

Land at Rose Farm, Downs Road, Istead Rise

Reptile Survey Report

Prepared on behalf of

Esquire Developments

Final Report

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Land at Rose Farm, Downs Road, Istead Rise

Reptile Survey Report

Report Release Sheet

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Reptile Survey Report

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Land at Rose Farm, Downs Road, Istead Rise

Reptile Survey Report

Executive Summary

Ecological Planning & Research conducted a Reptile Survey in relation to the Proposed Development on Land at Rose Farm, Downs Road, Istead Rise.

Seven reptile visits were conducted between May and September 2025. No reptiles were recorded during this time.

Reptiles are unlikely to be present across the Site.

Information associated with impact avoidance and mitigation, in the unlikely event reptiles are discovered prior to or during construction, will be provided in the detailed Ecological Impact Assessment (EclA) in due course.

1. INTRODUCTION

1.1 Ecological Planning & Research was commissioned by Esquire Developments to conduct a Reptile Survey in relation to the Proposed Development on land at Land at Rose Farm, Downs Road, Istead Rise (herein referred to as the 'Site').

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

Relevant Legislation

1.3 **Appendix 1** provides further detail:

- The Environment Act 2021;
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Wildlife and Countryside Act 1981 (as amended);
- The Countryside and Rights of Way (CROW) Act 2000; and
- The Natural Environment and Rural Communities (NERC) Act 2006.

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 provided in **Table 1.1**, along with their likely Zone of Influence.

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

Activity	Potential Impacts	Zone of Influence
Site Clearance and Construction Phase		
Vegetation clearance and ground works	<p>Loss and fragmentation of suitable habitat; including foraging, basking, shelter and hibernacula.</p> <p>Direct harm or death of individual animals.</p>	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	<p>Loss and fragmentation of suitable habitat, including foraging, basking and/or hibernacula.</p> <p>Direct harm or death of individual animals.</p> <p>Disturbance (e.g., via ground vibration).</p>	The Site and locations around access points.
Construction of new roads and buildings	Habitat fragmentation.	The Site and immediate surrounds in the most part.
Restoration and creation of new habitats through implementation of a soft landscaping scheme	Beneficial impact from the restoration and 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 for recreational purposes.	<p>Disturbance (e.g., increased interactions with people and their pets).</p> <p>Potential increase in mortality rates from increased access, interactions with people.</p>	Site and areas within 400m of it.
Occupation of new houses: urban effects	<p>Disturbance.</p> <p>Loss and fragmentation of habitats by trampling.</p> <p>Degradation and pollution of habitats through urban effects (such as fly tipping and introduction of non-native species).</p>	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 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 reptiles are present, and if Grass Snake *Natrix Helvetica* is also present, the ZoI may extend further than 300m to 400m because this species has a relatively large home range.
- 1.8 Furthermore, increased predation rates from domestic cats is likely to extend up to 300m to 400m beyond the Site boundary because of the home range of domestic cats (Thomas *et al.*, 2014).
- 1.9 The ZoI will also extend to those locations where off-site impacts might occur.

Survey Objectives

- 1.10 The objectives of the survey and report are to:
 - Identify suitable reptile habitat within the Site;
 - Assess the use of the Site by reptiles;
 - Report the results of the Reptile Survey; and
 - Assess the ecological importance of the Site for reptiles.

2. METHODS

Desk Study

- 2.1 A biological records search was commissioned from Kent and Medway Biological Record Centre (KMBRC) on 14th February 2025.
- 2.2 In addition, a desk study reviewed compiled published information and internet resources, including data held on the Government's Multi-Agency Geographic Information for the Countryside (MAGIC) and the National Biodiversity Network (NBN).

Field Survey

Habitat Assessment

- 2.3 The habitats were assessed for their suitability for reptiles by Senior Ecologist Sean Manley BSc (Hons) MCIEEM during the Preliminary Ecological Appraisal.

Reptile Survey

- 2.4 The reptile survey method was based on that detailed in Gent and Gibson (2003), Sewell *et al.*, (2013) and Froglife (1999; 2016).
- 2.5 This involved the use of artificial refuges made of corrugated metal, roofing felt, or other suitable materials, which absorb and retain radiant heat more readily than the surrounding ground or vegetation. As such, when placed in suitable reptile habitat, these refuges often act as 'magnets' to animals in the immediate vicinity because of the favourable microclimates created beneath them and/or adjacent to them, and because they provide shelter from disturbance and 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. However, careful visual surveys by experienced surveyors were also used.
- 2.7 A total of 29 refugia comprising 18 felt, eight onduline and three tin were placed in suitable habitat on the 12th May 2025 (see **Figure 2**). To allow reptiles time to find the refugia they were left to "bed-in" for 10 days prior to the first survey visit. Surveys were spread over the period May to September; and scheduled to coincide with suitable weather conditions and ambient temperatures.
- 2.8 Most of the Site comprises grazed horse paddocks and arable land, which is not suitable for reptiles. Therefore, 29 refugia were considered sufficient for the purposes of the survey.
- 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 Becky Sanders BSc (Hons), Jonathan Singlewood-Dodds BSc (Hons), and Holly Pay BSc (hons) MSc ACIEEM.

Table 2.1: Survey visit 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	22/05/2025	08:25	09:15	12	13	1	20	None
2	27/05/2025	09:30	10:15	17	17	2	100	None
3	30/05/2025	08:44	09:25	17	17	1	100	None
4	16/06/2025	08:25	09:00	20	24	1	40	None
5	05/09/2025	10:45	11:30	18	19	1	10-40	None
6	09/09/2025	08:00	09:00	12	15	1	0	None
7	18/09/2025	09:45	10:45	17	19	1	90	None

2.11 A commonly used method for interpreting reptile survey data is provided in Froglife (1999), from which **Table 2.2** is taken. The numbers in the Table refer to the maximum numbers of adults recorded in any one visit, when using walked transect observations and artificial refuges (at a density of 10/ha).

2.12 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

2.13 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; Zol, Local, County, Regional, National, United Kingdom, European or International level.

2.14 The criteria for Local Wildlife Sites (LWS) in Kent (KWT, 2024) can be 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).

2.15 When appropriate, and if reptiles are present, the criteria associated with 'Key Reptile Sites' (as per Froglife Advice Sheet 10) can also be used.

Considerations

- 2.16 There were no material constraints to the survey, and six of the seven visits occurred during the optimum period for reptile surveys (April, May and September).
- 2.17 During the survey, the red-line of the Site was extended marginally to the south. Most of this habitat is intensive arable land, and therefore this is not considered to be a material constraint. **Figure 3** shows the location of the 'survey area' and the final red-line boundary.
- 2.18 A cattle grazed field, which did not support suitable reptile habitat, was not surveyed for health and safety reasons.

3. RESULTS

Desk Study

3.1 The KMBRC biological record search returned two records of Slow-worm between 2005 and 2009. Two records of Common lizard were returned between 1967 and 2009, as well as one record of Grass Snake in 2019. Each of these records were within 1km of the Site.

Habitat Assessment

3.2 The Site supports a limited area of suitable reptile habitat along the boundary of the most eastern and most western fields, where the grassland meets scrub habitat. However, the horse-grazed fields, cattle grazed fields and arable land are unsuitable.

3.3 In general, the Site is unsuitable for reptiles and is relatively isolated from nearby suitable habitat in the surrounding landscape.

3.4 **Figure 3** details the location of suitable reptile habitat.

Field Survey

3.5 No reptiles were recorded across the entire survey.

4. ECOLOGICAL EVALUATION

- 4.1 Based on the results of the field survey and desk study, reptiles are unlikely to be present.
- 4.2 Recommendations associated with ecological mitigation, because of the legal protection afforded to reptiles, will be provided in the detailed Ecological Impact Assessment report in the unlikely event reptiles are recorded prior to or during construction work.

5. REFERENCES

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Figures

Figure 1 Site Location

Figure 2 Location of Reptile Refugia

Figure 3 Location of Reptile Refugia and Suitable Habitat



Figure 1 Site Location

KEY

 Site boundary

SCALE: 1:3,000 at A3

0 50 100 150 200 Metres



CLIENT: Esquire Developments Ltd

PROJECT: Istead Rise, Kent

DATE: 07 October 2025

Istead Rise, Kent 3272/GIS/Replies/Figure1_SiteLocation_P3272_4133_071025.aprx

Aerial Image: Maxar, Microsoft



Figure 2 Reptile Refugia

KEY

- Site boundary
- Felt
- Natural refugia
- Onduline
- Tin



CLIENT: Esquire Developments Ltd

PROJECT: Istead Rise, Kent

DATE: 07 October 2025

YIstead Rise, Kent 3272/GIS/Reptiles/Figure2_Reptile_Refugia_P3272_4133_071025.aprx

Aerial Image: Maxar, Microsoft

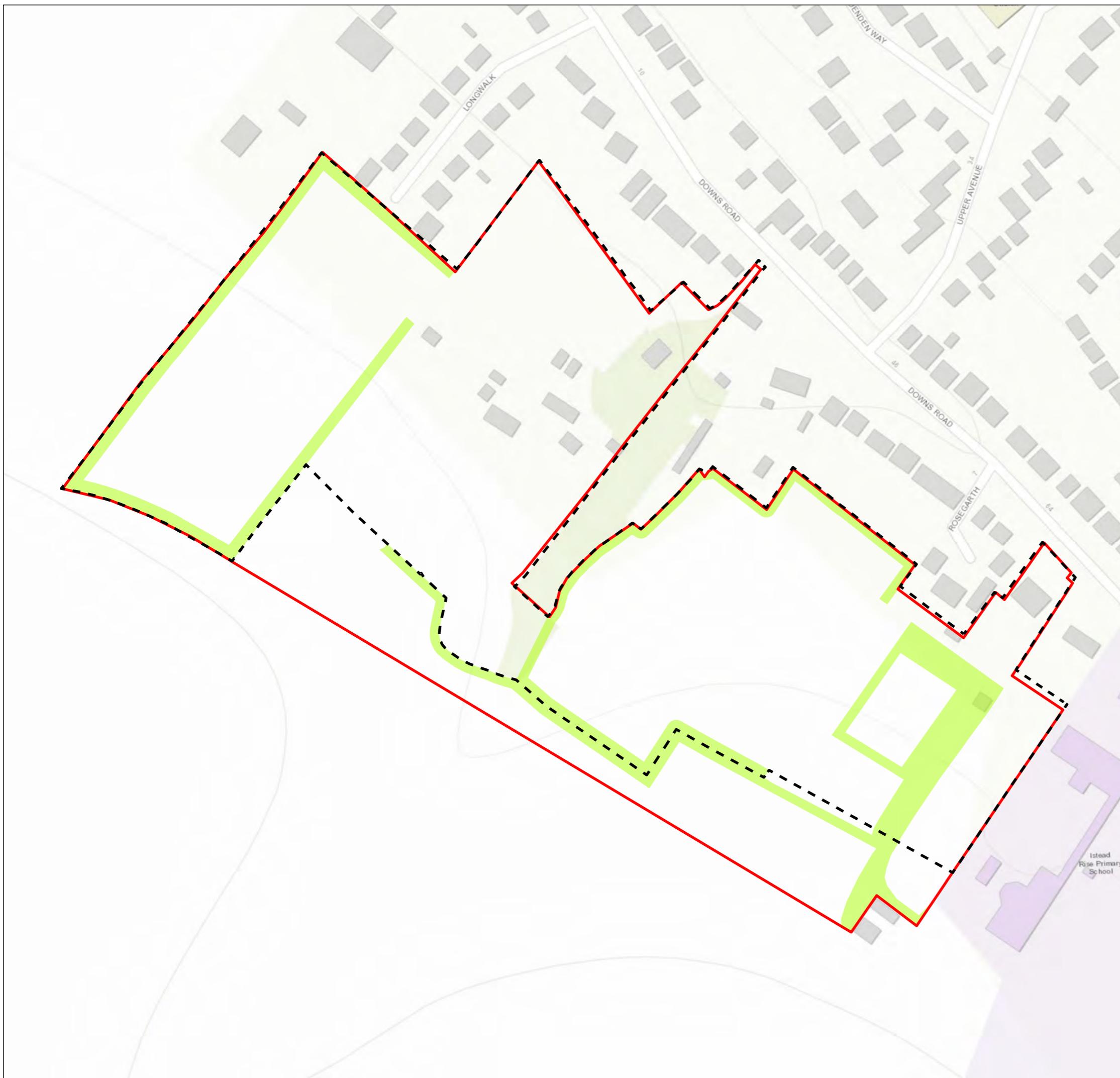


Figure 3 Location of Reptile Refugia and Suitable Habitat

KEY

- Site boundary
- Survey area
- Suitable (1.21ha)

SCALE: 1:2,000 at A3

0 20 40 60 80 100 Metres

N

EPR

CLIENT: Esquire Developments Ltd

PROJECT: Istead Rise, Kent

DATE: 28 October 2025

YIstead Rise, Kent 3272/GIS/Reptiles/Figure3_ReptileSuitability_P3272_4196_281025.aprx

Aerial Image: Esri UK, Esri, HERE, Garmin, INCREMENT P, USGS

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Appendix 1

Summary of Relevant 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 licensing 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.