



Consultancy Services

Sevenoaks Wildlife Reserve, Bradbourne Vale
Road, Sevenoaks, Kent TN13 3DH

Roman Snail Method Statement



KWT Consultancy Services



Head Office: Kent Wildlife Trust, Tyland Barn, Sandling, Maidstone, Kent ME14 3BD

Tel: 01622 662012

info@kentwildlife.org.uk | kentwildlifetrust.org.uk



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Report Verification

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Draft	01 March 2021	Clair Thackray PhD., Ecologist, KWT Consultancy Services	Isobel Girvan, Principal Ecologist, SWT Ecology Services	
Final	15 March 2021		Anne Waite BSc, CBiol, MRSB Project Manager, KWT Consultancy Services	Vincent Ganley Managing Director, KWT Consultancy Services

This report has been prepared in accordance with British Standard 42020:2013 “Biodiversity, Code of practice for planning and development”.

This report has been prepared by KWT Consultancy Services for the sole use of the client.

All opinions expressed are the true and professional bona fide opinions of K WT Consultancy Services. They do not constitute professional advice and the client may wish to seek professional legal interpretation of the relevant wildlife legislation referenced in this report.

Any information provided by third parties and referred to within this report has not been checked or verified by KWT Consultancy Services unless otherwise expressly stated within this document.

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1 CONSTRAINTS AND RECOMMENDATIONS SUMMARY

The table below shows a summary of the Outline Mitigation Strategy for Roman snail.

Information on presence of Roman snail	Areas of suitable habitat within site	Impacts	Recommendations	Timing Constraints
Presence confirmed within site and adjacent areas	Scattered and dense scrub, open grassland and bare, loose soil	<ul style="list-style-type: none"> • Demolition of buildings adjacent to Roman snail habitat • Temporary scrub loss (c.480m²) • Permanent scrub loss (c.665m²) • Risk of killing or injury during demolition, clearance and construction 	<ul style="list-style-type: none"> • Survey to determine population distribution • Natural England Conservation licence required to allow capture and relocation • Deterrent fencing around works area • Scrub clearance under Ecological Watching brief to include staged-cutting and repeat hand searches. Captured snails to be released within receptor area within 20-30m of site. • Tool Box talk • Use of Reasonable Avoidance Measures (RAMs) and Heras fencing / hoarding to protect retained habitats 	Survey and mitigation to be carried out during the active period: May – August and in alignment with reptile and breeding bird mitigation

2 INTRODUCTION

2.1 Background

Kent Wildlife Trust is seeking to obtain planning permission for improvements to the existing visitor experience at its Sevenoaks Wildlife Reserve. The land subject to development proposals comprises a c.1.75ha area located in the south-west of Sevenoaks Wildlife Reserve and Site of Special Scientific Interest (SSSI) – herein termed as ‘the site’.

The site is dominated by bare ground with adjacent areas of semi-natural broadleaved woodland and dense scrub. The central OS grid reference for the development area is TQ51942 56702.

The current proposals include the following:

- Demolition of five structures, several containers and limited areas of dense scrub and trees to facilitate new access and parking areas.
- Removal of a limited area of trees and scrub in the vicinity of the existing visitor centre building and the enlarged parking areas and one-way road system.
- Extension and renovation of the existing visitor centre building.
- Recladding and improved thermal performance of the visitor centre, requiring the temporary removal of all roof tiles and timber weatherboarding from all elevations.
- Installation of air sourced heat pumps within the visitor centre and photo voltaic panels on the visitor centre roof.
- Resurfacing of all access routes and parking areas.
- New play area to east of visitor centre.
- New areas of tree planting and soft-landscaping in the north, east and west of the site.

2.2 Scope of work

KWT Consultancy Services was commissioned to undertake a Preliminary Ecological Appraisal (PEA) of the site in November 2019 (KWT Consultancy Services, 2021). The PEA identified suitable habitat for Roman snail *Helix pomatia* within the site, and the species is regularly recorded within the wider reserve, including near the existing visitor centre (Paul Glanfield - Reserve Warden, pers. comm.).

The proposals for the site have now been finalised and the potential impact on Roman snail can be assessed.

2.3 Survey Area

Sevenoaks Wildlife Reserve is situated on the northern periphery of Sevenoaks town (see Figure 1). The village of Dunton Green is located to the west, the A25 to the South, residential and commercial areas to the west and open agricultural land to the north. It is accessed from Bradbourne Vale Road at OS grid reference TQ5218 5636.

The Reserve is owned by Tarmac and leased / managed by Kent Wildlife Trust and comprises a 73ha area including five lakes and surrounding areas of broadleaved woodland with dense scrub, numerous smaller ponds, wet woodland and reedbed, with a number of bird hides and trails for public use. The river Darent flows through the north of the site. The

south-west of the site includes the existing Jeffrey Harrison visitor centre and adjacent outdoor education area.

The Reserve is all designated as SSSI for its breeding wetland bird assemblage and Downy Emerald dragonfly. The reserve also sits in an area identified in the Sevenoaks District Plan as: Area of Archaeological Potential, and Metro Greenbelt.

Figure 1 shows the extent of the Reserve and the general location of the site. Figure 2 shows the development proposals.

2.4 Legislative Context

Roman snail is protected under schedule 5 of the Wildlife and Countryside Act (WCA) 1981, as amended. Under Section 9(1), (2) and (5), it is an offence to intentionally kill, injure or take this species. It is also an offence to possess a live or dead Roman snail. Although disturbance is not an offence, a licence is needed to handle ('take') the Roman snail. Natural England cannot grant licences for development under the WCA (1981, as amended), but a 'Conservation Licence' can be issued in certain circumstances, where the work that will be undertaken is essential and the impacts to the species cannot be avoided. Some conservation benefit to the species is required as a result of the work.

2.5 Potential Impacts of the Proposed Works

The proposals and potential impacts of the works on habitat which is suitable for Roman snail is described below, with the location and extent of Areas 1, 2, and 3 shown on the map at Figure 3:

- **Area 1** – Approximately 105m² of scattered scrub will be lost and 480m² will be temporarily cut-back along the boundary of the southern construction area.
- **Area 2** – Approximately 180m² of scattered scrub will be permanently lost within the Visitor Centre building construction area.
- **Area 3** – Approximately 380m² of scrub will be permanently lost through the creation of paths, roads and parking areas.

In the absence of mitigation, the vegetation clearance and construction phase of the roads, parking areas and Visitor Centre could lead to the accidental death of, or injury to, individual Roman snails.

2.6 Summary of Ecological Surveys Completed

In May 2020, a casual observation of one active Roman snail was made within the garden of the Tadorna building immediately to the north of the site.

On 15th February 2021, a search of the site was carried out for Roman snail shells. The survey involved a systematic search for shells within areas of long grass and scrub, including checking beneath log refugia. Ten shells were recorded. Shell and snail locations are shown at Figure 3.

2.7 Scope of the Method Statement

This document has considered the scope and nature of the works and how these could affect Roman snail; it presents the precautionary method of working for the species and outlines the conservation aims and how these will be achieved.

The ecologist's role is to guide the contractor to ensure all works occur in line with the relevant conservation licence, and this Method Statement. It is the contractor's responsibility to ensure that they carefully follow the ecologist's instructions and cease to work when the ecologist indicates works must cease.

Prior to commencing supervised clearance works, the ecologist and contractor will agree hand signals for when works will need to cease.

2.8 Roman Snail Ecology

Roman snail occurs in open woodland, rough, tussocky grassland, hedge banks and scattered scrub. The species requires loose, friable soil for burying for hibernation and summer aestivation, and also for depositing eggs. Lime-rich, free draining soils are a habitat requirement in the UK and studies have found a preference for south-facing slopes (Pollard 1975). They will generally avoid very open, exposed habitats.

Roman snail generally lives in large aggregations and its home-range is approximately 30m in diameter. They take two to five years to reach maturity. They are typically active from May to August, with peaks of activity in May and June. Roman snail hibernates in the ground by digging down into loose soils, pulling vegetation and soil over the top to close the entrance into their chamber. They will remain in hibernation until spring.

Figure 1: Site Location / Boundary Map. Map provided by Kent Wildlife Trust showing extent of Sevenoaks Wildlife Reserve (outlined in green), and the general location of the site (outlined in red)

Sevenoaks Wildlife Reserve

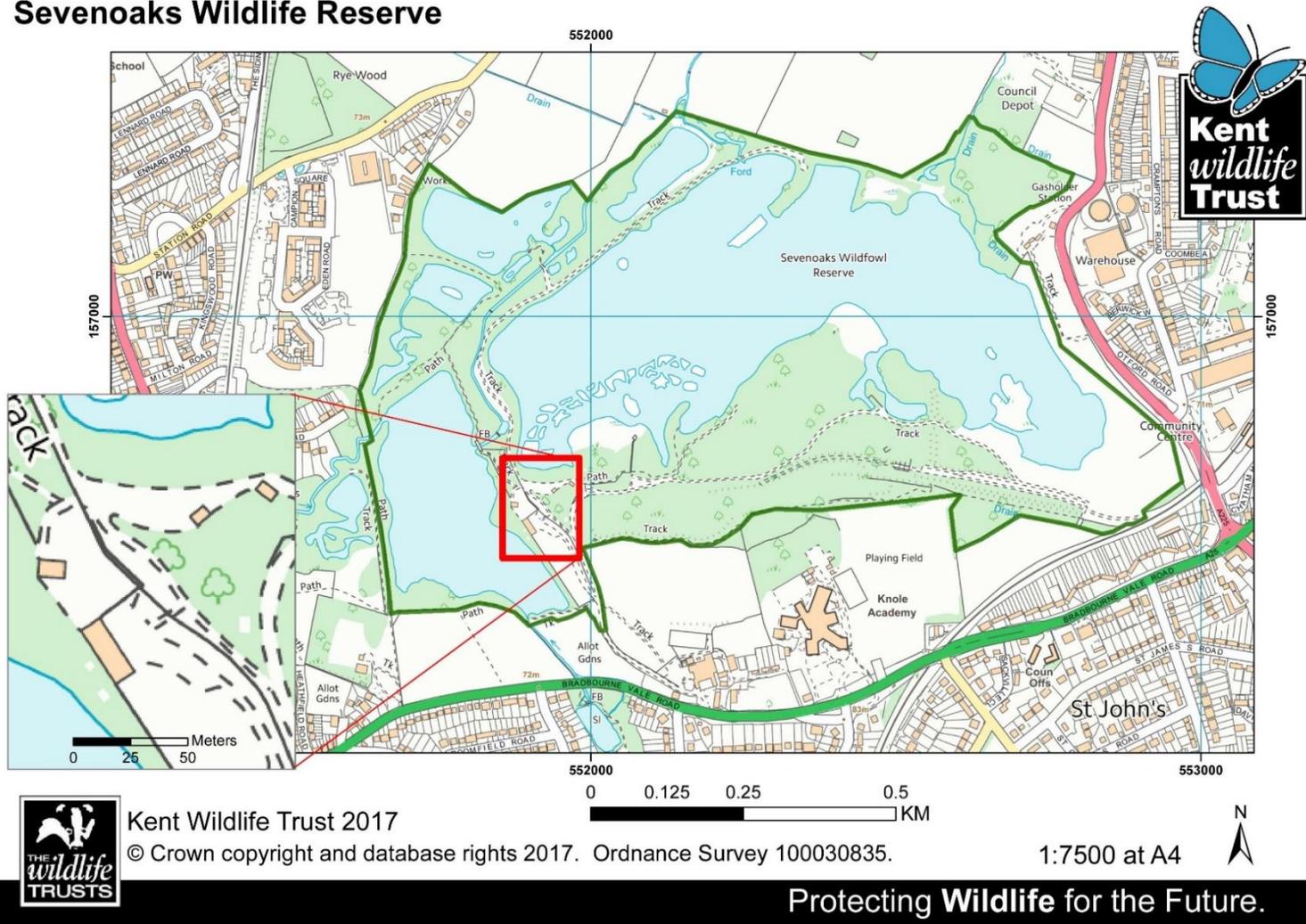
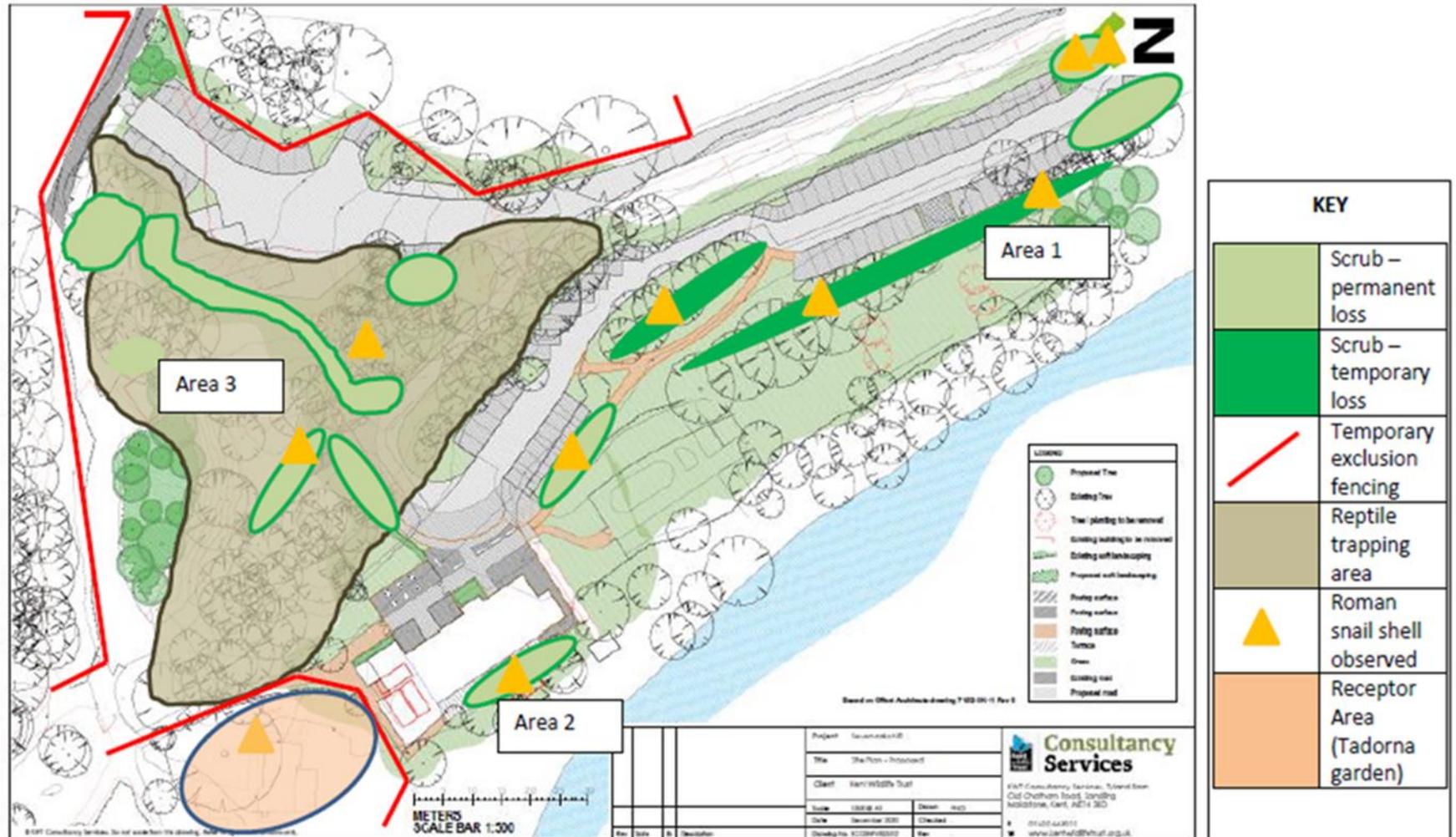




Figure 2:
Development proposals

Figure 3: Map showing location of Roman Snails within the site



3 CONSERVATION STRATEGY

3.1 Habitat Enhancements

The aims of the Method Statement are to protect Roman snail from being killed or injured during the proposed works and provide a long-term conservation benefit to the species within retained areas.

Habitat enhancements for Roman snail will be carried out as follows:

- Soil within Area 3 will be loosened to provide areas of friable soil within the retained scrub vegetation post-development.
- Log pile refugia will be created throughout the site using cordwood from felled trees
- Cut-back scrub will be allowed to regenerate once works are completed and new areas of soft landscaping will include native shrub planting over loose soils.
- It is recommended that the site and wider reserve includes sensitive management for Roman snail in the long term.

3.2 Spring / Summer Survey

Whilst no standard published survey technique for Roman snails currently exists, the combination of hand searches and nocturnal torch surveys in suitable weather conditions enables an assessment of presence or likely absence at a site (Mansfield, 2011).

One evening torch-light survey will be undertaken between May-August to assess population abundance and distribution within the site, to inform the pre-works hand-search procedure. The survey should be taken after rainfall, in warm and humid conditions. Individuals will bury into the topsoil during prolonged hot/dry spells.

3.3 Application for a Natural England Conservation Licence

A Roman snail licence is required to handle the snails. Following the torch survey an application will be made for a Conservation Licence. Natural England requires approximately four weeks to process applications.

3.4 Precautionary Method of Working

Reptile fencing will be installed as part of mitigation for the proposed development and will act as a deterrent in terms of Roman snail moving in to the works area from adjacent dense vegetation; this fencing will border the Tadorna garden and will therefore also function to deter released snails from moving back into the works area (Figure 3).

Three areas of suitable habitat for Roman snail consisting of scattered scrub and soft, bare soils will be impacted by the development works. These have been described in Chapter 2.5 and are shown on the map at Figure 3.

Ecological Watching Brief

In Areas 1 and 2, the ecologist will carry out a thorough hand search of the tall grassland and scrub habitats, including all log and brash refugia. The area will then be cut to 300mm and arisings removed, followed by a thorough search for Roman snail. For the purposes of reptile

mitigation the area will then be left for 3-4 days, after which a second cut will be carried out to 150mm and all arisings will be raked off and removed. The ecologist will check again for the presence of any Roman snail within the cleared areas. After two further days to allow any remaining reptiles to disperse, the area will be cut to ground level and litter removed. Vegetation will be maintained at a height of less than 50mm throughout the course of the works thereafter.

In Area 3, small areas of scrub will be permanently lost while the majority will be retained. Any animals within the retained habitats will be isolated by the surrounding works areas, with the risk of killing and injury should they move into the construction area. A reptile trapping programme is to be undertaken within this area and repeat searches for Roman snail will be carried out in conjunction with the trapping programme.

On completion of the trapping programme, areas of scrub to be permanently lost will be thoroughly hand-searched for Roman snail and subject to a staged cutting procedure as described above. Once all snails have been removed to the receptor area and the ecologist has confirmed likely absence, the vegetation will be further cut to ground level and litter removed. Vegetation will be maintained at a height of less than 50mm throughout the course of the works thereafter.

At the start of construction works a Toolbox Talk will be given explaining the legal protection afforded to Roman snails and instructions on contacting the licensed ecologist or accredited agent should animals be found during works.

Receptor Area

During the hand searches any individuals found would be moved to the receptor area within the Tadorna garden - beyond the exclusion fencing (Figure 3). The garden supports suitable habitat for Roman snail and lies within 20-30m of the site - it is therefore likely to lie within the home-range of some individuals found within the site.

Timing

All works to remove snails will be carried out during the active season i.e. **May to August**. Where scrub habitat to be lost is sufficiently tall and dense to be suitable for nesting birds, the first cut to 300mm will be carried out during the period November-February, to avoid the nesting bird season.

Monitoring

KWT Consultancy Services will keep a diary of the number of Roman snails that are captured and translocated. Records of Roman snail will also be provided to the Kent and Medway Biological Records Centre (KMBRC) and the Conchological Society national non-marine recording scheme.

One monitoring survey of Roman snail will take place one year after construction. This will take place within suitable habitats throughout the site and within the receptor area. The results will be used to assess whether further habitat enhancements are required.

3.5 Wider Enhancements for Invertebrates

Enhancements throughout the site will incorporate a range of suitable nesting and shelter sites for invertebrates including new areas of shrub and tree planting and artificial nesting/sheltering habitats.

4 REFERENCES

Mansfield, H. (2011) *Roman Snail: An Introduction to its Ecology and Legal Protection*. In Practice No. 72. CIEEM.

Natural England. 2011. *Technical Information Note TIN103: Roman snails and development*. Natural England, Peterborough

Pollard E (1975) *Aspects of the Ecology of Helix pomatia L.* Journal of Animal Ecology 44: 305-329.