

## Maintenance of landscaped areas

The purpose of this factsheet is to outline the expected proposals for how the landscaped areas created along the Proposed Scheme, for both biodiversity and screening mitigation, would be maintained.

# 1 Introduction

- 1.1.1 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 'Proposed Scheme').
- 1.1.2 The construction and operation of Phase One of HS2 is authorised by the High Speed Rail (London – West Midlands) Act (2017). In July 2017, the Government introduced a hybrid Bill to Parliament to seek powers for the construction and operation of Phase 2a. A hybrid Bill to seek powers for the construction and operation of Phase 2b is expected to be introduced to Parliament in 2020.
- 1.1.3 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.
- 1.1.4 The work to produce the Phase 2b Bill will include an Environmental Impact Assessment (EIA), the results of which will then be reported in an Environmental Statement (ES). The ES would be submitted alongside the Phase 2b Bill when it is introduced to Parliament. The emerging findings of the EIA were reported in a working draft Environmental Statement (WDES)<sup>1</sup> that was consulted on in late 2018.
- 1.1.5 As was the case with Phase One and Phase 2a, when the Phase 2b Bill is introduced to Parliament, the Secretary of State will also publish draft Environmental Minimum Requirements (EMRs). The EMRs will set out the environmental and sustainability commitments that will be observed in the construction and operation of Phase 2b.
- 1.1.6 A series of information papers were produced for the Phase One and Phase 2a hybrid Bills, explaining the commitments made in those Bills and EMRs. It is the Secretary of State's intention to follow a similar process for the Phase 2b Bill. These information papers for Phase 2b will be used to provide information about Phase 2b itself, the powers contained in the Phase 2b Bill when it is introduced to Parliament and how decisions on Phase 2b have been reached. It is currently proposed that these information papers for

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<sup>1</sup> The WDES presented draft environmental information based on a stage in the ongoing design and assessment process for the Proposed Scheme. It included a description of the existing environment; an evaluation of the anticipated environmental impacts of the Proposed Scheme; and the measures being proposed at the time to manage the anticipated impacts. The ES submitted alongside the hybrid Bill will reflect any changes made following further work on the design and EIA, the WDES consultation, and any further consultation on the Proposed Scheme.

Phase 2b will be published at the time the Phase 2b Bill is introduced in Parliament.

- 1.1.7 The Secretary of State for Transport will be ‘the Promoter’ of the Phase 2b Bill. The Promoter will also eventually appoint a body responsible for delivering the Proposed Scheme under the powers to be granted by the Phase 2b Bill. This body will be known as the ‘nominated undertaker’. There may well be more than one nominated undertaker. However, any and all nominated undertakers will be bound by the obligations contained in the Phase 2b Bill, the policies established in the Phase 2b EMRs and any commitments provided in the Phase 2b information papers.

## 2 Overview

- 2.1.1 The purpose of this factsheet is to outline the expected proposals for how the landscaped areas created along the Proposed Scheme, for both biodiversity and screening mitigation, would be maintained.

## 3 Landscape design for the Proposed Scheme

- 3.1.1 The Proposed Scheme continues to be developed to minimise the impacts on the surrounding environment and, where possible, make a positive contribution to it. This would be achieved by taking both environmental and engineering factors into account during the design stages.

- 3.1.2 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 the benefits of landscape areas 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 would result in a number of different landscape types along the Proposed Scheme. These can be broadly categorised as:

- New urban public realm, primarily around the proposed stations;
- 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;
  - landscape earthworks;
  - ditches;
  - ecological mitigation ponds; and
  - wetland habitat creation.

3.1.3 During construction and for a period of time after, any new planting, grassland and habitat creation would be maintained by the nominated undertaker to ensure they become established and are properly maintained.

3.1.4 This period of initial maintenance would vary depending on the habitat or feature and the complexity and objectives for the landscape type. For example, the establishment of tree planted areas, for the purpose of screening would likely require up to five years maintenance initially.

3.1.5 After an initial period of maintenance, the nominated undertaker would be likely to seek to return the majority of land planted with trees, outside of the final land ownership boundary of the Proposed Scheme, to previous landowners or other interested parties where agreement can be reached that would ensure the continued objectives of the landscape are maintained into the future.

3.1.6 Where agreement cannot be reached, the land would 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 would remain within the land boundary of the Proposed Scheme.

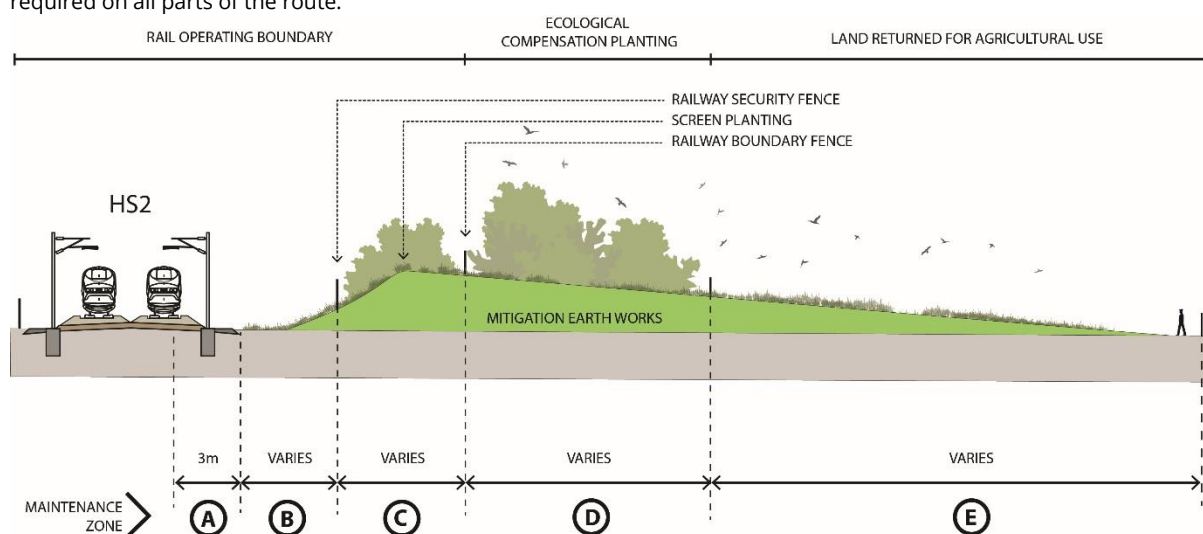
3.1.7 For the smaller percentage of land that is required to remain within the land boundary of the Proposed Scheme, the nominated undertaker would appoint a managing company (or companies) to ensure the adequate maintenance of landscapes.

- 3.1.8 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 would be returned to their previous use following the completion of the construction of the Proposed Scheme.

## **4 Operation of the Proposed Scheme**

- 4.1.1 The Proposed Scheme is designed to operate a full train service during normal running hours. This means most maintenance activities within the operational railway lands would 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 would be kept free of vegetation at all times in order to meet railway operational requirements. There would be no tree planting within Zone B, unless this is deemed to be an important environmental requirement. The reasoning for this is explained below. Instead, grassed areas with low-nutrient soils would encourage slow-growing grassland species, reducing maintenance while promoting species diversity.
- 4.1.2 Tree planting would 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' would be established along the route of the Proposed Scheme, within which the height of vegetation would 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

- 5.1.1 The Proposed Scheme would continue to be 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 would have shallow slopes, allowing land (Zones D and E in Figure 1 above) to be returned to agriculture where it is not required for landscape planting or ecological compensation.
- 5.1.2 Where land is to be returned to agriculture, it would be the nominated undertaker's preference to agree its return to the former landowner(s). In the interim, the nominated undertaker would ensure that land was maintained to appropriate farming standards, in line with the policy extract in Section 3.

## 6 Landscape types

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

### 6.2 Urban public realm

6.2.1 New areas of public realm would be created primarily around the stations. These spaces have not yet been designed but would be multi-functional and likely to comprise:

- areas of hard surfacing;
- drainage
- new trees and other planting; and
- seating and other furniture such as lighting, railings, signage and art.

6.2.2 Maintenance of these areas would be linked to the operation of the station buildings where appropriate.

## **6.3 Woodland planting**

6.3.1 New areas of woodland would be created along the Proposed Scheme. This may include new woodland to compensate for the loss of existing woodland as well as additional new planting to help integrate the Proposed Scheme into the surrounding landscape.

6.3.2 The creation of woodland is likely to comprise young tree stock. These areas would take time to become established and to mature into new woodlands, particularly as most species are likely to be native, deciduous trees and shrubs that are relatively slow-growing. If requirements are identified to plant within ancient woodlands, some faster-growing 'nurse' species are likely to be used to create the shaded conditions needed by the seed in soil brought in from donor sites. These 'nurse' trees would then be removed at an appropriate time to allow the native species to develop and mature.

6.3.3 Typically, the planting contractor would be expected to maintain the area of planting for a five year establishment period after planting, while ecological woodland planting/compensation would be maintained for a minimum of ten years. This would ensure 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 would seek to make agreements with local landowners and/or other interested parties to ensure that the objective of the planting is maintained in perpetuity.

## **6.4 Screen planting**

6.4.1 Screen planting is likely to be common 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.

- 6.4.2 This type of tree and shrub 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 would 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.
- 6.4.3 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 and evergreens to provide similar benefits. Where the design includes initial planting of fast growing 'nurse' trees, these would typically be removed when the other trees have grown and matured sufficiently.

## **6.5 Hedgerow planting**

- 6.5.1 Hedgerows are likely to be 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.
- 6.5.2 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 landowners, or otherwise would look to make arrangements with other interested parties.

## **6.6 Grassland**

- 6.6.1 Outside the Railway Security Fence, areas of grassland that may need to be established would initially be maintained (typically for two to five years) by the planting contractor to ensure they become established. Subsequently, the maintenance would 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 may be created specifically to compensate for habitat loss resulting from the Proposed Scheme. In these instances, the grassland would be maintained to ensure that it functions well as an ecological habitat.

## **6.7 Ponds and wetland habitats**

- 6.7.1 Ponds will be 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 may permanently hold water, while others (particularly land drainage) are likely to be dry for much of the year. It is expected that water bodies would be maintained to maximise their ecological value wherever this does not restrict their function as drainage features for the Proposed Scheme.

- 6.7.2 As with other landscape types, the location of these features would determine who is responsible for maintaining them in the long term. In all instances, the planting contractor would 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 would be agreed with Natural England.

## **7 More information**

- 7.1.1 Further factsheets and details on the Proposed Scheme can be found at: [www.hs2.org.uk/phase2b](http://www.hs2.org.uk/phase2b)