





# Rother Valley Railway (Track Reinstatement between Austen's Bridge and Junction Road)

Protected Species Plan

Report for Rother Valley Railway Ltd

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## 1 Introduction

#### **BACKGROUND**

- 1.1 The Ecology Consultancy was commissioned by Rother Valley Railway Ltd in May 2018 to prepare a Protected Species Plan for the Rother Valley Railway (Track Reinstatement between Austen's Bridge and Junction Road), Robertsbridge, East Sussex.
- 1.2 It should be noted that planning permission and conditions apply to the whole scheme reinstatement of the Rother Valley Railway from Northbridge Street, Robertsbridge, to Junction Road, Bodiam. The environmental statement for this scheme that supported the planning application was drafted in respect of the entire route and in the absence of survey data, was based on assumptions of presence and the likelihood of different habitats and species being present.
- 1.3 This document covers <u>only</u> the section of the site from Austen's Bridge to Junction Road only and will be updated for the other sections as the scheme progresses. This and other supporting documents have been created after site specific surveys for this section of the track only.
- 1.4 The Protected Species Plan is required to discharge planning condition number 7 (Application Number RR/2014/1608/P) issued by Rother District Council as below:

In the event that the further site-specific assessment, including survey, referred to in condition 3 identifies populations of any protected species, no development shall take place until a plan detailing the protection and/or mitigation of damage to the population(s) has been submitted to and approved in writing by the Local Planning Authority. The plan shall be implemented as approved.

#### SCOPE OF THE REPORT

- 1.5 This document provides avoidance, mitigation and enhancement details for bats, birds, badgers *Meles meles*, hazel dormouse *Muscardinus avellanarius*, reptiles and great crested newt *Triturus cristatus*.
- 1.6 This document has been made based on the findings of the following reports:

- reptile survey (CLM, 2017);
- badger survey (CLM, 2018a);
- bat survey (CLM, 2018b);
- dormouse survey (CLM, 2018c); and
- great crested newt survey (CLM, 2018d).
- 1.7 This strategy has been written by Rosanna Marston BSc MSc ACIEEM, an Ecologist who has over five years' consultancy experience.
- 1.8 This document has been prepared with reference to best practice guidance as detailed in British Standard 42020:2013 Biodiversity - Code of Practice for Biodiversity and Development (BSI, 2013).

#### SITE CONTEXT AND STATUS

- 1.9 The site is the stretch of track between Austen's Bridge and Junction Road B2244, east of Robertsbridge, East Sussex. The site covers approximately 1.659 hectares (ha) in total and is centred on Ordnance Survey National Grid Reference TQ 7688 2414.
- 1.10 The site comprises a wooded embankment (former railway line) with smaller areas of dense scrub, tall ruderal vegetation, bare ground and poor semi-improved grassland. To the north and east of the site are grassland fields. To the west is the River Rother (running under Austen's bridge) and to the east is Junction Road B2244.

#### **DESCRIPTION OF THE DEVELOPMENT**

- 1.11 Current proposals for the site involve the reinstatement of the railway line between Austen's Bridge and Junction Road B2244. This will result in the loss of approximately 0.427ha of semi-natural habitats including 0.410ha of woodland and scrub.
- 1.12 The heritage railway only runs for 6 months of the year, during the summer. During this period, there would only be 10 trains a day (five in each direction), except for seven days of the year when there would be 14 trains (seven in each direction). All trains would be outside the hours of peak traffic flow (rush hours) and run from approximately 10:40 18:00. The trains are restricted to a maximum of 25 mph (40 kph).

# 2 Ecological Mitigation Strategy

#### **CONSERVATION OBJECTIVES**

- 2.1 The aim of the Protected Species Plan is to ensure that the mitigation hierarchy of avoidance, mitigation, compensation, enhancement and restoration is implemented to ensure:
  - death, injury or disturbance to protected and/or notable species of conservation concern is avoided;
  - no net loss of key habitats (where possible);
  - the quality of on-site habitats is improved (where possible); and,
  - the favourable conservation status of protected species is maintained.
- 2.2 The site-wide approach to ecological working methods to achieve the stated objectives above are provided in Section 3 for each habitat and species group.

#### SITE POTENTIAL

- 2.3 The potential impacts on species and habitats from development when considered at a local level, primarily within or immediately adjacent to the proposed scheme, are as follows:
  - loss of habitats;
  - species mortality or injury through construction activities;
  - disturbance due to construction operations e.g. from noise, dust, vibration etc.;
  - effects on protected species through increased lighting; and,
  - changes to existing habitat management techniques.

#### **CONSTRAINTS**

- 2.4 The following species groups provide potential constraints during both the construction and operational phases of development:
  - bats;
  - birds;
  - badger;

- hazel dormouse;
- reptiles; and
- great crested newt.

#### **Bats**

- 2.5 During the bat surveys, three species of bat (protected species) including common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and Daubenton's *Myotis daubentonii* were recorded foraging and commuting around the site.
- 2.6 A maternity roost for soprano pipistrelle and Daubenton's was located at the eastern end of the site within a large ash *Fraxinus excelsior* tree.
- 2.7 All British species of bat are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017. Under this legislation it is an offence to deliberately capture, kill, or disturb bats or damage, destroy or obstruct access to a bat roost.

#### **Birds**

- 2.8 The woodland and dense scrub on site have potential to support a range of common and widespread breeding birds. One tree was identified as having low potential to support roosting barn owl *Tyto alba* (Schedule 1).
- 2.9 All wild birds and their active nests are protected under the Wildlife and Countryside Act 1981 (as amended). Schedule 1 birds receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC).

#### **Badgers**

- 2.10 Badgers were confirmed as being present on site, including one main sett, one annex sett and four outlier setts.
- 2.11 Badgers are afforded legal protection under the Protection of Badger Act (1992). It is an offence to capture, kill or injure a badger, to disturb a badger while in the sett or to damage, destroy or obstruct access to a sett.

#### **Hazel Dormouse**

- 2.12 Hazel dormice were confirmed as being present on site, with 11 nests (three occupied) being found across the site in one survey season.
- 2.13 Hazel dormice are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017. Under this legislation it is an offence to deliberately capture, or kill a hazel dormouse, and to disturb and damage or destroy a hazel dormouse breeding site or resting place.

#### **Reptiles**

- 2.14 Low populations of common lizard *Zootoca vivipara* and grass snake *Natrix helvetica* were confirmed as being present on site.
- 2.15 Common species of reptile including common lizard and grass snake are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to intentionally kill or injure these species.

#### **Great Crested Newt**

- 2.16 The eDNA survey for great crested newts returned a negative result suggesting they are absent on site.
- 2.17 Great crested newts are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017. Under this legislation it is an offence to deliberately capture, injure, or kill a great crested newt, and to disturb and damage or destroy a great crested newt breeding site or resting place.

## 3 Design and/or Working Methods

#### **OVERVIEW**

- 3.1 All contractors working on-site will be given access to this mitigation strategy and given a toolbox talk by the Ecological Clerk of Works (ECoW) as part of their induction. Information will be provided that explains the importance of sensitive features at the site and the associated protection measures to be employed.
- 3.2 It will be made clear to all contractors that should any unexpected discoveries of protected species be made during construction, works must cease in this area and the ECoW contacted immediately.
- 3.3 No ground works or movement of heavy plant will take place until it is established by an ecologist that all required aspects of ecological mitigation have been carried out adequately in accordance with the measures detailed below.
- 3.4 Details of the timings of the mitigation and enhancements can be found within the timetable of works in Appendix 3.

#### **BATS**

#### **Mitigation**

- 3.5 The ash tree located at the eastern end of the site (see Mitigation Map in Appendix 1) with a maternity roost of soprano pipistrelle and Daubenton's bats will be retained and protected during the works with appropriate fencing and signage indicating its location. It lies approximately 30m north of the works area.
- 3.6 The only other tree with high bat potential identified on or near to the embankment was a mature double stem crack willow, as mentioned below as having low barn owl roost potential. In addition to a large cavity this tree had woodpecker holes and dense ivy cover. Nine trees on or near to the embankment were identified as having moderate potential to support a bat roost and 12 trees were assessed as having low potential to support a bat roost.
- 3.7 The good practice guidelines (Collins, 2016) state that although three surveys are recommended for high potential trees and two surveys for moderate potential trees,

they are unlikely to give confidence in a negative result (due to the inherent difficulties of surveying bats in trees). An accepted alternative approach is to climb trees and use torches/endoscopes to inspect features and establish bat presence/likely absence. This will be carried out for climbable trees with moderate to high bat roost potential immediately prior to them being felled, and any trees found to contain a bat roost will be protected until such time that a licence is in place to facilitate their removal.

- 3.8 For those trees with low value to roosting bats, they will be section felled avoiding any visible cavities. Sections with cavities will be lowered by rope and left for a minimum 24hrs on the ground before chipping or removing from site. Sections of trunk or limbs, with no cavities, and brash can be removed on the day of the trees works.
- 3.9 No permanent lighting is currently proposed for the site which would potentially affect protected species including badgers, bats, breeding birds and hazel dormice.

#### **Compensation and Enhancements**

3.10 To compensate for the loss of foraging habitat, the retained woodland will be enhanced with understorey planting and a new area of scrub/woodland will be planted approximately 450m north-east of the site (see details under dormouse compensation and enhancements below).

#### **BIRDS**

#### **Mitigation**

3.11 The removal of habitats with potential to support breeding birds (those within BPZ 5) is to be undertaken during May 2019 (subject to a dormouse mitigation licence being granted by Natural England). As site clearance during the breeding season is unavoidable then potential nesting habitat will be inspected up to 48 hours prior to clearance work commencing to identify active birds' nests. If any nests are found, they are to be protected until such time as the ecologist confirms that the young have fledged (left the nest). This would involve setting up an exclusion zone/cordon of an appropriate size for the species concerned. Works may then proceed up to, but not within, this exclusion zone. If any nesting birds are found at any time during clearance works when the ecologist is not present, work must stop immediately and an ecologist consulted immediately for advice on how to proceed.

- 3.12 Otherwise, habitats with potential to support breeding birds will be removed during September to February inclusive, to avoid any potential offences relating to breeding birds during their main bird breeding season.
- 3.13 A mature double stem crack willow with low potential to support a barn owl roost was located off the main embankment and therefore the main trunk will remain unaffected by the proposed works. There remains the possibility that the branches of this tree will require remedial works, and if this is the case the tree will be climbed prior to any remedial works to inspect it for the presence of barn owls.
- 3.14 New planting adjacent to the railway line (see details under dormouse compensation and enhancements below) will also provide mitigation for barn owls by forcing them to fly up and over the train line, instead of foraging adjacent to it and risking train strikes.

#### **Compensation and Enhancements**

- 3.15 To compensate for the loss of breeding bird habitat and enhance the site for birds, five new bird boxes will be installed on retained trees (see Table 3.1 below). These will be installed prior to the breeding bird season in winter 2018/2019.
- 3.16 To compensate for the loss of foraging and breeding habitat, the retained woodland will be enhanced with understorey planting and a new area of scrub/woodland will be planted approximately 450m north-east of the site (see details under dormouse compensation and enhancements below).

Table 3.1: Bird Box Details

Example	Number	Туре	Target species	Location
Schwegler	5	Nest box 1B (entrance hole 32mm)	Great tit, blue tit, marsh tit, coal tit, crested tit, redstarts, nuthatches, collard flycatcher, pied flycatcher, wrynecks, tree sparrow, house sparrow, bats	On tree 2-4m high, facing east

#### **BADGER**

#### **Mitigation**

Sett closure

- 3.17 All setts (one main sett, one annex sett and four outlier setts) will need to be closed on the site under licence from Natural England, as they lie in the path of the proposed development.
- 3.18 Timing: All licensable activities will be carried out between 1 July and 15 November 2019 (subject to a licence being granted by Natural England). The exclusion and closure process is anticipated to take 4-5 weeks to complete.
- 3.19 Personnel: All works associated with sett exclusion and destruction will be carried out by the licensee or his accredited agents. The monitoring responsibilities will be split between the licensee (David Gillett) and the named ecologist or agent with the ecologist setting up the monitoring system for the licensee to follow.
- 3.20 Exclusion: The entrances into the setts will be gated using steel badger gates with a specification in accordance with guidance given in Natural England TIN025 (Natural England 2007). They will be fitted tightly within the entrance, using an infill of soil or stones around the edge and/or a Postcrete™ mix where appropriate. The gate will be positioned in such a way as to ensure that the flap readily closes under its own weight and is not obstructed by loose debris.
- 3.21 The area around the sett will then be covered over with a steel mesh chain-link fence fixed into the ground using timber surveying posts or similar. The aim of fitting this feature is to prevent badgers from digging back into the sett or the area immediately around it.
- 3.22 The gates will be set to a one-way position to allow animals to leave the sett but not to re-enter. This exclusion will continue for a period of at least 21 days beyond the last evidence of badger movement in or out of the sett.
- 3.23 Monitoring: During the exclusion process the sett will be monitored using standard techniques. A length of cotton will be attached to the frame of the badger gate with blue tack or strong adhesive tape to detect if the gate is opened, a latticework of small sticks

will be placed just inside the gate to further monitor the movement of animals out of the sett. In addition, two motion activated infra-red trail cameras will be placed outside the entrances to detect any activity. The sett will then be checked every three days for signs of movement through the gates and/or any attempt to dig back into the setts or surrounding area.

- 3.24 Sett closure: All works associated with sett closure will be carried out by the named ecologist or his accredited agent. The tunnels leading away from the sett entrances will be excavated back using a mini-digger. The excavator will be fitted with a narrow trenching bucket that will be used to open up the tunnels, with the ecologist employing sand bags/fertiliser sacks to progressively block the tunnels to prevent collapse. This process will continue until all of the tunnels and chambers have been fully exposed.
- 3.25 Once all tunnels associated with the setts have been fully exposed the exposed tunnels/chambers will be backfilled with a Type 1 aggregate (or similar) and compacted using the excavator.

#### Other practical measures

- 3.26 Other practical measures to be implemented at the site to safeguard badgers include the following:
  - oils, fuels and chemicals should be stored in sealed containers and will preferably not be left out overnight;
  - overnight working should be avoided to minimise noise and disturbance to badgers (and other protected species including bats, breeding birds and dormice);
  - any trenches should be covered overnight, or include a means of escape for any animals falling in (such as a ramp);
  - any open or exposed pipe work should be capped to prevent animals from gaining access; and
  - vehicles are to drive at a maximum speed of 5mph around the site to minimise the risk of collision with badgers.

#### **Compensation and Enhancements**

- 3.27 In order to compensate for the loss of six setts and to provide accommodation for badgers during the exclusion process, a new (artificial) badger sett will be created in retained woodland in 2019 (see Compensation and Enhancement Map in Appendix 2).
- 3.28 The artificial sett will be located within 250 m of the main sett, and at least 5m away from any future development works. It will comprise a 'natural type' design. To encourage long-term adoption of the artificial sett, it will include blind ending tunnels (to allow for expansion by the badgers), nesting chambers that were offset from the tunnels (to mimic natural chambers) and a range of chamber locations.
- 3.29 The existing setts will not be closed until use of the new artificial sett has been confirmed. The new sett will be baited to help badgers find it.
- 3.30 Protective fencing, signage and toolbox talks will be used to prevent incursion into the area of the new artificial sett

#### **HAZEL DORMOUSE**

#### **Mitigation**

Habitat removal

- 3.31 Timing: All suitable dormouse habitat within the site will be cleared during the active season of May 2019 (subject to the European Protected Species Mitigation (EPSM) licence being granted by Natural England). The works are timed to avoid the hibernation and the breeding season. In accordance with the current guidance (Bright et al, 2006), 0.410ha will be removed by taking out small amounts (up to 0.11ha) each day to allow animals time to move of their own accord into adjacent suitable habitat. This would be undertaken over a period of approximately four days, allowing one day per animal likely to be displaced. This area represents much less than the average dormouse home range (1-1.5ha).
- 3.32 Methodology: Prior to the clearance commencing, a hand search for nests as part of an Ecological Watching Brief will be carried out by an experienced and licensed dormouse handler. This will involve a thorough search in and around all trees and scrub to be removed, including around the base of the vegetation. Where necessary, gloves will be worn to allow areas of bramble to be searched with greater ease.

- 3.33 The vegetation removal will involve an initial cut of scrub, trees and secondary woodland at a height of between 200mm-500mm, to be undertaken using hand tools only i.e. strimmers and chainsaws. Clearance will start at the eastern end of the site, persuading displaced dormice to move north, south, or west into retained habitat. A soft-felling technique will be employed to reduce the height of the trees to be removed which will involve cutting the timber into sections and carefully lowering each section to the ground. An ecologist will be present on site to oversee this work. Arisings will be carried, not dragged, from the working area ensuring that disturbance to the leaf litter is kept at a minimum. Arisings will be chipped 'off site' and removed to prevent disturbance to dormice. Following this the stumps and other remaining cut vegetation will be grubbed out using a small 360° excavator and removed from site.
- 3.34 In the unlikely event that breeding dormice are found, they shall be left undisturbed until such time that the young dormice have become independent of their mother. Vegetation supporting and immediately adjacent to the nests (within 5m) will be retained during this time, and clearance of other vegetation on the site will proceed where possible with caution to prevent unnecessary disturbance. Vegetation will not be removed that is likely to result in the isolation of any occupied nests, and a corridor of habitat shall be temporarily retained where necessary to allow animals to move into permanently retained habitat.

#### Trapping/translocation of animals

- 3.35 No trapping or translocation of dormice is proposed. In the highly unlikely event of a dormouse being discovered that has not moved of its own accord into the adjacent habitat during clearance of vegetation, the individual will be captured by hand by a licenced ecologist. After being checked for injuries, any captured animals will be transported immediately in cotton drawstring holding bags to the closest artificial nest box, not further than 40m from where the animal is discovered. If a dormouse is discovered in a nest then the nest will also be placed in a cotton drawstring bag and transported with the animal.
- 3.36 If an injured or sick animal is found during works, it will be transported safely in a lined shoebox to the RSPCA's Mallydams Wood wildlife rehabilitation centre which is located approximately 12 miles from the site.

3.37 Given the small area of habitat to be removed and the methodology which will be adopted during clearance the risk of encountering dormice is considered to be low.

#### **Compensation and Enhancements**

- 3.38 To compensate for habitat loss on site, an area of 0.41ha of mixed native scrub and trees will be planted along the railway corridor approximately 450m north-east of the site. Planting will comprise a mix of species with recognised value to dormice (Bright et al, 2006) including oak (10%), birch/rowan/hornbeam (15%), hazel (10%), hawthom (30%), blackthorn (30%) and honeysuckle (5%). The new planted areas will comprise a higher diversity of species than is currently present on the site within the scrub and secondary woodland and will also increase the proportion of species providing food for dormice such as hazel and honeysuckle.
- 3.39 Retained woodland measuring 1.118ha located along the northern and southern boundaries of the site will be enhanced for dormice with new scrub planting in the gaps (10% of the area) equating to new habitat creation of 0.112ha. The following mitigation measures are proposed as part of the habitat creation and enhancements and include:
  - A new woodland understorey to be created by planting a mosaic of scrub species.
  - New scrub planting to total habitat creation of 0.112ha. Species composition will comprise 17% bramble, 17% blackthorn, 17% Guelder Rose, 17% hazel, 17% honeysuckle and 17% hawthorn.
  - Scrub understorey to provide a rich food resource for dormice year round.
  - New planting and woodland to be managed for five years.
- 3.40 All of the scrub and tree planting will be carried out in winter 2018/2019 to spring 2019. The new scrub and tree planting will be an extension to existing woodland and scrub in the area and along with the new woodland understorey totals 0.52ha of planting, 0.11ha in excess of what is to be lost (a net gain).
- 3.41 To mitigate for the temporary loss of nesting sites, enhance the site for dormice and enable long term monitoring of the site 40 dormouse boxes will be installed at 15-20m intervals within woodland along the northern and southern site boundaries. Boxes will be installed in winter 2018/2019 so that they are in place before habitat clearance takes place.

- 3.42 The boxes are to be monitored as part of the national Dormouse Monitoring Program (NDMP) for five years. All results will be submitted to People Trust for Endangered Species (PTES) to provide data on dormouse distribution for the local area. The boxes will be monitored and maintained.
- 3.43 Details of the boxes are provided within Table 3.2 below. Dormouse box locations are included within the Compensation and Enhancement Plan in Appendix 2.

Table 3.2: Dormouse Box Details

Example	Number	Туре	Target species	Location
© Kent Mammal Group	40	Kent Mammal Group Dormouse Box	Hazel dormouse and birds including blue tit	On tree at chest height

#### **REPTILES**

#### **Mitigation**

- 3.44 The removal of woodland and scrub habitats with potential to support sheltering reptiles is to be undertaken as part of an Ecological Watching Brief during 2019 as described above (under hazel dormouse). This will ensure no reptiles sheltering in the woodland and scrub will be injured or killed during site clearance, and can move into retained habitat of their own accord.
- 3.45 In the event that reptiles are found during clearance works that do not move of their own accord, they shall be moved no more than 50m away into retained habitat at the site edges using on-site log piles as receptor locations. An area with similar aspect and slope will be chosen to place the animal, if necessary hazard tape will be used to mark the area and it shall be left undisturbed by the works.

#### **Compensation and Enhancements**

3.46 To mitigate for the loss of reptile hibernation habitat and enhance the site for biodiversity, approximately five new log piles will be created in the retained habitats using the cut material from the woodland on the embankment.

#### **GREAT CRESTED NEWT**

#### Mitigation

3.47 In the unlikely event that a great crested newt is found during clearance, all work must stop and a suitably qualified ecologist contacted for advice. An EPSM licence may be required from Natural England.

## References

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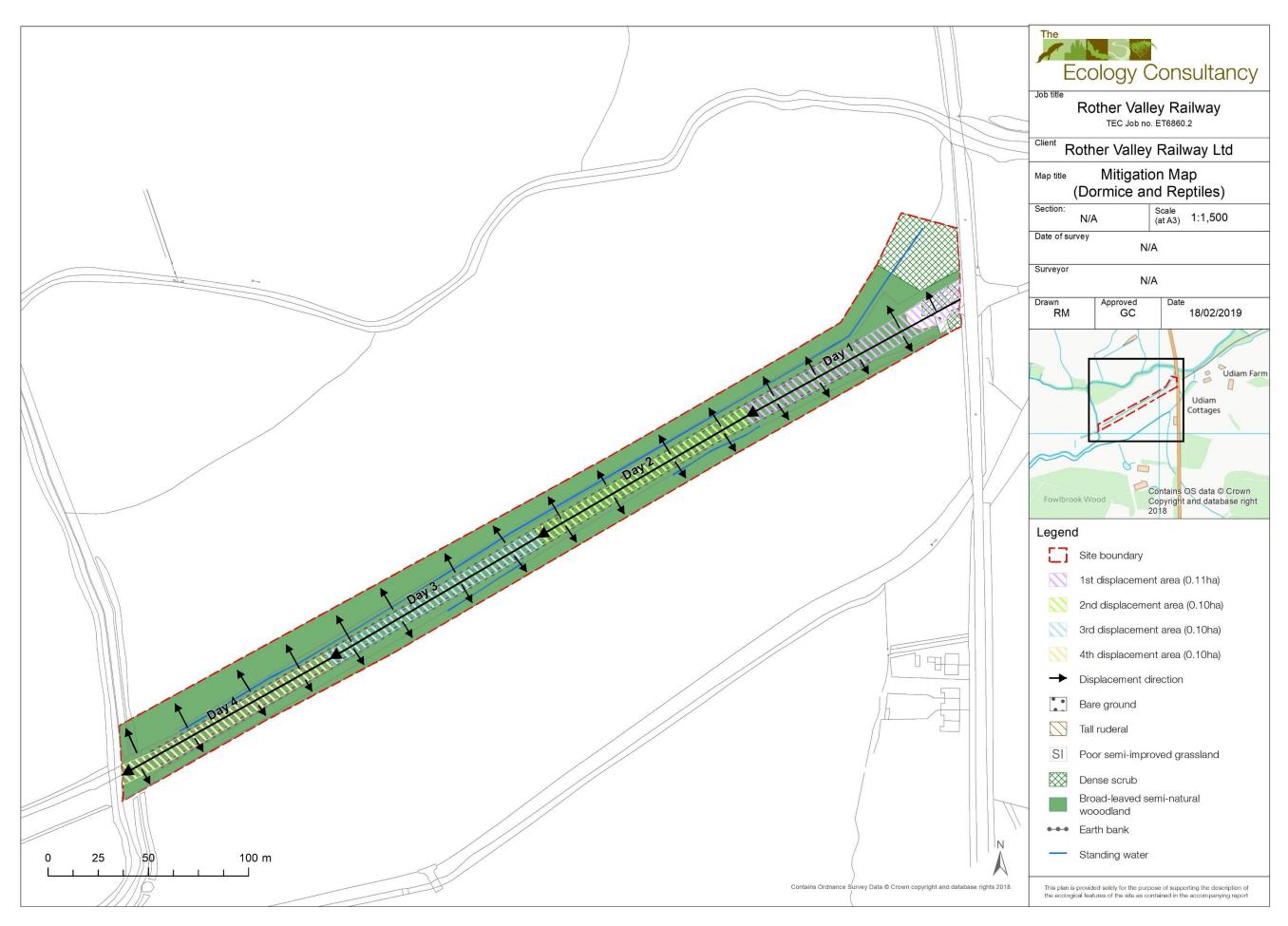
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Appendix 1: Mitigation Maps





Appendix 2: Comp	ensation and E	Enhancements Map



Appendix 3	: Timetable	of Ecological	Works
1 1			

Table 2.2: Timetable of works

√ = timing of activity \* = EcoW presence required

Tasks	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Site preparation and protection												
Woodland and scrub removal (2019)					<b>√</b> *							
Closure of badger setts (2019)							<b>√</b> *					
Habitat creation and enhancement	1											
Creation of artificial badger sett (2019)					<b>√</b> *	<b>√</b> *						
Planting of woodland/scrub (2019)		<b>√</b>	<b>√</b>									
Installation of dormouse boxes (2019)		<b>√</b> *	√*									
Installation of bird boxes (2019)		<b>√</b> *	√*									
Installation of log piles (2019)					✓							
Ongoing maintenance and monitoring												
Monitoring of artificial badger sett (2019)					<b>√</b> *	<b>√</b> *						
Inspection of new woodland/scrub planting to assess establishment success (2019 – 2023)										<b>✓</b>	<b>✓</b>	<b>✓</b>
Re-plant any stock that has failed to establish (2019-2023)	✓	<b>✓</b>	<b>√</b>									

#### Table 2.2: Timetable of works

√ = timing of activity \* = EcoW presence required

Tasks	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Topping of scrub to encourage dense growth (2020)	✓	✓								✓	✓	<b>√</b>
Creation of scalloped edges 1-2m deep by coppicing to ground level (2023)	<b>✓</b>	<b>✓</b>								<b>✓</b>	<b>√</b>	<b>√</b>
2 x monitoring visits of dormouse boxes, results to be submitted to NDMP (2019-2023)					<b>√</b> *				<b>√</b> *			
Dormouse boxes to be repaired/replaced (if required) and cleaned out (2019-2023)	<b>√</b> *	<b>√</b> *										<b>√</b> *



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