



INTRODUCTION

The process of rehabilitating cubs is long and complex. Whenever possible, every effort should be taken to avoid unnecessary admission of cubs to wildlife centres. When badger cubs are brought into captivity and reared to the point when they are ready for release (see Fact Sheet 5: Badger Cubs) they must be found a new permanent release site.

Release of badger cubs is a complex procedure and a team effort, requiring building skills as well as animal care skills. Several of the larger badger rescue centres now have considerable experience of releasing cubs and those undertaking releases for the first time **MUST** seek appropriate support and advice. As well as the moral obligation to do releases well, it is also an offence under the Animal Welfare Act(s) to release animals in a situation where they are unlikely to survive.

As mentioned in the Badger Rehabilitation Protocol and other Fact Sheets, adult badger casualties must be returned to **EXACTLY** where found.

Historically, badger cub releases always took place in areas without a current badger presence. Such areas are those of low natural badger density. Badgers are territorial animals and releasing naïve cubs into an existing active badger territory was felt to risk compromising the welfare of the animals.

A suitable release site needs to be found several months before a release is organised, including full site assessment and landowner permission. Then the preparations need to be made for the construction of an artificial sett, electric fencing and plans for a period of supported feeding, as well as longer-term monitoring post-release.

Badger cub groups of 3-8 animals, with a suitable sex ratio (more females than males), should have been formed over the early summer months (See Fact Sheet 5: Badger Cubs).

When considering the size of a group of cubs for release, consideration should be focused on the site and whether it is on the periphery of a neighbouring badger clan or in an area without any badgers present. Where there is a neighbouring clan, the number of cubs in the release group should be lower to lessen the impact on food resources and to reduce the chances of territorial disputes.

CONSIDERATIONS FOR SUITABLE SITE SELECTION

- Low density of badgers in the release area or no badgers present.
- Readily accessible food and water.
- Suitable habitat for badgers to dig and ultimately establish a natural sett.
- Low risk of persecution such as snaring, lamping or known hunting territory.
- Well away from major roads, busy country lanes, canals or railway lines.
- Well away from badger cull zones and dairy farms.
- Landowner consent is essential.
- Check the Local Plan that the area is not scheduled for future development - is the land likely to be in the same ownership for the foreseeable future?
- Consider possible extreme weather events such as flash flooding.
- Is the site accessible for a small mechanical digger to construct an artificial sett?
- Will someone be able to support feed the cubs at the site and monitor the release?

The advantage of releasing cubs into new areas where badgers are not present, although often difficult to find, is that cub group sizes can be reasonably large and will have the opportunity to establish a new group in the area. Observational anecdotal information suggests that this method of release can be very successful.

In areas where badgers are known to be present, albeit in low density and at a good distance from the release site, cubs are released in smaller groups of no more than around 4-5 cubs. The cubs are then expected to disperse and integrate with local groups. Any cubs released will have an effect on the existing badger population in the wider area.

This method has been used by badger rescue organisations where sites are limited, although the outcomes are unknown at present due to a lack of scientific study. A small radio-tracking study carried out by the RSPCA however, found this method to be unsuccessful as cubs rapidly dispersed (A. Grogan pers. comm). Yet, observational anecdotal information suggests that this method of release can be successful. Groups should seek experienced guidance if they believe this situation to be the case.



Figure 1 & Figure 2: Cubs in artificial sett release enclosure © Northamptonshire Badger Group

FINDING RELEASE SITES

This takes considerable time-consuming survey work which is carried out over some time, ideally a full year. Although members of badger groups may know of active setts in their area and areas where badgers are not thought to be present, this information can only be used as a guide and a full survey of any potential site is always required.

INITIAL SURVEY

Liaise with the members of a local badger group and sympathetic landowners who will have information on many setts in their area, but may not be aware of the area badgers cover as part of their range. Local knowledge of road casualties helps identify foraging areas and connectivity routes between setts. Gaps in territories may be potential release sites.

An extensive primary survey should be carried out first to identify setts and latrines. Latrines will be found near the sett, along runs, hedgerows, woodland edges or field boundaries. Record all field signs on a large-scale map.

Trail cameras should be deployed, not only at the potential sett location, but also at potential foraging areas and likely territorial boundaries such as mammal paths, hedgerows, gates etc. to give a good indication of the badger population and activity in the area.

Network with other wildlife groups and potentially sympathetic landowners. Social media is an excellent way to seek out potential sites. A check of County Mammal Records could be helpful in understanding where badgers are already present.

CHECKS TO MAKE

Presence or absence of badgers and history of the site

It is important to establish why badgers are not present before considering a site. Make enquiries about the history of the site with the landowner and wildlife groups to determine if badgers had previously been present and if so, do they know of any reasons why they have left.

Food and water supply

This is fairly straightforward. Ideally, a mixed habitat will provide food sources throughout the year. Assess the water supply and consider if it will still be available in times of drought.

Suitable local environment, geography and accessibility

The proposed location should not be part of a flood plain or at risk of flash flooding. The geography of the site should be suitable for badgers with the terrain and soil suitable for them to dig setts.

Ideally, the site should be suitable for a small mechanical digger to have easy access for the installation of the artificial sett, as well as a 4 x 4 vehicle and trailer. Digging in an artificial sett by hand, whilst possible, is extremely labour intensive and may well take several days.

Safe access to the site for support feeding and checking of trail cameras is necessary.



CHECKS TO MAKE CONTINUED

Safety from persecution

Local wildlife groups and police wildlife liaison officers should be aware of known local persecution. Ask about the attitudes towards badgers of other landowners and tenants surrounding the release site. Areas where hunting regularly occurs are problematic due to the activities of terriermen, sett blocking and sett disturbance, nearby pheasant shoots could mean snaring takes place. Try to ascertain whether 'lamping' is known to take place locally.

The careful selection of a site can achieve further safety from persecution. Proximity to a residence or public footpath can be a bonus as this puts illegal activity into public view but be mindful of human interactions. Sites where access is limited or prohibited may be even better.

Safety from roads, railways and canals

The proposed site must be well away from busy roads which are the main cause of badger deaths. Proximity to railways and canals must also be avoided.

Cattle bTB status in the area

Many counties are now totally covered by cull zones which makes finding a suitable release site difficult. However, there are still sympathetic landowners and wildlife-friendly farmers who may be able to help. It is important to ensure that suitable sites are not bordered by farms which are in the cull zone. Badger groups and anti-cull groups should be able to provide information in this regard. The ibTB Interactive Map is another useful source of information which will show farms currently under bTB restrictions. Anywhere near these farms is to be avoided.

Landowners and land use

Any potential release must be thoroughly discussed with the landowner and the views of neighbouring landowners should also be investigated, especially if the badger cubs are likely to eventually range onto neighbouring land.

Current land use and future plans for the land and surrounding areas should also be considered. Local planning applications should be checked as well as the Council's Local Plan for the entire area.

PROVISION OF A SUITABLE SETT

A suitable sett must be available for the badger cubs to be released into and must include an area for a release compound to confine the cubs during the initial introduction period. The construction of an artificial sett for this purpose enables better control of the exact release location and is easier to adapt for the initial confinement.

When releasing into an abandoned natural sett, it is necessary to construct a large release pen around the whole sett to prevent the cubs from bolting and getting lost in an area unknown to them. The whole sett and compound should be double-electric fenced. The practicalities of such methods of containment should be fully considered when evaluating a site.

ARTIFICIAL SETT CONSTRUCTION

The release sett aims to provide safe accommodation for badger cubs, for at least the two-week period during which the release pen is enclosed with an electric fence, and thereafter for the time it takes them to disperse and dig their own sett. Blind tunnels are provided to allow the badgers to extend the artificial sett if they wish. It may be that the badgers will use the artificial sett for a few months, possibly longer term, or return to it during different seasons depending on local conditions.

Once the artificial release sett is properly installed, provided good drainage is available, the sett should last for several years and it may be used in subsequent years for cubs, once it has been confirmed that the original cubs are no longer using it and have moved out of the area. The electric fencing can be used on new release pens in following years.

There are many methods of constructing an artificial sett and depending on the length of time it is likely to be needed, the materials used will vary. Where it is decided to use railway sleepers, these must NOT have been treated with toxic chemicals such as creosote.

The method of using straw bales is rarely used and has proved unsuitable as they provide poor accommodation. They should only be used over a previously abandoned sett or where the ground is very easy for badgers to dig and where badgers can quickly establish their own sett. Straw bales are completely unsuitable in areas of persecution as they offer no protection from unwarranted attention.

One method of constructing an economical, good-quality artificial sett intended for short to medium-term use, using plywood and pipes is outlined in the next section. We reiterate that this is one of several methods that may be employed.

This method is relatively easy to construct and install as it is constructed off-site and lightweight enough to transport on a trailer to the area, and if necessary can be carried to the actual site. This type of artificial sett can be installed in a day provided a mechanical digger is available and a willing team of volunteers can help.



Figure 3: Chamber construction © Shropshire Badger Group

STEP ONE: MATERIALS AND TOOLS

The number and size of chambers to be installed very much depends on the likely number in the group of cubs to be released. As a rule of thumb, provide one chamber per two cubs and then an extra chamber as well. The design does not need to be prescriptive and chambers can vary in size and shape, but do not need to be overly large. It is possible to construct 3 chambers using 3 sheets of good quality 18mm marine plywood (see Appendix 1.1). Once the dimensions of the chambers have been decided, a cutting template can easily be drawn up (see Appendix 1.2) and taken to a DIY store for cutting or used by a woodworker.

Tip: DIY stores offer a wood-cutting service and a lot of time and effort can be saved by having the sheets of marine plywood cut to the required sizes in-store. You may also be able to reach out to your supporters or local community for materials e.g. local builders who have spare materials.

Perforated double-walled plastic land drain pipes (300 mm size) are used as the tunnels to connect the chambers and provide access and egress to the sett. You might want to cut the bottom off the tunnels entirely to allow badgers to walk on the ground, dig from the tunnels and help with natural drainage. Either way, always ensure soil is scattered over the base of the tunnels for a natural feel.

Tip: Remember to plan where the pipes will go into the chambers and how the chambers will be configured in the ground.

A 300mm template is also used to cut out the chamber entrances and blind entrances on the sides of the wooden boxes. Leave a gap of at least 75mm between the edge of the chamber and the side of the chamber entrance hole. When deciding on the dimensions, allow for a minimum of 200mm between the chamber entrance and the roof of the box to maintain the strength of the plywood.

The chambers are then reinforced with a wooden batten across the width of the chamber at the top of the 'box' which provides extra strength when the roof is fitted. The roof is constructed to fit snugly over the top. The roof is covered with good quality tarpaulin, cut to size and stapled securely on.



Figure 4: Construction of plywood chambers & Figure 5: Cutting pipe angle © Shropshire Badger Group

STEP TWO: PREPARATION OF SITE FOR INSTALLATION OF ARTIFICIAL SETT

Check the ground is not saturated the day before you intend to start work. Ensure there is a safe route for a mini digger, 4x4 vehicle and trailer to access the site as well as the team of volunteers. Using a spray marker, mark the approximate area to be dug out with the mini digger.

Allow a distance of at least one metre between the chambers when placed underground. Consider the depth you will need to allow for the wooden chambers to be securely placed into the ground and then at least 500 mm of soil to cover the chambers. In total, you will probably be looking at a depth of approximately 1200 mm. In areas where the soil is heavy clay, ensure the excavation slopes down at one end to encourage drainage. A 600mm wide digger bucket is recommended for excavating the pipe trenches.

One volunteer needs to be appointed, before any work commences, to control the safety aspects on the site and ensure that nobody ventures close to the mechanical digger when working or the edges of the excavated area. The excavated soil should be carefully placed far enough away from the edge of the hole so as not to spill back in, but also at a suitable distance to make backfilling easily possible.

Tip: Try to avoid excavating an overly large area to prevent the site from becoming waterlogged in times of extreme rain.



Figure 6: Digging out the site © Essex Badger Protection Group

STEP THREE: INSTALLATION OF CHAMBERS & PIPES

Place the chambers in the configuration determined at the design stage, before the boxes are manufactured. Entrance pipes can then be installed into the chambers but at not too steep an angle. The pipes do not need to be overly long and the length used, to some extent, will be dictated by the angle going into the chambers. The steeper the gradient, the longer the length of pipe needed to reduce the gradient.

When fitting the pipes into the chambers, ensure that they are placed snugly inside the chamber and are slightly proud going into the chamber (approximately 100mm) to allow for movement of the soil. In areas with heavy clay soil, the entrance pipes should be laid on a shallow bed of gravel and the ground excavated sloping downwards on one side to aid drainage.

Blind entrances should face outwards from the artificial sett to encourage the cubs to excavate their own tunnels. A minimum of 2 entrance pipes should be used (one per chamber). One of the pipes needs to sit higher in the soil to encourage airflow. Create a 45-degree turn in the pipes either by cutting, purchasing a 300 mm corner pipe fitting or the close positioning of pipes. If creating a turn in the pipe by cutting and the pipe is bent to a 45-degree angle, the pipe can then be held in position by securely wrapping the turn with duct tape.

On completion of the artificial sett placement and chambers, carefully refill the whole area and ensure that the chambers are covered to a depth of at least 500 mm. All entrances must be securely blocked once the sett has been completed in a manner that will allow the passage of air in but keep everything else out including small mammals and amphibians (the offcuts from cutting the chamber entrances can be used & secured with stakes/metal rods). Take time to landscape the excavated area to return it to its natural appearance wherever possible.



Figure 7: Sett installation © Shropshire Badger Group

STEP FOUR: ERECTING ELECTRIC FENCING

The whole of the release site including the sett area must be securely enclosed using double electric fencing. Firstly an outer fence of electrified rabbit netting (not poultry netting) and then an inner fence of 3 rows of electric poly wire supported by electric fencing posts.

Avoid creating a pen with narrow points or corridors. Avoid any area with ditches or large dips in the ground. Fences should be set back from paths and public rights of way avoided. The electric fence must not cross a public right of way.

The line of the fence should be measured out to accommodate the length of the fencing rolls when joined together so if using 2 x 50 metre rolls, it is important to mark out 100 metres of the intended fence line.

The vegetation must be completely cleared along the fence line and 300 mm on either side of the fence line. Any vegetation that comes into contact with the electric fencing will cause the fence to 'earth' and the power will be lost, so be thorough when clearing vegetation. Strimmers and petrol or hover mowers are recommended to clear the vegetation and any overhanging branches in the line of the fence need to be lopped back.

Tip: If possible, clear the vegetation as low as possible the day before installing the fencing, as this is quite a time-consuming procedure.



Figure 8: Electric Rabbit Fencing & Figure 9: Inner 3 row fencing & outer rabbit fencing with pegs to secure © Shropshire Badger Group

OUTER ELECTRIC FENCING

Start the enclosure by unrolling the electric rabbit netting fence along its intended lines and laying it on the ground. Establish where the enclosure corners will be and firmly knock in the wooden posts. Lift the netting fence upright and using the integral support posts, secure the electric fence along its course. When you come to the wooden corner post, take the fencing around the inside of the wooden post securing it with a plastic fencing post, which should be placed in the ground 10 cm away from the wooden post so it does not touch it. The plastic post is then secured to the wooden post using cable ties or plastic bale twine (check again it is not touching the wooden post (Figure 8).

Once the fencing is upright, the 2 rolls of electric fencing now need to be joined using the integral fence connectors, which are supplied as part of the fencing. At the end of each roll of fencing, there is an integral post. The 2 end integral posts need to be cable-tied together to prevent any gaps (Figure 10). Walk around the outside perimeter of the netting fence and identify where the fencing needs extra support using the plastic posts. It is important that the fencing is as taut as possible and can be secured to the plastic posts by 'knitting' the wire netting into the plastic post-wire holders.

At this point, now check the height of the fence from the ground. The bottom line of the netting is normally black and non-conductive. This must fit very closely to the ground and the plastic tent pegs can be used to secure the non-conductive fencing to the ground where it is uneven. The remaining horizontal lines of the netting are conductive (live) and the bottom of the conductive line should be no more than 40 mm above the ground to prevent the cubs from pushing under it.



Figure 10: Cable-tied posts © Shropshire Badger Group



Figure 11: Electric fencing connection © Shropshire Badger Group

INNER ELECTRIC FENCING

The next step is to install the inner wire fence. This consists of 3 rows of electric poly wire, supported by electric fencing posts placed at an approximate distance of 2 metres apart. The first row of the wire should run along no more than 40mm from the ground and the following two rows approximately 80 mm apart. There should be a small gap between the outer rabbit netting fence and the inner 3-strand fence of no more than 80mm wide. This is to prevent the risk of a badger cub pushing through the first fence and becoming trapped between both.

Once you are happy that both fences are intact, then this is the time to connect them to the fencing units and power supplies. Although it is possible to power both fences if using 2 x 40-metre rolls of rabbit netting with one fencing unit and a single battery, trial and error has shown that it is preferable to use an independent fencing unit and battery for each of the fences. One for the rabbit netting and one for the 3-row wire fence, especially with 2 x 50-metre rolls of rabbit netting fencing.

The main point here is to ensure that both fences are well-earthed to the ground, using copper or other metal earth rods placed near where you intend to site the batteries and fencing units. Double-check all fencing connectors and then make sure the earth clip (normally a green wire and crocodile clip) on the fencer units has a good connection to the earth rods. Connect the positive and negative clips to your batteries, having first ensured that any helpers are standing well clear of the fences.

Switch the fencing units on and using a commercial electric fence tester, start nearest the battery and then walk the whole length of the fence, testing at intervals to determine whether the current is live across both fences. As a general rule, most fencing units will produce around 5,000 volts but this can be reduced due to poor connections and earthing. A minimum of 3,000 – 4,000 volts is recommended to deter badgers from trying to push through the fence. You may need to spend some time getting this right. In sandy or rocky soil you may need to use several earth rods and consider wetting the area where rods have been placed to ensure a good earth connection. If the fence needs to span slightly undulating ground, use the tent pegs to ensure the fence line is as close to the ground as recommended above.

A FEW TIPS

- **Ensure the batteries are fully charged (charge up fully the day before going to the site).**
- **Once the electric fence installation is complete, it is essential to check this is working the day before the cubs are released into the artificial sett.**
- **Ensure the warning notices are securely affixed to the electric fence on at least two sides and always on the side facing anywhere the public may stray.**
- **Position the trail cameras to view the sett entrances and also the enclosure. Trail cameras positioned outside the release pen are also useful to monitor the local environ.**
- **If the site is in an area where deer may be present, use deer deterrents such as flags on stout sticks placed on mammal paths about 10 metres from the release pen.**



Figure 12: Funnel used to release cubs into sett © Shropshire Badger Group

INTRODUCING CUBS TO THE ARTIFICIAL SETT

The following procedure has been successfully used for releasing cubs into an artificial sett and there are two methods based on different times of the day.

- Morning release: by placing the cubs into their new site in the morning they will have time to sleep at the new location and settle before their first forays in the evening. However, you will need to ensure that plenty of fresh bedding is in the sett already for them and this can be difficult when an artificial sett has been constructed some months earlier.
- Evening release: the cubs are introduced into the sett around dusk and numerous piles of fresh bedding are scattered around the release pen. Once the cubs have initially been introduced to the artificial sett, they will then spend a great deal of their first night collecting bedding and settling in.

RELEASE PROCEDURE - INITIAL CHECKS

- Firstly, ensure the electric fencing is working, but then turn off while the carrying cages are moved into position.
- Place bundles of fresh meadow hay throughout the release pen. If the release is likely to take place during inclement weather, erect simple plywood shelters to cover the hay inside the pen.
- Switch the trail cameras on.
- Keep all people who are not directly involved with carrying the cages outside of the release pen.
- Check the condition of the cubs following their journey, especially their claws which may have been damaged in transit. Generally, cubs travel well but occasionally one will become anxious and chew or dig at the cage. Any serious injuries may require veterinary treatment.
- Ensure that all other entrances not being used to introduce the cubs into the artificial sett are securely blocked, firstly with hay and then a secure block such as a small plywood sheet. (The plywood pipe cutouts from the chambers loosely pegged into the ground outside the entrance pipes are ideal for this purpose).

RELEASING CUBS INTO THE ARTIFICIAL SETT

- Switch the electric fencing on.
- Ensure the cages are covered and then carry the cages containing the cubs and place them down outside the intended sett entrance.
- Slowly and gently release the cubs into the chamber pipes from the carrying cages. A simple wooden funnel (Figure 12) makes this a more secure and easier method than trying to use blankets to direct the cubs into the sett entrance.
- Once the cubs have entered the sett, temporarily block the entrances used for the release with a 'plug' of hay and then wooden blocks.
- Everyone should leave the release pen and remain a suitable distance away observing quietly.
- Allow a period of approximately 20 minutes and then one person should quietly remove the wooden blocks from the entrances.
- Monitor the site for at least one hour to ensure all is well. It is possible that the cubs will not emerge for some time after release into the sett and this is normal.
- Nets, thick blankets and graspers are essential to keep on hand in case an agitated cub tries to bolt and becomes entangled in the electric fencing, which can be switched off immediately to facilitate rescue.

CARE AND MONITORING IN THE ENCLOSURE

Food is provided regularly for the cubs as it would have been during their time in 'normal' captivity and shallow water containers replenished every day. Food should be placed in the enclosure before the anticipated emergence time to prevent badger/human interaction and it should be covered (e.g. wood weighed down or stones) to prevent other species from accessing the food.

Should a cub emerge whilst food is being placed it must be verbally rebuffed. If this behaviour continues, exit the site as quickly as possible and alternate feeding times to prevent habitual feeding association with humans. Trail cameras should be monitored daily to check the amount of food being given is adequate and all cubs are actually getting the food. A daily check with the electric fence tester is essential and also check the batteries are charged to maintain their integrity.

Figure 13: Completed artificial sett © Shropshire Badger Group



RELEASE FROM THE ENCLOSURE

The optimum time of year for release is September when natural food availability is generally high. Aim to confine the cubs in the enclosure for approximately 2 weeks. After this time, the fence is switched off and removed.

Occasionally towards the end of the 2 weeks, cubs may start to dig out under the electric fencing. In the event of this happening, switch the fence off and remove it immediately. Carefully dismantle the electric fencing, taking care not to damage it and then store it for future use.

SUPPORT FEEDING

Support food is vital in the establishment of cubs at a release site and benefits them if continued over longer periods, especially during inclement weather. Cubs released will not have the benefit of adults within the social group to learn from or have established foraging trails to foraging areas.

The cubs will have to learn a new territory and establish which feeding patches provide food during certain weather conditions and seasons. Schemes that provide consistent support food over a longer period generally result in less dispersal.

Where several people are feeding the badgers over a long period, it is good practice to produce a feed record sheet to include the following information:

- Name and contact details of key individuals responsible for support feeding.
- Food requirements and procedure for placing down the food (covered).
- Who is feeding and on what dates.
- Weather conditions.
- Comments sections to add details on the uptake of food recorded and any concerns raised.

All food placed into the enclosure should be covered with a board to prevent non-target species from taking the food before the emergence of the badgers. Full rations should be provided during the first two weeks before the electric fencing is removed. After the removal of electric fencing, the ration size should be reduced by 25% for one month and then a further 25% the following month.

Feeding can then be phased out over the next month or at the discretion of the release manager. Trail camera footage will provide valuable information in the decision-making process.

Excessive feeding beyond the first couple of months may create dependency and should be discouraged. All support feeding should have ceased by spring.

POST RELEASE MONITORING

Food record sheets are very useful in recording the uptake of food and may pinpoint early dispersal from the site - the reasons for which can then be explored further. Trail cameras are an invaluable tool to record activity at the release site and any newly excavated setts found nearby following the removal of the electric fencing. Please ensure they are appropriately placed and do not interfere with the sett or disturb badgers.

RFID microchips have been successfully used around feeding areas and on badger paths. Note that a licence (Natural England or devolved equivalent) is required to mark a badger including microchipping them with RFID chips. Microchipping is an act of veterinary surgery and can only be carried out by a vet or a Registered Veterinary Nurse (RVN) working under the direction of a vet.

Take time out to review the whole experience and reflect on all important observations. It is also important to highlight any pitfalls or negative experiences. Keep a record of these for further use and also share with Badger Trust to increase national knowledge of successful practices for releasing badger cubs into the wild.



Figure 14: Cub at release site © Richard Bowler

REFERENCES

- Badger Rehabilitation Protocol 2018: <https://www.secretworld.org/wp-content/uploads/2018/04/Badger-Rehabilitation-Protocol-Final-Liz-07032018.pdf>



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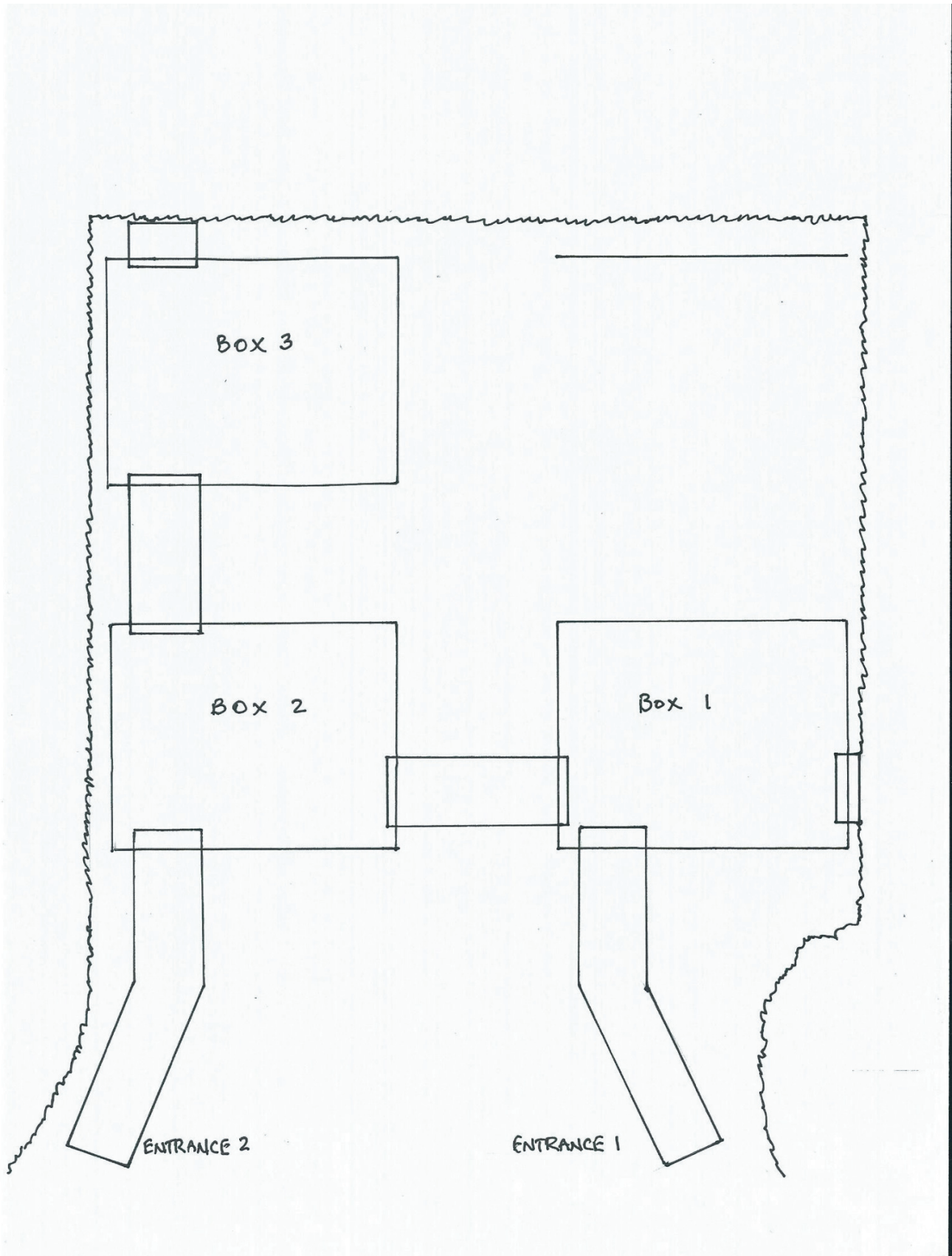


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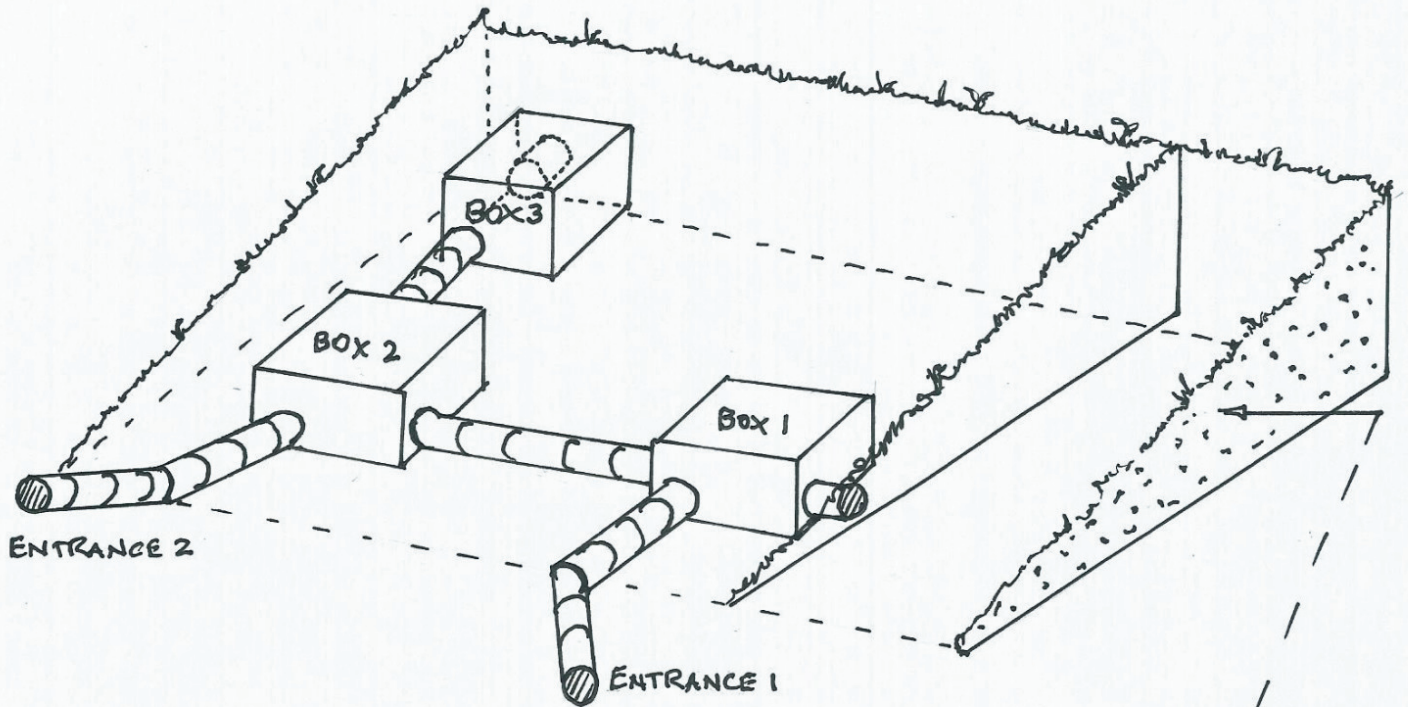
Fact Sheet 3: Artificial Setts

APPENDIX 1.1: OVERVIEW OF THREE CHAMBER RELEASE SETT

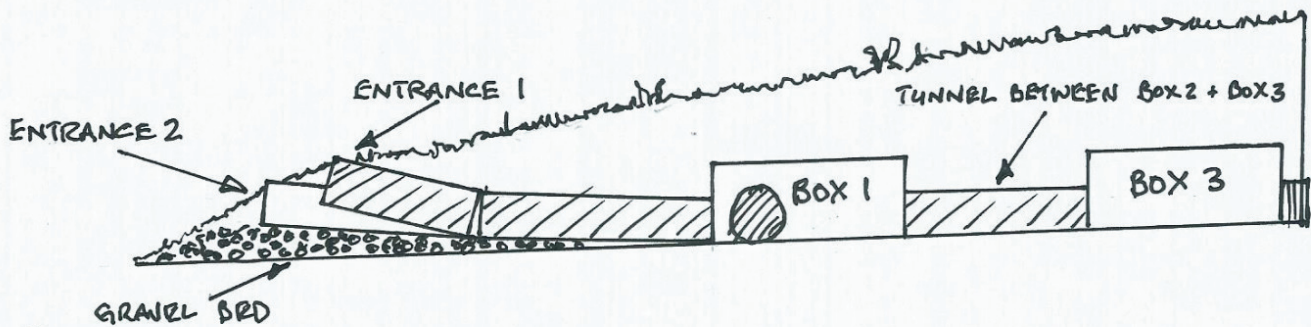


Fact Sheet 3: Artificial Setts

APPENDIX 1.2: OVERVIEW & CROSS SECTION OF SIMPLE RELEASE ARTIFICIAL SETT



SIDE VIEW...

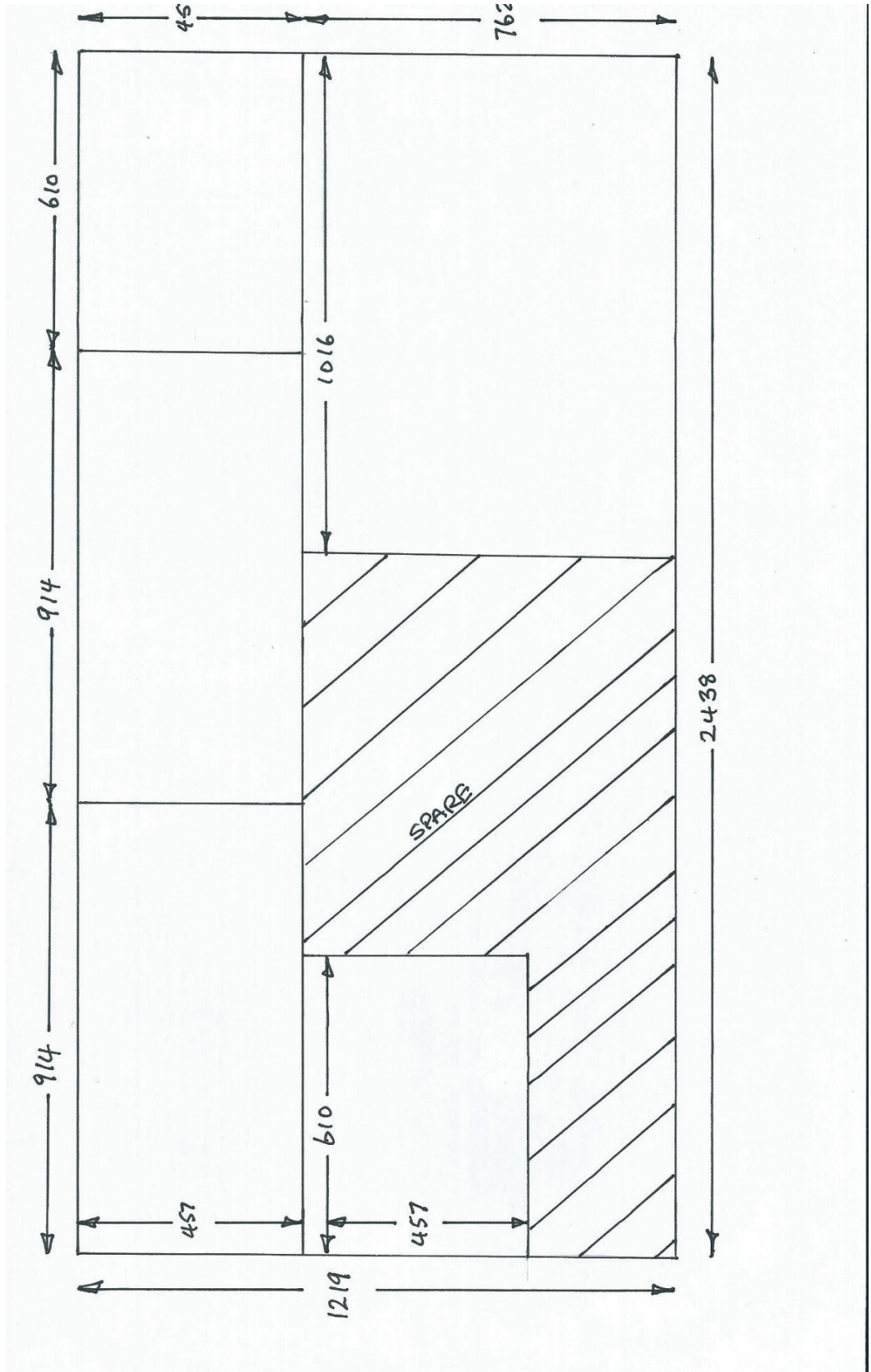


Fact Sheet 3: Artificial Setts

APPENDIX 1.3: CUTTING TEMPLATE FOR THREE CHAMBERS

Example cutting template to make 1 box 914mm x 610mm and lid
1016mm x 762mm

*Spare plywood can be used for reinforcement of box and lid



APPENDIX 2: LIST OF MATERIALS AND TOOLS

Materials List to construct 3 chambers each measuring 914mm x 610mm x 457mm (36" long x 24" wide x 18" high) with a lid 1016 mm long x 762mm wide (40" x 30"):

- 3 sheets marine ply (2438 mm x 1219 mm x 18mm) (8' x 4' x ¾").
- Screws (4.0 x 50 / 8 x 2") box of 100.
- Exterior wood glue.
- Tarpaulin sheets (1.8m x 1.2m) (6' x 4').
- 300 mm pipes.
- Several bags of 20mm gravel.
- Weldmesh, if installed over the top of the chambers in areas of persecution.

Materials & tool list for the release pen:

- A minimum of 4 wooden posts 5' 6" high x 3" – 4" round (168cm high x 7.5 - 10cm round) for the corners of a rectangular pen, more needed for corners if the pen is an irregular shape.
- 2 rolls of 40 or 50 metre electric rabbit netting fence (available from agricultural stores or online). The use of electric chicken netting is not recommended as it is higher than rabbit netting and is more difficult to secure.
- At least 100 plastic poles to support the electric netting fence and inner wire fence (it's better to have too many than not enough).
- 500m roll of electric fencing 'Poly' wire.
- 100 plastic tent pegs.
- 2 Electric Fencer units (make sure they are good quality and can power 100 metres of electric fencing).
- 2 x 75ah 'leisure' batteries (the type used for caravans).
- Earthing rod(s) – in areas that are dry with good drainage, several rods may be needed to provide a good earth connection.
- Electrical fence connectors with spares & Electric Fence Tester.
- 'Electric Fence Warning' signs (multiple). Warning notices must be attached securely to the sides of the rabbit netting fence where the public might venture.
- Several small bags of gravel to aid drainage.

Tools:

- Strimmers and petrol lawnmower, loppers and secateurs for removal of overhanging vegetation, post rammer, adjustable spanner, pliers/wire cutters, large cable ties (bag of 200) or plastic baler twine, spades, lump hammers, rake, wheelbarrow (s), wood saw, duct tape.

