

LANCASHIRE RESILIENCE FORUM
COMMUNITY RISK REGISTER
 V4.0

INDEX OF HAZARD CATEGORIES

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LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
1. Industrial Accidents & Environmental Pollution							
LCC	H2	Fire or explosion at an onshore ethylene gas pipeline.	Up to 3km around site causing up to 500 fatalities and up to 1500 casualties. Outcome assumes release point is close to a populated (i.e. urban) area. Impact on environment, including widespread impact on air quality	Low (1)	Catastrophic (5)	Medium	Regulated by the Health and Safety Executive under The Pipelines Safety Regulations (PSR) 1996 Multi-agency Contingency Plan prepared by Lancashire County Council under PSR to protect the health and safety of people and to safeguard the natural and built environment. Revised Jan. 08. Exercise to be held Feb.2009. County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises Local plans of Category 1 and Category 2 responders
MCA	H6	Fire or explosion at a Offshore Oil/Gas Platform	Local to site causing up to 200 fatalities and up to 200 casualties. Outcome assumes a similar event to Piper Alpha incident which, whilst having an impact on oil/gas supplies, it does not have implications for security of supply.	Medium Low (2)	Significant (4)	High	Regulated by the Health and Safety Executive General multi-agency plans involving Maritime and Coastguard Agency and other agencies relating to, e.g. the reception of evacuees Emergency arrangements form part of the platform Offshore safety case regime
LCC	H7	Explosion at a high pressure gas pipeline	Local to site up to 200 fatalities and up to 200 casualties. Outcome assumes release point is close to a populated (i.e. urban) area. Impact on environment, including widespread impact on air quality	Low (1)	Significant (4)	Medium	Regulated by the Health and Safety Executive under The Pipelines Safety Regulations (PSR) 1996 Multi-agency Contingency Plan prepared by Lancashire County Council under PSR to protect the health and safety of people and to safeguard the natural and built environment. Revised Jan. 08. Exercise to be held Feb.2009. County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Friends & Relatives Guidance. Regular programme of exercises Local plans of Category 1 and Category 2 responders
LCC	H8	Very large toxic chemical release	Up to 10km from site causing up to 2000 fatalities and 10,000 casualties. Toxic release could be due to loss of containment of chlorine or of a number of other chemicals e.g. anhydrous hydrofluoric acid, refrigerated ammonia, sulphur dioxide (or tri-oxide) gas. Outcome assumes a chlorine release and is based on a large industrial complex or bulk storage of chemicals near to a populated (i.e. urban) area.	Low (1)	Catastrophic (5)	Medium	Regulated jointly by the Health and Safety Executive and the Environment Agency under the Control of Major Accident Hazards Regulations 1999 (COMAH) as amended requiring company on-site plans Contingency plans prepared by Lancashire County Council under the COMAH Regulations to respond to on-site incidents with off-site consequences at Top-tier COMAH sites to protect the health and safety of people and to safeguard the natural and built environment. Plans reviewed and revised on 3 year cycle. Regular programme of exercises e.g. last multi-agency exercise held Jan.08. Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises and training sessions. County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.

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LCC	H9	Large toxic chemical release	<p>Up to 3km from site of toxic chemical release causing up to 50 fatalities and up to 2000 casualties.</p> <p>Outcome assumes a large industrial complex or bulk storage of chemicals near to a populated (i.e. urban) area or a chlorine release.</p> <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>	Medium (3)	Catastrophic (5)	Very High	<p>Regulated jointly by the Health and Safety Executive and the Environment Agency under the Control of Major Accident Hazards Regulations 1999 (COMAH) as amended requiring company on-site plans</p> <p>Contingency plans prepared by Lancashire County Council under the COMAH Regulations to respond to on-site incidents with off-site consequences at Top-tier COMAH sites to protect the health and safety of people and to safeguard the natural and built environment. Plans reviewed and revised on 3 year cycle. Regular programme of exercises e.g. last multi-agency exercise held Jan.08.</p> <p>Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises and training sessions.</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p>
LCC	H10	Radioactive Substance Release from nuclear reactor accident	<p>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.</p> <p>Outcome assumes an operating power station within 4km of a built up area and is broadly based upon the Chernobyl accident and the amount of radioactivity which might escape given such an event.</p>	Low (1)	Catastrophic (5)	Medium	<p>The designs of nuclear plants operating in the UK incorporate the philosophy of defence in depth. They provide for a series of safety barriers and systems to prevent an accidental release of radioactive material. Engineered safety barriers include the fuel matrix, the fuel cladding, the reactor circuit and any additional containment, and the plant and protection systems which shut down the reactor and maintain the necessary cooling. In addition to the engineered safety barriers, managerial systems, such as the application of quality assurance procedures and plant operating rules, ensure operation is carried out within set design limits. The greater the potential hazards the more stringent are the safety precautions and the required standards. The most likely outcome of a major malfunction at a nuclear plant would be that no member of the public would be harmed at all, because at least one of the safety systems would prevent the accident from developing to a stage where a significant release of radioactive material takes place.</p> <p>Regulated by the Health and Safety Executive under Radiation (Emergency Preparedness and Public Information) Regulations 2001 requiring company on-site plans</p> <p>Contingency plans prepared by Lancashire County Council to respond to on-site incidents with off-site consequences at REPPiR regulated sites to protect the health and safety of people and to safeguard the natural and built environment. Last exercised February 2008.</p> <p>Radioactive Substances Act 1993</p> <p>Multi-agency contingency plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p>

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							Local plans of Category 1 and Category 2 responders
LCC	H11	Accidental release of radioactive material from incorrectly handled or 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 where source is opened.	Low (1)	Moderate (3)	Medium	<p>Health and Safety at Work Act 1974, Radioactive Substances Act 1993, REPPIR (Radiation (Emergency Preparedness and Public Information) Regulations 2001), and other statutory requirements relating to the industrial safety</p> <p>Various regulations relating to transportation of radioactive material</p> <p>HSE / EA Guidance re licensing and safe handling</p> <p>National response arrangements – NAIR (National Arrangements for Incidents Involving Radioactivity) and RADS SAFE, a consortium of organisations that have come together to offer mutual assistance in the event of a transport accident involving radioactive materials belonging to a RADS SAFE member.</p> <p>Nuclear Accident Response Organisation (NARO) – responders to accident resulting from transport of Ministry of Defence nuclear materials – and LAESI – contingency arrangements for the transport of defence nuclear materials.</p> <p>Multi-agency contingency plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment. Reviewed and updated May 06.</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p>
LCC	H14	<p>Major contamination incident with widespread implications for the food chain, arising from:</p> <p>a. Industrial Accident (chemical, microbiological, nuclear) affecting food production areas e.g. Chernobyl, Sea Empress oil spill, foot and mouth disease (FMD)</p> <p>b. Contamination of animal feed e.g. dioxins, BSE</p> <p>c. Incidents arising from production processes e.g. adulteration of chilli powder with Sudan 1 dye</p>	<p>There may be direct animal and consumer health effects arising from this incident. A small number of fatalities (5) and casualties (50) are assumed, although the public health implications of food incidents vary widely. It should be noted that events that cause an increase in exposure to human carcinogens, raise the risk of fatality even though the casualty cannot be identified.</p> <p>Food production and marketing implications depending on scale and area affected e.g. major shellfisheries, dairy, livestock production areas. Potential direct animal and consumer health effects. Consumer confidence affected leading to lost markets, and where staple products (e.g. bread or milk) are affected, potential panic buying.</p>	High (5)	Minor (2)	Medium	<p>National control measures to prevent contamination of the food chain by Food Standards Agency, supported by local Trading Standards Officers and Environmental Health Officers.</p> <p>Response arrangements in place at national and local level to investigate, locate and restrict contamination incidents.</p> <p>Local multi-agency arrangements for the provision of advice and information to the public</p>
MCA	H15	Maritime pollution	Release of 100,000 tonnes of crude oil into the sea, polluting up to 200km of coastline.	Low (1)	Moderate (3)	Medium	International and national regulation of shipping aimed at preventing accidents by the safe construction, equipment and operation of ships by competent crews and

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			<p>The risk is based on a very large fully laden oil tanker sinks in the approach to a UK port. It assumes no loss of access to LNG terminals or other major port infrastructure.</p> <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 may require remediation and/or decontamination</p>				<p>shipping operators.</p> <p>Regulations enforced by Flag States and subject to rigorous Port State Control checks, co-ordinated in European waters.</p> <p>International Ship and Port Security Code; security service involvement.</p> <p>Maritime and Coastguard Agency and other authorities' contingency planning, including the National Contingency Plan for Marine Pollution from Ships and Offshore Installations backing up local and regional response and support plans.</p> <p>Maritime and Coastguard Agency's Major Incident Plans, in conjunction with those of other Category 1 Responders.</p> <p>Maritime and Coastguard Agency and Fire and Rescue Services' Maritime Incident Response Group.</p>
HPA	H46	Biological substance release during an unrelated work activity or industrial process (e.g. Legionella release due to improperly maintained building environmental control systems)	<p>Up to 10 fatalities and serious injuries or offsite impact requiring up to 1000 casualties.</p> <p>Outcome specifically related to Legionella release during an unrelated work activity or industrial process.; Inadvertent Legionella contaminant of wet cooling systems such as cooling towers and evaporative condensers, and air conditioning systems such as humidifiers and industrial air scrubbers.</p>	High (5)	Catastrophic (5)	Very High	<p>Control of Substances Hazardous to Health Regulations 2002 (COSHH) requires employers to control exposures to hazardous substances to protect both employees and others who may be exposed from work activities.</p> <p>Joint Infectious Diseases Outbreak Plan (JIDO) issued August 2005, and smallpox plans in place.</p> <p>Training for Smallpox and Deliberate Release; Hospital Decontamination Equipment; SMART, general CBRN Awareness. Regular exercises.</p> <p>NW SMART Team trained and equipped to respond 24/7 to smallpox and other emerging infectious diseases.</p> <p>Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises.</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Animal Health Protocols.</p> <p>Local plans of Category 1 and Category 2 responders</p>
LCC	HL1	Fire or explosion at a gas terminal or involving a gas pipeline	<p>Up to 3km around site causing up to 10 fatalities and up to 100 casualties.</p> <p>Impact on environment, including persistent / widespread impact on air quality.</p>	Low (1)	Significant (4)	Medium	<p>Regulated by the Health and Safety Executive under The Pipelines Safety Regulations (PSR) 1996</p> <p>Multi-agency Contingency Plan prepared by Lancashire County Council under PSR to protect the health and safety of people and to safeguard the natural and built environment. Revised Jan. 08. Exercise to be held Feb.2009.</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p>
LCC	HL2	Localised industrial	Up to 3km around site causing up to 30 fatalities	Medium (3)	Significant	Very High	Regulated jointly by the Health and Safety Executive and the Environment Agency

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		accident involving large toxic release e.g. from a site storing large quantities of chlorine	and up to 250 casualties. Impact on environment, including persistent / widespread impact on air quality.		(4)		<p>under the Control of Major Accident Hazards Regulations 1999 (COMAH) as amended requiring company on-site plans</p> <p>Contingency plans prepared by Lancashire County Council under the COMAH Regulations to respond to on-site incidents with off-site consequences at Top-tier COMAH sites to protect the health and safety of people and to safeguard the natural and built environment. Plans reviewed and revised on 3 year cycle. Regular programme of exercises e.g. last multi-agency exercise held Jan.08.</p> <p>Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises and training sessions.</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p>
LCC	HL3	Localised industrial accident involving small toxic release	Up to 1km from site of toxic chemical release causing up to 10 fatalities and up to 100 casualties.	Medium (3)	Moderate (3)	High	<p>Regulated jointly by the Health and Safety Executive and the Environment Agency under the Control of Major Accident Hazards Regulations 1999 (COMAH) as amended requiring company on-site plans</p> <p>Contingency plans prepared by Lancashire County Council under the COMAH Regulations to respond to on-site incidents with off-site consequences at Top-tier COMAH sites to protect the health and safety of people and to safeguard the natural and built environment. Plans reviewed and revised on 3 year cycle. Regular programme of exercises e.g. last multi-agency exercise held Jan.08.</p> <p>Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises and training sessions.</p> <p>Health and Safety at Work Act 1974 and other statutory requirements relating to the chemical industries</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p>
EA	HL4	Major Pollution of Controlled Waters	Pollution incident impacting upon controlled waters (for example, 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 point(s), major impact on amenity (i.e. tourism) value, serious impact on human health.	High (5)	Moderate (3)	High	<p>Environment Agency maintains:</p> <ul style="list-style-type: none"> • 24 hour 365 day response system • Incident Management Process • Memoranda of Understanding with Fire Brigades, police, Local Authorities, Highways Agency, Health Protection Agency & Health organisations, and Maritime & Coastguard Agency. <p>Where significant volumes of sewage are treated, mitigation measures are normally held on site in close proximity of the works outfall to the receiving water to introduce oxygenating chemicals that minimise environmental effects when sewage is treated to a lower than usual standard.</p> <p>Operation Merlin – Lancashire county-wide multi-agency plan for dealing with</p>

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							<p>significant incidents involving hazardous or toxic substances, and which pose a serious threat to the environment. Reviewed and updated April 2010.</p> <p>Maritime and Coastguard Agency and other authorities' contingency planning, including the National Contingency Plan for Marine Pollution from Ships and Offshore Installations</p> <p>Oil Spill Response Plan and Contingency Planning for Marine Pollution Preparedness and Response: Guidelines for Ports</p> <p>The Merchant Shipping (Prevention of Oil Pollution) Regulations 1996 and The Merchant Shipping (Prevention of Oil Pollution) (Amendment) Regulations 2005</p> <p>Merchant Shipping (Oil Pollution Preparedness, Response and Co-operation Convention) Regulations 1998</p>
FRS	HL7	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 bruises type injuries, as well as burns.	Medium Low (2)	Moderate (3)	Medium	<p>Regulated jointly by the Health and Safety Executive and the Environment Agency under the Control of Major Accident Hazards Regulations 1999 (COMAH) as amended requiring company on-site plans</p> <p>Health and Safety at Work Act 1974 and other statutory requirements relating to the industrial safety</p> <p>Multi-agency contingency Plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p> <p>If an incident involves significant releases of chemicals or toxicity, see A05 and A06 above.</p>
LCC	HL25	Fire or explosion at a gas terminal as well as LPG, LNG, and other gas onshore feedstock pipeline and flammable gas storage sites	<p>Up to 1km around site, causing up to 50 fatalities and 150 casualties.</p> <p>Gas terminal event likely to be of short duration once fed lines are isolated; event at storage site could last for days if the explosion damaged control equipment. Impact on the environment, including persistent / widespread impact on air quality.</p>	Low (1)	Catastrophic (5)	Medium	<p>Regulated by the Health and Safety Executive under The Pipelines Safety Regulations 1996</p> <p>Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises and training.</p> <p>Multi-agency Contingency Plan prepared by Lancashire County Council under PSR to protect the health and safety of people and to safeguard the natural and built environment. Revised Jan. 08. Exercise to be held Feb.2009.</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Friends & Relatives Guidance</p> <p>Local plans of Category 1 and Category 2 responders</p>
LCC	HL26	Localised fire or explosion	Up to 1km around site, causing up to 150 fatalities	Low (1)	Catastrophic	Medium	Regulated by the Health and Safety Executive under The Pipelines Safety

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		at an onshore ethylene gas pipeline	and 450 casualties. Outcome is based on a release point close to a populated (i.e. urban) area. Impact on the environment, including persistent / widespread impact on air quality.		(5)		Regulations (PSR) 1996 Multi-agency Contingency Plan prepared by Lancashire County Council under PSR to protect the health and safety of people and to safeguard the natural and built environment. Revised Jan. 08. Exercise to be held Feb.2009. Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises and training. County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Friends & Relatives Guidance Local plans of Category 1 and Category 2 responders
LCC	HL28	Localised fire or explosion at a fuel distribution site or tank storage of flammable and/or toxic liquids	Up to 1km around site, causing up to 15 fatalities and 200 casualties. Impact on the environment, including persistent / widespread impact on air quality.	Medium Low (2)	Significant (4)	High	Regulated jointly by the Health and Safety Executive and the Environment Agency under the Control of Major Accident Hazards Regulations 1999 (COMAH) as amended requiring company on-site plans Contingency plans prepared by Lancashire County Council under the COMAH Regulations to respond to on-site incidents with off-site consequences at Top-tier COMAH sites to protect the health and safety of people and to safeguard the natural and built environment. Regular programme of exercises. Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises. County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Friends & Relatives Guidance Local plans of Category 1 and Category 2 responders
LCC	HL30	Localised explosion at a natural gas pipeline	Causing up 100 fatalities and up to 100 people. Outcome is based on a release point close to a populated (i.e. urban) area. Impact on the environment, including persistent / widespread impact on air quality.	Low (1)	Catastrophic (5)	Medium	Regulated by the Health and Safety Executive under The Pipelines Safety Regulations (PSR) 1996 Multi-agency Contingency Plan prepared by Lancashire County Council under PSR to protect the health and safety of people and to safeguard the natural and built environment. Revised Jan. 08. Exercise to be held Feb.2009. Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises. County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Friends & Relatives Guidance Local plans of Category 1 and Category 2 responders
LCC	HL31	Limited radioactive release from a nuclear accident	Up to 1km from site of accident causing up to 50 fatalities and 500 casualties	Low (1)	Catastrophic (5)	Medium	Health and Safety at Work Act 1974, Radioactive Substances Act 1993, REPIR (Radiation (Emergency Preparedness and Public Information) Regulations 2001), and other statutory requirements relating to the industrial safety

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							<p>Radioactive Substances Act 1993</p> <p>HSE / EA Guidance re licensing and safe handling</p> <p>Nuclear plants regulated by the Health and Safety Executive under Radiation (Emergency Preparedness and Public Information) Regulations 2001 requiring company on-site plans</p> <p>Contingency plans prepared by Lancashire County Council to respond to on-site incidents with off-site consequences at REPIR regulated sites to protect the health and safety of people and to safeguard the natural and built environment. Last exercised February 2008.</p> <p>Various regulations relating to transportation of radioactive material</p> <p>National response arrangements – NAIR (National Arrangements for Incidents Involving Radioactivity) and RADSAFE, a consortium of organisations that have come together to offer mutual assistance in the event of a transport accident involving radioactive materials belonging to a RADSAFE member.</p> <p>Nuclear Accident Response Organisation (NARO) – responders to accident resulting from transport of Ministry of Defence nuclear materials – and Local Authority and Emergency Services Information (LAESI) – contingency arrangements for the transport of defence nuclear materials. LAESI arrangements exercised February 2010.</p>
FRS	HL33	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.	Low (1)	Moderate (3)	Medium	<p>Lancashire Fire and Rescue Service with partners have developed a moorland strategy, incorporating a unique mapping system highlighting risks, access, water supplies, resources, etc.</p> <p>Lancashire Fire and Rescue Service have equipped every fire appliance with a Vehicle Mounted Data System, which can access the information provided by the moorland strategy.</p> <p>Lancashire Fire and Rescue Service have located 3 off road vehicles at key stations, which can provide assistance.</p> <p>Lancashire Fire and Rescue Service have provided personnel with Global Positioning Systems to facilitate orientation.</p> <p>United Utilities have issued a Heather Burning code of practice, which will be implemented by the relevant catchment teams.</p> <p>Abbeystead Estates have access to an aerial firefighting service should a major fire develop on their estate.</p> <p>Natural England has implemented a Fire Severity Index to limit public access during high-risk periods.</p> <p>Multi-agency contingency Plan prepared by Lancashire County Council to protect</p>

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							the health and safety of people and to safeguard the natural and built environment County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Friends & Relatives Guidance Local plans of Category 1 and Category 2 responders
EA	L1	Major Land Contamination	Pollution incident (for example chemical spillage) leading to persistent and/or extensive effect on land quality, major damage to terrestrial ecosystems, property, amenity (i.e. tourism) value and major damage to agriculture / commerce, serious impact on human health.	High (5)	Moderate (3)	High	14Environment Agency: <ul style="list-style-type: none"> • 24 hour 365 day response system in place. • Incident Management Process in place. • Memoranda of Understanding in place with Fire Brigades, police, Local Authorities, Highways Agency, Health Protection Agency and Health organisations. <p>Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant incidents involving hazardous or toxic substances, and which pose a serious threat to the environment. Reviewed and updated April 2010.</p> <p>Response arrangements in place at local level to investigate, locate and restrict contamination incidents by local Trading Standards Officers and Environmental Health Officers.</p> <p>Local multi-agency arrangements for the provision of advice and information to the public.</p>
2. Transport Accidents							
BC	H16 HL9	Aviation accident	Worst case scenario – loss of up to 2 aircraft and passengers with debris over semi-urban area. Up to 600 fatalities and up to 300 casualties. Outcome assumes collision of 2 commercial airliners with death of all passengers and crew (600 fatalities) and up to 300 casualties on the ground. No significant damage to key infrastructure. Otherwise, assuming accident involving one commercial aircraft probably on take off or landing, up to 50 fatalities and up to 250 casualties.	Low (1)	Significant (4)	Medium	Licensed by Civil Aviation Authority – plans to deal with on/off site incidents Aircraft security and safety measures Blackpool Airport Emergency Orders Warton Emergency Orders Aircraft Post Crash Management (APCM) organisation – RAF organisation who will respond to a military aircraft crash. Multi-agency contingency Plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises. Local plans of Category 1 and Category 2 responders
MCA	H42	Rapid accidental sinking of a passenger vessel in, or close to, UK Waters	Up to 500 fatalities and up to 1000 casualties, potentially with blockage of major sea-lane or port. Outcome assumes a passenger liner such as the QMII sinks rapidly close in to shore but with strong	Low (1)	Significant (4)	Medium	International and national regulation of shipping aimed at preventing accidents by the safe construction, equipment and operation of ships by competent crews and shipping operators. Regulations enforced by Flag States and subject to rigorous Port State Control

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			winds and high seas.				checks, co-ordinated in European waters. Maritime and Coastguard Agency's Major Incident Plans, in conjunction with those of other Category 1 Responders. Maritime and Coastguard Agency and Fire and Rescue Services' Maritime Incident Response Group.
MCA	HL8	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 The risk is based on an accident to a smaller passenger vessel on the UK coast or inland waterways.	Low (1)	Moderate (3)	Medium	International and national regulation of shipping aimed at preventing accidents by the safe construction, equipment and operation of ships by competent crews and shipping operators. Regulations enforced by Flag States and subject to rigorous Port State Control checks, co-ordinated in European waters. Maritime and Coastguard Agency's Major Incident Plans, in conjunction with those of other Category 1 Responders. Maritime and Coastguard Agency and Fire and Rescue Services' Maritime Incident Response Group.
LC	HL10	Local accident on motorways and local 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	Medium High (4)	Moderate (3)	High	Emergency Services / Highways Agency key plans in place for incidents of this nature including: <ul style="list-style-type: none"> • Multi-Agency Major Accident procedures • Multi-Agency Command and Control procedures • Lancashire Constabulary Emergency Response plans • Lancashire Fire and Rescue Standard Operating procedures • North West Ambulance Service Major Accident plans • Primary Care Trusts/Health Protection Agency Major Emergency plans • Local Authority Rest Centre/Transport plans • Media plan Arrangements tested in multi-agency exercise October 2009
BTP	HL11	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)	Significant (4)	Medium	<u>Lead Agency:</u> All Train Operating Companies, Freight Operating Companies and Network Rail are required to have a 'Safety Case' agreed with the Health and Safety Executive before a licence to operate is granted. The Safety Case proves that the Operator has: <ol style="list-style-type: none"> 1. analysed and assessed the risks of the operation; 2. determined how those risks will be controlled, and where necessary improved; 3. put into place a management system to ensure that the controls are effectively and consistently applied. In addition, the Association of Train Operating Companies have established Care Teams to support people involved in incidents on the rail network, including family and friends. <u>Other Agencies:</u> Multi-Agency Major Accident procedures Multi-Agency Command and Control procedures British Transport Police/Lancashire Constabulary Emergency Response plans Lancashire Fire and Rescue Standard Operating procedures North West Ambulance Service Major Accident plans Primary Care Trusts/Health Protection Agency Major Emergency plans Local Authority Rest Centre/Transport plans

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
FRS	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 substance covers wide area). The extent of the impact would depend on substance involved, quantity, nature and location of accident. The assumption is based on phosgene / chlorine.	Medium Low (2)	Significant (4)	High	<p>Media plan</p> <p>Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises.</p> <p>The Carriage of Dangerous Goods by Road Regulations 1996 (CDGR) places a duty upon everyone involved in the carriage of dangerous goods by road, to ensure that they know what they have to do to minimise the risk of incidents and guarantee an effective response.</p> <p>Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP) ensures that people are supplied with the information they need to protect themselves from chemicals. CHIP obliges suppliers of chemicals to identify hazards and provide appropriate packaging labels and safety data sheets.</p> <p>Control of Substances Hazardous to Health Regulations 2002 (COSHH) requires employers to control exposures to hazardous substances to protect both employees and others who may be exposed from work activities.</p> <p>Multi-agency contingency Plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p>
FRS	HL14	Local (road) accident involving transport of fuel or explosives.	Up to 30 fatalities and up to 20 casualties within the vicinity of the accident or explosion. The area would require evacuating up to a 1km radius depending on the substances involved. Potential release of up to 30 tonnes of liquid fuel into the local environment, watercourses etc. Large quantities of fire fighting media (foam) would impact on the environment. Roads and access routes would be impassable for a time and could make emergency access into/out of large populated areas difficult or impossible.	Low (1)	Significant (4)	Medium	<p>Operation Merlin – Lancashire county-wide multi-agency plan for dealing with significant chemical incidents. Reviewed and updated April 2010. Regular programme of exercises.</p> <p>The Carriage of Dangerous Goods by Road Regulations 1996 (CDGR) places a duty upon everyone involved in the carriage of dangerous goods by road, to ensure that they know what they have to do to minimise the risk of incidents and guarantee an effective response.</p> <p>Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP) ensures that people are supplied with the information they need to protect themselves from chemicals. CHIP obliges suppliers of chemicals to identify hazards and provide appropriate packaging labels and safety data sheets.</p> <p>Control of Substances Hazardous to Health Regulations 2002 (COSHH) requires employers to control exposures to hazardous substances to protect both employees and others who may be exposed from work activities.</p> <p>Nuclear Accident Response Organisation (NARO) – responders to accident resulting from transport of Ministry of Defence nuclear materials.</p> <p>Multi-agency contingency Plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
							County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises. Local plans of Category 1 and Category 2 responders
MCA	HL34	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. The risk is based on an accident to a medium-sized passenger ship such as a ferry. Casualty figures relate to large ferries carrying c.2000 people (passengers & crew).	Low (1)	Significant (4)	Medium	International and national regulation of shipping aimed at preventing accidents by the safe construction, equipment and operation of ships by competent crews and shipping operators. Regulations enforced by Flag States and subject to rigorous Port State Control checks, co-ordinated in European waters. Maritime and Coastguard Agency's Major Incident Plans, in conjunction with those of other Category 1 Responders. Maritime and Coastguard Agency and Fire and Rescue Services' Maritime Incident Response Group.
3. Severe Weather							
Met	H17	Storms and Gales	Storm force winds affecting most of the country for at least 6 hours. Most inland, lowland areas experience mean speeds in excess of 55 mph with gusts in excess of 85 mph. Possible fatalities and casualties with short term disruption to infrastructure including power, transport networks, homes and businesses.	Medium High (4)	Moderate (3)	High	Liaison with the Met Office re issue of weather warnings to Category 1 and Category 2 responders and general public via radio and television Severe weather plan revised Jan. 08 Multi-agency contingency Plan prepared by Lancashire Resilience Forum to co-ordinate arrangements. Last updated December 2007. County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises. Local plans of Category 1 and Category 2 responders Local business continuity arrangements
Met	H18	Low Temperatures and Heavy Snow	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.	Medium (3)	Significant (4)	Very High	Liaison with the Met Office re issue of weather warnings to Category 1 and Category 2 responders and general public via radio and television Local liaison with emergency services, health authorities and local authorities Winter gritting arrangements Contact arrangements with highways authorities Severe weather plan revised Jan. 08 Multi-agency contingency Plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises. Local plans of Category 1 and Category 2 responders

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
Met	H48	Heatwave	<p>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.</p> <p>There could be disruption to power supply due to impact on electricity generation and cooling systems and also upon distribution and transmission transformers that would be highly loaded in urban areas due to air conditioning load in large buildings.</p> <p>There could be disruption to transport infrastructure (e.g. through the melting of tarmac or the buckling of rails) which could, potentially, be of national significance.</p> <p>When combined with antecedent dry weather, very hot conditions can also lead to an increased risk of major fires on heathland.</p>	Medium (3)	Significant (4)	Very High	<p>Local business continuity arrangements</p> <p>Liaison with the Met Office re issue of weather warnings to Category 1 and Category 2 responders and general public via radio and television</p> <p>Local liaison between health and social services re contingency arrangements for vulnerable people e.g. elderly and young.</p> <p>National Heatwave Plan 2005</p>
EA	HL16	<p>Major coastal/tidal flooding with 1000 to 10,000 properties affected for up to 14 days.</p> <p>Regional impact.</p>	<p>Sea surge, high tides, gale force winds and/or heavy rainfall affecting more than the NW region, some defence systems overtopped or failing at multiple locations.</p> <p>Up to 20 fatalities, 300 casualties and up to 200 missing persons.</p> <p>Up to 50,000 people (including tourists) in coastal towns and villages evacuated from flooded sites.</p> <p>People stranded over a large area and up to 5,000 in need of rescue.</p> <p>Up to 10,000 people needing assistance with sheltering for up to 12 months.</p> <p>Multi-agency response invoked, possible large scale evacuation required.</p> <p>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.</p> <p>Impact on infrastructure includes:</p> <ul style="list-style-type: none"> Widespread disruption for 7-14 days Salt damage Road, rail and bridge damage 	Medium (3)	Significant (4)	Very High	<p>Environment Agency provide flood warning service to public for flood warning areas</p> <p>Additional broadcast warnings to media and partners for all other areas at risk of coastal flooding</p> <p>Environment Agency Local Flood Warning Plan containing maps of flood warning areas, held by all partners</p> <p>Additional resources provided by agencies detailed in Multi Agency Response Plan (MARF). LRF Flooding Sub-Group currently re-writing MARF. The new plan will be called MAFP (Multi Agency Flooding Plan) and have the structure of a generic overarching plan plus annexes with specific details for each flood warning area.</p> <p>Regular Local Resilience Forum Flooding Sub Group meetings to discuss flooding issues</p> <p>Multi-agency contingency Plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p> <p>Local business continuity arrangements</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
			<ul style="list-style-type: none"> Debris Contaminated water supplies Pollutants from affected businesses Loss of (and possible damage to) telephone, electricity, gas and water supplies. <p>Rural impacts include widespread livestock carcasses.</p> <p>Waterborne disease.</p> <p>Sewage treatment works flooded.</p> <p>Numerous properties destroyed – many more uninhabitable for 12 months.</p> <p>Significant mutual aid would be deployed from inland counties.</p>				<p>Exercise Argent in Feb 2008 to test multi agency response to widespread coastal flooding</p> <p>Lancashire Resilience Forum considering implications of, and responses to, the recommendations of the Pitt Review</p>
EA	HL17	Localised coastal / tidal flooding with less than 1000 properties affected for up to 14 days.	<p>Sea surge, high tides and/or gale force winds affecting the coastline and the NW region, a defence system overtopped or failing at a single location. Localised impact with infrastructure affected. Depth and velocity of water flows will vary.</p> <p>Up to 10 fatalities, 150 casualties and up to 100 missing persons.</p> <p>Up to 20,000 people (including tourists) in coastal towns and villages evacuated from flooded sites.</p> <p>People stranded over a large area and up to 2,000 in need of rescue.</p> <p>Up to 3,000 people needing assistance with sheltering for up to 12 months.</p> <p>Multi-agency response invoked with some local evacuation and cordoning off of affected areas.</p> <p>Tidal inundation would be rapid and wave impact would cause structural damage to properties.</p> <p>Impact on infrastructure includes:</p> <ul style="list-style-type: none"> Localised disruption for <7 days Salt damage Road damage Debris Contaminated local water supplies Pollutants from affected businesses 	Medium-High (4)	Significant (4)	Very High	<p>Environment Agency provide flood warning service to public for flood warning areas</p> <p>Environment Agency Local Flood Warning Plan</p> <p>Additional resources provided by agencies detailed in Multi Agency Response Plan (MARP). LRF Flooding Sub-Group currently re-writing MARP. The new plan will be called MAFP (Multi Agency Flooding Plan) and have the structure of a generic overarching plan plus annexes with specific details for each flood warning area.</p> <p>Regular Local Resilience Forum Flooding Sub Group meetings to discuss flooding issues</p> <p>Multi-agency contingency Plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance</p> <p>Local plans of Category 1 and Category 2 responders</p> <p>Local business continuity arrangements</p> <p>Exercise Argent in Feb 2008 to test multi agency response to widespread coastal flooding</p> <p>Lancashire Resilience Forum considering implications of, and responses to, the recommendations of the Pitt Review</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
			<p>Rural impacts include</p> <ul style="list-style-type: none"> widespread livestock carcasses Waterborne disease. <p>Some properties destroyed and others uninhabitable for 12 months.</p>				
EA	HL18	<p>Local / urban flooding (fluvial or surface run-off) with 1000 to 10,000 properties affected for 2-7 days.</p> <p>Regional impact.</p>	<p>A sustained period of heavy rainfall extending over 2 weeks, perhaps combined with snow melt, resulting in flash flooding and steadily rising river levels across the whole of Lancashire. Could threaten a large urban town. Depth and velocity of water flows will vary.</p> <p>Up to 15 fatalities and 150 casualties.</p> <p>Up to 15,000 people evacuated.</p> <p>Up to 500 people stranded over a large area and in need of rescue.</p> <p>Major impact on road and rail links, making them impassable for up to 5 days.</p> <p>Impact on infrastructure includes:</p> <ul style="list-style-type: none"> Some buildings collapse Water damage Road and bridge damage Sediment movement Contaminated water supplies Loss of essential services (gas, electricity, and telecoms) to 20,000 homes for up to 14 days Widespread disruption for 7-14 days Significant debris and pollutants from affected businesses <p>Localised economic damage needing between 6 to 18 months recovery before business as usual conditions restored.</p> <p>Up to 1,000 people needing assistance with sheltering for up to 12 months.</p> <p>Rural impacts include</p> <ul style="list-style-type: none"> widespread livestock carcasses Waterborne disease. <p>Sewage treatment works flooded.</p>	Medium (3)	Significant (4)	Very High	<p>Environment Agency provide flood warning service to public for flood warning areas</p> <p>Environment Agency Local Flood Warning Plan containing maps of all flood warning areas and held by all partners</p> <p>Additional resources provided by agencies detailed in Multi Agency Response Plan (MARF). LRF Flooding Sub-Group currently re-writing MARF. The new plan will be called MAFP (Multi Agency Flooding Plan) and have the structure of a generic overarching plan plus annexes with specific details for each flood warning area.</p> <p>Regular Local Resilience Forum Flooding Sub Group meetings to discuss flooding issues</p> <p>Multi-agency contingency Plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p> <p>Local business continuity arrangements</p> <p>Lancashire Resilience Forum considering implications of, and responses to, the recommendations of the Pitt Review</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
			<p>Up to 50 properties destroyed and many more uninhabitable.</p> <p>Significant mutual aid would be deployed from neighbouring regions, although other regions are also likely to be at risk or impacted at the same time.</p>				
EA	HL19	Local fluvial flooding with 100 to 1000 properties affected for 2-7 days	<p>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 Lancashire. The depth and velocity of water flows will vary.</p> <p>Up to 5 fatalities and 50 casualties.</p> <p>Up to 5,000 people evacuated.</p> <p>Up to 200 people stranded over a large area and in need of rescue.</p> <p>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.</p> <p>Most waterways would be closed to traffic because of strong currents and high water levels.</p> <p>Impact on infrastructure includes:</p> <ul style="list-style-type: none"> • Water damage • Road and bridge damage. <p>Sediment movement.</p> <p>Contamination of local water supplies.</p> <p>Localised loss of essential services (gas, electricity, telecoms) for 5,000 people for up to 14 days.</p> <p>Up to 250 people needing assistance with sheltering for up to 12 months.</p> <p>Substantial disruption within a county for 7-14 days.</p> <p>Significant debris and pollutants clear-up needed. Localised economic damage needing between 6 to 18 months recovery before business as usual conditions restored.</p>	Medium-High (4)	Moderate (3)	High	<p>Environment Agency provide flood warning service to public for flood warning areas</p> <p>Environment Agency Local Flood Warning Plan containing maps of all flood warning areas and held by all partners</p> <p>Additional resources provided by agencies detailed in Multi Agency Response Plan (MARP). LRF Flooding Sub-Group currently re-writing MARP. The new plan will be called MAFP (Multi Agency Flooding Plan) and have the structure of a generic overarching plan plus annexes with specific details for each flood warning area.</p> <p>Regular Local Resilience Forum Flooding Sub Group meeting to discuss flooding issues</p> <p>Multi-agency Contingency Plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p> <p>Local business continuity arrangements</p> <p>Lancashire Resilience Forum considering implications of, and responses to, the recommendations of the Pitt Review</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
			Significant mutual aid would be deployed from neighbouring counties but the response effort could be contained with the NW region.				
EA	HL20	Localised, extremely hazardous Flash Flooding	<p>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 that timely flood warnings are not possible. Flooding of up to 200 properties.</p> <p>Assumes:</p> <ul style="list-style-type: none"> • Very little time to evacuate (as little as 15 minutes) • Flooding lasts less than 24 hours • Emergency services are not pre-warned • Extent of downstream effect could reach 30-50 km • Significant local infrastructure damage (gas, electricity supplies, telecommunications, road and rail links). <p>(NB: the outcome is essentially the same as D3 (H44) – dam or reservoir failure).</p>	Medium (3)	Moderate (3)	High	<p>Met Office severe weather warnings</p> <p>Environment Agency provide flood warning service to some communities</p> <p>Environment Agency Local Flood Warning Plan containing maps of flood warning areas and held by all partners</p> <p>Additional resources provided by agencies detailed in Multi Agency Response Plan (MARF). LRF Flooding Sub-Group currently re-writing MARF. The new plan will be called MAFP (Multi Agency Flooding Plan) and have the structure of a generic overarching plan plus annexes with specific details for each flood warning area.</p> <p>Regular Local Resilience Forum Flooding Sub Group meetings to discuss flooding issues</p> <p>Multi-agency Contingency Plan prepared by Lancashire County Council to protect the health and safety of people and to safeguard the natural and built environment</p> <p>County wide multi-agency Contingency Plans e.g. Rest Centre Guidance, Family & Friends Guidance. Regular programme of exercises.</p> <p>Local plans of Category 1 and Category 2 responders</p> <p>Local business continuity arrangements</p> <p>Lancashire Resilience Forum considering implications of, and responses to, the recommendations of the Pitt Review</p> <p>Debrief meetings held following flash flooding across Lancashire (21 Jan 08). Lessons learnt circulated via LRF</p> <p>LRF Risk Assessment Working Group monitoring EA "Rapid Response Catchment Project", reviewing local flood catchments where 25+ properties could be affected by flash flooding.</p>
EA	L30	Drought	<p>Local/Regional/National</p> <p>Concerns over possible increased drought risk via climate change.</p>	Medium-High (4)	Moderate (3)	High	<p>United Utilities Statutory Drought Plan, including hosepipe bans etc.</p> <p>Regional drought plan (Environment Agency)</p> <p>North Area (Environment Agency) drought plan</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
							<p>Monitoring of drought order sites and whole river network</p> <p>Regular liaison between United Utilities and Environment Agency Regional & Area Environmental Planners</p> <p>Regional computer modelling to predict pressure points in supply network</p> <p>Potential assessment and granting of Drought Orders & Permits</p> <p>Potential Section 57 Spray Irrigation restrictions</p> <p>Potential publicity campaigns</p> <p>See M02 for health implications</p>
4. Structural Hazards							
LCC	H44	Major reservoir dam failure or collapse	<p>Collapse without warning resulting in almost instantaneous flooding. Significant movement of debris (including vehicles) and sediment.</p> <p>Complete destruction of some residential and commercial properties and serious damage of up to 500 properties. Several thousand other properties could be flooded.</p> <p>Up to 200 fatalities and 1000 casualties.</p> <p>Up to 50 missing persons and stranded people.</p> <p>Hazardous recovery amongst collapsed infrastructure and debris.</p> <p>Lost water supply to homes and businesses.</p> <p>Up to 200 people need temporary accommodation for 2-18 months.</p> <p>Assumes:</p> <ul style="list-style-type: none"> ▪ No time to evacuate. ▪ Flooding lasts less than 24 hours. ▪ Emergency services not pre-warned ▪ Extent of downstream effect could reach 50-60km. ▪ Significant damage to gas, electricity supplies, telecommunications, road and 	Low (1)	Catastrophic (5)	Medium	<p>Reservoirs Act 1975 as amended by the Water Act 2004 - includes the role of the Environment Agency and inspection regime of the reservoirs' owners</p> <p>Local arrangements for notification of potential breaches between water companies, Police and local authorities</p> <p>Generic contingency arrangements for multi-agency response (e.g. emergency Rest Centres, media response guidance) including liaison with reservoir owner and access to inundation maps</p> <p>Lancashire County Council part of national steering group to determine format of off-site plans</p> <p>Local business continuity arrangements</p> <p>Reminder letters to reservoir undertakers re notification of potential breaches issued October 2007</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
			<p>rail links</p> <p>(NB: the outcome is essentially the same as C9 (HL20) – flash flooding).</p>				
5. Human Health							
HPA	H23	Influenza-type disease (Pandemic)	<p>Each pandemic is different and the nature of the virus and its impacts cannot be known in advance. Previous pandemic 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 throughout the UK but would consist of local outbreaks in Lancashire of 6-8 weeks. Up to half the population could be affected. High number of cases and consultations with healthcare providers threatening to overwhelm health and other services. The advice is “business as usual wherever practicable” and “stay at home and phone the national ‘flu help line if you feel unwell”. All ages may be affected, but until the virus emerges we cannot know which groups will be most at risk.</p> <p>Clinical attack rate of 25 to 50% spread over one 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 10,000 healthcare contacts per 100,000 population per week at peak. Peak in weeks 6 to 8, with 22% of total cases occurring at this time. In Lancashire, it is one of the intentions of the use of antivirals that the timeframe is extended and the peak lowered.</p> <p>Swine Flu (Influenza A/H1N1) in 2009/10 did not reach this scenario and is not indicative of future pandemic influenzas.</p>	Medium-High (4)	Significant (4)	Very High	<p>Tiered plans in place (National, Regional, County, Health Economy) e.g. Department of Health Pandemic Influenza Plan, HPA Pandemic Influenza Plan, LRF Multi Agency Pandemic Influenza Plan; Organisational business continuity plans; Health service and social service capacity plans; National plans for prioritising distribution of anti viral drugs; Vaccine programme – longer term measure; Public awareness – mechanisms in place for informing public and professionals through joint media plans, NHS Direct, TV and advertising campaigns; Mass medication protocol; Temporary mortuary / body store plans; Surveillance mechanisms; Personal Protection Equipment purchased for health professionals and local authority care providers.</p> <p>LRF multi-agency Pandemic Influenza Co-ordinating Group (PICG) formed in Lancashire March 2008 dealing with wider consequence management issues following debrief from Exercise Winter Willow and in line with Cabinet Office guidance.</p> <p>Training sessions held January & May 2007.</p> <p>Regular exercises of plans; last exercise held 4 February 2008 (Exercise Cohesion).</p>
HPA	H24	Emerging infectious diseases	Based on a SARS outbreak resulting in up to 100 fatalities and 2000 casualties.	Medium Low (2)	Moderate (3)	Medium	<p>Generic procedures in place to segregate potentially infectious patients</p> <p>Surveillance systems</p> <p>Use of established small pox systems and trained and equipped SMART teams</p> <p>Mass medication protocols</p> <p>Smallpox plans</p> <p>Port Health Authorities arrangements</p> <p>SARS (specific arrangements)</p> <p>CBRN plans e.g. Deliberate Release Guidelines (CBRN)</p> <p>Regular training sessions on e.g. Hospital decontamination equipment, SMART, Silent Weapons training</p> <p>Regular exercises</p> <p>Fire Service new dimension equipment</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
							NW Ambulance Service decontamination equipment, Police monitoring capability.
HPA	HL24	Localised legionella / meningitis outbreak.	Localised outbreak of a disease which could cause up to 10 fatalities and up to 50 casualties, with no variation in likelihood between localities	Medium-High (4)	Moderate (3)	High	HPA, PCT/NHS & local authorities' plans and protocols e.g. Joint Infectious Diseases Outbreak Plan (JIDO), Regional Legionella Plan; Surveillance mechanisms; Specific major outbreak plans; Mass medication protocol; Ongoing and frequent training.
6. Animal Health							
LCC	H25	Non-zoonotic notifiable animal diseases (e.g. Foot and Mouth Disease (FMD), Classical Swine Fever, Blue Tongue and Newcastle Disease of birds)	<p>The most serious disease in this category is FMD which drives the risk and outcome descriptions:</p> <ul style="list-style-type: none"> 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 impact 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 <p>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</p>	Medium (3)	Moderate (3)	High	<p>The DEFRA Exotic Animal Disease Generic Contingency Plan 2005 Covers FMD, Avian Influenza, Newcastle Disease and Classical Swine Fever.</p> <p>The Animal Health Act 1981.</p> <p>The Diseases of Animals (Seizure) Order 1993 gives powers for the seizure and destruction of anything other than live animals that might carry or transmit the disease (including a carcass).</p> <p>The Diseases of Poultry Order 2003.</p> <p>European Union Legislation: Council Directive 2001/89/EC sets out measures required in EU law for the control and eradication of CSF in Member States.</p> <p>The Classical Swine Fever (England) Order 2003 It enacts the provisions of EU Council Directive 2001/89/EC of 23 October 2001, for the control of Classical swine fever.</p> <p>Both dead and live attenuated vaccines are available to protect poultry from Newcastle Disease by building up immunity to the disease.</p> <p>The Consultation period on implementation of the foot and mouth disease Directive 2003/85/EC (updated to include the draft Animal Health Act (Amendment) Regulations 2005) closed on 15 September 2005.</p> <p>Local arrangements for the activation of multi-agency response to co-ordinate and support the State Veterinary Service. Last updated October 2007.</p>
HPA	H26	Zoonotic Notifiable Animal Diseases (e.g. Highly Pathogenic Avian Influenza (HPAI), rabies and West Nile Virus)	The realistic worst case scenario involves Highly Pathogenic Avian Influenza (H5N1) being found widely in wild birds resulting in numerous outbreaks on poultry (particularly ducks and geese) farms throughout the country. This drives the risk and outcome descriptions, although all these diseases can result in human death:	Medium Low (2)	Moderate (3)	High	<p>Joint Infectious Disease Outbreak Plan</p> <p>Surveillance systems for animal and human disease</p> <p>Port controls</p> <p>Department of Health Rabies Protocols</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
			<ul style="list-style-type: none"> - 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. <p>Potential human health threat (255 deaths from 408 cases worldwide since December 2003 [correct at 24 Feb 2009]).</p> <p>Realistic worst case scenario based on the need to cull and dispose of up to 30 million poultry across GB.</p> <p>Loss of disease free status resulting in EU and third country import bans on poultry and captive birds and poultry products .</p> <p>Disruption to rural communities, local economies, tourism and the environment.</p> <p>Economic impacts for a major outbreak assessed at £60 million.</p> <p>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 contained and has been limited to one or two infected premises plus associated contact premises.</p> <p>For West Nile Virus, spread by viable vectors in the UK, the slaughter of 20-1000 horses is possible.</p>				<p>Department of Health West Nile Protocols</p> <p>Exotic Animal Disease Generic Contingency Plan 2005</p> <p>DEFRA plans</p> <p>Mass medic protocol</p> <p>LRF animal plan</p> <p>DoH / HPA / DEFRA Avian Flu protocols</p> <p>Local arrangements for the activation of multi-agency response to co-ordinate and support the DEFRA Animal Health Division in Lancashire</p> <p>Annual Zoonosis Seminar, Avian Flu Seminar</p> <p>Annual Exercise</p> <p>Avian Influenza database; regional diagnostic capability for avian influenza in humans (local lab arrangements)</p> <p>Rabies – availability of immunoglobulin and vaccine regionally and nationally UK Diagnosis Capability via Weybridge. Cross Boundary Rabies Exercise to be held with Cumbria 2008.</p>
7. Industrial Action							
FRS	H30	Emergency Services: loss of emergency fire and rescue cover because of industrial action.	<p>A series of strikes by fire fighters takes place, spread over a period of two months, perhaps lasting up to 24 hours each.</p> <p>Chief Fire Officers would deploy the emergency cover that they could make available in line with optimum response to their locally assessed risk profiles. A number of fire and rescues authorities would be self sufficient in the provision of emergency cover. Assumes no military assistance</p>	Medium (3)	Moderate (3)	Medium	<p>LFRS Business Continuity Plan in place.</p> <p>NW Regional Fire Services Act Section 13 & 16 Agreement in place (reinforcement scheme/mutual aid).</p> <p>National arrangements being progressed to establish an 'alternative workforce' in the event of industrial action – Operation Fireguard.</p>
LCC	H31	Significant or perceived significant constraint on the supply of fuel at filling stations e.g. industrial action by contract drivers	<p>Filling stations, depending on their locations, would start to run dry between 24-48 hours. Panic buying would exacerbate the situation.</p> <p>Replenishment of sites would take between 3 – 10 days depending on location. Much would depend</p>	Medium (3)	Minor (2)	Medium	<p>Lancashire contingency plan in place plus local contingency/ business continuity arrangements.</p> <p>Multi-agency plan redrafted in accordance with reissued national guidance June 2008.</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
		for fuel, or effective fuel blockades at key refineries/terminals by protesters, due to the price of fuel	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.				
LC	H33	Unofficial strike action by prison officers leading to a serious shortfall in the number of personnel available to operate and maintain control of prisons.	A single unofficial strike by around half prison officers lasting 24 hours The 11 privately run prisons would be unaffected No Armed Forces personnel would be used to cover for striking prison officers. There is likely to be little, if any notice given. <i>Previously: Prison Officer strike action for up to 48 hours in 80% of prisons.</i>	High (5)	Minor (2)	Medium	Lancashire Constabulary Contingency Plan for Prisons includes arrangements associated with industrial action by Prison Staff.
NWAS	HL42	Loss of cover due to industrial action by workers providing a service critical to the preservation of life such as emergency service workers	A number of three day strikes with significant support over a two month period affecting a single emergency service. Likelihood and impact will vary between, and geographically within, emergency services.	Medium (3)	Minor (2)	Medium	Previously tested plans in place: <ul style="list-style-type: none"> NWAS escalation plan to deal with the operational challenges in the short to medium term and maintain core service delivery. NWAS plans to receive automatic support from neighbouring areas. Support also to be sought from St John Ambulance via their national hierarchy.
8. International Events							
LCC	H37	International security incident resulting in influx of British Nationals who are not normally resident in the UK.	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 and other Western nationals. It is assumed that the majority of the incoming British Nationals would have no UK base and limited means to provide for themselves. In the short term immediate assistance as they arrive in the UK would be necessary to provide emergency accommodation and possibly medical services. A decision would need to be taken to waive the Habitual Residency Test (HRT) to allow access to benefits as many would require longer term assistance in the form of accommodation, medical and other services. Note: these are NOT non-British Nationals under EC Temporary Protection Directive (TPD) arrangements.	Medium Low (2)	Minor (2)	Medium	National contingency plans plus local contingency/ business continuity arrangements
LCC	H52	Influx of British Nationals from abroad following an	Up to 200,000 British Nationals (BNs) returning to UK within a 4-6 week period following a following	Medium Low (2)	Minor (2)	Medium	National contingency plans plus local contingency/ business continuity arrangements

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
		outbreak of an infectious disease	<p>serious outbreak of an infectious disease overseas.</p> <p>This risk is based on the emergence of an influenza pandemic overseas.</p> <p>Whilst some of the returning British nationals may have ties to the UK the majority of the incoming British Nationals would have no UK base and limited, if any, means to provide for themselves. In the short term immediate assistance as they arrive in the UK would be necessary to provide emergency accommodation and possibly medical services.</p> <p>This figure is based on the assumption that a proportion of British Nationals resident in countries with under developed health care systems may return to the UK. This figure does not include tourists cutting short their travels as they will need limited support on arrival to the UK. A 4 to 6 week period has been used for the calculation based on the likely duration for the virus to hit the UK once it has emerged overseas. A proportion of this number, however, will be people who do not have a right to remain in the UK. Amongst others, this will include people stranded whilst connecting flights in the UK and also people reluctant to return home as they view the medical provision in the UK as better.</p> <p>If the FCO travel advice is altered to include advising against all travel to certain countries, British carriers are unlikely to fly to these areas, however foreign carriers may continue. Even if UK operators did continue to operate they are likely to introduce some form of medical screening to ensure passengers are "fit to fly" which could lead to additional delays in the outgoing country.</p>				
9. Industrial Technical Failure							
LCC	H38	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	<p>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 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.</p> <p>Downstream oil would not be immediately so adversely affected given alternative means of supply</p>	Medium Low (2)	Moderate (3)	High	National contingency plans plus local contingency/ business continuity arrangements

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
LCC	H39	Failure of water infrastructure or accidental contamination with a non-toxic contaminant.	<p>Loss of 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</p> <p>Outcome assumes domestic, industrial, commercial and agricultural premises without piped water. Fire tenders can not be refilled from fire hydrants within the affected area.</p> <p>Water companies required to provide an alternative water supply for domestic consumers of at least 10 litres per person per day until supply restored. This is done by means of water tankers supplying bowsers on the street and bottled water. Priority is given to vulnerable customers and those with special needs, who may be provided individually with bottled water, which has to meet drinking water standards. Water companies are also required to give priority to hospitals and schools. Also required to have due regard for livestock and essential food industries. However, it may not be possible to continue a full service at hospitals, schools and businesses, etc that do not maintain their own on-site water storage.</p>	Medium-High (4)	Moderate (3)	High	<p>Many businesses and some private houses (especially older stock) do have private storage. If they do, it is typically designed for 24hours supply. It is unlikely that this storage would last three days at normal rates of usage but if prudently used could maintain some critical service. Some of the impact could be reduced by ensuring that private storage is built in new properties and retained where it currently exists.</p> <p>Hospitals should have regard to the document '<i>Business Continuity Planning Guidelines for Maintenance of Water & Sewerage Services to Hospitals</i>' jointly prepared by the North West Office of the NHS Executive and North West Water in 2001. This includes specifications of connections to hospital supply mains to enable tankered water to be supplied into the hospital distribution system.</p> <p>The Defra <i>Security and Emergency Measures Direction: Plans for the Provision of Essential Water & Sewerage Services at all Times</i> of 2003 requires that plans are in place to ensure 10 litres of water be available per head per day as a minimum under any circumstance. To comply with this, United Utilities have an in-house store of tanks and fleet of road tankers, inter-water company mutual aid agreements for tanks and road tankers and commercial agreements with road tanker companies and an in-house stock of bottled water. United Utilities staff would deliver this to vulnerable customers using the 'Extra Care' database and on the advice of other agencies.</p> <p>United Utilities can manage the response with the support of Mutual Aid from other water companies, for which arrangements are in place</p> <p>Debriefs undertaken following local water shortages in 2007 and 2008 have resulted in enhanced arrangements between the Lancashire County Council Emergency Planning Service, acting on behalf of the Lancashire Resilience Forum, and United Utilities.</p> <p>Lancashire County Council is part of regional working group on "Water Shortage Contingency Arrangements" and together with partner agencies, participated in national exercise and local workshop in March 2010 to test impact of water distribution shortages. LRF plan being reviewed in light of lessons learnt.</p>
LCC	H40	No-Notice loss of significant telecommunications infrastructure in a localised fire, flood or gas incident	<p>Loss of service to up to 100,000 people for up to 72 hours.</p> <p>Possible impact on emergency services including disruption to proposed Emergency Services Control Centres</p>	High (5)	Moderate (3)	High	<p>National contingency plans plus local business continuity arrangements</p> <p>Lancashire Resilience Forum Telecommunications Sub-Group formed March 2008 to develop resilient communications strategy in line with government guidance by September 2008.</p> <p>Satellite phones supplied by Cabinet Office available for use by all Category 1 Responders</p>
	H41	Technical failure of national electricity network (Blackstart)	<p>Total blackout of up to 3-5 days due to loss of the National Grid. Best time to restore is 3 days but if there is damage to the network (say from storms), this timescale could be extended up to 5 days.</p> <p>Backup generators available for limited time for individual businesses and emergency services in some instances.</p> <p>Possible loss of life support machines, civil</p>	Medium-Low (2)	Significant (4)	High	<p>Technical failure of the entire system is unlikely as all control rooms have backup systems and any other systematic failure would not lead to shut down of the entire network.</p> <p>National contingency plans plus local multi-agency and business continuity arrangements</p>

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
			unrest, no alarms, street lighting, gas heating, rail transport, water supplies and mobile telecommunications (PMT) etc.				
LCC	H43	Telecommunication infrastructure – human error	Widespread loss of telecommunications including public landlines and mobile networks over the NW for up to 5 days. Assumes emergency services' communication systems are also affected.	Medium (3)	Moderate (3)	High	National contingency plans plus local business continuity arrangements Lancashire Resilience Forum Telecommunications Sub-Group formed March 2008 to develop resilient communications strategy in line with government guidance by September 2008. Satellite phones supplied by Cabinet Office available for use by all Category 1 Responders
LCC	H45	Technical failure of electricity network over entire NW Region	Total shutdown of the electricity supply over an entire region of the UK occurring during the working week and lasting for 24 hours. Mutual aid would be available from other regions, therefore it is unlikely that resources/services would be overwhelmed. Historically the most significant failures in Lancashire have resulted in service disruptions of 1-2 hours to populations of 50,000 customers (150,000 population). Limited impact on transport infrastructure, building security and access, welfare and health provision and communications	Medium-Low (2)	Moderate (3)	High	Distribution Network Operators have robust, well developed and resilient emergency and contingency plans to recover from such a failure. These plans may not initially allow for the recovery of power to all customers, so some form of rota disconnection (rolling power cuts) may be necessary to share evenly the available power until full repairs are completed. Seminar on Impact of Power Outages across Lancashire June 2008 Local business continuity arrangements County wide multi-agency Rest Centre Guidance with regular programme of exercises.
LCC	H49	Loss of drinking water supplies due a major accident affecting infrastructure.	Loss of 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 An incident of this size would be a regional event. Domestic, industrial, commercial and agricultural premises without piped water. Fire tenders can not be refilled from fire hydrants within the affected area. Water companies required to plan to provide domestic customers with alternative water supplies of at least 10 litres per person per day until normal supply restored. For such a large population affected over a period of a week this will cause severe logistical difficulties in order to enable alternate supplies of bottled water and/or keep water bowsers regularly topped up and Mutual Aid from other water companies will not be sufficient response. Waste water implications. This requires a multi-agency response coordinated by Gold command due to the prolonged nature of outage and logistics. Could lead to suspension of services at hospitals, schools and businesses etc which do not	Low (1)	Significant (4)	Medium	Many businesses and some private houses (especially older stock) do have private storage. If they do, it is typically designed for 24hours supply. It is unlikely that this storage would last three days at normal rates of usage but if prudently used could maintain some critical service. Some of the impact could be reduced by ensuring that private storage is built in new properties and retained where it currently exists. Hospitals should have regard to the document ' <i>Business Continuity Planning Guidelines for Maintenance of Water & Sewerage Services to Hospitals</i> ' jointly prepared by the North West Office of the NHS Executive and North West Water in 2001. This includes specifications of connections to hospital supply mains to enable tankered water to be supplied into the hospital distribution system. The Defra <i>Security and Emergency Measures Direction: Plans for the Provision of Essential Water & Sewerage Services at all Times</i> of 2003 requires that plans are in place to ensure 10 litres of water be available per head per day as a minimum under any circumstance. To comply with this, United Utilities have an in-house store of tanks and fleet of road tankers, inter-water company mutual aid agreements for tanks and road tankers and commercial agreements with road tanker companies and an in-house stock of bottled water. United Utilities staff would deliver this to vulnerable customers using the 'Extra Care' database and on the advice of other agencies. United Utilities can manage the response with the support of Mutual Aid from other water companies, for which arrangements are in place Debriefs undertaken following local water shortages in 2007 and 2008 have resulted in enhanced arrangements between the Lancashire County Council

LOCAL ASS'R	NAT'L REF	HAZARD CATEGORIES	OUTCOME	LIKELIHOOD OVER 5 YEARS	IMPACT	RISK RATING	CONTROLS CURRENTLY IN PLACE
			<p>maintain their own on-site water storage, even though priority is given to hospitals and schools.</p> <p>Due regard is given to livestock and essential food industries. However, food industries within the impacted zone may close. Supplying livestock premises may require input from NFU, RSPCA, SVS as human population will be given priority by water company</p>				<p>Emergency Planning Service, acting on behalf of the Lancashire Resilience Forum, and United Utilities.</p> <p>Lancashire County Council is part of regional working group on "Water Shortage Contingency Arrangements" and together with partner agencies, participated in national exercise and local workshop in March 2010 to test impact of water distribution shortages. LRF plan being reviewed in light of lessons learnt.</p> <p>Local contingency arrangements in place.</p>
10. Public Events							
BC	L70	Pier evacuation	<p>Potential for multiple deaths and serious injuries including crushing.</p> <p>Inhalation of smoke/noxious fumes</p> <p>Drowning of people</p> <p>Evacuation of the piers by land / sea / helicopter depending on conditions.</p> <p>Trapped persons requiring rescue</p> <p>Structural damage to piers.</p> <p>Pier severance from land possibly creating an offshore incident.</p> <p>Loss of and damage to various businesses/attractions located on the piers and disruption to local economy because of impact on tourism</p>	Medium (3)	Moderate (3)	High	<p>Fire hydrants in situ along the length of the piers. Sprinklers installed on Blackpool's South Pier in the theatre at the end of the pier.</p> <p>Licensing laws – the relevant Local Authority is consulted when application for license is received.</p> <p>Fire risk assessments in place carried out by owners / occupiers of the piers. Training programme for staff that work on piers on evacuation (Six Piers Ltd.)</p> <p>Operational Fire Safety Assessments carried out by Lancashire Fire and Rescue Service. Recommendations to be implemented and enforced where necessary.</p> <p>Piers closed to public in the event of severe weather.</p> <p>Generic Major Emergency Plans maintained by LRF Category 1 members.</p> <p>Separate appendix detailing multi-agency roles and responsibilities created as part of LRF Off-Shore Incidents Emergency Plan which is tested in exercises and real incidents. Last exercise held November 2008.</p> <p>NB: Fleetwood Pier closed to public at date of issue. Concrete structure. Buildings on land occupied and open to public. Alternate escape route available via external staircases that descend onto the beach above high water mark.</p>

APPENDIX 1: DETAILS OF HAZARDS WHICH HAVE BEEN ASSESSED AS LOW

The hazards below were assessed as low risk. If, on review, the assessment changes, further research will be undertaken to determine whether or not any plans will be required.

LEAD ASS'R	NAT'L REF	Hazard Category	Outcome	Likelihood	Impact	Risk Rating
Transport accidents						
MCA	HL8	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 100 casualties. The risk is based on an accident to a small passenger vessel on the UK coast or inland waterways.	Low (1)	Minor (2)	Low
MCA	HL13	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 dependent businesses.	Low (1)	Minor (2)	Low
MCA	HL37	Release of significant quantities of hazardous chemicals/materials as a result of major shipping accident	Significant environmental / ecological damage. The extent of the impact would depend on substance involved, quantity, nature and location of accident.	Low (1)	Minor (2)	Low
Structural hazards						
LCC	HL21	Land Movement (Tremors, Landslides, Landfill Tips)	Minor local damage. No fatalities and insignificant number of injuries sustained. Insignificant disruption to traffic.	Low (1)	Minor (2)	Low
LCC	HL22 HL23	Building or structure collapse	Minor local damage. Potential for trapped persons with injuries or missing persons. Potential for localised loss of power and other essential services. Local access routes affected due to road closures. Bridge collapse has potential to cause traffic congestion.	Low (1)	Limited (1)	Low
LC	L40	Canal Breaches	The resulting effect of canal breach depends on location and height of embankment. Maximum effect would occur in high population town conurbations with raised embankments. This would result in low level flooding within the localised area, moderate disruption to local transport requiring traffic management with potential for moderate impact to underground utility services.	Medium-low (2)	Minor (2)	Low
Plant diseases						
LCC	L90	Major Outbreak of Plant or Pest Disease (e.g. Pepino Mosaic Virus of tomatoes and Diabrotia Virgifera Virgifera – pest which attacks maize)	Potential economic impact and environmental consequences	Medium-low (2)	Minor (2)	Low
Public protest						
LC	L91	Political Events / Mass Gatherings / Public Events	Such events may involve disruption to traffic. On rare occasions, there can be disturbances causing minor injuries and damage to property.	Medium-low (2)	Minor (2)	Low
Public events						
LC	L92	Sports grounds	Potential for fire, crowd control problems, injuries	Low (1)	Limited (1)	Low
LC	L93	Theme / Leisure Parks	Potential for fire & injuries	Low (1)	Limited (1)	Low
Industrial action						
BTP	H35	Industrial action by key rail workers	Strike action resulting in the total shutdown of the rail network on a national scale (e.g. action by key infrastructure workers such as signallers) for > 3 days. Greater impact if action occurs in a co-ordinated manner.	Low (1)	Minor (2)	Low



APPENDIX 2: LEAD ORGANISATIONS: LIST OF ABBREVIATIONS

BC	Blackpool Council
BTP	British Transport Police
EA	Environment Agency
FRS	Lancashire Fire and Rescue Service
HPA	Health Protection Agency (Local and Regional Services) Cumbria and Lancashire
LC	Lancashire Constabulary
LCC	Lancashire County Council
MCA	Maritime and Coastguard Agency
Met	Met Office
NWAS	North West Ambulance Service NHS Trust

APPENDIX 3: DOCUMENT CHANGE CONTROL

VERSION	ISSUE DATE	LEAD ASSESSOR(S)	COMMUNITY RISK REGISTER REFERENCE	REASON
1.0	14.11.05	N/a	All	First Issue of Lancashire Resilience Forum's Community Risk Register
2.0	26.04.07	Lancashire County Council	A07 (National HL3)	Reduction in likelihood from Rare to Negligible (1) as informed by Health & safety Executive. Reduction in outcome given in National Guidance from 3km, 50 fatalities & 2000 casualties (2005) to 1km, 10 fatalities & 100 casualties (2006), leading to downgrade of impact from significant to moderate and risk rating from High to Medium
2.0	26.04.07	Lancashire County Council	A12 (National H14)	Downgrading of likelihood rating from Possible to Unlikely in line with National Guidance 2006 rating
2.0	26.04.07	Environment Agency	A13 (National HL4)	Impact downgraded from catastrophic to moderate by Environment Agency Jan 06, leading to reduction in risk from Very High to High
2.0	26.04.07	Environment Agency	A18 (National HL5)	New category submitted by Environment Agency, Jan 06 and included in National Guidance issued Aug 06.
2.0	26.04.07	Lancashire Fire & Rescue Service	A19 (National HL33)	New category in National Guidance 2006
2.0	26.04.07	Lancashire County Council	A20 (National H8)	New category for Lancashire Community Risk Register. Information given by Health & Safety Executive Dec 06.
2.0	26.04.07	Lancashire Fire & Rescue Service	A21 (National HL25)	New category for Lancashire Community Risk Register. Information given by Health & Safety Executive Dec 06.
2.0	26.04.07	Lancashire County Council	A22 (National HL26)	New category for Lancashire Community Risk Register. Information given by Health & Safety Executive Dec 06.
2.0	26.04.07	Lancashire County Council	A23 (National HL28)	New category for Lancashire Community Risk Register. Information given by Health & Safety Executive Dec 06.
2.0	26.04.07	Lancashire County Council	A24 (National HL30)	New category for Lancashire Community Risk Register. Information given by Health & Safety Executive Dec 06.
2.0	26.04.07	Lancashire County Council	A25 (National H46)	New category for Lancashire Community Risk Register. Information given by Health & Safety Executive Dec 06.
2.0	26.04.07	MCA	B01 (National H42 & HL8)	
2.0	26.04.07	Blackpool Council	B02 (National H16 + HL9)	Amended description
2.0	26.04.07	Lancashire Fire & Rescue Service	B05 (National HL14)	Downgrading of likelihood rating from Rare to Negligible (1) in line with National Guidance 2006 rating resulting in reduction in risk rating
2.0	26.04.07	Environment Agency	C02 (National HL16)	Amended description
2.0	26.04.07	Environment Agency	C03 (National HL17)	Amended description

2.0	26.04.07	Environment Agency	C04 (National HL18)	Amended description
2.0	26.04.07	Environment Agency	C05 (National HL19)	Amended description
2.0	26.04.07	Environment Agency	C09 (National H20)	New category submitted by Environment Agency Jan 06 and included in National Guidance Aug 2006
2.0	26.04.07	Lancashire Constabulary	D03 (National H44)	Amended description
2.0	26.04.07	Health Protection Agency	E02 (National H23)	Change of Outcome description as given in National Guidance 2006
2.0	26.04.07	Health Protection Agency	E03 (National H24)	Change of Outcome description as given in National Guidance 2006
2.0	26.04.07	Health Protection Agency	E04 (National HL24)	Change of Outcome description as given in National Guidance 2006
2.0	26.04.07	Lancashire County Council	F01 (National H25)	Change of Outcome description as given in National Guidance 2006
2.0	26.04.07	Health Protection Agency	F02 (National H26)	Reduction in estimates of poultry to be culled as given in National Guidance 2006
2.0	26.04.07	Lancashire County Council	K01 (National HL42)	New category in National Guidance 2006
2.0	26.04.07	Lancashire County Council	K02 (National H31)	New category in National Guidance 2006
2.0	26.04.07	Lancashire County Council	L01 (National HL43)	New category in National Guidance 2006
2.0	26.04.07	Lancashire County Council & Energy Networks Assoc.	M01 (National H38)	Downgrading of likelihood rating from Unlikely to Rare in 2006 National Guidance
2.0	26.04.07	Lancashire County Council	M03 (National H40)	Increase in number of hours in outcome description from 5 to 72 as given in National Guidance 2006
2.0	26.04.07	Lancashire County Council & Energy Networks Assoc.	M04 (National H45)	Likelihood, impact and risk rating reviewed and increased by Energy Networks Association Jan 2006 (previously rated as low)
2.0	26.04.07	Lancashire County Council	M05 (National H43)	New category in National Guidance 2006
2.1	08.05.07	MCA	A14, A15, A16, A17, B06, B07, B08, B09, B10, B12, B13	Deletion. Replaced by: A26, A27, B14, B15 to amalgamate similar risks and ratify with the Cabinet Office Civil Contingencies Secretariat's Local Risk Assessment Guidance
2.1	08.05.07	MCA	B01	Split into two to match National Guidance. B01 reflects national risk H42 – likelihood reduced to Negligible (1), risk rating to Medium. National HL8 becomes new local risk assessment B16
2.2	06.08	All	All	Change of descriptors for Likelihood Categories in accordance with National "Local Risk Assessment Guidance 2007": 1 Negligible becomes Low 2 Rare becomes Medium Low 3 Unlikely becomes Medium 4 Possible becomes Medium High 5 Probable becomes High
2.2	06.08	All	A01, A02, A03, A04, A05, A06, A07, A08, A09, A10, A12, A20, A24, A25, A26, B01, B02, C02, C03, C04, C05, C06, C07, C08, E02, E03, E04, K01, K02, K03, K04, K05, L01, L02, M01, M02	Change of Hazard categories and/or Outcome descriptions & Likelihoods in accordance with National "Local Risk Assessment Guidance 2007" resulting in some amended risk ratings.
2.2	06.08	All	A19, A21, A23, B14, B15, B16, C09, D03, E01, F01, F02, M04	Change in likelihoods in accordance with National "Local Risk Assessment Guidance 2007"
2.2	06.08	MCA, Lancashire Constabulary	A27, H02	Hazards deleted in accordance with National "Local Risk Assessment Guidance 2007"
2.2	06.08	Lancashire County Council, Lancashire Fire & Rescue Service, Environment Agency, Met Office, Health Protection Agency, British Transport Police, NW Ambulance Service	A05, A06, A07, A09, A13, A18, A20, A23, C01, C02, C03, C04, C05, C06, C07, C09, E02, K01, K03, K04, K05, M02, M03, M04, M05	Updates to Controls in Place
2.2	08.08	British Transport Police	K05 (National H35)	New hazard category in National Guidance 2007
2.3	11.08	Blackpool Council	J01	Exercise held 18 November 2008

2.3	11.08	Lancs CC	A01 (National H2); A02 (National HL1); A04 (National H7); A21 (National HL25); A22 (National HL26); A24 (National HL30)	Inclusion of exercise in February 2009
3.0	10.09	Lancs CC EA MCA Met Office HPA NWAS LC	A12 (National H14), K2 (H31), L1 (HL43) – deleted, L2 (H37), M4 (H45), Insertions L3 & M6 A18 B14 (National HL34), B15 (HL37), B16 (HL8) C6 (H17), C8 (H48) E1 (H22) - deleted K1 (HL42) K4 (H33)	Hazards updated in accordance with National "Local Risk Assessment Guidance 2008"
4.0	06.10	LCC		Update to all Operation Merlin comments – "reviewed and updated April 2010"; Removal of local reference numbers & resorting; Reflection of LRAG 2009/10 and Regional Risk Register: amendments to H10, H14, H15, H42, H16, HL12, HL37, H18, H48, H25, H26, H30, H33, H37, H52; inclusion of HL31, HL8, HL10, HL13, H41