



LONDON LOW EMISSION CONSTRUCTION PARTNERSHIP

23rd June 2015

SUPPORTED BY
MAYOR OF LONDON




10:30	Welcome	Adam Webber
10.35	Review of previous meetings minutes	David Green
10:45	LLECP Website update and launch	Daniel Marsh
11:00	NRMM database and website	Daniel Marsh
11:10	Industry Outreach	Daniel Marsh
11:15	Local Authority Construction Projects	Daniel Marsh
11:30	Project Plan update	David Green
11:45	Finance/Signing off work	David Green
11:50	AOB / Date of next meeting	All
12:00	Lunch / Discussion of MAQS Phase 2 Bid	All
13:00	Finish	All



London Low Emission
Construction Partnership
Website

LLECP Website Launch

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What is my legal requirement?

From September 2015 the London Mayor will introduce new standards to reduce pollution emissions from the construction industry with tighter standards proposed for the start of the London Ultra Low Emission Zone in 2020.

[Read more...](#)



Working together to build a cleaner London

Are you a...

- Project manager
- Property developer
- Local resident
- Local authority officer

How do I find out about...

- Health advice
- Non Road Mobile Machinery

Air Pollution Forecast

Today

Moderate


[More information and health advice](#)

Tweets

Construction Dust UK @ConstructDust
New #NRMM #emission standards cc
#London from September 2015 - are
#construction pic.twitter.com/5zJfEck

Construction Dust UK @ConstructDust
#Air #Pollution Linked To Stroke: High
May Narrow The Arteries medicaldaily
#construction #health @TheBHF

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London Low Emission Construction Partnership

The London Low Emission Construction Partnership (LLECP) is a collaboration between the 'Cleaner Air Boroughs' in central London and King's College London. The project is funded by the Greater London Authority (GLA) and aims to reduce emissions from the construction industry.

[Read more...](#)



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How do I find out about...

- Health advice
- LLECP construction projects
- Non Road Mobile Machinery

LLECP twitter, facebook, Google+

LAQN website, facebook, twitter

AirMail – email newsletter

Air Quality Management

Air Quality Bulletin

LinkedIn air quality groups inc. IES/IAQM

HSE Construction Forum

LinkedIn construction industry groups

Direct email to industry magazines

Working with Considerate Contractors – possible

‘Spotlight’ on Low Emissions



- Construction Discussion Forum
- + This Community
- Join in the Discussion
- F10 Forms
- Discussions
- Conditions of Use
- Construction Website

London Low Emission Construction Partnership - website launch

ConstructionDustUK 6 days ago

King's College London are launching a new website as part of the London Low Emission Construction Partnership (LLECP) to help the construction industry understand its impact on local air quality and encourage the uptake of 'best in class' pollution reduction measures at construction and demolition sites.

- Web Communities
- About Web Communities
 - Find Community
 - Help

The UK Construction & Civil Engineering Group

9,436 members

Discussions Promotions Jobs About Search

Daniel Marsh Senior Air Quality Analyst at King's College London

London Low Emission Construction Partnership – website launch

King's College London are launching a new website as part of the London Low Emission Construction Partnership (LLECP) to help the construction industry understand its impact on local air quality and encourage the uptake of 'best in class' pollution reduction measures at construction and demolition sites.

The site, which is aimed specifically at users with an interest in air quality, such as local authority planners and pollution control teams, will provide information on 'best in class' pollution reduction measures at construction and demolition sites.

The wider LLECP will also help to fund a number of projects across London to determine the effectiveness and cost of various measures.

The website will also accommodate the Greater London Authority's (GLA) machinery (NRMM) register - the main tool for identifying sites where only low pollution construction plant can be used.

To learn more visit the new LLECP project website: llecpllc.org.uk

LLECP is a collaboration between the 'Cleaner Air Fund' (CAF) in Islington, Lambeth, Lewisham and Wandsworth, the Greater London Authority (GLA) and King's College London. The project has been funded by the Quality Fund.

London Low Emission Construction Partnership (LLECP) is a collaboration between the Greater London Authority (GLA) and King's College London. The website (llecpllc.org.uk) provides information on 'best in class' pollution reduction measures at construction and demolition sites.

Comment (0) • Like (1) • Unfollow

The UK's leading news site for air quality and air pollution

NEWS SUPPLIERS EVENTS



London construction sector air quality site launched



Non-road mobile machinery website

London's LEZ for NRMM

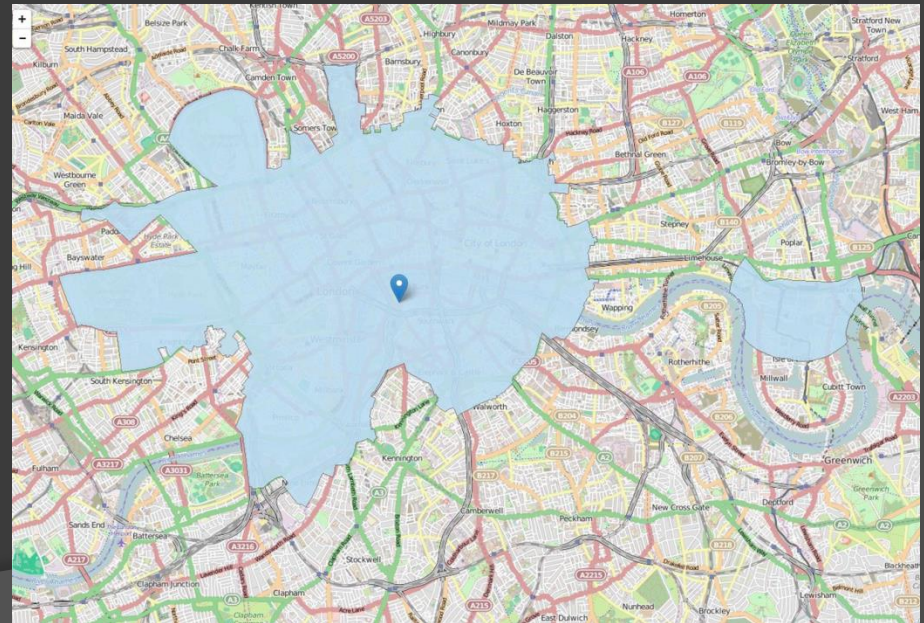
1st September 2015

NRMM used across the 'central activity zone' & Canary Wharf will be required to meet stage IIIB of the directive as a minimum

NRMM used on the site of any major development within Greater London will be required to meet stage IIIA of the directive as a minimum

1st September 2020

Tighter emission standards for CAZ, Canary Wharf and Greater London introduced



Non-road mobile machinery website

- Website to inform developers and contractors about which equipment will be compliant for use within the NRMM low emission zone
- Require registration of NRMM details from all major developments within the CAZ and Canary Wharf
- Allow for NRMM LEZ exemption application
- It will allow for local authority remote enforcement of GLA policy

- ⦿ It will create a unique data resource that will add to the understanding of what NRMM equipment is currently being used and allow later assessment to demonstrate the uptake of higher emission standards
- ⦿ It will allow for a more accurate London Atmospheric Emission Inventory (LAEI) to be developed
- ⦿ It will allow for GLA policy change updates

nrmm.london

**NRMM**

non-road mobile machinery

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London's 'Low Emission Zone' for non-road mobile machinery



NRMM Register

[How to use the NRMM register](#)[How to read engine plates](#)[NRMM Exemption policy](#)[Retrofit technology](#)

Not sure what these are?

[How to use this site](#)

Does this apply to me?

From 1 September 2015 NRMM of net power between 37kW and 560kW used in London will be required to meet standards.

This will apply to both variable and constant speed engines for both NOx and PM.

These standards will be based upon engine emissions standards set in EU Directive 97/68/EC.

Want to find out more?

[Read more...](#)

Industry Outreach Programme

24 th March 2015	Anna Carver, Talking Edge Studios	Producing short film promoting GLA/MAQF projects	Released by GLA with second round MAQF information
14 th April 2015	Expanded – Laing O’Rourke Berkeley Homes – City Forum, 250 City Road, Islington	Setting up measurement programme for BC monitoring on NRMM	
April 21 st 2015	CIRIA (construction industry research and information association) Carbon reductions and management in infrastructure	This event aims to clarify approaches to carbon reduction in construction with specific emphasis on the infrastructure sector, discuss various carbon reduction recommendations and to illustrate the benefits of carbon savings through a series of innovative case studies.	
April 22 nd 2015	Dave Rowe, Keltbray – Earls Court	Project update and tour of site	Investigation of potential mitigation trials at Earls Court
May 21 st	Rob , Rebecca Flint – Laing O’Rourke – Nine Elms	Tour of Nine Elms station site	Set up of Lambeth and Wandsworth mitigation trials based on Aggreko diesel generators
11 th June 2015	Environmental Industries Commission	LLECP/NRMM presentation	Highlighting LLECP to retrofit industry
18th & 19th June 2015	London Build 2015	http://www.londonbuillexpo.com/	Networking opportunities, review of low emission technologies

Twitter campaign

- Using 'Buffer' software to schedule message delivery – currently 10 per day
- Analyses Twitter use to send during peak periods and hit larger audience
- Positive response with retweets allowing us to reach larger audience

Seminar Display Pop-up banner



Working together to build a cleaner London

llecp.org.uk



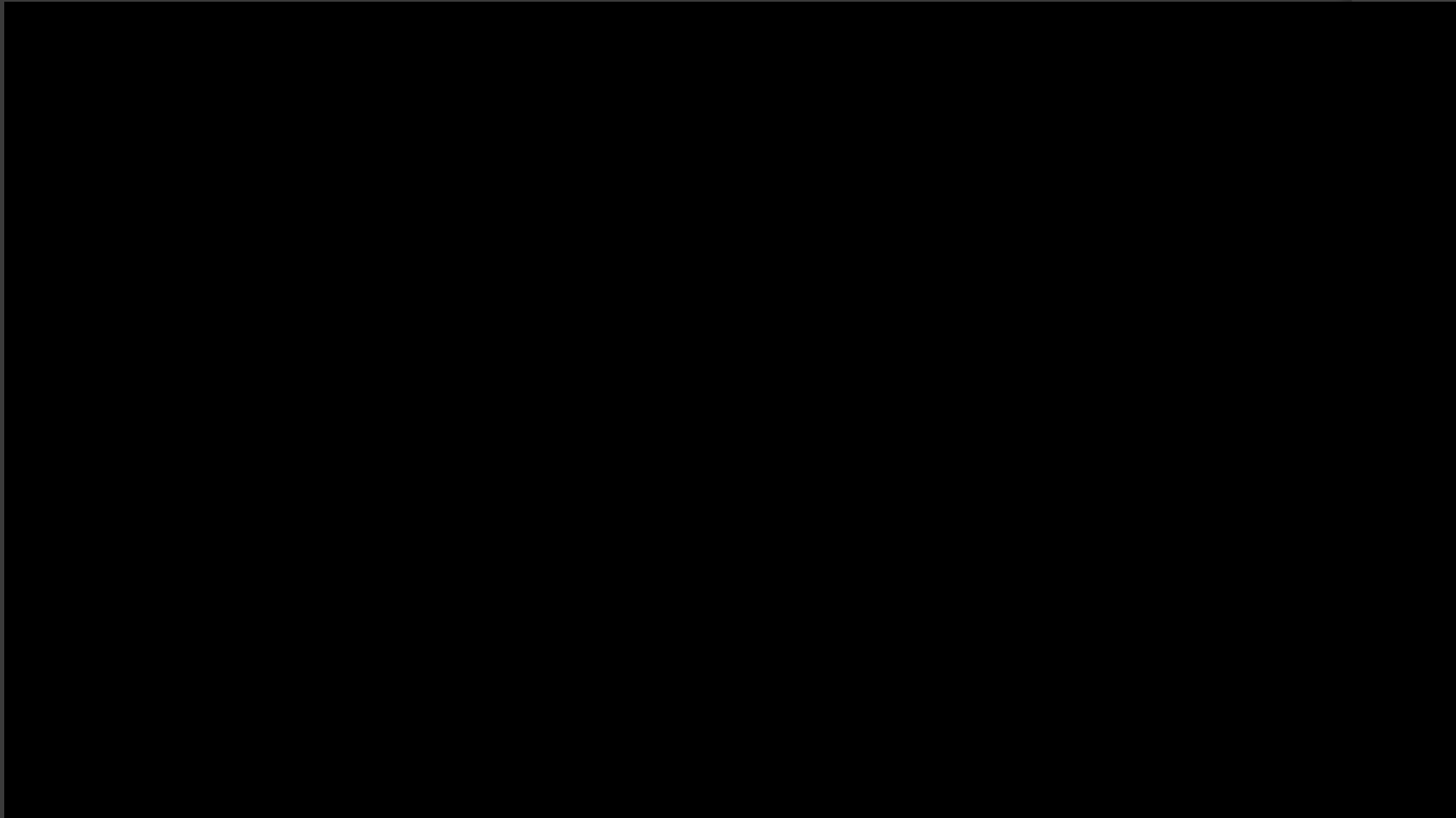
@ConstructDustUK

nrmm.london

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LDN gov | Mayor's Air Quality Fund



<https://www.youtube.com/watch?v=z8kiEQOsigE&index=3&list=FL8shc8pJ6J1piXDaj7JJwBA>



LLCEP construction projects

Targeted construction sites



Local Authority	Project Title	Developer/ Contractor		Jan -15	Feb -15	Mar -15	Apr 15	May -15	Jun 15	Jul 15	Aug -15	Sep 15	Oct 15	Nov -15	Dec 15	Jan 16	Feb 16	Mar -16	Apr 16			
Camden	Concrete batching Freight Lane	Hansons/Lafarge Tarmac		[Red bar]																		
Hammersmith & Fulham	Earl's Court - EC1 demolition	Keltbray	Phase 1 Demolition	[Red bar]										[Red bar]								
			Phase 2 Demolition	[Red bar]															[Red bar]			
Islington	City Forum	Berkeley Group/ Laing O'Rourke	Piling	[Yellow bar]																		
			Demolition	[Red bar]		[Yellow bar]																
Lambeth & Wandsworth	Nine Elms	Laing O'Rourke	Phase 1 Demolition	[Red bar]											[Red bar]							
			Phase 2 Demolition	[Red bar]																		
			Piling	[Yellow bar]																		
Lewisham	Deptford	Lend Lease	Demolition	[Red bar]											[Red bar]							

London Borough of Camden

- Reducing trackout at two Cement Batching Plants using Calcium Magnesium Acetate (CMA) as a dust suppressant
- Assessing impact of CMA application
- Assessing seasonal variation on CMA impacts



Use of Calcium Magnesium Acetate (CMA) chemical dust suppressant to reduce resuspension of particulate matter from trackout around cement batching sites in Camden



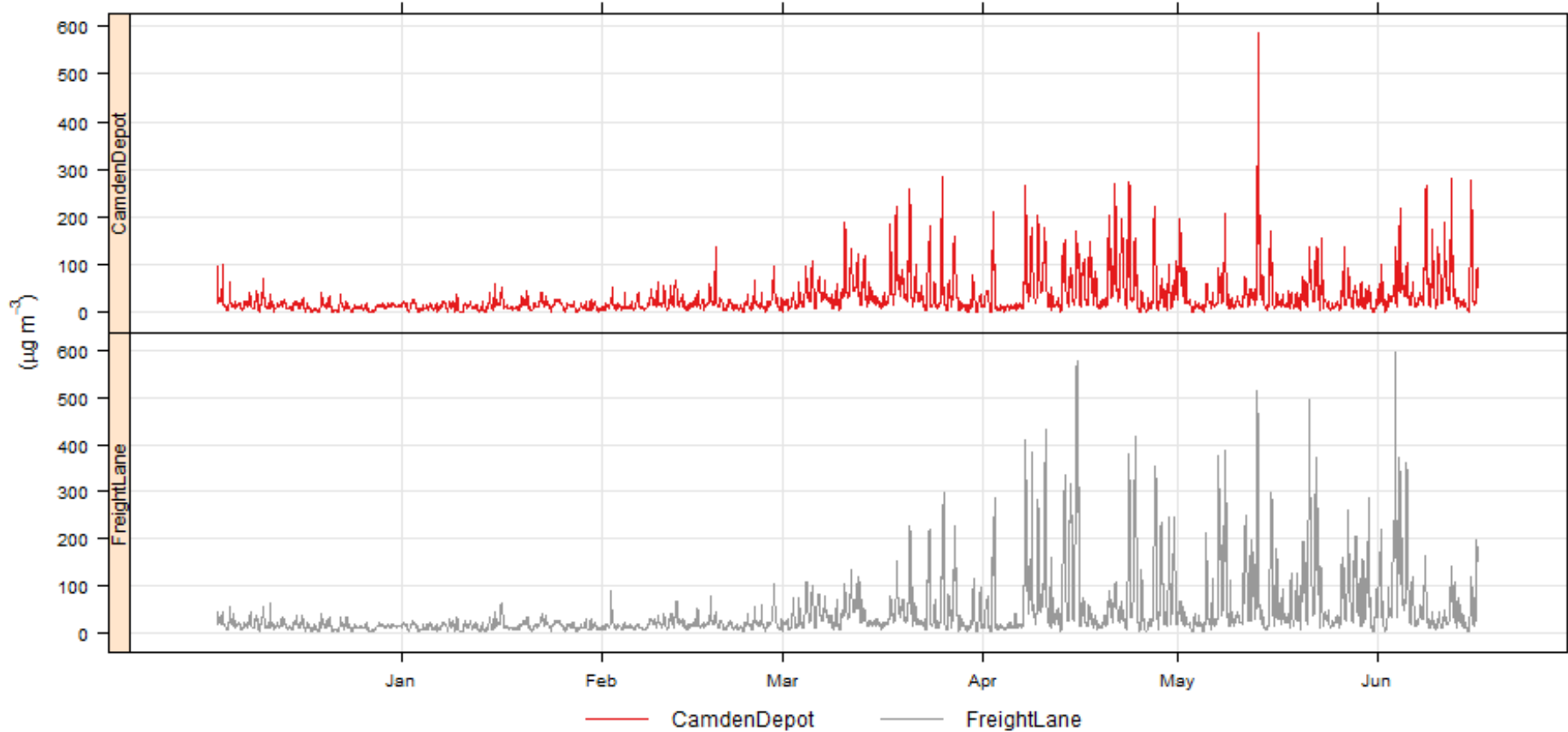


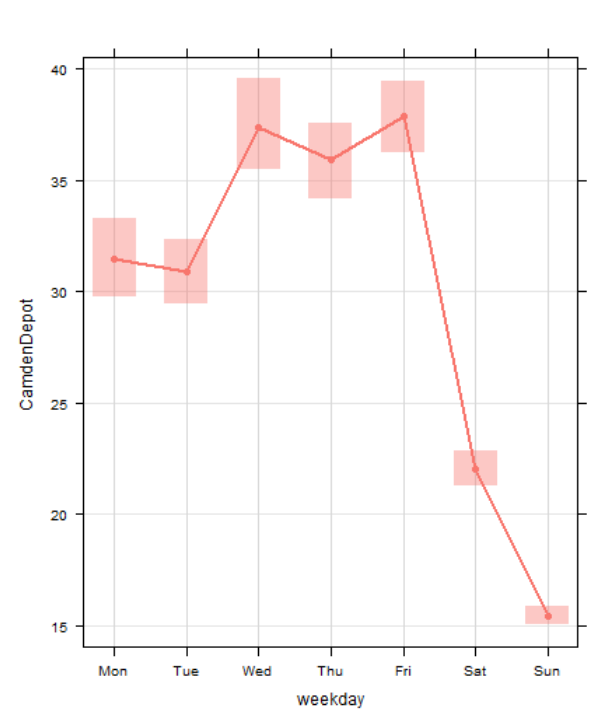
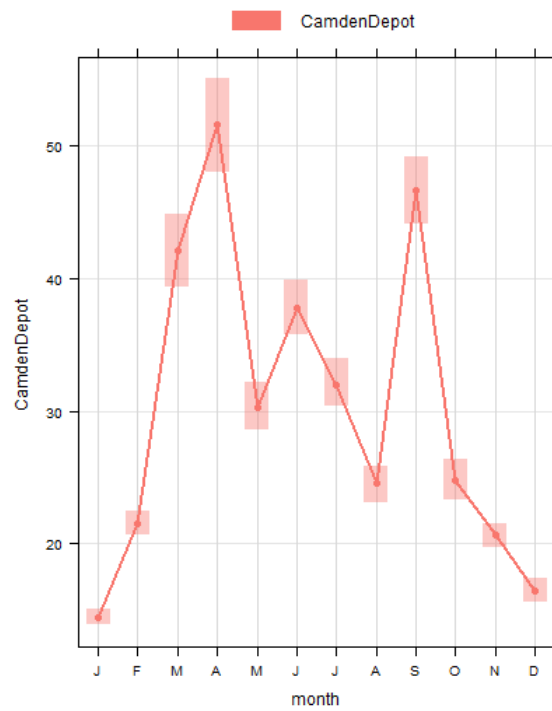
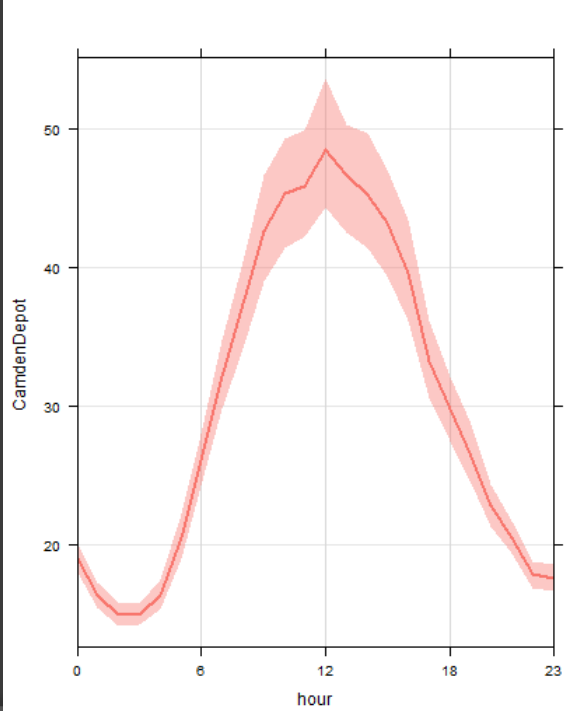
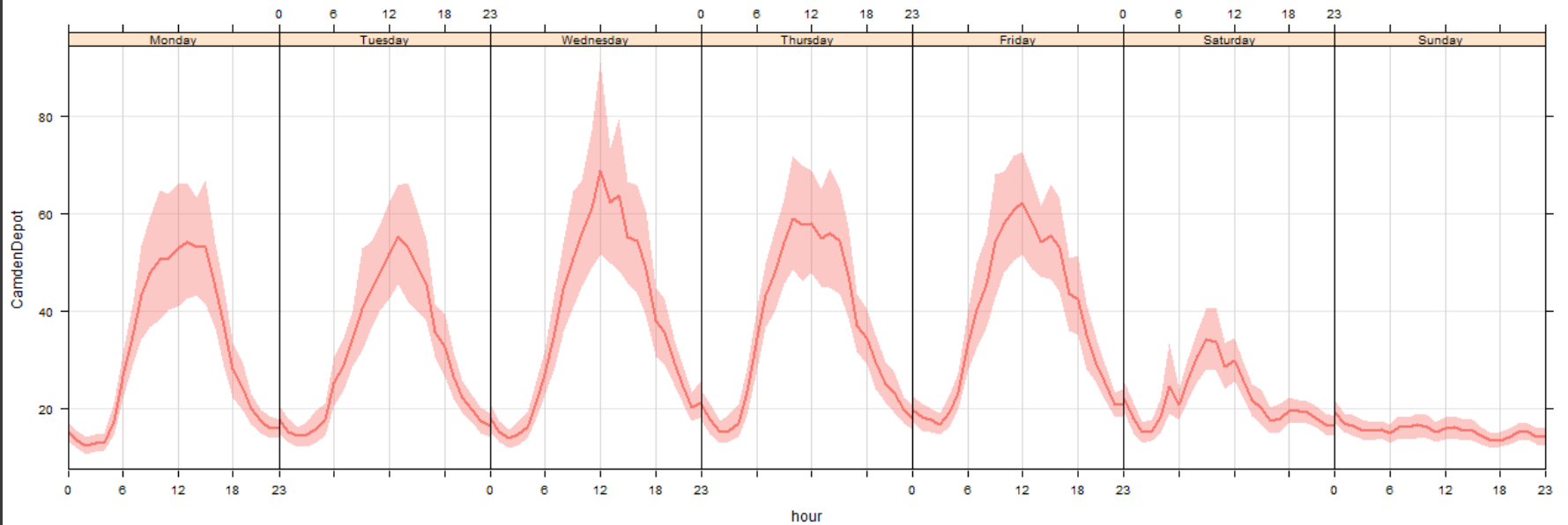
Trial method

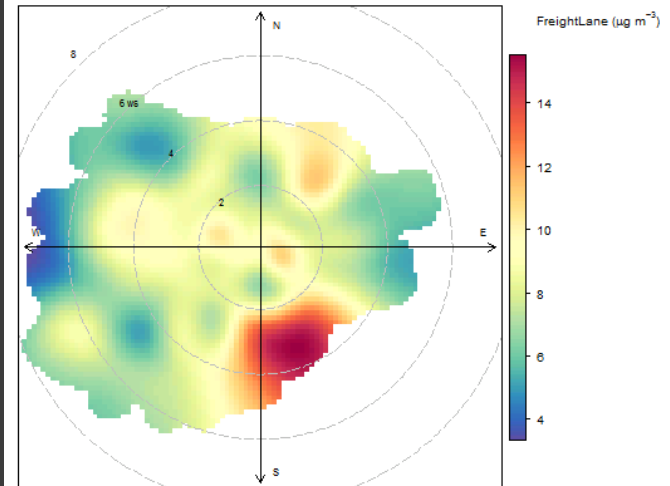
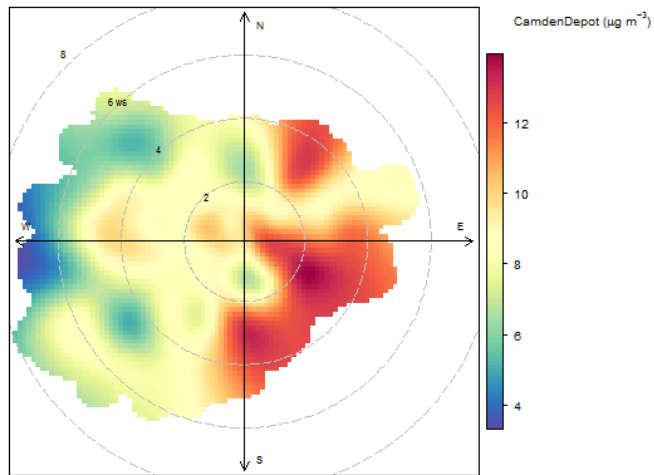
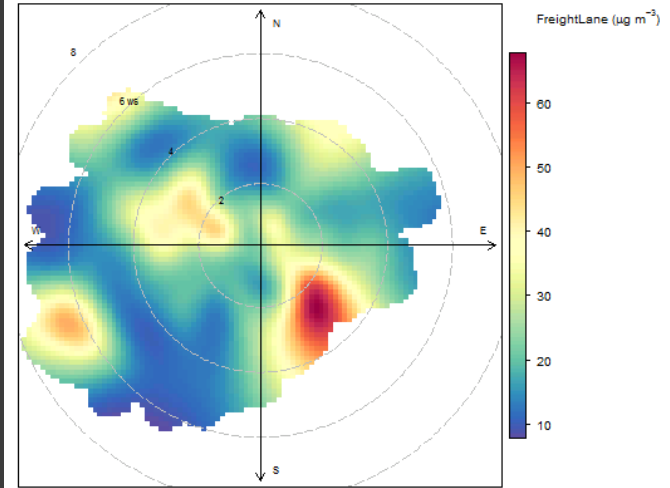
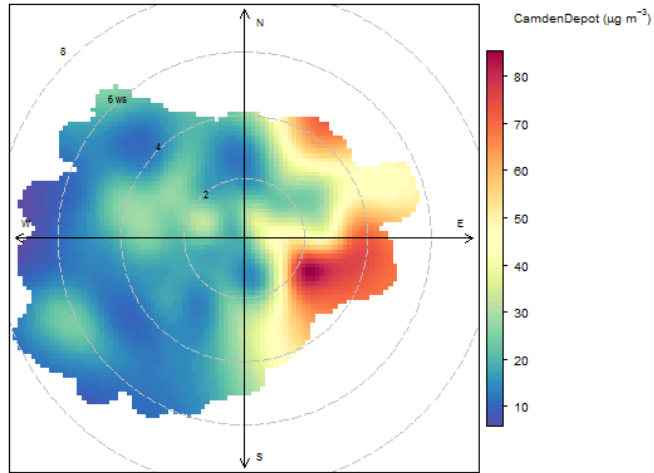
- Targeted CMA application over an 10 week period (week on/week off)
- 3 months baseline monitoring completed
- Measurements made using two Osiris instruments on Freight Lane
- First phase of CMA trial ran in March 2015, the second phase currently running during June and early July.

Freight Lane, Camden









London Borough of Hammersmith and Fulham



Earls Court demolition

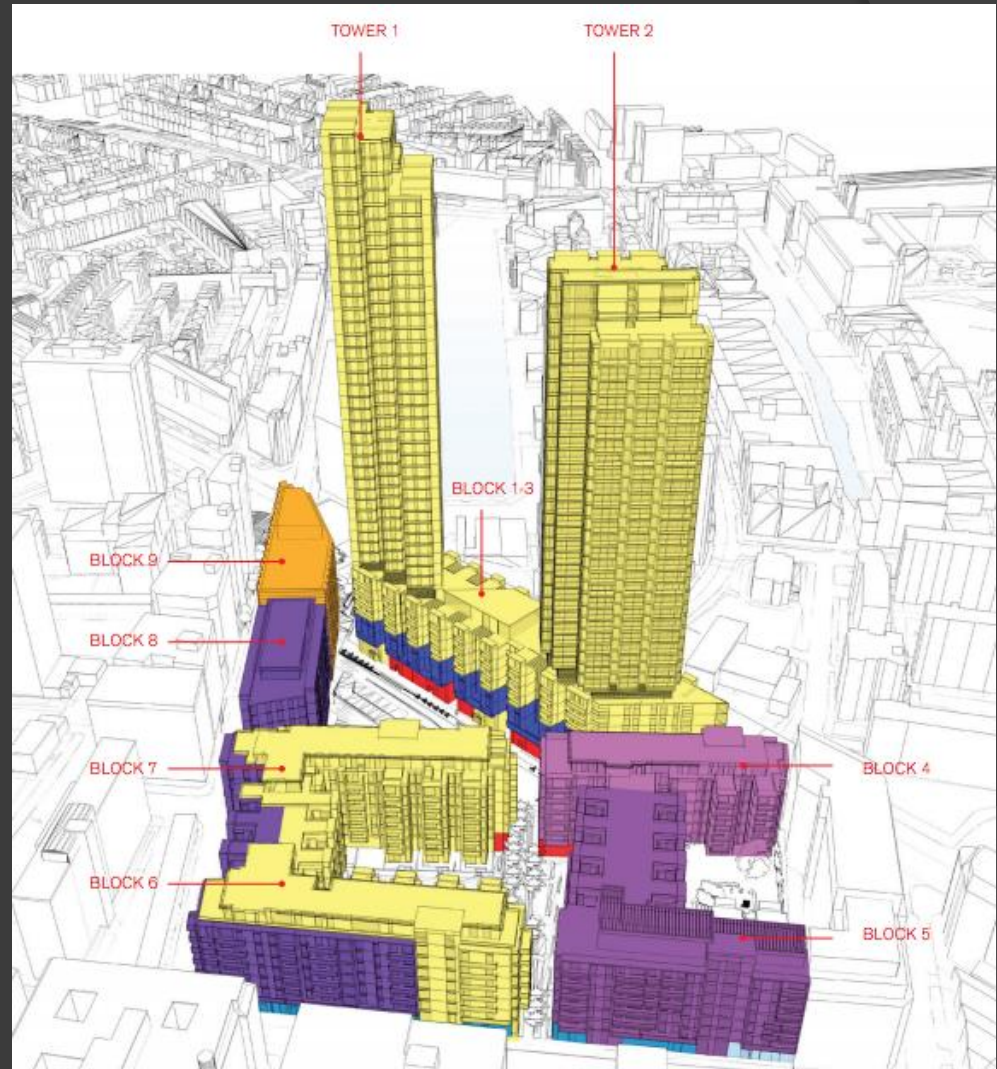


Black carbon measurements correlated with Komatsu on-board 'Komtrax' engine performance software during enforced anti-idling, eco-mode use and diesel fuel additive application during demolition at Earls Court, Kensington

London Borough of Islington

City Forum

250 City Road





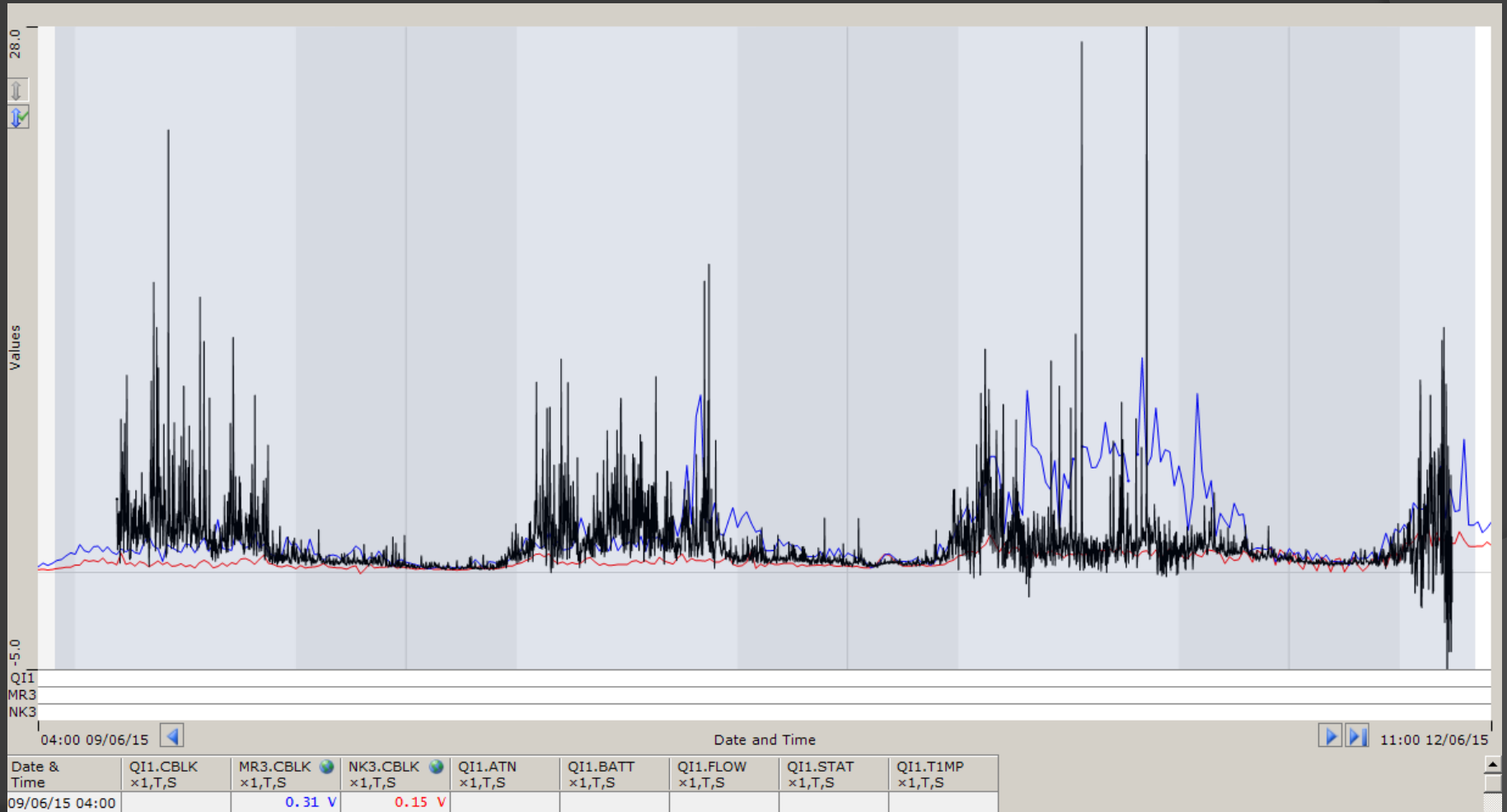
Black carbon concentrations being recorded with a microAeth attached to NRMM in Islington to measure the percentage reduction attainable through using a diesel fuel additive (DPF assist)



Trial method

- Baseline BC measurements taken from NRMM running under constant load
- Addition of Cerium Oxide as a diesel fuel additive
- Ongoing measurements to assess impacts and rate of reduction
- Potential to bring emission reductions to NRMM that is exempt from the GLA LEZ (piling rigs/tower cranes)

Uncorrected BC concentrations from baseline monitoring week 1



London Borough of Lewisham

- ④ **Deptford** based demolition and development of two tower blocks
- ④ Pre-planning access – start mid 2015
- ④ Site is under one developers control, Lend Lease, and they are still keen to assist the project
- ④ Possible trialling of new JCB hybrid NRMM for BC reduction with comparison to older NRMM

London Boroughs of Lambeth and Wandsworth



Nine Elms Station – Northern Line Extension



Intelligent power solutions to reduce particulate matter, black carbon and CO2 emissions as well as reducing fuel costs at Nine Elms Northern Line Extension



Trial method

- Baseline BC and particulate measurements taken from Aggreko generator running under constant load
- Utilises microAeth and Osiris analysers
- Firefly Cygnus 4 Hybrid Power Generator controls load and reduces diesel generator use during low load periods and overnight
- Week on/week off trial to measure emission reduction
- HPG diagnostics of load/fuel use operational hours etc supplied



Project plan / Finance

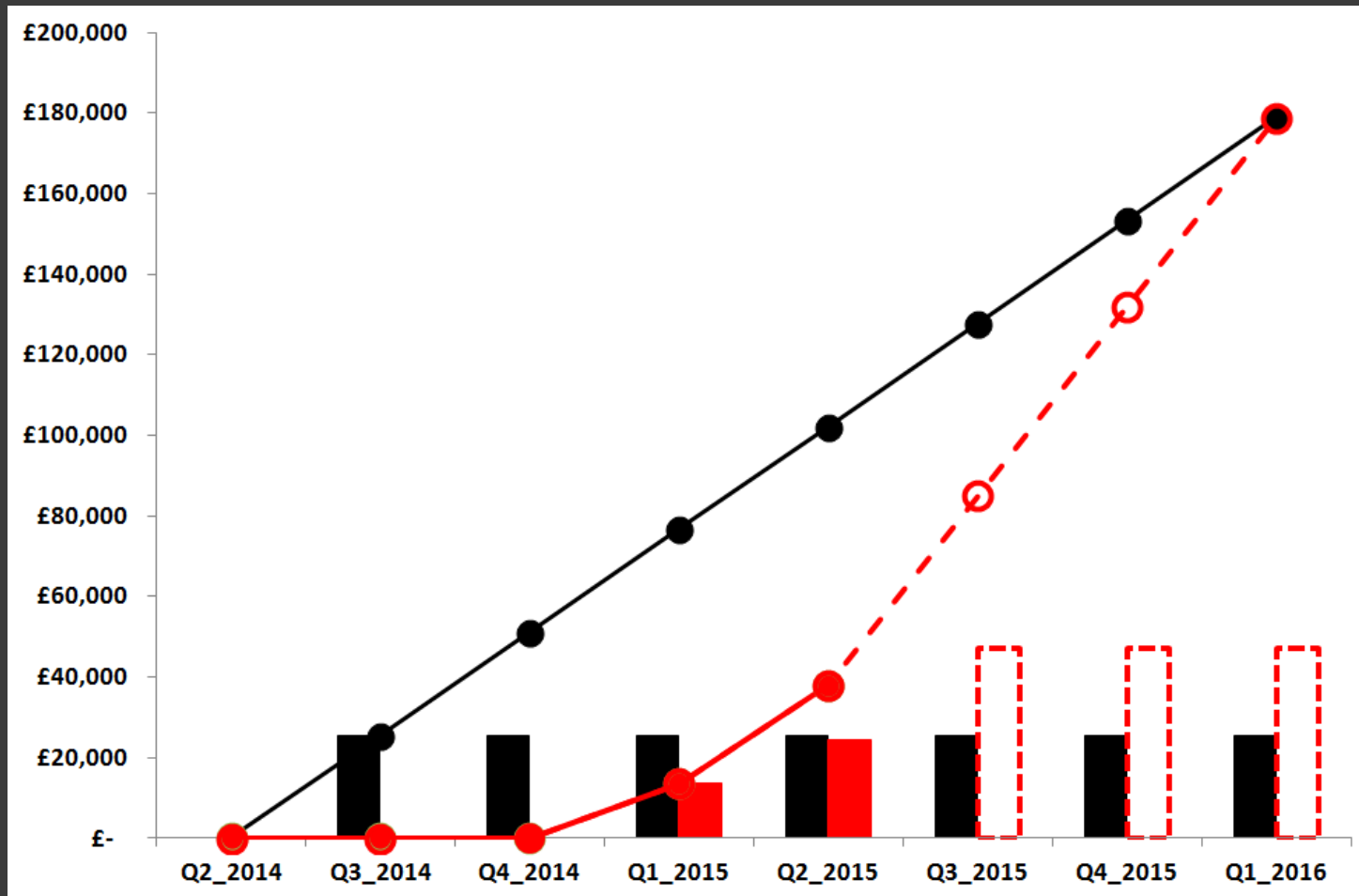
Updated Project Plan

Area	Name	May-14	Jun-14	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016
Project Monitoring	Kickoff meeting GLA/TfL											
Project Monitoring	Project Team Meeting											
Project Monitoring	Develop/review communications strategy for stakeholders											
Project Monitoring	Risk Mapping / review											
Measures	Identification and review evidence (ongoing)											
Measures	Prepare / update developer comms material											
Measures	Developer meetings											
Measures	Measurement site identification and installation											
Measures	Data collection and management											
Measures	Equipment maintenance											
Measures	Application Programme - Planning and management											
Measures	Application Programme											
Measures	Evaluation of impact											
Construction Hub	Scoping											
Construction Hub	Content											
Construction Hub	Build and test											
Construction Hub	Launch											

Q2 2014 Invoice

Q2_2015	Budget		Forecast		Forecast Variance		Budget to Date		Actual to Date		Variance to Date	
Monitoring Staff	£	10,448	£	10,448	£	-	£	71,719	£	71,719	£	-
IT Staff	£	375	£	375	£	-	£	18,667	£	18,667	£	-
Developer communications materials	£	1,146	£	64	-£	1,082	£	2,292	£	866	-£	1,425
Equipment maintenance	£	4,000	£	138	-£	3,862	£	8,000	£	2,946	-£	5,054
Emissions abatement measures	£	25,563	£	24,425	-£	1,138	£	102,250	£	38,029	-£	64,221
Total	£	41,531	£	35,450	-£	6,082	£	202,927	£	132,227	-£	70,700

Projected Spend on measures



Any other business?

- LLECP high-vis vests
- Date of next meeting