

# **London Coordination of Scientific and Technical Advice Protocol**

**Version 4.0**

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## **London Resilience Partnership Coordination of Scientific and Technical Advice Protocol**

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### **LONDON RESILIENCE GROUP**

The London Resilience Group is jointly funded and governed by the Greater London Authority, London Local Authorities and the London Fire Commissioner. We are hosted by the London Fire Brigade. Our work, and that of the London Resilience Partnership, is overseen by the London Resilience Forum.

<b>Version Control</b>		
<b>Version</b>	<b>Date</b>	<b>Change (owner)</b>
3.0	May 2017	Full review following publication of the National STAC guidance
3.1	September 2022	Minor administrative updates including name changes from Public Health England (PHE) to UK Health Security Agency (UKHSA), and from government Decontamination Service (GDS) to Defra CBRN Emergencies.
4.0	May 2023	<p>Full review undertaken by UKHSA and London Resilience Group, supported by a Working Group, to ensure these arrangements remain valid, effective and applicable for London.</p> <p>Includes a new template for the STAC Situation Report.</p> <p>General updates to the formatting of the plan with the inclusion of additional guidance on scientific and technical advice support outside of and in escalation to a STAC activation.</p> <p>Reviewed for accessibility.</p>

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## Part 1 – Capability Guidance

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This document highlights key information to support the provision and coordination of scientific and technical advice to incidents in London. [National Guidance](#) on the establishment of a Science and Technical Advice Cell (STAC) within the multi-agency Strategic Co-ordination Centre (SCC) can be found on GOV.UK.

For further guidance on the activation of a Scientific and Technical Advice Cell (STAC) that would support the strategic response to an emergency please refer to [Part 2](#).

### 1. Definition

#### 1.1 Definition / Purpose

This protocol sets out the arrangements to coordinate the delivery of scientific and technical advice to incidents and emergencies in London. This includes the provision of coordinated scientific advice at tactical level (where tactical is the highest level of coordination in place) and the establishment of the Scientific and Technical Advice Cell (STAC) in support of the strategic response to an emergency through the Strategic Coordination Group.

Advice is always available from individual agencies through the normal channels however in complex situations it may be necessary to provide a single, accurate source of information to inform strategic decision making. This is provided through the formation of a Scientific and Technical Advice Cell (STAC).

Coordinating an emergency response at the strategic level often requires expert advice on a range of health security (including wider health matters), environmental, scientific and technical issues in order to deal effectively with the immediate and longer-term consequences. Part 2 of this document covers the roles and subject matter experts who would normally make up the membership of a STAC and includes summaries of the expertise available through national and regional organisations.

In addition to the [Enhanced SAGE Guidance](#), which sets out the relationship between SAGE (Scientific Advisory Group for Emergencies), ECOSA (Emergency Coordination of Scientific Advice) and STAC, this Protocol should be read alongside the [Strategic Coordination Protocol \(SCP\)](#) and other frameworks such as:

- Tactical Coordination Protocol
- Recovery Coordination Framework
- Control of Major Accident Hazards (COMAH) External Emergency Plans
- Major Accident Hazard Pipelines (MAHP) Plan (London)
- Radiation (Emergency Preparedness and Public Information) Regulations (REPPPIR)
- Pandemic Influenza Framework
- Strategic Flood Response Framework
- CBRN(e) Response Framework
- Structural Collapse Response and Recovery Framework (Site Management Group)
- Voluntary Sector Capabilities Document
- London Resilience Communications Group Framework

Note: The above list is non-exhaustive and other Frameworks may be of relevance.

#### 1.2 Audience

This protocol is intended for the nominated representatives of organisations across the London Resilience Partnership, who are tasked with managing the strategic response to an incident in which a STAC may be convened, or who may attend a STAC as a subject matter expert representing their organisation.

It can also be used by representatives from those same organisations who are tasked to manage tactical responses to hazardous incidents or incidents that require significant or expert advice on health protection, environmental, scientific and technical issues.

## 2. Scientific and technical advice

### 2.1 Provision of advice outside of STAC activation

Arrangements already exist for the provision of scientific and health protection advice prior to the establishment of a STAC.

These arrangements are:

- Provision of advice to Emergency Services in London via ECOSA.
- Provision of advice to Emergency Services via the Early Alerting Protocol with UKHSA.
- Provision of advice to the Tactical Coordination Group (prior to establishment of SCG)
- Coordination of scientific and health protection advice from UKHSA into the Tactical Coordination Group (and key partners coordinated via UKHSA) accessed through the UKHSA London EPRR Duty Officer.

These early arrangements will be stood down and merged into the STAC on activation of the Strategic Coordination Protocol.

## 3. Emergency Coordination of Scientific Advice (ECOSA)

### 3.1 The role of ECOSA

ECOSA is a mechanism developed to provide the necessary scientific advice to first-line responders during the earliest stages of the response to an incident while more formal scientific advisory systems are being set up. It exists to ensure that responders do not receive conflicting advice from different sources, and consists of three main agencies providing advice – UKHSA for more general health matters, the Defence Science and Technology Laboratories (DSTL) for chemical and biological events, and the Atomic Weapons Establishment (AWE) for radiological and nuclear events.

ECOSA has in part been created to fulfil the requirement for the provision of immediate, coordinated and effective scientific advice to the Police, Fire and Rescue Service, Ambulance Service and public health responders across the UK at a CBRNE terrorist incident. The ECOSA team may also provide immediate, coordinated and effective scientific advice in the event of a HAZMAT incident.

This scientific advice will be provided up until the time a STAC is formed wherein it will then stand down and the STAC will take primacy. This will include the appointed STAC Chair attending the final meeting of ECOSA, or having an appropriate handover before ECOSA is stood down.

ECOSA will only remain active until either STACs or SAGE have activated. Where STACs activate first, ECOSA will handover to STACs. Where SAGE and STACs activate at the same time, ECOSA will simultaneously handover to both groups.

## 4. Scientific Advisory Group for Emergencies (SAGE)

### 4.1 The role of SAGE

SAGE (Scientific Advisory Group for Emergencies) can only be activated by COBR (Cabinet Office Briefing Room) in support of collective cross-government responses to and/or recoveries from level 2 or 3 emergencies (see Annex D of the Enhanced SAGE Guidance).

Whether SAGE is needed should be considered when COBR is first activated and reviewed throughout the emergency. It is possible that scientific and technical advice will be required in some but not all phases of response and recovery. It is likely that SAGE advice will be required on:

- the scientific and technical concepts and processes that are key to understanding the evolving situation and potential impacts;
- how the emergency might develop and the potential implications of this (i.e. what factors will affect how the situation develops? What are the potential scenarios? How likely are these scenarios? What are their impacts?);
- possible ways to improve monitoring, forecasting and assessment in the short to medium term;
- potential scientific and/or technical solutions that can remove or mitigate the risks and/or manage the impacts, and the pros and cons of these. Advice on potential solutions should outline any logistical issues or limitations (e.g. timing, the expertise and resources required) and the associated costs of these proposed solutions;
- the scientific and/or technical pros and cons of policy options identified by others;
- the degree of consensus (e.g. all, the majority, most, some or few experts agree);
- differences in opinion (i.e. are there differences in scientific / technical opinion and what are the sources of disagreements?);
- the degree and cause of uncertainty (e.g. confidence levels, margins of error and the reasons for not being more certain).

## 4.2 Principles for SAGE / STAC interaction

The main distinction between STAC and SAGE is that STAC provides wider consequence management related to the incident and the locality, while SAGE provides national level advice to the Cabinet Office emergency committee. Where both SAGE and STAC(s) exist in parallel the following principles should be applied:

- STACs should support local decision making, whilst the focus of SAGE should be to support UK cross-government strategic decision making;
- STACs will focus on 'pre-prepared known' whilst SAGE will focus on more uncertain advice where there are knowledge gaps;
- SAGE and STACs should formulate advice to meet the needs of decision makers;
- unnecessary duplications or conflicts between the advice of SAGE and STACs should be avoided. If duplications are significant, or there are differences in the advice being provided at local, Devolved Administration and the UK level this should be managed;
- STAC(s) and SAGE should regularly communicate with each other to share information and knowledge to ensure that there is a commonly recognised understanding of the scientific and technical advice (see part four on coordinating the Scientific and Technical situation report (S&T SITREP)). The coordination of communication between SAGE, and STACs and in particular multiple STACs are integral to the response, particularly in facilitating an understanding of any differences that may intentionally be advised between geographical areas. (For example, during the 2009 H1N1 pandemic, geographical hotspots of the influenza were advised to adopt a different response approach from that of the overall UK position.)
- Despite the close working and information sharing between SAGE and STACs in certain emergencies, STACs remain accountable to SCGs and SAGE remains accountable to COBR.
- A STAC does not in any circumstance become a subcommittee of SAGE, but remains accountable to the SCG and focused on the advice requirements at the local level.

Further information on the full scope of SAGE can be found at Gov.UK (['Enhanced SAGE Guidance'](#), published October 2012).

## 5. Resources and Support Available

Resources and support can be requested from across the London Resilience Partnership through the strategic coordination structures.

Some of these resources are also available individually or directly to tactical responders in the event that a STAC has not been activated.

Further details of the scientific and technical resources and support available are included in Annex F.

## 6. Responsibilities

Consideration should be given to the group's ability and facilities to maintain shared situational awareness. All key decisions, rationale and actions are recorded, but the meeting is not formally minuted so participants should log their individual actions and decisions accordingly. It is the responsibility of individual organisational representatives to communicate any actions, timelines, and requests to their representative organisation.

The SCG will be responsible for allocating actions to the relevant strategic or tactical lead within an organisation. The STAC representative for any given agency reports to the STAC Chair and may not hold the relevant authority in certain instances to ensure SCG actions can be delivered. Actions required of a local authority STAC rep, for example, may need to be received through the Local Authority Gold or Silver as a result of the SCG action, and not through the STAC group directly. The principles of the command structure of a response as defined in the Strategic Coordination Protocol should be adhered to at all times.

The output from the STAC meetings will be the STAC Situation Report, and all members of the STAC will be expected to review and input into the creation of that report. Further detail can be found in Section 11.3 of this document.

## 7. Training and Exercising

All responders should have a clear understanding of their role and responsibilities throughout any incident where the procedures outlined in this document have been invoked. This should be achieved through continued personal development and awareness of the STAC procedures, and attendance at multi-agency exercising when this is advertised.

### 7.1 Responsibilities for Training and Exercising

- **Individuals** - Each STAC representative must be fully aware of the processes and information contained within the London Coordination of Scientific and Technical Advice Protocol, especially their roles and expectations. They must also be familiar with the supporting and related documentation as listed below:
  - Provision of scientific and technical advice in the strategic co-ordination centre: guidance to local responders ([National STAC Guidance](#))
  - [Enhanced SAGE Guidance](#)
  - [Strategic Coordination Protocol \(SCP\)](#)
- **Agency specific** - Agencies are responsible for ensuring that their representatives are able to carry out the roles and duties described in this document. It is expected that this will include role specific training and an appropriate level of knowledge of multi-agency procedures including command, control and coordination arrangements within their own Agency/Organisation. Agencies should be aware of the individual training expectations for

those nominated as their STAC representatives, and ensure that this training is being reviewed and revisited regularly by the individuals.

- JESIP Principles for joint working - Agencies are responsible for ensuring they are aware of and have completed the All Staff E-learning JESIP Awareness package to ensure all responding organisations are able to work in the most joint and coordinated approach.

**Partnership wide** - Continued delivery of multi-agency exercising sessions are necessary, and should take place annually. Pre-learning requisites for those attending the multi agency sessions will comprise of:

- Refreshing individual knowledge of the contents of this document, including activation processes and roles and responsibilities contained within the plan (as per the individual training expectations above).
- Understanding any internal or organisational specific coordination arrangements, including LALO arrangements for Local Authorities (as per the agency specific training expectations above).
- Complete JESIP All Staff E-learning- <https://www.jesip.org.uk/training/all-staff-e-learning>
- Complete the UKHSA eHealth STAC Members Training. Access to this training should be requested through REDACTED and should take no more than 60 minutes to complete. Access and progress for this training module is monitored and recorded by UKHSA.

The following will support a consistent approach to multi-agency cooperation approach across the London Resilience Partnership:

- A Capability Awareness Package accompanies this document. This is prepared by UKHSA and provides basic information about the capability for all responders and is stored on Resilience Direct.
- The LRF Training and Exercising Group will coordinate briefings and workshops hosted by the London Resilience Group and support the delivery of partnership wide exercises at the sub-regional and pan-London level.

## Part 2 – Scientific and Technical Advice Cell (STAC) Arrangements

This section offers guidance on the protocol for convening a STAC. It is intended to complement the preceding Capability Guidance.

### 8. Action Checklist

The following checklist gives a guide to steps to be taken when activating, setting up and fulfilling the actions of a STAC, but the actions will be undertaken by the most appropriate person(s) with the relevant authority or expertise, as decided by the STAC Chair or UKHSA London's Regional / Deputy Regional Director.

Complete	Action	Section
	Activate the plan Contact UKHSA on REDACTED	Section 10 – Activation Process
	Determine the structure of the response, membership of the STAC, and which sub groups may also have been stood up.	Section 11 – Structure, membership and sub groups
	Assess the immediate / short term implications	Section 12 – Short, Medium and Longer Term considerations
	Consider the medium term considerations	Section 12 – Short, Medium and Longer Term considerations
	Clarify the longer term implications	Section 12 – Short, Medium and Longer Term considerations
	Conduct Health Risk Analysis	Section 13 – Health Risk Analysis
	Review the resources and support available	Annex F – Resources and Support Available
	Prepare Sitrep for SCG / RCG	Annex C – STAC Situation Report

## 9. Considerations for Strategy

### 9.1 Purpose

The purpose of the STAC is to provide a single point of scientific advice to support decision making at the Strategic Coordination Group (SCG) on the scientific, technical, environmental, and public health consequences of an incident. STAC will develop any advice to be given to the public on the health aspects of the incident and advice on actions to protect the public and environment as per the [Strategic Coordination Protocol \(SCP\)](#).

The STAC would be expected to advise on issues such as the impact on the health of the population, public safety, environmental protection, and sampling and monitoring of any contaminants.

### 9.2 Strategic Aim

Through the completion of the STAC Situation Report (Annex C), the STAC aims to:

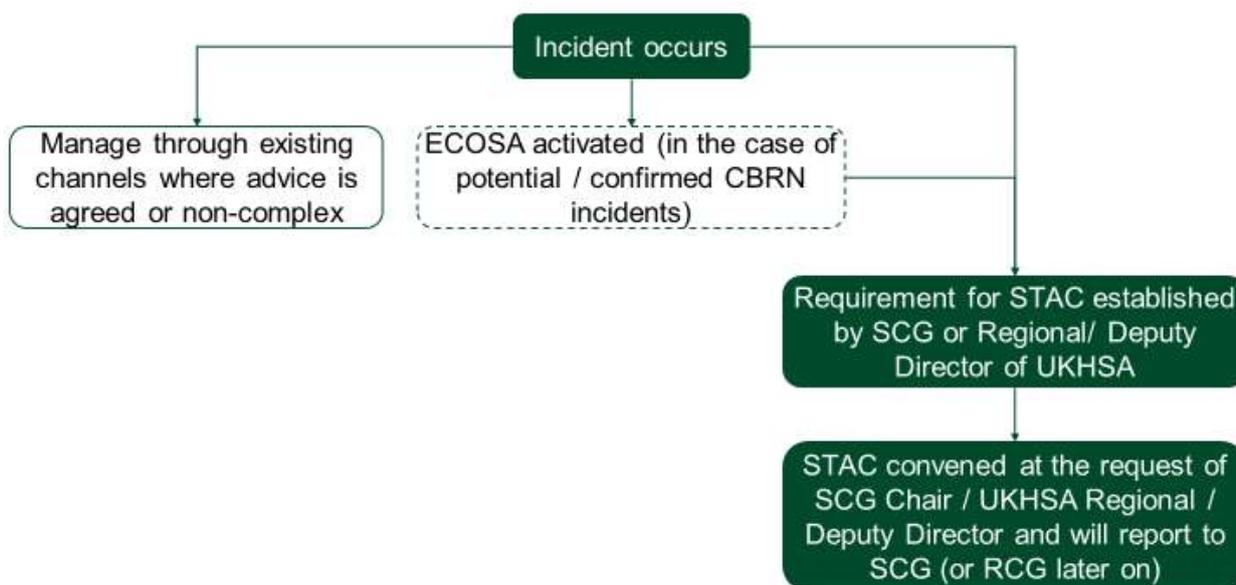
- Provide a single point of coordinated scientific advice to the SCG to support strategic decision making. This includes scientific, technical, environmental and health security consequences of the incident.
- Monitor and corral the responding science and technical community to deliver SCG high-level objectives.
- Pool available information and arrive, as far as possible, at a common view on the scientific and technical merits of different courses of action.
- Agree any divergence from agreed arrangements for providing science and technical input.
- Provide a common brief to the technical lead from each agency represented in the cell on the extent of the evidence base available, and how the situation might develop, what this means, and the likely effects of various mitigation strategies.
- Agree with the SCG Chair on the advice to be given to the public on the health aspects of the incident and advice on actions to protect the public, including the consequences of any evacuation or containment policies.
- Provide clarification on advice provided to the SCG to a single, nominated, point of contact within a multi-agency Tactical Coordination Group (TCG).
- Continue the provision of advice into the recovery phase of an incident liaising with the Recovery Coordination Group (RCG).

## 10. Activation Process

### 10.1 STAC Activation

The STAC may only be activated at the request of the SCG Chair or at the request of UKHSA London’s Regional / Deputy Regional Director.

Prior to the formal activation of the STAC, scientific, technical, environmental and public health advice is available to responders by individual organisations through existing channels.



For potential/confirmed CBRN incidents, initial advice will also be provided by the Emergency Coordination of Scientific Advice (ECOSA) System (if activated).

A request for STAC arrangements to be activated by UKHSA in London should be made via REDACTED

### 10.2 STAC Coordination and Facilitation

Once the request for the activation of STAC has been received by UKHSA, the following actions will be undertaken or coordinated by the UKHSA London EPRR duty officer:

- Contact the on-call STAC Chair and brief them.
- Confirm if a physical or virtual STAC is required.
- Arrange for the STAC Supporting Roles to be filled by appropriately trained UKHSA staff
- Contact required participant organisations for attendees.
- If physical STAC, inform attendees of location.
- If virtual STAC, issue attendees MS Teams Invite.

### 10.3 Alternative to STAC Activation

If a STAC does not need to be activated, but scientific advice is still needed from individual organisations, please see Annex F – Resources and Support, and use The London Resilience Partnership Contacts Directory available on [Resilience Direct](#), which contains all the contact details for activation of relevant organisations.

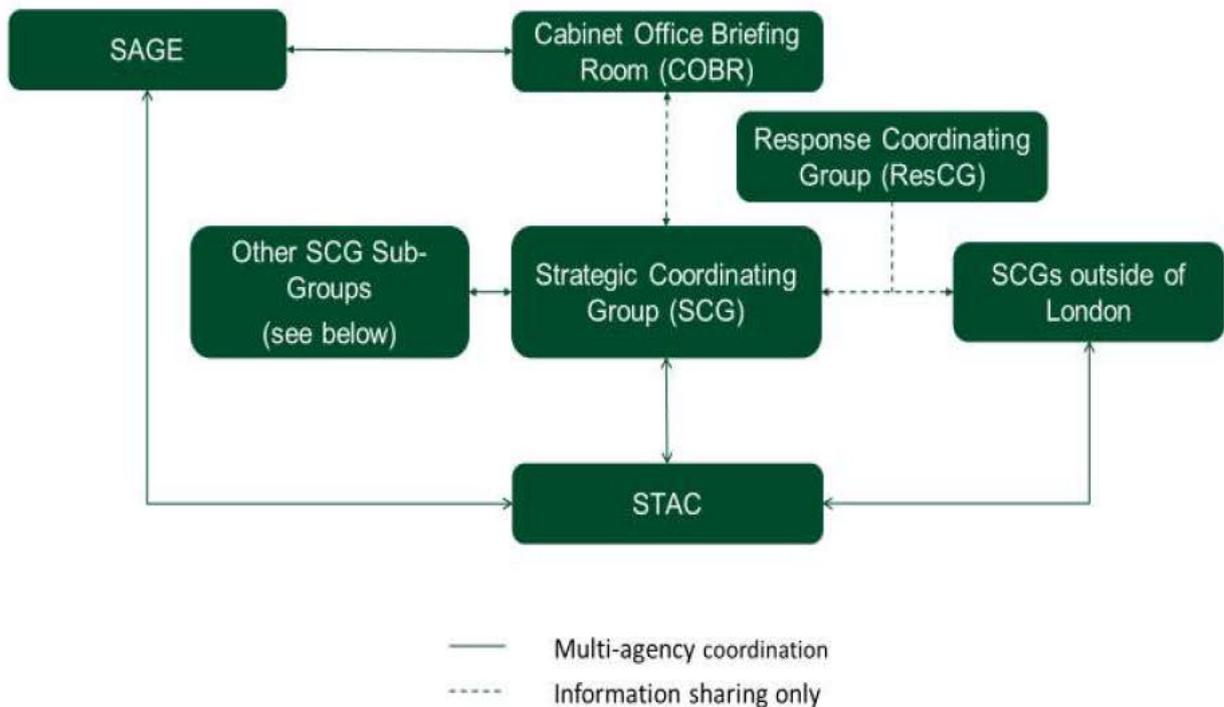
Please note, details for a site or infrastructure operator (if relevant) will vary depending on the incident.

Further detail of scientific advice that is available outside of a STAC activation can be found in Part 1 – Capability Guidance, or in Annex F - Resources and Support Available.

## 11. Structure and Membership

### 11.1 Structure of the response

A STAC reports directly to the Strategic Coordination Group (SCG). It is a multi-agency group that ensures timely coordinated scientific, technical, environmental and health security advice is provided to the SCG to support strategic decision making during the response to an emergency.



### 11.2 Membership

The STAC is chaired by UKHSA. Supporting roles for the STAC are also provided by UKHSA, with the exception of the Subject Matter Experts (SME's) who will be drawn from the relevant organisations across the Partnership.

Members participating in a STAC will be dependent upon the nature of the incident but will typically consist of representation from the organisations in the table below:

	Role/Organisation	Sourced from
Support Role	STAC Chair	UKHSA London
	Deputy STAC Chair	UKHSA London
	STAC Manager	UKHSA London
	Task Manager	UKHSA London
	STAC Operational Support staff	UKHSA London
Subject Matter Experts	Department for Levelling Up, Housing and Communities	London Resilience Partnership
	Environment Agency	London Resilience Partnership
	DEFRA CBRN Emergencies (formerly Government Decontamination Service)	London Resilience Partnership
	Government Technical Adviser (in the event of a civilian nuclear site accident)	London Resilience Partnership

	Health and Safety Executive	London Resilience Partnership
	Local Authority STAC Representative	London Resilience Partnership
	London Ambulance Service	London Resilience Partnership
	London Fire Brigade	London Resilience Partnership
	Met Office	London Resilience Partnership
	Metropolitan Police Service	London Resilience Partnership
	City of London Police	London Resilience Partnership
	British Transport Police	London Resilience Partnership
	NHS England (London)	London Resilience Partnership
	UK DVI (Disaster Victim Identification)	London Resilience Partnership
	UK Health Security Agency	UKHSA London
	Site Operator	London Resilience Partnership
	Utility companies	London Resilience Partnership
<b>Comms</b>	Ensure participation in STACs by communications staff from UKHSA and other relevant agencies.	London Resilience Communications Group (via London Resilience Partnership)

### 11.3 Reporting

The STAC will be expected to report their advice and findings to the Strategic Coordination Group using the STAC Situation Report (Annex C). This document is classed as Official Sensitive, although it is acknowledged that the advice given by STAC will be used in the formulation of onward public health messaging.

Completion of the STAC Situation Report is the responsibility of the STAC as a whole, although this will be led by UKHSA in the undertaking of the STAC Chair role. The STAC Chair will need to ensure that report is shared amongst the members of STAC, and that agencies have an opportunity to input to the document. The method for sharing an input to the Situation Report remains flexible based on the incident and any concerns about the ability to do so should be raised to the STAC Chair.

As per the STAC Ground Rules (Annex B), consensus for the advice being given by the STAC is preferred but unanimous agreement may not always be possible – the Chair has final discretion on advice given to the SCG. Any disagreement or divergence amongst the STAC members should be managed within the STAC.

The STAC Situation Report will be issued to the SCG members prior to commencement of the meeting and will be shared with SCG documentation. Therefore, the STAC meeting, the recording and dissemination of any actions and decisions at the STAC meeting, and subsequent preparation and submission of the STAC Situation Report to the SCG will need to align with the SCG rhythm. Consideration of the time required to undertake this work will need to be factored into the rhythm of the STAC meetings.

The Situation Report used by ECOSA in their handover to a STAC will differ slightly to that in Annex C, and so an example of this Situation Report is included in Annex D for completeness.

### 11.4 Subgroups to be considered\*

The SCG may convene a number of sub-groups as listed below. These sub-groups will report to the SCG and operate independently of the STAC. This list is not exhaustive but seeks to show the most common sub-groups represented at the SCG.

Sub-Group	Purpose
Humanitarian Assistance Steering Group	Facilitate humanitarian assistance activity delivery such as psychosocial support and commemorations
Mass Fatalities Coordination Group	To provide options for dealing with incidents involving large numbers of human fatalities.
London Resilience Communication Group	Ensure centralised, appropriate, and consistent partnership communications
Recovery Coordination Group	Plan for and influence wider longer-term activities and outcomes
Faith and Belief Engagement Cell	Bring together community faith leaders to support communication and engagement with the public and the bereaved.
London Communities Emergency Partnership (LCEP)	To coordinate preparedness and response to major emergencies with London’s voluntary and community sector.

\*Appendix 1 of the Strategic Coordination Protocol provides a full list and summary of capabilities plus details of the lead agencies.

**11.5 Air Quality Cell**

An Air Quality Cell (AQC) will be convened where an air pollution incident poses a threat of significant harm to the environment or public health. The AQC will undertake an ongoing public health risk assessment throughout the acute phase of a relevant incident.

Engagement of the AQC usually follows alerts from the Fire and Rescue Service to both the UKHSA and the Environment Agency (EA) under nationally agreed reporting protocols or following notifications from local UKHSA or EA staff.

The AQC will issue advice on the airborne public health risk and on appropriate public-safeguarding measures in an Advice Note and in person, via the UKHSA representative, to the group co-ordinating the multi-agency response.

The AQC may therefore provide advice directly to a Tactical Coordination Group (TCG) where that is the highest level of co-ordination or directly to a Strategic Coordination Group (SCG) when convened, or through the STAC when a STAC has been established to support an SCG.

## 12. Short, Medium and Long-Term Response Considerations

Phase	Needs of the public	Frontline operational responders	Tactical Responders	Strategic Responders
<b>Impact / immediate post impact: first few hours</b>	Safety considerations Provision of information regarding the incident.	Restriction of access (cordon control) Safety of responders Mitigation of hazard / removal of risk Hot debriefing	RVP and Joint Command Locations Adequate resourcing Operational tempo Operational requirements Crew relief and rotation Welfare and rest areas	Meeting and coordination location Reallocation of reserve resources Maintenance of response capability beyond incident Impact on other responders and services
<b>Following hours / first few days</b>	Safety considerations Reassurance messaging Adjustments to daily life	Initial debriefing	Operational tempo change Crew relief and rotation Handover of information Welfare and rest areas	Handover of information
<b>Medium term</b>	Safety considerations Return to normality	Full debrief	Full debrief	Full debrief
<b>Longer term</b>	Mental and physical health monitoring Return to normality	Mental and physical health monitoring	Mental and physical health monitoring	Mental and physical health monitoring Strategic review of procedures, training and tactics

## 13. Health Risk Analysis

### 13.1 STAC and risk to public health

A key STAC function is to conduct an assessment of the risk to public health associated with the emergency, to decide on advice regarding options for managing the risks and to agree on advice to be given out. Details of the steps in Health Risk Analysis are provided below. Health Risk Analysis incorporates:

- Risk Assessment
- Risk Management
- Risk Communication

### 13.2 Risk Assessment

- Identify and collate information on the nature, scope and scale of the threat or hazard.
- Consider the information on the hazard and the expert advice required.
- Assess the actual or potential risks to health associated with exposure to the threat or hazard.
- Formulate conclusions and provide advice to the SCG/RCG Chair on the health impact of the emergency.
- Agree and advise on any additional information required for ongoing dynamic risk assessment (e.g. air quality or other environmental monitoring/analysis). The reassurance to the public of ongoing monitoring should also be considered.

### 13.3 Risk Management

Consider options for urgent control measures:

- To prevent primary exposure of the public:
  - Sheltering
  - Evacuation
  - Action on water/food supplies
- To prevent continuing exposure of casualties:
  - Decontamination
  - Restriction of access to affected area
- To minimise health impact of exposure:
  - Prophylaxis treatment
  - Personal Protective Equipment
  - Advice on delayed health effects

### 13.4 Risk Communication

Agree with the SCG/RCG Chair, advice on the health aspects of the emergency to be provided:

- To the public
- To NHS England / Integrated Care Boards (ICBs) including:
  - Hospital services
  - London Ambulance Service
  - NHS England - London EPRR Team
- To other agencies

## 14. Other Considerations

### 14.1 Facilities and equipment

When required, a STAC can be held as a face-to-face meeting if determined appropriate by the STAC Chair. This will be communicated to all STAC attendees prior to the meeting.

To maintain a flexible approach no fixed location has been identified. Three organisations have been assessed to provide the required level of support to host a STAC meeting, these are:

- Metropolitan Police Service REDACTED
- London Fire Brigade REDACTED
- UKHSA London REDACTED

UKHSA will provide equipment to allow the STAC to function efficiently either as a remote or face-to-face meeting. This will include physical resources to allow communications, task logging and STAC operational organisation to take place.

All STAC attendees are expected to provide their own resources to allow them to function fully from any of the potential STAC locations, see Annex E - STAC SME action card for further details. This will include linking into their own organisations' infrastructure in support of the delivery of the STAC function.

Major incidents can last for many days/weeks and may require the staffing of a STAC for a prolonged period. In an incident where a STAC response is required for more than eight hours, plans should be put in place for shift working. The STAC Manager is responsible for arranging the shift rotas for the STAC operational delivery roles, but SMEs will need to ensure resilience in their organisation's ability to provide representation at a STAC over a prolonged period.

All organisations are responsible for their own human resource planning to meet the requirements of the response.

### 14.2 Health and Safety

All agencies are required to comply with the requirements of the Health and Safety at Work Act 1974, and all other relevant statutory provisions and recognised codes of practice to provide, as far as is reasonably practicable, a safe working environment.

Issues will be referred to the Strategic Coordination Group as appropriate for further direction. This may include using the STAC to inform the health and safety risk assessment process and associated safe systems of work.

It is not the role of the STAC to provide Occupational Health advice to individual organisations. This responsibility sits with individual organisations in line with relevant current legislation. The advice provided by STAC may inform those individual organisations in their provision of Occupational Health advice.

### 14.3 Communications and Media Strategy

In the event of a STAC being convened in London, existing media and communications arrangements will be established. The London Resilience Communications Group Framework covers the process for convening the Group (typically chaired by the Metropolitan Police Service during initial periods). This group will also report to the Strategic Coordination Group as required.

The lead organisation responsible for overseeing the operational response to the major incident will take primacy for communication and media handling matters. The London Resilience Communications Group will meet on a routine basis to coordinate communications issues and respond to emerging risks.

### 14.4 Stand down and debrief

A STAC will continue to report to the SCG until the requirement for STAC is no longer necessary, or it will be handed over to the RCG. The decision to stand down the STAC will be taken by the STAC Chair in consultation with the SCG / RCG Chair.

Once the stand down has been agreed, all organisations involved in the delivery of STAC for the incident will be invited to participate in a structured debriefing process. This will be led by the organisation providing the chairperson for the STAC and will follow the STAC lead organisation's guidelines for debriefs. A final report for STAC containing all the relevant identified lessons will be produced and form part of the overall incident report.

The London Resilience Group maintains a list of lessons identified through exercises and incidents on behalf of the wider Partnership. These are identified, recorded and implemented in accordance with the Partnership's Learning and Implementation Protocol. The status of these lessons is reported to the London Resilience Programme Board, and the London Resilience Forum.

The experience from exercises and incidents should contribute to reviews of this document.

## ANNEX A – STAC Agenda

**Meeting should be maximum 20-30 minutes  
(Adapt agenda as appropriate)**

1. Welcome, introductions and apologies
2. Declaration of items for urgent attention
3. Actions from last meeting
  - a. Progress, if applicable
4. Membership confirmation (at initial meeting and for new members, use Annex B: STAC member's introductory briefing)
  - a. Assess need for additional agency representation
5. Situational Awareness
  - a. Current situation update
  - b. Actions taken to limit hazard or protect public health
  - c. Feedback from SCG or RCG meetings
6. Health Risk Analysis
  - a. Risk assessment
  - b. Risk management options
  - c. Risk communication messages
7. Review any other outstanding issues from members and considerations that should be raised to the SCG
8. Summary of actions
  - a. Confirm responsibility for sharing with other groups
  - b. Allocate and confirm tasks
  - c. Agree communications to be shared with SCG / the wider public
9. Summary of timescales
  - a. Shift requirements and handovers
  - b. Confirm roles of STAC support team and practical arrangements for future meetings
10. Date and time of next meeting
11. Any other business

## ANNEX B – STAC Member’s Introductory Briefing

### The STAC Chair will:

- Carry out this briefing at the first STAC Meeting and repeat for new STAC members as required.
- Explain roles of the SCG, STAC and STAC Chair.
- Explain ground rules, main functions and tasks (see below). Ensure electronic or paper copies of STAC Ground Rules (this page) are made available to all STAC members.
- Advise STAC members that they may make brief contact with family members if desired but that they MUST NOT discuss details of the incident.
- Address roster arrangements (identify early on the resilience arrangements for all agencies to have staff rotate through the STAC). All members to contact own agency to arrange rota cover.

### STAC Ground Rules

- Recognise the authority of the STAC Chair and respect the role of Chair as co-ordinator of advice to the SCG / RCG.
- Respect the role of STAC as a team with task orientation.
- Understand own role and responsibilities and those of others.
- Only key STAC members are invited to attend STAC meetings.
- Meetings to be time-limited and follow-up action taken off-table.
- Decisions and options to be formulated off-table and reported back.
- Members to take responsibility for advice they give and use best available evidence base.
- All communications and decisions to be logged and details recorded.
- Members encouraged to contribute but to keep contributions relevant and concise.
- Consensus is preferred but unanimous agreement may not always be possible – the Chair has final discretion on advice.
- Any conflicts of interest/organisational problems to be declared to the STAC Chair.
- No unauthorised external communication of advice or STAC proceedings.

**Annex C - Scientific Technical Advice Cell Situation Report**

OFFICIAL SENSITIVE			
SITREP Number:		Time (24hr):	
		Date (DD/MM/YY):	
<b>STAC Chair</b>			
Name			
Role			
Email			
Contact Number			
<p>This Situation Report has been validated by the STAC participants (leads for each organisation identified at end of the report). This information can be disseminated to other agencies as necessary. Where clarification is required, the main contact should be contacted in the first instance.</p> <p>New information should be highlighted in <b>yellow</b>.</p>			
<b>Advice requested from STAC</b>	<p><i>List all advice or actions that have been requested from the STAC:</i></p> <ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> </ul>		
<b>Summary of known information and assumptions</b>	<p><i>Detail the known information <u>and</u> assumptions of the situation at the time of providing this advice:</i></p>		







**ANNEX D – ECOSA to STAC Situation Report**

SITREP Number:	Date: (DD/MM/YY)
	Time: (24hr)
Main Contact:	
Role:	
Name:	
Email:	
Tel:	
Fax:	
Other Key Contacts:	
<p>This Situation Report has been validated by the ECOSA participants. This information can be disseminated to other agencies as necessary. Where clarification is required, the main contact should be contacted in the first instance.</p> <p>New information should be highlighted in <b>yellow</b>.</p>	

**I. Summary/Key Points**

This section is used to highlight specific issues that the author believes should be reflected in the incident Common Operating Picture (COP). This section should also note if there are any restrictions on the report’s distribution i.e. “for central government departments only”.

<ul style="list-style-type: none"> <li>• Advice given:</li> <li>• Advice considered:</li> </ul>
---

**II. Current Situation**

This section should cover key issues relating to the situation. It should describe the current situation in sufficient detail for, if necessary, decisions to be made.

<ul style="list-style-type: none"> <li>• Where we have got to/next advice:</li> </ul>
---

**III. Context**

Information collated to inform decision.

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**IV. Operational Response**

<ul style="list-style-type: none"> <li>• Summary of what happened</li> <li>• What next –</li> </ul>
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## V. Resource and Readiness

Note which organisations and how many from each involved:

## VI. Recovery

## VII. Media and Communications

This section is used to provide information covering key media and communications issues.

## VIII. Other Issues not covered elsewhere

## IX. Information Requirements/Clarification

This section is used to seek information or clarification from Cabinet Office / COBR Situation Cell or other agencies. Where the information or clarification would be sourced from a specific agency this should be identified. This section does not negate the need to contact agencies directly but does provide a record of requested information or matters for clarification.

## X. Distribution

Sets out who the completed SITREP should be sent to once cleared.

- SCG / RCG / STAC membership lists.

## XI. Attached Tables, Maps etc

Sizeable maps and images should be provided as separate compressed files. All attachments should be uniquely identified (with a clear linkage to the relevant situation report) and listed to ensure that data is not lost.

## ANNEX E – STAC Support Role and Action Cards

STAC Chair
<p><b>Role:</b></p> <p>To provide leadership, to direct and chair STAC meetings and to act as the co-ordinator of advice to the main co-ordinating group, e.g. SCG / RCG.</p>
<p><b>Initial Actions:</b></p> <ul style="list-style-type: none"> <li>• Develop situational awareness.</li> <li>• Confirm activation of support staff.               <ul style="list-style-type: none"> <li>○ Brief STAC Deputy Chair.</li> <li>○ Brief team members on roles and responsibilities including the STAC Support Team.</li> </ul> </li> <li>• Consider STAC membership and call in other members as required, including comms.</li> <li>• Clarify relative Public Health roles and responsibilities including recovery responsibilities between UKHSA and Local Authorities.</li> <li>• Identify what type of meeting is required:               <ul style="list-style-type: none"> <li>○ Virtual – send out details.</li> <li>○ Co-located – send out location details.</li> </ul> </li> <li>• Carry out a 'Health Risk Analysis' (see section 13) covering:               <ul style="list-style-type: none"> <li>○ Risk Assessment.</li> <li>○ Risk Management.</li> <li>○ Risk Communication</li> </ul> </li> </ul>
<p><b>First meeting:</b></p> <ul style="list-style-type: none"> <li>• Deliver "STAC members introductory briefing" (Annex B)</li> <li>• Use the Model STAC Meeting Agenda (Annex A), emphasise timelines of action.</li> <li>• Agree action required based on the health risk analysis.</li> <li>• Delegate tasks to STAC members and agree who will link with any sub-groups.</li> <li>• Ensure that a STAC task management log is established and timeline is being captured.</li> <li>• Reinforce requirement for a single source SCG (and LRF) multi-agency media statement</li> <li>• Complete and agree the Situation Report that will be shared with the SCG</li> </ul>
<p><b>Ongoing actions:</b></p> <ul style="list-style-type: none"> <li>• Limit STAC meetings to core or essential members with others "in support".</li> <li>• Agree with STAC members on critical issues for action by STAC agencies and for action via the SCG.</li> <li>• Record all decisions made and discounted and the reasons for those decisions.</li> <li>• Minimise discussion time at STAC meetings by advising members to discuss and formulate options off-table.</li> <li>• Note lessons as emergency progresses for debriefing and subsequent evaluation.</li> <li>• Ensure smooth handover briefings between Chairs and other members.</li> </ul>
<p><b>De-escalation:</b></p> <ul style="list-style-type: none"> <li>• Agree with STAC members the trigger point for STAC closure.</li> <li>• Identify the reduction in STAC requirement.</li> <li>• Propose STAC Closure with SCG/RCG chairperson.</li> <li>• Inform all STAC members of closure.</li> <li>• Request all paperwork and documents to be retained.</li> <li>• Inform STAC members of debrief arrangements.</li> </ul>

<p><b>Deputy STAC Chair</b></p>
<p><b>Role:</b> To deputise for and assist the STAC Chair.</p>
<p><b>Initial Actions:</b></p> <ul style="list-style-type: none"> <li>• Develop situational awareness.</li> <li>• Co-ordinate the "Health Risk Analysis" (Section 13).</li> <li>• Assess the information requirements for the hazard assessment, and any other additional investigations required to gather information.</li> <li>• Identify the options available for risk management.</li> <li>• Identify the key issues for inclusion in advice and in risk communication messages.</li> </ul>
<p><b>Ongoing actions:</b></p> <ul style="list-style-type: none"> <li>• Support the STAC Chair in discharging their role.</li> <li>• Deputise for STAC Chair as required i.e. When STAC Chair briefs SCG.</li> <li>• Undertake the STAC Chair role as outlined in the action card.</li> </ul>
<p><b>De-escalation:</b></p> <ul style="list-style-type: none"> <li>• Support the de-escalation process.</li> <li>• Participate in debrief process.</li> </ul>

## STAC Manager

### Role:

Manages the STAC support staff, facilities and equipment to ensure that appropriate support is provided to allow the STAC to fulfil its responsibilities.

### Initial Actions:

- Agree location of STAC facilities / teleconference requirements with STAC Chair (consider virtual option).
- Support the initial alerting of STAC members.
- Ensure Comms participation in STACs.
- Initial briefing of staff prior to response engagement.
- Ensure documentation of consolidated position for each subject.
- Organise for STAC equipment to be collected
- Set up the STAC facilities as required
- Ensure main routes of communication are agreed and established, including protocols for managing incoming calls (consider how this would work with IT and communications lock-down).
- Ensure that the task management system has been set up.
- Set up a distribution list with all STAC members included.
- Ensure that all internal and external contact details are recorded, especially those of the other emergency co-ordination rooms.
- Start incident timeline

### Ongoing actions:

- Oversee the functioning of the STAC.
- Supervise distribution of support team workload.
- Maintain distribution list of all STAC members.
- Ensure recording of proceedings of STAC meetings, in liaison with Chair. Provide additional guidance for minute taker as necessary.
- Agree shift rota in liaison with the STAC Chair.
- Ensure there is an adequate administrative resource to maintain support to the team, including backup for yourself as STAC Manager.
- Consider Mutual Aid (internally plus LA DPH and team support staffing)
- Support maintaining continuity of staff alongside welfare considerations
- Set up a system for communicating significant decisions to other members of the team.
- Distribute actions and decisions at the end of the meeting via email.
- Arrange provision of food and drink for members if STAC is co-located.
- Maintain a personal log and ensure all members of team are maintaining personal logs.

### De-escalation:

- Save all documentation.
- Communicate closure to all STAC members and other response groups.
- Close any facilities, returning them to normal configuration.
- Organise for equipment to be returned to storage, including a list of all items needing to be replaced.
- Participate in debrief process.

## STAC Task Manager

### Role:

To set up and maintain a task list to capture actions required of STAC members including information covering action details, ownership and completion date. Ensure that critical actions are not missed and that progress towards delivery is monitored.

### Initial Actions:

- Set up and maintain the task management system.
- Review system with STAC Manager.
- Review tasks with the STAC Chair to ensure an accurate list is established that includes all tasks/actions arising from the onset of the incident, prior to the start the STAC arrangements.

### Ongoing actions:

- Attend all STAC meetings.
- Allocate tasks to the appropriate STAC representative and clarify deadlines.
- Track tasks and ensure required outputs are produced and deadlines met, following up with staff when required.
- Advise the STAC Chair of any time critical delays.
- Maintain an overview of incoming emails, faxes and phone calls to the STAC.
- Assist the STAC Manager with the management of workload of the STAC Operational Support Staff.
- Assist with briefing/de-briefing of incoming and outgoing shift staff.
- Ensure that the tasking list is accurately maintained and updated as tasks completed.
- Keeping a personal log of actions undertaken

### De-escalation:

- Save the task management system and highlight any outstanding actions to the STAC Chair.
- Support the de-escalation process.
- Participate in debrief process.

**STAC Operational Support Officer****Role:**

Provide administrative and clerical support to the STAC.

**Initial Actions:**

- Collect STAC equipment as agreed with the STAC Manager.
- Support STAC from own offices or proceed to the agreed STAC location.

**Ongoing actions:**

- Send and receive STAC messages by telephone, fax and e-mail, etc.
- Undertake specific tasks/roles as determined by the STAC Manager including:
  - Maintaining "focus board" of key events, decisions and activities within STAC.
  - Maintaining contact number list.
  - Faxing and receiving documents.
  - Making and receiving telephone calls.
  - Keeping a log of messages received/sent.
  - Keeping a personal log of actions undertaken
  - Other general admin/clerical tasks.

**De-escalation:**

- Support the de-escalation process.
- Participate in debrief process.

## STAC Subject Matter Expert

### Role:

Provide specialist support, advice and link to your organisation's resources that allows the STAC to develop the required advice for the Strategic Coordination Group / Recovery Coordination Group.

### Initial Actions:

- Confirm incident details using METHANE:
  - Major Incident.
  - Exact location.
  - Type of incident.
  - Hazards.
  - Access to scene.
  - Number, severity of casualties.
  - Emergency services on scene.
- Confirm STAC arrangements including:
  - Meeting timings.
  - Location / teleconference details.
- Ensure you take the following items with you if attending STAC in person:
  - Organisation security pass and photo identification.
  - ICT equipment and power cables.
  - Mobile phone and charger.
  - Any contact information required.
  - Any personal items.
- Start a timeline
- Consider how you would work with IT and communications lock-down

### Ongoing actions:

- Provide technical and expert advice to the STAC.
- Provide supporting information when required.
- Support the risk assessment processes.
- Support the preparation of reports.
- Provide access to further expert advice.
- Ensure comprehensive handover to new STAC members should it be required.
- Keep a personal log of actions undertaken

### Post Incident:

- Contribute to post incident debrief.
- Contribute to post incident report.

## **ANNEX F – Resources and Support Available**

Please refer to the latest London Resilience Partnership Contacts Directory (available on Resilience Direct) for contact details. If an agency/ organisation is not listed in the Contacts Directory, please request details from UKHSA London EPRR duty officer via the on-call pager on 07623541132.

<b>Resource / Support</b>	<b>Description</b>
<b>Air Quality Cell (AQC)</b>	<p>The AQC is a multi-agency group of experts who can quickly form a virtual team to assess the public health risks arising from major air quality incidents, commonly large fires and chemical gas releases. The AQC's core members are the UK Health Security Agency (UKHSA), Environment Agency (EA) and Met Office (MO) who have duty officers available on a 24/7/365 response basis. The establishment of the AQC is a joint decision between these agencies.</p> <p>Once formed an AQC will invite a representative of the relevant local authority to join the Cell and from the Food Standards Agency (FSA) where there might be implications for the food chain.</p> <p>The AQC will undertake an ongoing public health risk assessment using a wide range of information about the incident, in particular it will need information about:</p> <ul style="list-style-type: none"> <li>• the incident site and the nature, scale and expected duration of emissions</li> <li>• the immediate public safeguarding actions taken, and advice given by the emergency services (including cordons in place and closure of any transport infrastructure)</li> <li>• the mitigation strategy being adopted by the Fire and Rescue Service</li> <li>• the proximity of vulnerable receptors and environmental features</li> <li>• the behaviour of the plume (from observations and CHEMETs from the Met Office and use of other dispersion modelling tools)</li> <li>• detected concentrations of airborne substances (via fixed monitoring stations in the locality or via the AQC monitoring service if deployed or via any other deployed monitoring)</li> </ul> <p>This information will be obtained from the EA, UKHSA, Met Office and other response partners throughout the incident. The information gathered from partners combined with experience of previous similar incidents is often sufficient to undertake the ongoing public health risk assessment, but occasionally it is necessary to obtain real-time air quality data from the field.</p> <p>The AQC has its own air quality monitoring and sampling capability available on a 24/7/365 response basis. The capability is based on 4 monitoring teams who cover the area of England with the standard response being to send 2 teams equipped with portable equipment and one also taking a mobile laboratory. The equipment can monitor for particulates and a range of chemicals produced in fires (i.e. products of combustion) and chemical commonly stored or produced on industrial and commercial premises. Allowing for loading, travel and set up times means that it may take several hours from making a deployment request to data becoming available (depending on distance to location).</p> <p>Monitoring teams are not provided with chemical suits or respiratory protective equipment as their mission is to monitor to confirm where it safe for people to be or to return to (i.e. after being evacuated or held</p>

	<p>outside a cordon). Thus, AQC real-time monitoring is undertaken to inform and validate modelling assumption and public safeguarding decisions.</p> <p>While deployed AQC monitoring teams can run sampling pumps to extract pollutants from the air into absorbent media which are analysed later in a registered analytical laboratory and the results may not be available for a few days following sample capture. However, sample results can be helpful in explaining any health issues arising in a population in the vicinity of a recent major air quality incident.</p>
<p><b>Animal and Plant Health Agency (APHA)</b></p>	<p>The Animal and Plant Health Agency (APHA) provides a 24-hour point of contact with an on-call vet for animal health issues. Larger scale incidents can be escalated within APHA by the on-call vet.</p> <p>The animal health input to STAC is based around the animal welfare requirements of animals that may be affected by the emergency response. Depending on the scale of the incident the support would either be provided in person or remotely. The Animal Health role in the STAC is therefore likely to be based on reactive veterinary advice on mitigating the welfare challenges to animals involved.</p>
<p><b>Defra CBRN Emergencies</b></p>	<p>Defra CBRN Emergencies (formerly Government Decontamination Service) is concerned with the recovery of the open and built environment following a chemical, biological, radiological, nuclear (CBRN) or major hazardous materials (HazMat) incident.</p> <p>The primary functions are to:</p> <ul style="list-style-type: none"> <li>• provide advice, guidance, and assistance on decontamination related issues to responsible authorities in their contingency planning for, and response to, chemical, biological, radiological, and nuclear (CBRN) and major HazMat incidents:</li> <li>• CBRN –a deliberate act involving Chemical, Biological, Radioactive or Nuclear materials.</li> <li>• Major HAZMAT – an accident, regardless of scale, involving Chemical, Biological, Radioactive or Nuclear materials where the incident is more than local capability and/or knowledge and authorities request GDS services.</li> <li>• To maintain and build on the Defra CBRN Emergencies framework of specialist suppliers and ensure that responsible authorities have access to these services if the need arises.</li> <li>• To advise central Government on the national capability for the decontamination of buildings, infrastructure, transport, and open environment, and be a source of expertise in the event of a CBRN incident or major release of HazMat materials.</li> </ul> <p>The operational capability includes -</p> <ul style="list-style-type: none"> <li>• Facilitate the rapid decontamination of CBRN releases using private-sector capability.</li> <li>• On call 24/7 to provide access to Defra CBRN Emergencies expertise and Framework services.</li> <li>• Provide expert scientific and technical advice to relevant groups, including Science and Technical Advice Cell (STAC) and Recovery Co-ordination Group (RCG), on the most appropriate decontamination methods.</li> </ul> <p>Defra CBRN Emergencies also produces the Strategic National Guidance: The decontamination of buildings, infrastructure and the open</p>

	<p>environment exposed to chemical, biological, radiological, or nuclear materials.</p> <p><a href="https://www.gov.uk/government/publications/strategic-national-guidance-the-decontamination-of-buildings-infrastructure-and-open-environment-exposed-to-chemical-biological-radiological-or-nuclear-materials">https://www.gov.uk/government/publications/strategic-national-guidance-the-decontamination-of-buildings-infrastructure-and-open-environment-exposed-to-chemical-biological-radiological-or-nuclear-materials</a></p>
<p><b>Drinking Water Inspectorate (DWI)</b></p>	<p>The DWI is the independent regulator of drinking water quality for England and Wales. The DWI will provide advice on the following:</p> <ul style="list-style-type: none"> <li>● Drinking Water Quality and associated issues.</li> <li>● Drinking Water Regulation.</li> <li>● Liaison with water industry *</li> <li>● Technical support in matters of water treatment and distribution.</li> <li>● Products and processes used in contact with drinking water.</li> <li>● Good practice within the water industry.</li> </ul> <p>*Note: in the event of an incident involving drinking water which meets agreed company triggers and/or the requirements outlined within The Water Industry (Suppliers Information) Direction, every company has a regulatory requirement to inform the DWI at the earliest opportunity. The DWI will carry out an investigation of the event.</p>
<p><b>Electricity supplier – UK Power Networks</b></p>	<p>UK Power Networks is able to:</p> <ul style="list-style-type: none"> <li>● Provide technical information on the electricity distribution network.</li> <li>● Areas known to be without power and anticipated restoration times.</li> <li>● Technical information covering location and types of equipment.</li> <li>● Provide electrical safety information on electricity distribution networks and electrical installations.</li> <li>● Provide electrical safety information on electricity distribution networks and electrical installations.</li> </ul>
<p><b>Environment Agency (EA)</b></p>	<p>The EA is able to:</p> <ul style="list-style-type: none"> <li>● Assess the risk of the incident in order to prevent or minimise the impact to people and the environment.</li> <li>● Gather technical information from internal sources to facilitate multi-agency decision-making.</li> <li>● Provide advice to relevant stakeholders.</li> <li>● Ensure remedial action is undertaken effectively.</li> </ul> <p>There are a number of resources that the Environment Agency can provide to the incident response. The EA has the following capabilities in relation to STAC:</p> <ul style="list-style-type: none"> <li>● Rostered liaison officers that can provide support to STAC.</li> <li>● GIS datasets of environmental receptors.</li> <li>● Environmental toxicology advice.</li> <li>● Air quality monitoring and modelling via the National Air Quality Cell (plume dispersal from known point sources).</li> <li>● Technical assessment centre (providing advice on the environmental impact of fall-out from nuclear incidents and radiation releases).</li> <li>● Water, soil and waste sampling.</li> <li>● Specialist waste contractor - the Defra CBRN Emergencies should be used as a point of contact for advising on the use of competent contractors. Only used as a last resort (for incidents within its remit).</li> <li>● Pollution alleviation equipment – the Environment Agency has a range of vehicles, oil spill equipment (containment booms, absorbent</li> </ul>

	<p>booms, and pads), pumps, containment structures and river aeration facilities.</p> <p>EA staff would not enter the 'hot' or 'warm' zone.</p>
<b>Food Standard Agency (FSA)</b>	<p>In England, the FSA has responsibility for food safety, traceability, hygiene controls, food incidents, and the Rapid Alert System for Food and Feed (RASFF). They, alongside Defra and Department of Health and Social Care (DHSC) are also responsible for public health and food safety aspects related to import controls, labelling, composition and standards for feed materials, biological and chemical safety, and biotechnology (as related to genetically modified food and feed).</p> <p>The Incidents Branch deals with environmental contamination incidents with the potential to affect the food chain including fires, toxic discharges, waterways contamination and accidents at industrial sites, which may lead to chemical or radiological contamination.</p> <p>The branch also deals with all food contamination incidents where the food is in the distribution chain or available for sale. This could include all types of food contamination including physical, chemical, microbiological, malicious tampering or a serious Food Poisoning Outbreak.</p>
<b>Local Authority</b>	<p>Due to the wide remit of Environmental Health teams in the early stages of an incident the best advice may come from an environmental health manager with broad experience of environmental health issues, but could also come from Public Health or waste management departments depending on the incident.</p> <p>Environmental Health Practitioners / Officers (EHP / EHO) and Public Health Practitioners / Officers (PHP / PHO) can:</p> <ul style="list-style-type: none"> <li>• Represent the local authority.</li> <li>• Investigate infectious disease outbreaks working alongside UKHSA and involvement with some animal disease e.g. Rabies.</li> <li>• Inform the STAC on local arrangements.</li> <li>• The EHO / EHP would have knowledge of local meteorology (from awareness of pollution), food premises (including food factories), other commercial premises, historical contaminated land issues and knowledge of waste or other sites.</li> <li>• Some EHO/ EHP's will also be designated officers of the Food Standards Agency under the Food and Environmental Protection Act.</li> <li>• Act as a channel to the local authority to obtain information and assistance on environmental health as required.</li> <li>• Provide input into the advice provided by the STAC to the public, community leaders (such as Councillors) and members of the responding workforce.</li> <li>• Liaise with the Defra CBRN Emergencies, (local authorities would normally lead on decontamination on the advice of Defra CBRN Emergencies).</li> </ul> <p>An EHO/ EHP tasked with attendance at a STAC would have investigative skills, experience of communication with a wide audience, project management skills and familiarity with risk assessment in a variety of settings</p>
<b>London Fire Brigade (LFB)</b>	<p>The London Fire Brigade can provide to STAC both a HMEPO (Hazardous Materials and Environmental Protection Officer) and if required an NILO (National Inter-Agency Liaison Officer). In addition to</p>

	<p>this support to STAC the LFB has the following operation and tactical capabilities at the incident site:</p> <ul style="list-style-type: none"> <li>● LFB is trained and equipped to enter the Hot Zone to resolve incidents involving hazardous materials including CBRN.</li> <li>● It has the capability to carry out emergency mass decontamination of the public and to protect the environment using equipment supplied under a partnership agreement with the Environment Agency.</li> <li>● It can detect, identify and monitor for a wide range of substances using specialised instrumentation including a range of spectrometry (FT-IR, GCMS, Raman et al) and has HMEPOs who advise Incident Commanders at hazmat incidents.</li> <li>● It also has NILOs who are familiar with the procedures of other agencies and can ensure efficient joint working. In addition, the LFB is able to call on the advice of its own contracted scientific advisors.</li> </ul>
<p><b>Maritime and Coastguard Agency (MCA)</b></p>	<p>The MCA can:</p> <ul style="list-style-type: none"> <li>● Coordinate on water counter pollution activity.</li> <li>● Initiate formation of incident Environment Group to provide environmental advice to the incident response and forge links or subsume into the STAC.</li> <li>● Provide advice on the fate and behaviour of spilt oil and hazardous noxious substances (HNS).</li> <li>● Provide trajectory modelling of oil and chemical slicks, atmospheric, surface and sub-surface.</li> <li>● Arrange for analyses of a range of oil products and their fingerprinting.</li> <li>● Provide specialist staff for shipping / pollution incident room manning.</li> <li>● Provide advice on Dangerous Goods and the IMDG code.</li> <li>● Provide counter pollution response equipment for containment, recovery and storage.</li> </ul> <p>In accordance with the National Contingency Plan for Marine Pollution from Shipping and Offshore Installations, an Environment Group is usually established quite quickly for maritime emergencies. This will provide environmental and public health advice to all response cells. Where a maritime incident poses a significant threat to public health on land (e.g. chemical fumes blowing into a coastal town), the SCG may also feel the need to establish a Science and Technical Advice Cell (STAC). To avoid duplication or conflicting advice, the STAC should either be integrated with the Environment Group, or close liaison should be established between the two.</p>
<p><b>Met Office</b></p>	<p>The Met Office contribution to STAC will be:</p> <ul style="list-style-type: none"> <li>● To ensure the STAC are aware of all the meteorological factors which could impact on the incident.</li> <li>● To ensure consistency of meteorological information, and that all responders at the strategic level are able to utilise this information.</li> <li>● Where required, to interpret this information for the responders.</li> <li>● To source other scientific advice available from the Met Office and to act as a point of contact between the Met Office and responders.</li> <li>● To respond to weather related media enquiries.</li> <li>● If required and appropriate, to arrange for routine forecasts and other information to be supplied to aid in the recovery phase.</li> </ul>

	<ul style="list-style-type: none"> <li>To assist in the audit trail by documenting all meteorological requests and responses.</li> </ul>
<b>Metropolitan Police Service</b>	<p>The MPS will provide Commanders at Operational, Tactical and Strategic level, in addition to assets at an incident site, in support of JESIP and the London CBRN(e) Framework. The MPS can also provide a National CBRN Tactical Advisor to STAC, if required.</p> <p>MPS CBRN Tactical Advisors may also be deployed to the Special Operations Room or the Forward Command Post, as necessary, with 24/7 access to CBRN &amp; EOD. REDACTED</p> <p>The MPS will also provide a chair for, and representation at, the SCG. REDACTED. The wider MPS can provide CBRN scene management, investigation, firearms, search and Disaster Victim Identification (DVI) capabilities.</p>
<b>NHS England - London</b>	<p>NHS England is able to provide subject matter expertise from the full range of clinical specialisms delivered by NHS services, including infectious diseases, pharmacy, public health, immunisation and vaccinations. NHS England staff will also be able to consider the risks and impacts to NHS operational services from a declared incident.</p> <p>NHS resources should be accessed through the NHS duty officer, NHS01.</p>
<b>Port of London Authority (PLA)</b>	<p>The PLA has the following capabilities in relation to STAC:</p> <ul style="list-style-type: none"> <li>A specialist Scientific Adviser is available 24/7 to provide guidance on marine pollution response for incidents affecting the tidal Thames.</li> <li>Advice on dealing with chemical spillages in the marine environment, and the impact of chemical releases on port operations.</li> <li>The Scientific Adviser will apply the IMO International Maritime Dangerous Goods Code (IMDG) where appropriate and implement the ports counter pollution plan where necessary.</li> <li>As part of its Major Incident Response Plan, the Port Authority maintains a range of marine pollution response capabilities, which may be available for deployment depending on the nature of the incident.</li> </ul> <p>The Port Authority will ensure, via the Scientific Adviser, that appropriate measures are taken to warn and inform river users (both commercial and leisure traffic) and that agreed exclusion zones or river closures are established and maintained.</p>
<b>Telecoms (BT)</b>	<p>If required and relevant to the incident, BT Group is able to provide:</p> <ul style="list-style-type: none"> <li>Technical information on the Telecoms networks (Fixed &amp; Mobile).</li> <li>Information on areas known to be without service and anticipated restoration times.</li> <li>Technical information covering location and types of equipment.</li> <li>Additional resources to the incident site</li> </ul>
<b>UK Health Security Agency (UKHSA)</b>	<p>UKHSA provides public health and health protection advice for all incidents which have the potential to impact human health. As well as chairing and managing STAC, UKHSA can provide specialist advice in the following areas:</p> <ul style="list-style-type: none"> <li>Communicable Disease Control.</li> </ul>

	<ul style="list-style-type: none"> <li>● Infectious disease surveillance and investigation including the provision of specialist and reference microbiology and microbial epidemiology.</li> <li>● Supporting the provision of ECOSA.</li> <li>● Chemical, biological and radiological advice relating to the impact on the public's health.</li> <li>● Environmental hazards.</li> <li>● Responding to international health alerts and Public Health Emergency of International Concern (PHEIC).</li> <li>● Lead the development of public health messaging.</li> <li>● Behavioural Science modelling</li> </ul>
<p><b>UK Air Accidents Investigation Branch (AAIB)</b></p>	<p>The United Kingdom Air Accidents Investigation Branch (AAIB) is part of the Department for Transport and is responsible for the investigation of civil aircraft accidents and serious incidents within the UK. The Chief Inspector of Air Accidents reports directly to the Secretary of State for Transport.</p> <p>The fundamental purpose of investigating accidents is to determine the circumstances and causes of the accident with a view to the preservation of life and the avoidance of accidents in the future. The investigation will consider the relevant operational, technical, organisational and human factors which might have contributed to a serious incident. AAIB, in conjunction with specialist technical advisors, will produce safety actions following serious incidents in the aviation industry.</p>
<p><b>Water / Wastewater – Affinity Water / Essex and Suffolk Water / Sutton and East Surrey Water / Thames Water</b></p>	<p>One of the Primary objectives of the Water / Wastewater company is to ensure the protection of the wholesomeness of drinking water supply and public health and safety. The Company Event Scientist (Water or Wastewater) will provide advice on the following:</p> <ul style="list-style-type: none"> <li>● Drinking water quality and associated issues.</li> <li>● Wastewater treatment processes.</li> <li>● Water and Wastewater specific risk assessment.</li> <li>● Restriction of Use Notices (Boil / Do not drink / Do not use / All Clear) *.</li> <li>● Sampling and analysis points and suites.</li> <li>● Laboratory liaison (Internal / External).</li> <li>● Interpretation and reporting of sample results.</li> <li>● Company asset capability and flexibility.</li> <li>● Predictive techniques, i.e. integrated river monitoring, time of travel models (sewer and water main), on site retention times, etc.</li> <li>● Confined Space Alerts.</li> <li>● Pollution Tracing.</li> <li>● Trade Effluent Management</li> </ul> <p>*NOTE that the Water Company has full responsibility for the preparation and issuing of advice to its customers on any precautions they need to take regarding the use of the water supply, and that Restriction of Use notices conform to best practice regarding content and contact information.</p>

## ANNEX G – Acronyms

AAIB	Air Accident Investigation Branch
APHA	Animal and Plant Health Agency
AQC	Air Quality Cell
ATC	Air Traffic Control
AWE	Atomic Weapons Establishment
BECC	Borough Emergency Control Centre
BCU	Borough Command Unit (MPS)
BGS	British Geological Survey
BTP	British Transport Police
CBRN	Chemical, Biological, Radioactive, Nuclear
CHEMET	Chemical Meteorology
COBR	Cabinet Office Briefing Room
COMAH	Control of Major Accident Hazards
DEFRA	Department for Environment, Food and Rural Affairs
DHSC	Department for Health and Social Care
DLUHC	Department for Levelling Up, Housing and Communities
DPH	Director of Public Health
DSTL	Defence Science and Technology Laboratories
DVRI	Disaster Victim Recovery and Identification
DWI	Drinking Water Inspectorate
EA	Environment Agency
ECOSA	Emergency Coordination of Scientific Advice
EHO	Environmental Health Officer
EHP	Environmental Health Practitioner
EPRR	Emergency Preparedness, Resilience and Response
FSA	Food Standards Agency
GDS	Government Decontamination Service (now called DEFRA CBRN Emergencies)
GIS	Geographic Information System
GSZ	Government Security Zone
HAZMAT	Hazardous Materials
HASG	Humanitarian Assistance Steering Group
HMEPO	Hazardous Materials and Environmental Protection Officer
HSE	Health and Safety Executive
IMDG	International Maritime Dangerous Goods Code
IMO	International Maritime Organization
JESIP	Joint Emergency Service Interoperability Principles
LA	Local Authority
LALO	Local Authority Liaison Officer
LESPL	London Emergency Services Liaison Panel
LFB	London Fire Brigade
LRCG	London Resilience Communications Group
LRF	London Resilience Forum
LRG	London Resilience Group

MCA	Maritime and Coastguard Agency
MFCG	Mass Fatalities Coordination Group
MPS	Metropolitan Police Service
MS	Microsoft
NAQTA	National Air Quality Technical Advisor
NPCC	National Police Chiefs Council
NHS	National Health Service
NILO	National Inter – Agency Liaison Officer
OH	Occupational Health
PHEIC	Public Health Emergency of International Concern
PLA	Port of London Authority
RASFF	Rapid Alert System for Food and Feed
RCG	Recovery Coordination Group
RVP	Rendezvous Point
SA	Scientific Adviser
SAGE	Scientific Advisory Group for Emergencies
SCG	Strategic Coordination Group
SCP	Strategic Coordination Protocol
STAC	Science and Technical Advice Cell
TCG	Tactical Coordination Group
UKHSA	UK Health Security Agency

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**LONDON RESILIENCE GROUP**

The London Resilience Group is jointly funded and governed by the Greater London Authority, London Local Authorities and the London Fire Commissioner. We are hosted by the London Fire Brigade. Our work, and that of the London Resilience Partnership, is overseen by the London Resilience Forum.

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