



Preparing Scotland Scientific and Technical Advice Cell (STAC) Guidance

Providing Public Health, Environmental, Scientific and Technical Advice to Resilience Partnerships in Scotland

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1 Introduction

- 1.1 [Preparing Scotland](#) is a suite of guidance to assist responders plan for, respond to and recover from disruptive challenges. It consists of a ‘Hub’, which sets out Scotland’s resilience philosophy, structures and regulatory duties, and ‘Spokes’ that provide detailed guidance on specific matters. The Scientific and Technical Advice Cell (STAC) guidance document is one of those spokes.
- 1.2 Responders often require expert advice on a range of scientific and technical issues in order to deal effectively with the immediate and longer term consequences of an emergency. When a multi-agency response is required, this expert advice must be coordinated, and can come from a range of organisations and cover a variety of areas, such as public health, environment, animal health, water, technical failures, etc. This co-ordination can be done through the establishment of a STAC.
- 1.3 The purpose of this guidance is to provide a core framework for STAC arrangements. Throughout the guidance the generic term ‘Resilience Partnerships’ is used. This applies to the legislative structures that support multi-agency co-operation, the Regional Resilience Partnerships (RRPs), the Local Resilience Partnerships (LRPs) and other multi-agency local resilience arrangements as determined by the RRP, as well as the Resilience Partnership terminology often used to describe the response structure during an incident.
- 1.4 The guidance should be applied in a flexible and adaptable way in recognition of the differing structures, capacities and practices that exist in responding to emergencies across Scotland. This includes tailoring the guidance to fit local circumstances.
- 1.5 The guidance also draws on the UK Government’s STAC guidance applicable to Local Resilience Forums (England and Wales) - [UK Government - STAC Guidance](#).
- 1.6 As with all Preparing Scotland guidance, the STAC guidance will be reviewed periodically to ensure it remains reflective of the needs of the Resilience Partnerships (RPs) for the provision of scientific and technical advice in a potential or actual emergency situation. This version updates the previous 2012 guidance.

2 Key STAC principles – strategic themes

2.1. A STAC:

- Is an advisory group – it does not make decisions.
- Primarily advises the RP particularly where there may be significant wider and/or long-term health and environmental consequences that require a range of scientific and technical expertise to be coordinated.

- May be preceded by, or work alongside, specific coordination arrangements relating to particular hazards or specific types of emergencies.
- Needs to understand and then assess through exercising what it will do and how it fits into wider plans.
- Needs to remain adaptable and flexible.

3 Aim of STAC

- 3.1 The aim of the STAC is, as far as is practicable, to provide RPs with authoritative information and agreed advice on the risk assessment of health and environmental hazards and technical failure by:
- Bringing together or arranging contact with all the relevant specialist advisers through a single group;
 - Providing agreed recommendations on risk management action;
 - Providing agreed risk communication messages; and
 - Confining the main discussion on such issues to within the STAC itself (rather than at the RP meetings).
- 3.2 Establishing a STAC will be particularly important in a potential or actual emergency situation where there are obvious and current threats to public health or the wider environment, but also where potential threats to public health may arise, including those that might result from action taken to manage an emergency, e.g. in evacuating people. Additionally, a STAC may be activated to provide scientific and technical advice in other circumstances where a RP has been activated, e.g. in the event of a critical national infrastructure failure, such as a major power failure.

4 Integration of STAC in Scotland's response structures

- 4.1 The STAC operates as an **advisory** group and is not an operational group. Its focus is to provide practical advice on public health, environmental, scientific and technical issues to those responsible for mounting and coordinating the response to an emergency, in line with the strategic objectives set by the RP. The Scottish Government Resilience Room (SGoRR), when activated, will receive key points from STAC advice through the RP regular updates to SGoRR.
- 4.2 While the STAC's primary focus is to advise the RP, it may link with other structures at Scottish and UK national levels, as well as advise local groups. Any communication with national and local levels should be through the STAC chair, facilitated via the RP, to ensure advice is co-ordinated and in line with the strategic objectives set by the RP.
- 4.3 A STAC can remain in place to advise the RPs in the later or recovery phase of an emergency, or might be first activated at this point. The composition of the STAC may change as the response progresses and the agenda and requirements of RPs change.

- 4.4 Details of Scotland's resilience management and governance structures are covered in the Preparing Scotland 'Hub' Guidance - [Scottish Government - Preparing Scotland Guidance - Hub](#).
- 4.5 Figure 1 is a simplified view of the emergency response structures in Scotland, showing the relationships between SGoRR, RPs, STAC and other functional arrangements.

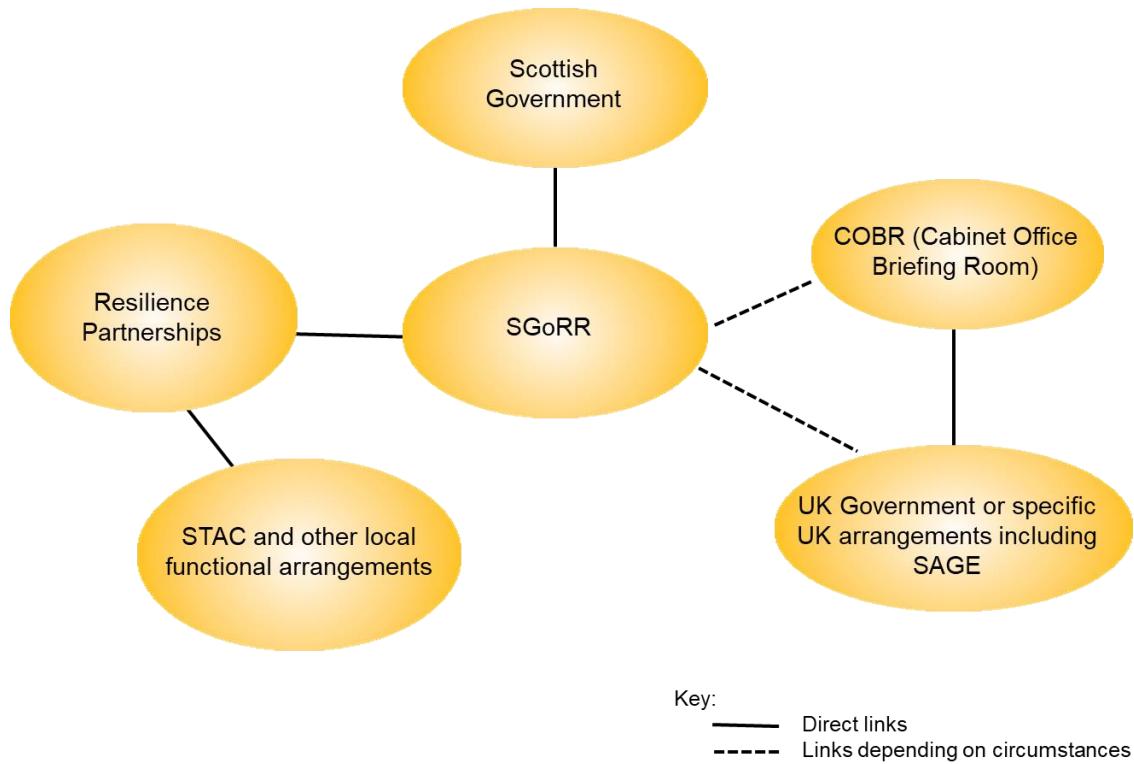


Figure 1: Simplified emergency response structures in Scotland

5 Composition and structure of STAC

- 5.1 The STAC should have a standard core membership to ensure consistency, to support a rapid response and for planning purposes. The core membership should normally consist of the following:
- NHS Board – Director of Public Health (DPH) or Consultant in Public Health Medicine (CPHM)
 - Public Health Scotland (PHS) – Director of Public Health Science or Consultant in Public Health Medicine
 - Scottish Environment Protection Agency (SEPA) – Specialist Adviser
 - Local Authority – Senior Environmental Health Representative
 - Scottish Fire and Rescue Service (SFRS) – if accident involves hazardous material, HAZMAT Officer, or Scientific Adviser if available locally
 - Animal and Plant Health Agency (APHA) Veterinary Adviser – if the incident impacts on animal health and welfare
 - Lead Responder – Liaison Officer to liaise between the STAC and the wider multi-agency (RP) response (usually from Police Scotland)

- Communications Officer (a representative from the RP Public Communications Group)
- 5.2 As the incident progresses the composition of the STAC can be tailored to reflect the nature, scope and scale of the specific emergency. For example, representation from other organisations, such as Scottish Water, Scottish Ambulance Service and Food Standards Scotland/Food Standards Agency. Technical advisers from installations and assets that are involved in the situation may also be invited.
- 5.3 Unless early circumstances indicate that risks to human health are not considered to be a significant concern, the STAC should initially be chaired by a senior representative of a local NHS Board, normally the Director of Public Health or a Consultant in Public Health Medicine, or if it unfolds into a wider, national context, the chair may be undertaken by Director of Public Health Science or Consultant in Public Health Medicine of Public Health Scotland. The chair of the STAC may pass to another organisation as the emergency progresses based on an assessment of the impact and consequences by the current STAC and RP chairs.
- 5.4 Irrespective of which organisation chairs the STAC, the individual chairperson should have the relevant skills and experience to chair complex technical meetings in a crisis setting, in order to fulfil the remit of the cell in providing coordinated advice. The lead individual should be someone at an appropriate level of seniority within their own organisation. The chair should be able to arrive at a consensus that conveys the combined expert view of the STAC and not of their own organisation.
- 5.5 In order that coordinated work in the STAC continues during periods when the chair is reporting to the RP, a member of the STAC should be briefed to act as deputy chair.
- 5.6 All STAC members and support staff should be competent to undertake the roles assigned to them as part of STAC. Opportunities for specific training and exercising should be maximised to familiarise themselves with the requirements of these roles.
- 5.7 An example list of key organisations that could provide expert advice is at Annex A.

6 Prolonged emergencies

- 6.1 Organisations represented on or providing information or administrative and/or managerial support to the STAC should make sure that they have appropriate plans in place in advance to ensure continued support to the STAC at a suitable staff level over a prolonged period if required. Mutual aid or surge arrangements should be made where insufficient staff are available locally to provide a two or three shift system.

7 Flexibility in approach

- 7.1 While this document provides broad guidance, the detail must be left to the discretion of those involved in managing the response in RPs and the Scottish Government. Flexibility will be critical in making these arrangements work as there is a wide range of possible scenarios that could arise, and the approach taken will depend on assessment of the situation at the time. Rapid and close liaison between key personnel in local and national organisations and in the Scottish Government will be essential in identifying and activating the most appropriate mechanism.
- 7.2 There are circumstances that may initially be managed by an NHS Board as a 'Public Health incident', in accordance with Scottish Government guidance. This will involve activation of a NHS-chaired Incident Management Team (IMT) - [Public Health Scotland - Management of Public Health Incidents: Guidance on the roles and responsibilities of NHS led incident management teams](#). However, such an incident may escalate or be deemed sufficiently serious to require activation of a coordinated RP response.
- 7.3 Examples of other existing specific coordination arrangements relating to particular hazards or specific types of emergencies that may precede or sit alongside or within a STAC include:
- For significant airborne hazards – the Airborne Hazard Advisory Cell (AHAC) - [Scottish Environment Protection Agency \(SEPA\) - Airborne hazards emergency response service](#).
 - For response to contamination of drinking water supplies – the Scottish Waterborne Hazard Plan (SWHP) – a multi-agency plan held on behalf of key stakeholders by Scottish Water.
 - For public health and environmental issues at sea – the Standing Environment Group (SEG) is normally led by Marine Scotland (noting that SEGs cover the entire coastline of the UK, but since March 2003 a single SEG has covered all of Scotland).
 - For scientific and technical advice for an animal disease response - The National Experts Group (NEG) and the Incident Management Team (IMT) (where there is zoonotic disease) - [Scottish Government - Animal Health and Disease Control Information](#).
- 7.4 Unless a further level of coordination such as a STAC is deemed to be required by the lead responders, ***the existing specific arrangements should take precedence***. How such an assessment is made, and by whom, should be discussed, agreed and exercised by all those who may be involved prior to any incident occurring.
- 7.5 Where a STAC is convened, it should be aware that there may be such other groups dealing with specific aspects of the response and should negotiate how to best link with these groups in order to provide a single source of advice and avoid duplication of effort. Dependent on the scenario and requirements at the

time, it may be that these groups could best operate as subgroups of the STAC.

8 Activation

- 8.1 The STAC should be activated by the lead responder through the RP's generic procedures for obtaining scientific and technical advice. The provision of scientific and technical advice should be part of the first considerations when a RP is activated. Where other arrangements exist for specific types of emergency, as described in Section 7 (Flexibility in approach), they should be recognised when consideration is being given by the RP for the activation of STAC arrangements. However, a senior public health professional (such as Director of Public Health or deputy) may recommend to the RP chair that a STAC needs to be established due to the potential impact on the health of the local population from an actual or evolving incident.
- 8.2 A meeting of the STAC should be held as quickly as possible to carry out the initial risk assessment and to identify the ongoing requirements for specialist advice to the RP.
- 8.3 Immediately following the occurrence of an emergency the lead responder(s) may be without a coordinated source of expert advice. In this situation, the primary source will be local area expertise, for example, local Directors of Public Health, Environmental Health Officers and SFRS HAZMAT Officers. They may be able to provide an early assessment of the likely or actual impact of the emergency, which may include advice on first responder safety. For uncertain incidents that the National CBRN Centre (NCBRNC) judges as requiring expert consideration, the Emergency Coordination of Scientific Advice (ECOSA) may be triggered. This mechanism exists to ensure that responders do not receive conflicting advice from different sources before a STAC can be established. If ECOSA is activated, advice will be coordinated by Public Health Scotland.
- 8.4 Initial STAC discussions and provision of advice to the lead responder/s can be conducted by telephone/teleconference/IT links. Therefore adequate 24/7 contact and communications arrangements for STAC members should be in place.

9 Administration and support of STAC

- 9.1 There will be a need for adequate administrative support staff to enable the STAC to operate effectively. The organisation chairing the STAC will be responsible for ensuring that there are adequate administrative arrangements in place to support the operation of the STAC in the initial establishment of the STAC, but contingent arrangement will be required to be put in place for an ongoing response.
- 9.2 It is essential that telecommunications and IT equipment, internet access and access to teleconference or video-conferencing should be provided. This

equipment should be tested and compatible with partners' and STAC facilities in other areas.

10 Communications

- 10.1 As with any major incident there is likely to be media interest and it is important that the public are accurately and regularly warned and informed of potential risks and actions to take.
- 10.2 The STAC should be linked in to the communications team for the emergency, such as the RP Public Communications Group (PCG) so that public advice or information from STAC will be coordinated with other information outputs through the main coordinating group. STAC communications are to be issued via the RP PCG. The RP should ensure that a structured communications strategy is put in place as soon as possible, including input from all local organisations.

11 Specialist advisers to Resilience Partnerships

- 11.1 In some specific types of emergency, individual or groups of specialist advisers, for example, the Government Technical Adviser in civil nuclear emergencies, Defence Science and Technology Laboratory in counter terrorism (CT) and CBRN (Chemical, Biological, Radiological and Nuclear) emergencies, or other government agency advisers can support the work of the RP. The advice from these specialist advisers must be fed to the RP through the STAC to ensure coordination of the advice.

12 Scientific and technical advice when multiple Resilience Partnerships have been established

- 12.1 This section sets out guidance for the provision of health, environmental, scientific and technical advice to RPs where a major or widespread emergency has led to the establishment of multiple RPs and their associated STACs. In such a multiple location incident, similar issues requiring expert assessment and advice are likely in all the affected areas but it will not be practical for national organisations (such as PHS, SEPA, APHA, Food Standards Scotland/Food Standards Agency and Health and Safety Executive) to support multiple STACs. Hence there is a need to coordinate provision of STAC input via a primary STAC as detailed below.
- 12.2 An emergency may start in one RP area resulting in a STAC being established in accordance with local arrangements and national organisations would normally be asked to support it. The emergency may then spread to involve other RP areas. Each RP would normally establish its own STAC and the potential would then exist for national organisations to be faced with requests to support multiple STACs. In such a scenario, a **Primary STAC** will be designated by agreement between RP chairs to coordinate and disseminate the advice from the national organisations to the other established STACs to allow them to interpret and interrogate the advice in the context of their local emergency response. This has the advantage of enabling the Primary STAC to

provide coordinated expert advice from national organisations to all the STACs and ensures consistency and quality of the advice provided.

- 12.3 The designation of a Primary STAC will still require each of the other affected RPs to set up what will then be called a **Secondary STAC**. The membership of the Secondary STAC should comprise members drawn from local organisations to consider local impacts. It is recognised that practice and capabilities may differ between RP areas, and therefore arrangements should be flexible and scalable as circumstances require. It could range from a Director of Public Health (DPH) or nominated Consultant in Public Health Medicine (CPHM) working alone, up to a STAC with the full complement of local organisations as deemed necessary. Therefore, instead of requesting direct input from national organisations, these Secondary STACs should set up links to the Primary STAC. This Primary STAC should then take on the role of coordinating the advice from those national organisations and sharing it with the Secondary STACs established in other RPs. While communication lines should be between STACs, the RP hosting the Primary STAC should be advised of significant matters that affect the wider response regardless of which STAC they originate from.
- 12.4 *It is vitally important that advice and guidance from organisations forming the Primary STAC is coordinated and directed so as to avoid confusing responders or issuing conflicting advice.*
- 12.5 The Primary STAC should take on responsibility (supported by its sponsoring RP) for maintaining coordination via regular telephone and/or video-conferencing with all the other STACs. The chair of the Primary STAC would also be responsible for chairing joint STAC meetings. The details of the Primary STAC would be communicated to SGoRR through the RP regular updates to SGoRR.
- 12.6 When a Primary STAC is established, each RP would still be recommended to maintain its own Secondary STAC of relevant local personnel. There would, nevertheless, have to be a clear understanding and acceptance between all relevant RP chairs and STAC chairs that the Primary STAC was responsible for the coordination and provision of specialist advice from the national organisations.

13 Multiple STAC coordination

- 13.1 The arrangements described in Section 12 (Scientific and technical advice when multiple Resilience Partnerships have been established) should be viewed above all else as a vehicle for ensuring coordinated and consistent advice from national organisations. Unless there are exceptional circumstances that require the direct intervention of the Scottish Government, the response to an emergency will be coordinated by the local RP which may apply any advice it is given to its own particular circumstances. SGoRR when activated will receive key points from STAC advice through the RP regular updates to SGoRR.

13.2 There may be circumstances where RPs agree to establish a national Multi-Agency Coordination Centre (MACC) and have a ‘national Primary STAC’, which can then inform/advise all RP STACs who would act as ‘Secondary STACs’.

14 National Emergencies and Scientific Advisory Group for Emergencies (SAGE)

- 14.1 In some circumstances, the response to an emergency may require coordination by the Scottish Government (for example, volcanic ash cloud, severe weather across many regions). In such a scenario, the Scottish Government will consult with its own professional advisors, such as the offices of the Chief Scientific Advisers (CSAs), Chief Medical Officer (CMO) or Chief Veterinary Officer (CVO Scotland) and wider networks as required, to establish a body of scientific or technical advice. These bodies provide advice via SGoRR meetings, convened as necessary during the emergency. SGoRR coordinates this process, coordinating and sharing this advice as appropriate with the RPs. The RPs are responsible for disseminating this advice to their STAC.
- 14.2 The management of emergencies in Scotland is a devolved matter. However, in the event of an emergency in Scotland that impacts elsewhere in the UK or affects matters reserved to Westminster, the UK Government may establish a Scientific Advisory Group for Emergencies (SAGE). SAGE provides advice to support decisions made during the UK Government’s response to an emergency - [UK Government - SAGE Guidance](#).
- 14.3 The membership of SAGE may change during the lifetime of the response depending on the topics being covered, and the chairing of SAGE may also change, as an emergency moves from the response to recovery phase. The Scottish Government may be represented at SAGE through the Scottish Government professional advisers (CSAs, CMO, CVO Scotland). Where SAGE is active and where its considerations touch on devolved matters, it will link directly to the SGoRR arrangements with professional advisers. Any direct communication between SAGE and STAC, if required, would be facilitated and coordinated by SGoRR (as shown in Figure 1).

Annex A - Key organisations that could provide expert advice to the STAC
 (not an exhaustive list)

Animal health and welfare	<ul style="list-style-type: none"> • Scottish Government – Directorate for Agriculture and Rural Economy, Animal Health and Welfare Division • Animal and Plant Health Agency (APHA) – a Defra agency with a GB remit (APHA field staff operate in Scotland on behalf of the Scottish Government) • Scottish Society for the Prevention of Cruelty to Animals (Scottish SPCA) • Local Authority – Animal Health and Welfare Officer • Scottish Agricultural Colleges/Veterinary Services
CBRN	<ul style="list-style-type: none"> • Defence Science and Technology Laboratory (Dstl) • Atomic Weapons Establishment (AWE) • National CBRN Centre
Environmental decontamination	<ul style="list-style-type: none"> • Defra (Department for Environment, Food and Rural Affairs) CBRN Emergencies (previously Government Decontamination Service) • Local Authorities specialist contractors
Environmental protection	<ul style="list-style-type: none"> • Scottish Environment Protection Agency (SEPA) • Local Authorities – Environmental Health • Scottish Government – Environmental Quality Directorate
Food safety	<ul style="list-style-type: none"> • Food Standards Scotland (FSS) • Food Standards Agency (FSA) support FSS's role at STAC by providing the modelling of areas where food restrictions may be required • Local Authorities – Environmental Health
Fisheries	<ul style="list-style-type: none"> • Scottish Government – Marine Directorate (Marine Scotland)
HAZMAT	<ul style="list-style-type: none"> • Fire and Rescue Service – HAZMAT (Hazardous Material) Officers or Scientific Advisers
Health and safety of workers	<ul style="list-style-type: none"> • Employer • Health and Safety Executive (HSE)
Maritime safety and marine environment	<ul style="list-style-type: none"> • Maritime and Coastguard Agency (MCA)

Meteorological and Plume dispersion information	<ul style="list-style-type: none"> • Met Office • Joint Agency Modelling (JAM) partners (includes SEPA) – activation via UK Health Security Agency (UKHSA)
NHS response	<ul style="list-style-type: none"> • Scottish Ambulance Service • NHS 24 • Scottish Government – Health Directorate
Public health	<ul style="list-style-type: none"> • NHS Board – Director of Public Health • Public Health Scotland • UK Health Security Agency (UKHSA) • Medicines and Healthcare products Regulatory Agency and Trading Standards
Public water supply	<ul style="list-style-type: none"> • Scottish Water • Scottish Government – Environmental Quality Directorate – Drinking Water Quality
Private water supplies	<ul style="list-style-type: none"> • Local Authority • Public Health Scotland
Radiological	<ul style="list-style-type: none"> • NHS – Radiation Protection Advisers • UKHSA – CRCE (Centre for Radiation, Chemical and Environmental Hazards) – lead on specialist radiological public health advice, with PHS having a general role
Site specific information	<ul style="list-style-type: none"> • Site operator
Wildlife and natural environment	<ul style="list-style-type: none"> • NatureScot (previously Scottish Natural Heritage) - advises Scottish Ministers on all matters relating to natural heritage • Royal Society for the Protection of Birds (RSPB) Scottish Wildlife Trust (SWT)

Annex B - Acronyms

The table below provides a list of acronyms used in this guidance.

AHAC	Airborne Hazard Advisory Cell
APHA	Animal and Plant Health Agency
AWE	Atomic Weapons Establishment
CBRN	Chemical, Biological, Radiological and Nuclear
CMO	Chief Medical Officer
COBR	Cabinet Office Briefing Room
CPHM	Consultant in Public Health Medicine
CRCE	Centre for Radiation, Chemical and Environmental Hazards
CSA	Chief Scientific Adviser
CT	Counter Terrorism
CVO	Chief Veterinary Officer
Defra	Department for Environment, Food and Rural Affairs
DPH	Director of Public Health
Dstl	Defence Science and Technology Laboratory
ECOSA	Emergency Coordination of Scientific Advice
FSA	Food Standards Agency
FSS	Food Standards Scotland
HAZMAT	Hazardous Material
HPS	Health Protection Scotland
HSE	Health and Safety Executive
IMT	Incident Management Team
JAM	Joint Agency Modelling
LRP	Local Resilience Partnership
MACC	Multi-Agency Coordination Centre
MCA	Maritime and Coastguard Agency
NCBRNC	National Chemical, Biological, Radiological and Nuclear Centre
NEG	National Experts Group
NHS	National Health Service
PCG	Public Communications Group
PHS	Public Health Scotland
RPs	Resilience Partnerships
RRP	Regional Resilience Partnership
RSPB	Royal Society for the Protection of Birds
SAGE	Scientific Advisory Group for Emergencies
Scottish SPCA	Scottish Society for the Prevention of Cruelty to Animals
SEG	Standing Environment Group
SEPA	Scottish Environment Protection Agency
SGoRR	Scottish Government Resilience Room
SFRS	Scottish Fire and Rescue Service
STAC	Scientific and Technical Advice Cell
SWHP	Scottish Waterborne Hazard Plan
SWT	Scottish Wildlife Trust
UKHSA	UK Health Security Agency