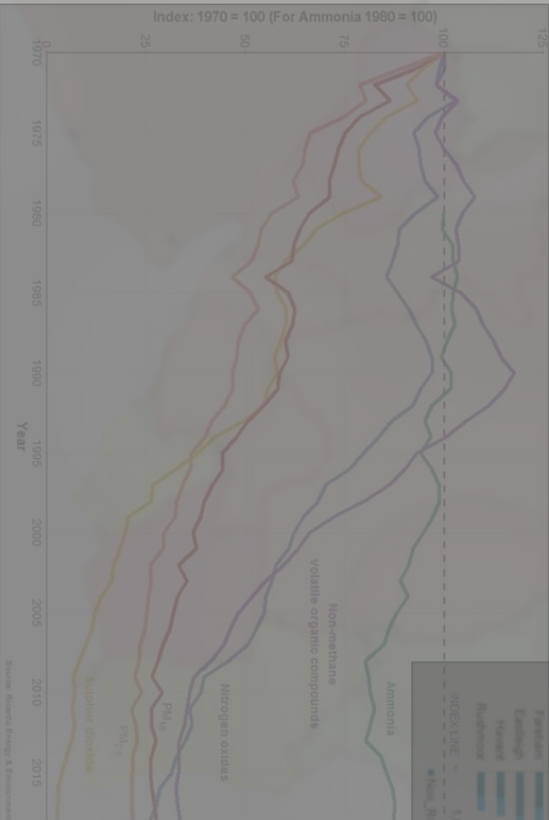
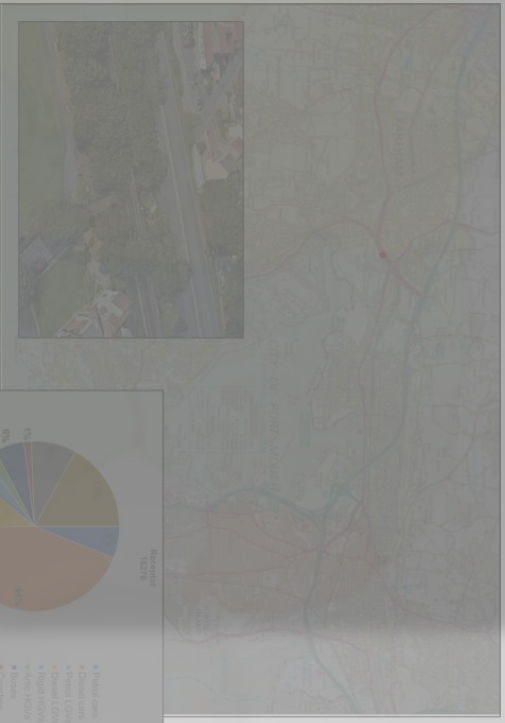




# Air quality & transport in Hampshire: The emerging picture



## Summary

- Pollutants – There are several pollutants harmful to human health & the environment
- Limits - For some pollutants, **both levels of emissions to air and ambient concentrations are subject to legislation, regulated and have enforceable limits.**
- Harm - Safety parameters which inform legal limits are recommended via peer-reviewed scientific guidelines, from international bodies (WHO etc), based on evidence of harm and application of the precautionary principle
- Law –Legal limits and responsibilities tend to be set at the upper tier of government (national / transnational), with elements of management then devolved to local government. This is the case in the UK.

**Reducing total emissions will help to avoid harm and protect both human health and the environment.**

## **International & Legal Context**

EU Directive 2008/50/EC on ambient air quality adopted in **2008** with legal exposure limits of certain air pollutants

Incorporated into UK legislation by the Air Quality Standards Regulations **2010**, to align with the **2010** EU-wide deadline set for compliance

Nitrogen Dioxide (NO<sub>2</sub>) is one of the pollutants with an annual average ceiling limit: forty micrograms per cubic metre (40µg/m<sup>3</sup>).

Aside from the ongoing impact on public health and the environment, implications of ongoing non-compliance include fines from the EU to non-compliant countries

Also, the 2011 Localism Act contains legislation allowing national fines to be passed to local authorities along relative lines of statutory responsibility, therefore allowing central government to legitimately pass EU infringement fines to local environmental health authorities.

## **International & Legal Context**

In **2015**, the Supreme Court ordered the Government to consult on new air pollution plans that had to be submitted to the European Commission no later than **31 December 2015**.

Defra published a plan to improve air quality, specifically to tackle NO<sub>2</sub>, in **December 2015**.

That Plan identified **5 cities outside London**, including neighbouring city **Southampton**, where the **limit value for NO<sub>2</sub> was not expected to be met by 2020**.

The Plan stated each city identified would be legally required, if appropriate, to introduce a formal Clean Air Zone (CAZ) for specified classes of vehicles by **2020 or sooner**.

Government published several iterations of plans, due to three successful legal challenges by international environmental lawyers ClientEarth, where UK courts ruled previous plans ‘unlawful due to inadequacy’

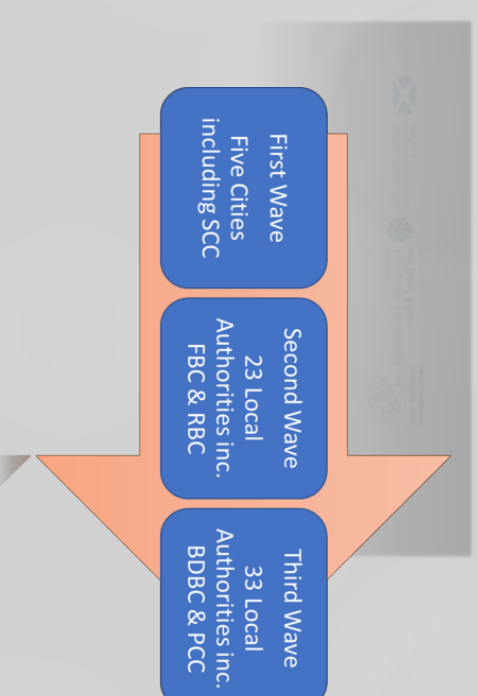
In Summer 2017 government published their ‘final’ national plan for tackling roadside emissions of NO<sub>2</sub>

The plan added to the First Wave a Second Wave of 23 local authorities predicted by DEFRA's national air quality model to have road links in exceedance of legal NO<sub>2</sub> limits in **2021** and beyond

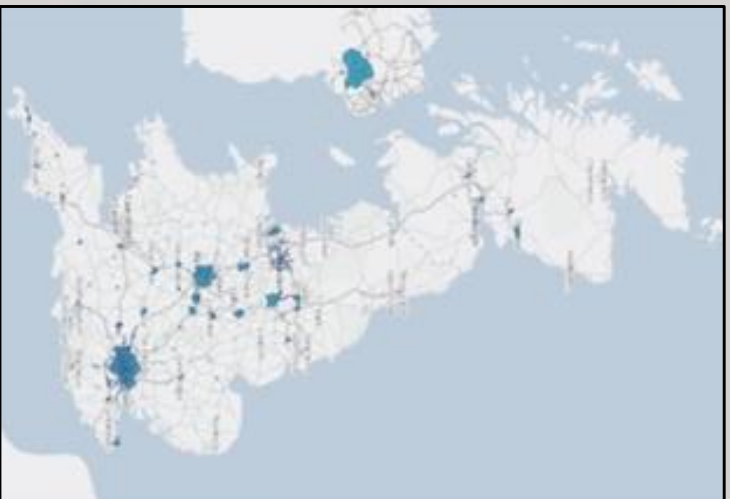
In Hampshire's local two-tier system, air quality management is a District Council responsibility as Environmental Health Authority.

Hampshire area councils of **Fareham, Rushmoor & New Forest** were named in the **Second Wave** with **Basingstoke** in a subsequent **Third Wave**, alongside neighbouring city **Portsmouth**.

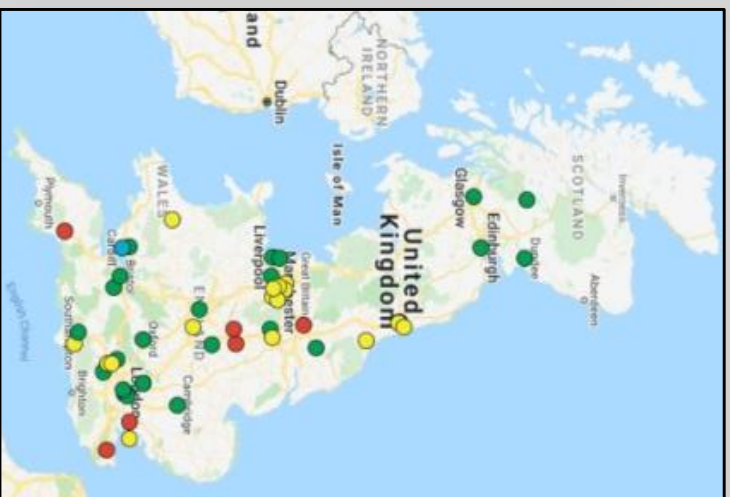
The County Council has a statutory duty to support environmental health authorities and AQ action plans as Local Highway Authority. Hampshire is also the local Public Health Authority.\*







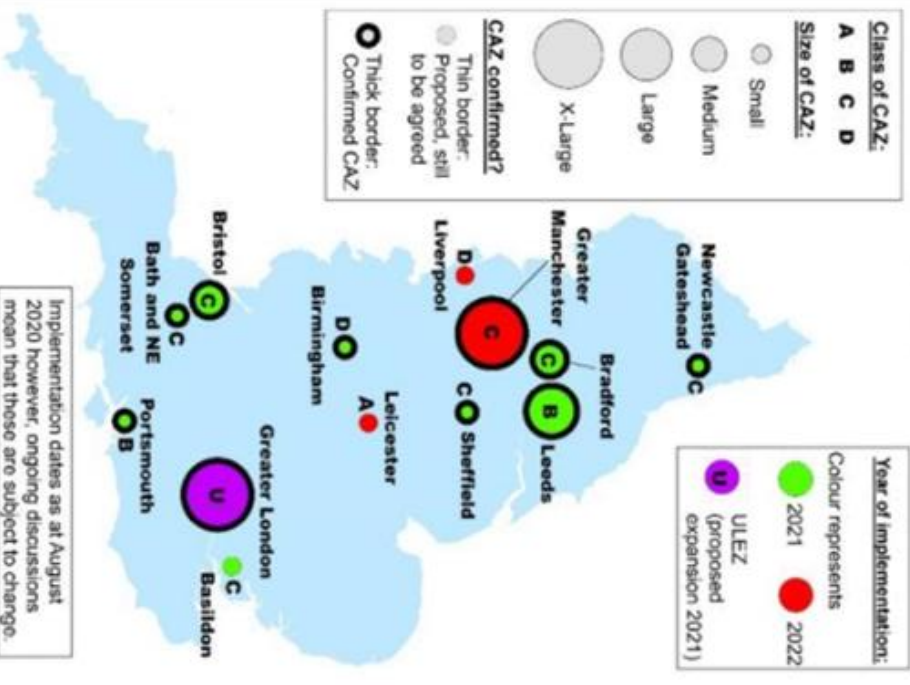
AQMAs Nationwide



NO<sub>2</sub> Plan Locations

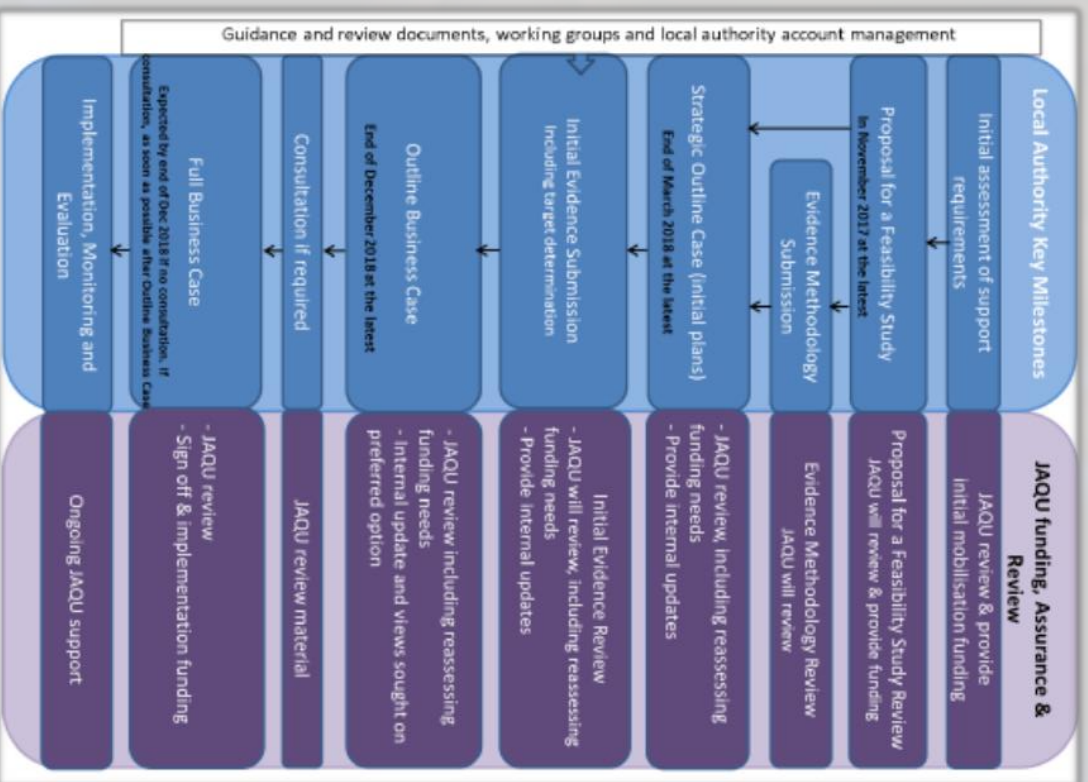
From **five** CAZs being initially identified as potentially required in 2015, following legal challenge and detailed investigation, by 2020 this has grown to **thirteen** CAZs now being implemented.

**Local Authorities Implementing Clean Air Zones (CAZs)**



CAZ	Vehicles types included
A	Buses, coaches, taxis, PHVs
B	Buses, coaches, taxis, PHVs, HGVs
C	Buses, coaches, taxis, PHVs, HGVs, vans, minibuses
D	Buses, coaches, taxis, PHVs, HGVs, vans, minibuses, cars

In **July 2017** Second Wave authorities were issued Ministerial Directions by the Secretary of State, legally mandating, by **31st March 2018**, 'outline plans for bringing local NO<sub>2</sub> within legal limits in the **shortest possible time**' with costed, detailed plans by **31st December 2018**, strictly adhering to highly-prescriptive, government-stipulated methodology and approach.



July 2017

16 stage process over 18 months

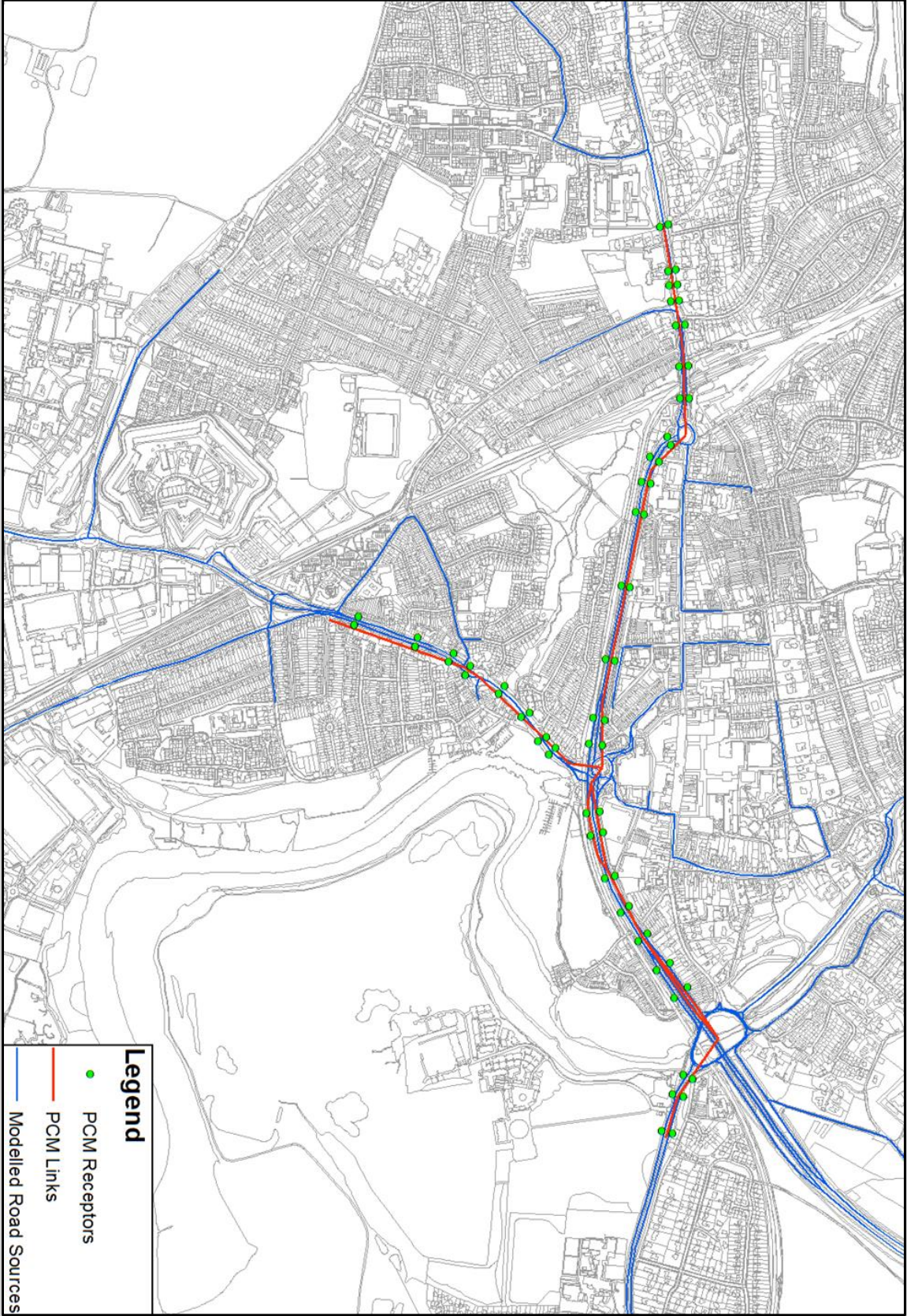
December 2018



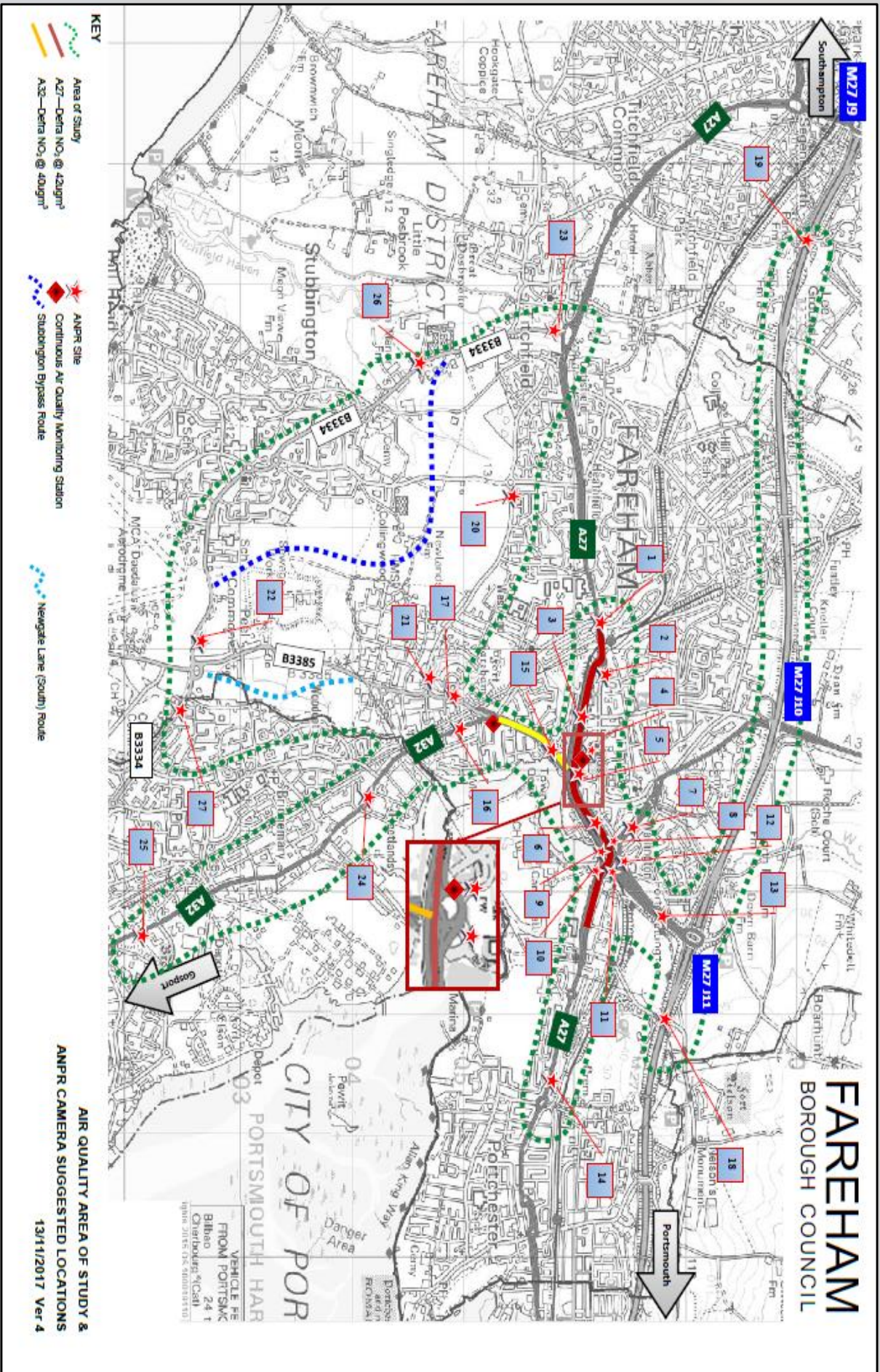












AIR QUALITY AREA OF STUDY &  
ANPR CAMERA SUGGESTED LOCATIONS  
13/11/2017 Ver 4

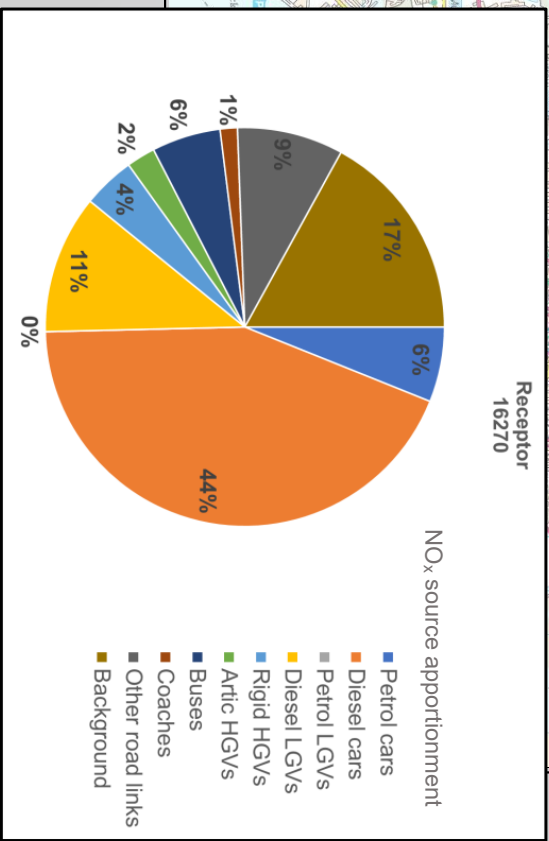
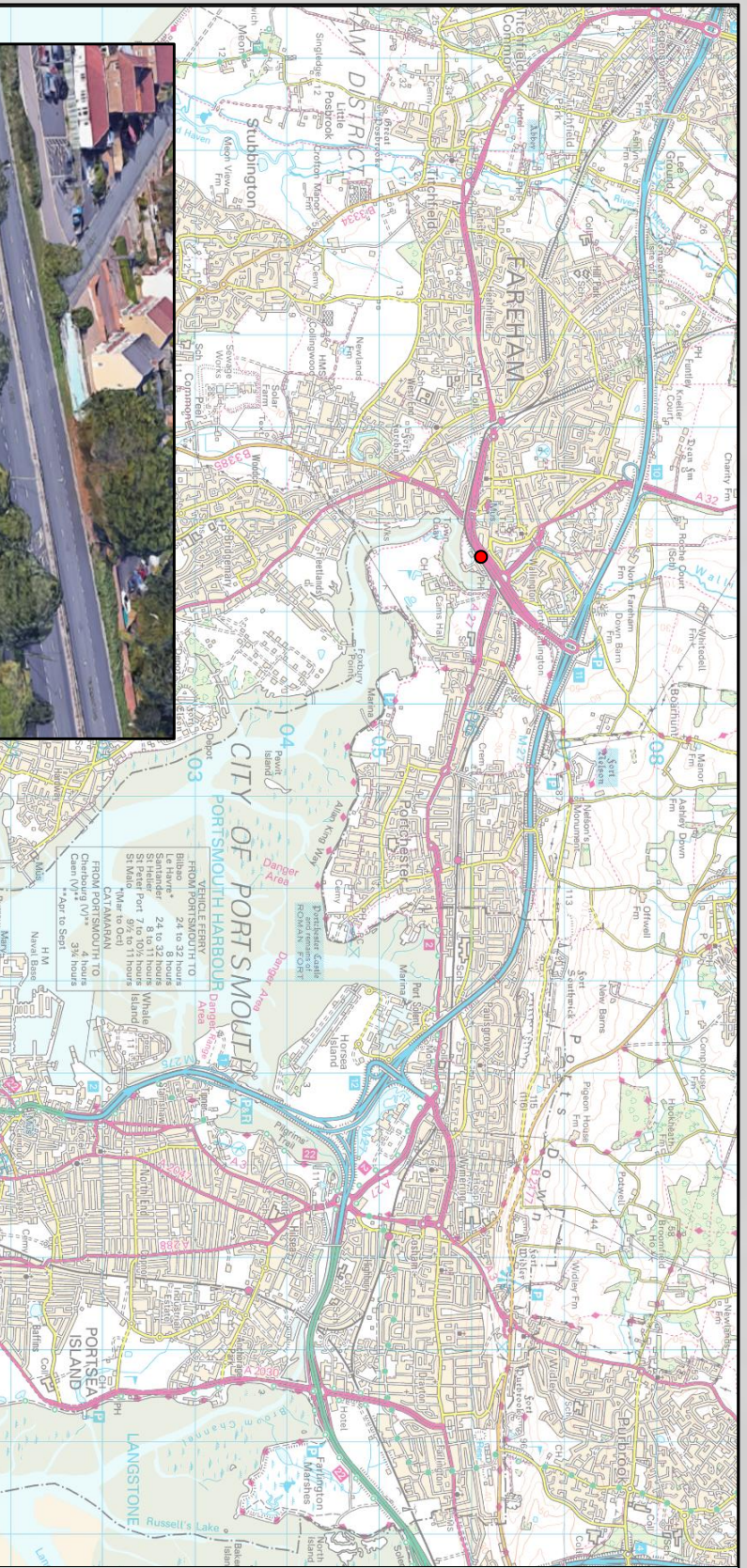




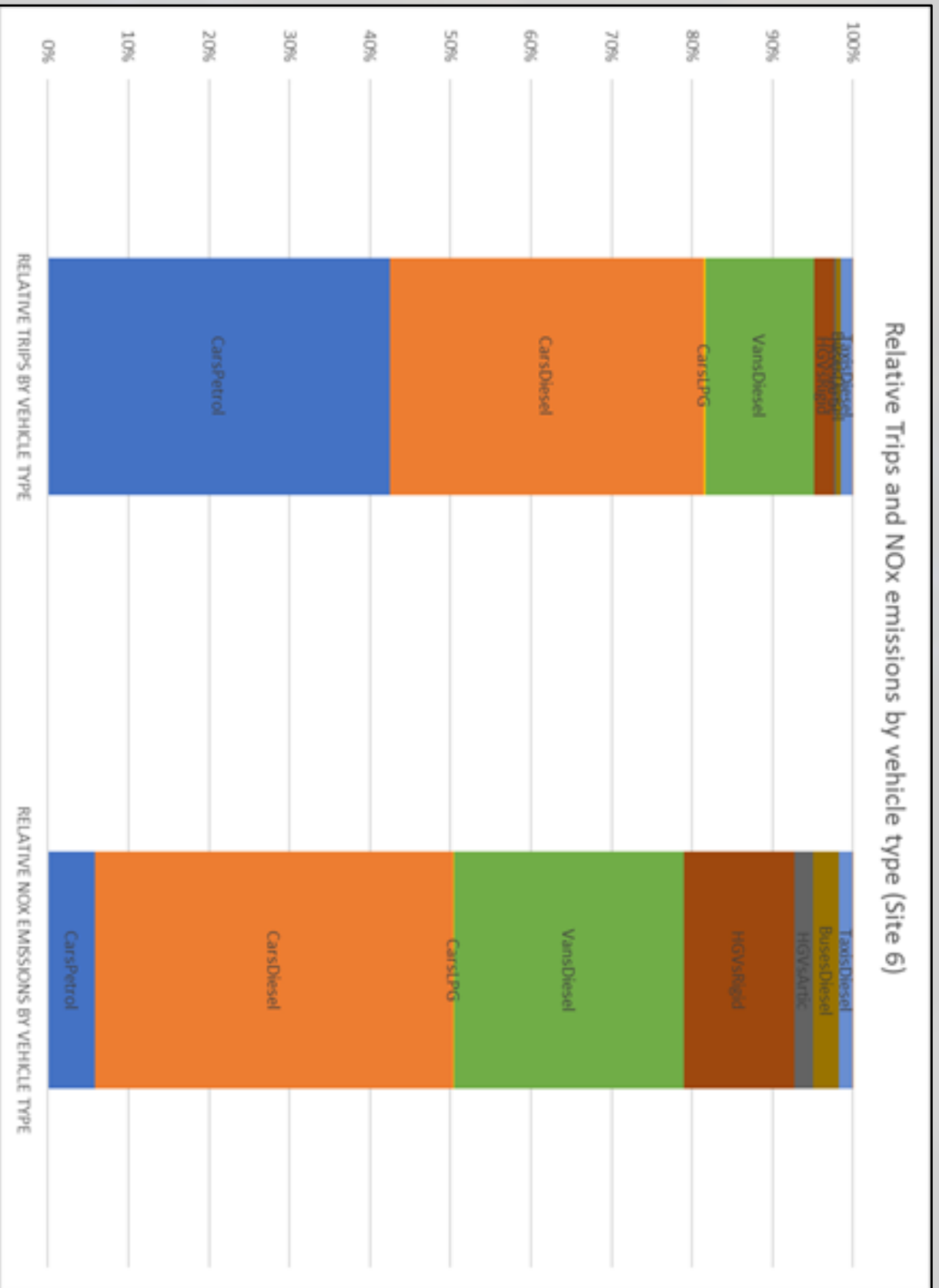




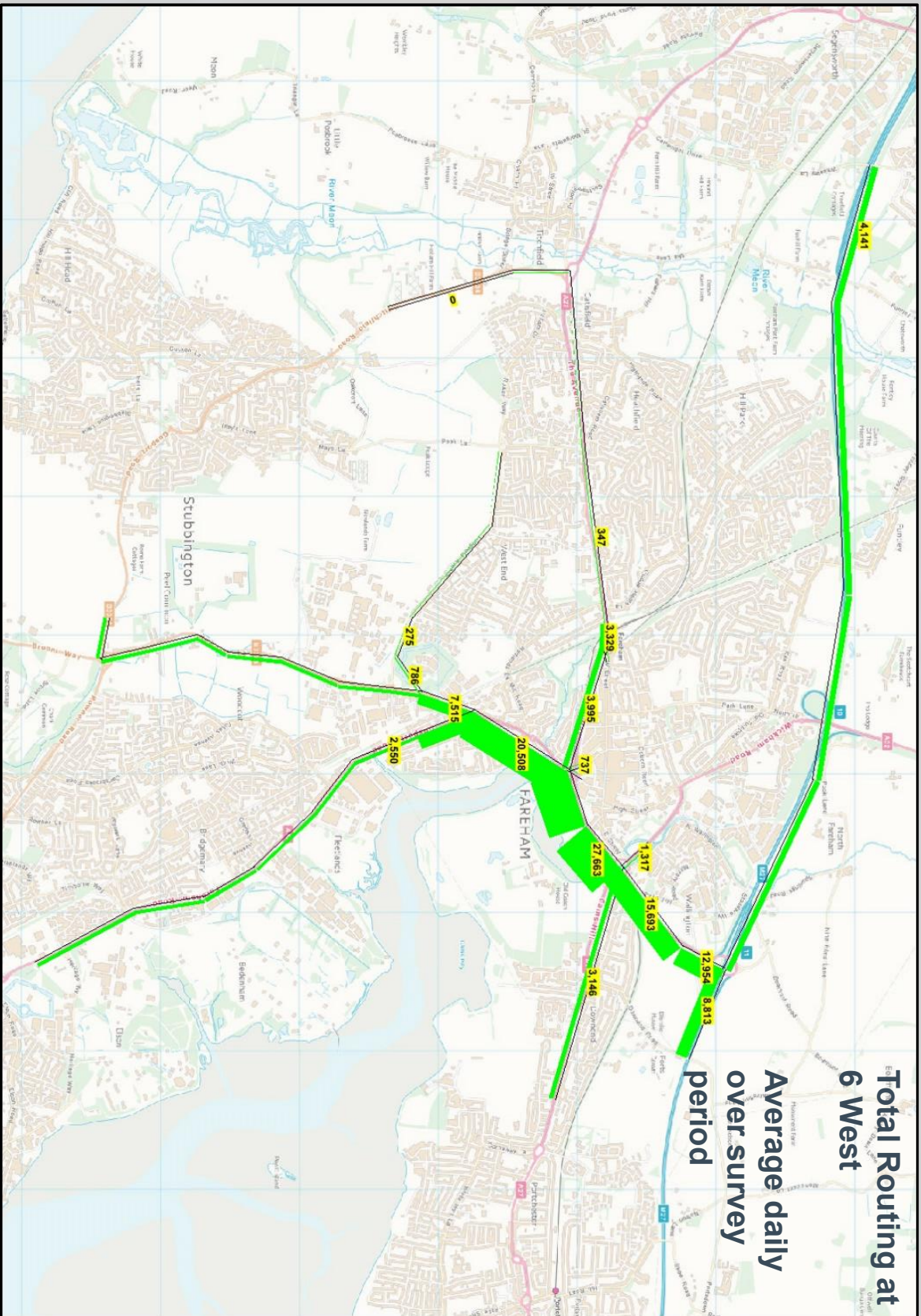


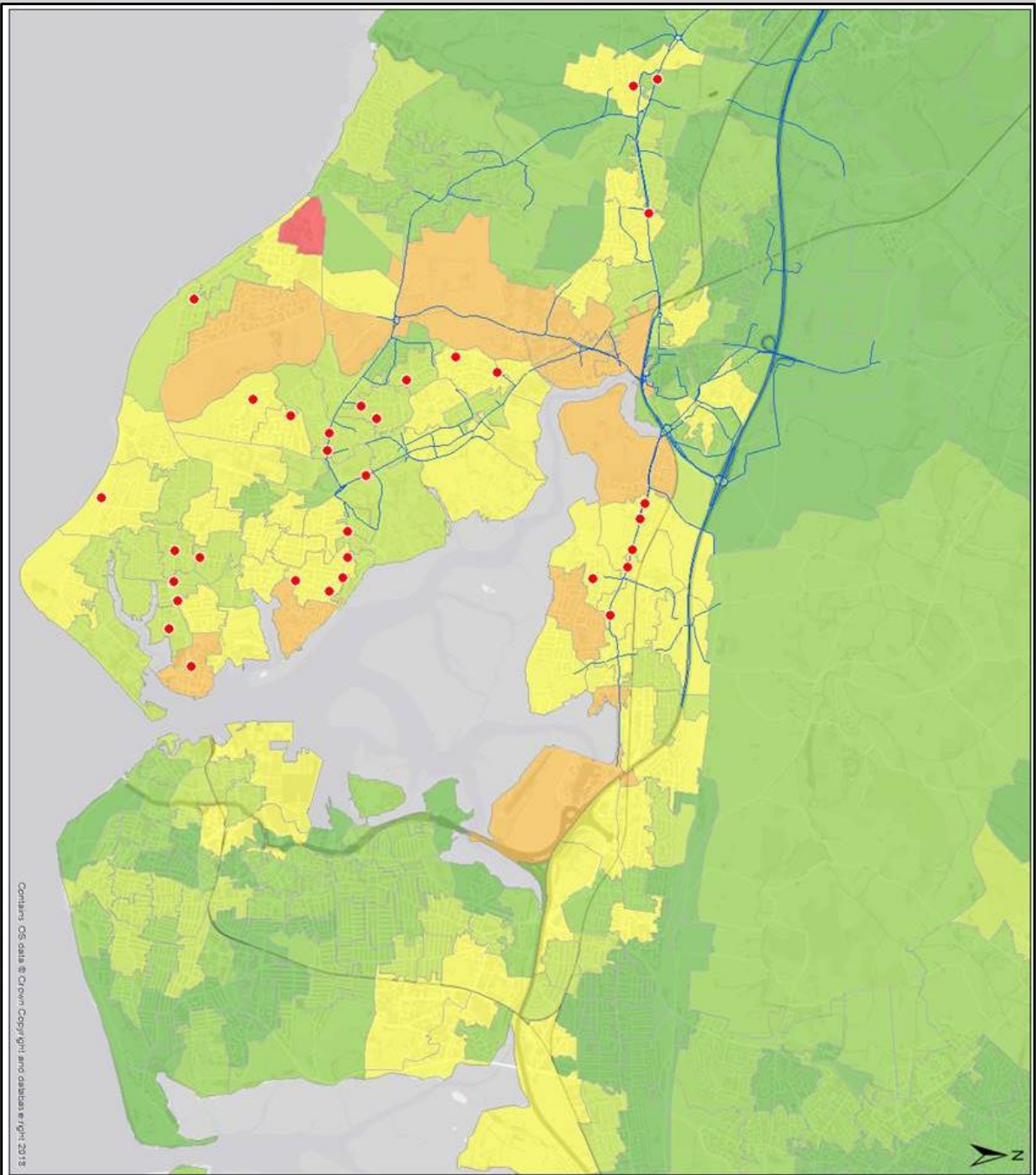


# ANPR – Emissions snapshot









Contains OS data © Crown Copyright and database right 2018

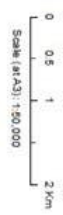
**Select Link Analysis for 'Problem Link' to show Car Movements by Origin during peak periods (2021)**

**Key**

- Proposed RTPI
- Modelled Road Network
- 2021 Car Movements (by origin)
  - < 25
  - 25 - 50
  - 50 - 100
  - 100 - 250
  - 250 - 500
  - 500 - 1,000
  - > 1,000



Data source: Ordnance Survey



**SNC-LAWALLIN** **ATKINS**  
Member of the SNC-Lawallin Group

DATE	APPROVED BY	REV.	DATE	REVISION
14/07/24	[Signature]	1	14/07/24	Issue for RTPI





## **Iterative modelling process**

Used South Hampshire sub-regional strategic transport model calibrated with ANPR local fleet data, (factoring in DEFRA / DfT fleet emission improvement rates) to model transport impacts, which was the input for air quality modelling.



### **Pros:**

Recent future-year model outputs already available of both a 'Do Nothing' scenario and a committed local major scheme (Stubbington Bypass)

### **Cons:**

Strategic model not fine-grain enough to test signal timing changes or cycling uptake, requiring sensitivity tests and alternative methodologies

Project Time	Evidence Base Iteration	NO <sub>2</sub> exposure at worst modelled receptor	Year
July 2017	Defra PCM Model prediction shows 'Do Nothing' scenario of marginal exceedance in 2021 (threshold year)	40.1µg/m <sup>3</sup>	2021
March 2018	Local interim AQ & transport modelling is submitted with Strategic Outline case predicting slightly worse exceedance	40.3µg/m <sup>3</sup>	2021
June 2018	AQ Modelling confirms Stubbington Bypass (opening April 2021) will deliver compliance in <b>2021</b> (assuming open for 6 months of 12), making <b>2020</b> new target (CAZ ruled out)		
July 2018	Due to CPO Inquiry, Stubbington Bypass predicted opening slips by 6 months to October <b>2021</b> , with measures to bridge the compliance gap		
September 2018	AQ modelling updated in response to JAQU technical review - 'Do Nothing' compliance year shifts	40.1µg/m <sup>3</sup>	2020
September 2018	<b>JAQU confirm their threshold for legal compliance is 40.49µg/m<sup>3</sup></b>		
October 2018	To test 2020 compliance, 2020 modelled directly for first time, predicting slightly worse exceedance	40.55µg/m <sup>3</sup>	2020
	<b>TARGET</b>	<b>00.06µg/m<sup>3</sup></b>	<b>2020</b>

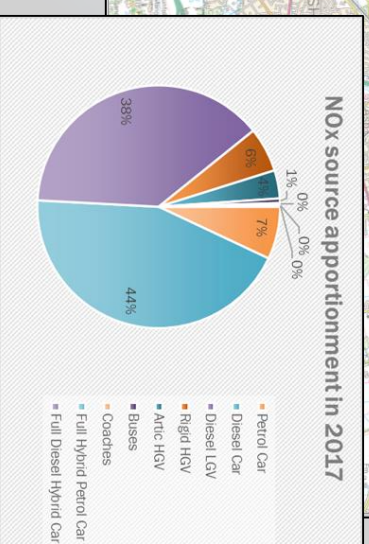
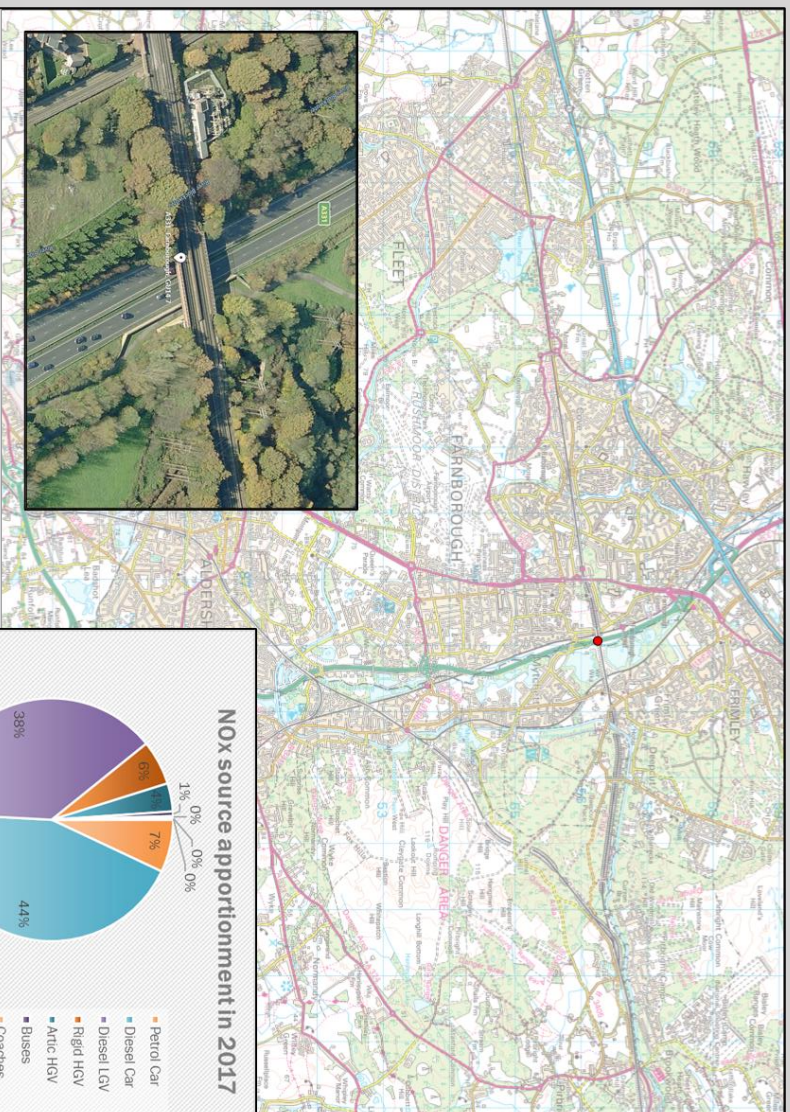
## Shortlist of Measures submitted at Strategic Outline Case & Outcome

Measure	Progress to Implementation?	Issue / Constraints / Caveats
1 Taxi incentive	YES	Early Measures grant further refined as Final Measure
2 Bus Retrofitting	NO	Not eligible for funding funded due to State Aid issues
3 Cycle Infrastructure	YES	Deliverable before the end of 2019
4 AQ Business Engagement Officer	NO	Not funded by JAQU for further investigation
5 ITS Review	YES	
6 Integrated Bus & Ferry Season Ticket w/ discount	NO	Competitive, commercial product not achievable in time to meet business case deadlines
7 Bus Stop RTI	YES	
8 Travel Plan reviews	NO	Not funded by JAQU for further investigation
9 Fleet Recognition Scheme	NO	Paused due to limited impact of Fareham-based scheme
10 EVCPs	NO	Not progressed due to wider programme delay impacts
11 Additional Bus Services	NO	Paused due to challenges of bringing forward measure in time to meet business case deadlines, (without prolonging services being cut, which was not in scope for funding)
12 Class A / B Charging CAZ	NO	Discounted by June 2018 evidence

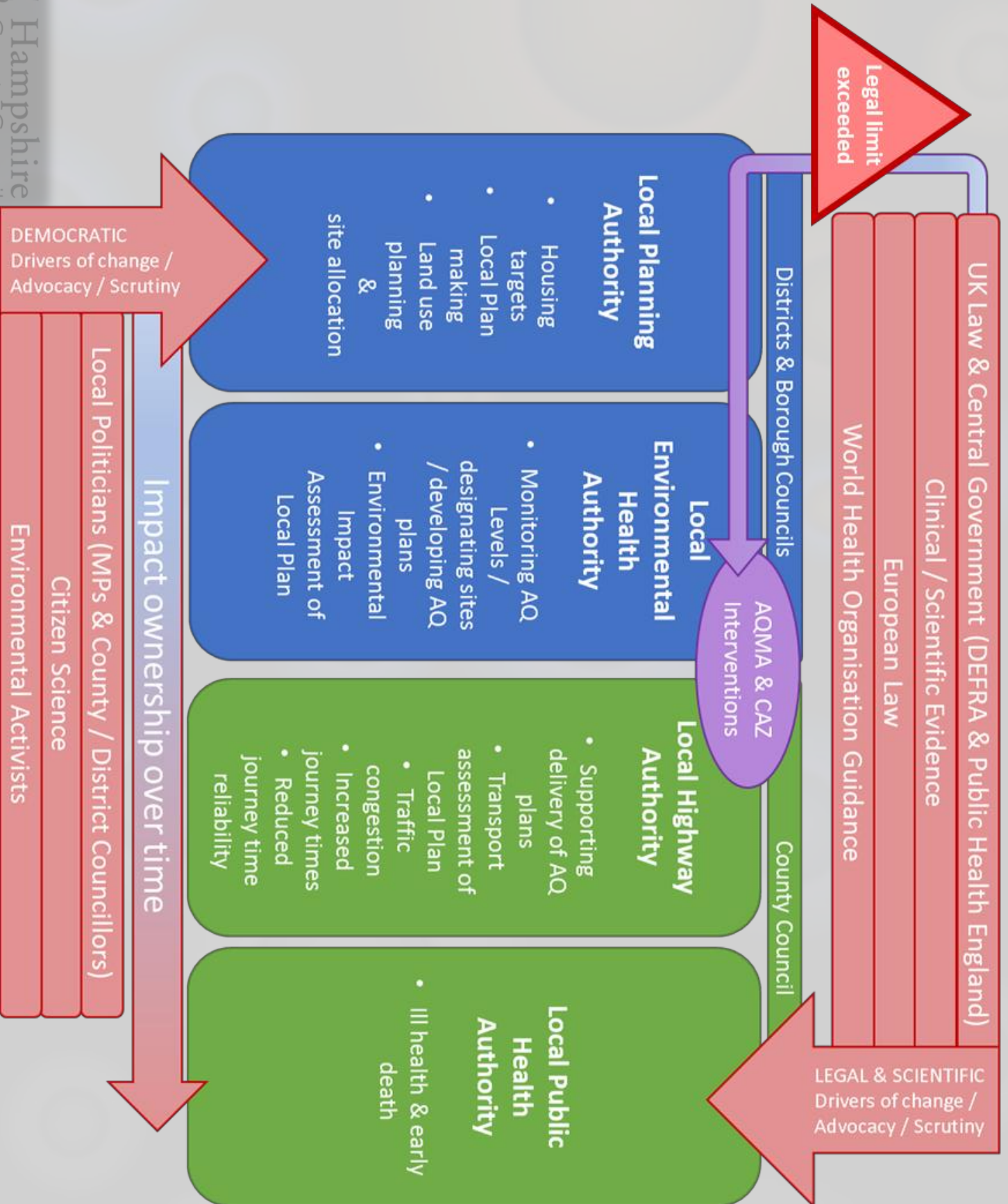


## Blackwater Valley

Location with the worst predicted NO<sub>2</sub> concentrations was a section of the A331 Blackwater Valley Relief Road in Rushmoor between the Coleford Bridge junction and the Frimley Road junction.



NO<sub>2</sub> is predicted to continue to exceed the annual average legal limit till 2022. However, the modelled exceedance in 2021 is marginal, (0.11µg/m<sup>3</sup>). The sole viable measure at this location was a speed limit reduction from 70mph to 50mph, predicted to bring forward legal compliance to 2021.





## **Political sign-off and wider remit for action**

Ahead of business case submission, joint HCC Cabinet report on Air Quality from the Director of Economy, Transport and Environment & Director of Public Health in November 2018 where Cabinet agreed to:

- Note the statutory responsibilities and accountabilities shared between the County and Borough Councils for dealing with air quality and approve in principle the approach taken in developing the JAQU business cases.
- Authorise both Directors to jointly develop options for undertaking additional work within existing available resources.
- Agree to the County Council undertaking a “coordination role” on air quality issues within Hampshire where related to core functions as both highway and public health authority.

- **Transport Emissions & Air Quality Evidence Base study** almost complete, supported by several borough partners.
- That evidence will inform development of an **AQ Policy Framework (AQPF)**, a strategic ‘policy toolkit’, with guidance for appropriate application of measures.
- Key to delivering these measures will be formulation of a **Transport Air Quality Action Plan**, (linked to LTP4 & Strategic Transport’s HCC Climate Change Emergency declaration response)
- **Joint Air Quality Position Statement** with HCC Public Health to be completed as first priority of the Transport Air Quality Action Plan
- Specific HCC **Air Quality, Transport & Development Guidance** is being considered
- With LTP4, a refresh will be undertaken of HCC’s Transport **Development Management Policies** that will refer to the new HCC Air Quality, Transport & Development Guidance
- This is in tandem with ongoing work to explore options for **shared Air Quality Planning Guidance** with local Borough councils & the cities.