- The carbon emissions generated by the construction of the line are significantly underestimated - the quantities of concrete, steel and stone required by HS2 will be colossal.

- The energy used by high speed trains will be at least double that of existing inter city electric trains. If HS2 reaches speeds of up to 400 kph they may use more than 4 times the energy.

- HS2 Ltd believes the demand for through trains to the continent from north of Birmingham will be very low. This is consistent with the low numbers using the Eurostar services, which have stagnated. It will not significantly reduce the demand for short haul flights to the continent. According to the rail industry itself any journey taking more than three and a half hours is more likely to be taken by plane than train.

- The countryside will be permanently damaged all along the line including the nationally protected Chilterns Area of Outstanding Natural Beauty. It calls into question why these areas are given a special status if they can be so badly damaged by the government.

"A new high speed network would bleed the rest of the railway of money and care. Is that travellers really want?"
Simon Jenkins, The Guardian

"The burning need in public transport is not for sexy, pointy-nosed high speed trains whose economics simply don't stack up. It's for boring unglamorous improvements to the services we actually use."
Andrew Gilligan, The Telegraph

"the weakest aspect of the case is the 'green' argument which virtually falls apart."
Christian Woolmar, Rail Magazine

"Yes, it's better to take a high speed train than to fly. It would be better still not to have to make the journey at all."
George Monbiot, The Guardian

The Chilterns Conservation Board

Produced by the Chilterns Conservation Board and endorsed by:

HS2 Action Alliance

High Speed 2 Railway

Some Facts

The decision to proceed with a national High Speed Railway (HSR) network rests with Parliament when a Hybrid Transport Bill is presented for approval. Costing in the order of £100 billion it could well be the largest commitment of public funds for a generation. It is essential that every member of both Houses of Parliament knows what the costs will be as well as the benefits before they make that commitment.

They also need to think about what else those funds could be used for.

Where we are now?

In March 2010 the government published the report from HS2 Ltd, a wholly owned government company, and its own Command Paper, both of which supported the proposal to build a new dedicated high speed railway initially betwen Birmingham and London and, in due course, further north.

The first leg (London-Birmingham) will cost up to £18 billion, with estimates for reaching Glasgow and Edinburgh of up to £88 billion. The statement by Theresa Villiers MP on 9th June appears to commit the government to a bigger network - "our ambition is a national network" which would cost well in excess of £100 billion. Building additional links to Heathrow and HS1 would add several billion more.

Such a commitment needs to be based on a certainty that it will provide national benefits and that those funds cannot be used better in other ways. Parliament needs to satisfy itself that HSR will lead to significant economic activity in excess of its costs and that it will provide environmental benefits including dramatically reduced emissions of greenhouse gases.

It is hoped all MPs and members of the House of Lords will acquaint themselves with the facts before making up their minds. The scale of this investment has direct consequences for everyone in every constituency.

HS2 - Needed? HS2 - Value for money?

The Economic Case

The economic case for HS2 is based on a forecast of a dramatic increase in demand to travel long distances between our largest cities. According to HS2 Ltd the cost of a railway between Birmingham and London including the trains will be £25.5 billion (this excludes the cost of linking to Heathrow or HS1). The revenue over 60 years is estimated to be £15 billion. The massive net cost is justified by a assigning a value of £28.7 billion to the notional value to travellers of faster journeys and greater convenience. Over two thirds of these benefits are derived by those travelling north of Birmingham Only £3.6bn of benefits to the wider economy are anticipated. Based on these figures HS2 Ltd argue the Business Cost Ratio is 2.7. The Treasury requirement is for the BCR of a project to exceed 1.5. Many are sceptical of this cost benefit analysis and don't believe that HS2 represents value for money.

Are the demand forecasts realistic?

- The demand forecast is based on a projected growth in demand of 267% by 2033 (from 45,000 to 145,000 per day). This is 3.4% per annum. This is very optimistic not least, as individuals, our demand to travel has been static since 1995.
- There is a history of poor forecasting, the numbers using the Eurostar services are less than 50% of that forecast.
- Revenues are based on an assumption that fares will increase by more than inflation and will ultimately double in real terms. All fares in Kent have been increased by 3% above inflation to pay for the high speed Javelin service for which demand is already falling and services have been reduced.
- No weight is given to the importance of IT, which could result in a dramatic decline in the need to travel for both business and social purposes.
- HS2 Ltd has assumed that time on a train is wasted and therefore there is a monetary value assigned to time saved for all travellers. In reality most travellers already make good use of time on a train especially for business purposes - it is not wasted.
- The value assigned to that time saved is exaggerated by HS2 Ltd and is equivalent to the average business traveller earning £70,000 per annum in today's prices. Research has shown that passengers want reliability and value for money much more than high speed.

- The wider economic gains are valued at only £3.6bn over 60 years. Even then HS2 Ltd is unable to be precise about who will gain and where these benefits will be delivered. A study by Imperial College, London shows that overall economic benefits would be negligible and more likely to lead to business re-location than generation.
- No value at all is assigned to the dis-benefits of this scheme. Some businesses will lose, others will face inconvenience and asset values reduced permanently. The viability and quality of some intercity services which are not part of the HS network may decline.
- HS2 Ltd believes that an additional 38,000 passengers per day will use the line (existing usage of the West Coast Main Line is 45,000 per day) just because it exists. This is not credible nor is it sustainable in an era when energy saving should be an every day habit.

Is High Speed Rail Environmentally Friendly?

- According to HS2 Ltd, HS2 is likely to be broadly carbon neutral, but might generate an additional 26 million tonnes of CO_2. Even assuming there will be an increase in renewable energy production this will not create the low carbon economy claimed. It is much more likely to generate a net increase in carbon dioxide emissions.
- The number of passengers switching from planes to HS2, according to HS2 Ltd, will only be 3.5 million per annum - less than 7% of all passengers using HS2 and less than 5% of all passengers using Heathrow.
- No value at all is assigned to the damage to the environment, even to the nationally protected Chilterns Area of Outstanding Natural Beauty.
- The modal shift from cars and planes to trains will be small. Fewer than 2% of those driving on the motorways between Birmingham and London will switch to HS2.
- HS2 Ltd. assumes a worst case scenario for aviation emissions, when the CAA expects aviation emissions to show a significant improvement by 2030. If domestic flights are displaced by long haul flights, HS2 will have triggered an increase in aviation emissions.