

TENDRING DISTRICT COUNCIL - COMMUNITY RISK REGISTER January 2011

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
INDUSTRIAL ACCIDENT AND ENVIRONMENTAL POLLUTION											
HL25	Industrial	Fire or Explosion at a Gas Terminal as well as LPG LNG and other gas onshore feedstock pipeline and flammable gas storage sites.	Up to 1Km around the site with up to 50 fatalities and up to 150 casualties. Impact on environment, including persistent/widespread impact on air quality	Low (1)	Minor (2)	Low	Site specific plans in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Internal and external training, Building Control/Planning, Control Protocol, COMAH & HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
H1A	Industrial	Fire or Explosion at a Gas Terminal as well as LPG LNG and other gas onshore feedstock pipeline and flammable gas storage sites.	On site with no fatalities and up to 10 casualties. HSE work has lead to a greater understanding of the consequences of the risk eg impact on transport services.	Medium Low (2)	Minor (2)	Medium	Site specific plans in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Internal and external training, Building Control/Planning, Control Protocol, COMAH & HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
HL1	Industrial	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. Likely to be applicable to an LRF which has a coastline. Impact on environment, including persistent/widespread impact on air quality.	Medium Low (2)	Minor (2)	Medium	Site specific plans in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Internal and external training, Building Control/Planning, Control Protocol, COMAH & HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
H3A	Industrial	Fire or explosion at an oil refinery	Up to 1Km around the site causing up to 10 fatalities and up to 100 casualties. Depending on the size of the release, the fire could burn for several days. Impact on health service plus additional medical support might be required. With the loss of one refinery for a short period the UK could still continue without any shortages, however there would be an increased pressure on other plants,	Low (1)	Moderate (3)	Medium	Site specific plans in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Internal and external training, Building Control/Planning, Control Protocol, COMAH & HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
H3B	Industrial	Fire or explosion at an oil refinery	On site, no fatalities and up to 10 Casualties.	Low (1)	Minor (2)	Low	COMAH and HSE / EA inspections, on and off site emergency response plans in place.	Internal and external training, Building Control/Planning, Control Protocol, COMAH & HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
HL27A	Industrial	Localised fire or explosion at an oil refinery. Depending on the location and size of the release, the fire could burn for several days. Impact on environment, including persistent/widespread impact on air quality.	On site, no fatalities and up to 10 Casualties.	Medium Low (2)	Minor (2)	Medium	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Emergency services formal response and training, Building Control/Planning, Control Protocol, COMAH & HSE. 'Humanitarian Assistance Plans, Procedures and response capability	N/A	ECFRS	Jan-12

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HL7	Industrial	Industrial explosions and major fires	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.	Medium Low (2)	Minor (2)	Medium	Safety management systems in place, security onsite from arson and engineered fire protection and fixed installation	Emergency services formal response and training, Building Control/Planning, and Local Authority response, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
HL7A	Industrial	Industrial explosions and major fires	Up to 1Km around the site causing up to 10 serious injuries and up to 100 casualties.	Medium Low (2)	Minor (2)	Medium	Safety management systems in place, security onsite from arson and engineered fire protection and fixed installation.	Emergency services formal response and training, Building Control/Planning, and Local Authority response, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
H4	Industrial	Fire or explosion at a fuel distribution site or a site storing flammable and/or toxic liquids in atmospheric pressure storage tanks	Up to 3Km around site causing up to 150 fatalities and up to 2000 casualties. Might be disruption to air transport in the short-term until fuel supply redirected. Short-term regional excessive demands on health care services. Closure of roads in locally for a short period of time.	Medium Low (2)	Significant (4)	High	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control Protocol, COMAH & HSE.	N/A	ECFRS	Jan-12
H4A	Industrial	Fire or Explosion at a fuel distribution site and tank storage of flammable or toxic liquids	Up to 1Km around the site causing up to 10 fatalities and up to 100 casualties.	Medium Low (2)	Moderate (3)	High	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control Protocol, COMAH & HSE. 'Humanitarian Assistance Plans, Procedures and	N/A	ECFRS	Jan-12
H4B	Industrial	Fire or Explosion at a fuel distribution site and tank storage of flammable or toxic liquids	On site, no fatalities and up to 10 Casualties	Medium Low (2)	Minor (2)	Medium	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control Protocol, COMAH & HSE. 'Humanitarian Assistance Plans, Procedures and response capability	N/A	ECFRS	Jan-12
HL28	Industrial	Localised fire or explosion at a fuel distribution site or tank storage of flammable and/or toxic liquids.	Up to 1km around the site, causing up to 15 fatalities and 20 casualties. Impact on environment, including persistent/widespread impact on air quality.	Medium Low (2)	Minor (2)	Medium	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control Protocol, COMAH & HSE. 'Humanitarian Assistance Plans, Procedures and	N/A	ECFRS	Jan-12
HL28A	Industrial	Fire or Explosion at a fuel distribution site and tank storage of flammable or toxic liquids	Up to 1Km around the site causing up to 10 fatalities and up to 100 casualties. Impact on environment, including persistent/widespread impact on air quality.	Medium Low (2)	Moderate (3)	High	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control Protocol, COMAH & HSE. 'Humanitarian Assistance Plans, Procedures and response capability response capability	N/A	ECFRS	Jan-12

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HL28B	Industrial	Fire or Explosion at a fuel distribution site and tank storage of flammable or toxic liquids	On site, no fatalities and up to 10 Casualties.	Medium Low (2)	Minor (2)	Medium	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations, remote site location.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control Protocol, COMAH & HSE. 'Humanitarian Assistance Plans, Procedures and response capability.	N/A	ECFRS	Jan-12
H7	Industrial	Explosion at a high pressure gas pipeline	Local to site causing up to 200 fatalities and up to 200 casualties. A release point close to a populated (ie urban) area. Impact on environment, including persistent/widespread impact on air quality.	Low (1)	Minor (2)	Low	Emergency Services response and resources, Management protocols.	COMAH and HSE inspections, Emergency services response and training, ECFRS dedicated Petroleum officer, Building Control Planning, 'Humanitarian Assistance Plans, Procedures and response capability	N/A	ECFRS	Jan-12
HL30	Industrial	Localised explosion at a natural gas pipeline	Causing up to 100 fatalities and up to 100 casualties. A release point close to a populated (ie urban) area. Impact on environment, including persistent/widespread impact on air quality.	Low (1)	Moderate (3)	Medium	Emergency Services response and resources, Management protocols	COMAH and HSE inspections, Emergency services response and training, ECFRS dedicated Petroleum officer, Building Control Planning, 'Humanitarian Assistance Plans, Procedures and response capability	N/A	ECFRS	Jan-12
H7B	Industrial	Fire or explosion at a natural gas pipeline	On site with no fatalities and up to 10 casualties.	Low (1)	Minor (2)	Low	Emergency Services response and resources, Management protocols.	COMAH and HSE inspections, Onsite fire teams, Emergency services response and training, ECFRS dedicated Petroleum officer, Building Control Planning, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
HL2	Industrial	Localised industrial accident involving large toxic release (e.g. from a site storing large chlorine)	Up to 3km from site, causing up to 30 fatalities and up to 250 casualties. Impact on environment, including persistent/widespread impact on air quality.	Medium (3)	Moderate (3)	High	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations.	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations.	N/A	ECFRS	Jan-12
HL2A	Industrial	Industrial Toxic Chemical Releases	Up to 10Km around the site causing up to 2,000 fatalities and up to 10,000 casualties. Impact on environment, including persistent/widespread impact on air quality.	Medium (3)	Significant (4)	Very High	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations.	N/A	ECFRS	Jan-12
HL2B	Industrial	Industrial Toxic Chemical Releases	Up to 3Km from site of a toxic chemical release causing up to 50 fatalities and up to 2000 casualties. A release point close to a populated (ie urban) area. Impact on environment, including persistent/widespread impact on air quality.	Medium (3)	Moderate (3)	High	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control Protocol, COMAH & HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
HL3	Industrial	Localised industrial accident involving small toxic release	Up to 1Km from the site causing up to 10 fatalities and up to 100 casualties.	Medium (3)	Moderate (3)	High	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control Protocol, COMAH & HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12

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H9	Industrial	Large Toxic Chemical Release	Up to 3Km from site causing up to 50 fatalities and up to 2000 casualties. This risk could result in environmental contamination with associated environmental impacts. Depending on the nature and extent of contamination there could be impacts on air, land water, animal welfare, agriculture and waste management. The risk might require remediation and/or decontamination. Excessive demands on healthcare services locally both short and long term. Water supplies might be at risk. Contamination of farm land could lead to avoidance of certain foodstuffs.	Medium (3)	Minor (2)	Medium	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control Protocol, COMAH & HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
H10	Industrial	Radioactive substance release from a nuclear reactor	The consequences of an accident at a nuclear reactor are a release of radioactive material. This release could have local, regional, national and international implications, with up to 10 immediate deaths estimated on site, and with long term casualties being estimated as being of the order 1500. An operating power reactor within 4km of a built up area is broadly based upon the Chernobyl accident and the amount of radioactivity which might escape given such an incident. (Bradwell Power station is now in decommissioning phase (currently Reg 9, offsite plan) - risk continues to decrease. A change in the number of immediate deaths on site.)	Low (1)	Catastrophic (5)	Medium	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations.	Emergency services formal response and training -exercise of Bradwell power station off site plan, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control & Monitoring Protocols, COMAH & HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
HL31	Industrial	Limited radioactive substance release from a nuclear accident	Up to 1km from site causing up to 50 fatalities and 500 casualties. Bradwell Power station is now in decommissioning phase (currently Reg 9, offsite plan) - risk continues to decrease.	Low (1)	Significant (4)	Medium	Management systems in place, COMAH and HSE inspections, onsite emergency teams and safety regulations.	Emergency services formal response and training -exercise of Bradwell power station off site plan, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, Control & Monitoring Protocols, COMAH & HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12

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H11	Industrial	Accidental release of radioactive material from incorrectly handled or disposed of sources	Up to 5 fatalities and 100 contaminated people requiring medical monitoring. Many worried people may self present at hospitals. Radiation may be spread over several Km but most concentration where source is opened. 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 may require remediation and / or decontamination	Low (1)	Significant (4)	Medium	Management systems in place, HSE inspections, onsite safety regulations.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
H12	Industrial	Biological substance release from facility where pathogens are handled (eg pathogen release from containment laboratory)	Up to 10 fatalities and serious injuries or offsite impact requiring up to 1000 casualties. Assume release in an urban area. Biological agency (mainly HG3 & 4 human & animal pathogens) release from containment (eg infection laboratory worker or animal)- example SARS release from lab in China resulted in 2 deaths and several hundred people quarantined. This type of release could be the source of an outbreak that leads to H23-H26 risks.	Medium(3)	Minor (2)	Medium	Management systems in place, HSE inspections, onsite safety regulations.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
H46	Industrial	Biological substance release during an unrelated work activity or industrial process (eg legionella release due to improper maintained building environment control systems.)	Up to 10 fatalities and serious injuries or offsite impact resulting in up to 1000 casualties.	High (5)	Significant (4)	Very High	Management systems in place, HSE inspections.	Emergency services formal response and training, ECFRS dedicated CBRN Mass Decontamination Unit, Building Control/Planning, HSE, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12

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H14	Industrial	Major contamination incident with widespread implications for the food chain, arising from: 1. Industrial accident (chemical, microbiological, nuclear) affecting food production areas eg Chernobyl, Sea Empress oil Spill, Animal disease. 2. Contamination of animal feed eg dioxins, BSE. 3. Incidents arising from production processes eg adulteration of chilli powder with Sudan I dye or melamine contamination of milk.	There may be direct animal and consumer health effects arising from this incident. We assume a small number of fatalities (5) and casualties (50), although the public health implications of food incidents vary widely. It should be noted that events such as these, that cause an increase in the exposure to human carcinogens, raise the risk of fatality even though the casualty cannot be identified. Additionally there may be food production/marketing implications depending on scale and area affected (eg major shellfisheries, dairy, livestock production areas.) Consumer confidence may also be affected leading to lost markets, and where staple products (eg bread or milk) are affected, potential panic buying.	High (5)	Moderate (3)	High	National resilience	National Procedures and Response Capability.	N/A	FSA	Jan-12
H15	Industrial	Maritime Pollution	Release of 100, 000 tonnes of crude oil into the sea, polluting up to 200km of coastline. 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 may require extensive clear up operations on shore and some long term restrictions on local fishing in the affected area.	Low (1)	Significant (4)	Medium	Multi-agency Response, MOU's with appropriate Maritime Response Agencies.	Emergency response plans, Environment Plans, HarwichCap plan, Coastguard resources, National Procedures and Response Capability via DFT.	N/A	MCA/DF T	Jan-12
HL4	Industrial	Major Pollution of controlled waters	Pollution incident impacting upon controlled waters, (for example, could be caused by chemical spillage or release of a large quantity of untreated sewage) leading to persistent and/or extensive effect on water quality, major damage to aquatic ecosystems, closure of potable abstraction point(s), major impact on amenity (ie tourism) value, serious impact on human health.	High (5)	Moderate (3)	High	Department for the Environment, food and Rural Affairs (DEFRA) monitor risk, issue Qualitative Risk Assessments and advice. County Trading Standards. MCA and Port Authorities plans and response.	Emergency response plans, Environment Plans, HarwichCap plan, Coastguard resources, Controlled shipping lanes, Procedures and Response Capability'.	N/A	DEFRA/ EA	Jan-12

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HL33	Industrial	Forest or moorland fire.	Forest or moorland fire across up to 50 hectares. Evacuation of up to 100 residential homes required. Up to 5 fatalities and 20 casualties.	Medium (3)	Significant (4)	Very High	Emergency Services response and resources, Management protocols	Emergency services formal response and training, Local Authority response, 'Humanitarian Assistance Plans, Procedures and Response Capability'	N/A	ECFRS	Jan-12
TRANSPORT ACCIDENTS											
H42	Transport	Rapid accidental sinking of a passenger or cargo vessel in, or close to UK waters	Up to 500 fatalities and up to 1000 casualties.	Low (1)	Significant (4)	Medium	Rescue Services	Major emergency response plans, HarwichCap plan, Coastguard resources, Lifeboat resources, Controlled shipping lanes, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	MCA	Jan-12
H42A	Transport	Rapid accidental sinking of a passenger or cargo vessel in, or close to UK waters or on inland waterways	Up to 50 fatalities and up to 300 casualties.	Low (1)	Significant (4)	Medium	Rescue Services	Major emergency response plans, HarwichCap plan, Coastguard resources, Lifeboat resources, Controlled shipping lanes, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	MCA	Jan-12
HL34A	Transport	Fire, flooding, stranding or collision involving a passenger vessel in or close to UK waters leading to the ship's evacuation or partial evacuation at sea	Up to 250 fatalities and 500 casualties.	Low (1)	Significant (4)	Medium	Rescue Services	Major emergency response plans, HarwichCap plan, Coastguard resources, Lifeboat resources, Controlled shipping lanes, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	MCA	Jan-12
HL34	Transport	Fire, flooding, stranding or collision involving a passenger vessel in or close to UK waters leading to the ship's evacuation or partial evacuation at sea	Up to 50 fatalities and 100 casualties	Low (1)	Significant (4)	Medium	Rescue Services	Major emergency response plans, HarwichCap plan, Coastguard resources, Lifeboat resources, Controlled shipping lanes, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	MCA	Jan-12
HL8	Transport	Fire, flooding, stranding or collision involving a passenger vessel in or close to UK waters or on inland waterways, leading to the ship's evacuation	Up to 50 fatalities and up to 100 casualties.	Low (1)	Significant (4)	Medium	Rescue Services	Major emergency response plans, HarwichCap plan, Coastguard resources, Lifeboat resources, Controlled shipping lanes, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	MCA	Jan-12
HL37	Transport	Release of significant quantities of hazardous chemicals/materials as a result of major shipping accident	Fatalities and casualties unlikely. Significant environmental / ecological damage.	Low (1)	Moderate (3)	Medium	MCA, Port Authorities	Emergency response plans, Environment Plans, HarwichCap plan, Coastguard resources, Controlled shipping lanes, Procedures and Response Capability'.	Training and exercising	MCA	Jan-12
H16	Transport	Aviation accident over a semi-urban area	Loss of up to two aircraft and passengers, with debris over a semi-urban area. Collision of 2 commercial planes with the death of all passengers and crew on aircraft (600 fatalities) up to 50 fatalities and 300 casualties on the ground. No significant damage to key infrastructure.	Low (1)	Moderate (3)	Medium	Emergency Services Response, LA Emergency plans	Major emergency response plans, Airport specific emergency plans, National Air Traffic Service, Air Accidents Investigation Branch, Airfield Fire Service, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	Essex Police	Jan-12
H16A	Transport	Aviation accident over major conurbation	Causing up to 800 fatalities and up to 300 casualties, Injuries ranging from serious burns to fractures, Damage to or loss of amenities including housing, retail or industrial facilities.	Low (1)	Significant (4)	Medium	Emergency Services Response, LA Emergency plans	Major emergency response plans, Airport specific emergency plans, National Air Traffic Service, Air Accidents Investigation Branch, Airfield Fire Service, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	Essex Police	Jan-12

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HL9	Transport	Aviation accident	Causing up to 50 fatalities and up to 250 casualties. Accident involving 1 commercial aircraft, probably on take off or landing.	Low (1)	Moderate (3)	Medium	Emergency Services Response, LA Emergency plans	Major emergency response plans, Airport specific emergency plans, National Air Traffic Service, Air Accidents Investigation Branch, Airfield Fire Service, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	Essex Police	Jan-12
HL10	Transport	Local accident on major trunk roads and motorways	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.	Medium High (4)	Minor (2)	Medium	Multi Agency response, Generic Plans in place.	Major emergency response plans, Highways Agency traffic enforcement and emergency response plan, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	Training and exercising	Essex Police	Jan-12
HL11	Transport	Railway accident	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.	Low (1)	Moderate (3)	Medium	Multi Agency Response, Generic Plans, MOU with British Transport Police.	Major emergency response plan, British Transport Police emergency plans, Rail Accidents Investigation Branch, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	Training and exercising	British Transport Police	Jan-12
HL12	Transport	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 substance covers wide area). The extent of the impact would depend on the substance involved, quantity, nature and location of accident. The assumption is based on phosgene/chlorine.	Medium High (4)	Significant (4)	Very High	Multi Agency Response, Hazmat document.	Fire service plans and capabilities, Major emergency response plans, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	Essex Fire and Rescue Service	Jan-12
HL13	Transport	Maritime accident or deliberate blockade resulting in blockage of access to key port, estuary, maritime route for more than one month.	Loss of port is likely to have an initial wider impact, but will quickly reduce as shippers seek alternative ports or methods of shipping. Economic impact on local dependant businesses.	Low (1)	Minor (2)	Low	Multi-agency Response, MOU's with appropriate Maritime Response Agencies.	Major emergency response plans, Public order plan. Continual assessment (survey reports of SS Montgomery wreck), 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	MCA	Jan-12
HL14	Transport	Local (road) accident involving transport of fuel/explosives	Up to 30 fatalities and up to 20 casualties within vicinity of accident/explosion. Area could require evacuating up to 1km radius depending on substances involved. Potential release of up to 30 tonnes of liquid fuel into local environment, watercourses etc. Large quantities of fire fighting media (foam) could impact on environment. Roads and access routes impassable for a time. Emergency access into/out of large populated areas becomes difficult or impossible.	Medium Low (2)	Moderate (3)	High	Multi Agency Response, Generic Plans in place.	National arrangements involving radiation, Radsafe, Major emergency response plan, Fire service plans and capabilities, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	Training and exercising	Essex Fire and Rescue Service	Jan-12

SEVERE WEATHER

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H50	Severe weather	Drought	Reduction in ability to supply water either public water supply or other forms of extractions. Periodic water supply interruptions affecting 385,000 businesses in London 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.	Medium (3)	Minor (2)	High	Drought Plans, Water resource monitoring.	Section 57 of the Water Resources Act, Water Company Drought Plans, Water Company hosepipe/sprinkler bans, Drought permits and drought orders, EA drought plans, EA water resource monitoring	N/A	DEFRA	Jan-12
H17	Severe weather	Storms & Gales	Storm force winds affecting most of a region for at least 6 hours. Most inland, lowland areas experience mean speeds in excess of 55 mph with gusts in excess of 85 mph. Up to 50 fatalities and 500 casualties with short term disruption to infrastructure including power, transport networks, homes and businesses.	Medium High (4)	Moderate (3)	High	Severe weather warnings from met. Office.	National Severe Weather Warning Service. The Essex Severe weather plan.	Maintain local communications/regular meetings with other cat. 1 and 2 agencies.	Met. Office	Jan-12
H18	Severe weather	Low Temperatures and Heavy Snow	Snow falling and laying 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 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.	Medium High (4)	Moderate (3)	High	Severe weather warnings from met. Office.	National Severe Weather Warning Service. The Essex Severe weather plan. Flood warning direct from the Environment Agency	Increase public awareness of the effects of the cold and the dangers of drifting snow.	Met. Office	Jan-12
H48	Severe weather	Heat wave	Daily maximum temperatures in excess of 32°C and minimum temperatures in excess of 15°C over most of a region for at least 5 consecutive days. Up to 1000 fatalities and 5000 casualties, mainly amongst the elderly. There could be disruption to power supply and transport infrastructure.	Medium High (4)	Minor (2)	Medium	Severe weather warnings from met. Office.	Department of Health Heat Wave Plan. Links into the North Essex Primary Care Trust	Increase public and staff awareness of the affects of heat	Met. Office	Jan-12

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HL16	Severe weather	Local coastal / tidal flooding (affecting more than 1 region)	Sea surge, spring tides, gale force winds and/or heavy rainfall affecting more than one region, some defences overtopped or failing at multiple locations. Flooding of 1000 to 10,000 properties for up to 14 days. Up to 20 fatalities, 300 casualties, and up to 200 missing persons. Up to 50,000 people (including tourists) in coastal villages and towns evacuated from flooded sites. People stranded over a large area and up to 5,000 people in need of rescue. Up to 10,000 needing assistance with sheltering for up to 12 months. Multi-agency response invoked, possible large scale evacuation required. Suddenness of failure of defences would not be possible to predict. Tidal inundation would be rapid and wave impact would cause structural damage to properties. Impact on infrastructure includes: widespread disruption for 7-14 days, salt damage, road and bridge damage, debris and contaminated water supplies and pollutants from affected businesses. Rural impacts include: widespread livestock carcasses, waterborne disease. Sewage treatment works flood	Medium (3)	Significant (4)	Very High	Flood Plans and defences, Flood Warnings.	Environment Agency's flood warning dissemination procedure. Essex Flood Plan, flood warning sirens & EA flood warning service. Awareness raising with public, media and businesses. Emergency plans for all responders. Inspection of flood defences. Essex Sea Wall Strategy 1998 -www.essex-estuaries.co.uk/EastAnglianStrategies/Default.htm	N/A	EA	Jan-12
HL16A	Severe weather	Coastal Flooding	Coastal flooding affecting 5000 homes, no casualties, 2500+ left homeless.	Medium (3)	Significant (4)	Very High	Flood Plans and defences, Flood Warnings.	Environment Agency's flood warning dissemination procedure. Essex Flood Plan, flood warning sirens & EA flood warning service. Awareness raising with public, media and businesses. Emergency plans for all responders. Inspection of flood defences. Essex Sea Wall Strategy 1998 - www.essex-estuaries.co.uk/EastAnglianStrategies/Default.htm.	N/A	EA	Jan-12

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
HL17	Severe weather	Local coastal / tidal flooding (in 1 region)	Sea surge, high tides and/or gale force winds affecting the coastline and one Region, a defence system overtopped or failing at a single location. Localised impact with infrastructure affected and up to 1000 properties flooded for up to 14 days. Up to 10 fatalities, 150 casualties, up to 100 people missing. Up to 20,000 people (including tourists) in coastal villages/towns evacuated from flooded sites. People stranded over a large area and up to 2,000 people in need of rescue. Up to 3,000 people needing assistance with sheltering for upto 12 months. Multi-agency response invoked with some local evacuation and cordoning off of affected areas. Tidal inundation would be rapid and wave impact would cause structural damage to properties. Impact on infrastructure includes; localised disruption for up to 7 days, salt damage, road damage, debris and contaminated local water supplies and pollutants from affected businesses. Rural impacts include; livestock carcasses, waterborne disease. Some properties destroyed and others uninhabitable for 12 months.	Medium High (4)	Significant (4)	Very High	Flood Plans and defences, Flood Warnings.	Environment Agency's flood warning dissemination procedure. Essex Flood Plan, flood warning sirens & EA flood warning service. Awareness raising with public, media and businesses. Emergency plans for all responders. Inspection of flood defences. Essex Sea Wall Strategy 1998 - www.essex-estuaries.co.uk/EastAnglianStrategies/Default.htm .	N/A	EA	Jan-12

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
HL19	Severe weather	Local Fluvial Flooding	A sustained period of heavy rainfall extending over two weeks. Perhaps combined with snow melt, resulting in flash flooding and steady rising river levels within a region. Localised flooding of 100 to 1,000 properties for 2-7 days. Up to 5000 people evacuated. Up to 200 people stranded over a large area and in need of rescue. There would be some impact on minor roads and some A roads and trunk roads impassable for a time. Some main rail lines may need to be closed for a week (for repairs etc). Most water ways would be closed to traffic because of strong currents and high water levels. Impact on infrastructure includes water damage, road and bridge damage. Sediment movement and contamination of local water supplies. Localised loss of essential services (gas, electricity & telecoms) to 5000 for up to 14 days. Up to 250 people needing assistance with sheltering for up to 12 months. Substantial disruption within a county for 7 -14 days. Significant debris and pollutants clear-up needed.	Medium High (4)	Significant (4)	Very High	Flood Plans and defences, local/urban Flood Warnings.	Met Office forecasting, Environment Agency's flood warning dissemination procedure. Essex Flood Plan, flood warning sirens & EA flood warning service. Awareness raising with public, media and businesses. Emergency plans for all responders. Inspection of flood defences. Essex Sea Wall Strategy 1998 - www.essex-estuaries.co.uk/EastAnglianStrategies/Default.htm .	N/A	EA	Jan-12
HL20	Severe weather	Localised, extremely hazardous flash flooding	Heavy localised rainfall in steep valley catchments leading to extremely hazardous flash flooding (e.g. high velocities and depths). Likely that no flood defences in place. probably no flood warning service available / or suddenness of event means timely flood warnings are not possible. Flooding of up to 200 properties. (NB: the outcome is essentially the same as H44 - dam or reservoir failure).	Medium (3)	Moderate (3)	High	Flood Plans and defences, Flood Warnings.	Met Office forecasting, Environment Agency's flood warning dissemination procedure. Essex Flood Plan, flood warning sirens & EA flood warning service. Awareness raising with public, media and businesses. Emergency plans for all responders. Inspection of flood defences. Essex Sea Wall Strategy 1998 - www.essex-estuaries.co.uk/EastAnglianStrategies/Default.htm .	N/A	EA	Jan-12
H21A	Severe weather	Major River Flood	100 + properties flooded and 50 + homeless	Medium (3)	Limited (1)	Low	Flood Plans and defences, Flood Warnings.	County/District/Emergency Services Flood Plans and business continuity plans. EA Flood defence/alleviation and relief schemes where appropriate, EA Flood Warning Service to public, professional	Warn&Inform - Flood Fairs, promote EA flood warning service and self resilience. Also sustainable drainage techniques. Identify critical infrastructure and		Jan-12

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
H21B	Severe weather	Major River Flood	250+ properties flooded and 125+ homeless.	Medium (3)	Limited (1)	Low	Flood Plans and defences, Flood Warnings.	County/District/Emergency Services Flood Plans and business continuity plans. EA Flood defence/alleviation and relief schemes where appropriate, EA Flood Warning Service to public, professional partners, businesses and media. PPS 25 and planning controls, water reponse training for responders.	Warn&Inform - Flood Fairs, promote EA flood warning service and self resilience. Also sustainable drainage techniques. Identify critical infrastructure and resilience.	EA	Jan-12
STRUCTURAL											
HL21	Structural	Land Movement (ie caused by tremors or landslides)	Roads and access routes impassable for a time. Emergency access into/out of large populated areas difficult or impossible; severe congestion over wide geographical area. Loss of power and other essential services over wide geographical area. Potential for a number of persons to be trapped or missing either in landslide itself and/or in collapsed structures. Up to 5 fatalities depending on the size and location of land movement.	Low (1)	Limited (1)	Low	Emergency Services Response.	Emergency Services formal response, Highways Agency response plans, Building Control, Sea/Land defences, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
HL22	Structural	Building Collapse	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.	Medium (3)	Limited (1)	Low	Emergency Rescue, Temporary housing provision.	ECFRS, Local Authority Rest Centre Plan, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12
HL23	Structural	Bridge Collapse	Roads, access routes and transport infrastructure impassable for considerable length of time. 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.	Low (1)	Minor (2)	Low	Emergency Services Response.	Emergency Services formal response, Bridge Management Protocols, Highways Agency signage and restrictions, Building Control, 'Humanitarian Assistance Plans, Procedures and Response Capability'.	N/A	ECFRS	Jan-12

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
H44	Structural	Major reservoir dam failure / collapse	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. Whilst there are a small number of reservoirs which could potentially put thousands of lives at risk, a sensible planning assumption is for up to 200 fatalities and 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. Reservoirs should, of course, be looked at on a case by case basis and Local Authorities will have received flood maps from the Environment Agency for the 2000 or so larger reservoirs in England and Wales in late 2009. Local Authorities will also receive a list of the highest priority reservoirs in their area by spring 2010. Guidance for reservoir planning	Low (1)	Significant (4)	Medium	Water storage control, Emergency water supply plan.	Environment Agency water storage legislation, Water Industry Act 1991, security and Emergency Measures Direction 1998, Water companies emergency supply plan.	N/A	EA	Jan-12
HUMAN HEALTH											
H23	Human health	Influenza type disease (pandemic)	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 weeks, possibly weeks or months apart. Each wave may last between 12-15 weeks. Up to half the population could be affected. All ages may be affected, but until the virus emerges we cannot know which groups will be most at risk.	Medium High (4)	Catastrophic (5)	Very high	Health major incident plan, national tamiflu supplies, mass treatment plans, Pandemic Flu Plan, Mass Fatality Plan.	Approved Multi-Agency response plan, antiviral framework for Essex. Each Cat 1 & Cat 2 Responder have own pandemic flu plan. PCT's mass vaccination plans in conjunction with Local Authorities. Numerous desktop exercises undertaken.	Conduct multi-agency exercise; Spring Fever. Essex Pandemic Flu Mass Fatalities plan, comms strategy for public.	HPA, SHA, PCT's	Jan-12

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
H24	Human health	Emerging Infectious disease	Precise impact will depend upon the effectiveness of antibiotics and antivirals in fighting infection. Based upon the experience of the outbreak of Severe Acute Respiratory Syndrome (SARS) in 2002, the worst case likely impact of such an outbreak originating outside the UK would be cases occurring amongst returning travellers and their families and close contacts with spread to health care workers within hospital setting. 1. Short term disruption to local hospital intensive care facilities. 2. Possible disruption of several weeks to elective procedures. 3. Public concern about travel, within and beyond the UK and possible international travel restriction advice.	Medium (3)	Moderate (3)	High	Mass vaccination plans, Procedures to prevent escalation to pandemic status including response.	County Major Incident Plan, Health major incident plan, Humanitarian Assistance Plans. Local response procedures and capabilities. Public health monitoring.	N/A	HPA, SHA, PCT's	Jan-12
HL24	Human health	Localised Legionella / meningitis outbreak	Localised outbreak of a disease which could cause up to 10 fatalities	Medium High (4)	Moderate (3)	High	Health major incident plan, Decontamination units, Personal protective equipment available.	Government Decontamination Service (GDS), Health Major Incident Plans, County Major Incident Plans, Humanitarian Assistance Plans, procedures and response capability. GP action cards.	Training programmes, additional decon equipment, multi-agency exercises, awareness raising campaigns.	HPA, SHA, PCT's	Jan-12
ANIMAL HEALTH											

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
H25	Animal Health	Non-Zoonotic notifiable animal diseases (e.g. Foot & Mouth (FMD), Classical Swine (CSF) Fever, Blue Tongue and Newcastle disease (of birds))	The most serious disease in this category is FMD which drives the risk and outcome descriptions. A realistic worst case scenario might involve the culling and disposal up to 4 million animals across GB with up to 900 infected premises. For FMD whole of Great Britain is likely to be declared a "controlled area", prohibiting the movement of all susceptible livestock unless licensed. Disruption to rural communities, local economies, and the environment. 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 impacts at £100 million. £400 million losses to the agriculture and food chain industry. Loss of disease free status resulting in EU and third country import bans on livestock and livestock products from susceptible animals. The major outbreak and realistic worst case scenarios are of much greater scale than that experienced in the most recent	Medium (3)	Significant (4)	High	Department for the Environment, food and Rural Affairs (DEFRA) monitor risk on an ongoing basis and issue Qualitative Risk Assessments and advice.	County Major Incident Plan, Health major incident plan.	N/A	DEFRA, Trading Standards	Jan-12

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
H26	Animal Health	Exotic Zoonotic notifiable animal diseases (eg Highly Pathogenic Avian Influenza (HPAI), Rabies, West Nile Virus)	The most significant disease in this category is highly pathogenic avian influenza (HPAI) which drives the risk and outcome descriptions, although all these diseases can result in human death. AI is largely a disease of birds. The virus does not easily cross from birds to infect humans, although there is a theoretical risk of influenza virus reassortment if people with seasonal flu become co-infected with AI. Potential human threat (255 deaths from 408 cases worldwide since december 2003 (correct Feb 2009). realistic worst case scenario based on the need to cull and dispose of up to 30 million poultry across GB. Loss of disease free status resulting in EU and third country import bans on poultry and captive birds and poultry products. Disruption to rural communities, local economics, tourism and the environment. Economic impacts for a major outbreak assessed at £60 million. The major outbreak scenario is of much greater scale than that experienced in any of the recent outbreaks of avian influenza in the UK, where the disease has been contain	Medium (3)	Significant (4)	Very High	Department for the Environment, food and Rural Affairs (DEFRA) monitor risk, issue Qualitative Risk Assessments and advice. County Trading Standards and Health Protection Agency covering Essex identifies the local actions to be taken.	Regional Rabies Plan. Avian Influenza Plan. National Generic Contingency Plan for Notifiable Diseases.	N/A	DEFRA, SHA	Jan-12
INDUSTRIAL ACTION											
HL42	Industrial Action	Loss of cover due to industrial action by workers providing a service critical to the preservation of life (such as emergency service	A number of three day strikes with significant support over a two month period affecting a single emergency.	Medium High (4)	Significant (4)	Very high	National capability and preparedness, response plans.	National capability and preparedness, response plans. Business continuity plans, standby cover arrangements.	Monitoring of rising tide issues within industry	CO	Jan-12
H30	Industrial Action	Emergency services; loss of emergency fire and rescue cover because of to industrial action	A series of strikes by fire fighters takes place, spread over a period of two months, perhaps lasting up to 48 hours each.	Medium (3)	Limited (1)	Medium	National capability and preparedness, response plans. Specific Emergency Services business continuity plans, standby cover arrangements.	National capability and preparedness, response plans. Specific Emergency Services business continuity plans, standby cover arrangements.	Monitoring of rising tide issues within emergency services.	CO	Jan-12

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
H31	Industrial Action	Significant or perceived significant constraint on the supply of fuel at filling stations e.g. industrial action by contract drivers for fuel, or effective fuel blockades at key refineries/terminals by protesters due to the price of fuel.	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 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.	Medium (3)	Limited (1)	Medium	Fuel Plan.	Use of National Intelligence Model, Dept of Transport Downstream Oil Plan.	N/A	BERR	Jan-12
INTERNATIONAL EVENTS											
H37	International Event	Influx of British Nationals who are not normally resident in the UK.	Up to 10,000 British Nationals (BNs) not normally resident in the UK, returning to UK within a 4-6 week period following conventional war, widespread unrest or sustained terrorism campaign against British and other Western nationals.	Medium High (4)	Moderate (3)	High	National capability and preparedness.	National response plans and resilience.	N/A	FCO	Jan-12
H36	International Event	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 1 month, corresponding to 20% of worldwide production. Available mitigation action leaves the oil market with a shortfall of around 3.8mb/d.	Medium (3)	Moderate (3)	High	As of March 2007, 3 million barrels per day OPEC spare production capacity. IEA member countries holding 1.5 billion barrels as emergency stock.	National fuel/contingency plans.	N/A	FCO	Jan-12

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
H 53	International Event	Disruption to gas supply	This scenario is assumed to last for two weeks. This scenario 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 flows from medium and short-range storage and demand-side response to balance the market. The outcome very much depends on the circumstances in which such a shock occurs, and how the market could respond to the shock. The longer these circumstances persisted the more adverse the impact. Given the assumed two week duration and the range of supply problems, this scenario should therefore be considered as a highly-unlikely worst-case. The outcome of the scenario is that: Short-range and medium -range storage could become depleted (or effectively rationed by the market) after one to two weeks depending on how full it was before the event occurred. Gas wholesale prices would rise - perhaps progressively - and potentially to very high levels if the shock persists. Certain industrial customers would ha	Low (1)	Moderate (3)	Medium	Because of the severity of the shock and relatively modest market response assumed, such a scenario can be assumed to be highly unlikely to occur.	National fuel/contingency plans.	Rest Centre Plan	DECC	Jan-12
INDUSTRIAL TECHNICAL FAILURE											
H38	Utilities	Technical failure of a critical upstream oil/gas facility, gas import pipeline terminal, or Liquefied Natural Gas (LNG) import reception facility leading to a disruption in upstream oil and gas production.	Catastrophic accident destroying all parts of a critical upstream facility and, in the worst case, taking months or more to restore normal levels of service. This could potentially result in up to 11% loss of gas supply to the 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. Down stream oil would not be immediately so adversely affected given alternative means of supply.	Medium Low (2)	Moderate (3)	High	Local authority major emergency plan, Operator system emergency plan, Operators emergency communication plan, Operators rota disconnection plans, Energy Emergencies Executive (E3) Joint Restoration Team.	Local authority major emergency plan, Operator system emergency plan, Operators emergency communication plan, Operators rota disconnection plans.	N/A	National Grid	Jan-12

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
H39	Utilities	Failure of water infrastructure or accidental contamination with non-toxic containment.	Loss of or non-availability for drinking, of the piped water supply, for up to 50,000 people, for more than 24 hours and up to 3 days.	Medium High (4)	Minor (2)	Medium	Water supply contingency plans, contingency plans for hospitals and prisons etc.	Water Industry Act 1991, The Security and Emergency Measures Direction 1998 requires water companies to ensure plans are in place to maintain essential water supplies at all times, Under this legislation companies must plan to distribute water by alternative means until the supply is restored.	N/A	Water UK	Jan-12
H39A	Utilities	Accidental failure at sewerage treatment works or contamination (with non-toxic contaminant)	Between 10-50,000 people could be without sewerage services for up to three days.	Low (1)	Minor (2)	Low	Storm tanks and emergency overflows, Contingency Water Treatment Plans.	On line monitoring, visual inspections and telemetry alarms to control centres, Trade effluent controls of industrial discharges, Streaming of waste to maintain the integrity of treatment processes, Flood protection at vulnerable sites.	N/A	Water UK	Jan-12
H39B	Utilities	Accidental failure at water treatment works	Between 10 -50,000 people could be without piped water supply for up to three days.	Low (1)	Moderate (3)	Medium	Emergency repair plans, Water treatment contingency plans, Water supply contingency plans, contingency plans for hospitals and prisons etc.	Water Industry Act 1991, The Security and Emergency Measures Direction 1998 requires water companies to ensure plans are in place to maintain essential water supplies at all times, Under this legislation companies must plan to distribute water by alternative means until the supply is restored.	N/A	Water UK	Jan-12
H49	Utilities	Loss of drinking water supplies due to a major accident affecting infrastructure	Loss or non-availability for drinking, of the piped water supply, for a population of up to 350,000, for more than 24 hours and up to two weeks.	Low (1)	Catastrophic (6)	Medium	Emergency repair plans, Water treatment contingency plans, Water supply contingency plans, contingency plans for hospitals and prisons etc.	Water Industry Act 1991, The Security and Emergency Measures Direction 1998 requires water companies to ensure plans are in place to maintain essential water supplies at all times, Under this legislation companies must plan to distribute water by alternative means until the supply is restored.	N/A	Water UK	Jan-12
H40	Industrial Technical Failure	No notice loss of significant telecommunications infrastructure in a localised such as a fire, flood or gas incident	Loss of telecommunications for up to 100, 000 people for up to 72 hours.	High (5)	Moderate (3)	High	Business Continuity Plan of the provider (BT, Orange, Vodaphone).	Plans, assessments and equipment in place to deal with disruptions along with a wide knowledge/experience base developed.	N/A	BT, Orange, Vodaphone	Jan-12
H40A	Industrial Technical Failure	No notice failure of public telephony provider	Loss of service for up to 100,000 people for up to 1 to 5 hours	Medium Low (2)	Moderate (3)	High	Business Continuity Plan of the provider (BT, Orange, Vodafone)	Plans, assessments and equipment in place to deal with disruptions along with a wide knowledge/experience base developed.	N/A	BT, Orange, Vodaphone	Jan-12
H45	Utilities	Technical failure of electricity network due to operational error or bad weather causing damage to the system.	Total shutdown of the electricity supply over an entire reion of the UK occuring during the working week and lasting for 24 hours.	Medium (3)	Moderate (3)	High	Local authority major emergency plan, Operator system emergency plan, Operators emergency communication plan, Operators black start plan.	Local authority major emergency plan, Operator system emergency plan, Operators emergency communication plan, Operators black start plan.	N/A	Energy Networks Association	Jan-12

Risk Ref.	Hazard or Threat Category	Hazard or Threat Sub-Category	Outcome Description	Likelihood	Impact	Risk Rating	TDC Capability / Obligation	TDC Controls in Place	Additional TDC Actions Needed	Agency Responsible	Next Review
H41	Utilities	Technical failure of electricity network	Total blackout for up to 3-5 days due to loss of the National Grid. 3 days is best time. If there is damage to the network (say from storms) this timescale could be extended up to 5 days. Possible loss of life support machines, civil unrest, no alarms, street lighting, gas heating, rail transport, water supplies and mobile (PMT) telecommunications etc. Back up generators available for limited time for individual business and emergency services in some instances.	Medium (3)	Significant (4)	Very High	Business Continuity Plan of the provider (EDF Energy, British Electric).	Plans, assessments and equipment in place to deal with disruptions along with a wide knowledge/experience base developed.	N/A	Energy Networks Association	Jan-12
H43	Industrial Technical Failure	Telecommunication infrastructure failure - Human error	Widespread loss of telecommunications (including public land lines and mobile networks) at a Regional level for up to 3 days	Medium (3)	Moderate (3)	High	Business Continuity Plan of the provider (BT, Orange, Vodafone)	Plans, assessments and equipment in place to deal with disruptions along with a wide knowledge/experience base developed	N/A		Jan-12