

Environmental surveys

A non-technical guide
Phase 2a



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Department for Transport

High Speed Two (HS2) Limited has been tasked by the Department for Transport (DfT) with managing the delivery of a new national high speed rail network. It is a non-departmental public body wholly owned by the DfT.

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Introduction

As we progress the design and build of HS2, we need to build up a clear picture of the local environment. This will help us create a design for HS2 that limits its environmental effects. Surveys are an important part of this - they provide us with information on the current environmental condition.

Where possible, we work on publicly accessible land, including footpaths and rights of way. However, some surveys involve accessing private land. For this, we need the assistance and cooperation of landowners and property occupiers.

This guide provides short descriptions of some of the most common surveys in our programme, including the methods we use and roughly how long they take.

- We're unlikely to need to carry out all these surveys on your land. If we need to do more than one survey, we will try to combine our visits.
- We may need an initial visit to have a look at the survey area. This is also an opportunity to discuss any fieldwork required with you.

For example, if we would need to bring a vehicle onto your land, we will discuss this at this stage.

Non-intrusive and intrusive surveys

Most HS2 surveys are ‘non-intrusive’:

- We observe, measure, and take notes and photographs.
- We may need to take samples.

These surveys don’t cause any significant disturbance to the environment or to land or property. They typically require access to a particular location or habitat, such as:

- woodlands
- rivers or streams
- buildings (for ecology or heritage surveys)
- agricultural land
- other assets, like archaeological or heritage sites.

Intrusive investigations are survey activities which penetrate the ground. We won’t carry out these surveys unless we really need to.

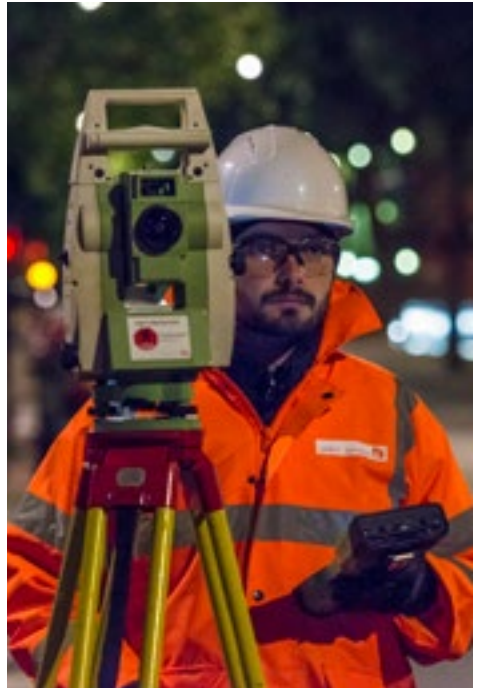
This would involve additional pre-planning, including further discussion with you.

Surveyor teams and health and safety

All HS2 surveys are carried out by experienced, specialist consultants.

This should minimise any safety issues, environmental disruption and inconvenience.

All fieldwork is undertaken under formal safe operating procedures and strict adherence to bio-security measures.





Ecology surveys

These include surveys for protected and notable wildlife and plant species. They involve one or more initial 'scoping' surveys. A two-person team will look at natural habitats and buildings, to see whether they are likely to support protected and notable species of plants and animals.

In most cases, these will be followed by a more detailed habitat and species survey.

Ponds or lakes

If your site contains ponds or lakes, further surveys may include:

- Pond surveys
- Amphibians/great crested newts
- Water invertebrates
- Water plants

Hedges, woodland, scrubland, grassland, heathland or bog

If your site includes hedges, woodland, scrubland, grassland, heathland or bog, further surveys may include:

- Bats
- Dormice
- Badgers
- Breeding and winter birds
- Reptiles
- Invertebrates

Flowing water, rivers or ditches

If your site contains flowing water, rivers or ditches, further surveys may include:

- Otters
- Fish
- Water voles
- Water plants

Buildings or man-made structures

If your site contains buildings or man-made structures, further surveys may include:

- Bats
- Barn Owls

Where possible, our targeted field surveys will use biological records gathered from local record centres and recognised conservation groups, so we're aware of the data that's already available.

Some of these surveys may only require a single visit. However, in some cases we may need to make repeat visits, at particular times of year, to gather enough information.

The remainder of this booklet describes in more detail some of the survey techniques listed above.

Great Crested Newts

Ponds and other standing water will be assessed by at least two people, to determine whether the habitat might support great crested newts. If the water bodies are considered suitable, we will visit again to record whether there are newts and, if there are, to estimate how many.

We can use different types of survey to determine if there are any great crested newts and the size of any population that we find. Survey types may include netting the newts by hand, night-time torchlight inspections, and small bottle traps left overnight in areas of suitable habitat. We may also take water samples to check for newt DNA.

Surveys need to take place between March and June, when the newts may be in the ponds.

We only need one initial visit to collect water for DNA analysis, but we may need up to six repeat surveys to reliably determine the population size.

Up to seven visits.

Potential night visits to complete a torchlight survey.

Small bottle traps may be left overnight and collected the next morning.

March – June.

Badgers

A two-person team will carry out a walkover survey to identify if badgers are present. If badgers are believed to be present in the area then additional surveys are required to record the location and activity of badger setts and the presence of other field signs, including latrines, paths and crossing points.

This helps us to work out whether we need to determine the territory of any groups of badgers near to the railway. We do this with 'bait marking' surveys between February and April. This means that the badgers are fed a food mix containing harmless very small coloured pellets. We can then see where these pellets are deposited in the latrines and use this to map the badgers' territory.

Dormice

A two-person team will assess whether the woodland is suitable to support dormice. If suitable, we will look for hazelnuts that bear the characteristic signs of dormice feeding. This survey is usually in October or November.

We may make another visit to install temporary nest tubes or boxes in woodland and connecting hedgerows. These are made of wood or plastic, and are fixed to trees and hedges. Two surveyors will make several visits between April and November to check for evidence of dormouse activity. We may need to leave the tubes/boxes in position over winter. However, if the nut search provides conclusive evidence, the tube/box survey will be halted and the structures removed.

Up to 22 repeat visits (recording setts and other field signs, and conducting territorial analysis).

Food containing coloured markers left by main setts.

Initial walkover and field signs surveys conducted any time of year. More detailed territory surveys conducted between February - April.

Several visits.

Temporary installation of nest tubes or boxes in hedges and woodland; may be left over winter.

April - November.

Bats

A two-person team will assess the potential for buildings and trees to support roosting bats. We can do this at any time, but it's easier to inspect trees in winter and early spring.

The initial survey of buildings or other structures will involve inspections externally and internally – for example, in loft spaces. We record features that could support bats, and record signs of current or past bat activity. The surveyors create an annotated plan of the building and take photos of features or evidence of bat activity. Surveyors may use ladders and other equipment, such as high-powered torches and endoscopes.

Surveyors will use binoculars to examine trees from ground level, looking for rot-holes or cracks in which bats could roost. In some cases, qualified climbers may inspect individual features, to confirm their potential and record any evidence of bats.

If buildings, structures and trees have moderate to high potential to support roosting bats, or where it's unsafe to complete an initial inspection, we may need to visit two or three times in summer to watch bats emerging or returning. At least two surveyors will be at viewing points outside to count bats emerging in the evening. This will be followed by a dawn survey of bats returning to their roosts.

Surveyors may also use handheld detectors to identify specific species. They may also use a small automated recording device, which is placed in a loft or barn overnight.

If buildings, structures or trees have features likely to support hibernating bats, we may need to inspect them at least twice in January or February.

An initial external and internal inspection of buildings and structures, or an initial inspection of trees.

Up to three summer observation surveys outdoors to record potential bat breeding activity.

Small automated activity recorders may be left in buildings overnight.

Dusk emergence and dawn return surveys; potentially evening transect surveys.

Initial surveys all year round. May – August (potentially April and September) for summer activity surveys.

Two hibernation surveys of trees or buildings (involving internal inspections of suitable buildings) – January to February.

Birds

Breeding bird surveys comprise of five visits between March and June, separated by a minimum of ten days. These visits should be spread as evenly as possible. Surveys will focus on agricultural, woodland, and wetland habitats, though breeding birds can occur in most locations. These surveys start at sunrise and finish before 12 noon. If an evening survey is useful, this will be between 5pm and sunset.

Wintering bird surveys require monthly surveys between October and February, with additional surveys during September and/or March, where necessary. All surveys are to be completed between one hour after sunrise and one hour before sunset. Depending upon the landscape, surveyors will either walk a transect, or conduct a vantage point survey from an elevated position over-looking the area. In some instances we may use aerial drones.

Surveys are completed by two ecological surveyors, using binoculars and telescopes to record bird species and note them on site maps and recording forms. We may need to reschedule if there is heavy rain, strong wind or fog.

Barn owl

A two-person team, including a licenced surveyor, will assess buildings, nest boxes and trees for the potential to support nesting or roosting barn owls.

The initial survey of buildings or other structures will involve inspections externally and internally – for example, loft space, rafters and suspended platforms. Surveyors record features that could support barn owls, and signs of current or past activity, such as pellets or dropped feathers.

**Breeding birds -
Five repeat visits
between March and June.**

**Breeding birds – dawn
visits to be completed
by midday.**

**Wintering birds –
Monthly visits from
October - February
(potentially September
and March).**

**Wintering birds – visits to
be completed between
one hour after sunrise
and one hour before
sunset.**

**An external and internal
inspection (loft space of
residential buildings,
barns, outbuildings and
structures).**

**Potential dusk surveys if
it is unsafe to access for
an internal inspection.**

Surveyors will use ladders and/or remote cameras to examine large tree cavities, platforms or nest boxes in suitable trees for barn owl. These surveys can be conducted at any time of year, but ideally conducted between mid-June to mid-August.

If buildings, structures or trees have moderate potential for nests, but it is unsafe to complete an inspection, an evening vantage point survey will be required to record barn owls emerging and hunting. Two surveyors will place themselves at a safe distance, but in direct view, of the potential nest.

Invertebrates

Scoping surveys may identify habitats which could support notable invertebrate species or collection of species. Marshy grassland, botanically rich grassland or diverse woodland and scrub are more likely to support interesting butterflies, moths and terrestrial invertebrates. Ponds, streams and rivers may support aquatic species of conservation value, and notable terrestrial species may be present along their margins.

We will survey habitats with a high potential to support terrestrial invertebrates between May and September and aquatic invertebrates in spring and autumn. These surveys will be carried out by at least two people. Three survey visits may be required for surveys of terrestrial sites and two repeat visits for aquatic habitats.

Survey methods include hand-held sweep nets and searches by hand. We may also install small pitfall traps – the size of a coffee cup – to be checked three times before removing. Some habitats may warrant targeted moth surveys, which would involve placing a small light-trap on the site overnight.

Surveys can be undertaken at any time of year but optimum time is from mid-June to mid-August.

Up to three repeat visits.

Possible night-time moth surveys, using light traps, and temporary installation of small pitfall traps.

May – September (terrestrial),
spring and autumn (aquatic invertebrates).

Otters

Searches for evidence of otter activity will be conducted by two people along sections of a suitable watercourse, 300m either side of the assessed construction corridor. These searches will record signs, such as holts or resting places (couches), otter droppings (spraints), footprints and slides, at least four times in a single year.

Water Vole

These surveys will be informed by the same initial surveys and desk-based appraisals as the otter surveys. Only two water vole survey visits are needed: one between April and June and a second between July and September. Two people will search the banks of ditches, streams and rivers and record signs of water vole activity.

Up to four repeat visits.

Every three months across a single year.

At least two visits to inspect ditches, streams and rivers.

One visit between April and June; second visit between July and September.



Reptiles

A scoping survey will assess the suitability of habitats to support reptiles: notably lizards, grass snakes, slow-worms and adders. The habitats, typically field margins, will be categorised as 'poor', 'good' or 'exceptional', based on the presence of suitable features likely to attract and support reptiles. A grassy bank below a hedge or woodland with an open southerly aspect, which catches a high daily proportion of warming sunshine, may be considered a good habitat.

If habitats are categorised 'good' or 'exceptional', we will temporarily install artificial resting sites (called 'refugia'). These attract reptiles to bask on them or hide under them.

The refugia are made of small squares of corrugated metal sheet or roofing felt. They are placed at regular intervals along field margins where they will not interfere with or be disturbed by regular agricultural activities, such as silage or cereal harvesting.

A two-person team will install the refugia and inspect them for reptiles at least seven times over a 30-day period during April, May, June or September. After the final inspection, the refugia will be removed.

Each inspection visit will be conducted under strict set of suitable weather conditions. If the weather isn't suitable, we may need to delay or reschedule a visit.

Seven repeat visits.

Small pieces (50cm x 50cm) of felt and/or corrugated tin left temporarily along suitable field boundaries for several weeks.

April – September.

In exceptional cases, additional ecological surveys not listed above could be required. If we need to do additional work, we will notify you as soon as possible and discuss the best way to carry out the survey.



Additional environmental surveys

Surface and groundwater surveys

The route crosses and passes close to several surface water bodies (rivers and lakes), and bodies of groundwater. We need to study the water's ecology and chemistry to understand how it is now – in the Water Environment (Water Framework Directive (WFD)) Regulations, this is called its 'baseline status'.

This involves:

- a topographic assessment;
- a surface water WFD baseline assessment; and
- a groundwater baseline assessment.

When the baseline status has been established, we need to occasionally update it with repeat WFD surveys to confirm conditions and ensure no worsening of conditions is occurring. These surveys will happen before, during and for some time after construction works occur.

If we can, we will combine these surveys with ecological surveys, so we need fewer and shorter visits.

Topographic assessment

We need to understand any existing flood risk, so that bridges and other structures can be sized appropriately to reduce flood risk impacts. The data can be used to design any further flood prevention measures.

We will visit the watercourse twice. First, we identify the scope of the assessment: two or three surveyors will walk along the river identifying its physical characteristics and locations where measurements are required. This visit takes around two or three hours for a 2km stretch of river. The second visit, by a team of two to four people, takes longer (one to three days for a 2km stretch). They take the physical survey measurements of the river channel, typically 10m or 20m either side of the watercourse. They would also take survey levels across the channel with a staff and level, although other techniques may also be used.

Surface water surveys

These include:

- a detailed hydro-morphology survey – this looks at the physical form and function of a water body; and
- an ecological walkover survey covering a 200m reach (located 1km up and downstream of the scheme crossing) – this helps us to decide whether we need any further WFD biological surveys for fish, aquatic plants and aquatic invertebrates.

In addition, we will carry out a wider walkover survey, up to 2km upstream and downstream of where the scheme crosses a water body, to collect information and compare it against published data.

The surface water baseline survey will generally be undertaken by two surveyors (a hydro-morphologist and an ecologist) so that both sets of information are collected in the same visit.

The quality of surface water will be determined by taking on-site measurements and collecting samples for laboratory analysis, upstream and downstream of the scheme crossing point.

Additional site visits could be required for fish, aquatic plants and aquatic invertebrate surveys. We will discuss any additional surveys with you in advance.



Groundwater surveys

These surveys cover the use of groundwater and where it interacts with surface water features.

The fieldwork is only carried out where required and where land access allows. It includes estimates of spring flows and basic groundwater quality, by taking on-site measurements (such as temperature and pH) and collecting samples for

laboratory analysis near the route (typically within 1km). We will identify whether further surveys are needed, including any suitable locations for long-term monitoring methods like boreholes, sensors or weirs.

If we need to install long-term monitoring installations and equipment, we will discuss this with you in advance.

Table 1 shows the different types of ground and surface water surveys.

Water body type	Survey type	Description
Surface waters	Topographic fieldwork	Consists of two visits to a watercourse by a team of two to three people. An initial visit would usually take in the order of two to three hours for a 2km stretch of river. The second visit, by a team of two to four people, would take one to three days for a 2km stretch of river either side of the watercourse.
Surface water (WFD) survey	Ecology, hydromorphology walkover fieldwork	The surveys assess the local hydromorphological features, processes and existing man-made alterations or structures.
	Aquatic invertebrates	Sampling of aquatic insect species. Usually carried out between April and October.
	Fish	Electro-fishing to assess fish population diversity and abundance. Requires three or four people. Usually carried out between June and October.
	Aquatic flora	Survey to record aquatic plant species present and abundance. Aquatic flora surveys are usually carried out between May and October.
Groundwater survey	Groundwater walkover fieldwork	Focus on areas of potential groundwater emergence, including springs and wetland areas. Identify future suitable monitoring locations.

Cultural heritage and archaeology surveys

Surveys for archaeology and cultural heritage involve a variety of techniques used to better understand the evidence of the past that may lie within the route. This can comprise:

- a walkover survey to view and record historic landscape features;
- geophysical surveys, which use non-intrusive hand-held equipment to detect buried features and structures; and
- fieldwalking or metal-detecting, in which a small team of archaeologists walk across the landscape in transects to find any archaeological artefacts on or beneath the surface.

Archaeological surveys may also require intrusive archaeological investigations – such as digging excavation trenches or stripping the soil off targeted areas. This will involve the use of machinery, construction of a temporary compound, fencing, and other elements of site work.

Field work will be undertaken by two or more surveyors, and intrusive trenching will be undertaken by a small team of 4 or 5, supported by use of machinery.

Non-intrusive hand-held equipment used to detect buried features or structures.

Intrusive surveys involve digging excavation trenching or stripping the soil off targeted areas.

Surveyors work in teams of two or more people when conducting archaeological surveys.

Fieldwork will be undertaken by two or more surveyors.





Visual impact and landscape character assessment surveys

Where possible, these surveys would be combined with cultural heritage and archaeology surveys. The fieldwork is non-intrusive and generally from publicly accessible land, public rights of way and highways. In rare cases, we may need to access private land.

We carry out a landscape survey to understand the character of the landscape and take photographs. A visual survey looks at particular views in the landscape from properties, registered parks and gardens, scheduled monuments, listed buildings and notable public open spaces, as a way of understanding people's view and amenity. The fieldwork will comprise photomontages: technical photographs from important viewpoints, agreed with the local authority.

Up to one day per location
by two surveyors.

Landscape character
surveys will involve two
separate visits in summer
and winter.

Tree surveys

Trees potentially impacted by the construction of the railway will be surveyed by a two-person team and can usually be completed in a single daytime visit. Information gathered during the survey include:

- tree locations;
- species type;
- trunk and crown size;
- height; and
- life-stage (e.g. mature), quality, and condition of the tree.

Surveys can be undertaken at any time of the year, but ideally surveys are conducted outside the winter months.

Where a tree is planned to be retained but may be potentially impacted by construction, further tree surveys will be required to calculate the tree root protection area.

Typically a single day visit.

Occasionally a second follow-up survey is required.

Can be undertaken year round but ideally outside the winter months.



Noise and vibration surveys

We will undertake noise monitoring at locations representative of sensitive noise receptors along the route, including residential properties, commercial premises and public amenities. We will consult the environmental health departments of the relevant local authorities on the monitoring locations. We won't need to carry out any internal noise monitoring in houses or other buildings.

This will combine automated, continuous measurements (for periods of one to five days) and a number of shorter measurements taken in person. We will use standard techniques and equipment: battery-powered noise meters and data loggers. At select locations, short duration audio recordings will also be made.

Access to private land will be required to set up and remove noise monitoring equipment and for measurements by a two-person survey team (no more than two hours per location).

For vibration, monitoring locations would be less numerous and at known sensitive locations and existing vibration sources, including near existing railway lines. For both noise and vibration monitoring, survey equipment may need to be secured on private land and residential property, and repeat measurements may be needed to ensure they are accurate and representative.

Noise measures are weather dependent, so we need to be flexible on timing, duration and the need for repeat checks.

Medium (one to five days) and short-term (up to two hours) noise and vibration monitoring at representative sensitive receptors. Local authorities are consulted on locations.

For medium-term monitoring, automated battery-operated monitoring equipment will be secured on private land and outside buildings.

Generally, two visits (up to two hours) per medium-term monitoring location for set-up and removal of equipment. Short-term monitoring might consist of two or three repeat measurements over a few hours, which may include at night.

Soil surveys

These surveys are to:

- classify agricultural land into grades according to the Agricultural Land Classification system; and
- acquire information on topsoil and subsoil volumes which will be used to plan how we handle, store and reinstate soil in areas where we will return the land to agriculture, forestry, landscape planting or habitat creation.

These combined surveys require access to privately-owned land.

Soil surveys do not involve the assessment of contamination or ground instability – these are normally carried out by ground investigation (GI) or geotechnical surveys, which involve deeper excavations and boreholes.

In comparison, soil surveys are largely non-intrusive, apart from digging soil pits.

At each location we will use a 5cm diameter hand-held auger to observe the soil at depths down to 1.2m, and to take samples for laboratory analysis (e.g. for pH, soil nutrients).

The auger sample points cover the survey area at a density of one per hectare, supplemented by further samples where necessary. The surveyors are looking to describe and record the soil's depth, texture, stone content, colour and structure.

The samples are used to identify the main soil types in the area. Then, small pits are dug with a spade in selected locations to describe representative soil profiles for each soil type.

Hand-held auger (5cm diameter) to observe soils up to 1.2m deep, at a frequency of one sample per hectare.

Small soil samples are taken for laboratory analysis.

Soil pits (about 0.5m³ volume), one per 20-25 hectares.

Duration of survey depends on size of survey area. Specialist consultants work in two-person teams, taking 15-20 auger samples per day.

Generally, only one pit is needed for every 20-25 hectares; each pit is about 50cm square and 50cm deep. It is open for less than one hour, after which the subsoil, topsoil and turf are replaced.

Soil pits will not be dug in fields containing livestock, and pits will not be left open or unattended.



Utility surveys

We will need to undertake inspections of above-ground and underground utilities (for example, fuel, water and electrical).

We will visually inspect above-ground installations, pylons, support structures and associated plant rooms, chambers and substation enclosures. This is to confirm existing utility services process and instrumentation diagrams.

Inspections of underground utilities are typically non-intrusive and require the use of Ground Penetrating Radar (GPR) to detect utilities.

GPR surveys are geophysical locating methods that are used to capture images of what is below the ground. The survey is carried out by pushing a cart-like device over the area of ground being investigated in a grid like pattern. The information is then fed back to the computer for critical analysis.

GPR surveys cannot be done on areas where active crops are present. We will engage with landowners on the best time to undertake these surveys to reduce disruption to farming operations.

Where non-intrusive surveys are required on private land, we will discuss with the owners before any proposed visits. We may need to undertake further intrusive surveys to determine the exact location and depth of an underground utility. These surveys will be undertaken by specialist teams so the utility remains undamaged by the survey.

Any intrusive ground investigation surveys would be subject to further discussion.

Walkover surveys and visualisation to identify existing and new diversion routes for utilities and supply corridors.

Visual inspection of all above-ground installations, pylons, support structures and associated plant rooms, chambers and substation enclosures.

Lifting manholes and opening above-ground cabinets to confirm pipework conditions, depths and flows.

Visual inspection of pipe routes and valve locations.

Survey work would be completed by a two- or three-person team. The duration and frequency of the surveys will vary.

Frequently asked questions

Why does HS2 Ltd survey for ecology?

HS2 Ltd is committed to protecting and reducing potential impacts to wildlife in accordance with the HS2 Phase 2a Environmental Minimum Requirements and all relevant wildlife legislation. To be able to fulfil this commitment, a robust ecology survey programme is needed along the Phase 2a route.

Why do HS2 Ltd need so many site visits for ecology over a long period?

Not all species are active at the same time of the year, which may require us to do multiple site visits during their active season. In addition, some species require multiple site visits before you can confirm absence. Wildlife, like badgers, love to move around so surveys need to be updated regularly to confirm their presence.

Why do we need ecology surveys so far from the railway?

Some wildlife has a large territorial habitat, for example great crested newts can be found up to 500m from a pond. Ecology surveys are needed beyond the HS2 construction boundary to account for the large territories.

What do we do with any archaeological artefacts found?

Artefacts are first taken to an archaeological unit or museum for processing and analysis. Following this analysis, and with the consent of the owner, artefacts can be transferred to a museum or other archival facility to make them available to the public. If the owner of the artefacts does not wish to transfer them, then they will be returned. It is extremely rare to find artefacts of monetary value.

What is the purpose of the surveys?

To obtain information on the current environmental conditions near to the railway. This informs our design and construction plans to reduce the potential environmental impacts of our works.

In advance of any survey work we will discuss with land and property owners/occupiers regarding access, the survey programme and scheduling the field work.

What types of surveys and how many visits are required?

A number of survey types may be required, including ecology, noise, soils, landscape and heritage.

Not all public or private land and property will be subject to each type of survey. Surveys may require an initial fact finding visit to establish the details of the fieldwork including the number of repeat visits required. Where possible, we will advise landowners of the range and frequency of repeat surveys at the earliest opportunity.

What is access required for?

Typically, access is required for a team of two surveyors who will be conducting surveys on foot. In some instances, vehicular access may be required to a particular location on private land e.g. a river.

Where vehicle access is necessary, we will give landowners prior notice of the need for vehicle use and agree the route across their land.

When will surveys be conducted?

The timing and duration of the surveys will depend on the baseline data requirements, seasonal requirements (e.g. ecology) and prevailing weather conditions (e.g. noise). Typically, surveys are conducted in the day time at specific times of the year/seasons. Occasionally, evening or night-time surveys will need to be conducted.

Will internal access to property and buildings be required?

Most survey work comprises external fieldwork with no internal access to property or buildings required. However, for some surveys, for example bats and barn owls, access to buildings may be necessary.

What activities are involved in the surveys?

The type of activity is dependent of the type of survey, however, the majority of HS2 surveys are non-intrusive involving visual observations and the taking of photographs, physical measurements and surface samples. Some involve the temporary placement of sampling equipment or automated monitoring equipment over a few days. There may also be evening and night time observation work.

Will there be any disturbance or disruption?

The majority of survey work comprises fieldwork i.e. recording the presence of habitats and animal and plant species, the taking of measurements, readings and samples. Surveys will be conducted to minimise any physical disturbance or disruption.

Where fieldwork may involve specific requirements (e.g. vehicular access, work adjacent to watercourses, pre-removal of vegetation, evening/ night-time observation, the placement and securing of survey and monitoring equipment etc.) a fact finding visit will be undertaken to establish site conditions and landowners will be engaged on specific requirements.

operating procedures. All HS2 approved contractors hold suitable and sufficient Public Liability (PL) insurance cover to indemnify private land and property owners in the event of any damage caused to private or public land and property as a result of their activities.

Who will undertake the surveys?

In all cases, HS2 surveys would be undertaken under strict protocols (including adherence to strict biosecurity measures) by specialist consultants experienced in carrying out such surveys so as to minimise any environmental disruption and inconvenience.

All HS2 survey consultants will carry formal identification.

Will the survey data be made available?

We would look at requests on an individual basis. In principle, the data is available to landowners and the public, assuming that data protection rules are observed and maintained.

What safety precautions and insurance protection cover is there for fieldwork activities?

All HS2 surveys and fieldwork would be undertaken by HS2 approved contractors under formal safe

Contact us

If you have any questions about this document, please get in touch.

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