



# HIGH SPEED TWO

## PHASE 2a INFORMATION PAPER

### E18: LAND QUALITY (CONTAMINATION)

This paper outlines HS2 Ltd's approach to the assessment and treatment of contaminated land affected by the Proposed Scheme.

It will be of particular interest to those potentially affected by the Government's proposals for high speed rail.

This paper was prepared in relation to the promotion of the High Speed Rail (West Midlands-Crewe) Bill which is now enacted. It was finalised at Royal Assent and no further changes will be made.

If you have any queries about this paper or about how it might apply to you, please contact the HS2 Helpdesk in the first instance.

**The Helpdesk can be contacted:**

**by email:** [HS2enquiries@hs2.org.uk](mailto:HS2enquiries@hs2.org.uk)

**by phone (24hrs):** 08081 434 434  
08081 456 472 (minicom)

**or by post:** High Speed Two (HS2) Limited  
2 Snowhill, Queensway  
Birmingham  
B4 6GA

Version 1.2  
Last updated: 11 February 2021

# E18: LAND QUALITY (CONTAMINATION)

## 1. Introduction

- 1.1. High Speed Two (HS2) is the Government's proposal for a new, high speed north-south railway. The proposal is being taken forward in phases: Phase One will connect London with Birmingham and the West Midlands. Phase 2a will extend the route to Crewe. Phase 2b will extend the route to Manchester, Leeds and beyond. The construction and operation of Phase One of HS2 is authorised by the High Speed Rail (London – West Midlands) Act 2017.
- 1.2. HS2 Ltd is the non-departmental public body responsible for developing and promoting these proposals. The company works to a Development Agreement made with the Secretary of State for Transport.
- 1.3. In July 2017, the Government introduced a hybrid Bill<sup>1</sup> to Parliament to seek powers for the construction and operation of Phase 2a of HS2 (the Proposed Scheme). The Proposed Scheme is a railway starting at Fradley at its southern end. At the northern end it connects with the West Coast Main Line (WCML) south of Crewe to allow HS2 services to join the WCML and call at Crewe Station. North of this junction with the WCML, the Proposed Scheme continues to a tunnel portal south of Crewe.
- 1.4. The work to produce the Bill includes an Environmental Impact Assessment (EIA), the results of which are reported in an Environmental Statement (ES) submitted alongside the Bill. The Secretary of State has also published draft Environmental Minimum Requirements (EMRs)<sup>2</sup>, which set out the environmental and sustainability commitments that will be observed in the construction of the Proposed Scheme.
- 1.5. The Secretary of State for Transport is the Promoter of the Bill through Parliament. The Promoter will also appoint a body responsible for delivering the Proposed Scheme under the powers granted by the Bill. This body is known as the 'nominated undertaker'. The nominated undertaker will be bound by the obligations contained in the Bill and the policies established in the EMRs. There may be more than one nominated undertaker.
- 1.6. These information papers have been produced to explain the commitments made in the Bill and the EMRs and how they will be applied to the design and construction of the Proposed Scheme. They also provide information about the Proposed Scheme itself, the powers contained in the Bill and how particular decisions about the Proposed Scheme have been reached.

---

<sup>1</sup> The High Speed Rail (West Midlands – Crewe) Bill, hereafter 'the Bill'.

<sup>2</sup> For more information on the EMRs, please see Information Paper E1: Control of Environmental Impacts.

## 2. Overview

- 2.1. This Information Paper outlines HS2 Ltd's approach to the assessment and treatment of contaminated land affected by the Proposed Scheme.

## 3. Contaminated land

- 3.1. Constructing the Proposed Scheme will require the use of land with a range of existing ground conditions. In some cases this will involve construction on contaminated land. Contaminated land is defined in Part 2A of the Environmental Protection Act 1990 as land that contains substances in or under it, which have the potential to pollute local watercourses or groundwater, or otherwise cause significant harm. This could include land with a previous industrial use or old landfill sites.
- 3.2. An assessment of the potential presence of contaminated land in or around the route of the Proposed Scheme was carried out as part of the EIA. The results of these assessments are reported in the ES.
- 3.3. A total of 960 sites were assessed along the route of the Proposed Scheme. The sites were selected based on records of their previous use, such as landfills, which may have caused contamination. Of these sites, 177 were taken forward for further assessment as they are located either on or near areas where construction will take place, and, either singly or in combination, are considered to potentially contain substances harmful to:
  - human health (i.e. affecting construction workers or site visitors during the construction period, as well as eventual users of the railway);
  - groundwater;
  - surface water resources;
  - ecosystems; or
  - building fabric.
- 3.4. The high risk sites identified from the further assessment are:
  - Landfill at Staffordshire County Show Ground;
  - Landfill associated with a dismantled railway at Hopton;
  - Historical tank at Upper Hanyards Farm; and
  - Historical landfill at Lower Hanyards Farm.
- 3.5. None of the sites assessed have been identified formally by the respective local authorities as being "contaminated land" within the meaning of Part 2A of the Environmental Protection Act 1990. However, the nominated undertaker will consult with local authorities on proposals for the remediation of contamination where this has been identified prior to or during construction.

## 4. Management during design

- 4.1. As part of the progression of the design of the Proposed Scheme, the assessed sites (as described in Section 2 above) where construction will take place will be subject to site investigations. After these have taken place, detailed assessments, including quantitative risk assessments, will be completed to assess the precise nature of any contamination present that could impact (or be impacted by) the construction of the Proposed Scheme.
- 4.2. The nominated undertaker will assess individual sites in accordance with relevant legislation and guidance and will develop a remediation strategy, which details the most practical solutions to remediate the site from a range of options, taking account of all factors of the Proposed Scheme. The design of the Proposed Scheme and its construction works will incorporate the remediation strategy in order to reduce the risks associated with contamination.
- 4.3. In addition, the draft Code of Construction Practice (CoCP) sets out a series of objectives and measures in relation to contamination to be applied by the nominated undertaker and its contractors throughout the construction period:
  - to provide effective management and control through construction to mitigate potential impacts upon people and the natural environment;
  - to provide the mechanisms to engage with the local community and their representatives throughout the construction period; and
  - to ensure that reasonably practicable measures are applied to the construction to ensure it is undertaken economically and meets the requirements of the Bill and its associated commitments.

## 5. Management during construction

- 5.1. Prior to or during construction of the Proposed Scheme, treatment of contamination will be undertaken in accordance with the remediation strategy described in Section 3 above. This includes treatment of any unexpected contamination encountered in other parts of the construction works in accordance with the CoCP.
- 5.2. The nominated undertaker will be responsible for carrying out individual mitigation proposals in line with the EMRs, the CoCP and the Environment Agency guidance: Model Procedures for the Management of Land Contamination (CLR11). Works to remediate contamination will be undertaken using relevant environmental permits<sup>3</sup>. On completion of any remedial works, a verification report will be prepared and retained by whoever has ongoing responsibility for the remediated land.

---

<sup>3</sup> Depending on the activity involved, permits can be issued by the Local Authority or the Environment Agency.

- 5.3. The Environment Agency may, amongst other matters, require the nominated undertaker, under the protective provisions in Part 4 of Schedule 32 to the Bill, to construct, at its own expense, protective works to safeguard Controlled Waters<sup>4</sup> from the potential effects of any contamination during the construction of the works.

## 6. Materials and Resource Management

- 6.1. In order to promote waste minimisation the nominated undertaker will develop a Site Waste Management Plan that will be used to identify materials and resources that can be recycled, recovered or re-used ahead of disposal to landfill. In addition, the plan will identify the specific types and quantities of waste likely to arise during the construction process. Where generated, waste will be classified in accordance with the statutory controls governing the management of inert, non-hazardous and hazardous wastes.
- 6.2. Where it is necessary to remove materials to landfill they will be subject to the Landfill (England and Wales) Regulations 2002.

## 7. More information

- 7.1. More information on the impacts to groundwater from existing land contamination can be found in the ES in Volume 2 of the community area reports, Section 8 and the associated Volume 5 Appendices 1. These can be found here: <https://www.gov.uk/government/collections/hs2-phase-2a-environmental-statement>
- 7.2. Land contamination is covered specifically in the Land Quality section of the ES which can be referred to for further information. The Land Quality section has three distinct parts comprising land contamination, geo-conservation sites and mineral resources.
- 7.3. More detail on the Bill and related documents can be found at: [www.gov.uk/HS2](http://www.gov.uk/HS2)

---

<sup>4</sup> 'Controlled waters' are defined in the Water Resources Act, 1991 and are also referred to in part 2A of the Environmental Protection Act 1990.