

Regulatory Triage Assessment

For Self-Certified Measures in Defra

Policy teams are advised to submit this assessment to their Better Regulation Business Partner, and, once signed-off, to upload the checklist alongside the relevant entry on SIPI. The assessment will need to be self-certified by Defra's BRU G7 Economist. The RTA fields have been amended to reflect the latest Better Regulation Framework updates which have introduced a de-minimis threshold, and a self-certification and call-in process.

Title of Measure	Local Air Quality Management - Designation of National Highways as a "Relevant Public Authority"
Lead Department/Agency	Defra
Expected Date of Implementation	2022
Origin (Domestic or International)	Domestic
Date of Assessment	29/10/2021
Lead Departmental Contact	Keith Crane
SIPI Reference Number	

Rationale for intervention and intended effects

Air pollution is a major public health risk ranking alongside cancer, heart disease and obesity, and poses the single greatest environmental risk to human healthⁱ. The UK has ambitious legally binding targetsⁱⁱ in place to reduce emissions of five damaging air pollutants, including Nitrogen Dioxide (NO₂) and Particulate Matter (PM_{2.5}).

Local authorities have a central role to play in achieving improvements in air quality. Their local knowledge and interaction with the communities they serve mean that they are better able to know the issues on the ground and identify the solutions that may be necessary or appropriate to the locality.

Part IV of the Environment Act 1995ⁱⁱⁱ sets out the Local Air Quality Management (LAQM) framework which requires local authorities to assess air quality in their area and designate Air Quality Management Areas (AQMA) where levels of ambient air pollution exceed, or are likely to exceed, air quality objectives set out in regulations.^{iv} Where an AQMA is designated, local authorities are required to produce an Air Quality Action Plan describing the pollution reduction measures they will put in place to achieve the air quality standards and objectives set out in the Air Quality Strategy^v and associated regulations and bring air pollution to within these limits. The LAQM framework is being strengthened to require Action Plans to contain measures that can be shown to bring pollution levels to within limits. However, many of the levers required to reduce pollution concentrations sit outside of local authorities. Through the Local Air Quality Management regime, local authorities engage with relevant partners within and beyond local Government to drive improvements in local air quality.

Declaration of AQMAs and development of Action Plans alone have often not resulted in pollution levels being lowered to within Government set local air quality objectives. These have been set by regulations and expressed in terms of local concentration limits. There are currently 558 AQMAs in England (including London).^{vi} Only 40% (221) of these have been revoked since 2000.^{vii} Several of these have been revoked to merge or make minor changes to the boundaries of an existing AQMA and not because an air quality objective has been achieved.

Local authorities have identified the absence of a legislative requirement to ensure co-operation from partners as often being a barrier to securing meaningful local action to improve ambient air quality.

Through the Environment Bill, the Environment Secretary will have the power to designate Air Quality Partners which have some responsibility for sources of local pollution. We are using these powers to amend the 1995 Act to designate National Highways which is responsible for the Strategic Road Network (SRN) as an Air Quality Partner within the Local Air Quality Management (LAQM) Framework. Designated Air Quality Partners will be required to co-operate with local authorities to reduce pollution levels where there are exceedances, or expected exceedances, of LAQM pollution limits.

Neighbouring local authorities and the Environment Agency are to be required to act as Air Quality Partners directly on the face of the Environment Bill. The Bill also strengthens the role of County Councils in two tier authorities requiring them to act in collaboration with district authorities where relevant. Designating National Highways (formerly Highways England) will bring the other key body of relevance to many air quality exceedances across the country given their role in managing the Strategic Road Network. Road vehicles are responsible for most of the current exceedances of local air quality objectives and contribute to PM_{2.5} emissions. A combination of the action that Government is taking to clean up the vehicles on the road and local action to manage traffic flows is needed to drive the air quality improvements needed. Designation of National Highways is required to ensure that engagement with local air quality action plans is consistent and brought into the legislative framework.

Viable policy options (including alternatives to regulation)

Option 1: Do nothing (non-regulation)

Option 2: Designation of National Highways as a Relevant Public Authority (preferred option)

Description of Novel and Contentious Elements (if any)

No contentious elements are expected from this change

Assessment of impacts on business

The impact on business will be negligible.

As the designation establishes a duty to act on National Highways which is a public authority, we do not anticipate there to be any direct identifiable business impacts from this designation.

Moreover, the designation does not specify what measures could be implemented by National Highways as part of the LAQM framework. These will be dependent on the local situation and the outcome of potential assessments/feasibility studies to be carried out by National Highways. Discussions with National Highways have confirmed that the costs of feasible and proportionate measures can also be highly variable depending on local circumstances. The costs of assessments and any resulting implementation costs of a decided measure will fall on National Highways, or will otherwise be funded by Government (e.g., potentially through the Air Quality grant).

There may be some immediate costs of engagement on National Highways in terms of familiarisation of the LAQM framework, local processes, and relevant documentation.

Brief assessment of distributional impacts

AQMAs declared in England are often in socially deprived areas.^{viii} Therefore, any improvement to air quality in AQMAs because of action from National Highways on the SRN could have a disproportionately higher benefit for deprived communities and help reduce social inequality.

Brief assessment of small business impacts

The proposed measures will not result in significant impacts to small businesses.

Brief assessment of wider impacts

National Highways are already expected to – and do already – engage with local authorities. However, designation will ensure that this is more consistent. Similarly, the actions National Highways take to address local air quality issues will be more consistent. Designation should therefore contribute to securing that local air quality objectives are met in areas where emissions from use of the SRN contribute to a local pollution problem. This will have health benefits as exposure to harmful levels of pollution will be reduced.

The most appropriate measures available to National Highways include speed limits and traffic management measures. These can help deliver air quality benefits by reducing congestion and improving traffic flow. This can also have impacts in terms of reduced risk of accidents, lower noise levels, improved amenity of nearby areas and potential journey time increases.

Summary of monetised impacts

Impacts are discussed qualitatively.

Rationale for producing an RTA (as opposed to an IA)

Based on consultation with stakeholders, the proposed regulations are expected to result in a negligible business impact, and the expectation that costs to business will not exceed £5 million a year. The reasons for this are set out below.

	Name, Role	Date
Departmental sign off		
Economist sign off (senior analyst)	Sania Faizi	29/10/2021
Better Regulation Unit Sign off	Jen Baron	12/11/2021
Confirmation of self-certification by the BRU G7 Economist		

Statement of impacts

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1. The policy issue and rationale for government intervention

Exposure to air pollution has significant impacts on human health, both short-term through hospitalisations as well as long-term through premature mortality and respiratory illnesses. Air pollution also has negative impacts on the environment and its ability to function and provide benefits. The impacts of air pollution are not fully considered by individuals and firms in their decision making resulting in a market failure.

The UK Air Quality Strategy has set targets to reduce the emissions of harmful air pollutants. Local authorities are also required to work towards these objectives. Part IV of the Environment Act 1995^{ix} requires local authorities to review and assess air quality in their area and to designate Air Quality Management Areas (AQMA) where levels of ambient air pollution exceed, or are likely to exceed, air quality standards and objectives set out in the Air Quality Strategy^x. Where an AQMA is designated, local authorities are required to produce an Air Quality Action Plan describing the pollution reduction measures they will put in place to achieve the air quality standards and objectives set out in the Air Quality Strategy and associated regulations^{xi}, and bring air pollution within limits.

Most AQMAs in England are in urban areas and the vast majority have been established to address the contribution to air pollution from traffic emissions of nitrogen dioxide. Local authorities have identified road transport as the primary source for over **90% (526)** of AQMAs^{xii}. For a further **21**, road transport has been identified as a contributory source. The sources of these emissions are either local authority roads or the strategic road network regulated by National Highways. At present Local Authorities identify the Strategic Road Network as causing or contributing to an exceedance of local air quality objectives at **43**^{xiii} of these AQMAs¹. As these are outside the jurisdiction of local authorities, they are limited in what they can usefully do to bring these exceedances below the legal limits.

The rationale for intervention is to ensure that local action on tackling air pollution is coordinated, consistent, and effective in achieving air quality objectives. Many local authorities already work with National Highways to deliver the Air Quality Strategy for instance through air quality stakeholder partnerships, however a route for engagement and collaborative working is not always clear and

¹ These are AQMAs with a National Highways managed road listed as a source. A majority of these AQMAs intersect or fall within 200m of the SRN, and a few AQMAs do not intersect or fall within 200m of the SRN but local authorities have listed a National Highways managed road as a source.

consistent. The designation can help make existing and future action more streamlined and improve the efficiency of the delivery of air quality interventions.

2. Policy objectives and intended effects

Defra is committed to reducing environmental impacts through improved air quality. The overarching policy objective is to deliver health benefits by reducing public exposure to harmful levels of air pollution. This is to be achieved by mandating a collaborative response to exceedances of local air quality objectives between local authorities and National Highways.

Measures which are available to National Highways and appropriate in the LAQM context to help reduce pollution impacts include speed limits and traffic management measures. Costs of measures per location cannot be easily estimated as these will depend on local circumstances.

3. Cost Benefit Assessment

Overview

The proposed regulatory amendment formalises the relationship between National Highways and Local Authorities, and will:

- (1) increase the likelihood that measures will be brought in on the Strategic Road Network (SRN) to bring down concentrations of harmful air pollutants to within legal limits.**
- (2) impose some administrative cost to National Highways (which is a public body).**

It is possible that measures eventually brought in because of this designation will create indirect costs to business; however, as these measures have not been decided upon, and any direct costs from this policy will impact a public body (National Highways); we explore potential impacts qualitatively below.

Impacts from potential traffic measures

- *Likely measures that will be implemented*

The most likely measures to be implemented by National Highways because of this designation are traffic management and speed limit changes. However, National Highways continue to explore new and emerging technologies and ideas which could become possible measures in the future.

- *Rationale for likely measures*

The Government's NO₂ plan^{xiv} alluded to changes in the traffic management through changes to average speed, reducing congestion and improving flow as potential measures which could deliver improvements to air quality on the SRN.

In response to the commission^{xv} which required National Highways to consider measures on the SRN to improve air quality in the shortest possible time, National Highways considered speed limits, traffic management, and air quality barriers as potential measures. These were identified through research projects and trials carried out by National Highways as measures with potential to deliver improvements in air quality along the SRN.^{xvi} Of the 9 links where speed limits were considered, 8 were found to be feasible and have already been implemented. Modelling by National Highways shows that speed limits will help bring forward compliance at these links.^{xvii} The air quality barrier is only being considered at one link and due to the complexity of building a barrier, the feasibility of this

is still being considered. Of the 15 links where traffic management was being considered, 12 were found to be unfeasible whereas the feasibility of the others is being assessed.^{xviii} However, traffic management measures have been implemented by local authorities in AQMAs to limit access to or re-route traffic away from problem areas.

Charging measures such as Clean Air Zones are considered less likely to be implemented on the SRN due to the nature of traffic on major roads and the risk of potential traffic displacement into local areas where exposure is expected to be higher. Charging Clean Air Zones are also expensive to implement compared to other local measures, and so are unlikely to be considered within LAQM due to resource constraints.

- *Typical costs and benefits of these measures*

Traffic management

Traffic management measures include schemes which modify traffic flow such as through changing road layouts including adding/removing lanes, creating one-way systems, removing access to vehicles from certain directions and changing traffic light signal timing. The implementation cost is highly dependent on the work proposed and varies significantly between low-cost measures which involve adjusting the phasing of traffic signals to high-cost measures involving realigning a junction with complex traffic management phasing.

These measures alter the use of the network but without significant behaviour change as is the case with charging regimes like Clean Air Zones. Therefore, significant economic impact is not expected because of these schemes. Evidence suggests that junction improvements such as changes to road layouts or preventing access can help reduce congestion and deliver air quality benefits.^{xix} Junction changes can generally have a more significant impact compared to signal optimisation.

Traffic management measures are more effective for an isolated exceedance but less effective on their own to tackle several exceedances in an area. This is because traffic management does not decrease overall traffic demand and the reduction in flow on one road can be offset by an increase in flow elsewhere. As part of the NO₂ plan, traffic management in a local area involving junction changes and adjustment of signal timings to limit traffic levels on a non-compliant road was *modelled* to deliver a reduction of NO₂ concentrations in the the order of 13 microgram per cubic metre.^{xx}

Speed limits

Indicative estimates from National Highways suggest that implementing speed limits can cost between £3,000 per kilometre stretch to £160,000 per kilometre stretch depending on whether temporary signage or permanent signage is needed and the ease with which installation can be carried out.

Speed limits can have a positive impact on air quality in an area if these can be shown to reduce congestion. Evidence^{xxi} suggests that Oxides of Nitrogen (NO_x) emissions are at their greatest at high engine operating temperatures which result from steady high-speed driving. Local authorities under the NO₂ plan have implemented speed limit changes from 70mph to 50mph which have been effective in reducing average speeds below the limit and are expected to bring reductions in NO₂ concentrations. A reduction of NO₂ concentrations in the order of 2-3 microgram per cubic metre was *modelled* at the highest exceedance in one of these local areas implementing a reduced speed limit^{xxii}. However, speed limit reductions can increase travel time for road users.

- *Monetisation of impacts*

Although this designation will increase the likelihood of more measures implemented by National Highways where the SRN contributes to an exceedance in an AQMA, which measures will be implemented in each AQMA is not yet known. These will be identified through joint work between a local authority and National Highways including assessments and feasibility studies, the results of which will be highly dependent on the nature of the exceedance and local traffic conditions. It is therefore not considered proportionate at this stage to carry out a monetisation of impacts.

Administrative Costs for National Highways

National Highways will be required to engage with local authorities and feed into local air quality plans where relevant and if appropriate implement measures to improve air quality. This may involve administrative costs associated with increased communication with local authorities and familiarisation with the framework and processes. Although this change in the framework does not specify how many and which measures may get implemented as a result, it is likely to involve carrying out studies and assessments to identify measures. Feasibility studies for traffic management measures are estimated to cost £50,000 per study to carry out.^{xxiii}

4. Policy options considered, including alternatives to regulation

Option 1: Non-regulatory approach

Through existing governance arrangements National Highways are already expected to engage with local authorities. However, this does not ensure a consistent approach. Given that current arrangements have been insufficient in driving action to improve air quality in some local areas, there is no sensible reason to follow a 'do-nothing' approach.

Option 2: Designation of National Highways as a Relevant Public Authority (preferred option)

This is the preferred option. This will ensure local authorities have the necessary leverage to require engagement from National Highways where relevant to an exceedance of a local air quality objective. There are sufficient safeguards to ensure that Relevant Public Authorities can determine for themselves which actions they propose to take for inclusion in Action Plans. Designation will ensure that engagement and co-operation between National Highways and local authorities is consistent and that where actions are effective, proportionate, and feasible, these will be taken forward.

5. Assessment of small business impacts

As this RTA is related to designating a public authority as an Air Quality Partner, we do not expect there to be any resulting identifiable business impacts. The designation also does not specify what measures could be implemented by National Highways because of this designation as these are subject to local assessments. Therefore, by extension we also do not expect there to be any identifiable impacts on small businesses which could place a disproportionate burden on them.

6. Monitoring and Evaluation

Air Quality Action Plans as well as Local authority Annual Status Reports are submitted to Defra as part of the LAQM framework. Air Quality Action Plans are updated every five years, but some early revisions might be brought in. Any actions taken by National Highways as a result of this designation

will be reflected in these existing reporting arrangements. Improved engagement and outcomes from the designation will be evaluated by Defra accordingly.

Departmental signoff (SCS):	Date:
Economist sign off (senior analyst): Sania Faizi	Date: 29/10/2021
Better Regulation Unit sign off:	Date:
Confirmation of self-certification by the BRU G7 Economist:	Date:

ⁱ <http://www.gov.uk/government/publications/estimating-local-mortality-burdens-associated-with-particulate-air-pollution>

ⁱⁱ The National Emission Ceilings Regulations 2018

<http://www.legislation.gov.uk/ukxi/2018/129/contents/made>

ⁱⁱⁱ <https://www.legislation.gov.uk/ukpga/1995/25/contents>

^{iv} <http://www.legislation.gov.uk/ukxi/2000/928/contents/made>

^v https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf

^{vi} <https://uk-air.defra.gov.uk/aqma/summary>

^{vii} <https://uk-air.defra.gov.uk/aqma/summary>

^{viii} https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf

^{ix} <https://www.legislation.gov.uk/ukpga/1995/25/contents>

^x https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69336/pb12654-air-quality-strategy-vol1-070712.pdf

^{xi} <http://www.legislation.gov.uk/ukxi/2000/928/contents/made>

^{xii} <https://uk-air.defra.gov.uk/aqma/summary>

^{xiii} <https://uk-air.defra.gov.uk/aqma/summary>

^{xiv} <https://www.gov.uk/government/publications/air-quality-plan-for-nitrogen-dioxide-no2-in-uk-2017>

^{xv} <https://highwaysengland.co.uk/our-work/environment/air-quality-and-noise/air-quality/air-quality-reports/>

^{xvi} <https://assets.highwaysengland.co.uk/Corporate+documents/FINAL+-+HE+Research+Projects+to+Improve+Air+Quality.pdf>

^{xvii} https://assets.highwaysengland.co.uk/Air+quality+progress+update/Index/Commission+1/Progress+Update+Report/CCS0721905506-001_Air+quality+report+Web+accessible.pdf

^{xviii} https://assets.highwaysengland.co.uk/Air+quality+progress+update/Index/Commission+1/Progress+Update+Report/CCS0721905506-001_Air+quality+report+Web+accessible.pdf

^{xix} https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/633270/air-quality-plan-detail.pdf

^{xx}Based on evidence submitted by Derby City Council as part of their Full Business Case to tackle NO2 pollution, signed off by the council and JAQU, and published:

<https://www.derby.gov.uk/media/derbycitycouncil/contentassets/documents/transport/airqualityplan/finalbusinesscase/AQ3-Derby-Air-Quality-Modelling-Report-March-2019.pdf>

^{xxi} https://www.racfoundation.org/wp-content/uploads/2017/11/speed_limits-box_bayliss-aug2012.pdf

^{xxii} Based on evidence submitted by Essex County Council and Basildon Borough Council as part of their Full Business Case for Speed Management on the A127, signed off by the councils and JAQU.

^{xxiii} Based on estimates from National Highways