



# The Future of Sustainable Shipping and Trade in London

Thursday 19<sup>th</sup> August  
1:15pm – 2pm



# Today's Speakers



James Trimmer  
Director of Planning and  
Environment  
Port of London Authority

Speaker



Sefinat Otaru  
Project Manager  
Cross River Partnership

Speaker



Rachael Aldridge  
Project Officer  
Cross River Partnership

Chair



Joshua West  
Communications and  
Business  
Development Manager  
Cross River Partnership

Chat Moderator



Ross Phillips  
Project Officer  
Cross River Partnership

Technical Lead



# Today's Agenda

1. **Cross River Partnership (CRP) Introduction**
2. **Port of London Authority: Air Quality & Freight on the Thames**
3. **CRP and Clean Air Thames**



# Today's Agenda

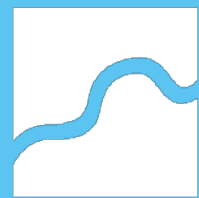
Please pose your questions and thoughts throughout this session in the chat box to the right



# Introduction and Context

Rachael Aldridge

Cross River Partnership



**CROSS RIVER  
PARTNERSHIP**

Delivering London's Future Together





PEOPLE



PLACES



PROJECTS

**Annual Report**  
2020-2021

**Business Plan**  
2021-2022



## 02 Our vision

### Our core values



**We are experts in delivering positive change.** Our projects have collaborated across public, private, voluntary and community sectors for over 25 years.



**We are London's largest partnership delivery organisation.** Our partners range from Local Authorities and Business Improvement Districts, to Landowners and Strategic Agencies.



**We are all about empowering People, to deliver innovative Projects, that create great Places.** Our work transects themes such as Place Making; Health and Wellbeing; Addressing Inequalities; Sustainability; Air Quality; Freight, Transport and Active Travel; Energy; Environment; Culture; and Lighting.



**We are forward thinkers, embracing collaboration for a sustainable future fit for all.** We work with our partners to shape London's fabric and operation, supporting residents, businesses and visitors to all thrive in the city.

## 03 Partners

Cross River Partnership is proud to be working collaboratively with all of these public, private and community partners across central London and beyond.

1 Angel London

2 Better Bankside

3 Brixton BID

4 Cadogan

5 Camden Town Unlimited

6 Cheapside Business Alliance

7 Euston Town BID

8 Hammersmith BID

9 Hatton Garden BID

10 Marble Arch BID

11 Midtown BID

12 Paddington Now

13 South Bank BID

14 Team London Bridge

15 The Fitzrovia Partnership

16 The Northbank BID

17 Vauxhall One

18 Victoria BID

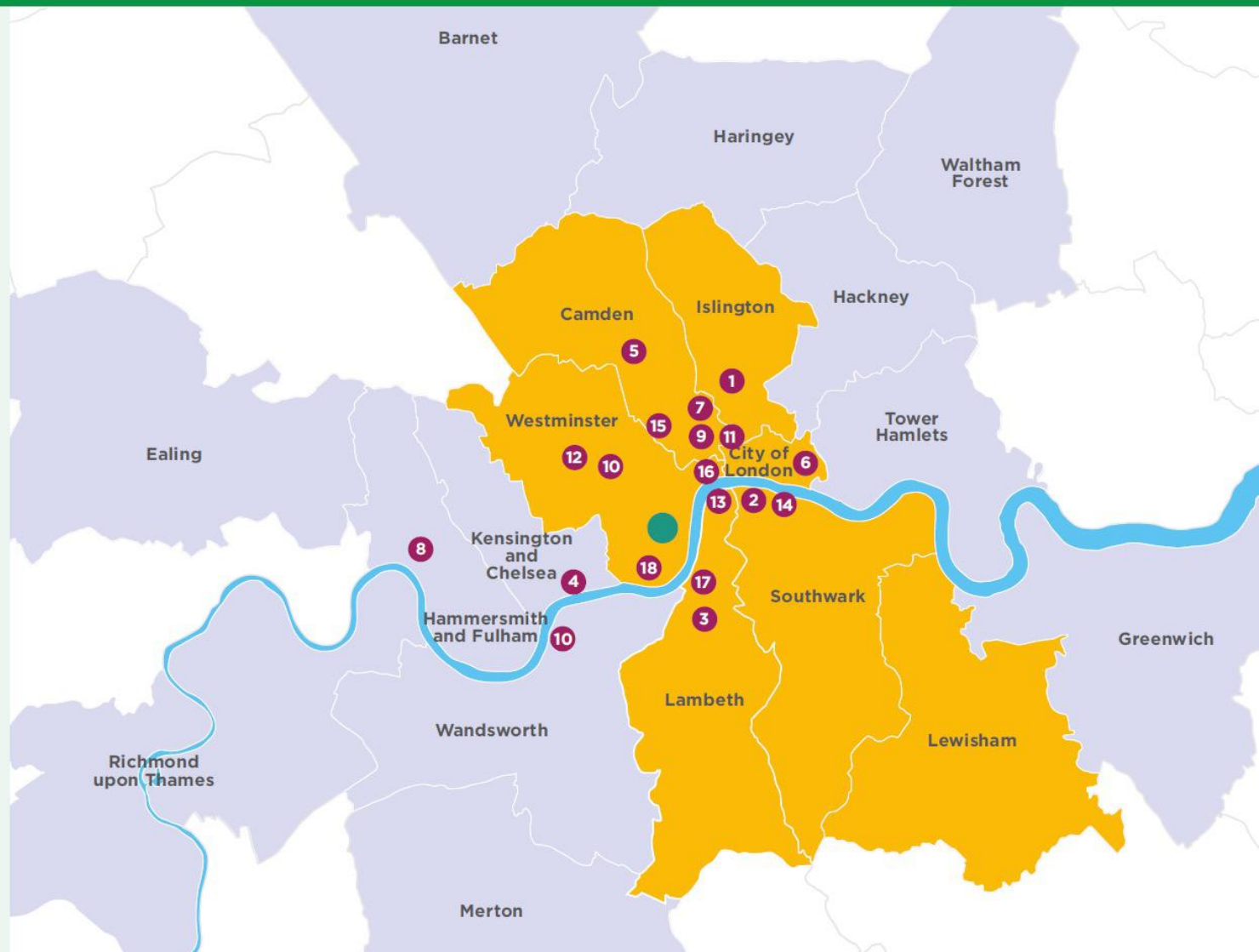
 **CRP Board Boroughs**

 **Boroughs CRP works with**

 **CRP Lead Accountable Body:**  
Westminster City Council

### CRP Strategic Partners:

- Greater London Authority
- Groundwork London
- London and Partners
- Network Rail
- Port of London Authority
- Transport for London







Clean Air Villages 4



Clean Air Villages 3



Healthy Streets Everyday



Clean Air Thames



Central London Sub-Regional Transport Partnership



Town Centre Futures



EV Fleet-Centred Local Energy System (EFLES)



Lighting London Sustainably

# Air Quality & Freight on the Thames: How Soon is Now?

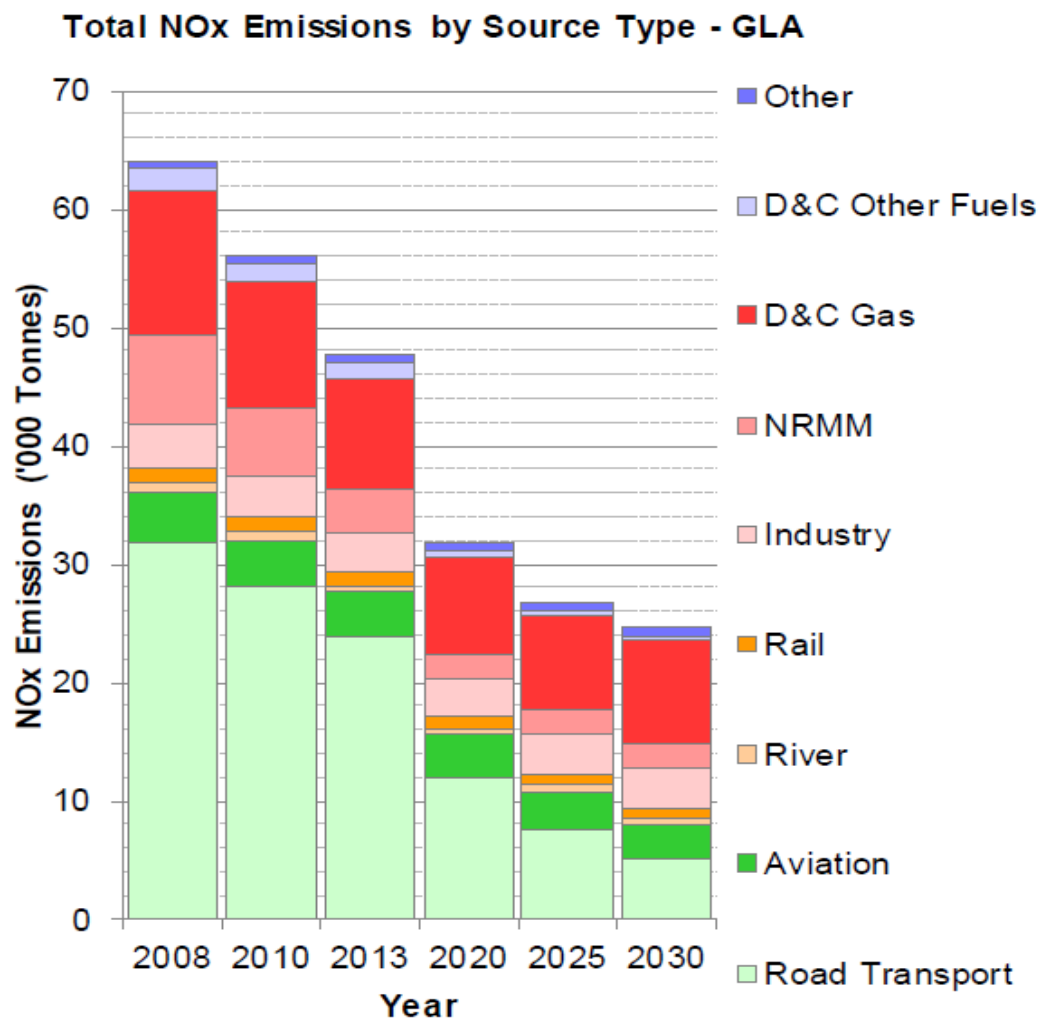
James Trimmer

Director of Planning & Environment





# Percentage of NOx in London



## 2013

- Equivalent to 2.09% of road emissions
- 1.05% of London's total

## 2025 (Projection)

- Equivalent to 8.27% of road emissions
- 2.33% of London's total

# Percentage of NOx in London

Emissions (Tonnes) by	2008	2010	2013	2020	2025	2030
Road Transport	31,774	28,049	23,853	11,995	7,535	5,018
Aviation	4,210	3,864	3,759	3,557	3,212	2,867
River	825	775	500	573	623	659
Rail	1,281	1,236	1,205	861	861	861
Industry	3,604	3,604	3,353	3,353	3,353	3,353
NRMM	7,625	5,638	3,571	2,117	2,057	2,057
D&C Gas	12,178	10,712	9,397	8,171	7,994	8,690
D&C Other Fuels	1,863	1,553	1,363	550	394	343
Other	599	580	661	676	679	704
Total	63,957	56,011	47,661	31,852	26,708	24,553

## Notes

The emissions are combined into reasonably self explanatory 'Source Types'. However, the categories: 'Industry', 'NRMM' and 'Other' require further explanation.

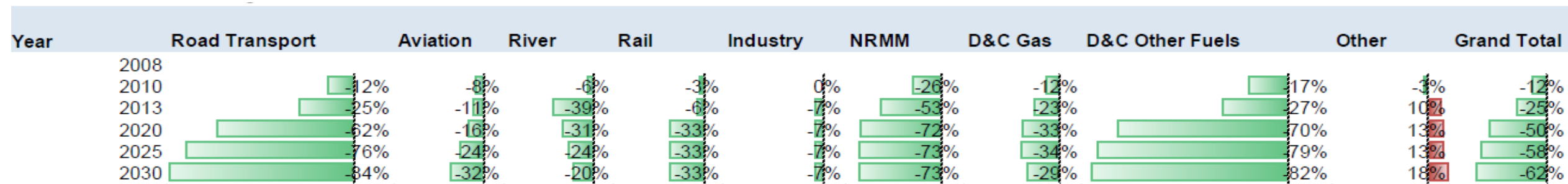
Industry: is the total emission from Part A and Part B industrial processes, combined.

Non-Road Mobile Machinery (NRMM): is the total emissions from the construction and industrial off road machines, combined.

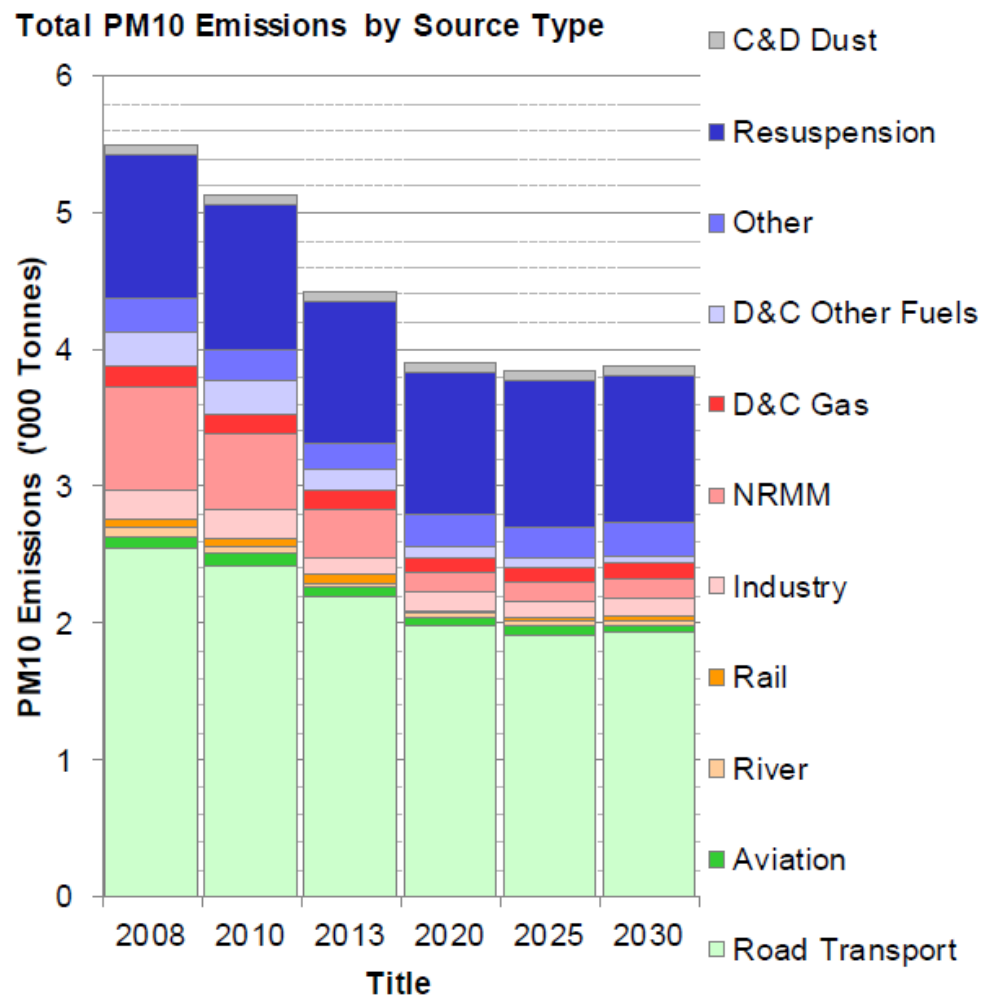
Other: is the total emission from the a number of small sources including: agriculture, outdoor fires, garden emissions, forests, waste transfer sites, combined.



# Percentage of NOx in London



# Percentage of PM10 in London



## 2013

- Equivalent to 1.3% of road emissions
- 0.6% of London's total

## 2025 (Projection)

- Equivalent to 1.8% of road emissions
- 0.9% of London's total



# Percentage of PM10 in London

Emissions (tonnes) by	2008	2010	2013	2020	2025	2030
Road Transport	2,552	2,424	2,198	1,978	1,919	1,936
Aviation	88	84	66	63	58	53
River	66	50	28	31	35	37
Rail	58	58	57	22	22	22
Industry	207	210	132	132	132	132
NRMM	755	567	354	139	139	139
D&C Gas	154	143	128	110	107	115
D&C Other Fuels	254	249	164	82	62	52
Other	241	225	197	227	240	250
Resuspension	1,057	1,051	1,031	1,048	1,062	1,078
C&D Dust	66	61	65	65	65	65
Total	5,499	5,122	4,420	3,897	3,840	3,880

## Notes

The emissions are combined into reasonably self explanatory 'Source Types'. However, the categories: 'Industry', 'NRMM' and 'Other' require further explanation.

Industry: is the total emission from Part A and Part B industrial processes, combined.

Non-Road Mobile Machinery (NRMM): is the total emissions from the construction and industrial off road machines, combined.

Other: is the total emission from the a number of small sources including: agriculture, outdoor fires, garden emissions, forests, waste transfer sites, combined.

# Percentage of PM10 in London

Year	Road Transport	Aviation	River	Rail	Industry	NRMM	D&C Gas	D&C Fuels	Other	Resuspension	C&D Dust	Grand Total
2008												
2010	-5%	-5%	-24%	-1%	-1%	-25%	-7%	-2%	-7%	-1%	-6%	-7%
2013	-14%	-26%	-57%	-2%	-36%	-53%	-17%	-35%	-18%	-2%	-1%	-20%
2020	-23%	-29%	-53%	-62%	-36%	-82%	-29%	-68%	-6%	-1%	-1%	-29%
2025	-25%	-34%	-47%	-62%	-36%	-82%	-31%	-76%	-1%	-1%	-1%	-30%
2030	-24%	-40%	-43%	-62%	-36%	-82%	-25%	-80%	-4%	-2%	-1%	-29%

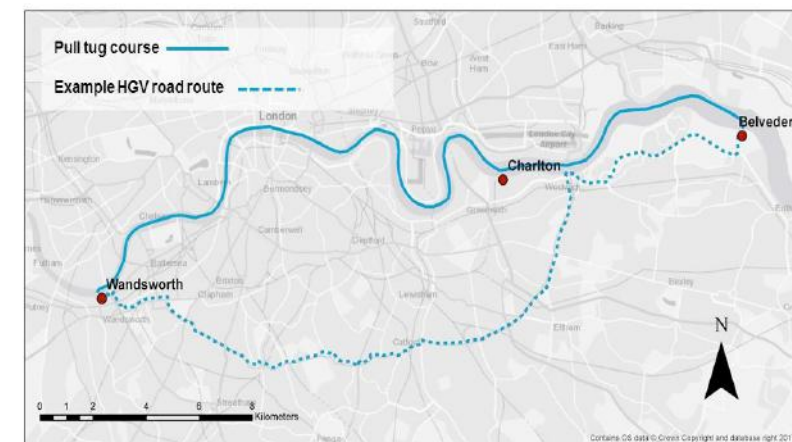


# Emission Comparison

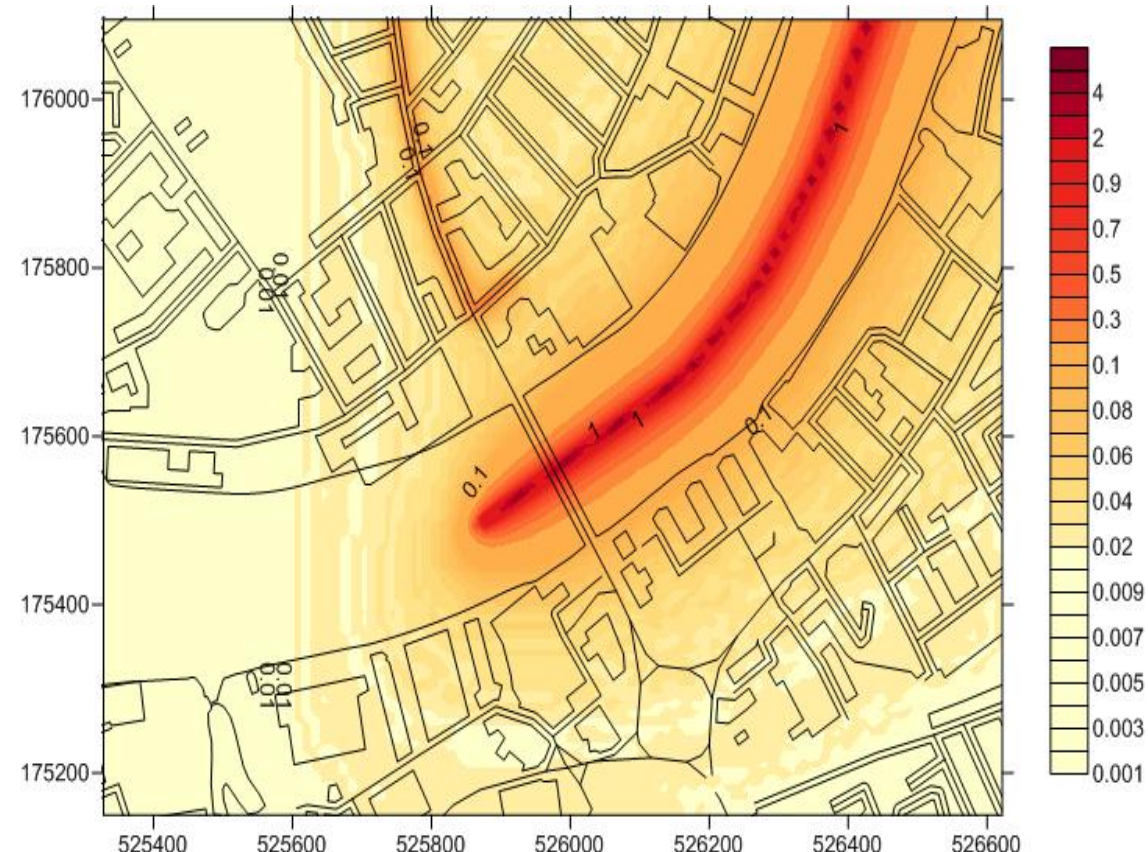
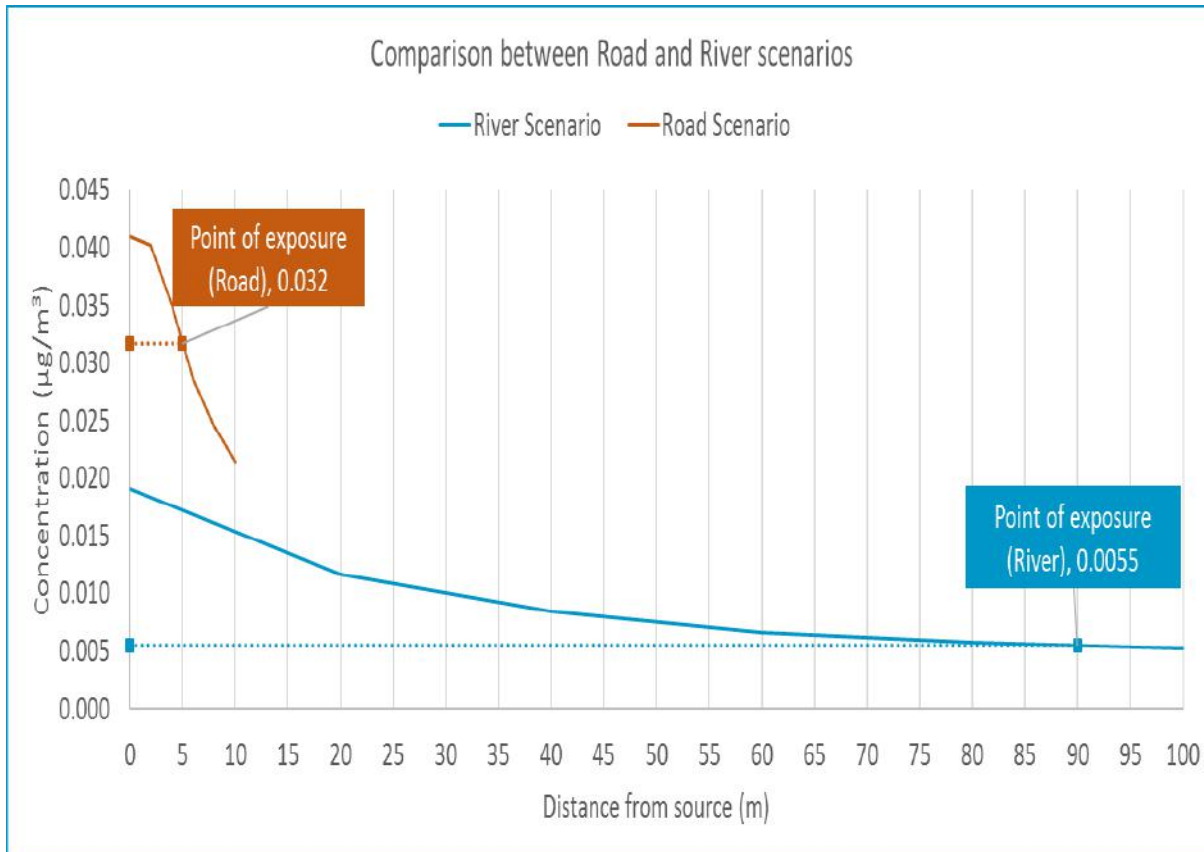
Sampling of flue gases during actual freight movements on river.  
Comparison with recognised factors for likely lorry fleet to be used by operators

- Nox - vessels emitted twice the weight of the equivalent lorries
- PM - lorries emitted more than the vessels

Also compared data provided from Thames Clippers with comparable bus route (three buses emitted two thirds the NOx of one vessel)



# Low Exposure Levels at the Riverside





# Freight on the River Thames

- Modal shift
- Low carbon
- Heavy & Light freight
- Challenges & the Future



# Infrastructure and Alternative Fuels

- Future thinking  
together with..
- Future proofing.
- Chicken & egg..?





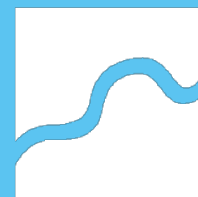
# Q&A Session



# Air Quality and Freight on the Thames

Sefinat Otaru

Cross River Partnership



**CROSS RIVER  
PARTNERSHIP**

Delivering London's Future Together



# London's Air Quality

## Emissions from road vehicles

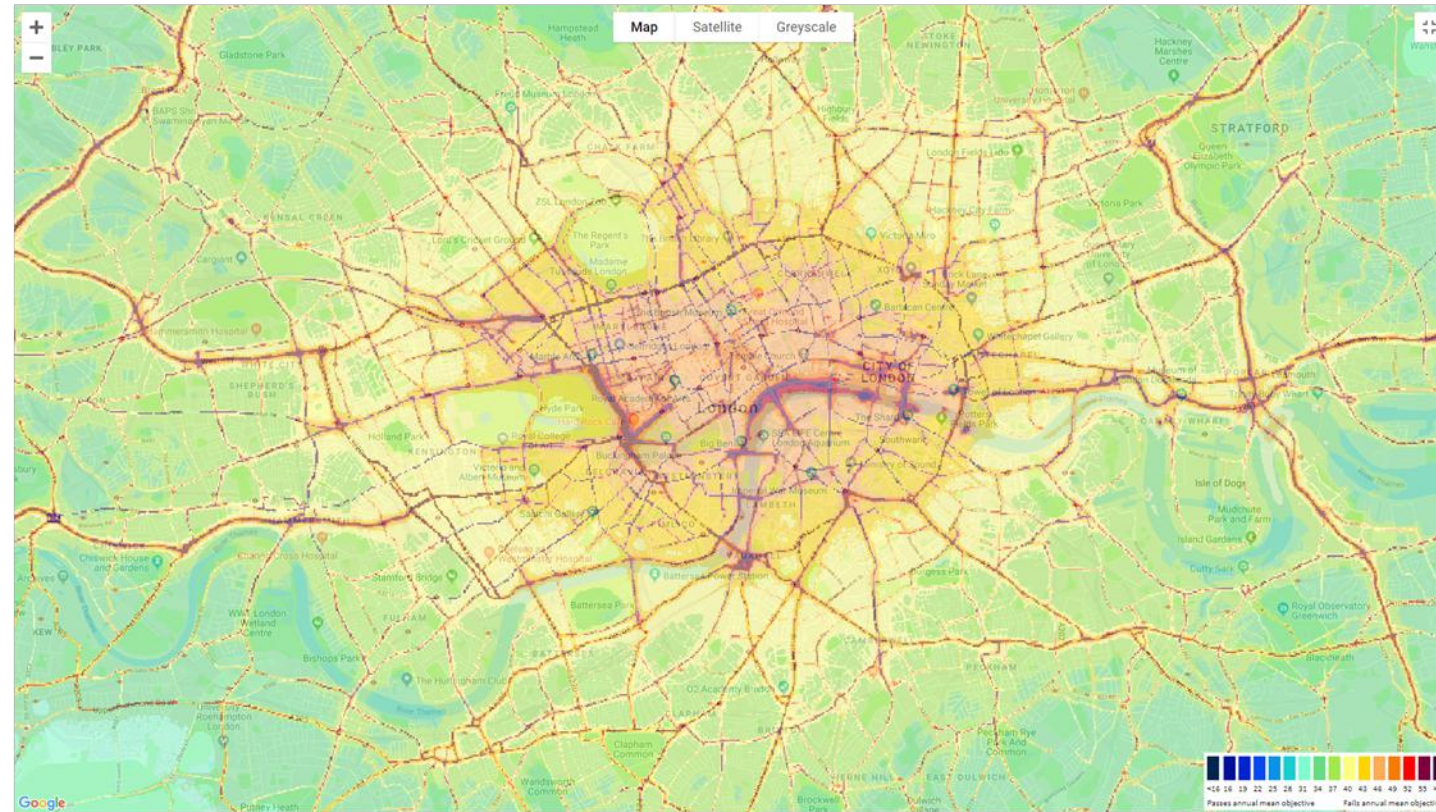
- ~50% of air pollution from roads
- Exhaust emissions (PM, NO<sub>x</sub>, CO<sub>2</sub>)
- Break and tyre wear and tear

## Emissions from vessels on the tidal River Thames

- ~1% from river transport in 2013
- River emissions ↑ as road emissions ↓
- Projected to emit 2.68% of NO<sub>x</sub> and 0.95% of PM

## Improving London's air quality

- Increasing electric vehicle usage
- Ultra Low Emission Zone
- Mayor's Air Quality Fund



# About Clean Air Thames

## Overview

- 3 year project co-funded by GLA (MAQF3)
- Partnering with Port of London and City of London Corporation
- Retrofit inland vessels to reduce emissions
- Track benefits by monitoring emissions before and after retrofit
- Share lessons and best practice with stakeholders during the project lifetime

## Challenges

- Operational
- Technological
- Financial

## Benefits

- Reduction of marine emissions

### The air quality issue

London suffers from poor air quality. **Around 50% of this comes from road traffic** including vehicles delivering goods and services around the city.

As legislation becomes stricter, **freight will be increasingly transported along the river** increasing emissions there, as road emissions fall.

Operators on the Thames can play a role in **keeping the Thames a healthy and pleasant space** for river workers, passengers and visitors alike.

**“ I made it my business to improve the environmental performance of our business. GPS Marine’s main selling points are that our services are cost-effective and significantly less environmentally damaging than road transport. ”**

*John Spencer, Managing Director, GPS Marine Contractors Ltd  
Successful Clean Air Thames funding recipient - 2019*

### Benefits of retrofitting your vessel

Improve air quality for your employees, businesses and residents along the Thames


Boost your reputation

Join an international community of operators taking action on poor air quality

Prepare for future policy restrictions on emissions

Support the aims of the PLA Air Quality Strategy

Enhance your environmental commitments and targets



SUPPORTED BY  
**MAYOR OF LONDON**

**PORT OF LONDON AUTHORITY**

**CITY OF LONDON**

**CROSS RIVER PARTNERSHIP  
CLEAN AIR THAMES**



# Clean Air Thames – Round 1



*Photos courtesy of Port of London Authority*



# Clean Air Thames – Round 2 and Next Steps



## Round 1

- Complete retrofits
- Post retrofit emissions monitoring
- Results analysis

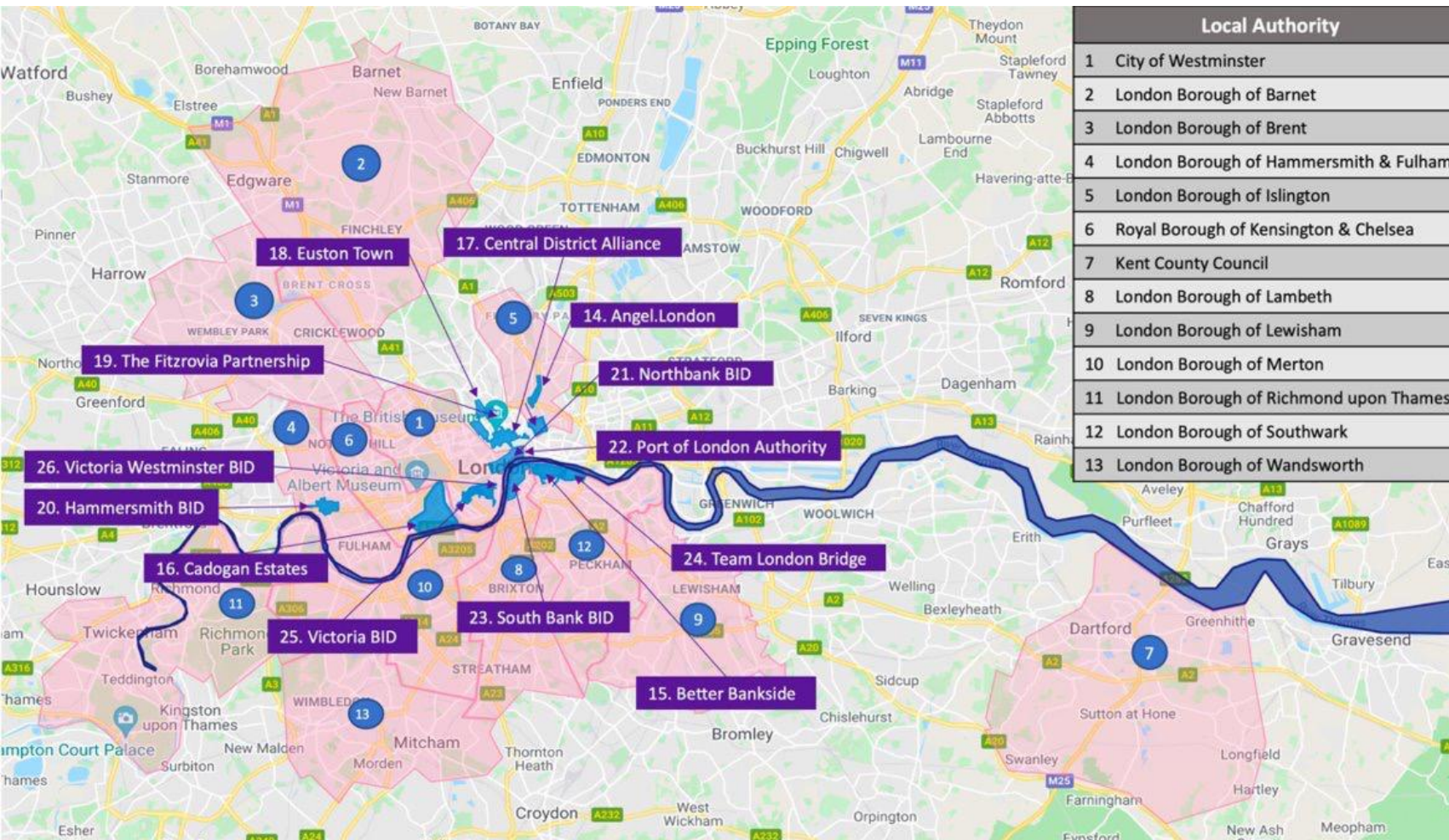
## Round 2

- London Metropolitan Police Vessels

Communicate lessons and best practices



# Clean Air Villages 4



About  
CAV 4

Funded by Department for  
Environment, Food & Rural Affairs

£700,000 grant, with additional  
match funding from project  
partners

26 project partners: 13 local  
authorities, 11 business  
improvement districts, Cadogan,  
Port of London Authority

Project runs 1/4/21 – 30/6/22

5 strands: Consolidation,  
distribution, mode, technology  
and policy.



# Clean Air Villages 4 – River Infrastructure Feasibility Trial



Image source: <https://www.visitlondon.com/>

---

Context

---

Aims

---

Timeline

---



# Clean Air Villages 4 – Freight Monitoring



# Q&A Session





# Sign up to our next event!



## **CRP Lunchtime Launch 9**

### **Climate Effects: The Benefits of Greening**

**Thursday 30<sup>th</sup> September 2021  
1:15pm – 2pm**



# Thank You



James Trimmer  
Director of Planning and Environment  
Port of London Authority  
[James.trimmer@pla.co.uk](mailto:James.trimmer@pla.co.uk)



Sefinat Otaru  
Project Manager  
Cross River Partnership  
[sefinatotaru@crossriverpartnership.org](mailto:sefinatotaru@crossriverpartnership.org)



Rachael Aldridge  
Project Officer  
Cross River Partnership  
[rachaelaldridge@crossriverpartnership.org](mailto:rachaelaldridge@crossriverpartnership.org)



Joshua West  
Communications and Business Development Manager  
Cross River Partnership  
[joshuawest@crossriverpartnership.org](mailto:joshuawest@crossriverpartnership.org)



Ross Phillips  
Project Officer  
Cross River Partnership  
[rossphillips@crossriverpartnership.org](mailto:rossphillips@crossriverpartnership.org)



[www.crossriverpartnership.org](http://www.crossriverpartnership.org)



@CrossRiverPartnership



@CrossRiverPship



Cross River Partnership



[linkedin.com/company/cross-river-partnership/](https://linkedin.com/company/cross-river-partnership/)



[www.crossriverpartnership.org/newsletter](http://www.crossriverpartnership.org/newsletter)



Search 'Cross River Partnership' on YouTube