

Hazard/threat category	Sub-category
Structural hazards	Bridge collapse
Hazard and threat description, plus scale	Risk reference number
Roads, access and transport infrastructure impassable for considerable length of time. Severe congestion over wide geographical area. Emergency access in and out of large populated areas severely restricted. Potential for a number of persons to be trapped or missing	HL23
Date of revision	Next review
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1. Overview of hazard or threat

Major Bridge Collapse without warning

Roadway - A collapse of a bridge on one of the major arterial routes would cause severe traffic/logistical implications to the Thames Valley and possibly the surrounding areas. Dependant on the time and location of the collapse may lead to large numbers of persons trapped in their vehicles with subsequent injuries and fatalities. It will lead to the Emergency Services and other essential services suffering short term to medium term operational problems in relation to their provision of service.

Railway - A collapse of a bridge on one of the main lines within the Thames Valley will lead to severe disruption to the community in terms of service loss, but not the Emergency services or other essential services who tend not to rely on the railways. There is a high likelihood that if a train or trains are involved will lead to high numbers of persons being trapped with subsequent injuries and fatalities.

Minor Bridge collapse without warning.

Roadway - Dependant on the location may cause localised traffic and logistical issues for short to medium time to community and perhaps localised issue for Emergency and Essential Services. Lower levels of people involvement and fatality outcome likely

Railway - A collapse of a bridge on one of the minor lines within the Thames Valley will lead to some disruption to the community in terms of service loss, but not the Emergency services or other essential services who tend not to rely on the railways. There is a high likelihood that if a train is involved will lead to some persons being trapped with subsequent injuries and some fatalities.

Bridge Collapse with warning.

Will cause disruption to the community, emergency and essential services but highly unlikely to be any injuries or fatalities.

2. Key historical evidence

In last twenty-five years there have been no major collapses in the TV area that have led to any fatalities or major injuries, however there has been a near miss involving a railway tunnel collapse at Tesco's Gerrards Cross in 2005.

3. Likelihood

Hazard	Outcome description	Likelihood
Bridge collapse	Roads, access and transport infrastructure impassable for considerable length of time. Severe congestion over wide geographical area. Emergency access in and out of large populated areas severely restricted. Potential for a number of persons to be trapped or missing	Negligible (1)

4. Impact

Summary

Hazard	Outcome description	Impact			
		Health	Social	Env	Econ
Bridge collapse	Roads, access and transport infrastructure impassable for considerable length of time. Severe congestion over wide geographical area. Emergency access in and out of large populated areas severely restricted. Potential for a number of persons to be trapped or missing	3	4	2	3

Details

Impacts
Primary
Damage to structure and surrounding structure requiring further immediate evacuation.
Potential for large numbers of persons trapped - in case of train line up to 1000 leading to injuries and fatalities
Short to medium term severe traffic issues
Short to medium term logistical issues for emergency and essential services
Possible contamination of land, surface water or ground water due to lost loads carried by any transport vehicles.
Secondary
Isolated communities cut off
Building control/competent authority to inspect structure(s)
Other neighbouring areas may suffer logistical issues.

5. Vulnerability and resilience

A collapse of a bridge on an arterial roadway/motorway will have major implications to the region/Thames Valley area and will cause the emergency services and other essential services severe operational/logistical issues.

A collapse of a bridge on one of the main line railway routes will cause the community severe issues which could lead to economic and sociological issues but cause little impact to emergency services or essential services.

6. Overall assessment

Category	Sub-category		
Structural hazards	Bridge collapse		
Outcome description	Impact	Likelihood	Risk
Roads, access and transport infrastructure impassable for considerable length of time. Severe congestion over wide geographical area. Emergency access in and out of large populated areas severely restricted. Potential for a number of persons to be trapped or missing	Roadway 4	1	Medium
	Rail 2	1	Low

Controls in place**Roadway**

Currently both the Highways agency and where appropriate the local authority (County council or borough/district/unitary) have regular inspection and maintenance regimes in place

Railway

The competent authority (Railtrack) have a regular inspection and maintenance regime in place

Urban Search & Rescue (USAR)

Response team operational from Dec.2005, based at Beaconsfield, Bucks.

General

BFRS OC 42/1/11, Trench Collapse; GRA 2.5, Trench Collapse
Oxfordshire County Council Emergency Plan
RBFRS Major incident Plan
Milton Keynes Council Major Incident Guide
Environment Agency Incident Management Plans
EA 24/7 Incident Response
EA MOU with Fire Brigades, Police, Local Authorities, Highways Agency, Health Protection Agency & Health Authorities
South Central Ambulance Service NHS Trust Major Incident Plans
Royal Berkshire Hospital NHS Trust Major Incident Plan
Heatherwood & Wexham Park Hospitals NHS Trust Major Incident Plan
Berkshire Healthcare Trust Major Incident Plan
Berkshire Primary Care Organisations Major Incident Plan and Operational Response Manuals
Buckinghamshire Hospitals NHS Trust Major Incident Plan
Buckinghamshire Primary Care Organisations Major Incident Plan
Buckinghamshire Mental Health Trust Major Incident Plan
Milton Keynes Hospital NHS Trust Major Incident Plan
Oxford Radcliffe Hospitals NHS Trust Major Incident Plan
Nuffield Orthopaedic Clinic Major Incident Plan
Oxfordshire Primary Care Organisations Major Incident Plan
Oxford Mental Health Trust Major Incident Plan
South Central Strategic Health Authority Major Incident Plan
Berkshire Integrated Emergency Planning Structure
Berkshire Unitary Authorities Emergency Plans X 6
Buckinghamshire CC Emergency Plan
Aylesbury Vale District Council Emergency Plan
Chiltern District Council Emergency Plan
South Bucks District Council Emergency Plan
Thames Valley Police Emergency Procedures Manual
ACPO Emergency Procedures Manual
Oxfordshire Fire & Rescue Service Major Incident Policy

Additional risk treatment required

None identified

