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Phase 2a - Control of Environmental Impacts

Peter Miller – Environment Director, HS2 Ltd.
26th March 2018
What today’s presentation will cover

1. The legal framework
   • Controls within the Bill
   • Controls outside the Bill
   • Existing Legislation
2. Principles of environmental design
The legal framework

Controls within the Bill
- Scope of works (Sch 1 & 2)
- Planning Conditions (Sch 17)
- Bringing into use scheduled works (Sch 17)
- Restoration of construction sites (Sch 17)
- Restoration of land following temporary possession and use (Sch 15)
- Construction of replacement buildings (Clause 55)
- Protective provisions (Sch 32)
- Highways approvals (Sch 4)

Controls outside the Bill
Environmental Minimum Requirements
- General Principles
- Code of Construction Practice (Information paper D3)
- Planning Memorandum
- Heritage Memorandum
- Environmental Memorandum
- Undertakings and Assurances

Existing Legislation
Unless expressly or impliedly disapplied or modified by the Bill, existing legislation will apply
- e.g. Section 61 of the Control of Pollution Act (noise)
- e.g. Licences for affected species
- e.g. Environmental permitting for waste
Planning conditions (Schedule 17)

• Bill provides deemed planning permission subject to conditions set out in Schedule 17
• Schedule 17 includes conditions requiring various matters to be subject to approval by local planning authority
• Extent and scope of approvals depends on whether local planning authority becomes a “qualifying authority” (through signing the Planning Memorandum)
Planning conditions (Schedule 17)

Operations and Works

- Qualifying authorities can refuse to approve or condition the approval of plans and specifications for most permanent, above ground works, on certain specified grounds
- Provisions do not apply to temporary works, underground works (except part of stations), tunnel or railway track bed
Example from Phase One – Drayton Bassett Bat House

- Swift nest box
- Bat access tiles
- Perforated bricks
- Free access bat bricks
- Sparrow terrace
- Bat winter roost
- Bat tubes
- House Martin nest
Planning conditions (Schedule 17)

Construction arrangements

Conditions apply to construction arrangements relating to:

- Handling of reusable spoil or topsoils
- Storage sites for construction materials, spoil or topsoils
- Works screening
- Artificial lighting
- Dust suppression
- Road mud control measures
- Construction camps

Construction arrangements may be subject to class approval by the Secretary of State (except for construction camps)
Planning conditions (Schedule 17)

Construction camps and road transport

Construction camps
• Approval of residential accommodation on site
• Cannot be part of the Class Approval – will always require site specific approval

Road transport
• Approval of lorry routes to and from worksites with more than 24 lorry movements per day
Planning conditions (Schedule 17)

Bringing into use

Bringing into use scheduled works

- To ensure appropriate mitigation for the permanent works and their operation, approval must be sought from the relevant local authority before a Scheduled Work can be brought into use, unless that work is underground.

Progressive engagement on mitigation

- Bringing into use approvals are sought late in the construction programme
- The Promoter will engage with local authorities and statutory consultees during the design approvals to get early feedback.
Planning conditions (Schedule 17)

**Borrow pits**

- Qualifying authorities to approve plans and specifications for the excavation of bulk material from borrow pits and methods of working, including arrangements for noise, dust, vibration and screening.

**Restoration of borrow pits**

- Approval of scheme of restoration before borrow pit excavation commences.
- Aim to restore land to a condition suitable for its original use, after excavation.

**Restoration of construction sites**

- Qualifying authorities also approve schemes to restore construction sites.
Planning conditions (Schedule 17)

Context Reports

Each planning authority must be provided with a document setting out the proposed scheme and programme for Schedule 17 consents.
Environmental Minimum Requirements

General Principles plus four annexes

- Published in July 2017 with the hybrid Bill
- Currently ‘draft’ to be finalised upon Royal Assent
Environmental Minimum Requirements

General Principles

- Nominated Undertaker and contractors contractually bound to comply with Environmental Minimum Requirements
- Impacts which have been assessed in the Environmental Statement will not be exceeded (subject to provisos in para 1.1.3 and 3.1.8)
- Requirement to use reasonable endeavours to adopt mitigation measures that will further reduce any adverse environmental impacts

Controls within the Bill | Controls outside of the Bill | Existing legislation
Environmental Minimum Requirements

Annex 1: Code of Construction Practice

• Lead contractors and sub contractors will be contractually obliged to comply with the Code of Construction Practice
• Nominated undertaker and contractors will be contractually obliged to have an Environmental Management System (certified to ISO14001)
Environmental Minimum Requirements

Annex 1: Code of Construction Practice – Local Environmental Management Plans

- Code of Construction Practice has a requirement for Local Environmental Management Plans
- Local Environmental Management Plans build on general environmental requirements of the Code of Construction Practice and set out specific measures within each local authority area
# Environmental Minimum Requirements

## Annex 1: Code of Construction Practice - requirements

### General requirements

Examples:

- Lead contractors to sign up to considerate constructors scheme
- Core working hours
- Community engagement framework
- Pollution incident control measures
- Carbon Management Plan requirement

### Site-specific requirements

Examples:

- Dust and air quality management - covering stockpiles
- Control of invasive and non-native species
- Protection of trees
- Noise and vibration – best practicable means
- Workforce travel plans

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Environmental Minimum Requirements

Annex 2: Planning Memorandum

- Details responsibilities of “qualifying authorities”
- The qualifying authorities and nominated undertaker sit on a Planning Forum (established in 2017), which assists effective implementation of the planning regime
Environmental Minimum Requirements

Annex 3: Heritage Memorandum

- Sets out how the historic environment (including heritage assets and their setting) will be addressed during the design and construction (including role of Heritage Agreements)
- A specialist heritage sub-group to the planning forum has been set up to provide the framework for effective engagement and information sharing on high-level technical matters
Environmental Minimum Requirements

Annex 4: Environmental Memorandum

- Relates to the environmental aspects of the design and construction
- National Environmental Forum comprising the Agencies (Historic England, Environment Agency and Natural England) and representatives from relevant Government departments, including the Forestry Commission.
Environmental Minimum Requirements

Undertakings and Assurances (U&As)

- Undertakings & Assurances - commitments by the Promoter to Parliament or Beneficiary of commitment
- The Register of Undertakings & Assurances is published on Royal Assent, however drafts are published periodically during the Hybrid Bill Process

Noise and vibration assurance example: “The nominated undertaker will reduce ground-borne noise and vibration from the temporary and permanent railways as far as is reasonably practicable”
Demonstrating Environmental Minimum Requirements compliance

“..the nominated undertaker will develop an environmental management system (EMS) in accordance with BS EN ISO 14001. The EMS provides the processes by which environmental management, both within the nominated undertaker’s organisation and in relation to its operations, is undertaken to ensure the relevant findings of the Environmental Statement are addressed through the construction phase”
Ensuring compliance with noise commitments

- **Rolling stock**: Train manufacturer incentivised to reduce noise through contract
- **The track**: Early procurement of track design to consider measures to reduce noise
- **Civils**: Mitigation (noise fence barriers and earth bunds)
- **Insulation**: Secondary glazing
Existing legislation

Unless a piece of legislation will be expressly or impliedly disapplied, or modified by the Bill it will continue to apply as normal to the design and construction of the Proposed Scheme.

Section 61 consent under Control of Pollution Act 1974

Licences for affected species (issued under Conservation of Habitats and Species Regulations 2010)

The Environmental Permitting (England and Wales) Regulations 2016 for waste permitting

Controls within the Bill

Controls outside of the Bill

Existing legislation

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HOC/10001/0024
Principles of environmental design
HS2 Design Vision

People
Design for everyone to benefit and enjoy

Place
Design for a sense of place

Time
Design to stand the test of time
HS2 Landscape Design Approach

Enhance
A landscape in which HS2 may be potentially highly valuable is likely to receive a bold landscape design approach to create effective screening and integrating, but also give the opportunity for enhancement of local landscape character.

Measures may include large scale earthworks to integrate HS2 into the landscape, acting with large scale woodland planting to integrate the railway and screen noise barriers. Connected networks can be developed to enhance and link local water bodies, streams and waterways with woodland, field and hedgerow habitats to deliver overall landscape enhancement.

Restore
HS2 may traverse a landscape that has lost or is losing original features and qualities that provided intrinsic landscape character. The opportunity is to restore and significantly improve existing landscape character.

The approach required may be gently graded earthworks that fit with distinctive local topography, whilst also providing visual screening. Extensive woodland and hedgerow planting to screens and integrate the railway whilst also rebuilding the local landscape pattern and restoring its character. Rescued cycle and pedestrian routes will help to promote connectivity.

Transform
Some areas through which HS2 is planned may be of very poor landscape condition, or are of a character less than HS2 can bring bold transformation that can also provide wider benefits and support local economies. The opportunity for HS2 to bring transformation and wider reaching positive landscape change may occur both in rural and urban locations.

Public open space for local community and businesses may be created to include a range of leisure and recreational activities. Distinctive features and avenues can be combined with water bodies and woodlands to create bold new spaces to link with the wider landscape and public rights of way networks.
Reducing visual impact - typical sections

Typical embankment

Typical section at grade

Typical section at cutting
Reducing visual impact

Current baseline – summer view

Summer verifiable photomontage – Operation year 15 (2042)
Green Overbridges

Ingestre Green Overbridge

A21 Lamberhurst Bypass land bridge (taken from HS2 Landscape Design Approach Document)
No net loss in biodiversity

“The Proposed Scheme has the objective of seeking to achieve **no net loss in biodiversity** at a route-wide level”

- The scheme design is based on a professional assessment to determine the appropriate mitigation to address its likely ecological impacts.
- Policy commitment is measured using a metric to calculate all likely losses and gains of biodiversity on the Proposed Scheme.
- Used as an accounting tool to check that the level of mitigation provided for in the hybrid Bill is appropriate.
Ancient Woodland and Ancient/Veteran trees

• Loss of 10.2ha (across 10 woodlands) and of 27 ancient/veteran trees
• Bespoke package of measures for each affected woodland totalling:
  • 77.1ha of new woodland planting
  • The translocation of up to 10.2ha of ancient woodland soils
  • Enhancement of 12.9ha of ancient woodland
• We aim to reduce the effect on woodland and ancient/veteran trees in detailed design
Ancient Woodland Compensation Planting

**Year 1:**
- Testing of donor and receptor sites (hydrology and soils)
- Ancient woodland soil translocated in late autumn/early winter to donor site

**Year 1:**
- Nurse crop planted on translocated soil at 1.5m centres
- Translocated fallen wood
- Translocated coppice stool

**Year 5:**
- Nurse crop matures
- Seedlings from translocated soil seed bank

**Year 8/10:**
- Nurse saplings thinned out to allow room for broad leaved woodland saplings to grow
- Scrub and field layer establishes
- Canopy closes

**Year 10+:**
- Early maturity
- Glades created
- Further thinning out of nurse crop as necessary

Ancient woodland site monitoring

50 years