

# HS2

## Air quality

December 2019 | [www.hs2.org.uk](http://www.hs2.org.uk)

### Factsheet



Air quality describes the 'cleanliness' of the air we breathe and the condition of the air within our environment. The quality of air is measured by the level of pollutants it contains. A pollutant is the wrong amount of a substance in the wrong place or at the wrong time.

### Air pollution

Air pollution is the release of particles and gases into the atmosphere. These emissions can be natural or man-made and may impact human health, plants and animals.

### Nitrogen oxides

All combustion processes in air produce oxides of nitrogen (NO<sub>x</sub>). Nitrogen dioxide (NO<sub>2</sub>) and nitric oxide (NO) are both oxides of nitrogen and together are referred to as NO<sub>x</sub>. Air quality standards are measured by the level of NO<sub>2</sub>. The main source of NO<sub>x</sub> is road transportation, followed by the electricity supply industry and other industrial and commercial sectors.

### Particulate matter

Particulate matter (PM) comes from both man-made and natural sources. It includes soot, smoke, sea spray, dust, pollen, and liquid droplets. PM<sub>10</sub> refers to particulate matter which is 10 micrometres or less in diameter. The biggest sources of PM<sub>10</sub> emissions in Greater London are road transportation and the building industry.

### Is air quality monitored?

Yes. We monitor NO<sub>2</sub> at 65 locations in Camden using diffusion tubes. We began monitoring air quality in summer 2016 to establish a baseline and will continue during the construction phase for as long as it is necessary to manage the significant effects of our building works.

Continuous monitors measure the level of dust as particulate matter at the site boundary and at medium- and high-risk sites. These monitors have set trigger alerts, which provide near real-time feedback to contractors when dust concentrations reach a set level. This allows us to respond quickly to emissions wherever and whenever they occur.

Our air quality monitoring surveys add to existing national and local ones by Defra, local authorities, communities and academic institutions.

### Are emissions and dust from our construction sites harmful to your health?

No. We control and manage our emissions. We have strict emissions standards for our machinery and we're introducing hybrid and electric equipment too. All our sites use damping measures to reduce dust.



### What is HS2?

High Speed Two (HS2) is the new high speed railway for Britain. It will support fast, frequent, reliable journeys to over 100 cities and towns, including eight of our largest cities.

We plan to build HS2 in phases. Phase One will connect Birmingham to London from 2026.

We also plan to build a route between the West Midlands and Crewe, to open in 2027.

We are committed to being a good neighbour by treating the communities we operate in with respect and compassion, and building the railway with care and consideration. This means we are working hard to mitigate the impact of building and operating a new railway.

Contact our HS2 Helpdesk team on **08081 434 434**

We also have monitors which act as alarms to tell us if there is a rise in the levels of dust. We act on these alarms to make sure the levels never get to a point that might affect your health.

## **How building HS2 impacts local air quality**

Air quality is affected by construction in several ways, including:

- exhaust fumes from vehicles and machinery;
- exhaust fumes from changes to traffic flows due to road closures and diversions; and
- dust from on-site activities.

We seek to reduce our impact on air quality. We're doing this through a range of measures (our mitigation measures), and we're monitoring air quality in the wider area around Euston.

## **HS2 Ltd's air quality objectives**

We have developed a policy with objectives to limit our impact on air quality. This is available at:

<https://www.gov.uk/government/publications/hs2-air-quality-strategy>.

Our objectives include:

- avoiding emitting pollutants;
- reducing pollutant emissions where emissions cannot be avoided; and
- avoiding exposing the public and our workforce to air pollutants where emissions cannot be avoided.

## **What we are doing to reduce air quality impacts**

- We have set emissions caps for all contractors' vehicle engines (e.g. lorries, vans, and cars).
- We have set emissions caps for all machinery (e.g. excavators, dumpers, large cranes and piling machines).
- Contractors use designated lorry routes to minimise the use of local roads.
- We send our route plans to Camden Council to review if there are going to be more than 24 vehicle movements per day.
- We produce Local Traffic Management Plans with Camden Council, TfL and the emergency services before the start of work.
- We train our lorry drivers on how to reduce their emissions.

Full details of all our mitigation measures are in our Code of Construction Practice (CoCP).

## **How we control dust**

- We require all our contractors to control and limit their dust, air pollution, odour and exhaust emissions during works.
- Our contractors use a range of dust management methods including damping down using mobile water sprayers, handheld hoses and water cannons. Damping is when water traps pollutants stopping them from escaping into the air. Some machinery used in demolitions is specifically fitted with water sprayers to allow for damping down at source.
- We monitor the PM levels at medium- and high-risk sites to ensure our mitigation measures are enough to deal with the level of pollutants at a specific site. We cater each control to each specific activity.

## Examples of site-specific measures used in Camden

We enclosed the area of our works at St. James' Gardens because of the sensitivity of the site. And we used electric and hybrid equipment to reduce emissions. This included a hybrid excavator, electric wheel barrows and hydrogen fuel-cell tower lights.

We demolished the Ibis Hotel carefully, floor by floor, using a long-reach muncher. The long reach muncher was fitted with water sprayers to control dust emissions at source. Mobile water sprayers were also on-site and were moved around the site to ensure dust emissions were controlled at source.

We are implementing control measures at the demolition works at Regent's Park Estate. Because a lot of PM<sub>10</sub> comes from dust, the more dust that we contain, the less PM<sub>10</sub> there is in the atmosphere. We're containing dust by:

- using a demolition curtain; and
- encapsulating part of the Silverdale building.

We're also damping down dust in a number of ways. These include:

- using mobile water sprayers, which were also used for the demolition of the Ainsdale building;
- pumping water to the end of the arm of the long reach muncher which will be used on the high floor levels and will tackle potential dust emissions directly at source;
- pumping water to the top of the demolition curtain covering Eskdale building to suppress dust using mist at the top of the curtain near to the source of the dust emissions; and
- staff spraying water directly at the demolition activities from elevated platforms, which also suppresses dust near to its source.

## More information

If you have a complaint, a question, or are looking for more information, contact the Helpdesk at [HS2inCamden@hs2.org.uk](mailto:HS2inCamden@hs2.org.uk) or see our key documents below:

- HS2 Environmental Minimum Requirements:  
<https://www.gov.uk/government/publications/environmental-minimum-requirements>
- Code of Construction Practice:  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/593592/Code\\_of\\_Construction\\_Practice.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/593592/Code_of_Construction_Practice.pdf)
- HS2 Information Paper E31: Air Quality:  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/672406/E31\\_-\\_Air\\_Quality\\_v1.5.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/672406/E31_-_Air_Quality_v1.5.pdf)
- Monthly Air Quality Monitoring Reports and Annual Air Quality Reports:  
<https://www.gov.uk/government/collections/monitoring-the-environmental-effects-of-hs2>

## Keeping you informed

We are committed to keeping you informed about work on HS2. This includes ensuring you know what to expect and when to expect it, as well as how we can help.

### Residents' Charter and Commissioner

The Residents' Charter is our promise to communicate as clearly as we possibly can with people who live along or near the HS2 route.

[www.gov.uk/government/publications/hs2-residents-charter](http://www.gov.uk/government/publications/hs2-residents-charter)

We also have an independent Residents' Commissioner whose job is to make sure we keep to the promises we make in the Charter and to keep it under constant review. Find reports at:

[www.gov.uk/government/collections/hs2-ltd-residents-commissioner](http://www.gov.uk/government/collections/hs2-ltd-residents-commissioner)

You can contact the Commissioner at:  
[residentscommissioner@hs2.org.uk](mailto:residentscommissioner@hs2.org.uk)

### Construction Commissioner

The Construction Commissioner's role is to mediate and monitor the way in which HS2 Ltd manages and responds to construction complaints. You can contact the Construction Commissioner by emailing:  
[complaints@hs2-cc.org.uk](mailto:complaints@hs2-cc.org.uk)

### Property and compensation

You can find out all about HS2 and properties along the line of route by visiting:

[www.gov.uk/government/collections/hs2-property](http://www.gov.uk/government/collections/hs2-property)

Find out if you're eligible for compensation at:

[www.gov.uk/claim-compensation-if-affected-by-hs2](http://www.gov.uk/claim-compensation-if-affected-by-hs2)

### Holding us to account

If you are unhappy for any reason you can make a complaint by contacting our HS2 Helpdesk team. For more details on our complaints process, please visit our website:  
[www.hs2.org.uk/how-to-complain](http://www.hs2.org.uk/how-to-complain)

## Contact Us

Contact our HS2 Helpdesk team all day, every day of the year on:

 Freephone **08081 434 434**

 Minicom **08081 456 472**

 Email **HS2enquiries@hs2.org.uk**

Write to:

**FREEPOST**

**HS2 Community Engagement**

Visit us at the former National Temperance Hospital at **112 Hampstead Road, London NW1 2PS.**

Websites: **[www.hs2.org.uk](http://www.hs2.org.uk)**

**[www.hs2inCamden.co.uk](http://www.hs2inCamden.co.uk)**

**Please contact us if you'd like a free copy of this document in large print, Braille, audio or easy read. You can also contact us for help and information in a different language.**

HS2 Ltd is committed to protecting personal information. If you wish to know more about how we use your personal information please see our Privacy Notice <https://www.gov.uk/government/publications/high-speed-two-ltd-privacy-notice>

**High Speed Two (HS2) Limited, registered in England and Wales. Registered office: Two Snowhill, Snow Hill Queensway, Birmingham B4 6GA. Company registration number: 06791686. VAT registration number: 181 4312 30.**

### Somali

Fadlan nala soo xiriir haddii bug-yarahaan bilaashka ah ku rabtid daabacad far waa-wayn, qoraalka indhoolaha, hab maqal ah ama si fudud loo akhrin karo. Waxaan xittaa macluumaadka ku bixin karnaa luqado kala duwan. Qof ayaad ka codsan kartaa inuu wakiil ka noqdo markaad la hadlayso HS2 Ltd.

### Español

Póngase en contacto con nosotros en caso de que desee recibir una copia gratuita de este folleto en caracteres grandes, braille, audio o en formato de lectura fácil. También podemos proporcionar la información en distintos idiomas. No dude en pedirle a alguien que le represente en cualquier conversación con HS2, Ltd.

### Français

Merci de nous contacter si vous désirez une copie de cette brochure en grands caractères, en braille, en version audio, ou en lecture simplifiée. Nous pouvons également vous fournir des informations dans différentes langues. Vous pouvez demander d'être représenté(e) par un tiers pour tout échange avec HS2 Ltd.

### Bengali

যদি আপনি এই প্রচারপত্রটির বড় অক্ষরে, ব্রেইলে, অডিও বা সহজ পাঠযোগ্য বিনামূল্যের প্রতিলিপি পেতে চান তবে অনুগ্রহ করে আমাদের সাথে যোগাযোগ করুন। এছাড়াও আমরা বিভিন্ন ভাষায় তথ্য প্রদান করতে পারি। এইচএস২ লিমিটেড (HS2 Ltd.)-এর সাথে কোন আলোচনায় আপনাকে প্রতিনিধিত্ব করার জন্য আপনি কাউকে জিজ্ঞাসা করায় আপনাকে স্বাগত জানাই।