

# **PRS Programme**

## **Tranche 2**

# **Environmental Survey Specification**

Date: May 2022

## Document Control

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## Required Approvals

Name	Signature	Title	Date of Issue	Version

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## 1 PROJECT INFORMATION

### 1.1 General

This document has been prepared to provide the technical scope for the ecological survey works on the PRS<sup>1</sup> Retrofit Programme (“the works”), Tranche 2. In addition to technical survey scope, it is noted that National Highways may also require regular reporting activities however, if required, these will be confirmed by the Survey Advisor at the commencement of the works.

The scope of Tranche 2 of the PRS Retrofit Programme is defined in Section 2 below. Existing environmental information, including information on biodiversity, is provided as an Advanced Environmental Desk Study (AEDS) within the following reports:

- Scoping study for places of relative safety infill: M1 Junction 32-35a Smart Motorway (Atkins report no. HE610983-ATK-GEN-1J32-35a-RP-CH-000001, 17 February 2022, Section 11);
- Scoping study for places of relative safety infill: M1 Junction 39-42 Smart Motorway (Atkins report no. HE610983-ATK-GEN-M1J39-42-RP-CH-000001, 24 February 2022, Section 11).

No existing environmental information has been provided at this stage in relation to M25 J26 to 27.

### 1.2 The Survey Contractor

DED have prepared this scope for OSAP who will act as the Survey Contractor to undertake the survey works specified within this scope.

### 1.3 The Survey Advisor

The role of the ‘Survey Advisor’, will be undertaken jointly by Jacobs & WSP as DED. The DED point of contact will be:

Name: Dan Johnston

Role: Assessment Lead – Places of Relative Safety Programme

Email: dan.johnston@jacobs.com

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<sup>1</sup> PRS: Place of Relative Safety

## 2 PURPOSE AND SCOPE

### 2.1 Location

The location of this project is on the M1 Motorway between Junctions 32 and 35a, and Junctions 39 and 42, and the M25 motorway between Junctions 26 and 27 (B carriageway).

### 2.2 Aim of the Project for which the Survey is required

The Client's Requirement for the PRS programme is to develop and deliver a programme of design, installation, commissioning and post opening monitoring of additional (retrofit) PRS (excluding new MSAs) to bring the All Lane Running Smart Motorway network to be compliant with section E/8 and E/9 of GD301 v0.01 where reasonably practicable and subject to SCRG endorsement where required by the standard. The Client recognises that in doing this, there may be constraints that cannot be designed out and there is no feasible alternative, which will require submission of Departures from Standards. The Scheme Client's Requirements are also to design any new retrofit Emergency Area surfacing to CHE Memorandum 480/21. This includes modifications to the stopped vehicle detection system as necessary only as a result of the new EAs in accordance with TD131 ensuring 95% SVD coverage of any new Emergency Areas installed in this programme.

The M1 Jct 32 to 35a smart motorway PRS retrofit Programme has a planned start of works date onsite of October 2022, The M1 Jct 39 to 42 smart motorway PRS retrofit Programme has a planned start of works date onsite of March 2023, and the M25 Jct 26 to 27 smart motorway PRS retrofit Programme has a planned start of works date onsite of September 2023, Works will consist of the following elements, as required:

- M1 Junction 32a to 35 - 19<sup>2</sup> PRS
- M1 Junction 39 to 41 - 8<sup>2</sup> PRS
- M25 J26 to 27 (B Carriageway) - 1<sup>2</sup> PRS
- New retaining walls at PRS and gantry locations
- Environmental Noise Barrier realignment at PRS locations
- New infrastructure at PRS locations
- Relocation of signs and ROTTM's<sup>2</sup> etc where required
- Realignment of existing cabling and ducts around new PRS

### 2.3 Aim of the Survey

The general aim is to carry out surveys of the habitats present in the verge area within the highway boundary and of adjacent land outside the highway boundary to enable definition of the scope of further detailed survey required. Specific objectives defined in the AEDS include:

- **Habitats:** confirm the identification and classification of habitats present and habitat condition;
- **Hazel dormouse:** (M25 only) determine the potential suitability of habitat and the potential need for species specific surveys;
- **GCN:** (7 no. PRS locations; TBC for others following desktop review) confirm the identification of water bodies within 250m that might support breeding populations of great crested newt and determine whether presence/absence surveys or eDNA surveys may be

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<sup>2</sup> Remotely Operated Temporary Traffic Management

required. Undertake Habitat Suitability Index (HSI) assessment for any relevant water bodies;

- **GCN presence/absence:** (4 no. PRS locations) the AEDS identifies a requirement for presence/absence surveys or eDNA surveys at 4 PRS locations listed below. Survey may be required at other locations following walkover survey:
  - M1-J32-J35a-EA-NB-258\_5;
  - M1-J32-J35a-EA-NB-264\_5;
  - M1-J32-J35a-EA-SB-252\_8; and
  - M1-J39-J42-EA-NB-292/8.
- **Bats:** determine the suitability of habitats to support bat roosts or as commuting or foraging habitat for bats, and scale of potential habitat loss for bats, to inform decisions on the need for and scope of more detailed surveys;
- **Water voles and otter:** determine whether there is potential to affect watercourses that may support water voles and/or otters and determine whether more detailed survey is required;
- **Reptiles:** determine potential suitability of habitat for reptiles and whether more detailed survey is required;
- **Badgers:** to identify any badger setts within the PRS locations or within 30m of the works area;
- **White-clawed crayfish:** determine the potential for the presence of white-clawed crayfish within affected watercourses and the need for detailed survey; and
- **Priority terrestrial invertebrates:** determine whether detailed survey is required.

Additional objectives not specified in the AEDS include:

- Make an assessment of the potential of the habitats present to support breeding birds;
- Make an assessment of the potential of the habitats present to support Schedule 1 bird species;
- Record the presence or absence and extent of any non-native invasive species within the survey buffers;

Note the objectives defined above apply to all PRS locations unless otherwise specified.

Note hazel dormouse are considered absent from West and South Yorkshire, so the relevant objective is only applicable for the M25 Junctions 26-27.

No AEDS has been provided for the M25 Junctions 26-27 at this stage. It is assumed that all objectives are relevant, pending confirmation.

## 2.4 Brief Description of Survey Area

The location of the survey areas are shown within Annex A ([HE614830-JAC-VTO-ZZ SCHME ZZ-SP-ZZ-0002](#)).

The survey extent is described with reference to the survey areas shown in Annex A and shall comprise:

- The full width of the verge from edge of carriageway to highway boundary, adjacent to the whole extent shown in Annex A, for each PRS;

- A buffer extending to 250m into undeveloped adjacent third-party land outside the highway boundary, where the survey objective relates to GCN;
- For other survey objectives, a buffer extending to a minimum of 50m along the verge beyond each end of each area shown on Annex A, and into undeveloped adjacent third-party land outside the highway boundary, except where otherwise specified; and
- Where third-party land is developed (e.g. industrial activities, brownfield sites, housing), the requirement for and extent of survey will be considered on a case-by-case basis.

The motorway verge areas will vary in width and will comprise a mix of cutting and embankment slopes, with some areas at-grade. All will be vegetated, with a mix of grassland areas, shrubs and trees of varying degrees of maturity.

Third-party land areas will be a mixture of farmland, woodland and developed areas, the latter including industrial or commercial developments, residential areas, individual residential properties and farms, and brownfield land where former industrial sites have been demolished. At least one golf course is present.

## 2.5 Survey Approach and permitted variations of the survey area

To ensure the survey effort is proportionate and takes into account health and safety considerations of undertaking surveys along a live motorway, a survey approach has been agreed through consultation between the Survey Advisor and the Survey Contractor. The basis of this approach is to limit the need to physically access the road verge, wherever possible and appropriate to do so, and also to minimise the requirement for securing third party land access. This approach is set out below:

- For PRS locations that consist of principally open habitats, as determined from aerial imagery:
  - Inspection of habitats in the motorway verge using a combination of drive-through and inspection from adjacent static viewpoints using binoculars may be used to substitute for on-site survey, provided that good visibility is available from the carriageway **and** from one or more suitable adjacent vantage points on e.g. overbridges and/or nearby footpaths or other publicly-accessible locations;
  - Where good visibility is not available as described above, for instance because of topographic conditions, visual obstructions or the lack of suitable vantage points, on-site survey will be required;
  - Where good visibility is available for part of the survey area at an individual PRS, then drive-through/external inspection may be applied if a minimum of 80% of the survey area has good visibility and evidence can be provided from desk-top sources that there is no significant variation in habitat in the remaining area with poor visibility;
  - The Survey Contractor will use desk-based sources including OS mapping, aerial imagery, DEFRA data (e.g. the MAGIC website) and biological record centre data to support the determination of the survey coverage and likelihood of notable ecological features not being sufficiently captured;
  - Prior to undertaking survey, the Survey Contractor shall issue a proposal for approval by the Survey Advisor identifying where on-site survey is not required, with evidence of suitable visibility from the carriageway and adjacent viewpoints and of the primarily open nature of habitats present.
- For all other PRS sites that do not consist principally of open habitats and therefore lack good visibility, such as areas with dense woodland or scrub cover or where the topography does not allow for areas requiring survey to be viewed in full, then on-site survey of the site (and surrounding land as required) will be required;
- Surveys for GCN breeding habitat:
  - Where survey of adjacent third-party land is required to identify water bodies suitable for GCN, the requirement for survey may be avoided, or the extent of survey limited to a reduced buffer, where sufficient evidence can be provided from desk-based

sources to confidently demonstrate that no such water bodies are present, or that all such potential water bodies have been identified by other means. Note that 'sufficient evidence' must include use of information sources additional to those referenced in the pre-existing scoping studies (see 1.1 above);

- Survey buffers for GCN water bodies may be limited to less than 250m from the highway boundary where there is evidence of barriers to dispersal for GCN;
- Prior to undertaking survey, the Survey Contractor shall issue a proposal for approval by the Survey Advisor to identify any areas where it is proposed to omit or limit the extent of on-site survey, with evidence to support the proposal.

## **2.6 Use of Survey Information**

The Survey Contractor shall structure and present survey data in such a way that it can be used for the following purposes:

- To define the scope of any additional surveys required;
- To support the development of further environmental reporting;
- To support refinement of the environmental risk classification (red, amber, green) for the PRS locations;
- To support development of environmental mitigation if required;
- To support the development of a biodiversity net gain strategy.

Final presentation of data is to be agreed between the Survey Advisor and Survey Contractor but is likely to comprise as a minimum habitat data mapped using the UK Habitat Classification with detailed target notes for notable features such as habitat suitability for protected or notable species or evidence/signs of protected or notable species presence. Use of a GIS-compatible format comprising polygons, linear objects and point data as appropriate is required.

The full outputs are required within 4 weeks of the completion of survey works on site. Weekly progress reporting is required each Monday during the survey works, identifying areas surveyed and providing a bullet-point list of any key findings, for instance evidence/signs of any ecological feature that may constrain design or influence the requirement for mitigation [works](#).

### **3 GENERAL REQUIREMENTS**

#### **3.1 Health and Safety at Work etc Act. 1974**

Buried services and other hazards are unknown and therefore have not been highlighted on the survey extents drawings.

No works shall be undertaken that would entail removal of vegetation or breaking of ground in order to undertake the survey.

#### **3.2 Landowners, Occupiers and Entry**

The survey team shall identify access and entry routes to the National Highways estate in advance, via off-network routes and/or third-party land. Survey activities within the National Highways estate will be confined to the verge and traffic management will not be required.

If access and completion of the survey within the verge is not achievable at any specific locations without traffic management, the Survey Contractor shall identify this constraint in advance of the start of survey works.

The surveys will require access to third-party land within 250m of the highway boundary. The Survey Contractor shall identify the landowners affected and obtain consent prior to entering land. Where required, the Survey Contractor shall identify access routes across private land and obtain consent to use those routes from the affected landowners.

## **4 PROJECT INFORMATION**

### **4.1 Principal Contractor**

Costain are the Principal Contractor for the project.

### **4.2 Design Organisation**

Jacobs & WSP are the Design Organisation for the project.

### **4.3 Landowners and Occupiers**

As outlined in Section 3.2 above, the Survey Contractor shall contact landowners to obtain consent for access.

### **4.4 Special Access Requirements**

There are no special access requirements for these works.

### **4.5 Traffic Safety and Management**

It is not anticipated that temporary traffic management (TTM) will be required for the purposes of these surveys. However, appropriate TTM will be established along the network to serve the purposes of other surveys, in accordance with Traffic Signs Manual Chapter 8.

In the event that surveys cannot be achieved at any specific locations without the use of TTM, it may be possible to utilise this TTM, depending on the programming of the work.

Refer to TSM Chapter 8 for management of access to the motorway network for the implementation of TTM. Vehicles required to access site should also be marked up in accordance with TSM Chapter 8.

## **5 PRODUCTS TO BE DELIVERED**

### **5.1 Survey results and presentation**

Survey results will be presented as follows:

- Habitats mapping, in GIS format, conforming to the UKHab standard, presented as a set of shapefiles;
- Target notes as required to inform the UK habitat mapping; and
- A technical report addressing all of the defined objectives.

Reporting shall, where relevant, conform to the requirements of:

- DMRB LA104 (Environmental Assessment and Monitoring), Revision 1;
- DMRB LA108 (Biodiversity), Revision 1; and
- CIEEM Guidelines for Preliminary Ecological Appraisal.

## **Annex A: Tranche 2 Survey Extents**

Refer to [HE614830-JAC-VTO-ZZ\\_SCHME\\_ZZ-SP-ZZ-0002](#) for extents of survey.