

10:30 – 10:35	Welcome	Poppy Lyle
10:35– 10:50	Project Overview	David Green
10:50 – 11:05	Scope of Works and Memorandum of Understanding	David Green
11:05 – 11:20	Equipment Availability	Daniel Marsh
11:20 – 11:35	Local Authority Construction Projects	Daniel Marsh
11:40 – 12:00	Construction Hub Portal	Robert Hepburn
12:00 – 12:10	Project Risks	David Green
12:10 – 12:20	Communication Strategy	David Green
12:20 – 12:25	Meeting Schedule	All
12:25 - 12:30	AOB	

Objectives for meeting

- Project introduction
- Understanding roles and responsibilities
- Agreeing and signing the MOU
- Planning
 - Equipment availability
 - Construction projects
 - Communication strategy
 - Risk review
- Web development



PROJECT OVERVIEW

Project Objectives

This project has three principal objectives:

1. To raise awareness of the impact of the industry on local air quality, educate and encourage best practice in the application of pollution abatement measures and monitoring on construction sites in London.
2. To fund the application of emissions abatement measures at targeted construction sites to improve local air quality. Measures will be chosen on a site by site basis according to applicability and their potential effectiveness; defined in the initial review programme.
3. To evaluate the cost and effectiveness of individual measures to provide an evidence base for wider uptake across the industry.

Deliverables

- A thorough review and assessment of the impact of emissions abatement options and best practice for the construction industry
- Develop a cost benefit analysis to accurately quantify the impact of a range of measures.
- Application of bespoke emission abatement procedures / technology / best practice across major construction sites
- Assessment of impact of a range of emission abatement procedures / technology / best practice to improve cost benefit analysis and accurately quantify measures at chosen, and other, locations.

Outcomes

Three project outcomes:

- The **Review Programme** will assess the measures available to the construction industry to reduce emissions and a quantification of their effectiveness.
- The **Outreach Programme** will consist of meetings with developers and construction site staff and will be led by the project manager and staff from the local authority.
- The **Application Programme** will focus on partner developers who commit match funding to ensure that maximum impact is gained from the MAQF grant.

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	Steering Committee 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 (8 sites)	█			█	█	█	█	█	█	█	█	█
Measures	Equipment maintenance (8 sites)	█			█	█	█	█	█	█	█	█	█
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												

Budget

	13/14	14/15	15/16	Total
Project planning and management	£2,292	£2,292	£2,292	£6,875
Identification and review of evidence	£4,583	£4,583	£9,167	£18,333
Developer communications material	£1,146	£1,146	£1,146	£3,438
Developer meetings	£3,438	£8,021	£5,729	£17,188
Measurement site identification and installation	£6,875			£6,875
Data collection and management (8 sites)	£3,000	£12,000	£12,000	£27,000
Equipment maintenance (8 sites)	£4,000	£4,000	£4,000	£12,000
Programming and supervision		£27,500	£22,917	£50,417
Emissions abatement measures		£104,542	£104,542	£209,083
Evaluation of impact		£11,458	£13,750	£25,208
Scoping	£2,292			£2,292
Content	£2,292	£1,500	£1,500	£5,292
Build and test	£9,000	£5,000		£14,000
Launch	£2,000			£2,000
	£40,917	£182,042	£177,042	£400,000

What Measures?

Measure	Target Cost	Target Usage	Cost Benefit
CMA Application	£167 per site / day	6 sites, 50 priority days per annum	? $\mu\text{g}/\text{m}^3/\text{£}/\text{annum}$
Diesel Particle Filters	£8000 each	2	? $\mu\text{g}/\text{m}^3/\text{£}/\text{annum}$
Street / site cleaning with sweepers	£213 / site / day	6 sites, 50 priority days per annum	? $\mu\text{g}/\text{m}^3/\text{£}/\text{annum}$
Green Screens	£300 / metre	?	? $\mu\text{g}/\text{m}^3/\text{£}/\text{annum}$
Site activity feedback web site / app	£10,000 – 20,000	-	? $\mu\text{g}/\text{m}^3/\text{£}/\text{annum}$
On site cycles	?		? $\mu\text{g}/\text{m}^3/\text{£}/\text{annum}$
Freight consolidation	?		? $\mu\text{g}/\text{m}^3/\text{£}/\text{annum}$

SCOPE OF WORKS

Key deliverables and invoicing schedule

Area	Deliverables	31/6/2014	30/09/2014	31/12/2014	28/02/2015	31/6/2015	30/09/2015	31/12/2015	29/02/2016
<i>Project Management</i>	Attend kick-off / steering committee meetings	X		X		X		X	X
<i>Project Management</i>	Output communication strategy document	X				X			X
<i>Project Management</i>	Output project risk review document	X				X			X
<i>Measures</i>	Output evidence review document		X			X			X
<i>Measures</i>	Output developer communications material		X				X		
<i>Measures</i>	Attend developer meetings (2-3 per month)	X	X	X	X	X	X	X	X
<i>Measures</i>	Identify and install measurement sites		X	X					
<i>Measures</i>	Collect and disseminate data		X	X	X	X	X	X	X
<i>Measures</i>	Organise annual osiris maintenance	X				X			
<i>Measures</i>	Design, programme and supervise agreed measures		X	X	X	X	X	X	X
<i>Measures</i>	Progress report				X				
<i>Website</i>	Produce design and specification document for web site	X							
<i>Website</i>	Generate and update content for web site		X		X		X		X
<i>Website</i>	Launch web site				X				
Invoice Value		£15,644	£66,040	£64,411	£57,321	£45,339	£45,641	£48,505	£57,099

Scope of works

- Lays out the deliverables for this Contract
 - Attend kickoff / steering committee meetings
 - Output communication strategy document
 - Output project risk review document
 - Output evidence review report
 - Output developer communications material
 - Attend developer meetings (2-3 per month)
 - Identify and install measurement sites
 - Collect, disseminate and manage data
 - Organise annual Osiris maintenance
 - Design, programme and supervise agreed measures
 - Progress reports
 - Construction Hub
 - Produce design and specification document for Construction Hub web site
 - Generate and update content for Construction Hub website
 - Launch Website

MEMORANDUM OF UNDERSTANDING

A photograph of a construction site in an urban environment. In the foreground, a worker wearing a high-visibility yellow vest and a hard hat stands near a piece of equipment, possibly a generator or a pump, which is partially enclosed in a metal cage. The ground is paved with cobblestones and asphalt. A long, narrow concrete curb runs along the right side of the path. To the right of the curb, a green metal fence runs parallel to the path, with a yellow caution tape strung across it. In the background, there are several large, leafy green trees and a brick building with a sign that says "WELCOME 2 HELL". The overall scene is well-lit, suggesting a bright day.

THE LONDON CONSTRUCTION HUB EQUIPMENT

Equipment requirement

- Turnkey Instruments Osiris monitors to be used
- 8 are required to allow studies to be carried out across multiple sites
- King's College London have supplied 2 units
- LB Camden have supplied one complete unit



Each unit requires:

- Osiris monitor
 - Power supply
 - Heated inlet
 - GSM modem and aerial
 - Lamp-post enclosure
-
- 16 digit registration code
 - Latest calibration/service record
-
- Met stations may be useful if available

Servicing and maintenance

- King's College London will be responsible for returning the units to Turnkey for annual servicing or in the event of a fault
- The equipment will be installed and commissioned by KCL
- Ad-hoc visits may be required by local authority
- Insurance will be the responsibility of the local authorities

Power supplies

- It will be the responsibility of the local authority to liaise with their project construction sites to have a permanent power supply installed at each instrument location prior to the equipment installation
- Osiris instruments will be fitted with IP44 fittings KCL will need to know if these are 110v or 240v

Aethalometers

- Black carbon monitors
- Used for diesel particulate filter analysis
- Short term monitoring campaigns
- Supplied by King's College London, probably during second year of project

MicroAeth

- The microAeth is a self-contained, pocket-sized instrument with flow control, data storage, and battery and makes its analysis by collecting particulates on a replaceable filter strip and utilizes the Aethalometer optical absorption technique to determine the mass concentration of Black Carbon in real time.



LA CONSTRUCTION PROJECTS

London Borough of Camden

- West End Project
- The project consists of a set of interlocking and coordinated proposals that would enable the significant upgrade of a series of public spaces and contribute directly to the regeneration and economic success of the area.
- Phase 2 – Starting early 2015

London Borough of Hammersmith and Fulham

- Westfield Extension – planning application reference: 2013/05115/OUT (can be searched for on LBHF website). Mixed use development.
- Former BBC television centre: 2013/02355/COMB. Mixed use development.
- Hurlingham Retail Park, Wandsworth Bridge Rd: 2013/02870/FUL – Mixed use.
- Seagrave Road (there is not much demolition on this site, mainly excavation). We know they are due to start in July. 2011/02000 and 2013/01213/VAR – Mixed use.
- Kings Mall development
- Earls Court

London Borough of Islington

London Met University, Holloway Road

Start July 14

London Borough of Lambeth

- Nine Elms
- Thames Tideway Tunnel
- Northern Line Extension
- Shell Centre (Waterloo)

London Borough of Lambeth

- Lewisham Gateway
- Convoy's Wharf
- Cannon's Wharf

London Borough of Wandsworth

- Ram Brewery site
- Nine Elms
- Curtain Street

Project Timelines

Local Authority	Project Title	Start Date	End Date	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Camden	West End - Build stage 2	Apr-15	Nov-15																				
Hammersmith and Fulham	Kings Mall development																						
	Former BBC television centre																						
	Hurlingham Retail Park																						
	Seagrave Road																						
	Westfield Extension																						
	Earl's Court																						
Islington	London Met University	Jul-14 ?																					
Lambeth	Nine Elms																						
	Thames Tideway Tunnel																						
	Northern Line Extension																						
	Shell Centre (Waterloo)																						
Lewisham	Lewisham Gateway	May-14 ?																					
	Convoy's Wharf																						
	Cannon's WharfS																						
Wandsworth	Nine Elms																						
	Curtain Street																						
	Rams Brewery																						

Site Requirements

- Site/project name
- Project description
- Site location
- Site contacts
- Start and finish dates
- Demolition and construction activities/development phases
- Dust management plans and any S106

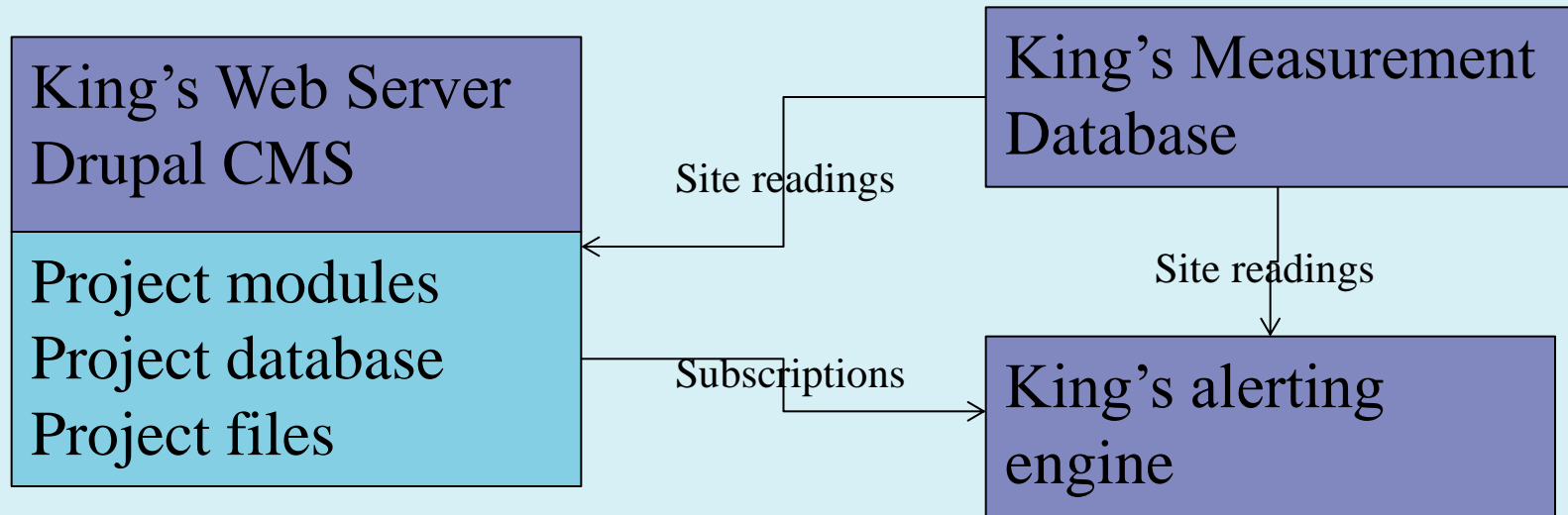
Architecture

Options

Project

CONSTRUCTION HUB PORTAL

Architecture



Hosted on King's web servers

Drupal Content Management System (CMS)

Project modules for special functions

Project database and files

External Data feeds about current site readings

Subscriptions provided to external alerting engine

Options

Core: Existing functions, new design & branding

Responsive Design

Google maps

Alerting system control

Advice and best practice

Public information

London forecast

Feedback System

Self assessment toolkit

Security: How much do we need? Use of a security certificate?

Project

Agile method for uncertain requirements

Not a formal spec – list of requirements in priority order

Each one developed, reviewed, tested before next started

Users: LA officers, developers, public

Need one of each – keen and available

Graphic design and templates first

Development sprints with fast feedback

Final user test for system

Use of Google docs for access

RISK REVIEW

Risk	Probability (1-5)	Impact (1-5)	Total	Mitigation
Not enough equipment to undertake assessment	5	5	25	LAs need to contribute equipment
Development not running to schedule, impacting on our timelines	5	4	20	Need to include flexibility in our scheduling
Not enough money to apply measures	4	4	16	Encourage partnership working to reduce direct costs, multiple applications across a number of sites, good project / financial management
Don't get enough developers involved	3	5	15	Need help from LAs to arrange meetings and encourage developer meetings, provide good communications material, build up before first meetings?
Equipment breaks down	3	5	15	Ensure maintenance in place, regular LSO visits, can we get spare equipment?
Developers not undertaking infrastructure work	3	5	15	Good communications with developers / commitment from developers
Developers not undertaking site jobs (CMA etc)	3	5	15	Good communications with developers / commitment from developers
Poor LA engagement	3	5	15	Regular communications, staff handover
Poor LA liaison with developers	3	5	15	Commitment from LAs
KCL staff continuity	3	5	15	2 staff working on project, team of 16 in measurement
LA staff continuity	3	5	15	Need good handover in event of staff change / illness
Problems procuring measures	3	5	15	Limited umber of CMA application companies (RJ), other measures may be more widely procured
Equipment damage / theft	3	5	15	LAs need to insure equipment
Impact of measures too small	3	3	9	Apply where we are likely to see largest benefit, good experimental planning
Poor stakeholder engagement	3	3	9	Good comms material / strategy
Web site not completed on time	2	4	8	Good project management at KCL, good feedback from user groups
Unusual meteorology impacts on assessment	2	3	6	Application over a number of seasons, long time period will allow for control f wet weather
35 Cannot get access to construction sites	2	3	6	Good communications with developers / commitment from developers

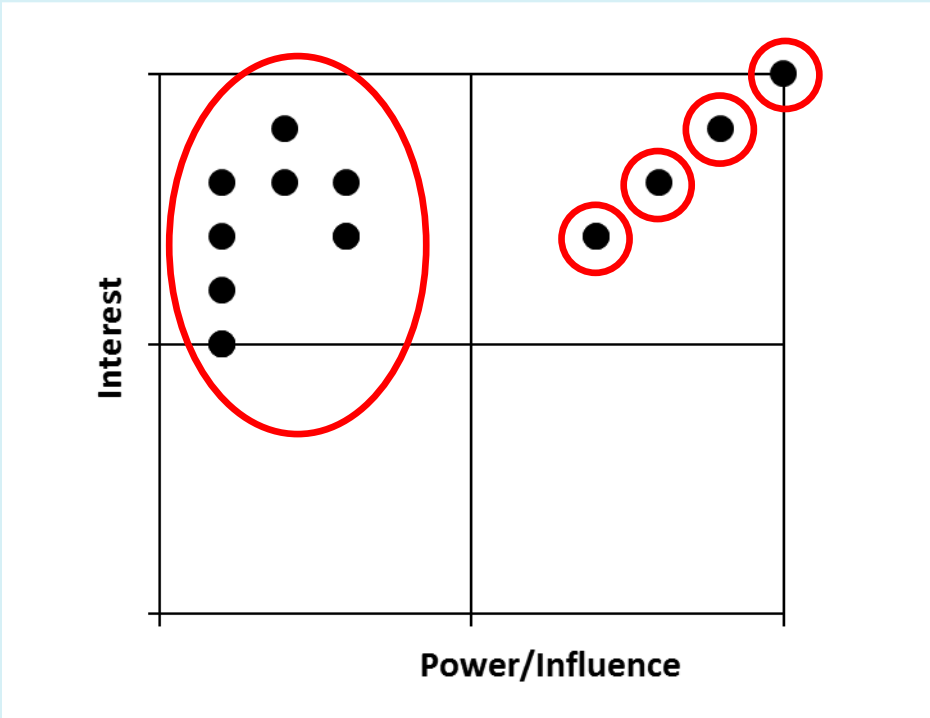
COMMUNICATIONS STRATEGY

Why do we need a communications strategy?

- Identify, prioritize and get to know your audiences
 - Who are we trying to reach?
 - Establishes people, money and time requirements (who, when and how much?)
- Clear, strong messages
 - Key messages, what are the project aims, is it / was it successful?
 - Specific messages to key audiences
- Mitigates risk
 - Creating a positive image
- Sets the basis for measurement
 - Measure the impact of the project from start to finish
- Provides direction for content development efforts
 - Different formats and different styles to meet the expectations of different stakeholders and different channels

Stakeholder Mapping

Institution / Person	Power	Interest	Inform	Consult	Consensus	Agreement
Partner LAs	10	10	X	X	X	X
GLA / TfL	9	9	X	X	X	
Construction companies and developers	8	8	X	X	X	
KCL Management	7	7	X	X		
LA management	7	7	X	X		
Councillors	3	8	X			
Industry press	3	7	X			
Campaign groups	3	7	X			
Residents	2	9	X			
Other academic institutions	1	8	X			
Defra	2	8	X			
BRE	1	7	X			
Other LAs	1	6	X			
LAEI	1	5	X			
NAEI	1	5	X			
IAQM	1	5	X			



Target Audience	Key Messages	Communication Mechanisms/Tools	Implementation Details – Who, When and Cost	Evaluation
Partner LAs		Google groups	KCL, ongoing, within KCL costs	
		Email	KCL, ongoing, within KCL costs	
		Steering group meetings	KCL / LA, ongoing, within KCL / LA costs	
GLA / TfL	progress towards project objectives	Minutes / regular summary	KCL / LA, ongoing, within KCL / LA costs	
Construction companies and developers	raise awareness	1:1 Meetings	KCL, ongoing, within KCL costs	?
	educate and encourage best practice	Conferences	KCL, ongoing, within KCL costs	?
	working in partnership	Industry press articles	KCL, ongoing, within KCL costs	?
KCL / LA management	Progress towards project objectives	Internal	KCL / LA, ongoing, within KCL / LA costs	
Others	project objectives	Web portal	KCL / LA, after web site launch, programmed cost	Hits
	application of measures	Social media	KCL, ongoing, within KCL costs	Followers
	raise awareness	Industry press articles	KCL, ongoing, within KCL costs	?