APPENDIX 11

BREATHE LONDON DATA PRESENTATION AND WEBSITE VISUALS

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Breathe London Data Presentation and Website Visuals

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Introduction

Breathe London created a dynamic, unique online platform for sharing and visualizing air pollution data with the public. It was the first time all of London's air pollution readings were presented in one place – London's regulatory network, consisting of the London Air Quality Network (LAQN) and Air Quality England Network (AQE), alongside Breathe London. The following pages provide supplementary images and descriptions of the interactive map, which was the centerpiece of the site. Further descriptions of data presentation are described in Part 3 of the Breathe London Technical Report.
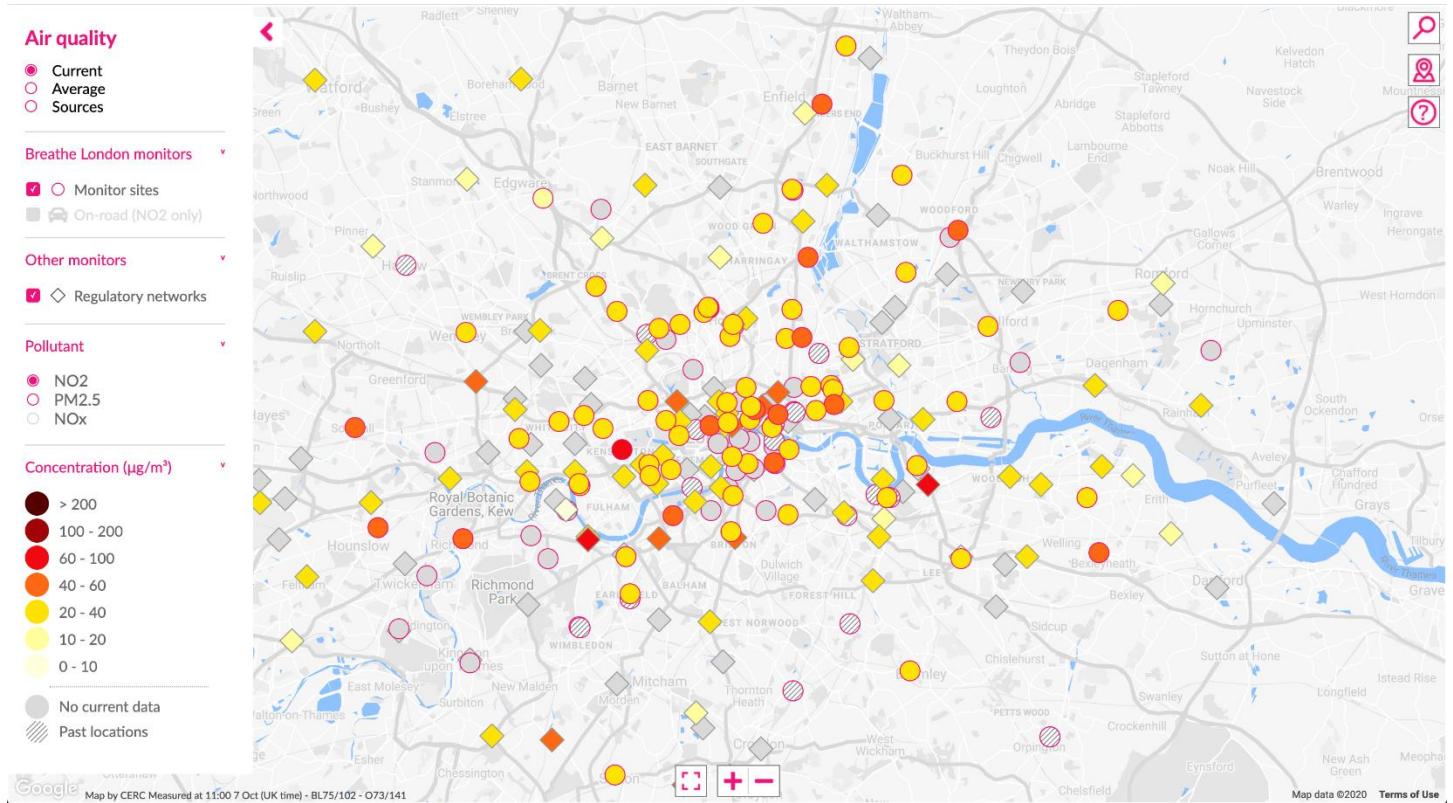
Current pollution levels: Regulatory monitors only
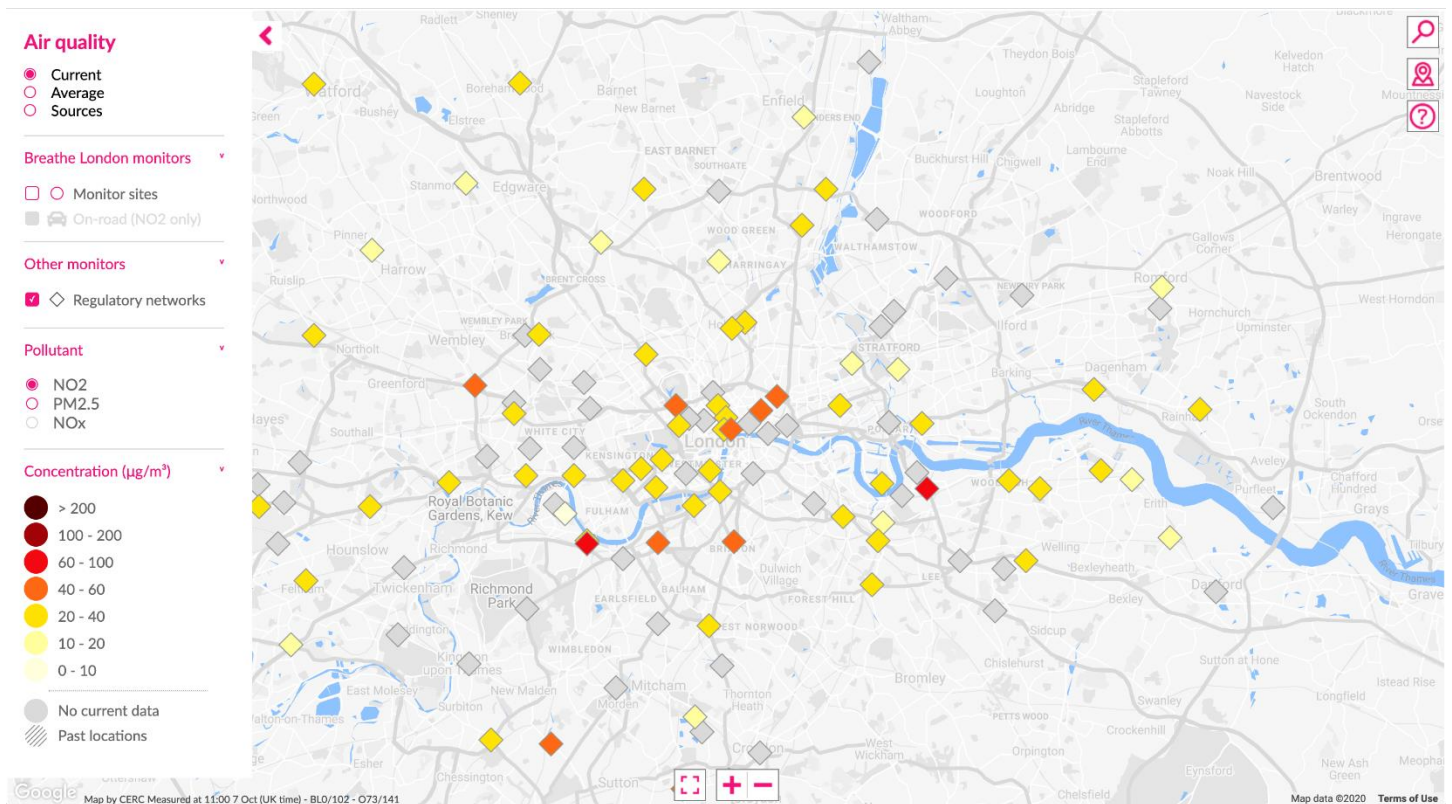
Breathe London map showing current NO$_2$ levels at regulatory monitors. PM$_{2.5}$ also selectable, with search, 'Find my location' and FAQ icons in the top-right of the map.

Left hand panel includes:

- Toggled list of data types for user to select (Current, Average or Sources) with 'Current' selected.
- Toggled list of Breathe London monitors (Monitor sites and On-road) with only 'Monitor sites' available when 'Current' is selected.
- Selectable 'Other monitors' category with 'Regulatory networks' selected.
- Toggled list of pollutants with NO$_2$ selected and PM$_{2.5}$ available, but NO$_x$ not available under 'Current' air quality.
- Key of heat colour palette associated with pollution concentration ranges.
- Key of icons representing monitoring locations where there is no data or data is historic only.

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Current pollution levels: Regulatory + Breathe London monitors

Air quality
- Current
- Average
- Sources

Breathe London monitors
- ☑ ○ Monitor sites
- ☐ 🚗 On-road (NO2 only)

Other monitors
- ☑ ◇ Regulatory networks

Pollutant
- NO2
- PM2.5
- NOx

Concentration (μg/m³)
- > 200
- 100 - 200
- 60 - 100
- 40 - 60
- 20 - 40
- 10 - 20
- 0 - 10
- No current data
- Past locations

Map by CERC Measured at 11:00 7 Oct (UK time) - BL75/102 - O73/141

Map data ©2020 Terms of Use

Breathe London map showing current NO_2 levels at regulatory monitors and Breathe London monitors. $PM_{2.5}$ also selectable.

Current pollution levels: Measurement and past 24 hours plot pop-up
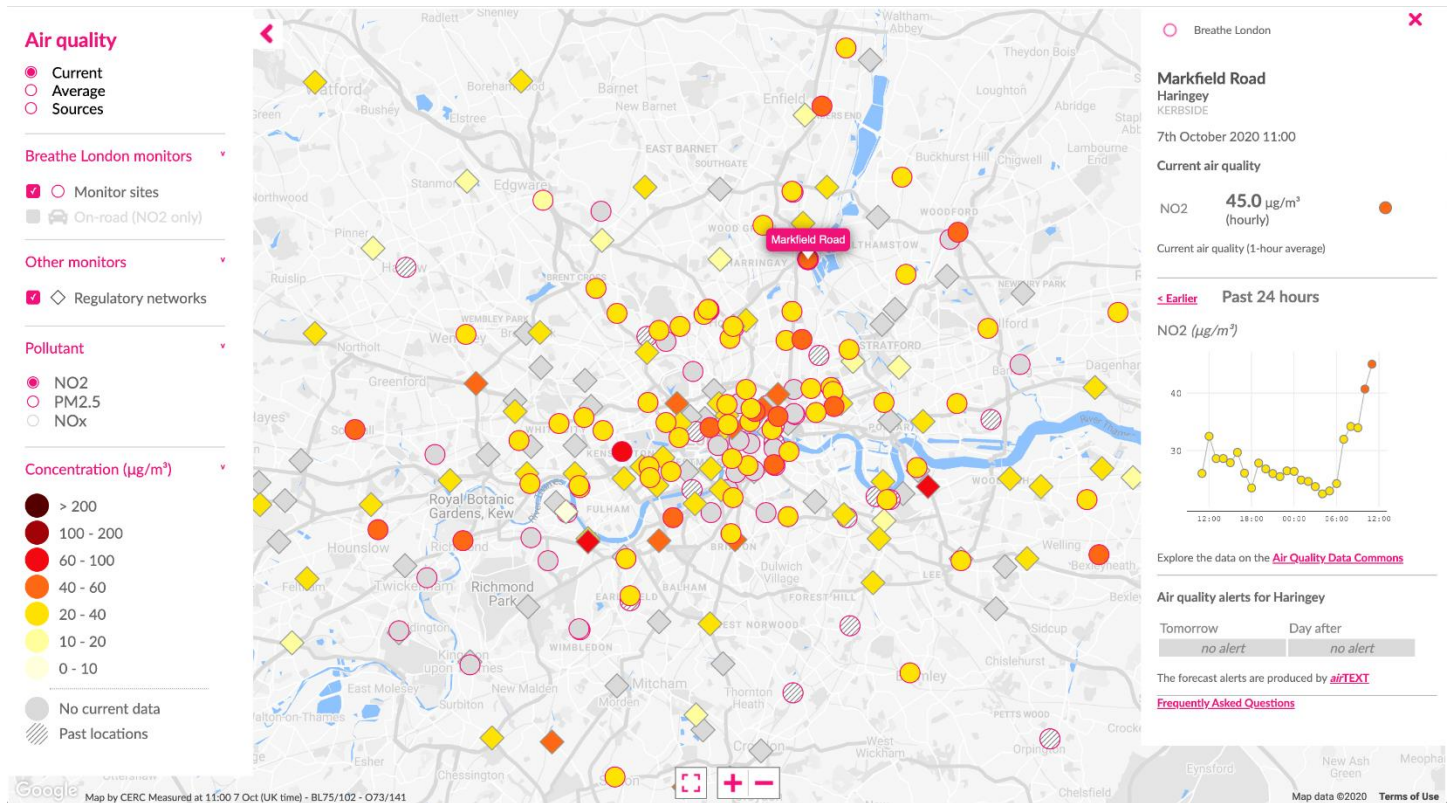
Current pollution levels at selected site for NO$_2$ with the following details provided:
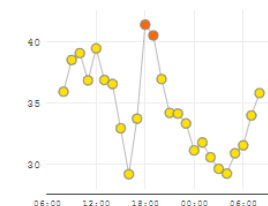
- Monitor location including site type (roadside, kerbside, urban background, industrial, etc.) and local authority.
- Current air quality hourly average alongside date/time of reading; NO$_2$ shown, PM$_{2.5}$ available.
- Diurnal plot over the past 24 hours at the site (Breathe London monitors only); NO$_2$ shown, PM$_{2.5}$ available.
- Link to earlier data.
- Link to data on the Air Quality Data Commons.
- Air quality alert forecast for tomorrow and the day after and link to airTEXT.
- Link to FAQ.

# Current pollution levels: 'Find my location' pop-up

  After clicking 'Find my location' icon, current pollution levels at site nearest to user. $PM_{2.5}$ also selectable.

Average pollution levels: On-road monitoring (NO₂ only)
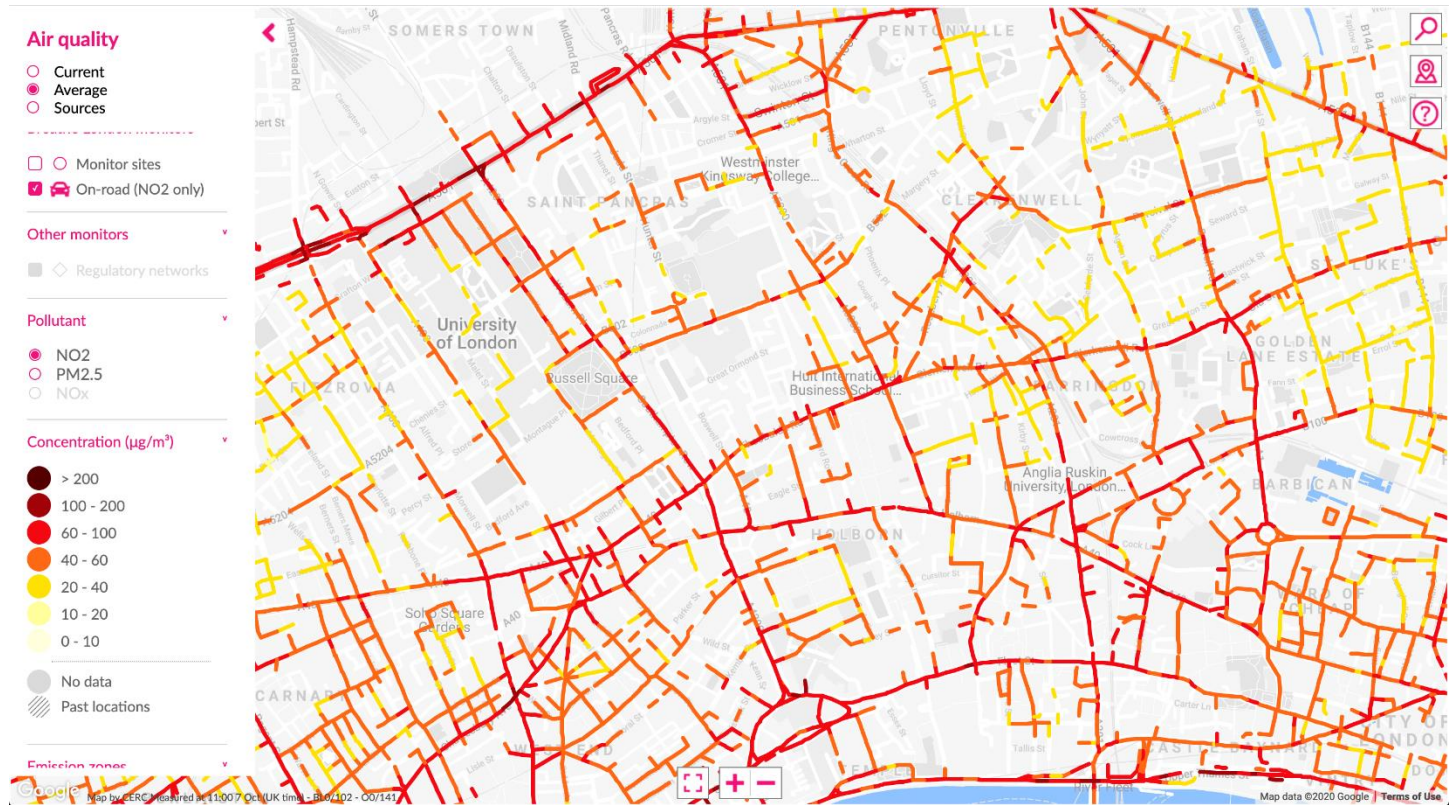
Pollution levels displayed in 30m long road segments. Roads with no colour did not have enough data to be displayed. NO₂ data only.
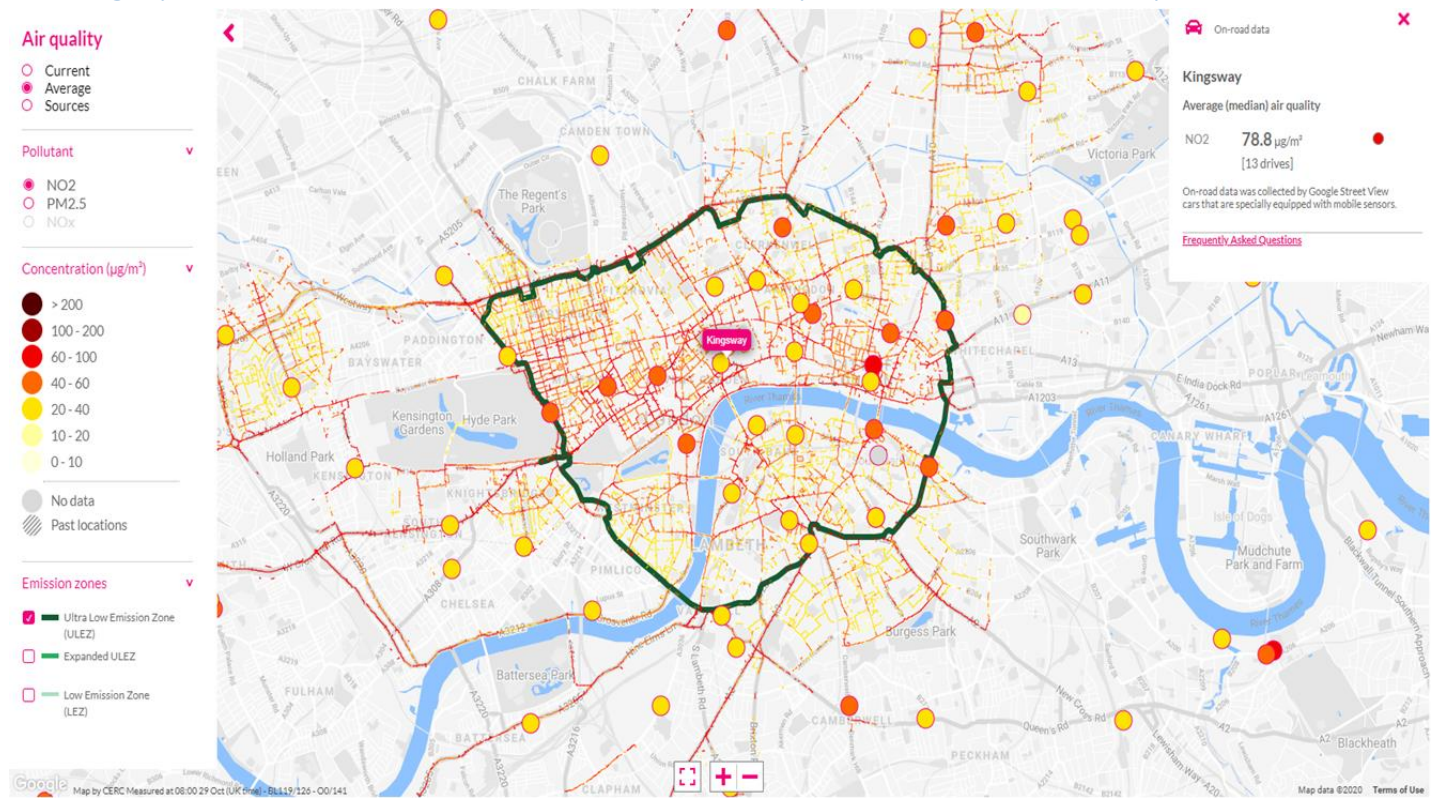
Average pollution levels: On-road monitoring pop-up
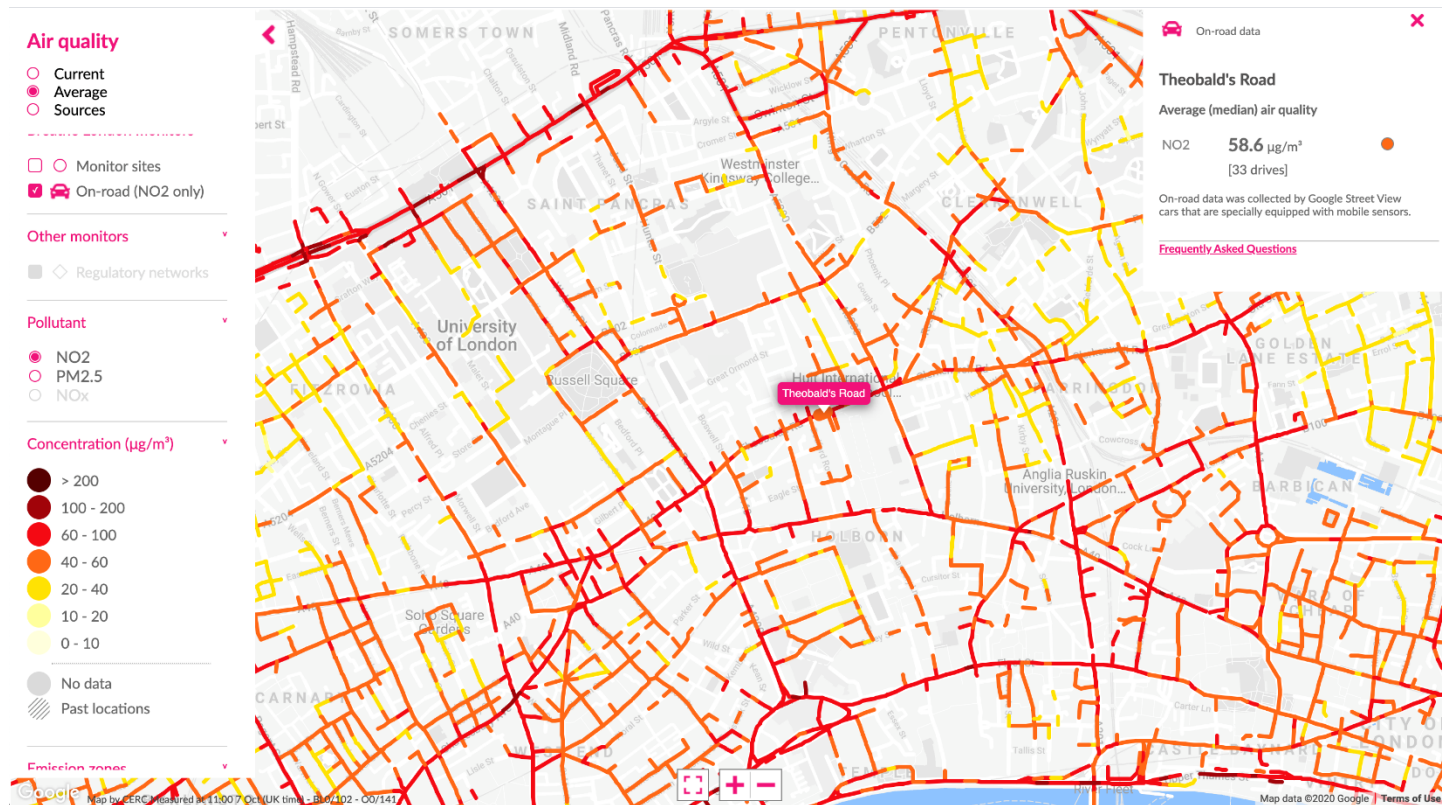
30m road segment name displayed with pop-up showing average (median) NO2 pollution level and the number of drives along that segment the readings are based upon. Link to FAQs provided.
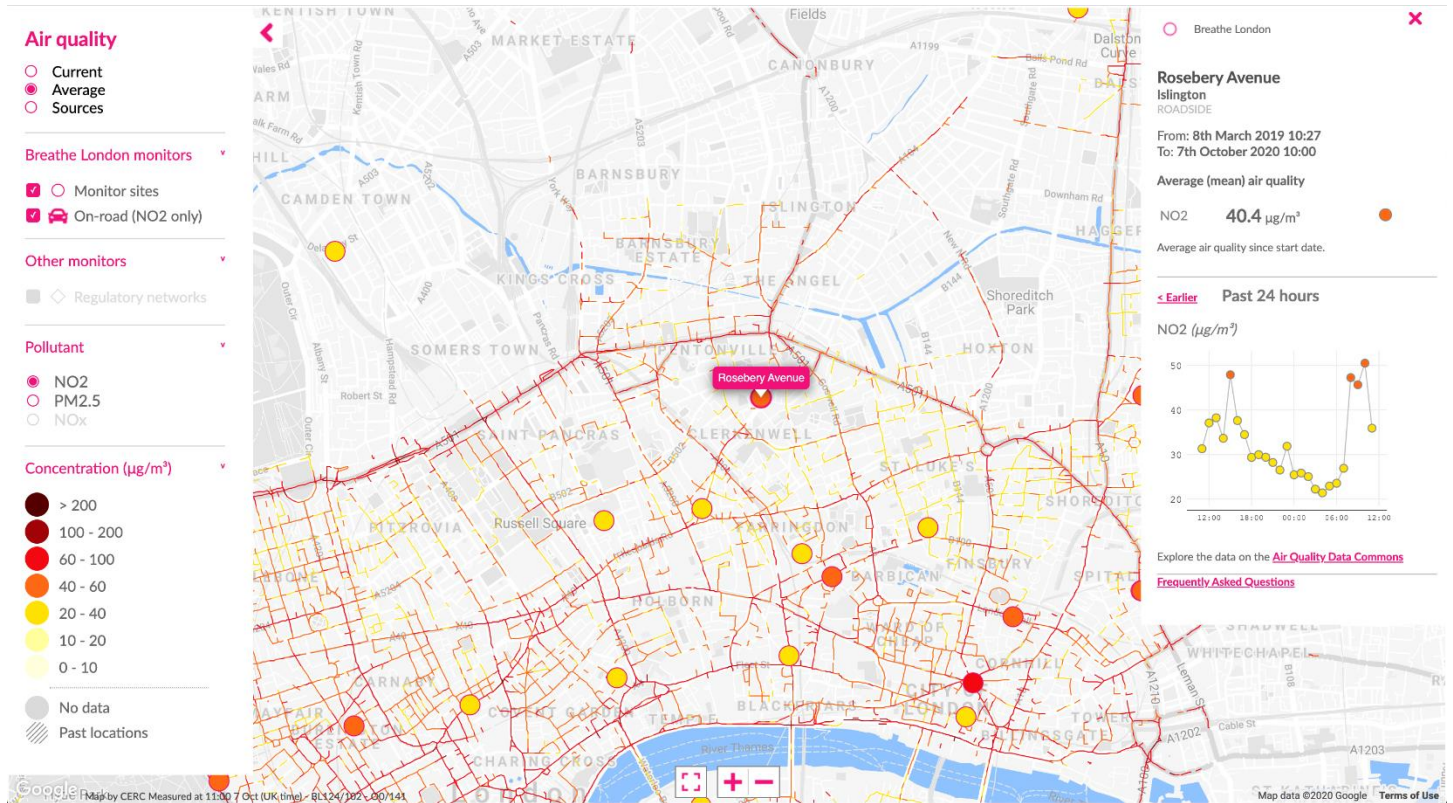
Average pollution levels: Mobile and stationary with ULEZ boundary

ULEZ boundary selected. LEZ boundary and ULEZ extension boundary also available. Average pollution levels at pods and mobile data shown together for NO2; PM2.5 pod data also available.

Average pollution levels: Measurement and past 24 hours plot pop-up

Average pollution levels at monitoring site for NO$_2$ with the following details provided:

- Monitor location including site type (roadside, kerbside, urban background, industrial, etc.) and local authority.
- Average air quality hourly average alongside start and end date of averaging period; NO$_2$ shown, PM$_{2.5}$ available.
- Diurnal plot over the past 24 hours at the site (Breathe London monitors only); NO$_2$ shown, PM$_{2.5}$ available.
- Link to earlier data.
- Link to data on the Air Quality Data Commons.
- Link to FAQ.

Pollution sources: Regulatory and Breathe London monitors
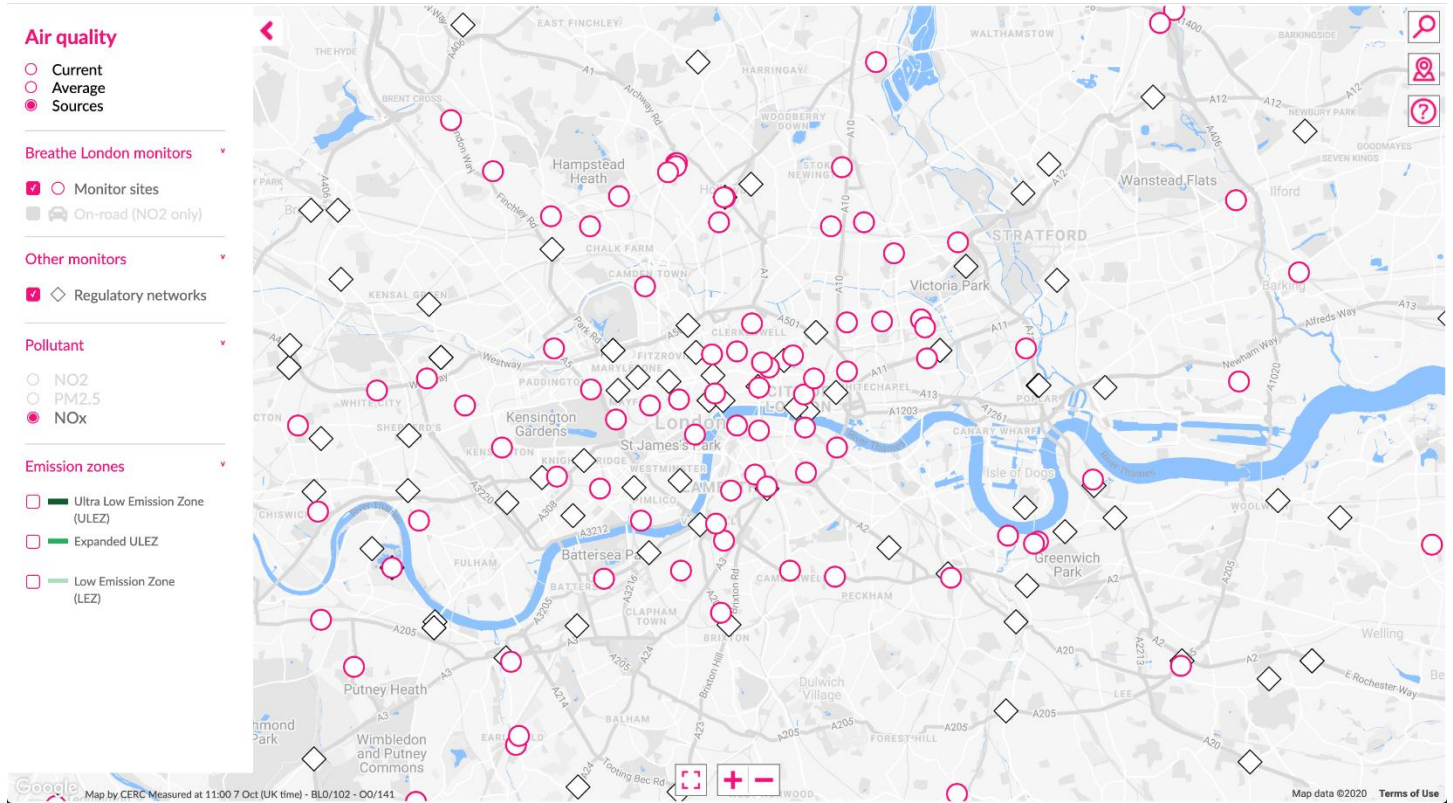
All locations for which source apportionment data has been modelled is displayed, including regulatory network and Breathe London pods.

Left hand panel shows NO$_x$ is only pollutant available and selectable emission zone boundaries (i.e. ULEZ, expanded ULEZ and LEZ).

Pollution sources: NO$_x$ source categories pop-up
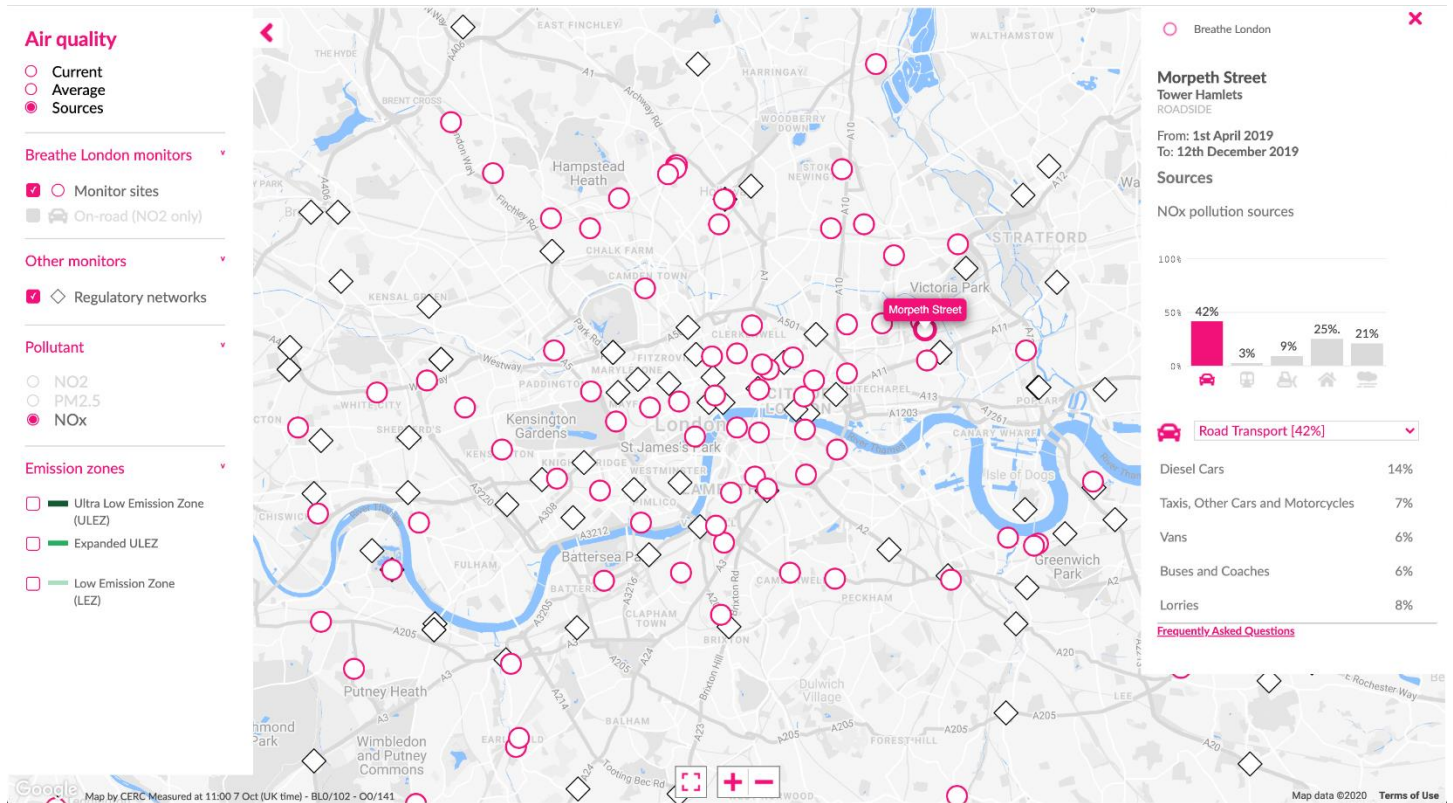
Right-hand panel contains the following information regarding the selected site:

- Monitor location including site type (roadside, kerbside, urban background, industrial, etc.) and local authority.
- Start and end date of assessed data period.
- Bar chart showing proportions of different source categories.
- Drop down menu of source categories providing individual lists of sources and their proportions.
- Link to FAQ.

Map: Map-specific FAQ pop-up

 After clicking 'FAQ' icon, right-hand panel provides clickable list of FAQ.
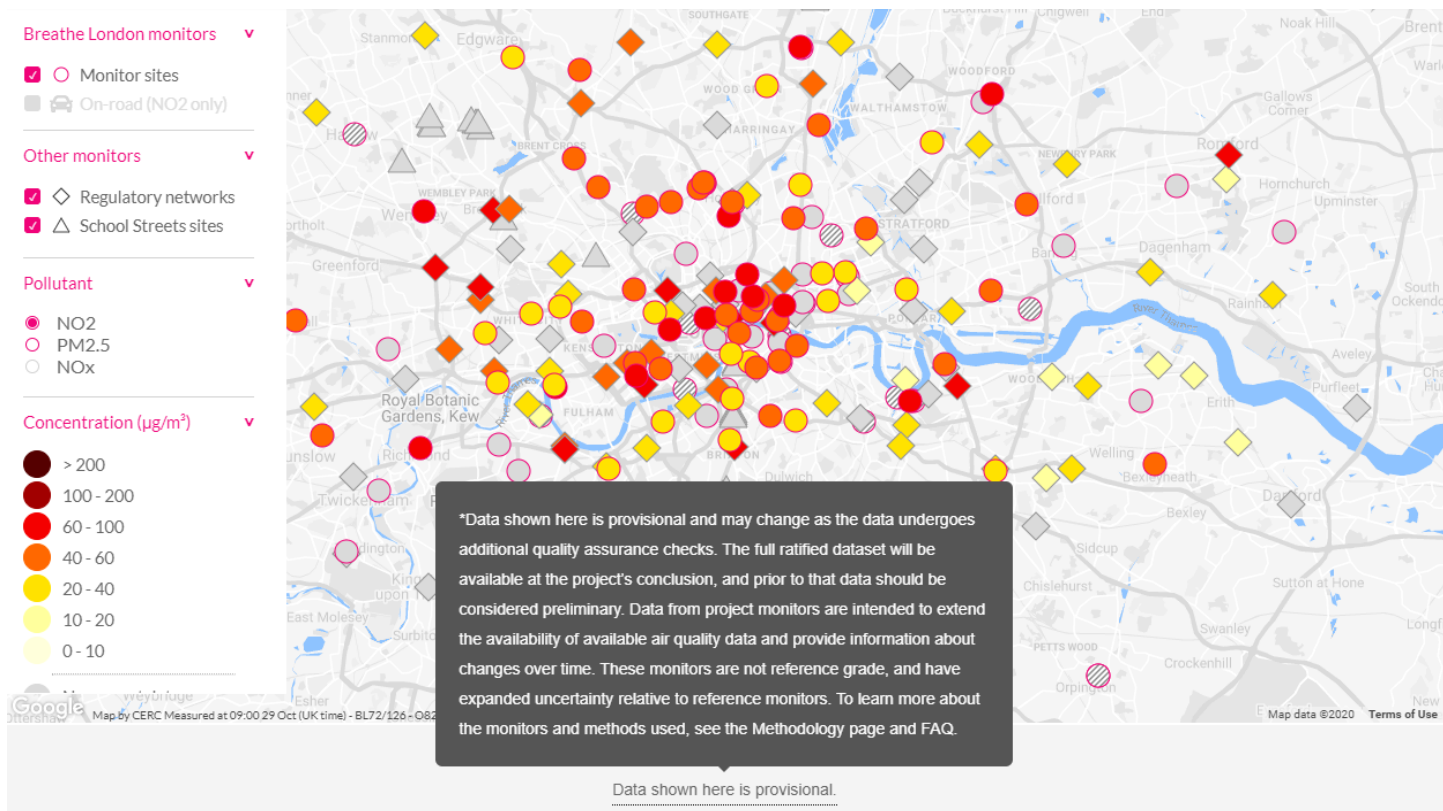
Map: Low Emission Zone boundary
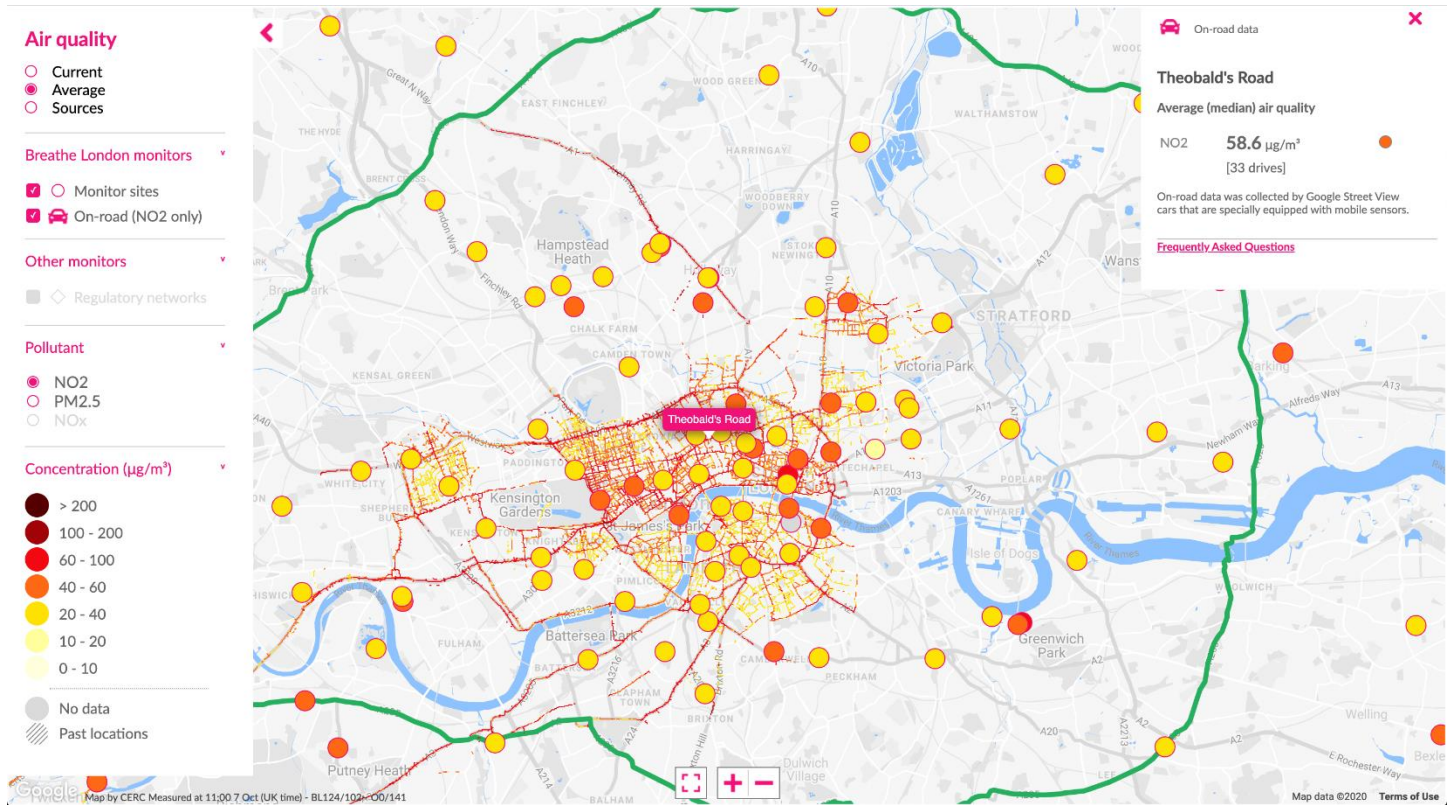
Low Emission Zone (LEZ) boundary selected. Ultra Low Emission Zone (ULEZ) boundary and ULEZ extension boundary also available.

Average pollution levels at pods and mobile data shown together for NO₂; PM₂.₅ pod data also available

Map: Provisional data pop-up

Beneath the map is a notice alerting users that data is provisional. Full text is:

Data shown here is provisional and may change as the data undergoes additional quality assurance checks. The full ratified dataset will be available at the project's conclusion, and prior to that data should be considered preliminary. Data from the Breathe London project is intended to supplement existing monitoring networks by providing greater area coverage. The monitors used in this project are not reference grade, and have greater uncertainty relative to reference monitors. To learn more about the monitors and methods used for data collection, see the Methodology page and FAQ.

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