East Midlands Gateway
Phase 2 (EMG2)

Document DCO 6.9F/MCO 6.9F

ENVIRONMENTAL STATEMENT

Technical Appendices

Appendix 9F

Otter and Water Vole Report

August 2025

09

The East Midlands Gateway Phase 2
and Highway Order 202X and The East Midlands Gateway
Rail Freight and Highway (Amendment) Order 202X

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East Midlands Gateway 2

ES Appendix 9F

WATER VOLE AND OTTER REPORT

August 2025

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FIGURE

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1.0 INTRODUCTION

1.1 FPCR Environment & Design Ltd. were commissioned by SEGRO PLC to undertake water vole *Arvicola amphibius* and otter *Lutra lutra* surveys in relation to the EMG2 Project.

1.2 The main objective of this assessment was to establish levels of activity across the site to confirm potential impacts and mitigation requirements.

1.3 This document should be read in conjunction with the other ecological documents prepared for the EMG2 Environmental Statement which includes the Environmental Statement itself, the Preliminary Ecological Appraisal[1], protected species reports for badger[2], bats[3], birds[4], invertebrates[5], and reptiles[6], the shadow Habitat Regulations Assessment for the River Mease SAC[7], and Biodiversity Net Gain (BNG) calculations[8].

Development Proposals

1.4 The EMG2 Project comprises the following three main components:

DCO Application (DCO Scheme)

- EMG2 Works – Logistics and advanced manufacturing development located on the EMG2 Main Site south of East Midlands Airport and the A453, and west of the M1 motorway. The development includes HGV parking and a bus interchange, together with the provision of a Community Park and an upgrade to the EMG1 substation;
- Highways Works – works to the highway network: the A453 access junction works, significant improvements at Junction 24 of the M1, works to the wider highway network including the Active Travel Link, Hyam's Lane Works, L57 footpath upgrade, A6 Kegworth Bypass/A453 Junction Improvements and finger farm roundabout improvements, together with other works;

MCO Application (MCO Scheme)

- EMG1 Works – Additional warehousing development on Plot 16 together with works to increase the permitted height of the cranes at the EMG1 rail-freight terminal, improvements to the EMG1 public transport interchange, site management building and the EMG1 pedestrian crossing.

Site Location

1.5 The location of the Scheme is described in Chapter 2 of the ES with reference to its various component parts. In brief, the majority of development will be on the EMG2 Main Site (build development) and the Community Park (landscaping/drainage attenuation). The remaining components of the proposals are located on land within EMG1 and on land required for off-site highway improvements.

[1] FPCR (2025) EMG2 Appendix 9a: Preliminary Ecological Appraisal
[2] FPCR (2025) EMG2 Appendix 9b: Badger Report
[3] FPCR (2025) EMG2 Appendix 9c: Bat Report
[4] FPCR (2025) EMG2 Appendix 9d: Bird Report
[5] FPCR (2025) EMG2 Appendix 9e: Invertebrate Report
[6] FPCR (2025) EMG2 Appendix 9g: Reptile Report
[7] FPCR (2025) EMG2 Appendix 9h: Shadow Habitat Regulations Assessment – River Mease SAC
[8] FPCR (2025) EMG2 Appendix 9i: Biodiversity Net Gain Report

1.6 Surrounding land-use is dominated variously by grassland and arable field compartments bordered by hedgerows and scattered mature trees, with Diseworth village to the south-west of the EMG2 Works.

2.0 LEGISLATION

2.1 Water vole and otter are both fully protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) due to the protection afforded to their places of shelter and protection. They are afforded protection under Section 9 parts 4(a) and 4(b). This makes it an offence to:

- Intentionally kill, injure or take these species;
- Possess or control live or dead these species or derivatives;
- Intentionally or recklessly obstruct access to (and damage and destroy in the case of water vole) any structure or place used for shelter or protection;
- Intentionally or recklessly disturb these species whilst occupying a structure or place used for that purpose;
- Sell these species or offer or expose for sale or transport for sale; and
- Publish or cause to be published any advertisement which conveys the buying or selling of these species

2.2 The otter is also protected by the Conservation of Habitats and Species Regulations 2017 (as amended). In effect this legal protection makes it an offence to deliberately:

- Kill, take or injure and otter
- Damage or destroy an otter's place of shelter
- Disturb an otter whilst using such a place

2.3 Both species are listed as a Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and are listed under the Leicestershire and Rutland Biodiversity Action Plan (Section 5: Priority Species and Action Plans).

2.4 If impacts to either of these species or their places of rest or shelter cannot be avoided, a Protected Species Licence from Natural England is required in order to allow proposals to derogate from the Legislation

3.0 METHDOLOGY

Desk Study

3.1 The desktop study involved collating biodiversity information from the following sources:

- Derbyshire Biological Records Centre (DBRC)
- Leicester & Rutland Environmental Records Centre (LRERC)
- Nottinghamshire Biological and Geological Record Centre (NBGRC)

Field Survey

Habitat Suitability

3.2 An assessment of water vole and otter habitat suitability was undertaken as part of the Extended Phase 1 habitat survey of the EMG2 Project in 2024. This confirmed that suitable aquatic and terrestrial habitat was present both within the EMG2 Project order Limits area and directly adjacent to it, and that these areas could be adversely affected by the proposed development.

3.3 The scope of impact within the Highway Works is generally limited to in nature and unlikely to affect any significant area of suitable water vole and otter habitat. A single ditch (ditch D2) provided limited suitability and was subject to additional survey effort.

3.4 The EMG1 Works area consists of a previously cleared plot and green infrastructure associated with the previous phase of development. During the survey period, this area was comprised mostly of an active construction site and bare ground, and as such, had limited potential to support water vole and otter. No further survey work was completed in this area.

3.5 A suite of water vole and otter surveys was previously undertaken by FPCR in 2022 on the EMG2 Main Site and Community Park. No significant changes in the habitats on site were noted between 2022 and 2024. The surveys of Diseworth Brook Tributary and ditch D1 were updated in 2024.

3.6 The approach to survey work has been discussed and agreed in principle with the County Ecologist.

Water Vole

3.4 Three separate presence/ absence surveys were undertaken in accordance with the Water Vole Mitigation Handbook 2016[9], and involved the identification of evidence of water vole activity along the identified watercourses and within 5m of the bank on each side of the channel. The three surveys were undertaken by experienced ecologists during suitable timings to account for fluctuations in water vole activity throughout the season. These were undertaken on 3rd May 2024, 25th July 2024 and 06th August 2024 with all the surveys undertaken during suitable weather conditions. All details of findings made during the surveys are presented in Figure 1: Water Vole and Otter Survey Location Plan.

3.5 The channels were accessible by wading through directly through them or along the banks of which were inspected with binoculars. Evidence of presence which was searched for includes:

- *Latrines* - distinct piles of water vole droppings found near nest Sites, at the ranges of territorial boundaries and where the animals enter and leave the water;
- *Burrows* - burrow entrances are typically wider than high with a diameter between 4-8cm. Generally, these burrow entrances are located at the water's edge;
- *Feeding Stations* - areas with distinct neat piles of chewed lengths of vegetation along pathways or haul out platforms along the water's edge;
- *Footprints* - identifiable prints in soft margins of the watercourse;

[9] Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016) The Water Vole Mitigation Handbook (Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. Mammal Society, London.

- *Runways* - low tunnels that are pushed through the vegetation and often leading to burrows or feeding stations; and
- *Nest Balls* – rugby sized ball of vegetation lay within a tuft of vegetation above the water line.

Otter

During the three water vole surveys, signs of otter activity were also searched for following the methodologies detailed within the Chanin, P. (2003) *Ecology of the European Otter*[10] Publication in order to determine presence/absence and status of otters which may be using the Site.

3.6 Whilst direct observation of otters is unlikely potential signs searched for include:

- *Spraints* – characteristic sweet-smelling, black tar-like (where fresh/relatively recent i.e. within a few weeks) or grey crumbly (when old) faecal deposits usually containing fish scales, bones and occasionally invertebrate exoskeleton and bird feathers.
- *Footprints* – on good substrate typically asymmetrical and showing five toes arched around a large pad and, depending on substrate, webbing and claw marks. Poorer, generally coarser substrates do not often enable the identification of otter footprints.

3.7 Additional signs of otter presence may occur, although without additional evidence these signs are usually inconclusive proof of current otter presence:

- *Feeding remains* – Remains of fish
- *Slides/haul-outs* – Routes into and out of the water, which are usually associated with terrestrial routes such as short cuts around meanders or along traditionally, used otter paths/routes.
- *Couches/hovers* – above ground resting place. Usually associated with cover such as dense scrub, rushes or reed, flood debris or fallen trees. Many couches are rarely used whilst others more so. Difficult to prove use without radio or camera tracking.
- *Holts* – below ground resting Site usually associated with spraints. Sometimes used with greater frequency than couches and can be important for breeding (natal holts) where other signs are usually absent. Notoriously difficult to find or prove without radio or camera tracking.

4.0 RESULTS AND ASSESSMENT

Desk Study

4.1 No records of water vole or otter were returned within the EMG2 Project Order Limits, or the 1km search area as part of the desk study.

Habitat Assessment

4.2 The EMG2 Main Site and Community Park was considered to offer both water vole and otter suitable habitat, namely wet ditches with steep grassy banks, and areas of adjoining scrub and woodland.

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

4.3 Three ponds were identified on the EMG2 Main Site during the phase 1 survey. Each of these ponds were discounted as being significant for water vole and otter due to being disconnected and unsuitable for both species.

- Pond P1 was a shallow ephemeral pond in the corner of an agricultural field. It was heavily shaded, and lacked aquatic vegetation.
- Pond P2 was a steep banked field edge pond adjacent to a hedgerow, surrounded and shaded by dense bramble scrub. Aquatic vegetation was limited to duckweed (*Lemna* sp.) at the time of survey.
- Pond P3 comprised a wet depression containing inundation vegetation including reed canary grass *Phalaris arundinacea*, lesser burdock *Arctium minus*, great willowherb *Epilobium hirsutum* and cow parsley *Anthriscus sylvestris*. At the centre of the depression a small area of open water was recorded (approx. 1m x 2m).

4.4 A tributary of Diseworth Brook (R1) runs adjacent to part of the proposed Community Park boundary. Two ditches were also present.

- Ditch D1 was within the EMG2 Main Site and followed field margins in the eastern half of the EMG2 Main Site before eventually exiting via the south-eastern corner into a subterranean drainage feature.
- Ditch D2 was located within the southern section of the Highway Works area.

Survey Results

Field Signs

Diseworth Brook Tributary R1

4.5 Two otter spraints, two rat burrows, two rat prints, six small mammal burrows and one small mammal print were identified along the Diseworth Brook Tributary as detailed in Figure 1.

Watercourse D1

4.6 One rat print and one small mammal print were identified along watercourse D1

Watercourse D2

4.7 One rat burrow was identified along watercourse D2.

Water Vole

4.8 No evidence to confirm the presence of water vole was recorded during any of the three surveys.

Otter

4.9 Two otter Spraints were identified at the northern tip of the Diseworth Brook Tributary just south of Ashby Road.

Rat

4.10 Evidence of rats R*attus norvegicus*was identified along watercourses D1, D2 and the Diseworth Brook Tributary.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 Both ditch D1 and the Diseworth Brook Tributary (R1) provided suitable habitat to support water vole, and otter.

5.2 The small ditch (D2) surveyed, present in the Highway Works compartment was identified as being of limited suitability for Water Vole and Otter during the suite of surveys (being largely dry during the survey period).

Water Vole

5.3 No evidence of water vole was found during the surveys which were undertaken, and no water vole records were identified with the 1km search radius as part of the desk study.

5.4 Given the absence of evidence or species records of water vole, they are considered unlikely to be present within the sections of watercourses surveyed.

Otter

5.5 No otter records were identified with the 1km search radius as part of the desk study, however evidence of otter was found during the surveys which were undertaken. Two otter spraints were identified along the northern section of the Diseworth Brook Tributary. The Diseworth Brook Tributary is offsite and will not be directly impacted by proposed works however the area will be buffered from works and additional planting will enhance the riparian zone.

5.6 A log otter holt is to be created to the north of R1, along the western boundary of the proposed Community Park. A log holt will be placed in close proximity to the areas showing usage by otters, namely the location of the spraints. This will provide any otters utilising R1 with a continual place of rest and shelter throughout construction phase of the development and into the future. The specified location will provide potential shelter within the less disturbed areas along the brook, further away from areas of public access sheltered by tree and scrub planting. The log otter holt should be installed prior to the commencement of works on site. The design of the log otter holt is illustrated in Figure 2: Otter Log Holt Design.

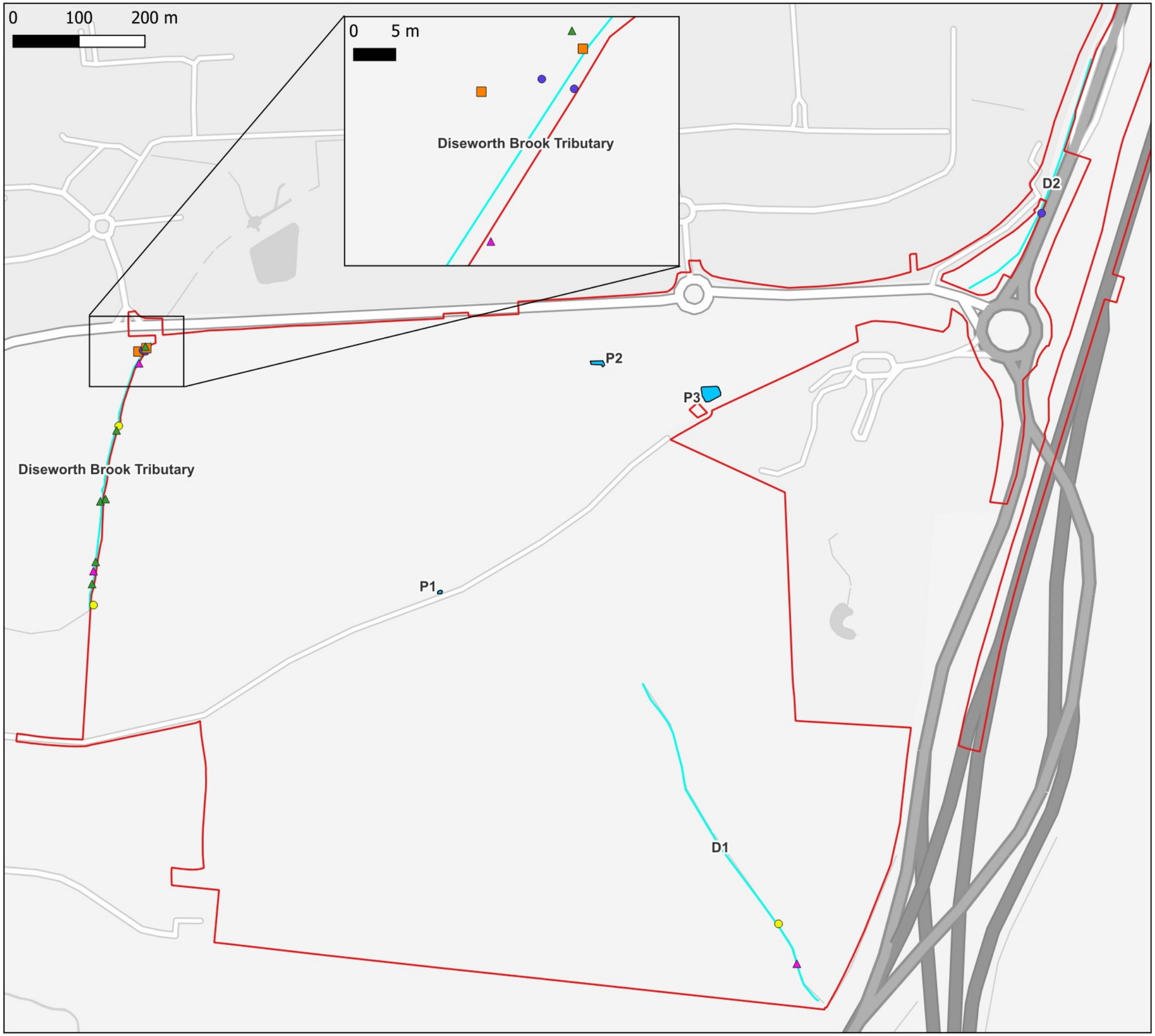
Assessment of Potential Impacts

5.7 The proposals will impact the ditch D1 along the majority of its length. Given that no water vole or otter were recorded along D1 during the surveys, as well as the lack of any records of water vole within the Order Limits or 1km of the boundary, water vole and otters and not considered to be present along D1 and therefore do not pose a constraint to the removal of this watercourse.

5.8 Ditch D2 has potential to be impacted along the majority of its length. Given that no water vole or otter were recorded during the surveys, water vole and otters and not considered to be present

along D2 and therefore do not pose a constraint to developments on the Highway Works compartment.

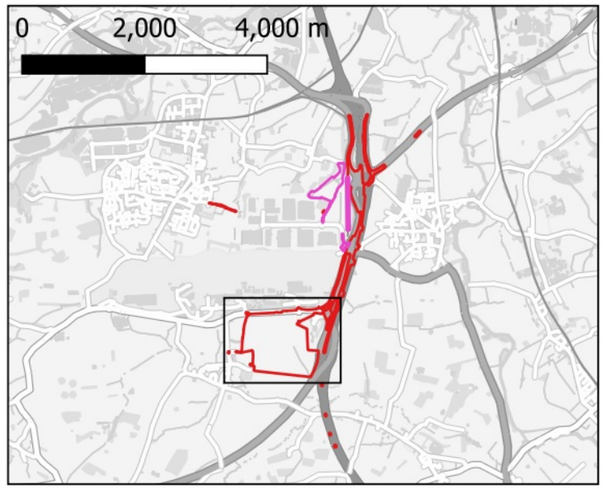
5.9 The Diseworth Brook Tributary is offsite and will not be directly impacted. The proposals will enhance the riparian zone through additional planting and a reduction in land under agricultural use. An artificial log otter holt will be constructed providing sheltering opportunities for otter through the construction phase and beyond.



Key

Red Line Boundary

- Order Limits EMG1 MCO
- Order Limits EMG2 DCO
- Watercourse
- Ponds
- Otter Spraint
- Rat Burrow
- Rat Print
- Small Mammal Burrow
- Small Mammal Print



client
SEGRO Properties Ltd and SEGRO (EMG) Ltd

project
East Midlands Gateway Phase 2 (EMG2)

drawing title
Water Vole and Otter Location Plan

scale @ A3
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drawn
LE/CM

issue date
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drawing / figure number
Figure 1

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masterplanning ■ environmental assessment ■ landscape design ■ urban design ■ ecology ■ architecture ■ arboriculture

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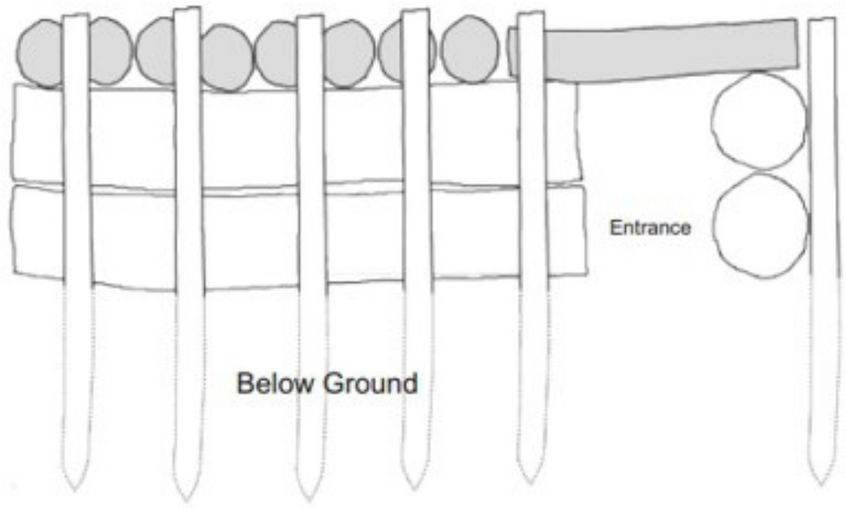
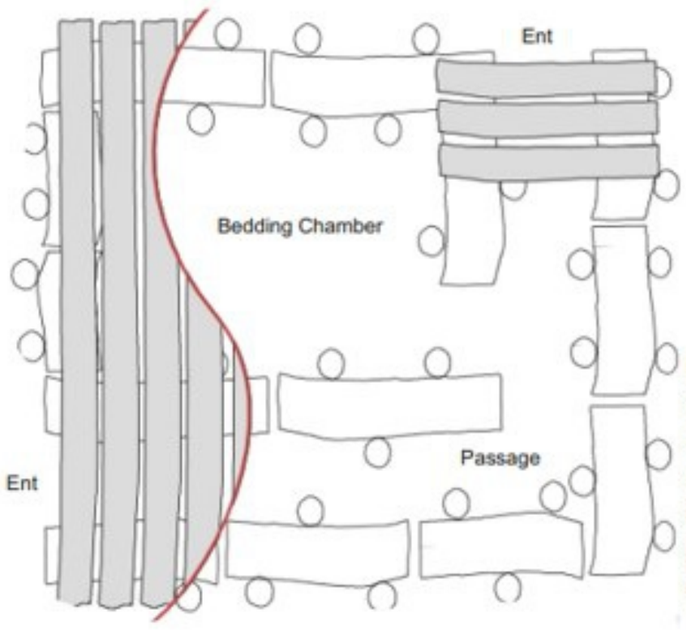
Clear the ground and lay approximately 20-25 logs measuring approximately 1m in length and 30-40cm in diameter placed in the form of chambers approx 1 square meter in width with two entrances one towards the river and the other towards the waterbody / scrub area.

Cross Section



Place smaller logs and branches along the top of the chambers to form a roof. Fill any gaps with smaller pieces of wood for weather protection and prevent light gaps.

Aerial View



Pile brashings on top to completley cover the roof and provide additional coverage decreasing light penetration and weather. Brashings should ideally be from site using the coniferous plantation which would otherwise be lost.

* Adapted from Conservation Groups

client
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project
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drawing title
Otter Log Holt Specification

scale @ A3
1:1

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CM / RAM

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Figure 2

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