

HIGH SPEED TWO PHASE 2a INFORMATION PAPER

E20: MAINTENANCE OF LANDSCAPED AREAS

This paper outlines the proposed approach to the maintenance of landscaped areas created for 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.

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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 Bill¹ 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)², 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.

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

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

2. Overview

- 2.1. This paper outlines how the landscape areas created along the Proposed Scheme will be maintained.

3. Landscape Design for the Proposed Scheme

- 3.1. The Proposed Scheme has been developed to minimise its impacts on the surrounding environment and, where possible, make a positive contribution to it. This has been achieved by taking both environmental and engineering factors into account during the design stages.
- 3.2. There are a large number of social, environmental and economic benefits linked to landscape areas and these are also linked to HS2 Ltd's strategic goals and objectives. One of these benefits is to mitigate the effects of the Proposed Scheme: landscape areas can provide visual and noise screening and replace habitats that are lost as a result of the Proposed Scheme. This will result in a number of different landscape types along the Proposed Scheme. These can be broadly categorised as:
 - woodland planting, including:
 - the creation of woodland to compensate for the loss of ancient woodland;
 - the creation of woodland to compensate for the loss of other woodland habitat; and
 - the creation of new areas of woodland to help integrate the Proposed Scheme into the surrounding landscape.
 - tree and shrub screen planting along stretches of the Proposed Scheme, to reduce visual impacts;
 - new or replacement hedgerow planting;
 - grassland, including:
 - on cutting slopes and embankments within the railway corridor of the Proposed Scheme (i.e. the land permanently required to operate the railway) ;
 - on cutting slopes and embankments outside the railway corridor, but within the boundary of land used for the Proposed Scheme;
 - on land outside the boundary of the Proposed Scheme; and
 - in areas where grassland habitat is created to compensate for loss of ecologically important grassland.
 - ponds and wetland habitat, including:
 - balancing ponds;
 - land drainage areas;
 - ditches;

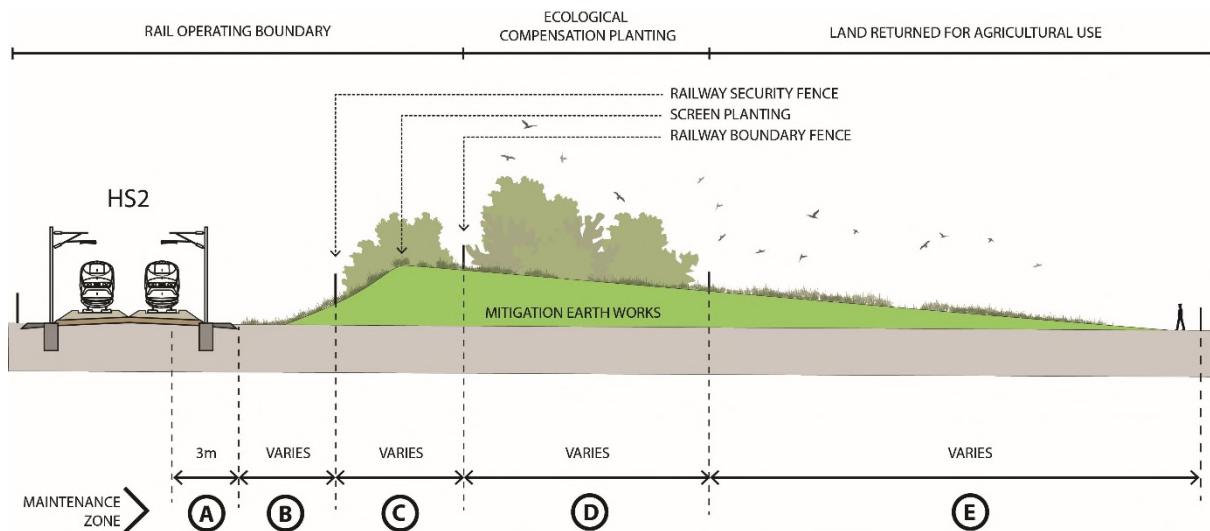
- ecological mitigation ponds; and
 - wetland habitat creation.
- 3.3. During construction and for a period of time after, any new planting, grassland and habitat creation will be maintained by the nominated undertaker to ensure they become established and are properly maintained.
 - 3.4. This period of initial maintenance will vary depending on the habitat or feature and the complexity and objectives for the landscape type. Tree planting, for the purpose of screening will likely require up to 5 years maintenance.
 - 3.5. After an initial period of maintenance, the nominated undertaker will seek to return the majority of land to previous landowners or other interested parties (such as local wildlife trusts, woodland trust, local authorities), where agreement can be reached that will ensure the continued objectives of the landscaping are maintained into the future.
 - 3.6. Where agreement cannot be reached, the land will be retained and maintained by the nominated undertaker until agreement is put in place with a suitable owner or party. This could mean that such land will remain within the land boundary of the Proposed Scheme.
 - 3.7. For the smaller percentage of land that is required to remain within the land boundary of the Proposed Scheme, the nominated undertaker will appoint a managing company (or companies) to ensure the adequate maintenance of landscapes. Primarily, this will involve screen planting and grassland on railway earthworks within the security fence lines.
 - 3.8. Some areas of land that are required during the construction phases of the Proposed Scheme may receive a temporary landscape treatment to help mitigate construction-related effects. Such temporary areas will be returned to their previous use following the completion of the construction of the Proposed Scheme.

4. Operation of the Proposed Scheme

- 4.1. The Proposed Scheme is designed to operate a full train service during normal running hours. This means most maintenance activities will be carried out overnight. The design of the landscape within the rail corridor (i.e. within the Railway Security Fence - zones A and B in Figure 1. below) has been developed to reduce maintenance requirements. Zone A will be kept free of vegetation at all times in order meet railway operational requirements. There will be no tree planting within Zone B, unless this is deemed to be an important environmental requirement. The reasoning for this is explained in paragraph 4.2 below. Instead, grassed areas with low-nutrient soils will encourage slow-growing grassland species, reducing maintenance while promoting biodiversity.
- 4.2. Tree planting will be designed to minimise risks to the operation of the Proposed Scheme that may arise from falling leaves, root damage and high winds breaking branches or felling trees in the vicinity. In practice, this means a 'zone

of influence' will be established along the route Proposed Scheme, within which the height of vegetation will be limited. This zone - represented by Zone C in Figure 1 below may extend beyond the Railway Security Fence, depending on whether the railway is on embankment, at grade or in cutting.

Figure 1: Indicative maintenance requirements for each zone. Note that areas for 'ecological compensation' are not required on all parts of the route.



5. Land to be returned to agricultural use

- 5.1. As described in section 2, the Proposed Scheme has been developed to minimise the amount of land that needs to be permanently owned and maintained by the operator of the Proposed Scheme. In practice, this means that earthworks in many locations along the route of the Proposed Scheme will have shallow slopes, allowing land (Zones D and E in Figure 1 above) to be returned to agriculture where it is not required for ecological compensation.
- 5.2. Where land is to be returned to agriculture, it will be the nominated undertaker's intention to agree its return to the former landowner(s). In the interim, it will ensure that land is maintained to appropriate farming standards, in line with the policy extract in Section 3.

6. Landscape types

- 6.1. Different soft landscape types are used for different purposes (e.g. to visually screen the railway, to reduce railway noise etc.). The maintenance approach will vary according to the landscape type described below to ensure that it continues to meet its objectives in perpetuity.

Urban public realm

- 6.2. New areas of urban public realm are not expected to be created in relation to the Proposed Scheme. However, if these were included in the Proposed Scheme, they would be likely to comprise:
- areas of hard surfacing;
 - new trees and other planting; and
 - seating and other furniture such as railings, signage and art.
- 6.3. Maintenance of these areas will be linked to the operation of the station buildings where appropriate.

Woodland planting

- 6.4. New areas of woodland will be created along the Proposed Scheme. This includes woodland to compensate for the loss of prior habitat and new planting to help integrate the Proposed Scheme into the surrounding landscape.
- 6.5. The creation of woodland is likely to comprise young tree stock. These areas will take time to become established and to mature into new woodlands, particularly as most species are likely to be native, deciduous trees that are relatively slow-growing. In the case of planting in ancient woodland, some faster-growing species are likely to be used to create the shaded conditions needed by the seed in soil brought in from donor sites. These trees would then be removed at an appropriate time to allow the native species to develop and mature.
- 6.6. Typically, the planting contractor would be expected to maintain the area of planting for five years after planting, while ecological woodland planting/compensation would be maintained for a minimum of ten years. This ensures good establishment and healthy growth before the responsibility for maintenance passes to another party. Where these landscape areas are outside the final land ownership boundary of the Proposed Scheme, HS2 Ltd will seek to make agreements with local landowners and/or other interested parties to ensure that the objective of the planting is maintained in perpetuity.

Screen planting

- 6.7. Screen planting is proposed along parts of the Proposed Scheme to help obscure new earthworks, structures, trains and overhead line equipment where a likely significant visual effect has been recognised.
- 6.8. This type of planting is typically linear and located close to the line of route, comprising trees and shrubs. Therefore, much of this planting is likely to be within the land boundary of the Proposed Scheme and will become the responsibility of the Proposed Scheme's maintenance contractor (or contractors), unless other bodies (e.g. local authority or local trusts) are interested in taking ownership.

- 6.9. The initial planting is likely to comprise a mix of small trees (transplants) with some larger trees (2-3m high), included to help the planting and screen the Proposed Scheme more effectively from the outset. Planting may initially include some fast-growing species to provide similar benefits. An initial planting of fast growing trees would typically be removed when the other trees have grown sufficiently towards the end of the establishment maintenance period.

Hedgerow planting

- 6.10. Hedgerows are proposed along various parts of the Proposed Scheme to replace existing hedgerows removed during construction, to mitigate the impacts on hedgerow wildlife, to enhance existing hedgerows, to create new visual screens and to improve local wildlife corridors.
- 6.11. Linear features close to the line of route would be likely to remain within the land boundary of the Proposed Scheme, and therefore would be maintained in perpetuity by the appointed maintenance contractor(s) for the Proposed Scheme. The nominated undertaker would seek to establish agreements to transfer other hedgerows along field boundaries to relevant land owners, or otherwise would look to make arrangements with other interested parties.

Grassland

- 6.12. Outside the Railway Security Fence, areas of grassland will be initially maintained (typically for two to five years) by the planting contractor to ensure they become established. Subsequently, the maintenance will be carried out by Proposed Scheme's maintenance contractor(s) or a separate landowner or managing agent, subject to an appropriate agreement. Certain areas of grassland will be created specifically to compensate for habitat loss resulting from the Proposed Scheme. In these instances, the grassland will be maintained to ensure that it functions well as an ecological habitat.

Ponds and wetland habitats

- 6.13. Ponds are required along the Proposed Scheme to provide land, railway and road drainage, and also as ecological habitats (particularly as compensation for the loss of existing ponds). Some of these features will permanently hold water, while others (particularly land drainage) are likely to be dry for much of the year. The water bodies will be maintained to maximise their ecological value wherever this does not restrict their function as drainage features for the Proposed Scheme.
- 6.14. As with other landscape types, the location of these features will determine who is responsible for maintaining them in the long term. In all instances, the planting contractor will have responsibility for maintaining these features during the establishment period while habitats develop (typically two years for wetland features). Where ponds are created to compensate for loss of ponds that support great crested newts, the maintenance period will be agreed with Natural England.

7. More information

7.1. More detail on the Bill and related documents can be found at: www.gov.uk/HS2