

CERTHE Emergency Preparedness and Civil Protection
University of Wales, Trinity Saint David
Module 2 Assignment 1

“Explain how you assessed the likelihood and impact of a civil protection risk affecting your local community and present the resulting risk rating.”

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Derby City Council
Executive Board report
Fluvial Flooding
Risk Rating – very high.

Background

The *Civil Contingencies Act (2004)* (CCA 2004) is the primary legislation governing emergency planning in the UK. The statutory guidance *Emergency Preparedness (2006)* supports the implementation of part 1 of the CCA (2004) and sets out how organisations should fulfil their civil protection duties. The CCA (2004) classifies organisations as either category 1 or 2 responders and defines their respective roles and responsibilities for preparing for, responding to, and recovering from emergencies. Derby City Council (DCC) is designated as a category 1 responder and is therefore required to meet the full range of civil protection duties.

This report primarily focuses on the CCA (2004) risk assessment duty by examining the assessment process and outcomes for the natural and environmental hazard - fluvial flooding as outlined in *HM Government National Risk Register (2025)* (NRR 2025). The *Cabinet Office's Chapter 4 Local Responder Risk Assessment Duty (2012)* sets out the approach Category 1 responder must follow to ensure compliance. Under this duty, DCC is required to assess risks of emergencies occurring in or impacting upon its area through collaboration with other responders.

This collaborative approach has been adopted locally through the Derbyshire Local Resilience Forum's (LRF) Risk Assessment Working Group (RAWG) in line with *The Cabinet Office's Chapter 4 Local Responder Risk Assessment Duty (2012)*. The LRF RAWG draws upon a number of government publications including the NRR (2025), to produce the Derby and Derbyshire's Community Risk Register (CRR). In addition, the *Cabinet Office's National Resilience Standards for Local Resilience Forums (2020)* provides "expectations of good and leading practice for LRF's" (Cabinet Office, 2020, p.2). and for local responders to self-assure their processes. The local risk assessment standard recommends a LRF has a "robust and collectively understood assessment of the most significant risks to the local area (Cabinet Office, 2020, p.8).

Process

The risk assessment phases are described as contextualisation, risk evaluation, and risk treatment. Locally the risk assessment process started initially by defining the "nature and scope of the risk" (Cabinet Office, 2012, p14) for the city of Derby this included defining the boundary which was agreed as the unitary authority boundary for Derby City Council.

Derby city is centred on the river Derwent, which flows south through the city and is joined by smaller tributaries. Derby is an urban area and has a population of approximately 260,000 people. The city is socially mixed, a multicultural demographic, including a national significant deaf community, with smaller neighbourhoods alongside large industrial and manufacturing areas. Some communities are more exposed and better prepared for flooding than others. The city also features historical buildings e.g. Darley Abbey Mills. Critical infrastructure includes the A52, A38 and the Midland Mainline railway, National Grid power facilities and telecommunications infrastructure. Major national employers such as Rolls Royce (aero and nuclear), train manufacturer Alstom, Jaguar Land Rover, Derby is also home to Derby County Football Club. Two lower tier *The Control of Major Accident Hazards regulations (2015)* sites are located next to the river including Rolls Royce Nuclear which is also designated as a site under *The Radiation (Emergency Preparedness and Prior Information) Regulations (2019)* and is designated as critical national infrastructure and is critical to the continued security of the UK.

The RAWG collectively agreed that the Environment Agency should act as the lead assessing organisation, reflecting its statutory role and expertise in managing the main river network including fluvial flood risk. As the most appropriate agency the EA are responsible for coordinating the assessment including, scope and methodology and the confirmation of other key stakeholders. DCC's flood risk management officers were also identified as subject matter experts, reflecting its lead local flood authority duties under the *Flood and Water Management Act (2010)*.

The RAWG agreed a structured and documented process for conducting individual risk assessments including likelihood and impact of fluvial flooding and comparing national guidance and utilising the contextual information and local and historical knowledge.

Initially the EA outlined the reasonable worst-case scenario drawing on the EA's Flood Zone 2 outline which translates to a 0.1% and 1% chance of annual flooding occurring, the locations of the River Derwent Flood defence and how difference scenarios such as short notice or prolonged rainfall events could influence the local flood impact including risks faced by each organisation. The assessment recognised the critical operational role that DCC plays in closing the flood gates to protect the defended areas of the city.

Other considerations include the impacts from historical flood events including:

- October 2023
- February 2022
- January 2021
- February 2020
- November 2019

The assessment of likelihood is assessed and “*presented as the percentage chance of the reasonable worst-case scenario occurring*” (Cabinet Office, 2025, p12). This was discussed by the group alongside an agreed description of an outcome of an emergency for the extent of a local reasonable worst-case scenario. Alongside the probability of the hazard occurring within the next 5 years. The group determined that the likelihood of the reasonable worst-case scenario occurring was a medium likelihood, 3 on a scale of 1-5 (1 is low, 5 is high). This corresponds to a percentage of 1-5% chance of the emergency occurring.

The EA proposed a range of possible impacts from the generic framework to consider and assess “*the local impacts of events*” (Cabinet Office, 2012, p27) from minor disruption to reasonable worst case scenarios, each of the following points have been scored “*on a scale of 0 to 5 based on the scope, scale and duration of the harm that the reasonable worst-case scenario could foreseeably cause*” (HM Government, 2025, p13):

- Human welfare (fatalities and casualties)
- Behavioural (public outcry)
- Essential services (disruption to transport, healthcare education, food water, government services)
- Economic damage
- Environment impact including contamination
- Security
- International impacts.

It was agreed that while defences reduce risk, residual risk remains. In addition, there are common consequences with other flood-related risks including reservoir flooding. The completed assessment is formally documented with any deviations recorded and presented to the RAWG for challenge, agreement, and endorsement.

Conclusions and recommendations

The next stage of the assessment included plotting the impact and likelihood outcomes on a risk matrix. The local assessment concluded that fluvial flooding represents a very high risk to Derby, which mirrors the NRR (2025) as shown below. Providing assurance that the locally derived risk profile is aligned with national evidence and assumptions. The consistency supports the confidence in the assessment methodology and ensures that local emergency preparedness remains proportionate, and risk based with the wider national resilience framework.

Impact	5 Catastrophic					
	4 Very High			Fluvial Flooding		
	3 High					
	2 Moderate					
	1 Low					
		1	2	3	4	5
		Low	Medium-Low	Medium	Medium-High	High
		Likelihood (Low High)				

Derby City Community Risk Register 2022, Derbyshire Prepared (2026)

The outcome allows for Derbyshire LRF to rank and priorities risks enabling targeted risk treatment. Although “*there is no statutory requirement for Category 1 responders to perform the risk treatment step*” (Cabinet Office 2012, p14). Risk treatment supports the emergency planning process and considers how risks should be managed to reduce the likelihood of flooding and to lessen its impacts by improving preparedness and response arrangements.

As part of this risk treatment process a number of measures already exist, they are:

- Multi-agency flood plan including mapped annexes, include flood warning information, roles and responsibilities, locations of special consideration premises and critical infrastructure.
- Draft press releases for prior, during and after an emergency.
- A multi-agency sub-group under the LRF to continually review flood preparedness, horizon scan and to consider new initiatives.
- Derby City Council Flood Response Framework
- Scheduled three yearly exercises.
- Annual flooding awareness sessions.

Areas identified for further consideration are:

- Community flood wardens
- Business continuity promotion and advertising of property protection.

To ensure all risk assessments remain current, accurate and proportionate, the RAWG provides a forum to present and review any updates. Including horizon

scanning and anticipation of risk considering new government guidance, emerging evidence, changes to flood modelling and lessons identified from incidents or exercises. It also allows for updates and the monitoring of risk treatment measures.

As a result of the risk assessment process the Derby and Derbyshire Community Risk Register (CRR) is produced. The CRR *“provides an agreed assessment of the risks affecting a local area”* (Cabinet Office, 2012, p3) the purpose is to highlight the anticipated risks of different emergencies and their consequences and any detailed steps which the public (including businesses) can take to become better prepared, resilient and *“self-reliant during emergencies”* (Cabinet Office, 2012, p.4). Further information and steps can be found in the, Community Risk Register 2017-18 What You Need To Know, on Derbyshire Prepared (2026).

The CRR is publicly available via Derbyshire Prepared (2026), providing a key mechanism to warn, inform and raise awareness among Derby’s communities on fluvial flooding. This process ensures that residents, businesses, and partner organisations have access to clear and consistent information about the risk(s) they may face. DCC should consider making it available in different languages due to the demographic of Derby.

In addition, DCC should *“have regard to the assessments of risk maintained pursuant to the Act when developing BCPs”* (Cabinet Office, 2012, p.8) or *“when developing a business continuity promotion programme”* (Cabinet Office, 2012, p.13). DCC should ensure the organisation is resilience by assessing internally their plans against the fluvial flood risk which threatens the performance of critical functions in an emergency especially as the Council House is situated next to the River Derwent.

The Business Continuity Promotion programme should be reviewed in line with the risk from fluvial flooding as inadequate preparedness among local businesses could lead to significant economic disruption. Given Derby’s vast industry’s the impact could be felt locally and nationally if organisations are unable to maintain or recover operations during a fluvial flood event.

The development of Community Resilience should also be consider including the development of a community flood warden scheme and the promotion of community resilience to empower the public to help themselves to reduce the impact of emergencies.

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