



Llywodraeth Cymru  
Welsh Government

Ein cyf/Our ref ATISN 14680

13 January 2021

Dear

### **Request for Information – ATISN 14680**

I wrote to you on 18 December regarding your request for information.

#### **Information Requested**

1. Statistical information calculated in 2019 or 2020 to enable the A465 Dowlais to Hirwaun scheme to be re-appraised against the climate change emergency.
2. A breakdown of the -£35.3m figure shown on page 10 of the A465 Dowlais to Hirwaun Transport Benefits and BCR 2020 report.
3. Estimates of the volumes of greenhouse gas emissions associated with the Dowlais to Hirwaun scheme construction and maintenance of the road, over 60 years as well as emissions from the traffic using the road.

#### **Our Response**

I confirm the Welsh Government holds some information caught by your request.

We do not hold any information for your first question as no quantitative re-appraisal was undertaken in 2019 or 2020. The evaluation of the scheme's impacts was undertaken in 2017 and the update in 2018. A qualitative assessment was undertaken of delivering the scheme against the backdrop of the 2019 declaration of the Climate Change Emergency. The assessment is appended at the end of this letter.

The breakdown of the -£35.3m, as the Net Present Value (NPV) dis-benefit associated with Greenhouse Gas emissions from the Transport Appraisal, is not information the Welsh Government holds. The greenhouse gas emissions associated with the



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Rydym yn croesawu derbyn gohebiaeth yn Gymraeg. Byddwn yn ateb gohebiaeth a dderbynnir yn Gymraeg yn Gymraeg ac ni fydd gohebu yn Gymraeg yn arwain at oedi.

We welcome receiving correspondence in Welsh. Any correspondence received in Welsh will be answered in Welsh and corresponding in Welsh will not lead to a delay in responding .

scheme construction, maintenance of the road over 60 years and emissions from traffic using the road were calculated in accordance with the Department for Transport's *Transport Appraisal Guidance Unit A3 Environmental Impact Appraisal* which sets out how the monetary value of the impacts of proposed transport schemes on greenhouse gas emissions should be calculated. This distinguishes between the emissions from those sectors that are included within the EU Emissions Trading System – the 'traded sector' - and those that are not – the 'non-traded sector. The traded sector covers emissions from power and heat generation and energy-intensive industry. Emissions from use of petrol and diesel are in the non-traded sector. The appraisal considers greenhouse gas emissions arising from the production of materials used in the construction and maintenance of the A465, for example, cement, tarmac, steel etc. (embedded carbon), as well as those resulting from changes in the use of transport fuels over the 60 year appraisal period.

Inclusion in the traded sector, caps the relevant emissions and creates a market for them. In this way, they are 'internalised' through the requirement for the relevant sectors to purchase EU allowances (EUAs) to cover relevant emissions. The cost of any EUAs to cover traded emissions will be reflected in the purchase price of traded sector goods. Since the purchase price is used in transport appraisal, the cost of the relevant EUAs is included in the cost benefit analysis. As a result the monetary value for greenhouse gas emissions for construction and maintenance work on the A465 is not identified separately, but are included in the appraisal through the purchase price of those materials in the scheme costs .

We hold some information in relation to your final question. The estimated volume of greenhouse gas emissions from the scheme construction is 161,848 tonnes of carbon emissions equivalent (CO<sub>2</sub>e) as reported in the Sustainable Development Report Update March 2018 with the majority of emissions coming from the embodied carbon of materials used (118,260 tonnes CO<sub>2</sub>e). We do not hold any information on the greenhouse gas emissions for the maintenance of the road over 60 years or from the traffic using the road.

### **Next steps**

If you are dissatisfied with the Welsh Government's handling of your request, you can ask for an internal review within 40 working days of the date of this response. Requests for an internal review should be addressed to the Welsh Government's Freedom of Information Officer at:

Information Rights Unit, Welsh Government, Cathays Park, Cardiff, CF10 3NQ or  
Email: [Freedom.ofinformation@gov.wales](mailto:Freedom.ofinformation@gov.wales).

Please remember to quote the ATISN reference number above.

You also have the right to complain to the Information Commissioner. The Information Commissioner can be contacted at:

Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF. However, please note that the Commissioner will not normally investigate a complaint until it has been through our own internal review process.

Yours sincerely

## Context

In April 2019, Welsh Ministers declared a Climate Change Emergency to support development of plans and policies in Wales to tackle climate change and make a decisive shift away from reliance on fossil fuels and towards the targets for carbon reduction in the Paris Agreement.

Progressing the A465 Dualling scheme is consistent with Transport's role in meeting its contribution to the emissions reduction commitments. The emerging Wales Transport Strategy (WTS) and National Transport Plan (NTP) sets out the Welsh Government's proposals for developing a more integrated transport system in Wales. In this context it is important to recognise that this approach means that, whilst there will be reduction in overall emissions from transport to meet the identified targets, not every single transport intervention will reduce carbon emissions.

The NTP is taken as a whole, where the collective impact of all the interventions in contributing to carbon targets can be measured and balanced alongside actions needed to support sustainable economic development and social inclusion

## Wellbeing and Future Generations Act

The scheme objectives have been reviewed against the Welsh Government's well-being goals and well-being objectives from the Wellbeing and Future Generations Act.

Scheme objective	Well-being goals supported
Maintain the current level of service and to carry out improvements	<ul style="list-style-type: none"><li>• A prosperous Wales,</li><li>• A resilient Wales</li></ul>
Reduce journey times for private and commercial road users	<ul style="list-style-type: none"><li>• A prosperous Wales,</li><li>• A resilient Wales,</li><li>• A Wales of cohesive communities</li></ul>
Facilitate economic regeneration	<ul style="list-style-type: none"><li>• A prosperous Wales,</li><li>• A more equal Wales</li><li>• A Wales of cohesive communities</li></ul>
Enhance road safety and reduce casualties	<ul style="list-style-type: none"><li>• A resilient Wales,</li><li>• A healthier Wales,</li></ul>
Deliver a scheme that is sustainable	<ul style="list-style-type: none"><li>• A prosperous Wales,</li><li>• A resilient Wales,</li><li>• A globally responsible Wales</li></ul>

Scheme objective	Well-being goals supported
Improve provision for cyclists and pedestrians, providing opportunity for healthy lifestyle and a reduction in short vehicle journeys	<ul style="list-style-type: none"> <li>• A healthier Wales,</li> <li>• A Wales of cohesive communities,</li> <li>• A Wales of vibrant culture and thriving Welsh language</li> </ul>
Deliver a scheme which minimises future maintenance requirements and disruption to the network	<ul style="list-style-type: none"> <li>• A prosperous Wales,</li> <li>• A resilient Wales</li> </ul>
Reduce journey time variability and improve resilience on the A465	<ul style="list-style-type: none"> <li>• A prosperous Wales,</li> <li>• A resilient Wales,</li> </ul>
Use the A465 to manage traffic effectively and improve resilience on the strategic road network in South East Wales	<ul style="list-style-type: none"> <li>• A prosperous Wales,</li> <li>• A resilient Wales</li> </ul>
Deliver a scheme that integrates with public transport and the local transport network	<ul style="list-style-type: none"> <li>• A prosperous Wales,</li> <li>• A resilient Wales,</li> <li>• A more equal Wales,</li> <li>• A Wales of cohesive communities</li> <li>• A globally responsible Wales</li> </ul>
Do all this with proper care for the environment	<ul style="list-style-type: none"> <li>• A healthier Wales</li> <li>• A globally responsible Wales</li> </ul>

In considering those objectives in relation to the impacts of Climate Change they are best considered in the context of the following:

### A Resilient Wales

The identification of an on-line improvement scheme rather than a new off-line route has minimised the footprint of the proposed scheme, by widening the existing carriageway there is only an incremental increase in the width of the road rather than the creation of new severance.

The scheme provides for a new modern highway drainage system that provides increased pollution control, greater resistance to the effects of climate change and greater potential for enhancing connectivity for ecological species.

The provision of a dual carriageway provides improved conditions for highway maintenance and management of traffic.

The scheme will complete a high standard alternative route to the M4 improving the resilience of the South Wales trunk road network. This is particularly important with the decision to not proceed with the M4 CaN project and the increasing congestion on the M4 around Port Talbot due to the layout constraints that exist on the route at that location.

According to the results presented in the Economic Case, the scheme will provide journey time savings to M4 users, as A465 becomes a more reliable and fast alternative route than it is today.

### A Healthier Wales

The scheme will substantially improve facilities and safety for Active Travel including cyclists, pedestrians and equestrians through the opening up of new, dedicated routes and improvement of existing routes.

The new Active Travel provisions will create a continuous link from Hirwaun to Dowlais Top and complete the missing link in National Cycle Network Route 46 linking Neath to Abergavenny improving cross valley connectivity. Similarly, the A465 is a gateway to the Brecon Beacons National Park from a significant part of Wales and England and passes through the Valleys Regional Park. The new infrastructure will improve accessibility of the spectacular local scenery and heritage for the local communities and tourists.

In addition dedicated and segregated routes and crossings for pedestrians and cyclists such as to Pen-y-Dre school and Prince Charles Hospital from Cefn-Coed and Trefechan provide Active Travel opportunities within the urban areas along the scheme. The same is also true at Trewaun where provision has been made for a safe route to school for pupils of Ysgol Rhyd y Waun living in Hirwaun, and Dowlais Top where residents cross the A465 to access the industrial estate near Asda which has resulted in at least one fatality in recent years.

Overall, the scheme will improve safety for A465 users as well as cyclists and pedestrians. The estimate is that injury collisions will reduce by over 1,000 for the 60-year Economic Case appraisal period.

### A globally responsive Wales

The introduction of the Environment (Wales) Act 2016 and the emerging Carbon Delivery Plan places a duty on Welsh Ministers to ensure a reduction of 80% in net Welsh greenhouse gas emissions by 2050. In addition Welsh Ministers declared a Climate Change Emergency in April 2019 to support development of plans and policies in Wales to tackle climate change and make a decisive shift away from reliance on fossil fuels and towards the targets for carbon reduction in the Paris Agreement.

As with any policies such as these, the reductions are not managed effectively by applying that same reduction to every scheme that contributes to the policy - rather it requires a cohesive approach in how the use of carbon is managed across the board, with increases in some areas offset by reductions elsewhere.

In this context, progressing the A465 Dualling scheme remains consistent with Transport's role in meeting its contribution to the emissions reduction commitments.

The emerging Wales Transport Strategy (WTS) and National Transport Plan (NTP) sets out the Welsh Government's proposals for developing a more integrated transport system in Wales with a focus on optimising the use of the existing roadspace.

On this basis it is important to recognise that this approach means that, whilst there will be reduction in overall emissions from transport to meet the identified targets, not every single transport intervention will reduce carbon emissions in their own right. The NTP is taken as a whole, where the collective impact of all the interventions in contributing to carbon targets can be measured and balanced alongside actions needed to support sustainable economic development and social inclusion. The findings of the Environmental Statement for the A465 scheme needs to be viewed in this context.

The detailed Environmental Impact Assessment completed for the scheme for both construction and future operation shows an increase in greenhouse gas emissions overall. Whilst there will be increased levels of traffic on the A465, the reduction of stop-start traffic conditions as well as reduced journey lengths on the new section of dual carriageway, will make those trips more efficient.

The scheme has taken a number of steps to minimise its carbon impacts during construction. The scheme design minimises the need to import materials; minimises waste; minimises the overall quantities of earthworks and maximises the use of material generated on-site including the safe re-use of contaminated soils. These measures will significantly reduce the number of movements by construction vehicles on local roads with carbon, as well as other social and health, benefits. In addition the scheme involves the planting of a significant number of trees to offset the carbon emissions.

Specifically in relation to the scheme's role in addressing the climate change emergency during operation, the following points are relevant:

- The scheme is an on-line widening of an existing road rather than the construction of a new road corridor and is based on making best use of the existing roadspace. The scheme involves widening the existing 60mph three lane road to four lanes with a speed limit of 70mph generally. The road runs through two residential areas at Cefn Coed and at Trewaun/ Hirwaun.
- Delivery of this scheme would finish the A465 Dualling project, and would provide a high quality alternative to the M4 for some traffic traveling east west. In doing so would improve the resilience of the South Wales trunk road network and allow efficient management of traffic during times of congestion or major incident, improving the air quality around Newport and Port Talbot in particular.
- A full air quality assessment was undertaken as part of the Environmental Impact Assessment to support the Statutory Consent process. The modelling showed that the increase in pollution levels as a result of the scheme is low when the road first opens and well below the thresholds for NO<sub>2</sub> (nitrogen dioxide) and PM<sub>10</sub> (particulate matter) that would warrant the declaration of an Air Quality Management Area (AQMA).

- Air quality at junctions will improve by making them grade-separated, allowing smooth flow through the junction compared to the stop-start nature of the current at-grade roundabouts. Smoothing out the gradient of the A465 will also help in this regard.
- The air quality overall will improve over time due to improved vehicle emission technology in the future. This is accepted best practice and a trend seen and verified by air quality monitoring data showing concentrations are reducing year on year for nitrogen dioxide.
- The scheme will improve the critical northern cross-Valley Link for the South Wales Metro. The junctions at Hirwaun and Merthyr Tydfil will support reliable and direct connections to the Metro Hubs, contributing to the promotion of modal shift.
- The scheme provides for a new modern highway drainage system along a stretch of road that is frequently flooded. The new drainage will provide increased pollution control, greater resistance to the effects of climate change and greater potential for enhancing connectivity for ecological species.
- In terms of nature and biodiversity, the scheme will bring positive impacts to the area by replacing woodland, grassland and other habitats within the landscaping and restoration of the construction site; creating enhancement areas; re-locating protected species before the start of construction works; maintaining / enhancing commuting lines for species such as bats; improving habitat connectivity along the road corridor.
- The contribution the scheme makes to a more integrated transport system supports increased use of public transport and Active Travel thereby reducing reliance on road travel and encouraging modal shift.
- The scheme includes significant enhancement for provision for Active Travel and Non-Motorised Users (NMU) routes, including segregated routes, improved permeability across the A465, safe routes to school and direct access to Prince Charles Hospital and Pen-Y-Dre High School.

## **Strategic Risks**

The scheme does not proceed as the construction of a road scheme is not compatible with policies for achieving carbon reduction targets.

Overall this risk is medium.

The declaration of a Climate Emergency in 2019 and the priorities within the emerging Wales Transport Strategy and National Transport Plan will likely mean that less road schemes will be progressed in the future with Ministers more likely to divert funding to other transport priorities. The detailed Environmental Impact Assessment completed for the scheme does show an increase in greenhouse gas emissions overall

However the delivery of the scheme remains consistent with these sustainable objectives and in supporting Welsh Government's role in meeting its contribution to the emissions reductions commitments and there is currently no moratorium on building roads. .

Delivery of this scheme would finish the A465 Dualling project, and would provide an alternative to the M4 for some traffic traveling east west, in particular during times of congestion or major incident will improving the air quality around Newport and Port Talbot in particular.

While there will be increased levels of traffic on the A465, the reduction of stop-start traffic conditions as well as reduced journey lengths on the new section of highway, will make those trips more efficient.

The scheme has taken a number of steps to minimise its carbon impacts during construction. The scheme design minimises the need to import materials; minimises waste; minimises the overall quantities of earthworks and maximises the use of material generated on-site including the safe re-use of contaminated soils. These measures will significantly reduce the number of movements by construction vehicles on local roads with carbon, as well as other social and health, benefits.

As the scheme is a widening of an existing road rather than the provision of a new road corridor, the increase in scheme footprint will be minimised. The existing A465 is a 60mph there lane road and the provision of a 70mph dual carriageway and grade-separation of the junctions will remove congestion and allow the smooth flow of traffic through junctions, avoiding stop-start conditions and stationary traffic that are an everyday occurrence on the current road.

The air quality assessment undertaken as part of the Environmental Impact Assessment showed low levels of pollution increase when the road first opens and well below the thresholds that would warrant the declaration of an Air Quality Management Area (AQMA). The air quality overall will improve over time due to improved vehicle emission technology in the future. This is accepted best practice and a trend seen and verified by air quality monitoring data showing concentrations are reducing year on year for nitrogen dioxide.

The contribution the scheme makes to a more integrated transport system supports increased use of public transport and Active Travel thereby reducing reliance on road travel and encouraging modal shift.

The scheme also provides for a new modern highway drainage system that provides increased pollution control, greater resistance to the effects of climate change and greater potential for enhancing connectivity for ecological species.

In terms of nature and biodiversity, the scheme will bring positive impacts to the area by replacing woodland, grassland and other habitats within the landscaping and restoration of the construction site; creating enhancement areas; re-locating protected species before the start of construction works; maintaining / enhancing commuting lines for species such as bats; improving habitat connectivity along the road corridor; and pollution control measures during construction and operation of the proposed scheme.