

HS2

Environmental Sustainability Progress Report

2024 – 2025

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Cover image: Drone stills from the River Thame mitigation site near Aylesbury, showing the ponds, meadow flowers and tree growth.

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Image: Visualisation of Chiltern tunnel south portal.



Executive summary

This report looks at our work embedding environmental sustainability into the design and construction of HS2, Britain's new high-speed railway.

It is our fifth HS2 Environmental Sustainability Progress Report and covers our work between April 2024 to March 2025. The report centres on data for the London – West Midlands route.

While we progress with building the London – West Midlands route, the programme is being reset to establish a new cost estimate and schedule that is realistic and achievable. The reset is being led by our new CEO Mark Wild, who was brought in at Crossrail and put it on a path to being successfully launched as the Elizabeth line.

Resetting a major programme like HS2 – at this stage of construction – is common in the global infrastructure industry. We are working back from the launch of the operational railway to make sure the building blocks of the scheme are in the correct sequence.

The programme reset will redetermine what we build and how we build it – our delivery strategy. Once complete it is right that we will update our environmental commitments and targets to reflect the new programme.

While the programme is reset, we will continue to deliver on our environmental sustainability vision today – driving environmental performance across live construction works and design.

We must ensure that we unlock the benefits HS2 will bring while meeting our environmental responsibilities: using new methods and materials to cut carbon emissions and build a climate-resilient railway for zero carbon travel.

Progress continues towards our goal of reducing carbon emissions by 50% and to date we've achieved a reduction in carbon of 33.8% against the baseline, narrowly missing our 24/25 target of 35.7%. This is largely as a result of programme-wide updates such as timings of the rail systems contracts procurement. Within our active contracts, notably our main works civil contracts and stations contracts, carbon reductions continue to be an ongoing focus. These contract areas are forecasting a 42% and 41.4% carbon reduction respectively against the 50% targets showing the scale of ambition. We continue to work across the construction industry to drive innovations and efficiencies.

Regarding biodiversity, we are reporting a biodiversity net gain position for two of the measures used within the calculation – hedgerows at +22.0% and watercourses at +9.49% – and have continued to reduce the deficit for area-based habitats from the last reporting period, from -2.49% to -1.34%. Ways to improve our scores continue to be sought through design and improved ways of working.

The project remained in the peak construction stage over the past year and 99.8% of all construction and demolition waste was diverted from landfill, surpassing our 95% target. We responsibly sourced 99.9% timber and 100% steel and concrete in 2024 – 2025, continuing our commitment to obtain and consume materials responsibly.

This report has been prepared with reference to Global Reporting Initiative (GRI) Standards[1], the world's most widely used framework for sustainability reporting. BSI Group[2] has provided independent assurance of data, with their assurance statement on page 40. The UN Sustainable Development Goals (SDGs) represent 17 social, economic and environmental priorities, designed to combat our global challenges. Our contribution to the SDGs is shown in the section called Our Performance.

[1] **https://www.globalreporting.org/**
[2] **https://www.bsigroup.com/**

Our performance at a glance

1.34%
is outstanding against our biodiversity baseline in area-based habitats for the London – West Midlands route.

22%
forecasted increase in biodiversity units associated with hedgerows.

9.49%
forecasted increase in biodiversity units associated with watercourses.

33.8%
forecast carbon emissions reduced to date, contributing to our 50% target for the London – West Midlands route.

99.98%
of non-road mobile machinery registrations (e.g. excavators) compliant with air quality standards.

99.99%
of heavy goods vehicles trips (e.g. lorries) compliant with air quality standards.

99.5%
of light duty vehicles trips (e.g. vans) compliant with air quality standards.

0
number of the most serious level 1 environmental incidents.

99.9%
of timber, steel and concrete responsibly sourced.

99.8%
of construction and demolition waste diverted from landfill.

100%
of historic environment data (for completed fieldwork) provided to local council Historic Environment Records.

1,102,568
trees and shrubs planted on HS2's green corridor between London and the West Midlands since 2017.

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Image: Bees on a flower on an EKFB environmental mitigation site.

Our commitment

Environmental sustainability is part of our overall commitment to sustainability and is fundamental to our strategic goal for HS2 to 'create an environmentally sustainable solution and deliver respectfully to people and places'. It is key to our Environmental Sustainability Vision to provide 'zero carbon rail travel for a cleaner, greener future'.

Our environmental sustainability commitment is made up of five key areas, which form our environmental sustainability objectives for HS2. They are:

- HS2 green corridor;
- climate change;
- community experience;
- historic environment; and
- responsible consumption and production.



Students at Corley Academy planting trees donated by HS2 Ltd as part of the Queen's Green Canopy initiative.

Our environmental sustainability objectives



HS2 green corridor

We will create a resilient green corridor for both nature and people, that will conserve and enhance habitats, seek to achieve biodiversity gains through partnership working while designing mitigation to integrate into the character of the landscape.



Climate change

We will minimise the carbon footprint of HS2 towards a goal of net zero carbon emissions, build a network that is climate resilient for the long term, and deliver zero carbon journeys from day one of operation.



Community experience

Where reasonably practicable, we will minimise adverse impacts of HS2 construction and operation on people and the environment, including effects from air pollution, flooding, and noise and vibration.



Historic environment

We will reduce harm to the historic environment and deliver a programme of heritage mitigation, including knowledge creation through investigation, reporting, engagement and archiving.



Responsible consumption and production

We will promote circular economy principles, responsibly source and make efficient use of sustainable resources, reduce waste and maximise the proportion of material diverted from landfill.



Once the HS2 reset is complete, we will review our environmental commitments considering the new programme.

Our approach

Governance

Our governance regime for environmental sustainability was covered in our **2022 – 2023 progress report** and remained largely the same in 2024 – 2025, except we have removed the management Environmental Performance Review meeting following a governance review, but continue to oversee environmental performance through our Executive Board level Environmental Sustainability Committee. The governance regime will be further reviewed in 2025 as part of the wider programme reset.

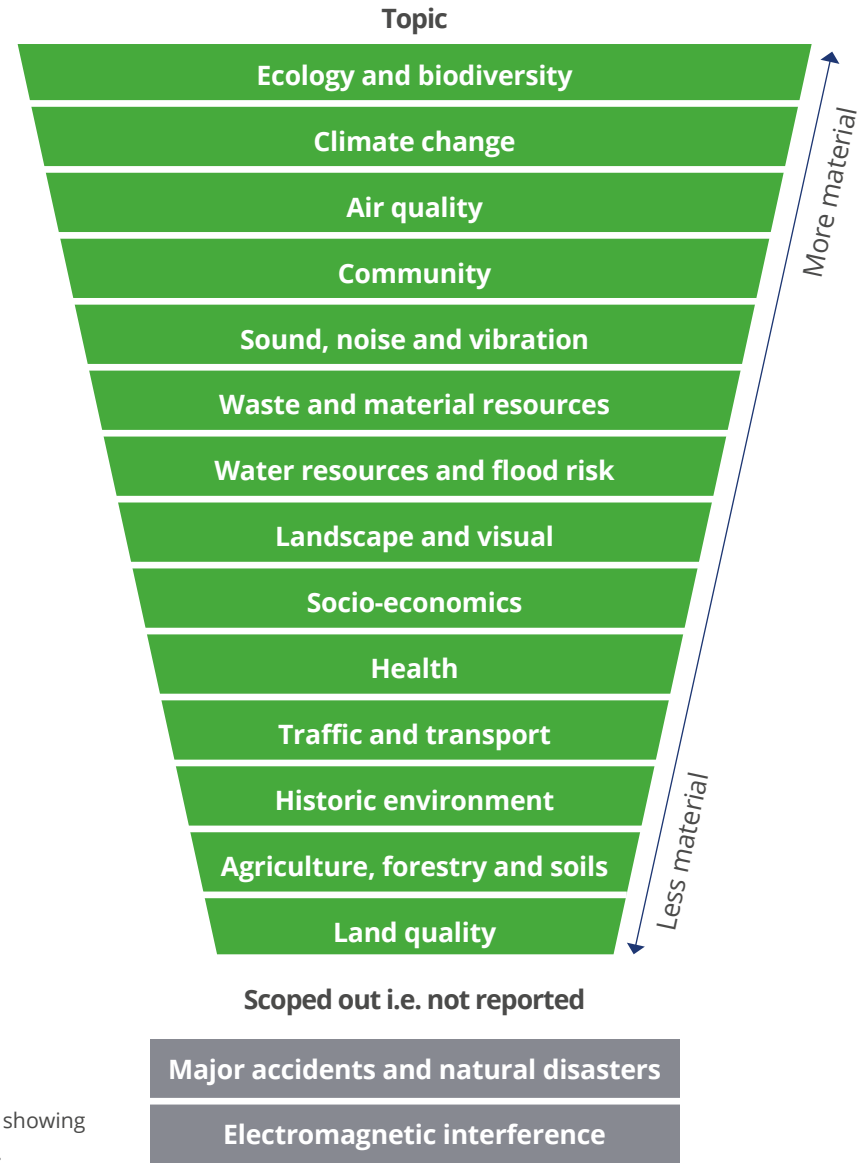
Prioritising environmental sustainability topics

We need to identify the environmental topics that are most important to the high-speed railway. They are the environmental areas where we are most likely to have a significant impact and the areas that potentially affect the project. We call this process our materiality assessment and our material topics form the basis of what we report on.

In 2023, we updated our materiality assessment to align with the 2023 Global Reporting Initiative (GRI) Standards. The materiality assessment can be found in our **2022 – 2023 progress report**.

Stakeholder and community engagement

As a large infrastructure project, it is important we continue to work with local communities and understand their concerns, particularly those directly affected by the new railway. We work closely with our environmental stakeholders to make sure we respect people and places in our decision-making and actions. Our **2022 – 2023 progress report** details our stakeholder groups and how we engage with them. We have continued to engage with all these groups in the past year, for example working with the Rail Safety and Standards Board through their Sustainable Rail Executive.



Output of our materiality assessment showing material topics and scoped out topics.

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Image: Colne Valley viaduct, February 2025.



Scope and methodology

The following pages include our environmental sustainability performance for 2024 – 2025, presented as data.

We have reported on our performance in line with our environmental policy objectives and separately on 'cross-topic' data:

- HS2's green corridor;
- climate change;
- community experience;
- historic environment;
- responsible consumption and production; and
- cross-topic data.

Where applicable, we have provided a summary table after each data table, comparing progress with our data for 2020 – 2021, 2021 – 2022, 2022 – 2023 and 2023 – 2024.

Note on cross-topic data

We have also reported on cross-topic data, which refer to a group of environmental requirements that aren't specific to a single objective. They include BREEAM assessments of our built environment and environmental incidents such as disturbances or damage.

Reporting period

The reporting period covers April 2024 to March 2025. However, due to the way data is reported by our main reporting platform, the data used is from March 2024 to February 2025, unless otherwise stated. This is in line with our annual corporate reporting period.

Data collection and calculation

Notes explaining the methodology we use for data collection and calculations are included next to the relevant data tables.

Scope

Data has been grouped into two categories:

- main works civils contractors (MWCCs) – SCS Joint Venture (JV), Align JV, EKFB JV and BBV JV; and
- stations – Euston, Curzon Street and Old Oak Common. Our station at Interchange, Solihull, is still at the design stage and is only included in the BREEAM Buildings data.

The data only refers to live contracts. When new contracts are awarded, they will be included in the relevant data. The only exception is the whole-life carbon footprint dataset: for contracts not yet, or recently awarded, we only include the baseline information i.e. the carbon footprint before any carbon reduction activity is undertaken.

Scope and methodology

The table below shows the location of the works being undertaken by our construction partners.

The location of works being undertaken by HS2 Ltd construction partners

Contract type	Partnership	Contractors	Geographic cover of works
EWC (enabling works contracts)	CS JV	Costain Group Plc, Skanska Construction UK Ltd	Within M25
	Fusion	Morgan Sindall Construction & Infrastructure Ltd, BAM Nuttall Ltd, Ferrovial Agroman (UK) Ltd	Leamington Spa, Warwickshire to M25
	LM JV	Laing O' Rourke Construction, J Murphy & Sons	Birmingham to Leamington Spa
MWCC (main works civil contracts)	SCS JV	Skanska Construction UK Ltd, Costain Group Plc, STRABAG SE	Within M25
	Align JV	Bouyges Travaux Publics, Volkerfitzpatrick, Sir Robert McAlpine	Chiltern tunnel and associated works
	EKFB	Eiffage, Kier, Ferrovial Construction and BAM Nuttall	Leamington Spa to M25
	BBV JV	Balfour Beatty Group, VINCI Construction UK Ltd	Birmingham to Leamington Spa
Stations	MD JV	Mace Limited and Dragados SA.	Euston station, London
	BBVS	Balfour Beatty Group Ltd, VINCI Construction UK Ltd, VINCI Construction Grands Projects SAS and SYSTRA Ltd	Old Oak Common station, west London
	MD JV	Mace Limited and Dragados SA.	Curzon St station, Birmingham

External assurance

'Reasonable' assurance on the key performance indicators for environmental sustainability performance data has been provided by BSI Group. We have also included our independent assurance statement in this report. Where some key performance indicators were not verified by BSI Group, we have provided justification for this decision in the notes section of these KPIs.

Frameworks and standards

Our environmental sustainability data has been prepared with reference to the GRI Standards: Core option. The GRI index on page 43 can be used as a reference for our disclosures against the relevant requirements.

The United Nations Sustainable Development Goals (UN SDGs) are 'a blueprint to achieve a better and more sustainable future for all'. They represent 17 social, economic and environmental priorities designed to combat the global challenges facing humanity by 2030. As Britain's biggest build, HS2 has an important part to play in the UK's progress toward the UN SDGs. Under each commitment, we have included the UN SDG that our work contributes to.

The GRI index and UN SDGs are outside the scope of BSI Group verification.

HS2 green corridor

Creating a resilient green corridor for both nature and people that will conserve and enhance habitats and seek to achieve biodiversity gains through partnership working, while designing mitigation to integrate into the character of the landscape.

Contributing to UN SDG:



Data tables and notes

Performance commentary

Our target of achieving No Net Loss (NNL) in biodiversity, and seeking net gains, is made up of three measures: area-based habitats, hedgerows and watercourses. We are reporting a net gain for two of these measures (hedgerows and watercourses) and have continued to make progress in improving our position in regard to area-based habitats from our March 2024 position, reducing the deficit by over 1%. Work continues to improve our scoring and to engage with Natural England who are in the process of producing an Evaluation Report on our NNL ambition – the first of its type to be published in the UK.

This year, we've continued to plant trees and shrubs along the London – West Midlands route with 153,078 being planted, contributing to over 1.1 million trees planted to date.

So far, the £5 million Phase One Woodland Fund has awarded £2,149,205 worth of funding to 47 projects, allowing for approximately 177 hectares of woodland creation and 70 hectares of plantations on ancient woodland sites (PAWS). Over 420,000 trees have now been planted through this fund.

HS2 green corridor

Biodiversity accounting process

Phase One

Date	Habitat group	Pre-construction Area (ha) / Length (m)	Pre-construction Biodiversity units	Post-construction Area (ha) / Length (m)	Post-construction Biodiversity units	Summary Area (ha) / Length (m) difference (pre- vs post-)	Summary Biodiversity unit difference (pre- vs post-)*	Summary **% change in biodiversity units**
2017 baseline	Area-based habitats	6,775	22,059	6,777	20,484	2	-1,575	**-7.14%**
	Hedgerows	448,148	929,086	403,441	856,289	-44,707	-72,797	**-7.84%**
	Watercourses	76,371	139,902	78,063	146,143	1,692	6,241	**4.46%**
December 2022 update	Area-based habitats	6,462	20,649	6,473	19,097	10	-1,552	**-7.52%**
	Hedgerows	450,353	1,006,734	501,27	1,058,053	50,925	51,319	**5.10%**
	Watercourses	75,842	138,960	79,407	135,436	3,565	6,476	**4.70%**
March 2024 update	Area-based habitats	6,741	22,689	6,745	22,125	4	-564	**-2.49%**
	Hedgerows	444,443	931,980	546,956	1,175,036	102,513	243,056	**26.1%**
	Watercourses	77,950	143,368	84,728	154,258	10,890	6,779	**7.60%**
March 2025 update	Area-based habitats	6,872	22,878	6,879	21,988	7	-299	**-1.34%**
	Hedgerows	458,193	969,862	539,095	1,183,277	80,903	213,415	**22%**
	Watercourses	85,033	156,109	92,629	170,926	7,595	14,817	**9.49%**

*The biodiversity unit difference is the difference in biodiversity units as calculated before construction of the railway (pre-construction) compared with completion of the railway (post-construction). It is based on the design at that point in time. As the design evolves and improvements or savings are made, this number will change.

Notes:

Our biodiversity KPI

- We are seeking no net loss in biodiversity, excluding irreplaceable habitats such as ancient woodlands, across the London – West Midlands route. To measure progress towards our goal, we developed a modified version of the Department for Environment, Food & Rural Affairs' (Defra) pilot biodiversity offsetting metric, in consultation with Defra and Natural England. It is called the HS2 metric. The HS2 metric uses habitats as a proxy for considering losses and gains of biodiversity and measures these losses and gains in biodiversity units.
- Industry guidance has evolved since we started reporting our biodiversity accounting figures. To align with this, in addition to reporting on area-based habitats, we also now report our biodiversity accounting figures for hedgerows and watercourses.
- More information about our biodiversity targets is outlined in the HS2 Environmental Sustainability Vision.

HS2 green corridor

Methodology

- The HS2 metric has been used to calculate the figures shown above. The metric has not been used to define the level of biodiversity compensation that has been included in the scheme. It has been used as an accounting tool and applied to the habitats present pre- and post-construction. It allows us to compare the losses and gains in biodiversity units due to HS2. This accounting process has been referred to as the no net loss calculation. For more information, see the **HS2 London – West Midlands, No net loss in biodiversity calculation report**.
- Ancient woodlands are irreplaceable. For this reason, any measures that could be seen as an attempt to compensate for their loss are not included in our calculation. HS2's impact on ancient woodlands is the subject of separate reporting in the **HS2 Ancient Woodland reports**.
- The metric calculates losses and gains to biodiversity on a route-wide area basis, except for linear features, like hedgerows and watercourses. Separate calculations are made for these based on the length of the habitats affected. Further details are provided in the **HS2 London – West Midlands, No net loss in biodiversity calculation report**.
- Methods are outlined in **the scope and methodology report addendum** (page 364) that accompanies the Environmental Statement of HS2.

Limitations

- The biodiversity accounting data represents a snapshot in time. Contractors are still progressing design work.
- Biodiversity gains are considered by contractors throughout the design stage, but the calculation of biodiversity accounting is only realised at the end of the design stage. Only assets which have reached an approved design stage have been taken into account.
- Contractors undertake and complete different stages of design using different timescales. This means the level of maturity of design and the resulting figures are not consistent across Phase One. For example, some design elements have completed proposed scheme design while other elements have completed detailed design or 'as-built' design.

Number of trees and shrubs planted

Year	Trees planted	Trees replaced	Net trees planted
2017/18	218,624	-	218,624
2018/19	125,852	6,553	119,299
2019/20	169,850	45,125	124,725
2020/21	271,707	30,405	241,302
2021/22	164,991	24,087	140,904
2022/23	119,563	73,936	45,627
2023/24	91,517	32,508	59,009
2024/25	**212,552**	**59,474**	**153,078**
Total	**1,374,656**	**272,088**	**1,102,568**

HS2 green corridor

Notes:

Methodology

- The annual planting season is from November to March. During this season we also replace trees that fail to grow in line with site-specific maintenance monitoring and management plans to ensure that the original tree planting specification is being maintained.
- HS2 Ltd's approach to tree planting and woodland creation was based on industry standard guidance on the processes of plant handling and establishment for large scale planting projects.
- Failures in saplings should be expected in the early years following planting. Aligning to industry-wide guidance, HS2 Ltd expects typical failure rates of new tree and shrub planting across its construction sites to be within the industry best practice range of 5-15% (this being in a typical climatic year). However, during prolonged periods of lower-than-expected rainfall, it would be expected that failure rates can be higher. Given numerous summer drought conditions since HS2 planting commenced, higher failure rates in newly planted trees are not to be unexpected. It should be noted that, due to the typical industry-wide failures of a proportion of newly planted trees and the variations in seasonality, the Forestry Commission advise that the success of any tree planted areas is best assessed after five years from initial planting, when the plantation should, by then, be as near to 100% of the original planting intention.
- The HS2 assumption about the number of trees planted is that every sapling delivered to site is being planted, unless donated to local community. The latter figure is excluded from the data table as it does not contribute to the HS2 green corridor objective.
- Due to the large scale of HS2 planting, the watering of new plants is not undertaken. Replacing plants lost, is considered a more cost-effective solution and a far more ethical use of water resources during dry summer conditions.
- The published **HS2 Information Paper E26**, describes the minimum periods for the management and monitoring of habitats.

Woodland Fund

Phase One Woodland Fund £5m	Schemes	Value	Creation area (Gross area of woodland creation)	PAWS* area (Gross area for PAWS restoration)	Total tree numbers
Committed – agreement in place or offered, application approved, in progress or received	23	£1,151,125	108ha	6.15ha	164,966
Completed – interim or final claim received or paid	47	£2,149,205	176.47ha	69.63ha	420,871

*Plantations on Ancient Woodland Sites, or PAWS (previously referred to as Ancient Woodland Restoration), are ancient semi-natural woodlands that have been felled and replanted with other tree species, typically non-native trees, such as spruce, fir and larch.

Notes:

About this KPI

The HS2 Woodland Fund provides funding to create native woodland or restore plantations on ancient woodland sites near to the HS2 route. This is in addition to trees planted as part of our mitigation planting. The HS2 Woodland Fund is now closed for applications.

Methodology

- This data presents our progress to-date and refers to Phase One as of end of March 2025.

Definitions

- Committed: New woodland creation or ancient woodland restoration projects where funding has been allocated, either firmly or tentatively. These projects have not yet been delivered. This category also includes restoration projects that are underway or where we have received or approved an application.
- Completed: New woodland creation or ancient woodland restoration projects that have been completed since the start of the Woodland Fund scheme.
- PAWS: plantations on ancient woodland sites.

Climate change

Minimising the carbon footprint of HS2 towards a goal of net zero carbon emissions, building a network that is climate resilient for the long term, and delivering zero carbon journeys from day one of operation.

Contributing to UN SDG:



Data tables and notes

Performance commentary

The corporate KPI target for 2024 – 2025 was to achieve a 35.7% forecast reduction in carbon emissions against the carbon baseline by the end of March 2025. Across the project we have achieved an overall reduction of 33.8% to date. We have continued to make progress on reducing emissions associated with the project compared to previous reporting years. While we have not met the corporate target, this is largely as a result of programme-wide updates such as timings of the rail systems contracts procurement. Within our active contracts, notably our main works civil contracts and stations contracts, carbon reductions continue to be an ongoing focus. These contract areas are forecasting a 42% and 41.4% carbon reduction respectively against the 50% targets showing the scale of ambition on the HS2 project. We continue to work across the construction industry to drive innovations and efficiencies.

Climate change

Whole-life carbon footprint – progress against targets per contract

Contract type	Contractor	Total carbon reduction target	Baseline carbon footprint (tCO_2e)	Current carbon footprint (tCO_2e) March 2025	Current percentage reduction against baseline March 2025
Enabling works contracts	CS JV	–	0	0	N/A
	Fusion JV	30%	11,070	7,630	31.1%
	LM JV	30%	137,755	92,900	32.6%
Main works civils contracts	SCS JV	50%	1,399,449	837,103	40.2%
	Align JV	50%	996,479	556,156	44.2%
	EKFB JV	50%	3,978,436	2,420,169	39.2%
	BBV JV	50%	4,148,208	2,293,373	44.7%
Stations	Euston (MD JV)	50%	710,479	416,746	41.3%
	Old Oak Common (BBVS JV)	50%	601,845	371,243	38.3%
	Interchange Station (Arup)	50%	193,976	102,469	47.2%
	Curzon Street (MD JV)	50%	158,151	84,137	46.8%
Rail systems	Track	50%	2,479,692	2,415,857	2.6%
	Calvert IMD	50%	118,006	99,765	15.5%
	Overhead catenary system (OCS)*	50%	32,468	32,468	0.0%
	Cross passage doors (CPD)	50%	4,237	2,171	48.8%
	Washwood Heath	50%	156,237	148,728	4.8%
	Tunnel Mechanical & Electrical systems*	50%	185,277	185,277	0.0%
Rolling stock	Rolling Stock (Hitachi-Alstom)	See notes	2,215,861	1,540,945	30.5%
Programme to date total		**50%**	**17,527,626**	**11,607,137**	**33.8%**

*Carbon data not yet available. Contracts either not yet awarded or at an early design stage, hence 0% progress against targets reported.

Climate change

Year-on-year progress comparison

Year	Contractor	Total carbon reduction target by contract	Baseline carbon footprint (tCO_2e)	Carbon footprint at the end of the reporting period (tCO_2e)	Percentage reduction against baseline at the end of the reporting period
2020/21	Phase One total	50%	14,544,000	10,855,000	25.4%
	Phase 2a total	50%	478,000	478,000	0%
	Programme to date total	50%	15,022,000	11,333,000	24.6%
2021/22	Phase One total	50%	14,488,000	10,934,000	24.8%
	Phase 2a total	50%	564,000	564,000	0%
	Programme to date total	50%	15,052,000	11,498,000	23,6%
2022/23	Phase One total	50%	16,356,677	11,521,580	29.6%
	Phase 2a total	50%	2,158,329	1,792,525	16.9%
	Programme to date total	50%	18,515,006	13,314,105	28.1%
2023/24	Phase One total	50%	16,203,932	10,944,407	32.5%
	Phase 2a total	50%	2,158,329	1,796,207	16.8%
	Programme to date total	50%	18,362,261	12,740,614	30.6%
2024/25	**Programme to date total**	**50%**	**17,527,626**	**11,607,137**	**33.8%**

Notes:

About this KPI

- No permanent HS2 assets were constructed by CS JV, therefore a carbon footprint calculation is not required.
- The rolling stock is subject to a carbon target/limit. However, it is not expressed as a percentage. More information about the carbon reduction target/limit is available in the **Train Technical Specification document** (section TTS-847, page 73).
- The tables above show the contract types with baselines produced to date.
- Carbon reduction targets apply to the whole-life carbon footprint and are to be delivered during the contract period.
- Rail systems include: track, overhead catenary system, tunnel and lineside mechanical and electrical equipment, Calvert infrastructure maintenance depot and Washwood Heath depot and control centre.
- The Phase 2a data has been removed from this year's ESPR as, since the cancellation of Phase 2 in October 2023, whole-life carbon footprint only refers to the Phase One route, between Birmingham and London.

Methodology

- The carbon data has been quantified in accordance with best practice industry standards (e.g. BS EN ISO 14040, BS EN ISO 14044, BS EN 15978).

Limitations

- The carbon data represents a snapshot in time. Main works civil contractors and station contractors are still progressing design work while rail systems values are based on anticipated carbon emissions at the start of their contracts.

Climate change

Energy and fuel consumption data

Contract type	Contractor	Total grid electricity kWh	Onsite renewables kWh	Petrol (100% mineral) litres	Petrol (average fuel blend) litres	Diesel (white/ average biofuel blend) litres	Gas oil (red diesel) litres	LPG litres	Hydrogen litres	HVO litres	Other fuel types kWh	Other fuel types litres
MWCC	Align JV	14,818,230	0	0	7	882,535	0	0	85	2,937,958	0	0
	BBV JV	24,197,102	9,777	10	107,546	24,063,328	0	366,236	193,519	0	417,459	0
	EKFB JV	2,633,764	0	23	20,397	29,979,865	0	0	15,283	0	0	0
	SCS JV	49,754,089	0	0	7,056	0	1,632,596	0	0	4,394,253	0	0
Stations	BBVS JV	1,753,446	97,132	0	0	596,266	0	0	4,480	0	0	0
	MD JV (Curzon Street station)	362,967	0	0	0	17,400	22,670	0	0	149,392	0	0
	MD JV (Euston station)	852,699	0	0	0	22,341	3,375	0	0	21,415	0	0
Total Phase One contracts		**94,372,297**	**106,909**	**33**	**135,006**	**55,561,735**	**1,658,641**	**366,236**	**213,367**	**7,503,018**	**417,459**	**0**

Climate change

Year-on-year progress comparison

Year	Contract type	Total grid electricity kWh	Onsite renewables kWh	Petrol (100% mineral) litres	Petrol (average fuel blend) litres	Diesel (white/ average biofuel blend) litres	Gas oil (red diesel) litres	LPG litres	Hydrogen litres	HVO litres	Other fuel types kWh	Other fuel types litres
2020/21	Total Phase One contracts	1,038,184	4,323	16,686	47,091	1,400,483	9,289,152	1,175	0	-	104,874	16,402
2021/22		22,454,371	3,682	26,314	44,697	2,436,122	23,308,065	297,331	2,560	-	368,167	3,051,854
2022/23		65,326,924	10,094	3,917	42,945	41,820,083	3,169,106	455,205	595	-	36,469	10,234,193
2023/24		103,872,894	158,139	2,449	12,948	38,773,096	384,331	358,375	36,092	9,068,495	473,018	0
2024/25		**94,372,297**	**106,909**	**33**	**135,006**	**55,561,735**	**1,658,641**	**366,236**	**213,367**	**7,503,018**	**417,459**	**0**

Notes:

Definitions

- Petrol (average fuel blend): standard grade petrol sold in the UK contains a blend of just under 5% bioethanol and about 95% petrol.
- Diesel (average biofuel blend): the most common biodiesel blend is B20, which ranges from 6% to 20% biodiesel blended with petroleum diesel. However, B5 (a biodiesel blend of 5% biodiesel and 95% diesel) is also commonly used in fleet vehicles.
- LPG: liquefied petroleum gas.
- Total grid electricity comprises of conventional grid electricity and grid electricity from zero carbon tariffs.
- The 'Other' categories include natural gas received through the gas mains grid network in kWh.

More information about the supply of renewable road fuels in the UK is on the **renewable fuel statistics** webpage.

Community experience

Minimising the adverse impacts of HS2 construction and operation on people and the environment including effects from air pollution, flooding, and noise and vibration.

Contributing to UN SDG:



Data tables and notes

Performance commentary

There has been high compliance with HS2 emission standards for all machinery and vehicles during this year. NRMM was 99.98% compliant, HGVs 99.99% compliant and LDVs (e.g. vans) 99.5% complaint. There has been continued deployment of cleaner machinery being used across our sites, including the use of battery power, renewable energy and hydrogen fuel cell technology. There has also been an increase in zero emission HGV and LDV movements across our route.

The overall allocation of £19.52m from the pot of £40m for the Community and Environment Fund (CEF) / Business and Local Economy Fund (BLEF) for Phase One represents spend of 49% of the total available budget. The funds were launched in early 2017 and spend is on track at the end of the eighth year of the programme (which is scheduled to be open for applications for the duration of the construction period, plus the first year of operation).

There have been 16 noise trigger level exceedances across Phase One noise monitored sites in 2024/25. The number of exceedances is considered to be very low when compared to the number of noise monitors deployed across Phase 1 (205 monitors) and construction activities occurring. The low number of exceedances highlights that construction activities are being controlled through the implementation of Best Practicable Means (BPM) in order to reduce the noise impacts from works.

Community experience

Air Quality

Non-road mobile machinery (NRMM)

Contract type	Contractor	Target proportion of NRMM that meets HS2's emission standards Percentage	Proportion that was compliant in 2024/25 Percentage
MWCC	Align JV	100%*	100%
	BBV JV	100%*	99.92%
	EKFB JV	100%*	99.93%
	SCS JV	100%*	100%
Stations	BBVS JV	100%*	100%
	MD JV (Curzon Street station)	100%*	100%
	MD JV (Euston station)	100%*	100%
Total Phase One contracts		**100%***	**99.98%**

*Including approved exemptions.

Heavy goods vehicles (HGVs)

Contract type	Contractor	Target proportion of HGVs that are Euro VI or better Percentage	Proportion that was compliant in 2024/25 Percentage
MWCC	Align JV	100%*	99.99%
	BBV JV	100%*	100%
	EKFB JV	100%*	100%
	SCS JV	100%*	99.99%
Stations	BBVS JV	100%*	100%
	MD JV (Curzon Street station)	100%*	100%
	MD JV (Euston station)	100%*	100%
Total Phase One contracts		**100%***	**99.99%**

*Including approved exemptions.

Community experience

Light duty vehicles (LDVs)

Contract type	Contractor	Target proportion of LDVs that are EURO 6 diesel or EURO 4 petrol Percentage	Proportion that was compliant in 2024/25 Percentage
MWCC	Align JV	100%	99.89%
	BBV JV	100%	100%
	EKFB JV	100%	99.98%
	SCS JV	100%	99.96%
Stations	BBVS JV	100%	99.99%
	MD JV (Curzon Street station)	100%	96.90%
	MD JV (Euston station)	100%	100%
Total Phase One contracts		**100%**	**99.5%**

Community experience

Year-on-year progress comparison

			Target	Proportion that was compliant
Year	Contract type	Vehicle type	Percentage	Percentage
2020/21	Total Phase One contracts	Non-road mobile machinery	100%	99.8%
		Heavy good vehicles	100%	99.2%
		Light duty vehicles	100%	83.9%
2021/22		Non-road mobile machinery	100%	99.9%
		Heavy good vehicles	100%	99.9%
		Light duty vehicles	100%	88.7%
2022/23		Non-road mobile machinery	100%	99.5%
		Heavy good vehicles	100%	100%*
		Light duty vehicles	100%	98.7%
2023/24		Non-road mobile machinery	100%	99.7%
		Heavy good vehicles	100%	99.9%
		Light duty vehicles	100%	99.0%
2024/25		**Non-road mobile machinery**	**100%**	**99.98%**
		Heavy good vehicles	**100%**	**99.99%**
		Light duty vehicles	**100%**	**99.5%**

*99.97% rounded to 100%.

Notes:

Methodology

- HS2 emission standards are included in both the **Code of Construction Practice** (Chapter 7) as well as the **HS2 Air Quality Information Paper E31**.
- The reporting period is April 2024 to March 2025.

Definitions

- Non-road mobile machinery emissions (NRMM) standards: HS2 has applied **NRMM engine emission requirements**, route-wide, for all machines with an engine power of between 37kW and 560kW.
- NRMM: refers to all mobile machines and transportable industrial equipment or vehicles that are fitted with an internal combustion engine, not intended for transporting goods or passengers on roads – for example, excavators, cranes and dump trucks.
- Light duty vehicles: vehicles with a permissible maximum weight less than or equal to 3.5 tonnes.
- Heavy goods vehicles: vehicles with a permissible maximum weight greater than 3.5 tonnes.
- NRMM exemptions policy: **The Greater London Authority exemptions policy** is set out in the Supplementary Planning Guidance (SPG) and applies route wide to HS2. They are awarded on a case-by-case basis to specialist plant and machinery or for short-term use where the NRMM may not be suitable for retrofit technology following clear justifications and review.

Community experience

- HGVs exemptions policy: Certain HGVs may be exempt on the grounds of:
  a. Specialism: being a specialist vehicle (not readily available as Euro VI compliant).
  b. Unforeseen circumstances: for example, breakdowns or mechanical failure requiring a replacement vehicle that is not readily available as Euro VI compliant.
  c. Triviality: if a particular vehicle is expected to make no more than 12 visits to all HS2 works in the London Low Emission Zone in any 12-month rolling period, it may be given a specific exemption.

The total of the exemptions shall account for no more than 8% of unique vehicles on an annual basis.

Noise exceedances

Contract type	Contractor	Number of exceedances of agreed* construction noise trigger levels
MWCC	Align JV	2
	BBV JV	1
	EKFB JV	4
	SCS JV	5
Stations	BBVS	0
	MD JV (Curzon Street station)	0
	MD JV (Euston station)	4
Phase One total		**16**

*By consent granting body.

Notes:

About this KPI

This key performance indicator is an HS2 Ltd requirement on all live projects with an aim to monitor the noise and vibration impacts of construction works. HS2 Ltd undertakes monitoring to comply with the commitment detailed in the Environmental Minimum Requirements (EMRs), Annex 1, Code of Construction Practice (CoCP) and the main purposes for undertaking this monitoring are to:

- investigate complaints, incidents and exceedance of trigger levels; and to
- monitor the effectiveness of noise control measures.

Prior to works taking place HS2 contractors will seek to obtain consent for the works under Section 61 of the Control of Pollution Act 1974. This proactive mechanism enables HS2 contractors and local authorities to come to an agreement on the approach to the works prior to them starting. This ensures that noise impacts have been appropriately assessed and mitigated.

Methodology

- The noise exceedances are calculated as follows:
  Through the S61 applications we will agree noise trigger levels which are based upon the predicted noise levels at noise sensitive locations. During the works if the relevant trigger is exceeded an investigation will be undertaken. Where the source of the noise (and the exceedance) is found to relate to the construction works, we will report these to the local authority and appropriate mitigation measures will be implemented to resolve the issue and prevent a recurrence.
- HS2 Ltd produce monthly reports for each local authority area where noise and vibration monitoring is undertaken. These reports are published on the **government website**.
- These monitoring reports outline the HS2 works that have been undertaken during the monitoring period, monitoring locations, monitored sound and vibration levels, exceedances of thresholds for determining effects on health and quality of life in the community, complaints received, and results of investigations and any actions taken. In addition, the full set of raw data for each month of monitoring – with an outline of our methodology – is **published online**.

Community experience

- The target of this KPI is to strive towards having no noise exceedances of agreed construction noise trigger levels.
- This dataset has not been externally verified by BSI Group as all source data is already published alongside the monthly reports and are available **online**. Furthermore, this KPI requires no data manipulation or calculations since the source data is reported as received by the monitoring equipment, so there is no need for a third party audit on the accuracy and completeness of this dataset.

Definitions

- Consent granting bodies are the relevant local authorities.

Community and Environment Fund (CEF) / Business and Local Economy Fund (BLEF)

Phase One CEF and BLEF funding	Total Value	Approved and in public domain	Target
Allocated to date	£ 19,524,495	£ 18,127,330	Complete spend of £40 million in supporting communities disrupted by HS2

Notes:

About this KPI

The HS2 Community and Environment Fund (CEF) is designed to add benefit over and above committed mitigation and statutory compensation to communities along the route that are demonstrably disrupted by the construction of HS2 from London to West Midlands.

The HS2 Business and Local Economy Fund (BLEF) is designed to add benefit over and above committed mitigation and statutory compensation to support local economies that are demonstrably disrupted by the construction of HS2.

For more information about these funds please visit the following links:

- **CEF programme guidance document**
- **BLEF programme guidance document**
- **CEF/BLEF interactive project map**
- **CEF/BLEF annual reports**

Methodology

- This data presents our progress to-date and refers to Phase One as of end of March 2025.
- Our work on CEF and BLEF is audited by both the National Audit Office (NAO) and the Government Internal Audit Agency (GIAA). These audits test our compliance to HM Treasury accounting and budgetary classification standards and Government Functional Standard (GovS 015: Grants).

Definitions

- Total value: value of all projects approved to date.
- Approved and in public domain: value of projects that have been approved and announced in the public domain. It refers to projects that have received funding; the applicant has met the terms and conditions of their award, and the project is ready to start.

Historic environment

Reducing harm to the historic environment and delivering a programme of heritage mitigation, including knowledge creation through investigation, reporting, engagement and archiving.

Contributing to UN SDG:



Data tables and notes

Performance commentary

The targets represent key measures for the delivery of Heritage Memorandum commitments. They focus on the provision of historic environment data and the next stage of activity comprising research, dissemination, engagement and archiving. This post-excavation work will reveal our shared past, delivering insights to communities along the route and beyond. The work will provide a lasting legacy to the way such programmes are undertaken in the future and enable everyone to engage with the past via the extensive digital and physical archive resource.

The discoveries made are unique to each project, therefore counting sites is not a meaningful metric. What is meaningful is carrying out fieldwork to a series of objectives, devising innovative ways to analyse findings and sharing those with communities, the profession and beyond.

We work with the government's advisor on the historic environment, Historic England, to ensure the implementation of effective investigation, research and mitigation of the historic environment.

Performance indicator	Target	2024/25 Performance
Percentage of historic environment data (for completed fieldwork) provided to local council Historic Environment Records	100%	100%
Percentage of digital archive (for completed fieldwork) publicly available at the Archaeology Data Service	100%	40%* (on track)
Percentage of mitigation investigations selected for analysis and reported in line with the Historic Environment Research and Delivery Strategy (HERDS) objectives	100%	0% (on track as the Post Excavation services contract is mobilising for next year)
Percentage of the physical archive deposited	100%	0% (on track as the Post Excavation services will begin deposit in future years)

*Calendar year not financial year.

Notes:

About this KPI

These metrics will provide a clear target to demonstrate the delivery of HS2's Heritage Memorandum commitments.

Methodology

These metrics are a combination of activities that will be delivered by the end of construction, for example fieldwork activities, throughout the duration of all works, the public availability of the digital archive and the deposition of the physical archive by the close of the post excavation programme.

There are no specific agreed industry metrics against which to measure. Instead HS2 takes into account industry practice and standards produced by the Government's advisor on the historic environment – Historic England – and professional institutions, for example the Chartered Institute for Archaeologists. As these metrics provide an update on the efficacy of our approach and activities to date, rather than a quantifiable measure of performance over time for a specific objective, there is no reason for BSI Group to provide external verification for this KPI.

Responsible consumption and production

Promoting circular economy principles, responsibly sourcing and making efficient use of sustainable resources, reducing waste and maximising the proportion of material diverted from landfill.

Contributing to UN SDGs:



Data tables and notes

Performance commentary

Responsible sourcing compliance has been excellent this year with 100% of steel and concrete and 99.9% of timber being responsibly sourced. Some 97.4% of other materials (see notes below the data table for the definitions) were also responsibly sourced, far exceeding our 25% target.

For construction and demolition waste, 99.8% was diverted from landfill, exceeding the 95% target. For excavated material we diverted 96.6% from landfill overall, meeting our 95% target. However, in the year, SCS JV diverted 75.2% of their excavated material from landfill. This is due to surplus excavated materials being sent to sustainable placement during this year. This is planned onsite disposal to avoid local traffic impacts and does not count towards beneficial reuse.

This year, as per last year, we have reported minimal beneficial reuse of felled timber. However, the overall quantity of felled timber is minimal: 552 cubic metres, which is less than 1% of the amount generated in 2021 – 2022. This is because site clearance at this stage of construction is limited.

Overall, almost a quarter of the water consumption (24%) was non-potable.

Responsible sourcing

Timber

Contract type	Contractor	Target for responsibly sourced timber Percentage	Certified timber m^3	Total timber purchased m^3	Proportion of responsibly sourced timber Percentage
MWCC	Align JV	100%	591	591	100%
	BBV JV	100%	1,009	1,009	100%
	EKFB JV	100%	1,659	1,665	99.6%
	SCS JV	100%	5,258	5,258	100%
Stations	BBVS JV	100%	291	291	100%
	MD JV (Curzon Street station)	100%	23	23	100%
	MD JV (Euston station)	100%	10	10	100%
Phase One total		**100%**	**8,841**	**8,847**	**99.9%**

Responsible consumption and production

Steel

Contract type	Contractor	Target for responsibly sourced steel Percentage	Certified steel Tonnes	Total steel Tonnes	Proportion of responsibly sourced steel Percentage
MWCC	Align JV	100%	7,491	7,491	100%
	BBV JV	100%	52,770	52,770	100%
	EKFB JV	100%	50,951	50,956	100%
	SCS JV	100%	24,738	24,738	100%
Stations	BBVS JV	100%	44,667	44,667	100%
	MD JV (Curzon Street station)	100%	2,725	2,725	100%
	MD JV (Euston station)	100%	1	1	100%
Phase One total		**100%**	**183,343**	**183,348**	**100%**

Concrete

Contract type	Contractor	Target for responsibly sourced concrete Percentage	Certified concrete Tonnes	Total concrete Tonnes	Proportion of responsibly sourced concrete Percentage
MWCC	Align JV	100%	234,599	234,599	100%
	BBV JV	100%	1,234,410	1,234,410	100%
	EKFB JV	100%	376,115	376,907	99.8%
	SCS JV	100%	719,678	719,678	100%
Stations	BBVS JV	100%	151,022	151,022	100%
	MD JV (Curzon Street station)	100%	46,349	46,349	100%
	MD JV (Euston station)	100%	1,561	1,561	100%
Phase One total		**100%**	**2,763,734**	**2,764,526**	**100%**

Responsible consumption and production

Other material

Contract type	Contractor	Target for responsibly sourced other material types Percentage	Certified other material types Tonnes	Total other material types Tonnes	Proportion of responsibly sourced other material types Percentage
MWCC	Align JV	25%	302,119	302,119	100%
	BBV JV	25%	2,442,891	2,442,891	100%
	EKFB JV	25%	3,398,637	3,565,730	95.3%
	SCS JV	25%	414,735	423,176	98.0%
Stations	BBVS	25%	34,203	34,203	100%
	MD JV (Curzon Street station)	25%	39,467	39,467	100%
	MD JV (Euston station)	25%	2,015	2,022	99.7%
Phase One total		**25%**	**6,634,067**	**6,809,608**	**97.4%**

Responsible consumption and production

Year-on-year progress comparison

Year	Contract type	Material	Proportion responsibly sourced (percentage)	Tonnes	Proportion responsibly sourced
2020/21	Total Phase One contracts	Timber	100%	10,561	99.9%
		Concrete	100%	501,759	100%
		Steel	100%	907,140	100%
		Other materials	25%	585,791	69.8%
2021/22		Timber	100%	4,353	100%
		Concrete	100%	999,043	100%
		Steel	100%	40,316	99.8%
		Other materials	25%	5,939,539	98%
2022/23		Timber	100%	29,278	100%
		Concrete	100%	2,051,910	100%
		Steel	100%	269,750	100%
		Other materials	25%	5,834,248	99.5%
2023/24		Timber	100%	17,400	100%
		Concrete	100%	2,830,331	100%
		Steel	100%	159,633	100%
		Other materials	25%	2,609,232	97.5%
2024/25		**Timber**	**100%**	**8,847**	**99.9%**
		Concrete	**100%**	**2,764,526**	**100%**
		Steel	**100%**	**183,348**	**100%**
		Other materials	**25%**	**6,809,608**	**97.4%**

Notes:

Methodology

- Responsible sourcing schemes are those identified in **BREEAM Guidance Note GN18**.
- The Other material section includes all related materials apart from timber, concrete and steel, for example, glass and metal. For a list of applicable materials please refer to Table 44 on page 265 of the **BREEAM UK 2014 New Construction (Non-domestic Buildings) technical manual**. The responsible sourcing of materials is also captured within the **BREEAM Infrastructure (Projects) technical manual**, Section 7.5 Responsible Sourcing of Construction Products, which aims to encourage the procurement and use of sustainably and responsibly sourced construction products and materials.

Responsible consumption and production

Construction and demolition waste

Contract type	Contractor	Target (proportion construction and demolition waste diverted from landfill)	Total construction waste diverted from landfill in 2024/25	Total demolition waste diverted from landfill in 2024/25	Total construction and demolition waste diverted from landfill in 2024/25	Total construction and demolition waste in 2024/25	Proportion of construction and demolition waste diverted from landfill in 2024/25
		Percentage		Tonnes			Percentage
MWCC	Align JV	95%	75,829	0	75,829	75,829	100%
	BBV JV	95%	103,647	202	103,849	104,298	99.6%
	EKFB JV	95%	19,007	33	19,040	19,060	99.9%
	SCS JV	95%	20,210	0	20,210	20,212	100%
Stations	BBVS JV	95%	3,823	2,687	6,510	6,510	100%
	MD JV (Curzon Street station)	95%	1,031	0	1,031	1,031	100%
	MD JV (Euston station)	95%	639	201	840	840	100%
Total Phase One contracts		**95%**	**224,186**	**3,123**	**227,309**	**227,861**	**99.8%**

Year-on-year progress comparison

Year	Contract type	Target (proportion construction and demolition waste diverted from landfill)	Total construction waste diverted from landfill	Total demolition waste diverted from landfill	Total construction and demolition waste diverted from landfill	Total construction and demolition waste	Proportion of construction and demolition waste diverted from landfill
		Percentage		Tonnes			Percentage
2020/21	Total Phase One contracts	95%	52,732	8,441	61,173	63,030	97.1%
2021/22		95%	92,583	79,045	171,628	173,220	99.1%
2022/23		95%	108,916	34,348	143,264	144,637	99.1%
2023/24		95%	114,954	41,801	156,755	157,356	99.6%
2024/25		**95%**	**224,186**	**3,123**	**227,309**	**227,861**	**99.8%**

Responsible consumption and production

Excavated materials

Contract type	Contractor	Target (proportion of excavated material beneficially reused)	Total excavated material placed in permanent deposition or removed from site in 2024/25	Proportion of excavated material beneficially reused in 2024/25
MWCC	Align JV	95%	3,137,825	100%
	BBV JV	95%	6,500,066	100%
	EKFB JV	95%	3,279,710	100%
	SCS JV	95%	2,086,031	75.2%
Stations	BBVS	95%	111,680	99.9%
	MD JV (Curzon Street station)	95%	104,400	100%
	MD JV (Euston station)	95%	6,517	100%
Total Phase One contracts		**95%**	**15,426,230**	**96.6%**

Year-on-year progress comparison

Year	Contract type	Target (proportion of excavated material beneficially reused)	Total excavated material placed in permanent deposition or removed from site	Proportion of excavated material beneficially reused
		Percentage	Tonnes	Percentage
2020/21	Total Phase One contracts	95%	880,764	94.6%
2021/22		95%	5,377,928	99.1%
2022/23		95%	9,899,078	89.3%
2023/24		95%	23,351,645	95.2%
2024/25		**95%**	**15,426,230**	**96.6%**

Notes:

Definition

- Beneficial reuse of excavated materials: for an excavated material management activity to be classified as beneficial reuse it must meet the following tests:
  - The activity will lead to beneficial reuse and bring land back into use or provide ecological benefit.
  - In the case of quarries or landfill sites, the activity has a planning requirement to be restored.
  - The material is suitable for its intended use and would not harm human health or the environment.
  - The minimum amount of material would be used to achieve the restoration required by any planning consent.
  - Alternative material, whether waste or not, would be required if material was not to be used.

Responsible consumption and production

Beneficial reuse of timber

Contract type	Contractor	Felled timber beneficially reused m³	Total felled timber m³	Proportion of felled timber beneficially reused Percentage
MWCC	Align JV	0	0	0%
	BBV JV	6	490	1.2%
	EKFB JV	0	62	0%
	SCS JV	0	0	0%
Stations	BBVS JV	0	0	0%
	MD JV (Curzon Street station)	0	0	0%
	MD JV (Euston station)	0	0	0%
Total Phase One contracts		**6**	**552**	**1.1%**

Year-on-year progress comparison

Year	Contract type	Felled timber beneficially reused m³	Total felled timber m³	Proportion of felled timber beneficially reused Percentage
2020/21	Total Phase One contracts	6,787	55,629	12.2%
2021/22		13,603	85,921	15.8%
2022/23		1,812	6,406	28.3%
2023/24		0	519	0.0%
2024/25		**6**	**552**	**1.1%**

Notes:

Methodology

- The beneficial reuse of timber includes:
  - reused on site;
  - provided for community uses; and
  - used for solid wood production.
- The beneficial reuse of timber does not include:
  - used for reconstituted board production;
  - used for biomass;
  - other type of reuse (not disposal); and
  - landfill.
- There is no set target for this KPI. Contractors look to beneficially reuse timber when it is possible.

Responsible consumption and production

Water usage

Contract type	Contractor	Total water use m³	Proportion of water consumption that is non-potable Percentage
MWCC	Align JV	333,035	35.8%
	BBV JV	876,909	34.5%
	EKFB JV	127,230	60.7%
	SCS JV	649,948	0%
Stations	BBVS JV	34,315	0%
	MD JV (Curzon Street station)	5,904	0%
	MD JV (Euston station)	53,062	0%
Total Phase One contracts		**2,080,403**	**24%**

Year-on-year progress comparison

Year	Contract type	Total water use m³	Proportion of water consumption that is non-potable Percentage
2020/21	Total Phase One contracts	714,060	11.5%
2021/22		1,231,462	32.7%
2022/23		2,983,936	67.7%
2023/24		7,969,317	78.0%
2024/25		**2,080,403**	**24%**

Notes:

Definitions

- Water types:
  - Potable water is mains water.
  - Non-potable water is either: water that has been captured and reused from our processes, or water that is abstracted directly from the environment and subject to approval by the Environment Agency.

Methodology

- Water use is a challenge for infrastructure projects. Planning and selection of the appropriate water source for an activity is critical to operating in an environmentally sustainable way. We strive to use non-potable water for construction wherever possible through effective reuse of water, capture and storage of rainfall and sustainable abstraction from the environment, which is subject to regulation by the Environment Agency. There is no optimal percentage from each source. It depends on its uses and availability of sources on a given site. However, minimising potable water use for non-potable activities is typically beneficial as there is high cost and energy involved in treating, storing and moving potable water through the mains networks.

Cross-topic data

Our cross-topic data include BREEAM and environmental incidents and incorporate our efforts to meet multiple UN SDGs across the HS2 project.

Contributing to UN SDGs:



Data tables and notes

Performance commentary

This year again, we have had no level 1 (the most serious) environmental incidents. Despite working more hours, our level 2 incidents are also lower in number. Our weighted environmental incident rate is the lowest since we started reporting.

The Considerate Constructors Scheme (CCS) provides a rating for sites against their code of considerate practice. This year our sites continued to improve, with a slight increase in the average score, achieving 44.7 out of a maximum score of 50.

For BREEAM, all of our contracts are either on target or achieving above the target. The BREEAM target ratings for Interchange, and Old Oak Common stations, respectively, are 'Excellent.' However, a design rating of more than 85% has been achieved on both, which is the threshold for the higher rating of 'Outstanding'.

Cross-topic data

Environmental incidents

Contract type	Contractor	Level 1 incidents	Level 2 incidents	Level 3 incidents	Level 4 incidents	Working hours	Weighted environmental incident rate (average over 2023/24)
MWCC	Align JV	0	0	4	13	5,172,465	1.0
	BBV JV	0	2	24	110	22,534,066	2.4
	EKFB JV	0	2	58	243	15,731,823	6.3
	SCS JV	0	0	28	77	15,585,476	2.3
Stations	BBVS JV	0	0	3	8	3,543,872	1.1
	MD JV (Curzon Street station)	0	0	3	5	1,217,310	2.9
	MD JV (Euston station)	0	0	1	3	982,867	1.3
Total Phase One contracts		**0**	**4**	**121**	**459**	**64,767,879**	**3.2**

Year-on-year progress comparison

Year	Contract type	Level 1 incidents	Level 2 incidents	Level 3 incidents	Level 4 incidents	Hours worked	Weighted environmental incident rate (WEIR)
2020/21	Total Phase One contracts	0	12	112	240	22,875,633	11.2
2021/22		0	14	122	339	38,256,008	7.8
2022/23		0	14	166	394	52,093,504	6.6
2023/24		0	5	133	400	59,807,277	3.7
2024/25		**0**	**4**	**121**	**459**	**64,767,879**	**3.2**

Notes:

Methodology

- The reporting period for this dataset is from April 2024 to March 2025.
- WEIR methodology: (Level 1 x 1000) + (Level 2 x 100) + (Level 3 x 10) + (Level 4 x 1) / (Total hours worked/100000).

Definitions

- Level 1: incident with a significant and extensive event or failure to comply with legislation likely to result in prosecution.
- Level 2: incident with damage/disturbance event or failure to comply with legislation with potential to result in regulatory enforcement action.
- Level 3: minor incident/disturbance. Breach of monitoring threshold or trigger level attributable to site activities.
- Level 4: incident which resulted in no harm, loss or damage. Failure to comply with HS2 Code of Construction Practice.

Cross-topic data

Considerate Constructors Scheme (CCS)

Contract type	Contractor	CCS score (average for all site visits in 2024/25)
MWCC	Align JV	44.43
	BBV JV	45
	EKFB JV	44.67
	SCS JV	45
Stations	BBVS JV	45
	MD JV (Curzon Street station)	42
	MD JV (Euston station)	45
Total Phase One contracts		**44.7**

Year-on-year progress comparison

Year	Contract type	CCS score (average for site visits in a reporting period)
2020/21	Total Phase One contracts	45/50
2021/22		42.7/50
2022/23		44/45
2023/24		44.5/45
2024/25		**44.7/45**

Notes:

About this KPI

- In January 2022, the Considerate Constructors Scheme monitoring and scoring system changed. Previously, sites were scored in five sections with a maximum score of 10 per section. With the current scoring system, each site is scored against three sections with a maximum of 15 points per section and a total of 45 points for a fully compliant site. A total of five points is available for innovations or best practices.
- HS2's former target for all sites was to achieve a score of at least 40 to 50. The new target is for a total score of 35 to 45 with a score of at least 11 in each of the three sections which is aligned to the relevant BREEAM Innovation credit. For more information about the new monitoring and scoring system, see this Considerate Constructors Scheme checklist.
- The **Considerate Constructors Scheme** is a not-for-profit, independent organisation founded to raise standards in the construction industry.

Methodology

- Where a site was assessed more than once in the reporting period, the average score was used.

Cross-topic data

BREEAM

BREEAM Buildings

Contract	Target rating	Design rating (as of March 2025)	Post-construction rating (as of March 2025)
Euston (Mace Dragados)	Excellent (70%)	On target	On target
London Underground station (Mace Dragados)	Excellent (70%)	On target	On target
Old Oak Common (BBVS)	Excellent (70%)	Outstanding achieved 94.5%	On target
Interchange (Ove Arup & Partners International Ltd)	Excellent (70%)	Outstanding achieved 86.0%	On target
Curzon Street (WSP)	Excellent (70%)	On target	On target

BREEAM Infrastructure

Contractor	Target rating	Design rating (as of March 2025)	Post-construction rating (as of March 2025)
SCS JV	Excellent (75%)	Excellent achieved 82.6%	On target
Align JV	Excellent (75%)	Excellent achieved 78.7%	On target
EKFB	Excellent (75%)	Excellent achieved 79.7%	On target
BBV JV	Excellent (75%)	Excellent achieved 83.4%	On target

Notes:

Definitions

- **BREEAM Buildings** is the world's leading science-based suite of validation and certification systems for sustainable built environments and the world's leading sustainability assessment method for buildings. It recognises and reflects the value in higher performing assets across the built environment lifecycle and captures all key environmental and sustainability disciplines and measurement indicators relevant to the built environment.
- **BREEAM Infrastructure:** (formerly CEEQUAL) is the evidence-based sustainability assessment, rating and awards scheme for civil engineering, infrastructure, landscaping and public realm projects.
- An 'Excellent' rating is achieved if the projected score is ≥70% for BREEAM Buildings and ≥75% for BREEAM Infrastructure.
- 'On target' is achieved if 'current projected score' minus any mandatory credits currently identified as high risk is equal to or above the mandatory target rating (70/75%) required across the HS2 programme.
- High risk definition – for a credit to be classified as high risk, one or more of the following criteria must be associated with it at the time when the quarterly progress report is submitted to HS2:
  - The evidence for the credit should have been in place prior to the current stage in the programme, hence immediate action is required to avoid losing the credit:
  - The credit, or at least one of its compliance details, is unlikely to be achievable due to non-compliance, technical uncertainty, design changes or programme changes:
  - The credit, or at least one of its compliance details, is prohibitively expensive and there is a low financial return (outside the agreed budget): and
  - The credit is complex and there are a number of compliance details that are often missed or can easily be lost through not obtaining one piece of evidence or the project team have little experience of gaining the credit.

Note: Due to the long-term and entire project lifecycle coverage of both assessment types, certain credits may be assessed as high risk because the credit achievement can only be confirmed at a later stage of the construction and/or handover phase.

BSI statement

Your partner in progress

Verification Report

Verified as Satisfactory

Based on the process and procedures conducted, the HS2 Ltd Environmental Sustainability Report 2024/25 for the financial year ending March 2025 produced by **High Speed Two Ltd (HS2):**

- Is materially correct and is a fair representation of the sustainability datasets listed in the verification engagement section below
- Has been prepared in accordance with HS2 Ltd Technical Standards for Environmental Sustainability Reporting and the associated technical standards for the relevant datasets.

With the following caveats:

- During the course of the verification non-material errors were identified for several datasets due to missing data which should have been provided by contractors ahead of the verification. Where errors were identified, this was communicated to HS2 for investigation and correction.
- This verification opinion is based on the corrected datasets which were re-verified following correction.
- The verification activities conducted by BSI Assurance UK Ltd were limited to a review of historical data presented by HS2 Validation of the calculation methodology that has been used to determine some KPIs did not form part of the BSI verification engagement.

The following improvements were raised in relation to future Environmental Sustainability Progress Reports:

- The potential for material and non-material errors in future Environmental Sustainability Progress Reports presented for verification could be reduced by conducting a more rigorous internal review of the information provided by contractors under a more rigorous data quality assurance process.
- Where corrections have been made to a dataset during the verification process a more robust review should be carried out to ensure that the amended data is accurately transposed into the final Environmental Sustainability Progress Report.

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Incorporated by Royal Charter
Companies House number: ZC000202
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Your partner in progress

Verified as Satisfactory

Organization and Responsible party: **High Speed Two Ltd (HS2)**

Verification Objectives:

To express an opinion on whether the following datasets included in the Environmental Sustainability Progress Report 2024/25 have been reported in accordance with the HS2 Technical Standards for Environmental Sustainability Reporting and are free from material error:

- Environmental Incidents
- Considerate Constructors Scheme
- BREEAM Buildings/ BREEAM Infrastructure ratings
- Biodiversity Accounting Process
- Number of trees and shrubs planted
- Woodland Fund
- Whole life carbon footprint
- Energy and fuel consumption data
- Air quality
- Responsible sourcing – timber, concrete, steel and other materials
- Construction and demolition waste
- Excavated material
- Beneficial reuse of timber
- Water Usage

The scope of the verification engagement was data related to the HS2 route being constructed between London and the West Midlands.

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BSI statement

Your partner in progress

Materiality Level:
As determined in the professional judgement of the verifier relevant to the dataset being evaluated.

Level of Assurance:
Reasonable

Verification evidence gathering procedures:

- Evaluation of the monitoring and controls systems through interviewing employees, observation & inquiry
- Verification of the data through sampling, recalculation, retracing, cross checking and reconciliation
- Interview of HS2 Subject Matter Experts and selected main work civil/station Contractors responsible for submitting data to HS2

Verification Standards

The verification was carried out in accordance with the principles contained in ISO 14064-3:2019, ISO 14065:2021 and ISO 14016:2020

Note: HS2 is responsible for the preparation and fair presentation of the Environmental Sustainability Progress Report in accordance with the agreed criteria. BSI Assurance UK Ltd is responsible for expressing an opinion on the information provided in the document based on the verification findings.

Miia Vironen

Miia Vironen
Head of ISA Operations, EMEA

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Global Reporting Initiative (GRI) table

HS2 Ltd has reported the information cited in this GRI content index for the period April 2024 to March 2025 with reference to the GRI Standards.

Information cited in this Index may be found across the **Annual Report and Accounts (ARA)** and the Environmental Sustainability Progress Report (ESPR).

GRI index

Disclosure	Disclosure title	Location	Direct answers, notes and omissions
GRI 1: Foundation 2021			
GRI 2: General Disclosures 2021			
2-1	Organisational details	• ARA page 91 (Notes to the financial statements)	High Speed Two (HS2) Limited Two Snowhill Snow Hill Queensway Birmingham B4 6GA Operational in United Kingdom
2-2	Entities included in the organisation's sustainability reporting		High Speed Two (HS2) Limited plus the supply chain where applicable
2-3	Reporting period, frequency and contact point	• ESPR page 03 (Executive summary) • ESPR page 10 (Scope and methodology) • ESPR page 47 (back page)	
2-4	Restatements of information		There are no restatements of information in this report
2-5	External assurance	• ESPR page 41–42 (BSI Independent Assurance Statement)	
2-6	Activities, value chain and other business relationships	• ARA page 09 (Strategic Report)	
2-7	Employees	• ARA page 63 (Remuneration and Staff Report)	
2-9	Governance structure and composition	• ARA page 42 (Governance Statement) • ESPR page 08 (Our approach)	
2-11	Chair of the highest governance body		The Chair of the HS2 Ltd Board is a Non-Executive position
2-12	Role of the highest governance body in overseeing the management of impacts	• ESPR page 08 (Our approach)	
2-13	Delegation of responsibility for managing impacts	• ESPR page 08 (Our approach)	The Environmental Sustainability Committee (a sub-Board committee) is responsible for environmental impacts

Global Reporting Initiative (GRI) table

GRI index			
Disclosure	Disclosure title	Location	Direct answers, notes and omissions
2-14	Role of the highest governance body in sustainability reporting	• ESPR page 08 (Our approach)	The Environmental Sustainability Committee (a sub-Board committee) is responsible for the ESPR
2-15	Conflicts of interest	• ARA page 39 (Directors' Report)	
2-19	Remuneration policies	• ARA page 63 (Remuneration and Staff Report)	
2-20	Process to determine remuneration	• ARA page 63 (Remuneration and Staff Report)	
2-22	Statement on sustainable development strategy	• ESPR page 06 (Our commitment)	
2-23	Policy commitments	• ESPR page 06 (Our commitment)	
2-24	Embedding policy commitments	• ESPR page 08 (Our approach)	
2-25	Processes to remediate negative impacts	• ESPR pages 09–40 (Our performance)	
2-29	Approach to stakeholder engagement	• ESPR page 08 (Our approach)	
3-1	Process to determine material topics	• ESPR page 08 (Our approach)	
3-2	List of material topics	• ESPR page 08 (Our approach)	
HS2 green corridor			
3-3	Management of material topics	• ESPR pages 12–15 (Green corridor data)	
GRI 304: Biodiversity 2016			
304-2	Significant impacts of activities, products and services on biodiversity	• ESPR pages 12–15 (Green corridor data)	
Climate change			
3-3	Management of material topics	• ESPR pages 16–20 (Climate change data)	
GRI 302: Energy 2016			
302-1	Energy consumption within the organisation	• ARA page 19 (Environmental Sustainability Report) • ESPR pages 19–20 (Energy and fuel consumption data)	Corporate energy consumption is provided in the ARA Supply chain energy and fuel consumption data is included in the ESPR
GRI 305: Emissions 2016			
305-1	Direct (Scope 1) GHG emissions	• ARA page 19 (Environmental Sustainability Report)	Corporate emissions information is provided in the ARA

Global Reporting Initiative (GRI) table

GRI index			
Disclosure	Disclosure title	Location	Direct answers, notes and omissions
305-2	Energy indirect (Scope 2) GHG emissions	• ARA page 19 (Environmental Sustainability Report)	Corporate emissions information is provided in the ARA
305-3	Other indirect (Scope 3) GHG emissions	• ARA page 19 (Environmental Sustainability Report) • ESPR pages 16–20 (Climate change data)	Corporate emissions information is provided in the ARA Supply chain emissions are in the ESPR
305-5	Reduction of GHG emissions	• ESPR pages 16–20 (Climate change data)	
Community experience			
3-3	Management of material topics	• ESPR pages 21–26 (Community experience data)	
Historic environment			
3-3	Management of material topics	• ESPR page 27–28 (Historic environment)	
Responsible consumption and production			
3-3	Management of material topics	• ESPR pages 29–36 (Responsible consumption and production data)	
GRI 301: Materials 2016			
301-1	Materials used by weight or volume	• ESPR pages 29–32 (Responsible consumption and production data)	Tonnes of timber, steel, concrete and “other material” provided
301-3	Reclaimed products and their packaging materials	• ESPR pages 34–35 (Responsible consumption and production data)	Excavated materials and beneficial reuse of timber provided
GRI 303: Water and Effluents 2018			
303-5	Water consumption	• ARA page 19 (Environmental Sustainability Report) • ESPR page 36 (Water usage)	Corporate water consumption is provided in the ARA Supply chain water consumption is included in the ESPR
GRI 306: Waste 2020			
306-3	Waste generated	• ARA page 19 (Environmental Sustainability Report) • ESPR page 33 (Construction and demolition waste)	Corporate waste information is provided in the ARA Supply chain waste generation is in the ESPR
306-4	Waste diverted from disposal	• ARA page 19 (Environmental Sustainability Report) • ESPR page 33 (Construction and demolition waste)	Corporate waste information is provided in the ARA Supply chain waste generation is in the ESPR

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