

WHAT SHOULD A BPP INCLUDE?

The BPP should include the following elements:

1. An inventory of contemporary badger sett distribution within 1km of the boundary of the proposed development footprint, together with details of sett status and activity. Data should also be included on latrine (pits containing faeces), track (travel route), footprint, hair-trace and snuffle hole distribution. Data to be supplied in both map and *Microsoft Excel* spreadsheet formats. With respect to the latter, six-figure grid references should be documented using the OS number system rather than the letter system for 100km squares. Eastings and northings should be recorded in separate columns. This will allow the data to be used on a GIS (Geographical Information Systems) package.
2. Where two or more main setts occur within 1km of the proposed development a bait marking survey may be required depending on the scale of the development and the quality of the foraging land to be affected. The results of the bait marking survey should be presented in the BPP. The survey will provide information on the spatial extent of the territories of resident and/or neighbouring badger social groups. Such information is pivotal to objective impact assessment and the design of effective mitigation.
3. An assessment of the amount and distribution of pre and post development (before mitigation) primary and secondary badger foraging habitat present within a 1km radius of a single main sett located within 1km of proposed development, or within mapped badger territories as determined by bait marking. Data should be presented in both tabular and map form. Primary and secondary foraging habitats are defined in the following Table:

Primary Foraging Habitats	Short grazed or mown grassland, improved or unimproved.
	Golf course
	Broadleaved woodland (>80% broadleaves)
Secondary Foraging Habitats	Arable
	Rough grassland (not grazed by domestic stock or mown)
	Scrub
	Mixed woodland

Such data can be easily obtained, preferably during field survey, or from existing sources e.g. Land Cover Scotland, aerial photographs etc.

4. A comprehensive mitigation plan stating explicitly how negative impacts are to be addressed. Such a plan should include proposals for mitigating the following elements:
- The loss of main or annexe setts.
 - Disturbance to main or annexe setts.
 - Loss of badger foraging habitat.
 - Habitat fragmentation.
 - Satellite setts
 - Entrapment within trenches or open pipes

The mitigation plan will be expected to incorporate the following principles:

- 4.1. Buildings should be confined as far as possible to those habitats less favoured by badgers i.e. to habitats other than those referred to in the table above or to secondary rather than primary foraging habitat. Where necessary, good badger habitat should be zoned for amenity use rather than development of built environment.
- 4.2. All badger setts are protected under the Protection of Badgers Act 1992, as amended by the Nature Conservation (Scotland) Act 2004. It is an offence to disturb or destroy a badger sett or to disturb badgers in their setts whether intentionally or recklessly. This includes working close to a sett (within 30 metres or 100m if pile driving or similar work is proposed) without taking positive steps to avoid damage and or undertaking such work without an appropriate licence. There should be a presumption that all main and annex setts will be protected in situ or, where necessary, by the construction of artificial setts. Disturbance in the vicinity of any sett where breeding is confirmed or expected should be avoided during the period 1st December to 30th June inclusive.

- 4.3. Where possible topsoil from areas likely to have constituted good badger foraging habitat (rich in earthworms) should be retained on site and used in the creation of worm-rich amenity or other grassland habitats.
- 4.4. Losses of primary and secondary badger foraging habitat will be minimised by avoidance and compensatory habitat creation and enhancement. The extent to which this can be achieved will be demonstrated by a simple balance sheet showing the areas of the two types of foraging habitat pre-development, post development (without mitigation) and post development (with mitigation). Net gains or losses should be explicitly stated. Data should be presented in both tabulated and map form.
- 4.5. Habitat fragmentation will be minimised through the retention of existing landscape features used as movement corridors (hedges, tree-lines, riparian strips) or the creation of new ones; and the installation of appropriately designed and positioned passageways beneath or over roads in the form of badger tunnels, culverts and green bridges.
- 4.6. Any badger fencing used to prevent badgers gaining access to roads, or to guide badgers to tunnel entrances or passes, must conform to a specification of 2.5mm gauge wire and a 25mm x 50mm welded mesh size. This fencing is sold under the brand name "Sentinal Badger Fencing: Scottish Pattern". When ordering it is essential to specify that the Scottish Pattern type of fencing is required.
- 4.7. Within development areas, depending on expected traffic volumes, provision should be made for the incorporation of traffic-calming measures in order to reduce the likelihood of badger road mortality.
- 4.8. The Highland Council has identified "Green Wedges" within the 2005 Inverness Local Plan. In order to reduce the adverse affects of habitat fragmentation and to maintain landscape permeability to badger movement maximum use of these areas should be made in the design of wildlife corridor networks. Green Wedges should accordingly be well connected with surrounding landscape by means of features such as hedges, tree and shrub lines. Where possible, corridor networks should incorporate existing badger paths. Green Wedges should not be isolated by developed built environments.
5. During the construction phase of the development activities may pose a temporary threat to badgers or disturb them whilst they are in their sett. This should be mitigated against by adopting some of the following practices.
 - The use of noisy plant and machinery in the vicinity of the protection zone should cease at least two hours before sunset.
 - Security lighting should be directed away from setts.
 - Chemicals should be stored as far away from the setts and badger paths as possible.

- Trenches must be covered at the end of each working day, or include a means of escape for any animal falling in. (Badgers will continue to use established paths across a site even when construction work has started).
- Any temporarily exposed open pipe system should be capped in such a way as to prevent badgers gaining access as may happen when contractors are off site.
- Badger gates may need to be installed in perimeter fencing. If so, specialist advice should be sought.
- Water sources (for badgers) should always be safeguarded.
- Trees should be felled away from setts and must not block badger paths

THE NEED FOR A CO-ORDINATED BPP

6. From the outset, neighbouring developers will be expected to liaise with a view to producing a co-ordinated BPP. Badger territories frequently extend outwith the boundaries of a specific development. This should be taken into account when designing mitigation measures. However, the beneficial effects of such mitigation may be seriously compromised by subsequent proposals for development on adjacent sites. Under such a scenario potential foraging habitat assumed to be available to the badger social group could be lost to built environment, or movement corridors could be blocked. Mitigation measures associated with the original development could be rendered ineffective as a consequence. By co-ordinating development proposals on both temporal and spatial scales multi-development badger mitigation measures can be prepared. The benefits of this co-ordinated approach are obvious:

- The costs of ecological impact assessment and mitigation can be shared between developers, with possible financial savings.
- Conflicts between adjacent developers arising from a piecemeal approach to badger mitigation will be avoided.
- Badger mitigation measures are likely to be more effective and less vulnerable to being compromised.

THE NEED FOR BPP MONITORING

7. The BPP will need to incorporate specific proposals for in-progress and post-development monitoring such that the success or otherwise of mitigation measures can be assessed. The degree of monitoring required will depend on the type of mitigation undertaken. For example, if mitigation is confined to the construction of an artificial sett or badger tunnel all that may be required will be confirmation of sett occupation or tunnel use. Where changes to foraging habitat are involved (loss in area, habitat creation or enhancement) then provision may need to be made for post-development baitmarking surveys or the determination of pre and post development social group size. In-progress monitoring will need to be applied where licensed work involving the exclusion

of badgers from setts and disturbance or destruction of setts is being undertaken. It is likely that the preparation and implementation of a monitoring programme will be a condition of planning. The plan should be agreed between all parties (developers, planners and SNH) from the outset. At the end of the agreed monitoring period a report will be produced providing evidence of the success or otherwise of mitigation measures.

In those cases where mitigation has failed, the report should identify the reasons for failure. While it is recognised that mitigation can fail for a variety of reasons, where this is unequivocally attributable to negligence, the developer will **may** be expected to implement remedial measures. Monitoring reports will both assist the evolution of effective mitigation techniques and ensure effective implementation.