

Manston Planning Proposal

Reptile Survey

Prepared on behalf of

AtkinsRéalis

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Reptile Survey

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Manston Planning Proposal

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Manston Planning Proposal

Reptile Survey

Executive Summary

Ecological Planning & Research Limited (EPR) was commissioned by AtkinsRéalis on behalf of the Home Office to conduct reptile survey work at the former MoD site in Manston, Ramsgate, Kent, CT12 5DF (hereafter referred to as 'the Site').

Seven reptile survey visits were conducted between April and September 2025. No reptiles were recorded during any of the survey visits.

Reptiles are unlikely to present across the site, therefore, no level of ecological importance for reptiles has been assigned and no mitigation associated with reptiles is required for proposal to proceed.

1. INTRODUCTION

1.1 Ecological Planning & Research Limited (EPR) was commissioned by AtkinsRéalis on behalf of the Home Office to conduct reptile survey work at the former MoD site in Manston, Ramsgate, Kent, CT12 5DF (central grid reference TR 3326 6687; hereafter referred to as 'the Site') between April and September 2024.

1.2 **Figure 1** shows location of the Site.

Relevant Legislation

1.3 British species of reptile are protected under Schedule 5 (Sections 9.1, 9.5a, 9.5b) of the Wildlife & Countryside Act 1981. **Appendix 1** provides further detail on relevant legislation:

Likely Biophysical Changes

1.4 Biophysical change means an “... *alteration in biological and/or physical conditions of the environment (e.g. changes in the atmospheric concentration of carbon dioxide, altered soil pH or change in the frequency of a plant species in an area)*” (CIEEM, 2018).

1.5 The predicted biophysical changes that could be generated from the Proposed Development and be of relevance to reptiles are detailed in **Table 1.1**, along with their likely Zone of Influence (discussed further below).

Table 1.1: Activities and Biophysical Changes associated with the Proposed Development that may give rise to ecological impacts to reptiles, and the associated Zone(s) of Influence.

Activity	Potential Impacts	Zone of Influence
Site Clearance and Construction Phase		
Vegetation clearance and ground works	Loss and fragmentation of suitable habitat; including foraging, basking, shelter and hibernacula. Direct harm or death of individual animals.	Site and areas within 400m of it.
Drainage	Change of groundwater flows and/or water quality, that may in turn affect suitable habitat.	The Site and immediate surrounds.
Access and travel on / off the Site	Disturbance to animals (e.g., via ground vibration).	The Site and locations around access points.
Assembly and storage areas for machines, materials and construction compounds	Loss and fragmentation of suitable habitat, including foraging, basking and/or hibernacula. Direct harm or death of individual animals. Disturbance (e.g., via ground vibration).	The Site and locations around access points.
Construction of new roads and buildings	Habitat fragmentation.	The Site and immediate surrounds in the most part.
Creation of new habitats through implementation of a soft landscaping scheme	Beneficial impact from the creation of new habitat.	Site and areas within 400m of it.
Operational Phase		
Access and travel on / off the Site, including increased number of people visiting the Site.	Disturbance (e.g., increased interactions with people). Potential increase in mortality rates from increased access, interactions with people.	Site and areas within 400m of it.
Implementation of habitat management plans	Enhancement of existing habitats and beneficial management of new habitats.	Site and areas within 400m of it.

Zone of Influence

- 1.6 The Zone of Influence (Zoi) of a proposed development is defined by the Guidelines for Ecological Impact Assessment (EclA) as “... *the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities*” (CIEEM, 2018).
- 1.7 If one of the reptile species present is Grass Snake *Natrix Helvetica*, the Zoi may extend further than 300m to 400m because this species has a relatively large home range.

Survey Objectives

1.8 The objectives of the survey and report are to:

- Identify suitable reptile habitat within the Site;
- Assess the use of the Site by reptiles; and
- Assess the ecological importance of the reptile populations within the Zol.

2. METHODS

Desk Study

- 2.1 A biological records data search was commissioned from Kent and Medway Biological Record Centre (KMBRC) on 13th June 2024. It included reptile records within a 2km radius of the Site.
- 2.2 In addition, the Government's Multi-Agency Geographic Information for the Countryside (MAGIC) was used to look for records of granted European Protected Species Mitigation Licences within 5km.

Habitat Assessment

- 2.3 The habitats were assessed for their suitability for reptiles and amphibians by PB during previous site visits and survey work.

Reptile Survey

- 2.4 The reptile survey was based on that detailed in Gent and Gibson (2003), Sewell *et al.*, (2013) and Froglife (1999; 2016).
- 2.5 This involves the use of artificial refuges made of corrugated metal, roofing felt, onduline, or other suitable materials distributed in areas likely to support reptiles. These refuges absorb and retain radiant heat more readily than the surrounding ground or vegetation and often act as 'magnets' to animals in the immediate vicinity because favourable microclimates are created beneath them and/or adjacent to them. Cold-blooded reptiles will therefore shelter underneath these refuges and regulate their core temperature whilst safe from disturbance or predation.
- 2.6 Refuges are particularly effective for locating species of snake and Slow-worm *Anguis fragilis*. Whilst refuges are less effective for locating Common Lizards *Zootoca vivipara*, animals will still use them. Careful visual survey, by experienced surveyors, was also used to look for animals.
- 2.7 A total of 39 refugia comprising 33 felt and six onduline were placed in suitable habitat on the 8th April 2025 by PB and JS (see **Figure 2**). To allow reptiles time to find the refugia they were left to "bed-in" for three weeks prior to the first survey. Surveys were scheduled to coincide with suitable weather conditions and ambient temperatures.
- 2.8 Surveys were spread over the period April to September, avoiding warmer temperatures, with one survey completed on a cooler day in June, one survey completed on a cooler in July, and no surveys completed in August.
- 2.9 Seven visits were completed to establish presence / likely absence, and survey dates, times and weather conditions are provided in **Table 2.1**
- 2.10 Survey visits were conducted by JS and JK.
- 2.11 All survey visits were at least 5 days apart.

Table 2.1: Survey visits dates, times and weather conditions

Visit No.	Date	Start Time	End Time	Start Temperature (°C)	End Temperature (°C)	Wind (Beaufort Scale)	Cloud Cover (%)	Rain
1	30/04/2025	09:00	10:45	17	20	1	0	None
2	06/05/2025	17:00	18:23	13	12	2	100	None
3	13/05/2025	08:10	10:15	16	19	1	0	None
4	06/06/2025	07:50	08:00	15	17	1	50	None
5	03/07/2025	09:40	10:57	17	20	1	0	None
6	10/09/2025	10:00	11:45	17	17	1	100	Light rain for first 10 mins
7	15/09/2025	10:30	12:00	16	17	6	30	None

2.12 A commonly used method for interpreting reptile survey data is detailed in Froglife (1999), from which **Table 2.2** is taken. The numbers in the Table refer to the maximum numbers of adults recorded in one visit, when using walked transect observations and artificial refuges.

2.13 These Froglife (1999) guidelines, however, need a degree of interpretation because they do not consider the size of the survey area, or the localised distribution of reptiles within a survey location.

Table 2.2: Population Size Class Interpretation (Froglife, 1999). Numbers refer to the number of adults (not sub-adults and juveniles) recorded.

Species	Low Population	Good Population	Exceptional Population
Slow Worm	<5	5-20	>20
Common Lizard	<5	5-20	>20
Grass Snake	<5	5-10	>10
Adder	<5	5-10	>10

Ecological Evaluation

2.14 The importance value used in this report is based on the recommended geographical context. For the purposes of this assessment, the following geographical contexts are used; ZOI, Local, County, Regional, National, United Kingdom, European or International level.

2.15 The content detailed in the criteria for Local Wildlife Sites (LWS) in Kent (KWT, 2024) can be readily applied to the evaluation of reptile assemblages within Kent. In the criteria, 'good' or 'exceptional' populations/assemblages score at least 4 (see Kent Wildlife Trust 2024), and the Kent-based criteria are based upon nationally recognised scoring systems (such as that used by Froglife).

- 2.16 When appropriate, and if reptiles are present, the criteria associated with 'Key Reptile Sites' (as per Froglife Advice Sheet 10) can be used. However, in this instance, as no reptiles were recorded, this evaluation framework was not used.

Constraints and Considerations

- 2.17 Prior to the first visit on 30/04/2025, a small number of refugia which had been deployed on 08/04/25 had been removed by on site security teams, as they were identified as potential security risk. The loss of these refugia is not considered a constraint due to the high density refugia deployed within areas identified as being potentially suitable to support reptiles. The numbers of refugia referred to in this report represent the number of refugia which were regularly checked.
- 2.18 All surveys started with appropriate temperatures to complete reptile survey work. Some surveys finished with temperatures on limits of suitable survey conditions, notably 30/04/2025, 13/05/2025, and 03/07/2025 when end survey temperatures were high.
- 2.19 On 10/09/2025, there was light rain at the very beginning of the survey and on 15/09/2025, the wind was relatively strong. Light rain in warm conditions is acceptable to complete valid reptile survey work, and the site itself is exposed and often experiences high winds, so windy conditions were within normal ranges for the site.

3. RESULTS

Desk Study

- 3.1 The KMBRC biological records search for reptiles returned no records within 2km of the Site.
- 3.2 No European Protected Species Licence records in relation to reptiles were within a 2km radius of the Site using MAGIC Maps.

Habitat Assessment

- 3.3 Large expanses of the Site were not considered suitable for reptiles, including areas of hardstanding and managed grassland which is close mown on a regular basis.
- 3.4 **Figure 2** shows the location of suitable reptile habitat and where refugia were deployed for survey purposes within the Site.
- 3.5 Areas considered potentially suitable to support reptiles were generally either unmanaged scrub in discrete corners of the site, or occasionally managed 'nature' areas.

Field Survey

- 3.6 No reptiles were recorded across the entire survey.
- 3.7 Reptile results are shown in **Appendix 2, Table A2.1**.
- 3.8 No reptiles have been recorded during any other survey work completed on site to date.

4. ECOLOGICAL EVALUATION

- 4.1 Based on the results of the field survey and desk study, reptiles are unlikely to present across the site, therefore, no level of ecological importance for reptiles has been assigned.
- 4.2 No mitigation associated with reptiles is required for proposal to proceed.

5. REFERENCES

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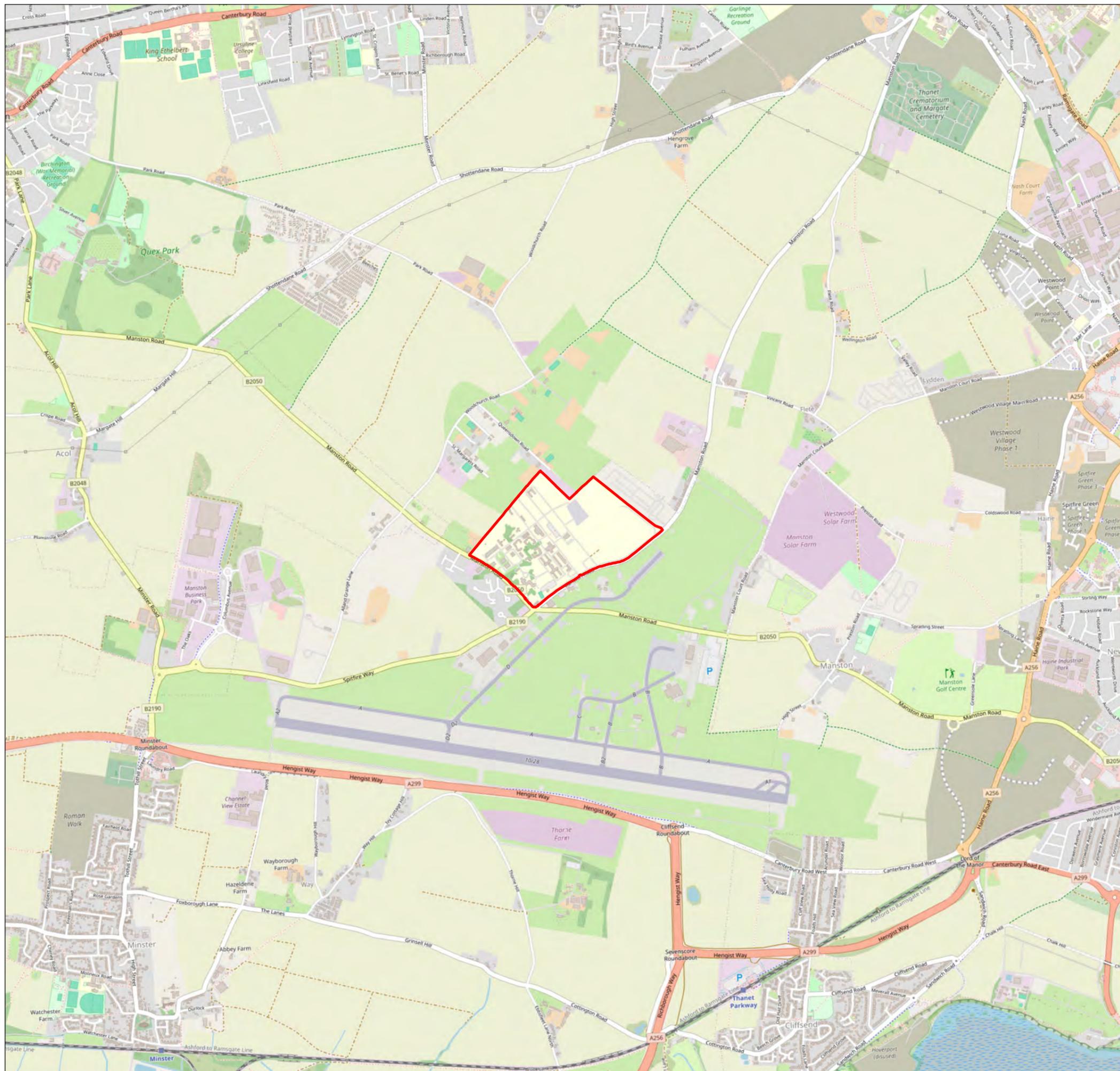
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Figures

Figure 1 Site Location

Figure 2 Location of Reptile Refugia and Suitable Habitat

Figure 1 Site Location



KEY

 Site boundary

SCALE: 1:20,000 at A3

0 200 400 600 800 1,000 Metres



CLIENT: AtkinsRéalis

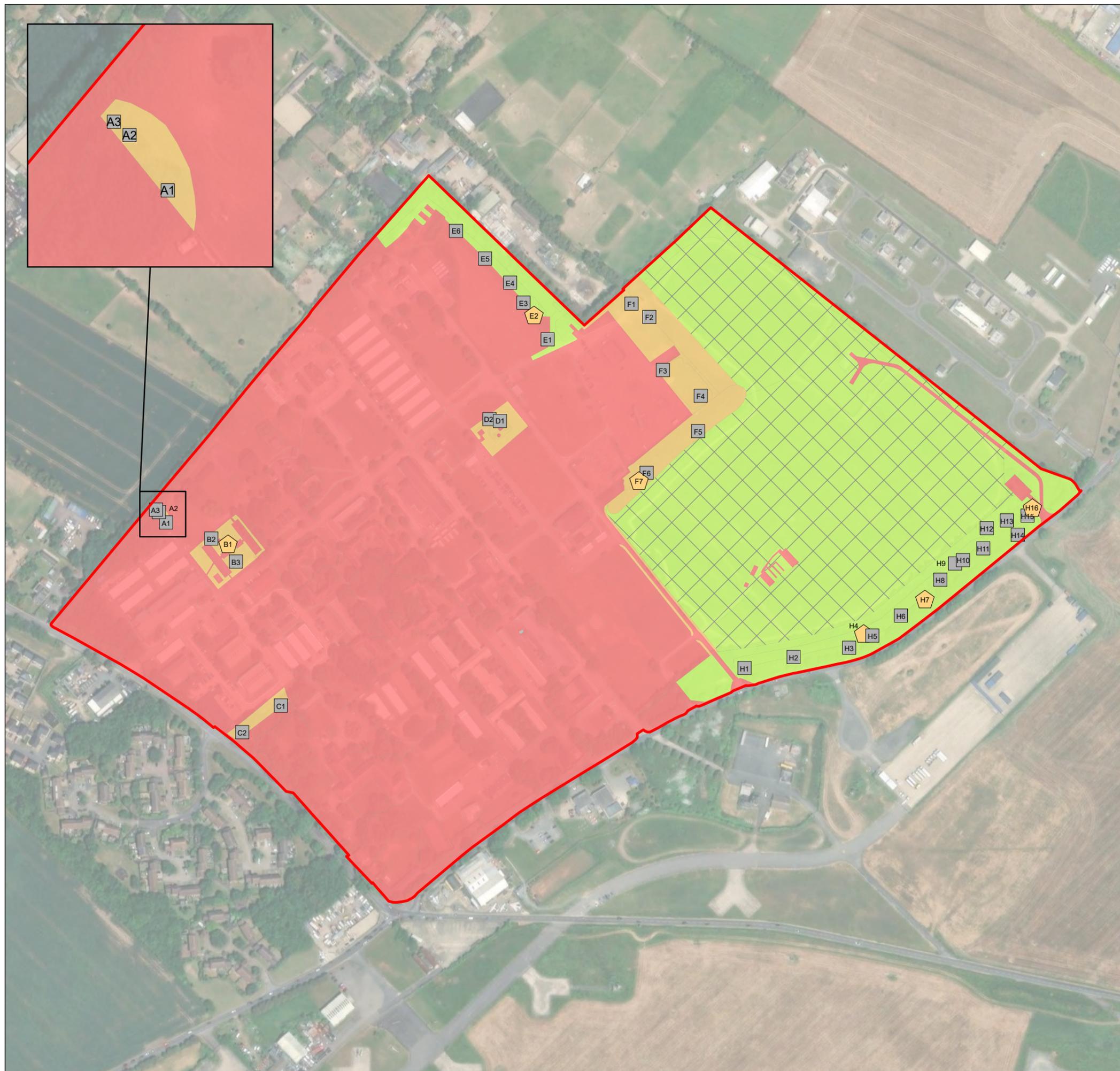
PROJECT: Manston

DATE: 01 October 2025

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Basemap: © OpenStreetMap (and) contributors, CC-BY-SA

Figure 2 Location of Reptile Refugia and Suitable Habitat



KEY

-  Site boundary
-  Felt
-  Onduline
-  Optimal
-  Optimal habitat not surveyed - outside of scope of proposals
-  Suboptimal
-  Not suitable

SCALE: 1:3,750 at A3



CLIENT: AtkinsRéalis

PROJECT: Manston

DATE: 15 October 2025

Appendix 1

Summary of Relevant National Legislation

The Environment Act 2021

The Environment Act 2021 placed a requirement on the Secretary of State to make regulations setting out long-term targets for air quality, water, biodiversity, resource efficiency and waste reduction. It also required the Government to produce an Environmental Improvement Plan, to report on progress towards its goals annually, to meet the targets that are set in relation to the improvement of the natural environment and to produce remedial plans should this not be achieved.

In relation to water quality, the Act placed new duties on the Government, Environment Agency and sewerage undertakers to reduce the frequency and harm of discharges from storm overflows on the environment, and for monitoring the quality of watercourses affected by those overflows.

It also included a requirement for an independent Office for Environmental Protection (OEP) to be established, with responsibilities for monitoring and reporting on progress against environmental improvement plans and targets. The OEP also has investigation and enforcement powers against public authorities failing to comply with environmental law when exercising their functions.

The Act made provision for 10% biodiversity gain to become a condition of planning permission in England, through amendments to the Town and Country Planning Act 1990. These amendments came into force on the 12th February 2024 (delayed to 2nd April 2024 for 'small sites') and are implemented through a series of new statutory instruments collectively referred to in this document as the 'Biodiversity Net Gain Regulations' (detailed further below). The 10% biodiversity gain is measured through a biodiversity metric published by the Department of the Environment, Food and Rural Affairs (DEFRA) on behalf of the Secretary of State. The Act also establishes Biodiversity Net Gain as a requirement for Nationally Significant Infrastructure Projects (NSIPs).

The Act also strengthens the biodiversity duty placed on public authorities through amendments to the Natural Environment and Rural Communities Act 2006 Section 40, requiring such authorities to not only conserve but also enhance biodiversity when exercising their functions. Public authorities will also be required to publish summary reports of actions taken under Section 40 at least every five years.

The Act provides the legal basis for the creation of Local Nature Recovery Strategies (LNRSs) for England (including specifying their content), and the preparation and publication of species conservation strategies and protected sites strategies.

The Act also created a new legal vehicle known as a 'Conservation Covenant' which is a voluntary, legally binding private agreement between landowners and responsible bodies (the latter designated by the Secretary of State) which conserve the natural or heritage features of the land, enabling long-term conservation. Conservation Covenants are designed to 'run with the land' when it is sold or passed on and are intended to become a primary mechanism for the delivery of Biodiversity Net Gain (BNG).

The Act provides new powers for the Government to amend in future Regulation 9 and Part 6 of the Conservation of Habitats and Species Regulations 2017 (as amended) (the 'Habitats Regulations') –

but “only if satisfied that the regulations do not reduce the level of environmental protection provided by the Habitats Regulations”.

Several aspects of protected species licencing have also been adjusted by the Act. These include the removal of several inconsistencies between the Habitats Regulations and the Wildlife & Countryside Act 1981 (as amended), ensuring that licences issued under the former piece of legislation also apply under the latter, and making it now possible for licences to be issued under Section 16(3) of the Wildlife & Countryside Act 1981 (as amended) for purposes of overriding public interest. The maximum term of a licence that can be issued by Natural England has also been extended from 2 to 5 years.

Wildlife & Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 is a key mechanism for the legislative protection of wildlife in Great Britain. Various amendments have occurred since the original enactment. Certain species of bird, animal and plant (including all of the European Protected Species listed above) are afforded protection under Schedules 1, 5 and 8 of the Act. Reference is made to the various Schedules and Parts of this Act (**Table A1.1**) in the section of this Appendix dealing with Legally Protected Species. The Act also contains measures for the protection of the countryside, National Parks, Sites of Special Scientific Interest (SSSIs) and public rights of way as well as preventing the establishment of invasive non-native species that may be detrimental to native wildlife.

Reptiles

All four of the widespread British species of reptile, Common Lizard *Zootoca vivipara*, Slow-Worm *Anguis fragilis*, Grass Snake *Natrix helvetica*, and Adder *Vipera berus*, are Species of Principal Importance in England. They are protected under Schedule 5 (Sections 9.1, 9.5a, 9.5b) of the Wildlife & Countryside Act 1981 (as amended) from intentional killing, injury, and trade. The habitat of the four widespread reptiles is not legally protected; however, the replacement of habitat lost through development may be required through the planning system.

Appendix 2

Reptile Survey Results 2025

Table A2.1: Reptile survey results from 2025. Population Class Assessments are based on the total number of adults recorded.

Survey Number	Date	Slow-worm	Common Lizard	Grass Snake	Juveniles or Sub Adults Recorded
1	30/04/2025	0	0	0	0
2	06/05/2025	0	0	0	0
3	13/05/2025	0	0	0	0
4	06/06/2025	0	0	0	0
5	03/07/2025	0	0	0	0
6	10/09/2025	0	0	0	0
7	15/09/2025	0	0	0	0