

Hazard/threat category	Sub-category
SEVERE WEATHER	Heatwave
Hazard and threat description, plus scale	Risk reference number
HEAT WAVE	HL15
Date of revision	Next review
NOVEMBER 2007	NOVEMBER 2008
Author	Health representative to TVLRF

1. Overview of hazard or threat

Heat waves claim more lives each year than floods, tornadoes and hurricanes combined. A heat wave is triggered as soon as the Met Office forecasts threshold temperatures for at least three days ahead in any one region, or that there is an 80% chance of temperatures being high enough on at least two consecutive days to have significant effects on health. Heat waves can be dangerous, especially for the very young, very old or those with chronic diseases.

Emergency – This is reached when a heat wave is so severe and/or prolonged that its effects extend outside health and social care, such as power or water shortages, and/or where the integrity of health and social care systems is threatened.

2. Key historical evidence

At least 35,000 people died as a result of the record heat wave that affected Europe in August 2003. France suffered the worst losses with 14, 802 people dying from causes attributable to the heat. Germany lost 7000 lives, and nearly 4200 lives in both Spain and Italy. Over 2000 people died in the UK, and the first ever temperature over 100°F was recorded on the 10th August 2003.

3. Likelihood

Hazard	Outcome description	Likelihood
Heat wave	Thames Valley affected	Possible (4)

4. Impact

Summary

Hazard	Outcome description	Impact			
		Health	Social	Econ	Env
Heat wave	Increase deaths as even more extreme weather events lie ahead. By the end of the century the average world temperature is projected to climb.				
		3	2	1	1

Details

Impacts
Primary
Heat-waves can cause deaths among certain sub-groups of the population such as the elderly (over 75), the young under 4, and those who are already ill.
High summer temperature will become more frequent and very cold winters increasingly rare
Winters will become wetter and summers drier throughout the UK
Cloud cover- summer cloud cover may decrease in the southern part of the country by an estimated 10% to 20%.
UV radiation increases with sunnier summers.
Heat related deaths could increase to 2,800 cases per year
DoH assessment predicts an extra 5,000 cases of skin cancer and 2,000 of cataract per year by 2050
Higher temperatures in summer could cause an estimated 10,000 extra cases of salmonella infection per year
Secondary
Sunnier and warmer summers might encourage people to spend more time outdoors, thus increasing their UV exposure. Also increases susceptibility of dehydration and heat stroke.
Vector-borne diseases – malaria might be re-established in the UK

5. Vulnerability and resilience

High temperatures are well known to result in a rise in deaths, as is cold weather. When the body is subjected to extreme heat, it struggles to maintain its ideal temperature of 37°C. If the internal body temperature rises above 40°C vital organs are at risk and if the body cannot be cooled, death follows.

6. Overall assessment

Category	Sub-category		
SEVERE WEATHER	HEAT WAVE		
Outcome description	Impact	Likelihood	Risk
Temperature rises over 80°F for 2 consecutive days	4	4	<u>VERY HIGH</u>

Controls in place

Royal Berkshire Hospital NHS Trust Major Incident Plan
Heatherwood and Wexham Park Hospitals NHS Trust Major Incident Plan
Berkshire Primary Care Organisations Major Incident Plan and Operational Response Manuals
Berkshire Healthcare Trust Major Incident Plan
Buckinghamshire Hospitals NHS Trust Major Incident Plan
Milton Keynes Hospital NHS Trust Major Incident Plan
Buckinghamshire Mental Health Trust Major Incident Plan
Buckinghamshire Primary Care Organisations Major Incident Plan
Oxford Radcliffe Hospitals NHS Trust Major Incident Plan
Oxford Mental Health Trust Major Incident Plan
Nuffield Orthopaedic Clinic Major Incident Plan
Oxfordshire Primary Care Organisations Major Incident Plan
South Central Strategic Health Authority Major Incident Plan
Berkshire Integrated Emergency Planning Structure
Wokingham District Council Emergency Plan
Reading Borough Council Emergency Plan
West Berkshire Council Emergency Plan
Bracknell Forest Borough Council Emergency Plan
Royal Borough Council of Windsor and Maidenhead Emergency Plan
Slough Borough Council Emergency Plan
Oxfordshire County Council Emergency Plan
Milton Keynes Council Major Incident Guide
Environment Agency Incident Management Plans
Environment Agency 24/7 Incident Response
South Central Ambulance Service NHS Trust Major Incident Plan
Thames Valley Police Emergency Procedures Manual
ACPO Emergency Procedures Manual

Additional risk treatment required

The plan has yet to be tested, however other adaptive measures will be needed to shift the policy emphasis away from 'disaster management' and towards 'risk management'.

E.g. the Environmental Change Institute at University of Oxford is exploring ways to build houses that stay cool in hot weather without air conditioning.