

HS2 PHASE 2B WESTERN LEG – DESIGN REFINEMENT CONSULTATION 2020

RESPONSE OF THE INLAND WATERWAYS ASSOCIATION

Introduction

The Inland Waterways Association (IWA) is the membership charity that works to protect and restore the country's canals and river navigations for public benefit. IWA is a national organisation with a network of local branches and volunteers who work with navigation authorities, national and local government, and a wide range of voluntary, private and public sector organisations for the benefit of the waterways and their users.

The HS2 Phase 2b Western Leg Design Refinement proposals affect the Middlewich Branch of the Shropshire Union Canal in the Wimboldsley area, and the Ashton Canal and Rochdale Canal in Manchester.

This response considers the combined effects of the proposed changes in conjunction with the previous plans and suggests mitigation needed to minimise adverse impacts on the canals and their users.

General Principles

IWA's general principles for the protection of waterways impacted by HS2 are:

- Protection of Routes – No canal should be lost or blocked, whether a restoration project or a navigation in use, and where the route crosses a waterway, the waterway should be restored to a minimum of navigation standard, whether the navigation is presently extant or not.
- Navigation – There should be minimal disruption to navigation during the construction phase, and any necessary impacts should be integrated with the navigation authority's planned stoppage programmes.
- Waterway gauge - there should be no detriment to the constructed gauge of any waterway due to HS2, particularly in respect of headroom, taking account of any proposed enhancements on freight waterways. Any waterway crossings or other alterations to the waterway should comply with the appropriate navigation authority's policy of headroom over water, over towpaths, and on minimum width.
- Mitigation – wherever possible mitigation should be completed in advance of construction.
- Betterment – opportunities should be sought to achieve betterment for waterways within the planning process as compensation for environmental and heritage damage caused by HS2's construction and operation.

Engagement

IWA has engaged with HS2 since 2010 on behalf of its individual and corporate members and the wider public interest in waterways. We have commented in detail on previous Phase 2 and Phase 2b consultations in 2014, 2017 and 2018 and gave evidence to HS2 Select Committees in 2016 and 2018.

IWA responded in detail to the HS2 Phase 2b Working Draft Environmental Statement (WDES) consultation in December 2018, and to the HS2 Phase 2b Design Refinement (DR) consultation in September 2019. The DR consultation included a statistical analysis of the responses to the WDES, and a selection of quoted comments, but there was no clear identification of the major issues or explanation of how these would be addressed.

Outstanding and New Concerns

In May 2020 IWA responded to the National Infrastructure Commission's Rail Needs Assessment for the Midlands and the North. This included the main text of our previous WDES and DR responses as our concerns detailed therein remained relevant but largely unanswered. On the Western Leg these include the need to review the whole route to integrate it with Northern Powerhouse Rail and to take better account of

subsidence risks; the landscape, noise and heritage impacts on the Trent & Mersey Canal in the Dane valley north of Middlewich; and noise and visual impacts on the Middlewich Branch of the Shropshire Union Canal.

The Middlewich Branch Canal is further affected by the design changes proposed in this consultation, and some additional impacts are identified on the Ashton Canal and Rochdale Canal.

SHROPSHIRE UNION CANAL, MIDDLEWICH BRANCH

The Middlewich Branch of the Shropshire Union Canal will be affected by the Crewe North Rolling Stock Depot (RSD) over a distance of about 4 km around Wimboldsley, and by the three viaduct crossings of the canal between Park Farm and Yew Tree Farm. The historic environment of the canal within the rural landscape will be permanently degraded by the visual impact of these HS2 structures, and the users of the canal will be subject to construction and operational noise impacts.

Crewe North Rolling Stock Depot

The layout of the RSD is now shown on the Proposed Scheme and Construction Phase plans and its overall size has increased from 60 to 65 ha, with the inclusion of a satellite Infrastructure Maintenance Base-Rail (IMB-R). There are still no elevation sections or plans to indicate the height or appearance of the RSD buildings, despite promises to the local MP to do so in 2018, but they are likely to be visible over long distances in this relatively flat landscape, including from the Middlewich Branch Canal. The visualisation of the View east from Wimboldsley Footpath 9 show that the Main RSD Maintenance Shed and the Auxiliary Maintenance Shed will be visible from the canal above the screen planting alongside the West Coast Main Line (WCML). Depending on their height, the Accommodation Building and the Traction Substation may also be visible.

Extensive earth bunding with screen planting on top is shown on the east side of the HS2 main line, to protect areas further east. But the planting along the west side the WCML, nearest the Middlewich Branch Canal, is not raised on any bunding, and north of Wimboldsley Grange is reduced to a single line of trees. The northern part of the RSD is partly screened by internal planting around the Traction Substation but again this is not on raised bunding so its effectiveness as visual and noise screening is not clear.

The consultation acknowledges (at 2.34) that:

- the larger depot would increase the visual impacts on ... users of the Shropshire Union Canal Middlewich Branch;

Canalside Habitat Creation

The 2018 WDES plans showed 'woodland habitat creation' planting in a narrow corridor extending along the offside of the Middlewich Branch Canal for over 2km between Canal Cottage near Wimboldsley and the WCML canal bridge. Such extensive woodland planting would have changed the whole character of a long section of the canal that currently enjoys open countryside views, to an enclosed woodland outlook on one side. It was not clear if this was meant to provide visual screening of the RSD or if it was just compensatory habitat planting, although its absence between the WCML and HS2 canal crossings suggested the latter.

On the new plans most of this area is now shown as 'grassland habitat creation' with just four smaller areas of woodland planting, of which two are based on expansion of existing canalside woods. This answers our concerns about visual enclosure, and the visual change from canalside agricultural grassland to grassland habitat will be limited, so this change is acceptable.

East of the canal viaducts, by Yew Tree Farm, further areas of grassland habitat creation are shown on either side of the canal, backed by woodland planting on the south side. The woodland here has been reduced in extent but will still provide screening of views south towards the RSD and, being set back from the canal edge, is acceptable. However, the access track to a balancing pond circles the pond to a turning head right against the canal which seems unnecessarily intrusive, and should be cut back to terminate away from the canal.

Mitigation

The habitat creation changes appear to confirm that the original proposal was not about screening of the RSD. However, as noted above, the RSD buildings will be visible from the canal over a distance of about 4

km and further screening is needed. This is most effectively provided nearest the source, and earth bunding topped with planting located close to the RSD, just west of the WCML, would provide better visual and noise screening for both the canal and other properties. North of Wimboldsley Grange similar planted bunding should be provided around the western edge of the RSD in a more continuous and coherent manner than currently proposed, as far as the Clive Green Lane Realignment.

This would improve the visual and noise screening of the buildings and operation of the RSD for users of the canal, and of the wider landscape setting of the canal, and also benefit nearby properties. More details of the height and design of the RSD buildings, appropriate visualisations and noise modelling are all needed to assess how effective such screening will be and appropriate dimensions. Also, given the long timescale for maturity of planting, this should be scheduled as advance works.

Shropshire Union Canal Viaducts

The previously proposed two crossings of the canal are now increased to three to provide for the Crewe Northern Connection, which will further increase their impact on the canal. They are also changed from underbridges to viaducts, and that for the southbound HS2 tracks will be up to 7.8m high. Although the height of the other viaducts is not given they will need to provide a minimum 3m air draught clearance over the canal.

The consultation acknowledges (at 2.33) that:

- the construction of the crossings of the Shropshire Union Canal would lead to the temporary loss of deciduous woodland habitat either side of the canal;
- users of the Shropshire Union Canal Middlewich Branch would notice changes in views during the construction and operation of the additional canal viaduct. This would change the character associated with the canal, restricting longer distance views;
- operational noise and the movement of trains on embankment and viaduct will change the sense of tranquillity associated with the Shropshire Union Canal Middlewich Branch and the setting of historic assets within the landscape;

The change from single span bridges to what are presumed to be multi-span viaducts may help maintain some open views from the canal, depending on the spans of the viaducts and the design and orientation of the piers. However, the overall visual impact of more and higher crossing structures will be greater, and their noise impacts are potentially greater, depending on how adequate is the provision of noise fencing.

The viaducts will also impact on the setting of the historic canal bridge, Hughes Bridge 25, which is Grade II Listed, and IWA notes that the balancing pond near Park Farm has now been removed to allow for more screen planting of the railway, as we requested.

Mitigation

Whilst some changes will be unavoidable, every effort should be made to mitigate the adverse visual and noise impacts by sympathetic design of the viaducts and provision of integral noise barriers to help protect the heritage and the recreational use of the canal. The design of the viaducts is unknown but should follow the Canal & River Trust (CRT) design principles accepted for Phase 1. Consultation on the detailed designs with IWA and CRT should be undertaken at as early a stage as possible.

Construction of the viaducts will require canal closures for unknown periods affecting boaters and users of the towpath, and may need temporary canal bridges. This is a very well used section of canal, forming part of the popular Four Counties Ring canal route, and any prolonged closure would significantly affect many canal businesses, especially hire boat companies. Therefore, any 'stoppages' causing disruption to canal traffic should entirely avoid the busy March to October period, and any temporary navigation closures over the winter period should be kept to a minimum of a few hours, or at most a few days with several months advance warning.

There are about 15 offside boat moorings at Park Farm some of which will be directly lost under the viaducts, and others may be lost due to construction works and the long-term degradation of their currently tranquil setting. Compensation should be provided. The popular visitor towpath moorings at Yew Tree Farm will also be badly impacted during construction, and noise mitigation should be provided to limit operational impacts.

Noise

The previous Operational Noise Contour Maps showed no noise fencing in the vicinity of the canal and predicted noise levels in the 'red' zone of 'significant effect'. The RSD will be a 24-hour operation and there will be late evening and early morning train movements into and out from the depot across the canal viaducts outside the normal operating hours of the HS2 main line, as well as overnight maintenance train movements from the addition of the IMB-R. These this will further increase the noise impacts on the canal and its users.

IWA considers that all canal users should be provided with noise protection from HS2 trains at all canal interfaces. This requires acoustic fencing across the canal viaducts, continuing onto the adjacent embankments, to at least the same standard as would be provided for residential properties at that location.

Clive Green Lane Realignment

The Clive Green Lane Overbridge has been moved and the road diversion extended to include a new crossing of the Middlewich Branch Canal in close proximity to the historic canal bridge, Clive Green Bridge 24. Its design should respect the architectural tradition of Shropshire Union Canal bridges, and provide a minimum 3m air draught clearance over the canal. Construction of the Offline Overbridge and its approach embankments will have visual and noise impacts on canal users, and any temporary canal closures of the navigation or towpath should avoid the busy March to October period and be kept to a minimum, as above.

Access to the canal towpath for pedestrians and cyclists from Clive Green Lane should be provided, either via the historic canal bridge or a ramped access from the new bridge.

The long term changes to the canal's setting and environment from the presence of the new canal bridge and from views of the embankment and bridge over the HS2 and RSD tracks should be mitigated as far as possible by landscape planting.

Other Impacts

There will be other more-distant visual and noise impacts on the canal from the construction and presence of the large overbridge and embankments for the A530 diversion, and the landscape mitigation planting should take account of this.

There will also potentially be light pollution along the canal from the night-time lighting of the RSD, which could affect the habitat and behaviour of bats, birds and other wildlife. Lighting should be internally directed and avoid undue light spillage in the surrounding area.

ASHTON CANAL & ROCHDALE CANAL

Manchester Piccadilly Station

The proposed major changes to increase the size of Manchester Piccadilly High Speed Station will bring it closer to the Aston Canal, with the Main Construction Compound extending right up to the Aston Canal, and road closures and works in the surrounding area further affecting the Ashton Canal and the Rochdale Canal.

The consultation also acknowledges (at 2.75) that:

- During the operation of the railway, it is likely that both options would have an impact on habitats within and around the Rochdale and Ashton Canals. Work will continue to minimise these impacts via design development and the inclusion of suitable mitigation.

There will also be impacts on the users of the canal during construction and operation. Although this is an urban area where a greater level of background noise is expected, any major increase due for example to pile driving or overnight construction works would impact on canal users generally, and in particular on the popular overnight moorings on the closest sections of both these canals.

Mitigation

The Main Compound adjoining the Ashton Canal off Store Street should have substantial noise fencing to protect canal users and the canal's habitat. Other measures to limit construction and operational noise impacts on areas around the station should recognise canal users as 'receptors' in all noise assessments.