

2019

PROVISION OF SCIENTIFIC  
& TECHNICAL ADVICE  
IN WALES

Wales Resilience Partnership Team

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## Introduction

During complex emergencies senior decision makers may require expert science advice in order to deal effectively with the immediate and longer term consequences of an emergency. There is a need to ensure that this advice draws on the full range of expertise available and is co-ordinated in such way to support timely decision making. The process for providing science advice needs to be widely understood and trusted, yet flexible enough to cope with the differing circumstances and characteristics of each emergency. It should work on the principle that a Scientific and Technical Advice Cell (STAC) should only be activated when there is a collective expectation that it can add value to the incident response. In most cases it is more efficient and timely to bring expertise directly to the Strategic Co-ordinating Group (SCG) table then set up a separate STAC process.

### Activations

**May include (but are not limited to):**

- Terrorist Attack (Not all terrorist attacks will require a STAC)
- Nuclear or radiological emergency (Not all nuclear or radiological emergencies will require a STAC)
- Large scale industrial accident (e.g. *Buncefield*)
- Contamination of drinking water or food supplies
- Local flooding

## Scope

This document provides the implementation arrangements in Wales to the guidance on the provision of scientific advice to support the SCG through the establishment of a STAC. It is intended to describe the role, responsibilities, structure and set up of a STAC and in particular how this integrates with national arrangements. The guidance is not crisis specific and has been developed to sit alongside, and should be read in conjunction with, guidance on the provision of scientific advice at the national level through the Scientific Advisory Group for Emergencies (SAGE).

(<https://www.gov.uk/government/publications/scientific-advisory-group-for-emergencies-sage>).

### Local Resilience Planning for a STAC

Provision for a STAC should be included in the development of plans through the Local Resilience Forum

Thoughts should be given to:

- Who should chair STAC
- Who could contribute to STAC
- Agreeing the administrative and secretariat support responsibilities
- The activation process
- Arrangements to accommodate and support the STAC either in person or by teleconference.
- How best to regularly exercise arrangements.

## Role and responsibilities of the STAC

A STAC brings together scientific and technical experts operating under the strategic direction of the SCG during the response phase or once the transition to recovery has been taken, the Recovery Co-ordinating Group (RCG). The SCG Chair is responsible for, and will set the overall direction of, the multi-agency response including the high-level objectives and priorities.

The primary role of the STAC in response to an incident is to:

1. Bring together relevant expertise into a single group to provide commonly agreed and authoritative science and technical advice to the Strategic Co-ordinating Group (SCG) or Recovery Co-ordinating Group (RCG)<sup>1</sup>
2. Advise on what action should be taken by the public to best protect them from harm, including any health, public safety, or environmental implications
3. Develop a common view on the scientific and technical merits of different courses of action for the local area
4. Identify any additional specialist advice that could be engaged locally or nationally to assist the response and
5. Link in with UK response arrangements where activated to ensure timely and consistent two way flow of information. Take and translate national level scientific advice to make it specific to the local situation

For most incidents scientific advice is best provided through existing channels and agencies who routinely attend the SCG. A STAC should only be activated when there is a collective expectation that it can add value to the incident response. Thus, before activating a STAC the SCG chair should consider the nature, expected timescale of the incident and complexity of the response as well as the level and type of specialist advice required. The establishment of a STAC is likely to be particularly important where there may be significant public health, longer term environmental consequences or continuing service/infrastructure impacts. On occasion, where the provision of scientific advice is known to be particularly complex, challenging and central to informing the initial response it may make sense for a STAC to form part of the response structure.

## Activation Arrangements

The STAC is activated upon the collective agreement of the SCG.

It may take some time for the STAC to be established. In the interim, scientific advice will be provided through agencies that sit as part of the SCG. In the first instance, advice is likely to focus on an early assessment of the risk to public health, including that of first responders and any wider public safety issues.

Where possible the STAC should meet in person and be co-located with the SCG to help with the information flows and communication between the groups. Formal communication between the SCG and STAC should be via the Chairs of each group or their designated deputies. To derive a greater understanding of the questions asked, the STAC Chair or deputy should attend the SCG. In some circumstances, particularly in the early stages of the response it may be appropriate for the STAC to activate or meet as a virtual group.

<sup>1</sup> In extremis, such a common brief does not prevent a STAC member providing separate advice to their agency representatives at the SCG where an issue cannot be resolved within the STAC.



### Specialist Arrangements for a malicious CBRN event

In the event of a Chemical, Biological, Radiological or Nuclear (CBRN) incident, of known or potential Counter Terrorism (CT) cause (or until confirmed otherwise) there are specific arrangements as part of the CBRN(e) Response Framework in place to provide scientific advice to first responders in the short period before a STAC is stood up (the Initial Operational Response IOR).

These arrangements are known **as the Emergency Co-ordination of Scientific Advice (ECOSA)**, and are designed to coordinate scientific advice from key partners (AWE, PHE, Dstl and Met Office) to each emergency service (at scene or in control rooms) is consistent and coherent.

If the incident continues to present a known or potential CT challenge, the Specialist Operational Response (SOR) will take over the lead as soon as its specialists arrive at scene. SOR specialists will continue to use ECOSA channels where necessary until a STAC is operational. Once the STAC has confirmed contact with responders (most likely through the SCG), the advice provided by ECOSA will be briefed into the STAC; where necessary, any further scientific support will be provided through the STAC, by those involved in providing initial ECOSA advice.

### Specialist Arrangements for Marine Pollution Incidents

In accordance with the National Contingency Plan (NCP) for Marine Pollution from Shipping and Offshore Installations, an Environment Group will be established for maritime emergencies. This will provide environmental and public health advice to all response cells as set out in the NCP. Where an incident originates offshore the Environment Group will provide scientific and technical advice for the marine response. In such an incident a STAC will not be required.

Where a maritime incident poses a significant threat to public health on land (e.g. chemical fumes blowing in to a coastal town), it may be necessary to establish a STAC. Where both the Environment Group and the STAC are established for an incident the STAC and Environment Group liaise closely and may, on occasions, merge fully.

### Other Specialist Arrangements

Other specialist arrangements will include Air Quality Monitoring Cell support for STACs in air pollution incidents. Other arrangements will be established infectious disease, animal disease, COMAH sites, nuclear sites and nuclear weapons in transit.

## Role of the STAC Chair

The role of the STAC Chair is to convene and co-ordinate scientific and technical experts to provide clear and concise scientific briefing into the SCG.

In most instances the immediate concern is likely to be the risk to human health in the majority of cases the role of STAC Chair will be filled by Public Health Wales where there is no clear alternative. However, depending on the nature of the incident the Chair can be any relevant person appointed by the SCG Chair.

Where the requirement for scientific and technical advice is wider than the expertise available to an SCG in Wales, the Welsh Government may be asked to identify other sources of scientific advice from across Wales or further afield to support the local response. If necessary, the Welsh Government will consult with its own professional advisers (eg. Scientific Adviser (CSA), Chief Medical Officer (CMO), Chief Veterinary Officer (CVO) and/or seek support from the UK Government via Cabinet Office, which will liaise with the Government Office for Science, in identifying appropriate expertise.

The STAC chair is responsible for:

1. ensuring the group collectively answer the questions posed by the SCG chair
2. monitoring and corralling the local science and technical community to deliver on the SCG's/RCG's high-level objectives and immediate priorities;
3. quality assuring the scientific and technical advice being provided to the SCG, and reflecting any uncertainty in the evidence base to the SCG chair
4. ensuring attendance is appropriate, and regularly reviewed to identify agencies / individuals with specialist advice who should be invited to join the cell in order to inform the local response
5. ensuring agencies represented in the cell liaise with their national advisors to ensure consistent advice is presented locally and nationally – although all public messages will be agreed and co-ordinated through the SCG
6. attending the SCG or RCG meetings to represent the STAC
7. ensuring that a written record of STAC meetings is maintained by the designated secretariat and
8. where SAGE is activated, attending SAGE meetings via teleconference where possible to report any emerging issues/concerns or agreeing an alternate from the Cell to lead on SAGE

## Membership and Attendance at STAC meetings

The membership of STAC will depend on the nature of the incident and the specific response requirements that arise locally. The core membership of the STAC will be decided by the STAC Chair. The majority of attendees will be made up of representatives from local responding agencies, however, flexibility remains to request and draw on support from wider specialist and national expertise. STAC is likely to include specialists in health, the environment, and site specific response (site / infrastructure owner / operator, regulator).

Attendees may include, but are not limited to, representatives from:

- Relevant emergency service technical advisors (e.g. Fire Service HAZMAT officer)



- Public Health Wales
- Public Health England<sup>2</sup>
- Health Board(s)
- Natural Resources Wales
- Food Standards Agency
- Health and Safety Executive
- Office for Nuclear Regulation
- Local Authorities (e.g. Environmental Health Officer, Director of Public Health);
- Met Office
- Government Decontamination Service
- Operational partners, for example Animal and Plant Health Agency
- Academic specialists and
- Other agencies invited to address sector specific issues, such as the utilities or transport operators

## Secretariat

The role of the STAC secretariat is to support the STAC in coordinating and providing scientific advice to support the SCG. It is advised that the secretariat and administrative support for the STAC is agreed in advance by the LRF and forms part of the STAC activation plan. This role will include:

- Minute and action note taking
- General admin support
- Liaison with SAGE secretariat (when activated) to facilitate information sharing

## STAC public messaging advice

It is important that communications with the public are based on the best information available and are regularly reviewed and updated throughout the response. In particular, the local population will need information on any immediate actions to be taken on public health or safety grounds. The STAC will provide advice to the SCG to inform any public information messages and in reviewing agreed media lines for local agencies. Where scientific or technical information is being provided this should be agreed by the STAC and the SCG Chair through the SCG. It may be appropriate to have a dedicated Communications Officer/representative on STAC to facilitate this.

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<sup>2</sup> Public Health England Centre for Radiation, Chemical and Environmental Hazards (CRCE) provide PHW and others with specialist and technical chemical and radiation-related advice and would be included as part of STAC in Wales as expert chemical and radiation advisors.

## Support to the Recovery Co-ordinating Group

When the emergency response phase of the incident is over, the SCG may transfer the coordination for the recovery to the Local Authority via the Recovery Co-ordinating Group (RCG). Although the STAC is primarily formed to support the SCG, it is also available to support the work of the RCG. During the transition to recovery, the make-up of the STAC may need to be reviewed and adapted to ensure its attendance is appropriate to address the different issues raised by the RCG. A STAC may be called by an RCG even if one has not been activated by the SCG for the response phase

## Interaction between STAC and the Scientific Advisory Group for Emergencies (SAGE)

SAGE is responsible for coordinating scientific and technical advice to inform national strategic decision making in COBR<sup>3</sup>. In most emergencies there is no need for National/UK wide cross Government decisions or co-ordination, thus in most circumstances STAC and SAGE will not be activated together. However, both groups may be activated where:

- Scientific and technical advice is needed to inform both UK cross-government and local decisions
- Coordination of advice is required at both levels (as determined by COBR and SCGs)
- Local access to specialist/limited scientific advice is required during a wide area emergency and
- National scientific and/or technical advice needs to be interpreted locally to inform local decisions (e.g. for more specific and/or detailed advice)

## Guidelines for STAC/ SAGE interaction

Where both STAC and SAGE exist in parallel the following principles should be applied:

- A STAC should support local strategic decision making, whilst the focus of SAGE should be to support UK cross-government strategic decision making
- A STAC will focus on adapting 'prepared known' scientific advice to the local response whilst SAGE will focus on the areas of uncertainty where there are gaps in our understanding
- STAC and SAGE should be encouraged to share scientific information.
- If differences in the advice being provided by the STAC and SAGE arise, wherever possible this should be managed through discussions between the STAC and SAGE chairs, before advice is fed into the SCG, COBR or DA equivalents
- Good two-way communications between STAC and SAGE is critical to the production of consistent advice. Thought should be given, where possible, to

<sup>3</sup> Where COBR is inactive, the Devolved Administrations can request assistance for sourcing and securing scientific and technical advice via the Cabinet Office, the Government Office for Science, Whitehall Lead Government Departments or territorial departments, as appropriate.

the development of a battle rhythm that allows representatives of STAC and SAGE to dial into each other's meeting

- A STAC remains accountable to SCGs and SAGE remains accountable to COBR

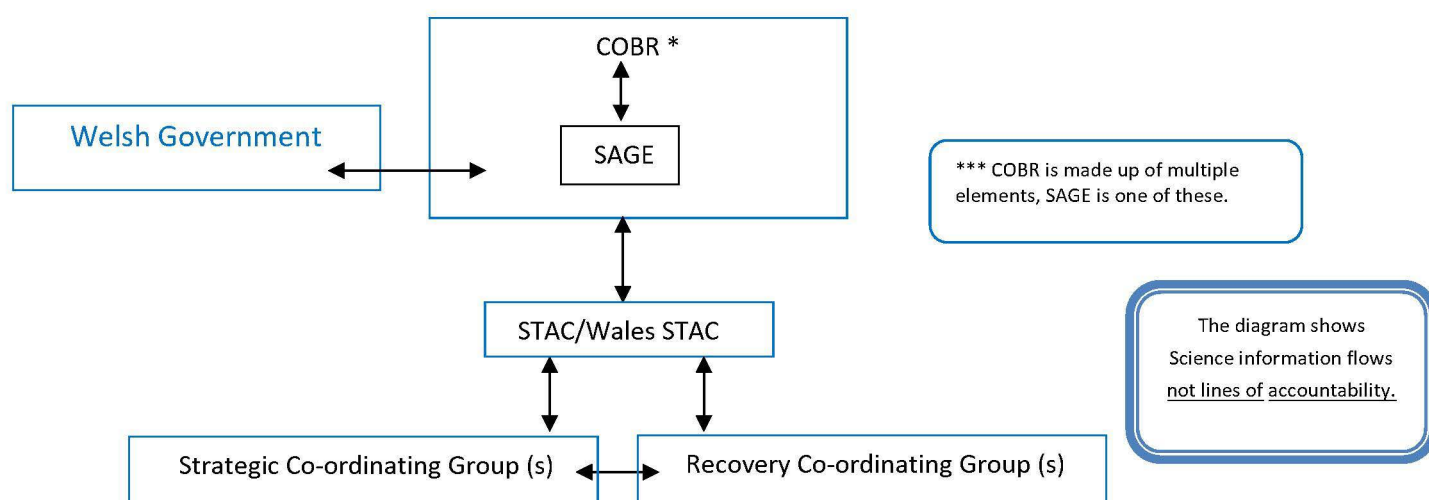
## Wales STAC

Where scientific and technical advice is required for more than 1 SCG in Wales, a Wales STAC will be established and will act as a single body covering all affected SCG areas, providing consistent advice. The Wales STAC may be a 'virtual' group using a dedicated conference call account held by the Welsh Government.

The Wales STAC will bring together technical experts operating under the strategic direction of the SCG or SCGs. The SCG will agree the high-level objectives guiding the multi-agency response, including the immediate priorities. The STAC will respond to questions raised by the SCG.

The Wales STAC will provide advice to the SCG which will take account of this advice in making collective operational decisions to manage the response to the emergency. The STAC will conduct a risk assessment of the incident from a scientific and technical perspective using available data to quantify the risk where possible in order to determine those affected and the likely impact. The STAC will provide advice on the options available to manage the risks, utilising professional networks to develop advice as necessary.

**Figure 1: Default STAC/Wales STAC, SAGE interaction model (information flows)**





## Annex A: Agencies Providing Scientific and Technical Advice in an Emergency in Wales

A number of agencies have statutory responsibilities to perform during the response and recovery phases of an emergency. This note provides responders with guidance on which agency should be advising the Strategic Co-ordinating Group (SCG) on scientific and technical matters.

Wales			
<b>Site Specific Information</b>	Site operator / Regulator	<b>Meteorological Information</b>	Met Office
<b>Specialist Public Health Advice</b>	Public Health Wales/Public Health England	<b>Animal Welfare</b>	Welsh Government
<b>Direction of NHS Resources</b>	NHS Wales	<b>Radiological monitoring (RIMNET)</b>	Welsh Government
<b>Health and Safety of workers</b>	Employer / Health and Safety Executive	<b>Decontamination advice</b>	Government Decontamination Service
<b>Health and Safety of Responders</b>	Employer / Health and Safety Executive	<b>CBRNE advice (Terrorism)</b>	Home Office (ECOSA) / Dstl/ AWE / PHE /PHW
<b>Food Safety (excluding tap water)</b>	Food Standards Agency		
<b>Environmental Protection</b>	Natural Resources Wales		
<b>Public Water Supply</b>	Water Companies / Welsh Government		
<b>Private water supply</b>	Local Authorities (with assistance from NRW) Drinking Water Inspectorate		

## GLOSSARY

<b>AWE</b>	– Atomic Weapons Establishment
<b>CBRNE</b>	– Chemical, Biological, Radiological, Nuclear and Explosive
<b>COBR</b>	– Cabinet Office Briefing Rooms
<b>COMAH</b>	– Control of Major Accident Hazards
<b>DPH</b>	– Director of Public Health
<b>Dstl</b>	– Defence Science and Technology Laboratories
<b>ECOSA</b>	– Emergency Co-ordination of Scientific Advice
<b>GDS</b>	– Government Decontamination Service
<b>Hazmat</b>	– Hazardous materials
<b>IOC</b>	– Initial operating capability
<b>IOR</b>	– Initial Operational Response
<b>LRF</b>	– Local Resilience Forum (England and Wales)
<b>NRW</b>	– Natural Resources Wales
<b>PHW</b>	– Public Health Wales
<b>PHE CRCE</b>	– Public Health England Centre for Radiation, Chemical and Environmental Hazards
<b>RCG</b>	– Recovery Co-ordinating Group
<b>SAGE</b>	– Scientific Advisory Group for Emergencies
<b>SCG</b>	– Strategic Co-ordinating Group
<b>SOR</b>	– Specialist Operational response