



PREPARING FOR EMERGENCIES  
WHAT YOU NEED TO KNOW

**Explanation of columns**

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
Next consecutive number.	National risk reference number.	National risk definition along with the nationally defined scale.	What would this mean to Staffordshire if the event took place.	Impact Rating (see above).	Likelihood rating taking into account the mitigating factors listed.	Overall Risk Rating taking into account the mitigating factors listed (See above).	What is in place to minimise the likelihood and impact of this particular risk.

**Categories of Risk**

1. Industrial Accidents and Environmental Pollution
2. Transport Accidents
3. Severe Weather
4. Structural
5. Human Health
6. Animal Health
7. Industrial Technical Failure
8. Industrial Action
9. International Events
- T. Threats

## Staffordshire Community Risk Register

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<b>Industrial Accidents and Environmental Pollution</b>							
1	HL1	Fire or explosion at a Gas Terminal or involving a gas pipeline up to 3km around site causing up to 10 fatalities and up to 100 casualties.	<p>Possibility of large quantities of Gas escaping from damaged pipeline – potential of explosion and / or fire.</p> <p>In Staffordshire there has been no recorded incident of this nature.</p>	2	2	Medium	Product supplier have strict controls in place and pipelines are closely monitored, speedy response from, eg, TRANSCO or similar. The Fire & Rescue Service is well placed for immediate response in the event of an incident (has own gas monitoring equipment). The Staffordshire Major Accident Hazard Pipelines Emergency Plan has been recently reviewed (Sep 07).

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<b>Industrial Accidents and Environmental Pollution</b>							
2	HL2	Localised industrial accident involving large toxic release (eg, from a site storing large quantities of chlorine) up to 3km from site causing up to 30 fatalities and up to 250 casualties.	<p>Chlorine is a very toxic substance which when released is detrimental to health (individuals affected may not be readily realised) and has the potential of long term effects on the environment. Strict measures are in place to control the use and storage of Chlorine. Incidents involving the release of Chlorine are in the main small and are dealt with locally with Fire &amp; Rescue Service support.</p> <p>There have been no instances recorded to date in Staffordshire.</p>	2	2	Medium	<p>Health &amp; Safety Executive (HSE) Regulations, on site controls by company. Emergency Services well trained and equipped to deal with such events. Staffordshire Prepared Chemical, Biological, Radiological and Nuclear (CBRN) Plan in place, this plan outlines the actions to be taken in the event of an incident. The Fire &amp; Rescue Service is provided with mass decontamination equipment to deal with large scale incidents should they occur.</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
3	HL3	Localised industrial accident involving small toxic chemical release up to 1km from site causing up to 10 fatalities and up to 100 casualties.	There is a risk of a toxic release following an industrial accident, the potential is from any site manufacturing, handling, distributing or using chemicals. There have been a number of incidents within Staffordshire involving toxic releases, however these have been small and were confined to the immediate location, there were no fatalities but some incidents involved a small number of casualties.	2	2	Medium	Health & Safety Executive (HSE) Regulations, on site controls by company. Emergency Services well trained and equipped to deal with such events. Staffordshire Prepared Chemical, Biological, Radiological and Nuclear (CBRN) Plan in place, this plan outlines the actions to be taken in the event of an incident. The Fire & Rescue Service is provided with mass decontamination equipment to deal with large scale incidents should they occur.

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<b>Industrial Accidents and Environmental Pollution</b>							
4	HL4	Major pollution of controlled waters in Staffordshire. Pollution incident impacting on controlled waters (eg, could be caused by chemical spillage or release of untreated sewage) leading to persistent and / or extensive effect on water quality, major damage to aquatic ecosystems, closure of potable abstraction points, major impact on amenity (i.e., tourism) value, serious impact on human health.	<p>Major pollution of controlled waters, which includes groundwater, can occur as an accidental or deliberate illegal release of toxic, harmful or polluting matter in such concentrations and quantities that extensive (over several km) and persistent (over 7 days) damage occurs to the aquatic ecosystem and water quality (Environment Agency Category 1 Incident).</p> <p>In the Staffordshire Resilience Forum (SRF) area there have been 8 Category 1 Incidents impacting on water in the last 5 years. These include 5 slurry pollutions from farms, 3 chemical pollutions from the manufacturing industry, 1 diesel pollution from a train incident and 1 chemical pollution resulting from a RTA. There was 1 incident where the source and pollutant not identified. None of the events have had catastrophic effects (long term or permanent damage to water quality or loss of an abstraction or amenity value) but many could be classed as having a persistent effect because of the resulting fish mortality.</p>	2	5	Medium	<p>The Environment Agency actions incident Management Process Work Instructions and Guidance.</p> <p>Back up from 24 hour in-house laboratory service and Environmental Toxicology Advisory Service.</p> <p>Free phone incident report hotline. Inter-area / regional / national personnel and equipment support network.</p> <p>Robust call out and standby system. Method of Operation with other Category 1 responders and other organisations, eg, Food Standards Agency (FSA).</p> <p>Provision of pollution prevention equipment and training to the Fire &amp; Rescue Service.</p> <p>Site specific plans (e.g. COMAH).</p> <p>Relevant Environment Agency Pollution Prevention Guidance and Legislation.</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
5	H4	<p>Fire or explosion at a fuel distribution site or a site storing flammable and / or toxic liquids in atmosphere pressure storage tanks. Up to 3km around site causing up to 150 fatalities and up to 2000 casualties.</p>	<p>Could result in the disruption to air transport in the short-term until fuel supply redirected. Short-term regional excessive demands on health core services. Closure of roads in locality for a short period of time.</p> <p>Within Staffordshire there are a number of commercial / industrial installations that have the potential to cause issues as outlined above. The control measures in place enforced by the Health &amp; Safety Executive (HSE), relevant emergency plans, i.e., under the COMAH Regulations and the Fire &amp; Rescue Service being well equipped to respond to such incidents, affords a high degree of resilience and support.</p> <p>There are 3 top tier COMAH sites in Staffordshire (South Staffordshire, East Staffordshire and Stoke on Trent).</p>	3	1	Medium	<p>HSE Regulations, on / off site emergency plans, i.e., COMAH.</p> <p>All top tier COMAH site have off-site emergency plans, updated as necessary in conjunction with Staffordshire Civil Contingencies Unit.</p> <p>Staffordshire Fire and Rescue Service has procedures in place for dealing with incidents of this nature.</p> <p>All local authorities in Staffordshire have Rest Centre plans to deal with evacuated people and there is a Staffordshire Mass Transportation Plan.</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
6	HL7	Industrial explosions and major fires where the impact is up to 1km around site causing up to 20 casualties, some of a serious nature. Explosions would cause primarily crush / cuts and bruise type injuries, as well as burns.	Industrial explosions have the potential to cause serious damage to the surrounding area and may involve a number of casualties with varying degrees of injury. Major industrial fires have the potential to cause injury to workers and members of the public. Explosions and / or fires will have an effect on the environment to differing degrees. A number of major fires have occurred in Staffordshire over recent years. Fires that caused particular environmental problems, eg, Royal Ordnance Speciality Metals Ltd – Feb 99, Barloworld – Jul 05. Another notable incident in Staffordshire was 4 Jul 07 at Old Hamilton’s Building, Hanley.	3	2	High	<p>HSE Regulations, on / off site emergency plans, i.e., COMAH.</p> <p>All top tier COMAH site have off-site emergency plans, updated as necessary in conjunction with Staffordshire Civil Contingencies Unit.</p> <p>The Fire &amp; Rescue Service is proactive in identifying premises at risk, all industrial premises are on a database (FSEC) and an ongoing validation process is in place. In Staffordshire it has procedures in place for dealing with incidents of this nature.</p> <p>All local authorities in Staffordshire have Rest Centre plans to deal with evacuated people and there is a Staffordshire Mass Transportation Plan, a Media Plan. A Mass Transportation Plan and a Recovery Plan in place.</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
7	H7	Explosion at a high pressure natural gas pipeline. Likely impact would be local to site causing up to 200 fatalities and up to 200 casualties.	There are a number of underground gas pipelines in Staffordshire, the locations of which are not in the public domain. However, none of the arterial pipelines pass under or very close to any large population centres.	3	1	Medium	<p>The main vulnerability to this type of incident occurring will be as a result of excavation work. Control measures and prior investigation before excavation work commences will reduce further the risk. Main control systems by product supplier have the capability to reduce, divert or stop flow of product. Product supplier have strict controls in place and pipelines are closely monitored, speedy response from, eg, TRANSCO or similar.</p> <p>The Fire &amp; Rescue Service are well placed for immediate response in the event of an incident (has gas monitoring equipment).</p> <p>The Major Accident Hazard Pipelines Emergency Plan has been recently reviewed (2009).</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
8	H9	Large toxic chemical release impacting up to 3km from site causing up to 50 fatalities and up to 2000 casualties.	<p>This risk could result in environmental contamination with associated environmental impacts. Depending on the nature and extent of the contamination there could be impacts on air, land water, animal welfare, agriculture and waste management. This risk might require remediation and/or decontamination. Excessive demands on healthcare services locally both short term and long term. Water supplies might be at risk. Contamination of farm land could lead to avoidance of certain foodstuffs</p> <p>Whilst a release of toxic material as described above has the potential to take place and for the effects to be experienced up to 3km from point of release, the likelihood is reduced in Staffordshire due to the size of the manufacturing base being small when compared to those in Liverpool or Cleveland. Realistically the only sites that could impact on Staffs in this way are at Four Ashes (South Staffordshire) and Kingsbury (Warwickshire).</p>	3	1	Medium	<p>HSE Regulations, on site controls by company. Emergency Services well trained and equipped to deal with such events.</p> <p>Staffordshire Prepared CBRN Plan in place, this plan outlines the actions to be taken in the event of an incident and is presently being reviewed.</p> <p>COMAH Off-site emergency plan in place at the Four Ashes location</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
9	H11	<p>Accidental Release of Radioactive Material from Incorrectly Handled / Disposed of Sources. Up to 5 fatalities and up to 100 contaminated people requiring medical monitoring. Many worried people may present at hospitals. Radiation may be spread over a range of several kilometres but most concentration at the point of accidental release.</p>	<p>The main sources of accidental radioactive release would most likely be from hospitals, universities and vehicles travelling through Staffordshire carrying radioactive material. The extent to which the population and environment would be contaminated by radioactive material depends on:</p> <ul style="list-style-type: none"> <li>• The type of radiation received – Alpha, Beta or Gamma.</li> <li>• How much radiation has been received?</li> <li>• How fast the radiation dose was received.</li> <li>• The total area exposed.</li> </ul> <p>Radiation is split into 3 main groups (Alpha, Beta and Gamma Rays), Gamma Radiation is the most threatening as it is able to penetrate the skin and attack the bodies' internal organs. It will also continue to radiate on an individual who has become exposed to a source.</p> <p>There are no recorded incidents of this category in Staffordshire.</p>	2	1	Low	<p>All radioactive discharges in the UK are regulated under the Radioactive Substances Act 1993 to ensure that radioactivity discharged remains well within internationally agreed levels.</p> <p>A number of plans are in place including</p> <ul style="list-style-type: none"> <li>• Staffordshire Recovery Plan.</li> <li>• Media plan</li> <li>• Mass Transportation plan</li> <li>• Rest Centre Plan</li> <li>• Hazardous materials (HAZMAT) response plan (SFRS)</li> <li>• Acute and Primary Care Trusts plans.</li> <li>• Major Incident Procedures.</li> </ul>

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<b>Industrial Accidents and Environmental Pollution</b>							
10	H12	Biological substance release from facilities where pathogens are handled deliberately, eg, pathogens released from containment laboratory resulting in up to 10 fatalities and serious injuries or off-site impact up to 1,000 casualties.	<p>Persons are at risk from any biological substance release as a result of failure in control measures. The effects are varied depending on the bio hazard involved. Only one such location in Staffordshire that deals with the biological research. Keele University Sciences Department only use small quantities of biological substances that conform to containment level 2-3. Due to the very small quantities the threat level is very low.</p> <p>There are no reported incidents of this nature occurring in Staffordshire.</p>	1	1	Low	<p>Due to the small quantity of material used in research, the vulnerability and resilience linked to the control measures in place at Keele University, there is a very low risk to Staffordshire from this situation.</p> <p>The material used in research is in accordance with containment level 2-3 is small and strictly controlled, when not in use the material is locked in a double sealed cabinet.</p> <p>Staffordshire Prepared CBRN and SFRS HAZMAT Plans are in place, they outline the actions to be taken in the event of an incident and in the case of the CBRN Plan is presently being reviewed (2009).</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
11	H14	<p>Major contamination incident with widespread implications for the food chain, arising from:</p> <ol style="list-style-type: none"> <li>1. Industrial accident (chemical, microbiological, nuclear) affecting food productions areas, eg, Chernobyl, Sea Empress oil spill, animal disease.</li> <li>2. Contamination of animal feed, eg, dioxins, BSE.</li> <li>3. Incidents arising from production processes, eg, adulteration of chilli powder with Sudan 1 dye. Food production / marketing implications depending on scale and area affected, eg, major shellfisheries, dairy, livestock production areas. Food production / marketing implications depending on scale and area affected, eg, major shellfisheries, dairy, livestock production areas. Potential direct animal and consumer health effects. Consumer confidence affected leading to lost markets, and where staple products (eg, bread or milk) are affected, potential panic buying.</li> </ol>	<p>The majority of the contaminated food cases in the UK have been related to large outbreaks in particular groups on animals, such as BSE in cows and Foot and Mouth in hoofed animals.</p> <p>Staffordshire has a number of sites which have the potential to lead to contaminated food stuffs both in water and on land. The County has been involved in both the FMD outbreak of 2001 and the BSE crisis of 1996.</p> <p>Recent examples are: Recent evidence includes: Sudan I adulteration of chilli powder - 2005 E-coli outbreak in South Wales (1 fatality) - 2005 GMO contamination of American long grain rice – 2006 Salmonella contamination of Cadbury's chocolate - 2006 Guar gum from India contaminated with dioxins – 2007 Dioxin contamination of meat products from the ROI – 2008 Melamine contamination of dairy products from China - 2008 Salmonella in Spanish eggs – 2009</p> <p>There are a number of COMAH sites in Staffordshire that have the potential to contaminate the food chain. There are also a number of neighbouring counties that have facilities with the potential to impact on Staffordshire.</p>	2	2	Medium	<ul style="list-style-type: none"> <li>➤ COMAH Plans (off-site and on-site) Exercise Saredon (Feb 2008) which tested the multi-agency response to an incident on a top-tier COMAH site.</li> <li>➤ Staffordshire Prepared Plans.</li> <li>➤ Major Incident Plans.</li> <li>➤ Staffordshire Foot and Mouth Plan.</li> </ul>

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<b>Industrial Accidents and Environmental Pollution</b>							
12	HL25	Fire or explosion at a gas terminal as well as LPG, LNG and other gas onshore feedstock pipeline and flammable gas storage sites impacting up to 1km around site, causing up to 50 fatalities and 150 casualties.	<p>A gas terminal event is likely to be of short duration once feed lines are isolated; event at a storage site could last for days if the explosion damaged control equipment.</p> <p>There would be Impact on the environment, including persistent / widespread impact on air quality.</p> <p>There are a small number of sites in Staffordshire, all well controlled with good safety records. To date no incident of this nature has occurred in this area.</p>	3	1	Medium	<p>There is a Staffordshire Major Accident Hazard Pipelines Emergency Plan in place.</p> <p>Each location has plans laying down what action is required in the event of an accident and the Fire &amp; Rescue Service is well placed to respond to any incident that may occur.</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
13	HL28	Localised fire or explosion at a fuel distribution site or tank storage of flammable or toxic liquids impacting up to 1km around the site, causing up to 15 fatalities and 200 casualties.	The Impact would be on the environment, including persistent / widespread bearing on air quality. There is no fuel distribution site in Staffordshire; the nearest one being Kingsbury, Warwickshire (3km from county boundary). There is a top-tier COMAH site at Four Ashes and some other smaller storage sites in county. No incidents of this nature have been recorded in Staffordshire.	3	2	High	<p>There is a detailed COMAH off-site plan in place at Four Ashes which is regularly tested and exercised. (Last major live exercise February 2008)</p> <p>COMAH Regulations are enforced by the Health &amp; Safety Executive (HSE) and Local Authorities.</p> <p>Key Staffs Resilience Forum plans include Media, Humanitarian Assistance, Temporary Mortuary, Recovery, Rest Centre and Mass Transportation</p> <p>All Local Authorities have a Major Incident Plan in place and the Fire Service along with other blue light services is well placed to respond.</p> <p>All Category 1 Responders in Staffordshire have business continuity plans in place.</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
14	H5	Fire or explosion at an onshore fuel pipeline with an impact affecting up to 1km around site causing up to 100 fatalities and 500 casualties.	There is limited or no security in place for these pipelines which are well controlled with good safety records. The Fire & Rescue Service is well placed to respond to any incident that may occur.	3	1	Medium	<p>Restricted maps are available showing pipeline locations and the Fire &amp; Rescue Service is well placed to respond.</p> <p>Vulnerable points are already known and resilience is provided through multi-agency contingency planning.</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
15	HL30	Localised explosion at a natural gas pipeline causing up to 100 fatalities and up to 100 casualties.	Risk is based on the release point close to a populated (i.e., urban) area. There are more than one high pressure gas pipelines in various areas of Staffordshire.	3	1	Medium	<p>Gas Pipeline Plan in place. 24/7 emergency response from National Grid's Pipelines Maintenance Centre to any incidents.</p> <p>Staffordshire Fire &amp; Rescue Service has generic Standard Operational Procedures for all gas installations and is well placed to respond.</p> <p>Staffordshire Prepared Mass Transportation Plan and Local Authority Rest Centre plans in place to assist with evacuation if necessary.</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
16	HL33	Forest or moorland fire across up to 50 hectares. Evacuation of up to 100 residential homes required. Up to 5 fatalities and 20 casualties.	<p>Large area of moorland exists in the Peak District (North Staffordshire) and Cannock Chase (covering some 26 square miles in the south of the county). Both areas are open to the public all year round. They are not heavily populated but do attract significant numbers of visitors during holiday periods, especially during the summer months.</p> <p>In Apr 03 a number of moorland fires occurred, including a large one near Kinder Scout, Derbyshire, due to an extended dry period coupled with strong winds. No injuries were reported.</p> <p>Almost every summertime grass land fires occur in Cannock Chase where large areas of grassland are destroyed.</p>	2	2	Medium	<p>Peak Park Plan (Fire &amp; Rescue Service). Cannock Chase Fire Plan (Staffordshire County Council) in place.</p> <p>Staffordshire County Council has the power to shut the Chase during times of high risk to prevent visitors either accidentally causing fire or becoming victims in the event of such an occurrence.</p>

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<b>Industrial Accidents and Environmental Pollution</b>							
17	H46	Biological substance release during an unrelated work activity or industrial process, eg, Legionella release due to improperly maintained building environmental control systems. Up to 10 fatalities and serious injuries or offsite impact requiring up to 1000 casualties.	Numerous locations in Staffordshire which could be at risk including hospitals, factories, etc. An incident of this nature occurred in Apr / May 85 in Staffordshire. A Legionella outbreak resulted in 158 persons being hospitalised with 36 (23%) of these cases proving fatal. The most recent event of this nature occurring nationally was in Jul 02 in Barrow in Furness, resulting in 131 cases with 4 fatalities. This was caused by the inadvertent contamination of a cooling tower, hot and cold water system and evaporative condenser.	2	4	Medium	<ul style="list-style-type: none"> <li>• NHS Plans for dealing with a Legionella. Outbreak.</li> <li>• Regulations.</li> <li>• Surveillance Monitoring.</li> </ul>

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<b>Transport Accidents</b>							
18	HL9	Aviation accidents causing up to 50 fatalities and up to 250 casualties.	<p>Staffordshire lies between Manchester and Birmingham main international airports with East Midlands Airport and Wolverhampton Business Airport providing additional air traffic; as such Staffordshire is beneath the air corridor for air traffic travelling north prior to the Atlantic crossing and other London originating routes. Numerous smaller airfields within the county support light aircraft and glider activities.</p> <p>No specific incidents of this type and scale have occurred in Staffordshire.</p>	3	1	Medium	<ul style="list-style-type: none"> <li>Multi-agency Major Incident procedures in place.</li> <li>Aircraft accident / incident contingency plans in place.</li> <li>Plans in place to deal with potential malicious air activity.</li> <li>Back-up satellite communication development being progressed.</li> <li>Mutual Aid protocols established</li> <li>Regionally trained staff to same standard and methods. (SFRS, Police etc).</li> <li>Establishment of back-up communications between responders.</li> </ul>

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<b>Transport Accidents</b>							
19	HL10	Local accident on motorways and major trunk roads. Multiple vehicle incident causing up to 10 fatalities and up to 20 casualties (internal injuries, fractures, possible burns); closure of lanes or carriageways causing major disruption and delays.	<p>Immediate impact on transport network of Staffordshire if on an arterial route such as the M6, A500, A50, A5 or A38 – alternative routes may quickly become overwhelmed, unable to cope with the traffic increase.</p> <p>Access to the scene itself may be difficult for Emergency Services initially due to the scale of the incident and traffic backing up.</p> <p>Road closures.</p> <p>Immediate impact on local hospitals.</p> <p>Longer term effect on local, regional economy dependant on prolonged road closure.</p> <p>There have been many instances over the last five years where key routes such as the M6 have been blocked as a result of a serious road collision resulting in severe congestion to the local area.</p>	3	5	High	<ul style="list-style-type: none"> <li>• Regional motorway patrol co-ordination. CMPG with co-located control centre with the Highways Agency (HA)</li> <li>• Local Incident Management - Police response.</li> <li>• Multi-agency plans and exercises</li> <li>• Protocols and liaison with other agencies / operators – Highways, VOSA, etc.</li> <li>• VMS signs and other incident warning methods...</li> <li>• Effective communicating with the public through local media (eg, Radio Stations)</li> <li>• Off Network Tactical Diversion routes being established by the Highways Agency (HA).</li> <li>• Emergency Customer Welfare Strategy being developed by HA in conjunction with partners.</li> <li>• Strategies being developed for implementation of Emergency Access and Egress with HA Emergency Planners and Traffic Managers.</li> </ul>

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<b>Transport Accidents</b>							
20	HL11	<p>Railway Accident involving a collision at a railway station and / or line side location with up to 30 fatalities and up to 100 casualties (fractures, internal injuries – burns less likely). Possible loss of freight. Major disruption to rail line including possible closure of rail tunnel.</p>	<p>There are a number of major rail lines passing through the SRF area and a collision may result from a number of variables and no single specific source of such incidents can be statistically pinpointed. Past incidents (nationally) have arisen as a result of alleged defective infrastructure, defective railway vehicles and obstructions on the line (maliciously placed or otherwise) or collisions taking place on level crossings with road / agricultural vehicles.</p> <p>The last recorded incidents of rail crashes in Staffordshire were, firstly on 16 Oct 03 when a collision occurred at Norton Bridge, Stafford, between 2 freight trains. There were no injuries but considerable damage was caused to 2 locomotives and many freight cars. Considerable disruption was caused to rail traffic. Additionally on 8 Mar 96 a collision occurred when a collision occurred at Rickerscote, Stafford, between a freight train which had derailed and a travelling post office train. The accident resulted in the death an employee of Royal Mail working on the latter train.</p> <p>A very small number of incidents of this nature have occurred in the UK within the last 5 years.</p>	3	1	Medium	<p>There is a significant amount of legislation regulating the rail industry such as:</p> <ul style="list-style-type: none"> <li>• Railway and Transport Safety Act 2003.</li> <li>• Railways (Access and Management) Regulations 2005.</li> <li>• Railways (Accident Investigation and Reporting) Regulations 2005 (RAIRR).</li> <li>• Railways (Licensing of Railway Undertakings) Regulations 2005.</li> <li>• Railways Act 2005.</li> </ul> <p>There are agreed arrangements for a multi-agency response to major incidents in Staffordshire. .</p>

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<b>Transport Accidents</b>							
21	HL12	Local accident involving transport of hazardous chemicals. Up to 50 fatalities and up to 500 casualties (direct injuries from the accident would be similar to road or rail accidents; indirect casualties are possible, if substances cover wide area). The extent of the impact would depend on the substance involved, quality, nature and location of accident. The assumption is based on phosgene / chlorine.	<p>An incident such as this in Staffordshire would cause a primary impact at the scene itself and in addition, secondary impacts: physical impacts from the effects of the hazardous goods combined with the psychological doubt / fear caused by the spread of a "contaminate".</p> <p>There would be immediate impact on the transport network; if on an arterial route – alternative routes may quickly become overwhelmed, unable to cope with the traffic increase.</p> <p>There would also be immediate impact on the health department primarily from the incident but aggravated by concerned members of the public "self-presenting". Scene contamination would prolong investigation of the incident, impacting upon the speed of the return to normality within the areas affected</p> <p>No specific incidents of this type and scale have occurred in Staffordshire.</p>	4	2	High	<p>The Staffordshire Police will provide an immediate response to any incident of this nature. There are Multi-agency plans in place which are regularly reviewed and exercised.</p> <p>The Staffordshire Fire and Rescue Service (SFRS) are equipped with decontamination systems and equipment. They regularly train and exercise its use.</p> <p>The Staffordshire Prepared Media Plan has protocols in place to warn and inform the public through local the local media.</p> <p>Emergency Services and Local Authorities have Business Continuity Plans (BCP) should they be affected by the primary or secondary impacts.</p> <p>Local Authorities have a statutory duty to promote the benefits of BCPs to the private and business sector in Staffordshire.</p>

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<b>Transport Accidents</b>							
22	HL14	Local (road) accident involving transport of fuel / explosives resulting in up to 30 fatalities and up to 20 casualties within vicinity of accident / explosion. The area would require evacuating up to 1km radius depending on substance involved. Potential release of up to 30 tonnes of liquid fuel into local environment, watercourses, etc. Large quantities of fire fighting media (foam) would impact on environment. Roads and access routes impassable for a time. Emergency access into / out of large populated areas difficult or impossible.	There are high speed network roads that run throughout Staffordshire, all of which, at some point, are used for the transport off fuel / explosives. It is possible that one of these transport vehicles including the load may become involved in a RTC, the response in dealing with such an incident and associated outcomes will depend on the location, load involved (what and how) and number of casualties.	3	2	High	<p>There are strict regulations in place that control dangerous substances delivered by road, these include the construction and use of the road transport (Road Transport Regulations) the supplier(s) of the product are required to conform to regulations regarding the transportation of the particular product, these include information play cards displayed on the vehicle, load consignment information, etc. Due to the safeguards that are in place the risk so far as is practicably possible actively reduce the occurrences that involve the type of incident outlined above.</p> <p>The Emergency Services are equipped to respond and deal with this type of incident.</p> <p>Agreed Major Incident Procedures are in place.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Transport Accidents</b>							
23	H16	Aviation accident over a semi-urban area. Loss of up to 2 aircraft and passengers with debris over a semi-urban area. Up to 600 fatalities and up to 300 casualties.	<p>Staffordshire lies between Manchester and Birmingham main international airports with East Midlands and other airports providing additional air traffic. Staffordshire is beneath the air corridor for air traffic travelling north prior to the Atlantic crossing and other London originating routes. Numerous smaller airfields within the county support light aircraft and glider activities.</p> <p>An example of the potential consequences of such an incident in Staffordshire occurred at Lockerbie where 270 died and wreckage, debris and body parts were spread over 850 sq miles. Explosions caused by aircraft fuel resulted in a 500m<sup>3</sup> crater and displacement of 1500 tonnes of rubble, masonry and earth which fell in the surrounding area.</p> <p>No incidents of this type and scale have occurred in Staffordshire but it is worthy of note that the aircraft that crashed at Lockerbie actually flew over Staffordshire prior the incident.</p>	5	1	Medium	<p>Agreed Major Incident Procedures are in place amongst the emergency services. There are also plans in place to deal with potential malicious air activity.</p> <p>Mutual Aid protocols between Category 1 responders have been established.</p> <p>Emergency Services and Local Authorities have developed Business Continuity Plans (BCP) should they be affected by the primary or secondary impacts.</p> <p>Local Authorities also have a statutory duty to promote the benefits of BCPs to the private and business sector in Staffordshire.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Severe Weather</b>							
24	H17	Storms and gales affecting most of the county for at least 6 hours. Most inland, lowland areas experiencing mean speeds in excess of 55mph with gusts in excess of 85mph. Up to 50 fatalities and 500 casualties.	Storm force winds are associated with deep areas of low pressure normally seen during the winter months of Oct through to Mar. They typically fall within an unsettled spell of weather where a series of depressions run through the UK coming in from the Atlantic, hence often large amounts of rainfall or wintry conditions may occur in addition. The key month for widespread impact seems to be Oct. This is because trees are often still in leaf at the time of the storm and as a result lend more resistance to the wind leading to windblown debris and overturning of trees. This windblown debris then leads to blocking of some transport routes and further damage to property above and beyond that done by the strength of the wind alone. Although often 55mph and gusts of 85mph may occur in isolation during a winter storm especially over higher ground,. There has not been an incident fitting this criterion in Staffordshire within the last 5 years. Climate change may affect this Risk Assessment.	4	3	Very High	<p>First notification of this event will come from the Met Office, probably as an Early Warning with the National Severe Weather Warnings Service (NSWWS). Update warnings will also be received through the NSWWS. In addition radio and television broadcasts will carry forecasts for the general public.</p> <p>A number of key plans are in place in Staffordshire including Media, Humanitarian Assistance, Excess Deaths, Recovery, Rest Centres, Mass Transportation and Evacuation Plans.</p> <p>Also in place are responders' Business Continuity Plans, LA Major Incident Plans, Alternative communication systems are available e.g. RAYNET, satellite phone</p> <p>A Staffordshire Prepared Severe Weather Plan is to be developed (EA lead).</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Severe Weather</b>							
25	HL18	<p>Local urban flooding (fluvial or surface run off) A sustained period of heavy rainfall extending over two weeks, perhaps combined with snow melt, resulting in flash flooding and steadily rising river levels across entire counties could threaten a large urban town.</p> <p>Localised flooding of 1000 to 10,000 properties for 2 – 7 days. Up to 15 fatalities and 150 casualties. Up to 15,000 people evacuated. Up to 500 people stranded over a large area and in need of rescue. There would be a major impact on road and rail links, making them impassable for up to 5 days. Impact on infrastructure includes some building collapse, water damage, road and bridge damage. Sediment movement and contamination of water supplies. Loss of essential services (gas, electricity and telecoms) to 20,000 homes for up to 14 days.</p> <p>Widespread disruption for 7 – 14 days, significant debris and pollutants from affected businesses. Up to 1000 people needing assistance with sheltering for up to 12 months. Rural impacts include widespread livestock carcasses, waterborne disease. Sewerage treatment works flooded. Up to 50 properties destroyed and many more uninhabitable. Up to 2000 people needing assistance with sheltering for up to 12 months.</p>	<p>Such an instance in Staffordshire would most likely be caused by prolonged rainfall on saturated ground in river catchments, perhaps combined with snow melt which results in rivers or other watercourses overflowing their banks. It would result in widespread flooding, potential loss of life and devastation of property necessitating the implementation of a co-ordinated recovery plan.</p> <p>The most likely scenario is one that involves several breaches or areas of overtopping of the defences in Burton upon Trent and / or Tamworth, rather than total inundation. The Environment Agency estimate 1 in 100 year standard of protection flood defences in Tamworth and in Burton upon Trent.</p> <p>The most recent significant flooding in Staffordshire was in June and July 2007 where Fazeley, Elford, Kidsgrove and Kinver were affected.</p> <p>Although not specifically covered by this risk, it is important to note that the most likely locations are Burton (approximately 7500 properties) and Tamworth (approximately 2500). Climate change may affect this Risk Assessment</p>	4	3	Very High	<p>Staffordshire Emergency Flood Plan in place and tested through Exercise White Water 1 (2 – 4 November 2009) and 2 (11.12.09).</p> <p>Other key Staffordshire Multi Agency plans include Media, Humanitarian Assistance, Excess Deaths, Recovery, Rest centres, Mass transportation and town centre evacuation (most notably Burton)</p> <p>The Environment Agency (EA) Flood Warning Service including Flood Awareness system is in place. Flood mapping of possible breach scenarios and Improvement made to the flood defences in Burton upon Trent (Spring 06).</p> <p>Staffordshire Fire and Rescue Service and the EA have High Volume Pumps to be deployed to the scene of floods. In addition to the HVPs the fire service has two dedicated water rescue units located at Newcastle and Tamworth.</p> <p>There are regular multi-agency exercises of emergency plans.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Severe Weather</b>							
26	H18	<p>Low temperatures and heavy snow, with snow falling and lying over most of the area for at least one week and after an initial fall of snow there is further snow fall on and off for at least 7 days. Most lowland areas experience some falls in excess of 10cm, a depth of snow in excess of 30cm and a period of at least 7 consecutive days with daily mean temperature below -3°C. Up to 1000 fatalities and thousands of casualties, mainly amongst the elderly and there is likely to be some disruption to transport networks, businesses, power supply and water supply, and also school closures.</p>	<p>Most lowland areas experience some snow falls in excess of 30cm, some drifts in excess of 1m and in period of at least 7 consecutive days with daily mean temperatures below -3°C.</p> <p>This hazard is associated with a weather pattern termed as 'Blocked', Atlantic Depressions normally bringing periods of mild, wet and windy weather across the UK find their path blocked by a large area of high pressure (anticyclone) situated over northern Europe and typically Scandinavia. This anticyclone sends easterly winds across the UK which have their source often as far back as Siberia, hence it is very cold and normally dry. During this time, especially if snow cover exists, daytime temperatures soon begin to struggle to reach above freezing, whilst overnight those temperatures plummet to several degrees below freezing as soon as light begins to fade. During quieter spells patches of very dense freezing fog will occur but these tend to form near water sources. The rapid melting of significant amounts of snow may cause flooding.</p> <p>Staffordshire is vulnerable to this risk during the winter months although it has been some years since snow has been lying for over a month. A significant part of Staffordshire is rural in nature with</p>	3	4	High	<p>There is a system in place whereby the first notification of this event will come from the Met Office, probably as an Early Warning within the National Severe Weather Warnings Service (NSWWS). Major snowfalls throughout the period will also be warned through the NSWWS. In addition radio and television broadcasts will carry forecasts for the General Public.</p> <p>More information can be found at <a href="http://www.metoffice.gov.uk">www.metoffice.gov.uk</a>.</p> <p>Staffordshire has a number of key plans in place including: Media, Humanitarian assistance, Excess Deaths, Recovery, Rest Centres, Mass Transportation and Evacuation Plans.</p> <p>Responder organisations have Business Continuity Plans and Major Incident Plans,</p> <p>Local Authorities have Winter Maintenance Policies as well as Inclement Weather and Flexible Working Policies</p> <p>A Staffordshire Prepared Severe Weather Plan is to be developed (EA lead)</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
			a number of isolated communities who would be vulnerable to extended periods of snow. Remote parts of the Staffordshire Moorlands experience snow and cold weather slightly more frequently than other parts of the county. Climate change may affect this Risk Assessment				

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Severe Weather</b>							
27	HL19	<p>Local fluvial flooding. A sustained period of heavy rainfall extending over 2 weeks, perhaps combined with snow melt, resulting in flash flooding and steadily rising river levels within the region. Localised flooding 100 to 1000 properties for 2 – 7 days. Up to 5 fatalities and 50 casualties.</p> <p>There would be up to 5000 people evacuated and up to 200 people stranded over a large area and in need of rescue.</p>	<p>Most commonly caused by prolonged rainfall on saturated ground in river catchments, perhaps combined with snow melt which results in rivers or other watercourses overflowing their banks. It may lead to a minor inundation of properties and road closures or in widespread flooding, potential loss of life and devastation of property necessitating the implementation of a co-ordinated recovery plan.</p> <p>The main areas likely to be affected are in the River Trent / River Dove and River Stour catchments.</p> <p>Communities in the Trent catchment with more than 100 and less than 1000 properties at risk from flooding are Fazeley, Newcastle, Cannock (140), Stoke on Trent (170) and Stafford (300).</p> <p>Communities in the upper reaches of the River Trent and River Stour, River Dove and the lower reaches of the River Trent, plus all of their tributaries within Staffordshire are also at risk.</p> <p>Climate change may affect this Risk Assessment</p>	3	4	High	<p>Staffordshire Emergency Flood Plan in place and tested through Exercise White Water 1 (2 – 4 November 2009) and 2 (11.12.09).</p> <p>There is a robust system in place for Flood Warnings including Flood Awareness advice (EA).</p> <p>Staffordshire multi agency plans in place include Media, Humanitarian Assistance, Excess Deaths, Recovery, Rest Centre and Mass Transportation Plans. Local Authority Emergency Plans are also in place and regular exercising takes place.</p> <p>Staffordshire Fire and Rescue Service and the EA have High Volume Pumps to be deployed to the scene of floods. In addition to the HVPs the fire service has two dedicated water rescue units located at Newcastle and Tamworth.</p> <p>There are regular multi-agency exercises of emergency plans.</p> <p>Emergency Services and Local Authorities have Business Continuity Plans (BCP) should they be affected by the primary or secondary impacts.</p> <p>Local Authorities have a statutory duty to promote the benefits of BCPs to the private and business sector in Staffordshire.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Severe Weather</b>							
28	HL20	<p>Localised, extremely hazardous flash flooding. This would consist of heavy localised rainfall in steep valley catchments leading to extremely hazardous flash flooding. Likely that no flood defences would be in place. Probably no flood warning service available / or suddenness of event means timely flood warnings are not possible.</p> <p>Flooding of up to 200 properties.</p>	<p>Towns, villages and roads across Staffordshire with a high potential for flash flooding based on topography or historical incidents are those in the upland areas of the Staffordshire Moorlands, such as Waterhouses on the River Hamps. In this case, although there is an EA gauging station on the River from which flood warnings in Waterhouses are issued, a 2 hour lead in is often not possible on the River Hamps can react very quickly to rainfall. Other areas include communities at the head of river catchments, particularly in urban areas where surface water run-off is high, such as Stoke on Trent and steep rural areas such as the head waters of the Rivers Dove, Churnet and Tean. Areas also include Brewood, Eccleshall, Gnosall, Kidsgrove, Kinver, Codsall and Great / Little Haywood (It is unlikely that more than 200 properties would be affected in each location).</p> <p>May lead to a minor inundation of properties and road closures or potential loss of life and devastation of property necessitating the implementation of a co-ordinated recovery plan.</p> <p>Potential loss of life due to public in vehicles crossing fords with high flow velocities.</p> <p>An example of such an event was in Jul 04 during the flooding of Boscastle.</p> <p>Flooding similar to that on the North Yorkshire Moors in 2005 could be possible in the Staffordshire Moorlands.</p> <p>Climate change may affect this Risk Assessment</p>	3	3	High	<p>Staffordshire Emergency Flood Plan in place and tested through Exercise White Water 1 (2 – 4 November 2009) and 2 (11.12.09).</p> <p>A Staffordshire Prepared Severe Weather Plan is to be developed (EA lead).</p> <p><b>Environment Agency:</b> Local Flood Warning Plan for the Staffordshire Local Authority area. Flood Warning areas for the River Hamps, River Trent from Knypersley to Darlaston (covering the top of the River Trent), Lyme Brook (Newcastle under Lyme), Ford Green Brook (Stoke on Trent) – very little lead time provided for these. EA Community Warning Area in place in Waterhouses.</p> <p><b>Local Authority:</b> Local Authority Emergency Response Plans Regular exercising of emergency plans. Identification of rapid response catchments and implementation of appropriate warning systems.</p> <p>Local Authorities have a statutory duty to promote the benefits of BCPs to the private and business sector in Staffordshire</p> <p><b>Multi-Agency</b> Key multi agency plans in place include Media, Humanitarian Assistance, Excess Deaths, Recovery and Rest Centres</p> <p>Staffordshire Fire and Rescue Service and the EA have High Volume Pumps to be deployed to the scene of floods. In addition to the HVPs the fire service has two dedicated water rescue units located at Newcastle and Tamworth.</p> <p>Emergency Services and Local Authorities have Business Continuity Plans (BCP) should they be affected by the primary or secondary impacts.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Severe Weather</b>							
29	H48	Heat wave. Daily maximum temperatures in excess of 30°C and minimum temperatures in excess of 15°C over most of a region for at least 5 consecutive days.	<p>Climate change means heat waves are likely to become more common in England and may lead to water shortages.</p> <p>Statistically over the past 100 years, the mean temperature in Europe has increased by about 1.2°C.</p> <p>Staffordshire has a number of groups of people who are not in good health and could be at risk in the event of a heat wave.</p>	4	4	Very High	<p>The Met Office and Department of Health have in place a Heat Health Watch, operating from 1 Jun to 15 Sep. The system triggers the appropriate response when necessary.</p> <p>The Department of Health has a Heat wave Plan for England and has issued guidance for nursing homes and self help booklets for the general public.</p> <p>A Staffordshire Prepared Severe Weather Plan is to be developed (EA lead).</p> <p>Local health plans are in place laying down what actions they will take at the appropriate levels of the Heat Health Watch System. All Local Authorities have a major incident plan.</p> <p>All Category 1 Responders have Business Continuity Plans in place.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Severe Weather</b>							
30	H50	<p>Drought. Periodic water supply interruptions affecting large number of businesses in Staffordshire for up to 10 months. Emergency Drought Orders in place authorising rota cuts in supply according to needs of priority users as directed by Secretary of State. Households in Staffordshire would not be subjected to supply interruptions.</p>	<p>Periodic water supply interruptions affecting the county of Staffordshire Emergency Drought Orders in place authorising rota cuts in supply according to needs of priority users as directed by the Secretary of State. Schools, hospitals and the vulnerable may be affected.</p> <p>There have been no drought incidences of this nature in Staffordshire within the last five years. Climate change may affect this Risk Assessment</p> <p>Severn Trent Water is now abstracting drinking water from bore holes thus reducing the dependency on reservoirs.</p>	3	1	Medium	<p>Local Authority Severe Weather Warning Plans in place.</p> <p>A Staffordshire Prepared Severe Weather Plan is to be developed (EA lead).</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Structural</b>							
31	HL21	<p>Land movements (i.e. caused by tremors or landslides). Roads, access routes would become impassable for a time. Emergency access into / out of large populated areas would be difficult or impossible and there would be severe congestion over wide geographical area. Loss of power and other essential services over a wide area. Potential for a number of persons to be trapped or missing either in landslide itself and / or collapsed structures. Up to 5 fatalities depending on the size and location of land movement.</p>	<p>The hazard in Staffordshire is dependent on a number of factors: the location, i.e., has the area been undermined as a result of past coal mining activities? (There is a vast network of disused coal seams in certain areas of Staffordshire). This could arise due to geographical faults and / or underground springs washing away the substructure, or even due to a prolonged period of heavy rain or snow melt or a combination of these factors.</p> <p>Staffordshire experiences a number of tremors each year, fortunately they are of a minor nature and do not in the main, cause serious damage to property or the transport infrastructure. There have also been a small number of incidents that due to prolonged rainfall small landslides have occurred, resulting in some disruption of the transport infrastructure.</p>	2	1	Low	<p>The Coal Authority operate a 24 / 7 call out system whereby upon receiving a report of a coal mining hazard, will arrange for the site to be made safe, without consideration of responsibility.</p> <p>Should an occurrence be likely as the result of a sustained period of heavy rain the Fire &amp; Rescue Service has at its disposal a High Volume Pumping capability, which is able to move large quantities of water away from the identified potential hazard.</p> <p>The blue light services are equipped to respond and deal with such occurrences.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Structural</b>							
32	HL22	Building Collapse with a potential for a number of persons to be trapped or missing. Localised loss of power and other essential services. Local access routes affected due to road closures. Up to 5 fatalities depending on the size and construction of building and occupation rates.	<p>These incidents are most commonly caused by fires / explosions, vehicular impact, structural defects, severe weather conditions or lack of maintenance.</p> <p>These could lead to partial or full collapse of the building or such that it could happen in the near future so action is needed to prevent this happening. It is unlikely to lead to loss of life but this is not impossible. Closure of roads, the premises themselves and adjoining properties is much more likely.</p> <p>There are no specific areas in Staffordshire that are subject to a higher risk than the rest of the UK.</p>	2	2	Medium	<p>The Local Authorities in Staffordshire each have an Emergency Plan together with dangerous Structure Procedures and 24 / 7 call-out of experts and contractors.</p> <p>The Fire Service is well equipped to undertake the rescue of trapped persons.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Structural</b>							
33	HL23	Bridge Collapse resulting in roads, access routes and transport infrastructure becoming impassable for a considerable length of time with severe congestion over wide geographical area. Emergency access into / out of large populated areas severely restricted. Potential for a number of persons to be trapped or missing.	<p>Such incidents are rare and in Staffordshire this risk is considered to be low in terms of vulnerability. Bridges are deemed to be resilient in terms of construction and protection afforded.</p> <p>The most recent incident in the region was in Jun 07 when a bridge near to Ludlow (Shropshire) over the River Corve collapsed during heavy storms severing a gas main and necessitating the evacuation of several homes. Further afield, a Police Officer lost his life when a bridge he was standing on was swept away in Workington, Cumbria in November 2009.</p>	2	1	Low	<p>The Staffordshire Resilience Forum has key multi-agency plans in place including Media, Humanitarian Assistance, Temporary Mortuary, Recovery, Rest Centres, Mass Transportation and town centre evacuation plans.</p> <p>Local Authorities have Building Inspectors available to respond should any incidents occur where bridges are struck by traffic or there are concerns as to their safety.</p> <p>The Emergency Services are well equipped and have the capability to respond to any incident of this type.</p> <p>Staffordshire County Council has a Highways Business Continuity Plan which covers bridge maintenance procedures.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Structural</b>							
34	H44	Major reservoir dam failure or collapse without warning resulting in almost instantaneous flooding. Significant movement of debris (including vehicles) and sediment. Complete destruction of some residential and commercial properties and serious damage of up to 500 properties. Several thousand other properties could be flooded. Up to 200 families, up to 1000 casualties, up to 50 missing persons and people stranded. Hazardous recovery amongst collapsed infrastructure and debris. Water supply to homes and business is lost. Up to 200 people need temporary accommodation for 2 – 18 months.	<p>There are a number of reservoirs serving the SRF area (including Tittesworth, Rudyard, Hales Hall, Knypersley, Stanley, Blithfield, Chasewater, Foremark, Gailey and Belvide).</p> <p>Reservoir breach or overtopping could result in flooding with excess water being discharged resulting in inundation of properties in the vicinity. Severe damage to the reservoir and downstream properties could also occur. In the case of a catastrophic failure a resultant flood wave would be released downhill (not necessarily into the natural flood plain area) inundating / destroying properties in the area.</p>	4	1	Medium	<p>There are Reservoir and Dam Failure Plans in place.</p> <p>Staffordshire Emergency Flood Plan in place and tested through Exercise White Water 1 (2 – 4 November 2009) and 2 (11.12.09).</p> <p>Other activities include:</p> <p><b>Community</b></p> <ul style="list-style-type: none"> <li>• Flood Warning service.</li> <li>• Leaflets.</li> <li>• Local Authority / Environment Agency leaflets.</li> </ul> <p><b>Physical</b></p> <ul style="list-style-type: none"> <li>• Flood defence systems in place in key risk areas.</li> <li>• Regular assessment of reservoir / dam safety.</li> </ul> <p><b>Controls</b></p> <ul style="list-style-type: none"> <li>• Reservoir and Dam Failure Plans in place.</li> <li>• Civil Contingencies Act 2004.</li> <li>• Reservoir Act 1975.</li> <li>• Planning Restrictions</li> <li>• The introduction of the 1975 Reservoirs Act has led to a reduced likelihood of reservoir failure.</li> </ul>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Human Health</b>							
35	H23	<p><u>Pandemic Influenza</u></p> <p>Each pandemic is different and the nature of the virus and its impacts cannot be known in advance. Previous pandemics have led to different outcomes. Based on understanding of previous pandemics, a pandemic is likely to occur in one or more waves, possibly weeks or months apart. Each wave may last around 15 weeks. Up to half the population could be affected in a reasonable worst case scenario. High number of cases could overwhelm health and other critical services, and adversely affect business and the economy.</p> <p>Pandemic planning recognised a reasonable worst case scenario clinical attack rate of up to 50% spread over on or more waves with case fatality of up to 2.5%. This means, at the upper end of assumptions, up to some 750,000 excess deaths in the UK across the whole period of the pandemic and over 100,000 population per week at peak. Probable peak in weeks 6 to 8 following first case, with 22% of total cases occurring at the time.</p>	<p>Best national guidance indicates a clinical attack rate of 25 to 50% spread over one or more waves with a case fatality of up to 2.5%. This means at the upper end of assumptions, up to some 750,000 excess deaths in the UK across the whole period of the pandemic and over 10,000 healthcare contacts per 100,000 population per week at peak. Probable peak in weeks 6 – 8 following first case, with 22% of total cases occurring at this time.</p> <p>The last instances worldwide were:</p> <ol style="list-style-type: none"> <li>1. <b>1918 / 19</b> – Spanish Flu – 50 million fatalities worldwide with 250,000 in the UK.</li> <li>2. <b>1957 / 58</b> – Asian Flu – 1 million fatalities worldwide with 33,000 in the UK.</li> <li>3. <b>1968 / 69</b> – Hong Kong Flu – 1 million fatalities worldwide with 30,000 in the UK.</li> <li>4. <b>2009</b> Swine Flu</li> </ol> <p>Flu pandemic is likely to affect a large number of the population in Staffordshire.</p>	5	5	Very High	<p>Staffordshire Resilience Forum (SRF) has a county wide Strategic Pandemic Flu Guidance Plan.</p> <p>Each agency is producing their own in-house Pandemic Flu Plan which has identified their critical and essential services. This will tie in with their Business Continuity Plans. Local Authorities have a statutory duty to promote the benefits of BCP's to the private and business sector in Staffordshire. A range of guidance documents has been produced by the Cabinet Office and The Department of Health to be acted upon locally. These include a national Flu Helpline and a system to issue anti-viral drugs to symptomatic patients.</p> <p>Since April 2009 these arrangements have been tested for real in the SRF's multi-agency response to Swine Flu. Arrangements are in place for a local anti-viral flu line using facilities at Stoke-on-Trent City Council.</p> <p>Other plans include Local Authorities/ NHS Trusts Major incident Plans, Staffordshire Media Plan, Humanitarian Assistance, Excess Deaths, Fuel Plans and NHS Outbreak plans.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Human Health</b>							
36	HL24	Localised Legionella / Meningitis Outbreak. Localised outbreak of a disease which could cause up to 10 fatalities and up to 50 casualties.	<p>Legionella disease is a bacterial disease that may cause pneumonia. Its organisms are found in ponds, hot and cold water systems and water in air cooling systems. All ages can be affected but the over 50's are significantly prone to the disease.</p> <p>Meningitis is the inflammation of the lining around the brain and spinal cord and can kill in hours. It is usually bacterial or viral and occasionally is due to fungal infections. The majority of meningococcal infections occur in infants less than 5 years of age, with a peak incident in those under 1. There is a smaller, secondary peak in incidence in young adults aged between 15 – 19 years of age.</p> <p>The most recently recorded instance of Legionella in Staffordshire was in 1985, 100 people were affected with 28 fatalities reported.</p> <p>Over the last 5 years small outbreaks have been reported in the UK in schools and universities. Staffordshire has a number of educational establishments with 'live in' residency where a potential outbreak may occur including:</p> <ul style="list-style-type: none"> <li>• Staffordshire University.</li> <li>• Loxley Hall.</li> <li>• Keele University.</li> </ul>	2	4	Medium	<ul style="list-style-type: none"> <li>• NHS Plans for Legionella.</li> <li>• Regulations.</li> <li>• Surveillance Monitoring.</li> </ul>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Human Health</b>							
37	H24	Emerging Infectious Diseases based on a SARS outbreak resulting in up to 100 fatalities and 2000 casualties.	<p>This risk relates to an emerging infectious disease or syndrome that was previously unknown, with no existing medication or treatment in place. SARS is a newly recognised syndrome consisting of a high fever, malaise and muscle aches and later a dry cough, shortness of breath or difficulty in breathing. The source of the virus is yet to be determined but experts are suggesting it emerged from an animal species in Southern China where the first human cases were seen in November 2002. In Mar 03 200 cases of SARS were reported in the UK of which 46 cases were declassified, 28 were influenza cases, the remainder recovered.</p> <p>Staffordshire's population currently includes approximately 300,000 individuals over the age of 50 of which a sixth are not in good health. There are also 160,000 of 0 – 15 years who may also be more susceptible to the virus.</p>	4	3	Very High	<p>A national SARS surveillance system has been established by the Communicable Disease Surveillance System (CDSS) in collaboration with other HPA divisions.</p> <p>The West Midlands Strategic Health Authority has a Major Outbreak Plan and national guidance is in place.</p> <p>Key Staffordshire wide plans in place include Pandemic Flu, Media, Humanitarian Assistance, Excess Deaths, and Fuel Plans. The NHS has outbreak plans and public health plans.</p> <p>All Category 1 responders have Business Continuity Plans in place for addressing critical functions with an emphasis on staff requirements.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Animal Health</b>							
38	H25	Non-zoonotic notifiable animal disease (eg, Foot and Mouth disease) (FMD) Classical Swine Fever (CSF) Blue Tongue and Newcastle disease (of birds).	<ul style="list-style-type: none"> <li>• The most serious disease in this category is FMD which drives the risk and outcome descriptions</li> <li>• A realistic worst case scenario might involve the culling and disposal up to 4 million animals across GB with up to 900 infected premises</li> <li>• For FMD whole of Great Britain is likely to be declared a 'controlled area', prohibiting the movement of all susceptible livestock unless licensed.</li> <li>• Disruption to rural communities, local economies, and the environment.</li> <li>• Significant impact on farm incomes and allied industries. For a major outbreak many rural industries, including tourism will be affected, impacts on tourism believed to have been overstated in previous assessments and current assessments assess this impact at £100 million.</li> <li>• £400 million losses to the agriculture and food chain industry</li> <li>• Loss of disease free status resulting in EU and third country import bans on livestock and livestock products from susceptible</li> </ul>	3	3	High	<p>Plans for an outbreak of Foot &amp; Mouth disease and other notifiable diseases exist in Staffordshire. Staffordshire County Council and Stoke on Trent City Council are responsible for the preparation of plans in conjunction with DEFRA.</p> <p>Staffordshire multi-agency plans in place include a Media Plan, Humanitarian Assistance and a Recovery Plan</p> <p>On a national basis research is currently being undertaken as to the sustainability of vaccination as a response to an outbreak of Foot &amp; Mouth disease.</p>

## Staffordshire Community Risk Register

			<p>animals</p> <ul style="list-style-type: none"> <li>The major outbreak and realistic worst case scenarios are of much greater scale than that experienced in the most recent outbreak in 2007 but less than that experienced in 2001 due to changes in movement regimes and control policies</li> </ul> <p>The last major outbreak of Foot and Mouth disease was in 2001 and occurred throughout the UK with 47 separate instances in Staffordshire, (The one prior was in 1967). There was a further outbreak in Surrey in 2007 which impacted on Staffordshire in the both economic and animal welfare areas. This saw restrictions on animal movements and one farm in Staffordshire briefly under formal notice as a precautionary measure due to movement of sheep from a market in Bicester. Staffordshire is one of the best served counties with 15 abattoirs which draw movements of animals from all over the country thus an increase in risk.</p> <p>Several cases of Bluetongue disease occurred in East Anglia in September 2007. The disease subsequently spread to other parts of south and south east England. Following the 2007 outbreak, Staffordshire was put inside the Protection Zone.</p>				
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## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Animal Health</b>							
39	H26	Zoonotic notifiable animal disease (eg, highly pathogenic avian influenza HPAI, Rabies and West Nile Virus).	<p>The main threat to Staffordshire is to poultry flocks, both those inside and outside. A number of cases of HN51 Avian Influenza in birds have been reported in Europe over the last couple of years. Recently there have been a small number of outbreaks in poultry in the UK, all of which have been rapidly contained. The most recent events being in Feb 07 where some 35,000 chickens at a poultry farm in Norfolk were slaughtered after dead birds tested positive for the H7 strain of the virus. The carcasses of the Norfolk chickens were disposed of at a John Pointon &amp; Sons Animal Rendering Factory in Cheddleton, Staffs. There was a further case in Collardyke, Fife, in Mar 07 where a swan tested positive for HN51.</p> <p>The last outbreak of Rabies in the UK was in 1970 in Surrey and no human cases of West Nile Virus (WNV) have ever been reported in Britain.</p>	3	3	High	<p>Legislation exists for the immediate imposition of a range of restrictions on the poultry industry in the event of the disease in the UK. Staffordshire would respond to an outbreak, utilising the legislation available.</p> <p>Staffordshire responders engaged in a multi-agency Rabies exercises in Oct 07 where emergency plans were tested.</p> <p>Staffordshire multi-agency plans in place include: Media, Humanitarian Assistance and Recovery Plans as well as individual responders' Business Continuity Plans.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Technical Failure</b>							
40	H38	<p>Technical failure of upstream (off shore) oil / gas network leading to a disruption of upstream oil and gas production.</p> <p>Catastrophic accident destroying all or parts of a critical upstream facility and in the worse case taking months or more to restore normal service. This could potentially result in up to 15% loss of gas supply to UK which, could impact on power generation if demand were high. As 40% of power is generated by gas fired stations then a reduction in generation might be felt. Downstream oil would not be immediately so adversely affected given alternative means of supply.</p>	<p>This could result in electricity supply rota disconnections if fuel supplies to power stations are compromised.</p> <p>Rota disconnection of electricity supplies can be used when demand for electricity exceeds the generation capabilities of the Power Stations. This is done to ensure that the available power is shared fairly and equally amongst all customers with rota disconnections up to 3 hours, or multiples of 3 hours, throughout a 24 hour period for the majority of the UK or area(s) affected.</p> <p>The last time this occurred in the UK was in 1972 when rota disconnections resulted during the miner's dispute when coal stocks to the power stations were interrupted. At that time coal was the main primary fuel for power stations. This resulted in the "3 day working week" when rota disconnections were employed to limit demand under the Electricity Supply Emergency Code (ESEC).</p>	2	2	Medium	<p>Emergency Services and Local Authorities have Business Continuity Plans (BCP) should they be affected by the impact of rota power supply disconnections.</p> <p>Local Authorities have a statutory duty to promote the benefits of BCPs to the private and business sector in Staffordshire.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Technical Failure</b>							
41	H39	Failure of water infrastructure or accidental contamination with a non-toxic contaminant. Loss of or non-availability for drinking of the piped water supply for up to 50,000 people for more than 3 days.	<p>Staffordshire's population is supplied by 2 water companies and it is unlikely that both companies will fail to supply at the same time.</p> <p>Severn Trent Water (STW) supply 420 million gallons (1.9 billion litres) of drinking water and treat over 2,740 million litres of sewage daily in supplying a population of 7,360,000.</p> <p>Key responders have the details of the main water treatment works in Staffordshire.</p> <p>South Staffordshire Water (SSW) supplies a population of 1,200,000.</p> <p>Domestic, industrial commercial and agricultural premises without piped water. Lack of water for fire fighting. Water companies are required to provide at least 10 litres per person per day until supply restored. However, could lead to suspension of services at hospitals, schools and businesses etc which do not maintain their own on-site water storage.</p>	3	4	High	<p>Water companies have plans in place to supply bottled drinking water to the population if the need arises.</p> <p>Infrastructure is good in Staffordshire making transporting tankers carrying water into the affected areas possible.</p> <p>Severn Trent Water Ltd and South Staffordshire Water Ltd must monitor water supplies under the terms of 'The Water Supply (Water Quality) Regulations 2000' to ensure that drinking water is wholesome. As soon as the water company is aware that the quality of water is compromised they will implement measures to determine the extent and resolve the issue.</p> <p>Staffordshire multi-agency plans in place include: the Media, Humanitarian Assistance and Recovery Plans.</p> <p>All responders have their own BCM Plans in place.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Technical Failure</b>							
42	H49	Loss of drinking water supplies due to a major accident affecting infrastructure. Loss of, or non-availability for drinking of the piped water supply, for a population of up to 200,000 for more than 24 hours and up to one week.	<p>Domestic, industrial commercial and agricultural premises without piped water. Lack of water for fire fighting. Water companies required to provide at least 10 litres per person per day until supply restored; requires a multi-agency response due to prolonged nature of outage and logistics. Could lead to suspension of services at hospitals, schools and businesses etc which do not maintain their own on-site water storage. Food industries within the impacted zone may close.</p> <p>In Staffordshire, <u>Severn Trent Water (STW)</u></p> <ul style="list-style-type: none"> <li>◆ supplies 420 million gallons (1.9 billion litres) of drinking water daily.</li> <li>◆ treats over 2,740 million litres of sewage daily.</li> <li>◆ randomly test 20,000 samples per year.</li> </ul> <p><u>South Staffs Water (SSW)</u></p> <ul style="list-style-type: none"> <li>◆ supplies an average of 331 mega litres per day.</li> <li>◆ analyses 30,000 water samples per year.</li> </ul>	3	1	Medium	<p>Water companies have plans in place to supply bottled drinking water to the population if the need arises.</p> <p>Site operating procedures. BCM measures and contingency plans in place.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Technical Failure</b>							
43	H40	No notice loss of significant telecommunications infrastructure in a localised incident, such as a fire, flood or gas incident. Loss of telecommunications for up to 100,000 people for up to 72 hours.	<p>Staffordshire, like other resilience areas is heavily dependent upon its telecommunications, both mobile and landline.</p> <p>The last time a telecommunications failure occurred in the SRF area was in 1999 when Stafford switchboard was lost due to cable damage at the Old Stafford Infirmary site.</p> <p>In 2003 a fire occurred in a cable tunnel in Manchester, affected the North West and Derbyshire. This caused the loss of communications (landline and mobile, except Orange).</p>	2	5	Medium	<p>Contingency Plans in place. Emergency Services have independent radio systems and have the support of the RAYNET volunteers.</p> <p>Emergency Services and Local Authorities have Business Continuity Plans (BCP) should they be affected by the impact of loss of telecommunications.</p> <p>Local Authorities have a statutory duty to promote the benefits of BCPs to the private and business sector in Staffordshire.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Technical Failure</b>							
44	H41	<p>Technical failure of the electricity network resulting in partial or total shutdown of the electricity supply for up to 3 days. Destabilisation of the National Grid. Possible loss of life support machines, civil unrest, no alarms, street lighting etc. Back up generators available for limited time in some instances</p>	<p>Technical failure of electrical network could occur in winter and could last for up to 3 days. Whilst it is technically possible that such an event might occur in any electricity network, this has never happened in mainland UK. The recovery process from the complete failure of the electricity network is referred to as a "Black Start" and, although the risk of failure is very low, the electricity industry has robust, well developed and resilient "Black Start" plans to recover the electricity network from a complete failure.</p> <p>The UK electricity network is effectively self-contained and is not affected by electrical interconnections to Europe or other networks.</p> <p>All businesses affected by rota disconnection of supply, that do not have good Business Continuity Plans that take into account the failure of such power supplies will be vulnerable. Businesses should ensure that their key suppliers have resilient Business Continuity Plans as power cuts at their suppliers' premises could have a knock on effect for their own business. Major strain on emergency services (re life support machines etc). Impact on local businesses and wider Staffordshire economy, public anxiety, possible increased criminal activity</p>	3	3	High	<ul style="list-style-type: none"> <li>Local Authority Emergency Plans.</li> <li>Central Networks, Network Emergency Plan.</li> <li>NGT Joint Restoration Plans.</li> <li>Staffordshire Multi-agency Media Plan</li> </ul> <p>Emergency Services and Local Authorities have Business Continuity Plans (BCP) should they be affected by the impact of failure of the power network.</p> <p>Local Authorities have a statutory duty to promote the benefits of BCPs to the private and business sector in Staffordshire.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Technical Failure</b>							
45	H43	Telecommunication Infrastructure – Human Error resulting in widespread loss of telecommunications across a UK region for up to 3 days. (including mobiles, landlines and mobile networks)	<p>Staffordshire, like other resilience areas is heavily dependent upon its telecommunications, both mobile and landline.</p> <p>The last time a telecommunications failure occurred in the SRF area was in 1999 when Stafford switchboard was lost due to cable damage at the Old Stafford Infirmary site.</p> <p>In 2003 a fire occurred in a cable tunnel in Manchester, affected the North West and Derbyshire. This caused the loss of communications (landline and mobile, except Orange).</p>	2	3	Medium	<p>Contingency Plans in place. Emergency Services have independent radio systems and have the support of the RAYNET volunteers.</p> <p>Emergency Services and Local Authorities have Business Continuity Plans (BCP) should they be affected by the impact of loss of telecommunications.</p> <p>Local Authorities have a statutory duty to promote the benefits of BCPs to the private and business sector in Staffordshire.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Technical Failure</b>							
46	H45	Technical failure of the electricity network resulting in the total shutdown of the electricity supply over an entire region of the UK occurring during the working hours and lasting for 24 hours.	<p>There have been occurrences of wide area disruption to electricity supplies affecting large areas of the UK, but such incidents are usually restored within 24 hours.</p> <p>There have been no failures of supplies of 24 hours duration to a whole region (or entire Staffordshire area) in the recent past. .</p> <p>From a Staffordshire business perspective, power cuts could impact severely on businesses that do not have good business continuity plans or have key suppliers that do not have robust plans.</p>	3	2	High	<p>Staffordshire wide Media Plan in place and all Local Authorities have an Emergency Plan and together with the NHS have an awareness of where vulnerable people are in the community.</p> <p>Central Networks have a Network Emergency Plan.</p> <p>NGT Joint Restoration Plans.</p> <p>Emergency Services and Local Authorities have Business Continuity Plans (BCP) should they be affected by the impact of loss of telecommunications.</p> <p>Local Authorities have a statutory duty to promote the benefits of BCPs to the private and business sector in Staffordshire.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Action</b>							
47	HL42	<p>Loss of cover due to industrial action by workers providing a service critical to the preservation of life (such as Emergency Services workers)</p> <p>A number of 3 day strikes with significant support over a two month period affecting a single emergency service.</p>	<p>It would be likely that any such industrial action would not be confined to Staffordshire but would be regional or national in nature.</p> <p>Likelihood and impact will vary between, and geographically within, Emergency Services.</p> <p>In 1977 there was a National Fire Strike and again in 2002/3 where the military supported by the Police were deployed to provide fire cover.</p> <p>Some small disputes involving doctors, nurses and Ambulance staff, etc, over recent years have occurred but no national strike has taken place.</p> <p>Police Officers are prevented by law from taking strike action.</p> <p>Staffordshire would be affected in much the same way as any other area with a possible increase in public concern and anxiety.</p>	3	3	High	<p>Police procedures.</p> <p>Multi-agency plans to deal with crisis (SCG arrangements and Media Plan).</p> <p>Emergency Services and Local Authorities have Business Continuity Plans should they be affected by the impact of industrial action.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Action</b>							
48	H30	Emergency Services: loss of emergencies fire and rescue cover because of industrial action. A series of strikes by fire fighters takes place spread over a period of 2 months, perhaps lasting up to 24 hours each.	Chief Fire Officers would all deploy the emergency cover that they could make available in line with an optimum response to their locally assessed risk profiles. London and possibly other metropolitan areas would only have thin cover. Some Fire & Rescue Services would be self-sufficient in the provision of emergency cover. The last national fire strike was in 2002 and previously in 1976. In 2002 the Staffordshire Resilience partners worked closely with the military and provided fire cover for the area.	3	2	High	<p>Most agreements involving terms and conditions for fire-fighters are negotiated locally and thus any dispute is more likely to be locally based. There are currently no national issues which would be more likely to result in national industrial action.</p> <p>The old "Green Goddess" fleet has been disposed of and the military would now have the use of modern "Red" Fire Appliances.</p> <p>Staffordshire Fire and Rescue Service have robust Business Continuity Plans in place to enable it to continue its essential services such as fire cover in the event of industrial action.</p> <p>There is also a multi-agency Media Plan in place for the Staffordshire area.</p>

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Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Action</b>							
49	H31	Significant or perceived significant constraint on the supply of fuel at filling stations e.g. industrial action by contract drivers for fuel.	<p>Filling stations, depending on their locations, would start to run dry between 24 - 48 hours. Panic buying would exacerbate the situation. Replenishment of sites would take between 3 - 10 days depending on location. Much would depend on whether drivers from other companies would be prepared to cross picket lines, whether companies judged that they were able to maintain safe operations in the presence of picket lines or protests, and the extent of the supply of fuel from other locations.</p> <p>Recent incidents have been:  <b>Sep 05</b> – Threats of further fuel protests and refinery blockades against the Government's planned rise in taxation.  <b>Dec 05</b> – Buncefield depot explosion – resultant in fuel supply.  <b>Jan 06</b> – Tesco delivery drivers staged a 2 day strike over pay and conditions. Staffordshire, like many LRF areas, could be vulnerable to national industrial action that causes the reduction of the supply of petrol and diesel.  <b>Jun 08</b> – More than 600 Unite union members staged a protest over pay in a 4 day strike, resulting in more than 600 petrol stations running out of petrol or diesel (7% of the 8,900 across the UK).</p>	3	3	High	<p>There are Police procedures in place to deal with protest.</p> <p>The National Emergency Plan for Fuel as well as the Staffordshire Fuel Plan is in place to ensure essential services (eg. Fire, Police and Ambulance) are maintained.</p> <p>Public information programme in the event of such an event.</p> <p>Emergency Services and Local Authorities have Business Continuity Plans (BCP) should they be affected by the impact of fuel shortages.</p> <p>Local Authorities have a statutory duty to promote the benefits of BCPs to the private and business sector in Staffordshire.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Action</b>							
50	H33	Prison Officer strike action for up to 48 hours in 80% of prisons.	There are 8 prison establishments in Staffordshire but there have been no national prison strikes in the last 5 years.	2	5	Medium	Prison contingency plans are in place in the event of a Prison Officers strike.

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>Industrial Action</b>							
51	H35	Industrial action by key rail workers. Strike action resulting in the total shut down of the rail network on a nation scale (eg, action by key rail workers, infrastructure workers such as signallers) for more than 3 days. Greater impact if action occurs in a co-ordinated manner.	Industrial action on the rail network would impact on the transport infrastructures resulting in grater road congestion, greater use of other public transport (buses). Some essential supplies (eg, coal to Rugeley Power Station) would be disrupted. There would be disruption to the postal service which is heavily reliant on the rail network.	1	1	Low	<p>Business Continuity Plans in place amongst the Category 1 responders. Local Authorities discharging their responsibility under the CCA to promote BCM in the private and business community.</p> <p>Increased congestion on motorways and trunk roads mitigated by the Highways Agency's Off Network Tactical Diversion Routes arrangements.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>International Events</b>							
52	H36	International disruption to oil supply. Major disruption (e.g. due to war, major political upheaval). Loss of up to 17.5 million barrels per day to the global market for up to one month, corresponding to 20% of worldwide production. Available mitigation action leaves the oil market with a short fall of around 3.8mb/d.	<p>The impact of such an event would most likely be nationwide and thus no different to the communities of Staffordshire.</p> <p>Such a crisis could result in either a shortage of fuel (heating, transport etc) or a significant hike in the cost of purchase.</p>	2	3	Medium	<p>Internationally, mitigation potential is provided by redirecting some oil supplies through alternative routes and using the IEA emergency stocks at maximum drawdown rate. Also OPEC spare capacity outside the Middle East.</p> <p>Nationally there are contingency arrangements in place to deal with fuel shortages and Staffordshire has its own emergency plan to respond to petrol and diesel shortages.</p> <p>All Category 1 Responders have Business Continuity Plans in place to minimise the disruption from events such as fuel shortages.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>International Events</b>							
53	H37	<p>International security incident resulting in influx of British Nationals. Up to 10,000 British Nationals returning to UK within a 4 – 6 week period following conventional war, widespread civil unrest or sustained terrorism campaign against British or other Western nationals, or an uncontrolled outbreak of pandemic flu.</p>	<p>The majority of incoming British nationals would have no UK base and limited means to provide for themselves. May require accommodation, medical or other services. These are not non-British nationals under European Community Temporary Protection Directive (TPD) arrangements. No such instances have occurred in last five years.</p> <p>During the recent Asian Tsunami, 10,000 British National were in the affected area with 6,000 on package holidays. The majority of those returning to UK had homes to return to.</p> <p>Although this has never occurred in significant way in Staffordshire, there have been a number of foreign asylum seekers / refugees absorbed into the area over the last few years.</p>	2	4	Medium	<p>All agencies have Business Continuity plans in place to support existing resources in times of high demand.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>International Events</b>							
54	H53	<p>Disruption to gas supply. This scenario is assumed to last for two weeks and leads to supplies of gas from non-storage and "long range" storage being 60-70 mcm per day less than demand (before market on non-market actions reduce demand) and therefore requiring large from medium and short-range storage and demand-side response to balance the market. The volume of gas that has to be provide through demand-side response (DSR) increases progressively over the two week period as the deliverability of medium-range and short-range storage facilities declines. Towards the end of the two week period 20-30 mcm per day of DSR is required to balance the market.</p>	<p>In 2008/09 a Russia/Ukraine dispute saw gas supplies through the Ukraine being suspended. As with a single technical failure this alone was not sufficient to threaten UK security of supply. The impact was for the UK to increase exports with the market taking advantage of higher gas prices.</p> <p>An international dispute affecting European gas supplies, technical failure affecting UKCS or Norwegian gas production is very unlikely to cause a disruption to UK gas supply on its own. But technical failures do occur which put pressure on supplies and, in normal circumstances, other sources of supply compensate. In the past 5 years there have been two incidents that have restricted upstream gas supply. In winter 2009/10 technical problems with Norwegian production threatened security of supply leading to National Grid making 4 Gas balancing alerts. While in February 2006 a fire at the Rough platform suspended gas supply (about 40mcm/day) for a period of several months.</p> <p>The impact to the communities of Staffordshire is unlikely to be any different that the impact to the remainder of the country.</p>	3	1	Medium	<p>In Staffordshire, all Category1 and 2 Responders have Business Continuity Plans in place to respond to events such as disruption to their gas supplies.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
<b>International Events</b>							
55	H54	<p>Disruption to aviation as a consequence of volcanic ash. Volcanic ash incursions for up to 25 days resulting in sporadic and temporary closures of significant parts of UK airspace for up to a total of 15 days during a three month eruption period. The entire UK mainland and potentially other parts of Europe could be affected for up to 10 of these days. A single period of closure within the 3 month eruption episode may last up to 12 consecutive days, depending on meteorological conditions.</p>	<p>Prior to 2010, the best-known incident involving the threat from volcanic ash happened in June 1982 when a British Airways 747 flight from London to Auckland encountered a plume from Mount Galunggung in Java, Indonesia. All four engines failed but the plane glided far enough out of the plume for three of them to restart and work sufficiently and allow an emergency landing at Jakarta, with 263 passengers unhurt.</p> <p>More recently in April 2010 tens of thousands of passengers across Britain and Europe were grounded as airports closed or faced severe disruption from a plume of ash caused by a volcanic eruption in Iceland. All non-emergency flights in the UK were grounded because the after-effects of the eruption have made flying too hazardous, Volcanic ash drifted south-east from the volcano, located beneath the Eyjafjallajokull glacier about 120km east of Reykjavik. National Air Traffic Control Service (NATS) advised that volcanic ash represents a significant safety threat to aircraft.</p> <p>Volcanologists and expert statisticians who formed part of Scientific Advice Group for Emergencies (SAGE) that was created in response to the volcanic eruption in Iceland in April 2010,</p>	1	4	Low	<p>The main impact on Staffordshire following such an event would be the absence of employees who were stranded abroad. All Category 1 and 2 Responders have Business Continuity Plans in place to minimise the impact of such an event.</p>

## Staffordshire Community Risk Register

Serial	Ref	Risk / Scale	Likely outcome in Staffordshire	Impact	Likelihood	Rating	What is being done to reduce the risk?
			have assessed the probability of this risk occurring using historical precedence, knowledge of the current situation and thorough statistical analysis methods				