Severnside Emergency Planning Forum

Severnside External Emergency Plan for COMAH
Issue 7.5 - 2025

COMAH sites covered in this plan:

Augean Treatment Ltd
Esso Petroleum Ltd
Exolum Pipeline System Ltd - Hallen PSD
Exolum Pipeline System Ltd – Berwick Wood PSD
Flogas Britain Limited
Valero Logistics UK Ltd
Yara UK Ltd

Includes:
Bristol Port Company W-Shed
(Declassified COMAH site)

Bristol City Council

South Gloucestershire Council

Document Control

This Plan is owned, maintained, and updated by the Emergency Preparedness and Resilience Team (EPRT), Bristol City Council. All users are asked to advise the EPRT of any changes in circumstances that may materially affect the plan in any way.

Details of changes should be sent to: emergency.planning@bristol.gov.uk

Part One of this plan is marked OFFICIAL and the separate site-specific files which make up Part Two are marked OFFICIAL-SENSITIVE.

The plan will be reviewed at least every three years or as a result of lessons identified after an activation event or exercise; following major changes of personnel, policy or COMAH site operators; following advice and guidance from the HSE or EA; or a change in legislation.

This Plan has been distributed to responding agencies with a role featured.

Issue Number	Date	Author	Notes
Issue 7	October 2021	Nigel Parsons	
Issue 7.1	April 2022	Nigel Parsons	
Issue 7.2	August 2022	Nigel Parsons	
Issue 7.3	June 2023	Nigel Parsons	Updated to include Flogas Britain Ltd as an Upper Tier site operator
Issue 7.4	January 2024	Nigel Parsons	Updated to remove - Berwick Wood PSD (Exolum Pipeline System Ltd) declassified COMAH site
Issue 7.5	June 2025	Megan Pillinger	Updates to the Notification Cascade

Part 1: General Arrangements

1. Introduction

1.1 Background Information

The Control of Major Accident Hazard Regulations 2015 (COMAH) place a duty on Local Authorities to prepare external emergency plans for establishments within their area that have the potential to cause a major accident.

The regulations apply to all sites which have qualifying quantities of dangerous substances present as specified in Schedule 1 of the regulations. Depending on the threshold quantity, sites are classified as lower tier or upper tier COMAH sites, and commonly referred to as COMAH sites.

This plan covers COMAH sites located in the industrial area referred to as Severnside, located to the northwest of Bristol bordering the River Severn Estuary and occupying a strategic location near to the M49, M4 and M5 motorways, and the national rail network.

The area includes Avonmouth village and the industrial and employment areas of Avonmouth and Severnside, and falls within the boundaries of both Bristol City Council and South Gloucestershire Council. Due to the number and close proximity of the COMAH sites within Severnside, a single external emergency plan has been developed on behalf of both Councils.

This document has been prepared on information provided to Bristol City Council by the COMAH sites regarding the nature, extent and likely effects of a major accident involving their site.

1.1.1 Aim

The aim of this emergency plan is to provide localised details of the COMAH arrangements and actions to be taken in order to minimise the health and safety consequences to members of the public and responding agencies in the event of a COMAH incident.

1.1.2 Objectives

This plan has been prepared to meet the objectives as required in Regulation 11 of the COMAH Regs 2015 and outline the arrangements in place for a multi-agency response to a major accident at a COMAH site:

- To contain and control incidents to minimise the consequences, and to limit damage to human health, the environment and property
- To protect human health and the environment from the consequences of major accidents
- To communicate to the public and to the services or authorities concerned in the area
- To provide for the restoration and clean-up of the environment following a major accident.

1.1.3 Definition of a Major Accident

In Regulation 2 of the COMAH Regs 2015, a Major Accident is defined as:

> *An occurrence such as a major emission, fire, or explosion resulting from uncontrolled developments in the course of the operation of any establishment to which these Regulations apply, and leading to serious danger to human health or the environment (whether immediate or delayed) inside or outside the establishment, and involving one or more dangerous substances.*

Note: If a Major Accident has been declared, this should be regarded as a Major Incident declaration.

1.1.4 Related and Supporting Plans

The response to a COMAH incident will follow arrangements established under several multi-agency plans produced, for example, by the Avon and Somerset Local Resilience Forum (ASLRF).

The diagram in figure 1 outlines the relationship between the ASLRF multi-agency plans, the JESIP Joint Doctrine, and shows how the Severnside External Emergency Plan for COMAH relates to the overall multi-agency emergency plan structure. The range of plans shown below is not exhaustive, relationship diagram for illustrative purposes only.

See Annex A to Section 1: Related Plans for information on the supporting plans that describe the specific emergency response which may be activated during a COMAH incident.

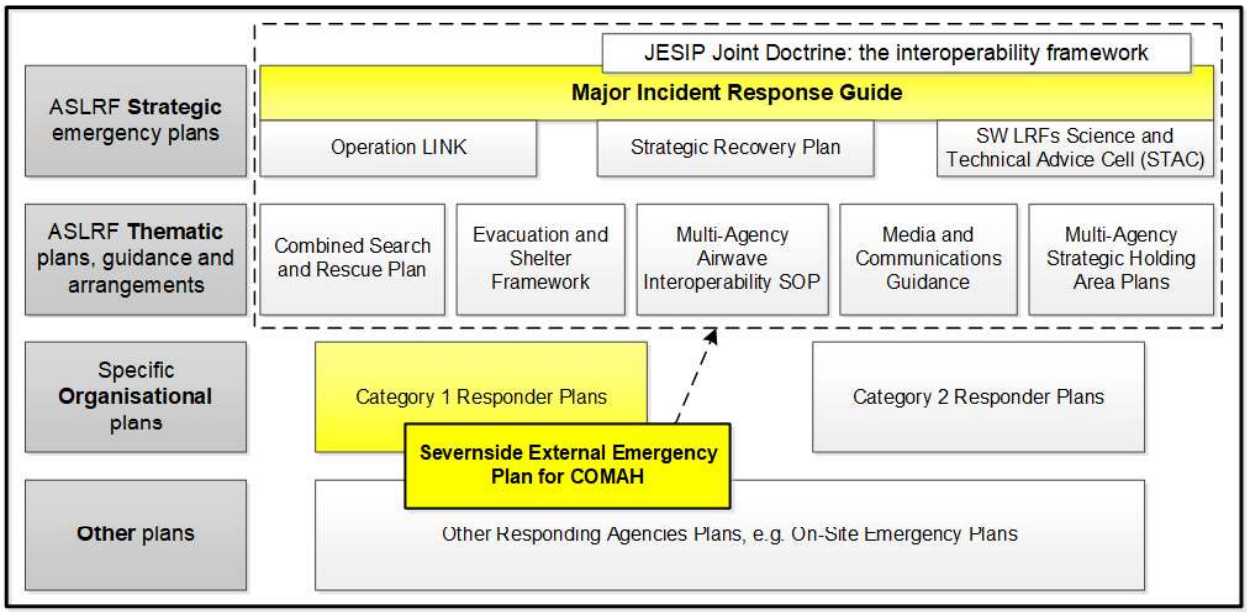


Figure 1 - Plan Relationship diagram

1.2 Health & Safety Statement

Whilst the aim of this plan is to minimise the effects from a major accident and to protect the community, each agency or organisation involved is responsible for the health, safety and welfare of their own staff and must assess the risks to which their staff may be exposed.

The health, safety and welfare of volunteers should also be considered when assisting in an emergency. Information and expertise may be shared between responding agencies to assist with this process.

1.3 Roles and Responsibilities of Responding Agencies

It is the responsibility of all responding agencies to ensure that their staff are briefed, exercised and trained, as necessary, on the emergency response procedures described in either this plan, the Avon and Somerset Local Resilience Forum (ASLRF) Major Incident Response Guide (MIRG), or in their own COMAH response plans.

The MIRG contains details of the roles & responsibilities of all key responding agencies, (not the COMAH site operators).

The following key responding agencies are included in the MIRG:

- Avon & Somerset Constabulary
- Avon Fire & Rescue Service (AFRS)
- Bristol City Council
- British Transport Police
- Environment Agency
- Health and Safety Executive (HSE)
- Met Office
- National Highways
- NHS England & Improvement
- South Gloucestershire Council
- South Western Ambulance Service Foundation Trust (SWAST)
- UK Health Security Agency (UKHSA)
- Wessex Water

The following agencies are not represented on ASLRF and / or not included in the MIRG:

1.3.1 DEFRA CBRN Emergencies Team

The DEFRA CBRN Emergencies Team provide guidance on the decontamination of buildings, infrastructure and open environment exposed to chemical, biological, radiological and nuclear (CBRN) materials. They also plan and arrange for decontamination operations to be available through a framework of specialist commercial providers who can supply decontamination and related services for CBRN and HAZMAT incidents 24/7.

1.3.2 Network Rail

Network Rail own, maintain, and operate the railway infrastructure. If notified of an incident, Network Rail will:

- Ensure that the users of the lines affected are informed of the incident, including Train Operating Companies and Freight Operating Companies
- Inform their National Operations Centre, other affected routes, and controlling signal boxes for the area
- Ensure the appropriate action is taken to secure the safety of all staff, passengers, freight and trains on the affected lines, as decided by the senior staff in liaison with other agencies attending
- Ensure that any affected trains are properly identified and cleaned in conjunction with advice and guidance provided by UKHSA/ STAC and the SCG / RCG
- Follow advice from UKHSA / STAC and the SCG / RCG in terms of closing and re-opening lines

Annex A to Section 1: Related Plans and Processes

The following multi-agency plans describe the various aspects of the emergency response which may be activated during a COMAH incident, this list is not exhaustive other plans exist and may be required.

Plan / Process	Summary
ASLRF Major Incident Response Guide[1] (MIRG)	The MIRG provides ASLRF partners with guidance to support them in their roles in developing and delivering an effective multi-agency response to a major incident. It details the roles and responsibilities of responding agencies, and describes the command, control and co-ordination principles that are used when responding to a major incident.
ASLRF Operation Link	See 2.2.3 Operation Link
ASLRF Multi-Agency Strategic Holding Area Plans	These plans detail Strategic Holding Areas that are pre-identified to accommodate the Command and Logistical Support structure for a major / catastrophic incident.
ASLRF Multi-Agency Airwave Interoperability Standard Operating Procedure	This Standard Operating Procedure sets out the procedures to be adopted and followed for establishing and implementing Airwave Interoperable Voice Communications (IVC). It contains information which will assist the emergency services and other responders to communicate effectively when responding to events or incidents which require a multi-agency response and / or which involve agencies from other LRF areas.
ASLRF Media and Communications Guide	The guide provides guidance to support an effective multi-agency response to the media in the event of a major incident.
Science and Technical Advice Cell Plan for the LRFs in the South West	The STAC Plan outlines the arrangements for the provision and co-ordination of appropriate health (both public and environmental), scientific and technical advice during a major incident.
ASLRF Combined Search & Rescue Plan	This plan outlines how the co-ordination of Search and Rescue assets will be achieved in the response to a major incident or where an incident exceeds the capabilities of the responding agencies and multi-agency search and rescue mutual aid is required.
ASLRF Evacuation and Shelter Framework	This framework supports an integrated emergency response for the care of large numbers of evacuees. This is supported by individual single agency Council plans.
ASLRF Strategic Recovery Plan	This plan provides a framework outlining how recovery following a major incident affecting more than one council area will be co-ordinated. This is supported by individual single agency Council plans.
Joint Emergency Services Interoperability Principles (JESIP) Joint Doctrine	The JESIP Joint Doctrine provides a common way of working together with saving life and reducing harm at its core. The key components of the Joint Doctrine, are: ▪ Five Principles of Joint Working - the principles to follow when planning a joint incident response ▪ M/ETHANE - a common method for passing incident information between services and their control rooms ▪ Joint Decision Model (JDM) - A common model used nationally to enable emergency responders to make effective decisions together The joint doctrine sets out what front line staff should do and how they should do it in a multi-agency working environment, to achieve the degree of interoperability that is essential for a joint response.

[1] ASLRF documentation is available upon request from the ASLRF Secretariat.

2. Emergency Response

This section is split into three parts based upon the stages of an incident. The three stages are:

- (2.1) Discovery of an incident
- (2.2) Notification of an incident and Activation of the Severnside External Emergency Plan for COMAH
- (2.3) Initial Actions taken by Responding Organisations

2.1 Discovery of an Incident

On the discovery of an incident at a site, the site operator will activate their on-site emergency plan (as detailed in Part 2: Site Specific Information). Site personnel will make an initial assessment of the incident to determine the severity and will decide whether it is an Internal Incident or an **External COMAH Emergency**.

An **External COMAH Emergency** is defined as:

> *An incident that results from a COMAH related activity where the impact has or may have effects that extend beyond the site boundary, impacting on the public and / or the environment; or an uncontrolled event, which could escalate into the above.*

Where an internal incident is declared and no external hazards have been identified, the possibility of the incident escalating into an external emergency should be continuously assessed.

Any COMAH Incident which extends beyond the site boundaries and cannot be controlled by the On-Site Internal Emergency Plan will cause this External Emergency Plan to be activated.

2.2 Notification and Activation

Upon notification of an incident at a COMAH site, any of the Emergency Services or the site operator may discover the scale is such that they declare an '**External COMAH Emergency'**.

The site operator will activate the external emergency plan for COMAH in accordance with their site procedures by notifying the emergency services. This will be done through the standard 999 system (Or via agreed dedicated incident reporting lines) by requesting the Fire Service, the Police, and the Ambulance Service, using the M/ETHANE mnemonic (see 2.2.1 M/ETHANE Template).

If an External COMAH emergency is declared, proactive consideration should be given towards the declaration of a 'Major Incident', this will activate the agreed multi-agency arrangements as stated in the ASLRF MIRG and response following the principles of the JESIP Joint Doctrine.

The emergency services and site operator should continue with the Notification Cascade (see 2.2.2) and carry out their Initial Actions and Response (see 2.3).

2.2.1 M/ETHANE Template

This is …..……. (site name & address) **We have had an incident / Major Accident, I have a METHANE message for you….**			
M	Major Incident	Has a Major Incident been declared? **YES / NO** *(If no, then complete ETHANE message)*	**No - On-Site Incident only** **Yes - Serious incident possibly affecting off-site** Note: COMAH Regulations use the term Major Accident – if in doubt go Yes
E	Exact Location	What is the exact location or geographical area of incident?	**……..…..** **(site address / location of incident)** **We are a (lower / upper) tier COMAH site.** (Use What 3 Words)
T	Type of Incident	What kind of incident is it?	**We have had a COMAH incident involving a (fire / explosion / toxic release / specify other)** **There are no known external effects off-site** or **There (are / may be) external effects – activate the Severnside External Emergency Plan for COMAH**
H	Hazards	What hazards or potential hazards can be identified?	**The chemicals / substances involved ……..** (Information on any debris, smoke plume, unstable structures, etc.)
A	Access	What are the best routes for access and egress?	**The safest approach to the site is from ……. (e.g. Avonmouth / Aust / Lawrence Weston)** **Report to the …… (main gate / entrance / specify other) at …… (address)**
N	Number of Casualties	How many casualties are there and what condition are they in?	**There (are …. / may be / are not any known) casualties, (give description of injuries, if known)**
E	Emergency Services	Which and how many emergency responder assets / personnel are required or are already on-scene?	**Fire, Police, and Ambulance (state as required)**
Provide your name and contact number. **Include any other relevant information, if available.** **Be prepared to answer specific questions from the emergency services.**			

2.2.2 Notification Cascade

The notification cascade should follow the M/ETHANE format as well as any other relevant information. Responding agencies should also consider notifying any other organisation, agency, or individual that may be impacted by the incident or that may assist in the emergency response.

Contact details are contained in Annex A to Section 2.

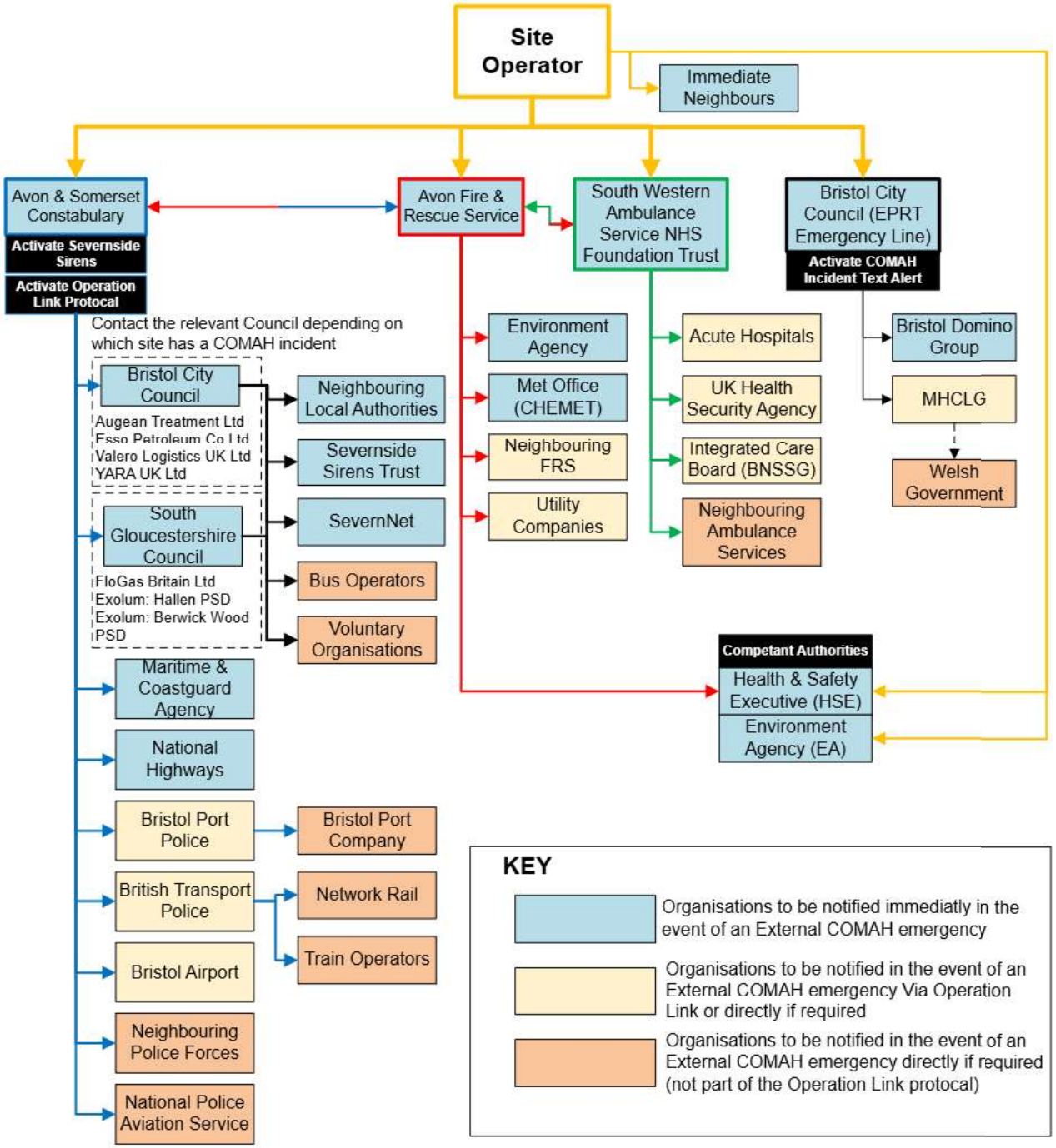


Figure 2 - Notification Cascade

2.2.3 Operation Link[2]

Operation Link (Op Link) is a conference call protocol that is used by responding agencies in the event of or, in anticipation of an emergency which may involve or affect one or more ASLRF responder agencies.

The protocol can be activated by calling the dedicated 24/7 Op Link number (see Annex A to Section 2: Contact Details) and requesting the Force Incident Manager.

Once Op Link has been requested the earliest meeting is recommended to be 30 minutes after notification to allow partner agencies time to cascade the message to duty officers and obtain briefings from their own control rooms, etc.

OP LINK does not replace the external emergency plan notification cascade and involved responders should still cascade the messages as per the plan, until the Op Link conference call is held (and attendance of relevant organisations is confirmed).

Note: It is possible due to the speed of delivery of the Op Link system for an Op Link notification to be received by a responder before they receive the cascade message sent by another agency. Once an Op Link call has started the formal cascade to organisations on the call can stop.

2.2.4 Scientific and Technical Advice

Avon Fire & Rescue Service (AFRS) will notify the Police and South Western Ambulance Service Foundation Trust (SWAST) about any scientific advice received (such a CHEMET reports), in accordance with existing inter-service arrangements. UK Health Security Agency (UKHSA) directly receive the CHEMET from the Met Office and AFRS control will notify UKHSA in accordance with agreed procedures.

Scientific and Technical advice will also be available via contacting the UKHSA Radiation, Chemical, Climate and Environmental (RCCE) advice line.

In the event that an SCG is established the provision of scientific and technical advice regarding the environment and public health to the SCG is outlined in national guidance available here.

The UK Health Security Agency (UKHSA) Regional Deputy Director or Duty/On-Call Consultant in Health Protection will advise on and/or agree the need for a STAC. UKHSA will activate and coordinate the provisions of the STAC in line with the STAC plan for LRFs in the South West.

2.2.5 Plume Predictions - FireMet / CHEMET

A FireMet can be obtained through the Met Office's Hazard Manager, which can be accessed from https://hazardmanager.metoffice.gov.uk/.
The FireMet indicates the expected downwind hazard sectors for a plume from a known source plus other relevant weather forecast and data information. It is usually used as an initial forecast for the downwind movement of a plume.

Once a plume's chemical constituents are known, a CHEMET may be requested from the Met Office's Environment Monitoring and Response Centre (EMARC) by any responding agency (see Annex A to Section 2: Contact Details).

Once generated, the full CHEMET is made available to the requesting agency and available to all agencies via the Met Office's Hazard Manager.

[2] Please refer to the ASLRF Operation LINK Protocol for further details

2.2.6 Resilience Direct (RD)

RD has a mapping function which can be used to rapidly produce maps of an incident, bringing up COMAH site locations, Severnside Siren locations and audible ranges as well as public information zones. The mapping function can also be used to identify vulnerable persons.

A COMAH page exists within the Bristol City Council RD area containing this plan.

2.3 Initial Actions and Response

Upon notification of an incident, the site operator will initiate their emergency procedures, and the emergency services will take appropriate immediate measures, assess the extent of the situation and respond following the multi-agency arrangements as stated in the ASLRF MIRG and response following the principles of the JESIP Joint Doctrine. They will concentrate on the specific tasks within their areas of responsibility, as outlined below.

Response actions of agencies not mentioned here will be as outlined in the ASLRF MIRG.

2.3.1 Site Operator

Detailed information of each site's response can be found in Part 2: Site Specific Information.

Following the raising of the alarm, a nominated supervisor / manager will co-ordinate all activities on-site, including:

- Activating the on-site emergency plan, including requesting the Severnside Sirens and the COMAH Incident Alert to be activated, if appropriate
- Setting up the site Emergency Control Centre (Site ECC) or alternative ECC - this includes establishing communications with AFRS and other emergency services, and establishing on-site communications
- Securing the safety of all personnel on site, controlling vehicle movements ensuring that all contractors or visitors are accounted for, and evacuating non-essential personnel to assembly areas
- Calling out key management and specialist staff
- Ensuring that measures are taken to reduce the magnitude of the emergency, to minimise property and material loss and to ensure the safe condition of the site not affected by the emergency
- Assisting the emergency services with search & rescue operations and mitigating the effects of the incident
- Providing advice and information to the emergency services. Initially this will be in the form of a Fire Wallet, which contains essential information for the Fire Incident Commander.
  The content of the fire wallet has been previously agreed by the Emergency Services[3]
- Notifying other Severnside COMAH sites
- Notifying neighbouring sites

2.3.1.1 Bristol Domino Group

Domino Groups are groups of COMAH sites where the likelihood or consequences of a major accident may be increased because of the location and close proximity of other COMAH sites and the dangerous substances present there.

In the event that one of the domino group sites activates their on-site plan or this External Emergency Plan, they will notify other sites within their domino group (see COMAH Sites in Severnside). The information passed will contain sufficient detail for the receiving site to determine the course of action required to mitigate any possibility of a major accident occurring at their site.

Where possible and appropriate, representatives of the adjoining COMAH sites within the domino group will be required to attend the multi-agency Tactical Co-ordinating Group (TCG) to assist in minimising the effects and controlling the situation. The TCG will consider the implications on adjacent sites to ascertain whether processes are terminated or restricted and staff are evacuated to minimise the possibility of a further incident / harm.

[3] Contents of the Fire Wallets include: A3 laminated maps of the site showing the position of vehicular access points, water mains and fire hydrants on site, risks on site given as highly flammable, very toxic or harmful, site drainage plans, and fire alarm zones.

2.3.2 Avon Fire & Rescue Service (AFRS)

Upon Notification of an external COMAH emergency, Fire Control will commence the notification chain by alerting the Police and SWAST, plus other agencies according to the Notification Cascade.

Upon arrival the Fire Incident Commander will assume command of the fire-fighting, rescue and salvage operations. It is essential that the Incident Commander is met upon arrival and briefed about the incident and the nature of the relevant plant hazards. The Incident Commander will take the contents of the fire wallet and distribute accordingly to Service personnel.

Additional information the Incident Commander may require is:

- Number and location of casualties and fatalities
- Number and location of casualties requiring rescue
- Fire situation or possible fire hazards
- Other dangerous circumstances
- The requirement for special equipment
- Chemicals involved
- Presumed cause
- Likely development and potential of incident
- Other hazards present in immediate vicinity of incident
- Location of water supplies / hydrants / foam etc.
- Suitable RV points
- Wind speed and direction
- Location of on-site ECC
- Contact name for situation updates

If an external COMAH emergency has not been previously declared, the Fire Incident Commander may declare an external COMAH emergency and inform Fire Service Control using the standard phrase **'External COMAH Emergency'.** The appropriate pre-determined attendance will be mobilised to the scene. Initial messages from the incident should include the location of an appropriate rendezvous point and details of any difficulties of access, traffic congestion etc, which might affect the efficient gathering of resources. Fire Service Control will automatically notify relevant organisations as per the Notification Cascade.

If there is a fire, the possibility of a fire, a chemical or explosion hazard, or a situation where access to the immediate scene is likely to lead to an escalation of the incident, AFRS will provide an inner cordon around the incident to enable them to exercise control over firefighting and rescue operations. This could involve the evacuation of residents and workers from the immediate area.

Any situation known, or suspected to be, the result of terrorist action will remain under the control of the Police. The Fire Incident Commander will liaise closely with the Police and take advice on when it is safe to continue operations.

At any incident attended, AFRS will take any actions possible to either prevent or mitigate environmental damage. Tactical decisions during firefighting operations can reduce environmental impact, but there will always be potential for damage. To reduce the effect of firefighting water and pollution from chemicals involved in an incident, all pumping appliances carry an Environment Agency 'grab pack'. The contents of this pack are employed as a first aid measure to contain water and any pollutants on the site of the incident.

2.3.3 Avon & Somerset Constabulary

Notification of an incident at any site at Severnside will arrive at the Police Force Communications Centre. Any notification will immediately invoke an emergency response and, where appropriate the declaration of an External COMAH Emergency.

The Force Incident Manager (FIM) will be informed and will:

- Implement the Police Permanent Operational Order for the Severnside Industrial Complex and manage the Police response to the incident in the initial stages
- Consider verification, notifications, and warnings and where appropriate instigate them, including the Severnside Sirens and Operation Link
- Ensure AFRS and SWAST have been alerted including the other regional emergency services utilising the regional ESICTRL airwave talk group. (This will include BTP, CNC)
- Alert the local authorities involved and consider notifying other organisations as required, see Notification Cascade
- Deploy the first Police response to attend the scene, or a designated RVP, via a safe route having obtained wind direction conditions and advice regarding the type of incident
- Appoint a Tactical Commander who will establish the TCG in consultation with the other parties involved and locate according to the nature of the incident with regard to the weather and wind direction at one of the predetermined locations:
    - Online using video conferencing such as MS Teams
    - The Police & Fire HQ, Portishead
    - Severn Park Fire & Rescue Training Centre, Smoke Lane, Avonmouth
    - Other suitable location

At the scene the Police will:

- Establish a Forward Control Point (FCP) in a safe position having regard to the nature of the incident, and in consultation with the site operator and the other emergency services. The FCP, which is not predetermined will be located near to the scene, where liaison can take place between the site operator, the other emergency services and organisations attending the incident
- Establish cordons and preserve the scene for investigation
- Where the incident is on Bristol Port Company land, liaise with and provide support to the Port Police

In certain circumstances, the Police will:

- Create and implement a traffic plan
- If the decision to evacuate is taken, appoint an ‘Evacuation Officer’
- Record and disseminate details of casualties involved in the incident
- Establish the Casualty Bureau
- In the event of fatalities, and on the authority of HM Coroner, arrange a recovery plan for the movement of the bodies
- Co-ordinate the media response

2.3.4 South Western Ambulance Service Foundation Trust (SWAST)

Notification of an incident at a Severnside site will be received by the Emergency Operations Centre via the dedicated major incident line for the Severnside sites. One of the other emergency services may also call the ambulance service. Depending on the nature of the incident an appropriate response will be sent to scene determined by the SWAST site contingency plan.

Where an External COMAH Emergency is declared, the following action will occur:

- Implementation of the SWAST site contingency plan and a consideration of implementing the SWAST Major Incident Plan
- Manage the ambulance service response to the incident in the initial stages
- Notify local hospitals in case of self-presenters or as part of a major incident cascade
- Deploy the pre-determined response to attend the RVP via a safe route having obtained wind direction conditions and advice regarding the type of incident
- Establish a Forward Control Point (FCP) in a safe position having regard to the nature of the incident, and in consultation with the site operator and the other emergency services.
- Deploy ambulance commanders to the TCG and SCG as required

2.3.5 Local Authority

The Local Authority to be notified following a COMAH incident will be dependent on the location of the COMAH site. Please see Part 2: Site Specific Information for a list of the sites with details of their Local Authority.

2.3.5.1 Bristol City Council

Initial contact in an emergency will be through the Council's 24-hour Bristol Operations Centre. The Council will then respond in accordance with this plan supplemented by the Council's Incident Management Guide.

Following notification to the Bristol Operations Centre, the operator will:

- Create and send a Gov.UK Notify COMAH Incident Alert, (if requested by the caller)
- Inform the Duty Emergency Planning Officer (DEPO) to determine the level of the Council's response
- Commence an incident log
- Continue to accept and deal with any further messages until advised otherwise by the DEPO or nominated representative

The DEPO will:

- Arrange for the call-out of council staff in accordance with the Incident Management Guide, consistent with the level of response required
- Co-ordinate the response to specific requests from the emergency services
- Arrange for Liaison Officers to be deployed to joint emergency services control points as necessary
- Arrange for notification of neighbouring local authorities and other agencies, see Notification Cascade
- Activate the Council's Incident Management Team (IMT) if necessary

2.3.5.2 South Gloucestershire Council

In the event of an incident occurring or a major accident / emergency being declared the following actions will take place:

An emergency call will be made to the councils switch board who will then notify the duty Emergency Planning Officer.

During office hours the call will be dealt with by the Emergency Planning Unit, with support from the Duty Emergency Co-ordination Officer and a senior officer of the Council.

Out of office hours the call will be transferred to the Councils' out of hours call service. The out of hours service will immediately inform the Duty Emergency Planning Officer and the Duty Emergency Co-ordination Officer, who will initiate the Council's response.

The Duty Emergency Planning Officer will:

- Establish contact with the emergency services and act as the point of contact for the council
- Arrange to put council staff on standby, or immediately call out council staff if required, in accordance with the procedures in the South Gloucestershire Council Strategic Emergency Plan
- Arrange for notification of neighbouring local authorities and other agencies, see Notification Cascade
- Establish the Council's Incident Room if required

2.3.6 Environment Agency

In the event of an external COMAH emergency, the Environment Agency will:

- Activate internal incident response procedures and open the Area Incident Room
- Inform the relevant multi-agency co-ordination group of a contact number for the Area Incident Room
- If requested, despatch an officer to the multi-agency tactical / strategic co-ordination group
- Help to determine who and what in the environment is at risk
- Warn water abstractors who may be at risk
- Consult the National Air Quality Technical Advisor to assess if AQ monitoring is required

2.3.7 Air Quality Cell (AQC)

An Air Quality Cell (AQC) can be established during a major incident involving air quality issues, where there is a significant risk to public health. The AQC is initiated by the Environment Agency in partnership with UKHSA. The AQC will:

- Consider deployment of monitoring teams to collect real time data within the community to inform the public health risk assessment
- Communicate key public health messages on sheltering and / or evacuation via a regular SitRep sent directly to the TCG, STAC, or the SCG
- Stand-down when acute phase is over, normally within 36 - 48 hours

Additional information on AQC can be found on ResilienceDirect, (within RD search for Air Quality Cell).

2.3.8 Bristol Channel Standing Environmental Group (BCSEG)

The BCSEG covers the Severn Estuary and the Inner Bristol Channel (including tidal river stretches). Membership includes Environment Agency, Natural Resources Wales, Devon and Severn Inshore Fisheries & Conservation Authority (IFCA), Natural England, Public Health Wales, Marine Management Organisation (MMO) and UKHSA.

The group is usually initiated by the Maritime & Coastguard Agency (MCA) for significant pollution at sea or shoreline events, and if convened, will provide advice and guidance on health and environmental sensitivities and risks, and on health and environmental implications of proposed salvage and clean-up response strategies. Advice will be provided to the MCA, or other Strategic or Tactical responders as relevant.

2.4 Shelter or Evacuation

Taking immediate shelter is the primary means for minimising the risk following a COMAH incident. All pre-warning information has instructed the public to shelter following notification of an incident (more information can be found in section 3. Warning & Informing the Public).

However, some incidents may involve substances or specific conditions where shelter is not appropriate, and therefore, the area will need to be evacuated. The decision to evacuate will be taken by the relevant multi-agency co-ordinating group following advice from UKHSA or the STAC (if convened).

2.4.1 Evacuation Arrangements

Once the decision to evacuate is taken, the Police Incident Commander will appoint an 'Evacuation Officer' to co-ordinate the evacuation.

The affected population will be advised to go to Reception Centre(s) set up by the relevant Local Authority. The Centre(s) will be set up and staffed by Council personnel, assisted by voluntary agencies, and will provide welfare support, refreshments and, if necessary, short-term accommodation.

The decision on which venue to use will be made by the relevant Local Authority at the time of need depending on wind direction, the number of displaced individuals, and availability of venue.

2.4.2 Identifying Vulnerable People

Bristol City Council, South Gloucestershire Council and the NHS hold and maintain lists of known vulnerable people receiving help and support from local care services.

Other agencies such as utilities providers maintain priority service registers of customers who may be vulnerable in emergencies, these lists could also be used to identify affected individuals.

Annex A to Section 2: Contact Details

Organisation	Emergency	Other Telephone
Augean Treatment Ltd	07973 460423	0117 982 0303
Avon & Somerset Constabulary	999	101 0845 456 7000
Avon & Somerset Constabulary (Force Incident Manager) (**Severnside Sirens & Operation Link**)	01278 645940	
Avon Fire & Rescue Service (Control)	999	0117 926 2061 Ext 312
Bath & North East Somerset Council	01225 477477	01225 477000
Bristol City Council (EPRT Emergency Line)	0117 357 6689	Operations Centre: 0117 922 2050 0117 922 4692
Bristol Port Company W-Shed (Duty Incident Controller)	0117 982 0000 Ext 4444	
Bristol Port Company (Avonmouth Signal Station)	0117 982 2257	
Bristol Port Police	01275 375787	0117 982 0000
Bristol Water PLC	0117 9665881	0117 966 2267
British Transport Police (BTP)	0121 254 8904	0800 405040
BT	08457 555999	
DEFRA CBRN Emergencies Team	03300 416565	
Ministry for Housing, Communities & Local Government	0303 444 2718	0303 444 2799
Environment Agency	0845 850 3518	0800 807 060
Esso Petroleum Company, Limited (Site Duty Controller)	0117 938 6202	Alternative Pipeline Control Centre: 01784 422493
Exolum Pipeline System Ltd (Control Room)	0117 950 6107	0117 950 8380
First Bus	0117 922 3844	Via Bristol City Council (Operations Centre)
Food Standards Agency	0345 0518486	020 7276 8000
Flogas Britain Limited	0117 905 7480	0116 201 8324
Gloucestershire County Council	01452 425000	
Gwent County Council	0845 056 8035	01495 311556
HSE	0117 988 6000	0151 922 9235
Maritime Coastguard Agency	01792 366534	
Met Office – EMARC Emergency Support (CHEMET, etc.)	01392 447947	0330 135 4271
Monmouthshire County Council	0300 123 1055	01633 644091/2
National Highways	0117 316 5723	0300 123 5000
Natural England	0300 0602065	0845 600 3078

Organisation	Emergency	Other Telephone
Network Rail (Swindon Rail Control)	01793 533524 (Duty Control Manager)	01793 533592
NHS England & Improvement	0303 033 8833	
North Somerset Council	01934 634700	01934 426706 or 01934 888888
SevernNet	07969 569444	
Severnside Sirens Trust	01275 374747	07581 375539
Somerset Council	01823 364500	
South Gloucestershire Council	01454 868009	0117 922 2050
South Western Ambulance Service Foundation Trust (SWAST)	0300 369 0518 incident notifications 999 clinical emergency	0300 369 0323 on call NILO 0300 369 0024 Trust Incident Manager
The Mall, Cribbs Causeway	0117 915 5313	0117 915 5555
UK Health Security Agency (UKHSA) South West Region Health Protection Team	0300 303 8162	0300 303 8162
UKHSA Radiation, Chemical, Climate and Environmental (RCCE) advice line	0300 303 3049 (Chemical and Environmental Hazards Duty Desk)	0344 892 0555 (Out of hours)
Valero Logistics UK Ltd (Control Room)	0117 923 5868	
Wessex Water	01225 823969 0345 600 4600	
Yara UK Ltd (Terminal Manager)	0117 244 1830	07711 596377

Welsh Government	In hours Emergency Contact: Civil.Contingencies@gov.wales	Out of hours Security Control: 0300 025 3551 or 0300 025 3391

3. Warning & Informing the Public

Please note that pre-warning information to the public has stated that if the Severnside Sirens are sounded then people should GO IN, STAY IN, TUNE IN.
Any decision to sound the sirens should be done in the expectation that the public will shelter upon hearing them and not evacuate.

Due to the nature of some of the major accident hazards, it is essential that prompt and appropriate warning and advice is given to members of the public in the affected area. Those affected must also be kept informed during an incident and signposted towards relevant information afterwards. This section outlines the arrangements in place to warn and inform members of the public during an incident and provide details of available advice.

3.1 Pre-Warning the Public

As required under the COMAH regulations, information has been provided to members of the public who are likely to be in the area i.e. businesses and residents, in the form of the 'Major Emergency Safety Advice' booklet. This has been distributed to companies and the public within the footprint of the Severnside Sirens, and is available online to download.

The booklet provides information on actions to take if an incident occurs or if people hear the Severnside Sirens, i.e. Go In, Stay In, Tune In. It also states how to get hold of information through the media, as well as information about the COMAH sites on Severnside.

A poster has also been produced to inform local businesses of the actions to take on hearing the Severnside Sirens. This poster has been distributed through schools in the area, local businesses, and GPs surgeries.

The Severnside Sirens Trust commissioned an awareness DVD using young children from a local school. The awareness DVD has been distributed to all local schools and COMAH sites.

3.2 Warning the Public

Those affected can be warned of an incident by any facility available. Initially this may include any or all the following:

- COMAH Site sirens (where installed)
- Severnside Sirens (this will be activated under the criteria laid out below)
- Local Radio stations – such as Radio Bristol
- Local Television – such as BBC & ITV
- Handheld PA systems / visits from available personnel in the immediate vicinity (if safe to do so)
- COMAH Incident Alert - text alert to registered members

3.2.1 Severnside Sirens

The Severnside Sirens are a series of sirens placed throughout the Severnside Industrial Complex and adjoining residential areas. They are used to warn the public when an incident presents a danger to life and / or property and has the potential to spread from its source to affect neighbouring properties, residents and those travelling within the area.

A map showing the location of the sirens and their sound footprint is at Annex A to Section 3: Map of the Sirens.

The sirens can be rapidly activated by Avon & Somerset Constabulary's Force Communications Centre at Portishead and will provide early warning that an incident has occurred.

The sirens will be activated following a telephone request from the affected COMAH site, or at the request of a Police or Fire Incident Commander at the scene, from their respective Control Centres.

The final decision to sound the sirens will be made by the Force Incident Manager, Force Duty Officer or dedicated Tactical Commander. Any decision to sound / stop the sirens will be based on advice from the incident site.

If the sirens are sounded, it is essential that additional media messages accompany the sirens to keep the public fully informed.

Note: The Severnside Sirens are battery powered and as such have a limited time to sound. This is estimated to be between 25 and 45 minutes for a continuous activation. It is suggested that the sirens be sounded at short intervals during the initial stages of the incident to preserve battery life. Length of sounding will be determined by the nature and scale of the incident and level of health risk.

All Clear Siren: The 'all clear' is sounded for one minute when the potential hazard is judged to have passed. Further media announcements will also need to be given to support the 'all clear'.

Monthly Test: In order that businesses and residents are familiar with the sound of the sirens, the alert warning and all clear tunes, (and to check the sirens are working), are tested at 3pm on the 3rd day of each month.

The alert warning siren is a repeated rising tone followed by a series of pulsing notes, the all clear siren is a tone that rises, holds continuous and then falls as it ends.
Download sound samples – Alert and All Clear.

3.2.1.1 Initial Public Information Media Statement

On the sounding of the siren, the Police must immediately notify the media and make a public announcement, which may be based on the example Media Public information message in Annex B to Section 3: Initial Media Statement. This will need to be continuously updated until after the All Clear is given.

3.2.2 COMAH Incident Alert (Gov.UK Notify)

Gov.UK Notify is a mass SMS notification system provided by HMG and used by Bristol City Council for sending text alerts. A COMAH Alert process exists for the COMAH sites on Severnside, covered by this plan. This allows for specific individuals who are pre-registered with Bristol City Council's Operations Centre to request an alert is sent. The alert is sent to each Severnside COMAH site and to other individuals who have registered to receive it.

The instructions for sending out messages using Gov.UK Notify are as follows:

1. Call Bristol City Council's Operations Centre (part of the incident notification process) and ask for the **COMAH Incident Alert** message to be sent
2. The Caller will need to provide their name, their telephone number, and their company name – this information must match that pre-registered with the Ops Centre
3. If the information matches the details on file, the operator will log in and send the text alert, as follows:

COMAH Alert - An incident has occurred at xxxx in Severnside, please follow the Go In, Stay In, Tune In advice from the COMAH leaflet or activate your response plan as appropriate.

xxxx = the company name of the person making the request

3.2.2.1 Warning Vulnerable People

Buckley Court is a Bristol City Council managed sheltered housing scheme in Henbury. The scheme houses a number of deaf and hard of hearing tenants who have registered for the Gov.UK Notify COMAH Alert service. A test COMAH Alert is texted out at 3pm on the 3rd day of each month to coincide with the testing of the Severnside Sirens. In an emergency, following a request for the alert to be sent, those registered for this service will receive the COMAH Incident Alert message.

3.3 On-going information during the incident

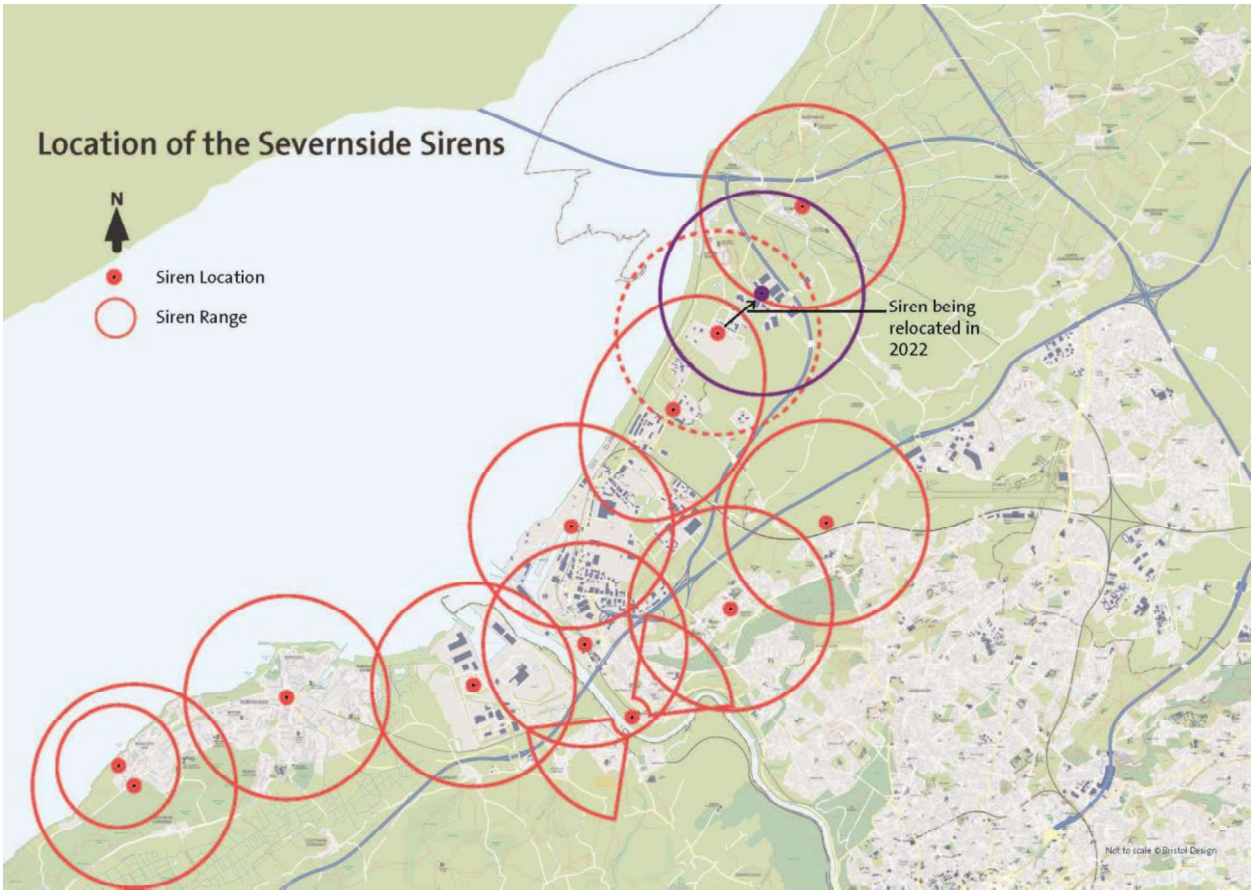
The media will have a significant role in keeping the public informed and any further warnings or information will be advised through the same arrangements used / outlined in the ASLRF Media and Communications Guide and should follow UKHSA advice.

Telephone help lines and live web sites may also be used to provide general information and advice to the media and the public. If help lines are established, numbers will be released through the media, posted on organisation's websites and through social media feeds.

Depending on the nature of the incident, the information may include:

- Advice on health protection
- Recommendations to stay indoors, or
- Evacuation arrangements

Annex A to Section 3: Map of the Sirens



Annex B to Section 3: Initial Media Statement

EMERGENCY MESSAGE TO PUBLIC

At ..... am/pm* today there was an incident at ..... (*site name, location address**)

If you are in a car do not drive past the site. If necessary, stop safely and listen to this message.

(If the sirens have been sounded)
The Severnside Sirens have been sounded in the area for a brief time as a warning to all members of the public around the site to take immediate shelter indoors.

Staff at …… (*site name**) and the emergency services are working together to resolve the incident. There will be a further update on the situation as soon as possible.

In the interests of your own safety the Police and Fire & Rescue Service urge everyone in the area to comply with the following instructions:

GO IN – STAY IN – TUNE IN

GO IN Go Indoors. If you are in a building stay indoors.
Close all windows and doors.
Do not collect children from school: they will be properly cared for.

STAY IN Stay away from windows, curtains and doors.
Switch off any ventilation and heating appliances.
Stay Calm. Extinguish all flames. Do not relight. Do not smoke.
If you are in a vehicle do not use the roads around
……. *
Road diversions will be put into place as soon as possible.

TUNE IN Follow the instructions given by the emergency services.
Wait inside until the all clear is given or you are given other advice.
Stay tuned to local radio for further information and please remain calm.

* Complete or delete as necessary.

4. Recovery

4.1 General

Response and recovery are not discrete activities that occur sequentially. Recovery aspects will need to be considered during the response phase of an incident, as actions taken (or not taken) at that time will have an impact on the eventual consequences. At some point, however, the emergency response phase will come to an end and the main focus of activities will move to those of recovery and clean-up.

This part of the plan, therefore, simply outlines the arrangements that will be put into place to co-ordinate these activities where the incident has affected areas beyond the site boundary. Some guidance is also provided on issues that are specific for the recovery from incidents involving COMAH sites.

Recovery is defined as:

> *The process of rebuilding, restoring and rehabilitating the community following an emergency.*[4]

The affected Council will lead the Recovery, establishing a Recovery Co-ordinating Group (RCG) as detailed in their respective Recovery Plans.[5]

A Strategic Recovery Co-ordinating Group (SRCG) will be established, as outlined in the ASLRF Strategic Recovery Plan, to consider the evolving consequence management issues of recovery for the affected area.

4.2 Key Recovery issues for COMAH incidents

4.2.1 General

Key issues that are specific for the recovery from incidents involving COMAH sites will be centred on public health and environmental issues.

To assist the RCG, this section has been drawn up to outline some of the specific environmental issues that may need to be addressed arising from the direct results of a fire, explosion, or toxic release and the indirect results from the interventions and mitigation measures that were used to deal with them. Issues relating to public health and the media have been considered in earlier sections of this plan and other fundamental aspects are considered more fully in each Council's Recovery Plan.

4.2.2 Assessment of Effects

A key factor in the recovery following an incident at a COMAH site will be in establishing the extent of the physical recovery that will be needed. An ICEPOLE[6] analysis should be conducted to determine the effects and knock-on implications from the incident. The following methods may also assist this process:

- Plume modelling to predict the likely area affected
- Survey of the area
- Environmental monitoring and sampling
- Mapping of results

[4] "Emergency Response and Recovery Guidance" HM Government Cabinet Office.
[5] Bristol City Council and South Gloucestershire Council have their own recovery plans. These will be activated upon notification of an incident. Both plans align with the multi-agency approach as stated in the ASLRF Strategic Recovery Guide.
[6] Infrastructure, Community, Economic, Political, Organisational, Legal and Environmental

It is important to consider the impact on the environment, contaminants may have spread into local water and food supplies, which could cause secondary public health hazards.

The impact on food and water supplies should be considered throughout the response and if found to be contaminated should be treated - public advice on drinking / eating local produce will be required.

4.2.3 Firewater Containment

A number of potential incidents at COMAH sites will involve the application of large quantities of water or foam in firefighting or containment / mitigation measures e.g. knockdown or cooling sprays. Therefore, firewater run-off will need to be planned for.

Most of the COMAH sites have a limited holding capacity on site and will then need to use private contractors to remove contaminated water from site to a temporary storage facility or disposal site. Sites that do not have this capacity have identified measures to prevent water from entering the drainage system (see individual site details in Part 2: Site Specific Information for firewater containment measures).

Where the existing site containment and management systems for firewater run-off are considered inadequate for the incident, a plan to contain firewater run-off will need to be agreed at the earliest opportunity by the site operator, AFRS, and the Environment Agency. Temporary storage may have to be identified, to allow decisions to be made about effective and safe disposal.

Work has been carried out through the Severnside Emergency Planning Forum to address this issue and the following may be considered as possible options if site drainage and containment systems are overwhelmed:

- Mutual aid from another site, utilising available storage on another site as a temporary measure
- Arrangement of temporary storage at the Augean Treatment site
- Arrangement of short to medium term storage by Augean Treatment
- Temporary storage at the Wessex Water site, Kingsweston Lane (weather dependent)
- Temporary storage at local agricultural facilities is a possibility, (the Environment Agency can provide advice on whether the receiving site is suitable)

Critical factors in deciding which of the above options could be used are:

- The weather conditions at the time
- Capacities required to be contained
- Availability of tankers for transport
- Augean Treatment have existing arrangements with tanker companies and may be able to arrange some transport at short notice
- Proximity of affected site to temporary storage facilities

4.2.4 Decontamination and Clean Up

The need and ability to decontaminate will vary considerably depending on the type of area affected, the type of substance released (including its stability and persistence), and the level of contamination.

Decontamination options include leaving for natural weathering and washout, dilution & wash down, treatment with neutralising agents, grass cutting, removal of topsoil and foliage, etc.

Factors affecting the choice of option include its effectiveness, cost, monitoring capability, knowledge of risks about the contaminant (i.e. what is a safe level), public confidence, environmental impact from the decontamination process itself, disposal options, and timescales to return the area back to use. Effective liaison with Insurance companies from the COMAH site(s) involved in the incident will also be vital on this issue.

(List of possible contractors: Ambipar Response, Oil Spill Response Ltd (OSRL), Augean Treatment, Veolia, Viridor.)

4.2.5 Other considerations

The following are issues that may also need to be considered:

- Transport & disposal of waste etc
- Sampling & analysis capability / monitoring
- Security / safety of affected site / area
- Health & Safety

5. Environment Information

5.1 Introduction

The natural and built environments play a major part in the social, economic, and environmental wellbeing of the local community. The information given in this section is generic to Severnside and should be used in the context of any incident that takes place in the area. The information will need to be considered in terms of deciding which mitigation measures to take as well as providing valuable information for the recovery process in identifying what may have been affected by an incident. This information is intended to supplement that given in individual site safety reports.

The environment comprises air, water, soil, flora & fauna and built features. It includes those features, which have protected designated or controlled status. The Environment Agency has access to detailed information about the area around Severnside, such as information on Sites of Nature Conservation Interest and Water Abstraction Locations.

5.2 Natural Environment

Severnside is generally flat being almost wholly within the flood plain of the River Severn and is drained by a historical rhyne system resulting in a characteristic wetland landscape and ecology. Undeveloped areas are predominantly in agricultural use. The environmentally significant Severn Estuary lies to the west at the mouth of five major rivers.

5.2.1 The Severn Estuary

The Severn Estuary is one of the largest in Britain with an extremely large tidal range which, combined with its funnel shape, creates a unique, highly dynamic environment. It is Britain's biggest coastal plain estuary and has the fourth largest intertidal sand and mudflats in Britain. The geology is diverse and reveals past changes in sea level, climate and river flow. It supports a wide range of habitat types including an inter-tidal zone of mudflats, sand banks, rocky platforms, saltmarsh and reefs, making it one of the most important areas in Britain. The estuarine fauna includes internationally important populations of wildfowl and interesting invertebrate and fish. It is classified as a Site of Special Scientific Interest (SSSI), a Special Area of Conservation (SAC), a Special Protection Area (SPA) and a Ramsar site.

Vegetation: The vegetation of the Severn Estuary is very diverse and shows a range of interesting features. The more sheltered mud and sandbanks support beds of eelgrass whereas the estuary fringes support a large range of saltmarsh types. The distinction between the two habitat types is variable with gradual and stepped transitions between the bare mudflat and upper marsh types. Several nationally rare or notable species are present.

Birds: The Severn Estuary is a major migration route in the spring and autumn with the birds tending to follow the shorelines of the estuary. It is also of international importance for wintering and passage wading birds, with total winter populations averaging around 44000 birds, although significantly more can be present during severe winters (79,445[7]). The SSSI, SPA, SAC and Ramsar support most of the estuary's internationally important Curlew and Redshank populations, along with most of the nationally important Ringed Plover and Grey Plover populations. Significant numbers of other waders including Common Snipe, Knot, Whimbrel and Turnstone can also be found within the estuary. They tend to use the foreshore of the Avonmouth Industrial Area and Portbury Dock Area. The Severn Estuary is internationally important for Dunlin supporting around 7.5% of the British wintering population of the species. The estuary as a whole supports 10.5% and is the single most important wintering ground for Dunlin in Britain.

[7] The SPA wintering waterbird assemblage (5 Year Peak Mean: 2012/13 to 2016/17) is 79,445 birds

In the winter and early spring the Severn Estuary supports nationally important numbers of Shelduck and significant numbers of Wigeon. The industrial area contains large flocks of Feral Pigeon and winter roosts of Starlings. These attract numerous Sparrowhawks and the rarer Peregrine Falcon, which nests in the Avon Gorge.

Fish: The Severn Estuary supports several species of migratory fish moving between the sea and rivers. There are large numbers of Salmonids, which swim in from the sea to spawn in fresh waters. They can be found between April and October and tend to swim near the surface of the water along the edge of the coastline. A number of eel species can be found including the Common and Silver Eel. They normally swim into the estuary between January and May and can be found on the return journey for spawning in the sea towards September through to November. Other species including Sea Trout, Sea Lamprey, Lampern (or River Lamprey), and Shad including the nationally rare Twaite Shad can be found.

Invertebrates: The Severn Estuary experiences very variable tides resulting in fluctuating salinity and high turbidity. These conditions tend to limit the benthic invertebrates to a few tolerant species, however they can be found in high densities on the stable mudflats. The most prominent species are Ragworm, Lugworm, Baltic Teilin and the spire shell. A greater variety of invertebrates can be found in the more stable environment offered by the inter-tidal rock platforms, and rock pools with high seaweed coverage.

A table showing the different species and their designated features can be found in Annex A to Section 5: SAC, SPA and Ramsar Designated Features.

5.2.2 River Avon

The River Avon traverses Bristol from east to west, flowing through the Avon Gorge, and is largely surrounded by urban areas. The area around the mouth of the River Avon is part of the Severn Estuary designated SSSI. The habitats range from a tidal saline region in the west, where the Avon has its confluence with the Severn Estuary, through brackish conditions and then to freshwater through the City.

Vegetation: The saltmarsh communities include Curled Dock, Sea Aster, English Scurvy grass and common Saltmarsh-grass. Two nationally scarce plants are also present – Slender Hare's-ear and Long–stalked Orache. Further inland the diverse bankside flora includes Viper's Bugloss, Dittander, Wild Mignonette, Flattened Meadow-grass and Good King Henry.

5.2.3 Special Protection Areas (SPA)

These are areas that are aimed at conserving internationally important wild bird species listed in Annex 1 of Council Directive 79/409/EEC. In the Severnside area, the only site that has been designated as a Special Protection Area is the Severn Estuary. The SPA is of importance during the spring and autumn migration periods for waders moving up the west coast of Britain, as well as in winter for large numbers of waterbirds, especially swans, ducks and waders.

The SPA includes saltmarshes and the adjacent extensive areas of intertidal mud, sand and rocky shores. All these habitats provide essential food and resting places for the wide range of wintering and migratory waterfowl and are therefore identified as key "supporting habitats" for the conservation of these species.

5.2.4 Special Areas of Conservation (SAC)

The Severn Estuary has been designated a SAC on the basis that it supports occurrences of habitat types and species listed in Annexes I and II respectively of the Habitats Directive that are considered important in a European context. The designation includes an overarching "estuaries" feature within which sub tidal sandbanks, intertidal mudflats and sand flats, Atlantic salt meadows and reefs (of Sabellaria alveolata) and three species of migratory fish are defined as both features in their own right and as sub-features of the estuary feature.

In addition hard substrate habitats including eel grass beds, the estuary-wide assemblage of fish species and the assemblage of waterfowl species (for which the Ramsar Site and SPA are specifically designated) are identified as notable estuarine assemblages which are an intrinsic part of the estuary ecosystem – these are therefore covered by the "estuaries" feature.

5.2.5 Ramsar Sites

These are sites listed as having international importance under the Convention on Wetlands (the Ramsar Convention) 1973, to conserve wetland habitats. They are also designated as SSSI. The qualifying interest features of the Severn Estuary Ramsar Site overlap with those of the Severn Estuary SPA and SAC.

5.2.6 Sites of Nature Conservation Interest (SNCI)

The Greater Bristol Nature Conservation Strategy 1991 brought together information from a variety of sources, including scientific research on particular habitat types and field survey data, and identified all known 'Sites of Nature Conservation Interest' (SNCI) in the greater Bristol area. They range from internationally and nationally designated sites e.g. SPA, SSSI, to County Sites of Importance for Nature Conservation, Nature Reserves managed by the Wildlife Trust and other sites which are of local importance due to their special significance as wildlife habitats in the urban environment, their value to local communities, or other reasons related to their local context.

There are 20 sites in the area, including the Severn Estuary, which are all listed in Annex B to Section 5: Sites of Nature Conservation Interest (SNCI). Further details are found at the Bristol Regional Environmental Records Centre, which store environmental information and surveys / studies etc., for the ex-Avon area.

5.2.7 Regionally Important Geological/geomorphological Sites (RIGS)

There is one RIGS site in the area, which is a clay pit at the Severn Valley Brickworks. It is located at grid reference ST 538 817.

5.2.8 Wildlife

Of particular importance are the Water Vole and the Badger. Badgers are a protected species and therefore the precise locations of setts are confidential. Other European Protected Species present in the area include the Great Crested Newt, Bats and Dormice.

5.2.9 Water Quality

The Environment Agency (EA) is responsible for the area of estuarine waters and fresh waters adjacent to Severnside. The quality of individual lengths of rivers and estuaries is currently reported according to the classification schemes introduced by the former National Water Council (NWC).

The estuary around Avonmouth receives a number of discharges including sewage and trade effluent, and site drainage from industrial premises, which affects its quality. Under the current tidal waters classification system the area of interest is classified as fair (B).

The upper and lower stretches of the Severn estuary are of good estuarine quality, classified as A. The Swash Channel which flows through Bristol is classified as estuarine waters and is graded B.

5.2.10 Ground Water[8]

The area is designated as a Non Aquifer area generally considered as containing insignificant quantities of groundwater.

[8] For up-to-date locations and contact details for Water Abstractors please contact the Environment Agency.

5.3 Built Environment

This comprises listed buildings, ancient monuments and other significant structures. The Severn Bridge and Second Severn Crossing span the River Severn. The built environment also includes essential supply services such as water supply, treatment and sewerage systems. Within the area there is a sewage treatment works, located at grid reference ST 534 795.

5.3.1 Avonmouth and Severnside Enterprise Area

The Avonmouth and Severnside Enterprise Area is an industrial location of internationally significant scale, extending for 5 miles along the Severn Estuary and covering some 1,800ha. The area is located between Bristol and the River Severn, immediately adjacent to the M5 and M49 motorways. It consists of two main areas of economic activity – Avonmouth in the south and Severnside in the north.

Avonmouth and Severnside is an area of large-scale industrial, warehouse and distribution, energy and waste processing facilities, in addition to the activities of the port and its associated storage and distribution facilities and associated industries.

5.3.2 Conservation Areas

There are two conservation areas within approximately 4km of the COMAH sites and these are located at:

- Shirehampton – Consisting of the area around the village green in the centre of Shirehampton and the Lamplighters near the Portway.
- Kingsweston and Trym Valley – Consisting of the ridge of land linking Shirehampton and Henbury and includes Kingsweston House and Blaise Castle House estates.

5.4 Flood Plains

The Severn Estuary has the second largest tidal range in the world with a mean spring tidal range of 12.3 m (at Avonmouth). The coupling of the large catchment and high tidal range means that at times of heavy rain, flooding has been a problem in both historical and recent times. The risk of tidal flooding is greatest from September to April.

The depth of inundation will depend on: the length of the breach, whether the sea defences could be repaired before the next tide, and the amount of rainfall in the previous 24 hours, etc. The 15,600 ha of land lying below low tide level from Gloucester to Bleachley on the west and Avonmouth on the east, are protected by 100 km of sea/tidal defences. These sea/tidal defences, which have to cope with the exceptional tidal range, are constructed to a nominal 1 in 200 year standard.

The Meteorological office operates a National Storm Tide Warning Service. The Environment Agency use this information, together with meteorological forecasts and its own network of tide level gauges, to forecast flooding problems and to inform maritime Local Authorities or emergency services who may be affected.

Drainage of the estuary lowlands on the west and east is a problem due to low ground levels, tide-lock, slack gradients and “foreign water” drainage from the extensive uplands that back them. The drainage of the area adjacent to the COMAH sites is the responsibility of the Lower Severn Drainage Board. The water in the drains or Rhynes on these estuary lowlands is eventually discharged to the Severn via flapped outfalls, i.e. these are closed when the estuarine water is at a higher level.

Each of the COMAH sites has put in place some measures to mitigate the impact of flooding on their site activities, resources and personnel. Please refer to the site-specific information in Part 2, which covers this in more detail.

Annex A to Section 5: SAC, SPA and Ramsar Designated Features

Features		Designation		
		SAC	SPA	RAMSAR
Habitats	Estuaries	x		x
	Atlantic saltmeadows	x	*sub feature*	x
	Intertidal mudflats and sandflats	x	*sub feature*	x
	Reefs (Sabellaria alveolata)	x		
	Subtidal sandbanks	x		
	Hard substrate habitats (rocky shores) and eel grass beds	*sub feature*	*sub feature*	x
Fish Species	Eel			x
	River Lamprey	x		x
	Salmon			x
	Sea Lamprey	x		x
	Sea Trout			x
	Twaite Shad	x		x
	Allis shad			x
Birds	Bewick's Swan (Tundra swan)		x	x
	Curlew		assemblage	assemblage
	Dunlin		x	x
	Pintail		assemblage	assemblage
	Redshank		x	x
	Ringed plover		assemblage	assemblage
	Shelduck		x	x
	European white-fronted Goose		x	x
	Gadwall		x	x
	Lesser black-backed gull			x
	Spotted Redshank		assemblage	assemblage
	Whimbrel		assemblage	assemblage
	Grey Plover		assemblage	assemblage
	Tufted Duck		assemblage	assemblage
	Potchard		assemblage	assemblage
	Widgeon		assemblage	assemblage
	Teal		assemblage	assemblage
Assemblages	Fish species[9]			x
	Waterfowl[10]		x	x
	Assemblage of vascular plants species			

[9] The SAC fish assemblage includes migratory species, estuarine specialists and the more typically marine and freshwater species.

[10] Key supporting habitats for the waterfowl assemblage; Intertidal mudflats and sandflats, Saltmarsh, Hard substrate habitats (rocky shores).
Key intertidal invertebrate prey species of the waterfowl assemblage eg. Arenicola, Carcinus, Corophium, Crangon, Gammarus, Hydrobia, Macoma, Hediste, Notomastus and Talitrus spp. - these lists are examples and are not exhaustive.
Key saltmarsh food plants eg. Puccinellia maritima, Salicornia spp., Agrostis stolonifera, Atriplex spp., Hordeum marinum, Festuca rubra, Alopecurus bulbosus, Lolium perenne - these lists are examples and are not exhaustive.

Annex B to Section 5: Sites of Nature Conservation Interest (SNCI)

Grid ref.	Name
556738	Avon Gorge and Leigh Woods
548777	Blaise Castle Estate
566742	Clifton and Durdham Downs
543766	Crabtree Slip Wood
496771	Drove Rhyne and adjacent fields
513761	Field East of Court House
517763	Field East of M5, Lodway
551783	Greenhill Plantation
562780	Henbury Golfcourse
511774	Land adjacent to Royal Portbury Dock
516771	Land adjacent to Severn Estuary SSSI (Portbury)
557789	Moorgrove Wood and Fields
586818	Over Court
484770	Portbury Wharf Nature Reserves
524812	Severn Estuary SSSI - New Passage to Chittening Warth
542769	Shirehampton Golf Course and Park
538776	The Tump
545779	Thirty Acre Wood
544765	Three Acre Covert and Portway Gardens
550761	Trym Valley

6. References

6.1 List of Abbreviations

Abbreviation	Description
ASLRF	Avon & Somerset Local Resilience Forum
CBRN	Chemical, Biological, Radiological, Nuclear
CHEMET	Chemical Meteorology
COMAH	Control of Major Accident Hazards
DEPO	Duty Emergency Planning Officer
ECC	Emergency Control Centre
EMARC	Environment Monitoring and Response Centre (Met Office)
FCP	Forward Control Point
HART	Hazardous Area Response Team (SWAST)
HAZMAT	Hazardous Material
HSE	Health and Safety Executive
JESIP	Joint Emergency Services Interoperability Principles
MERIT	Medical Emergency Response Incident Teams
METHANE	Major Incident Declared? Exact Location, Type of incident, Hazards, Access, Number and severity of any casualties, Emergency services present and those required
MHCLG	Ministry of Housing, Communities & Local Government
PSD	Petroleum Storage Depot
RCG	Recovery Co-ordination Group
RIGS	Regionally Important Geological Sites
RVP	Rendezvous Point
SAC	Special Area of Conservation
SCC	Strategic Co-ordination Centre
SCG	Strategic Co-ordination Group
SNCI	Sites of Nature Conservation Interest
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
STAC	Science and Technical Advice Cell
SWAST	South Western Ambulance Service Foundation Trust
TCG	Tactical Co-ordinating Group
UKHSA	UK Health Security Agency (formerly Public Health England - PHE)

6.2 Glossary

Term	Description
Category 1 Responder	A person or body listed in Part 1 of Schedule 1 to the Civil Contingencies Act 2004. These bodies are likely to be at the core of the response to most emergencies. As such, they are subject to the full range of civil protection duties in the Act.
Category 2 Responder	A person or body listed in Part 3 of Schedule 1 to the Civil Contingencies Act 2004. These are co-operating responders who are less likely to be involved in the heart of multi-agency planning work, but will be heavily involved in preparing for incidents affecting their sectors. The Act requires them to co-operate and share information with other Category 1 and 2 responders.

Term	Description
CHEMET	A Met Office service providing weather forecast, guidance and data plus prediction(s) of plume behaviour in the event of an incident involving hazardous chemicals. The plume can be made up of any chemical constituent: visible / invisible gas, particulates, smoke, etc.
Civil Contingencies Act 2004	Act which established a single framework for Civil Protection in the UK. Part 1 of the Act establishes a clear set of roles and responsibilities for Local Responders; Part 2 of the Act establishes Emergency Powers.
Control of Major Accident Hazards Regulations 2015 (COMAH)	Regulations applying to the chemical and other industries (including some facilities for the production and/or storage of explosives and nuclear sites) where threshold quantities of dangerous substances are kept or used.
Cordon	Naturally de-lineated or improvised perimeter indicating an area of restricted access.
(Designated) Receiving Hospital	Hospital designated by a Strategic Health Authority as suitable for receiving injured persons from an emergency.
Domino Group	Groups of COMAH sites where the likelihood or consequences of a major accident may be increased because of the location and close proximity of other COMAH sites and the dangerous substances present there.
Forward Control Point / Post (FCP)	Any service's command and control facility nearest the scene of the incident, responsible for immediate direction, deployment and security. This might be either an Operational or Tactical facility depending on the circumstances of the incident.
FireMet	The FireMet indicates the expected downwind hazard sectors for a plume from a known source plus other relevant weather details. Provides early plume information until a CHEMET is available.
Hazardous Area Response Team (HART)	HART is the specialised team of Service staff who have been trained to administer lifesaving medical care in hostile environments, such as, industrial accidents, natural disasters, terrorist incidents and CBRN/HAZMAT incidents. They are capable of delivering this care whilst using a range of Personal Protective Equipment which is not normally available to Ambulance Personnel.
Incident Control Point	The point from which the Tactical Commander of an emergency service can control that service's response to an incident.
Lower Tier COMAH Site	Sites with quantities of qualifying substances equal to or greater than the lower threshold in Schedule 1 of the Control of Major Accident Hazards Regulations 2015.
Major Accident Definition from The Control of Major Accident Hazards Regulations 2015	An occurrence such as a major emission, fire or explosion resulting from uncontrolled developments in the course of the operation of any establishment to which these regulations apply, and leading to serious danger to human health or the environment (Whether immediate or delayed) inside or outside the establishment, and involving one or more dangerous substances.
Major Incident Definition from the Cabinet Office July 2016	An event or situation, with a range of serious consequences, which requires special arrangements to be implemented by one or more emergency responder agencies.

Term	Description
Marshalling Area	Area to which resources and personnel not immediately required at the scene or being held for further can be directed to stand by.
Operational	The level (below Tactical level) at which the management of 'hands-on' work is undertaken at the incident site or associated areas.
Ramsar Sites	Sites listed under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1973, to conserve wetland habitats. They are also designated as SSSI
Rest Centre	Building, including overnight facilities, designated by the Local Authority for the temporary accommodation of evacuees.
Rendezvous Point (RVP)	Point to which all resources arriving at the outer cordon are directed for logging, briefing, equipment issue and deployment.
Site Operator	Operator of a site with quantities of qualifying substances equal to or greater than the upper threshold in Schedule 1 of the Control of Major Accident Hazards Regulations 2015.
Science & Technical Advice Cell	A sub-group of the Strategic Co-ordination Group established by UKHSA to provide strategic direction, co-ordination and assessment of health, scientific and environmental protection issues.
Severnside Emergency Planning Forum (SEPF)	The SEPF provides a forum to discuss the development and improvement of emergency arrangements in relation to COMAH. Membership of the forum is open to local emergency responders and COMAH sites in Severnside.
Sites of Special Scientific Interest (SSSI)	Land notified under the Wildlife and Countryside Act 1981. They are areas judged to be special on the basis of their plant or animal communities, geological features or landforms. They represent the basic minimum area of habitat that should be conserved to maintain the current range and distribution of native plants and animals.
Special Areas of Conservation (SAC)	Conserve the habitat types, animals and plant species listed under Council Directive 92/43/EEC.
Special Protection Areas (SPA)	Areas that are aimed at conserving bird species listed in Annex 1 of Council Directive 79/409/EEC. The Severn Estuary is designated as a Special Protection Area.
Strategic	The level (above Tactical level and Operational level) at which policy, strategy and the overall response framework are established and managed.
Strategic Co-ordinating Group	Multi-agency body responsible for co-ordinating the joint response to an emergency at the local strategic level.
Tactical	The level (below Strategic level and above Operational level) at which the response to an emergency is managed.
Tactical Co-ordinating Group	A multi-agency group of tactical commanders that meets to determine, co-ordinate and deliver the tactical response to an emergency.
Upper Tier COMAH Site	Sites with quantities of qualifying substances equal to or greater than the upper threshold in Schedule 1 of the Control of Major Accident Hazards Regulations 2015.

Part 2: Site Specific Information

COMAH Sites in Severnside

The COMAH sites located in the Severnside area covered by this plan are listed below. The detailed site-specific information for each site, which together form part 2 of this plan, are contained is separate files which are available on ResilienceDirect. Site file names as below:

Site File Name	Site	Activity	Local Authority
Part 2A - Augean	Augean Treatment Ltd (BS11 0YA)	**Lower Tier:** The facility recycles contaminated industrial solvents, oils and water. Wastewaters account for ≈75% of the total volume into the site which is treated before being discharged to foul sewer.	Bristol City Council Part of the **Bristol Domino Group**
Part 2B – Not Used			
Part 2C - Bristol Port Company	Bristol Port Co. W-Shed (BS11 9BN)	W Shed is a purpose built warehouse for the storage of various cargo commodities, including Ammonium Nitrate Fertilisers. **Non-COMAH** (currently deregistered Lower-Tier)	Bristol City Council Part of the **Bristol Domino Group**
Part 2D - Esso	Esso Petroleum Company, Limited (BS11 9BN)	**Upper Tier:** The site receives, stores and distributes petroleum-based products and Ethanol from road tankers. Products are stored in up to 19 storage tanks, each dedicated to a particular product. The tank farms are used to store Gasoline, Gasoil and Diesel products. Products are exported via tanker truck loading rack.	Bristol City Council Part of the **Bristol Domino Group**
Part 2E - Flogas	Flogas Britain Limited (BS10 7SQ)	**Upper Tier:** The site stores 17,000 tonnes of Liquefied Petroleum Gas (LPG) in one of three atmospheric storage tanks. The LPG is supplied via road tanker from UK refineries and leaves site via road tanker for use at other Flogas sites and customers throughout the country. The site also has consent to store two 22 tonne LNG road tankers under deluge.	South Gloucestershire Council
Part 2F - Hallen PSD	Exolum Pipeline System Ltd Hallen PSD (BS10 7SG)	**Upper Tier:** The facilities consist of two storage sites containing conventional protected semi-buried and mounded storage tanks, and inter-site pipelines together with a connection to Avonmouth and Royal Portbury docks. Aviation kerosene is stored and handled at the Petroleum Storage Depot (PSD).	South Gloucestershire Council

Site File Name	Site	Activity	Local Authority
Part 2G - Valero	Valero Logistics UK Ltd (BS11 9BT)	**Upper Tier:** The site receives refined petroleum products namely, Petrol, Diesel, Kerosene and Gas Oil, from ocean tankers that discharge within the Avonmouth docks, and Ethanol from road tankers. These products are stored on site and dispatched onto road tankers via an automated vehicle loading system.	Bristol City Council Part of the **Bristol Domino Group**
Part 2H - Yara	Yara UK Ltd (BS11 9HW)	**Upper Tier:** The site is used for the receipt, blending, packaging, storage, and despatch of packaged agricultural fertilisers, including Ammonium Nitrate.	Bristol City Council Part of the **Bristol Domino Group**

Domino Groups are groups of COMAH sites where the likelihood or consequences of a major accident may be increased because of the location and close proximity of other COMAH sites and the dangerous substances present there.

Hazardous Substances Index

Hazardous Substance Information for the following products can be found in the relevant site sections as follows: