

<b>Hazard/threat category</b>	<b>Sub-category</b>
Structural hazards	Land movement (tremors and landslides)
<b>Hazard and threat description, plus scale</b>	<b>Risk reference number</b>
Roads and access routes impassable for a time. Emergency access in and out of large populated areas difficult or impossible. Severe congestion over a wide geographical area. Potential for a number of persons to be trapped or missing either in landslide itself and/or collapsed structures. Up to 5 fatalities	HL21
<b>Date of revision</b>	<b>Next review</b>
December 2007	December 2008
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## **1. Overview of hazard or threat**

### **Tremors.**

Most commonly caused by earthquake or movement of the earths plates. Large-scale explosions can induce them. The tremors can even on a very low scale cause widespread damage to buildings and infrastructure leading to problems for emergency services access

### **Landslides**

These are can be caused by earthquakes or from prolonged periods of rainfall causing ground saturation leading to loosening and movement of the earth. It is normally effects hills, railway cuttings and embankments, motorway cuttings and other such like areas. Again even small landslides can cause severe damage to buildings and infrastructure. Access problems can occur.

## **2. Key historical evidence**

### **Tremors**

There is no historical evidence for this to affect the Thames Valley or UK.

### **Landslides**

There have been several minor landslides that have affected the Thames Valley mainly restricted to the Railway infrastructure or to new road developments that have created cuttings or high banks. (A 404 development) There have been some very significant landslides in other parts of UK in the past but normally confined to hilly regions (Wales, Scotland, Lake district)

## **3. Likelihood**

Hazard	Outcome description	Likelihood
Land movement (tremors and landslides)	Roads and access routes impassable for a time. Emergency access in and out of large populated areas difficult or impossible. Severe congestion over a wide geographical area. Potential for a number of persons to be trapped or missing either in landslide itself and/or collapsed structures. Up to 5 fatalities	<b>Negligible (1)</b>

#### 4. Impact

##### Summary

Hazard	Outcome description	Impact			
		Health	Social	Env	Econ
Land movement (tremors and landslides)	Roads and access routes impassable for a time. Emergency access in and out of large populated areas difficult or impossible. Severe congestion over a wide geographical area. Potential for a number of persons to be trapped or missing either in landslide itself and/or collapsed structures. Up to 5 fatalities	3	3	3	3

##### Details

<b>Impacts</b>
<b>Primary</b>
Collapsed or damaged buildings and infrastructure

Small numbers of dead
Up to 50 people trapped
Access routes could be blocked
Pollution/health risk from sewage systems, chemical stores, fuel storage tanks
Localities loss of utilities
Localised evacuation and temporary accommodation needs
<b>Secondary</b>
Need for recovery strategy
Safety assessments – possible demolition of damaged buildings and structures

**5. Vulnerability and resilience**

None identified in the Thames Valley

**6. Overall assessment**

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Structural hazards	Land movement (tremors and landslides)		
<b>Outcome description</b>	<b>Impact</b>	<b>Likelihood</b>	<b>Risk</b>
Roads and access routes impassable for a time. Emergency access in and out of large populated areas difficult or impossible. Severe congestion over a wide geographical area. Potential for a number of persons to be trapped or missing either in landslide itself and/or collapsed structures. Up to 5 fatalities	<b>3</b>	<b>1</b>	<b>Medium</b>

**Controls in place**

Both Railtrack and the Highways Agency have inspection regimes in place to check for potential signs.

**Urban Search & Rescue (USAR)**

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

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