

Exercise Watermark

Final report annexes

September 2011

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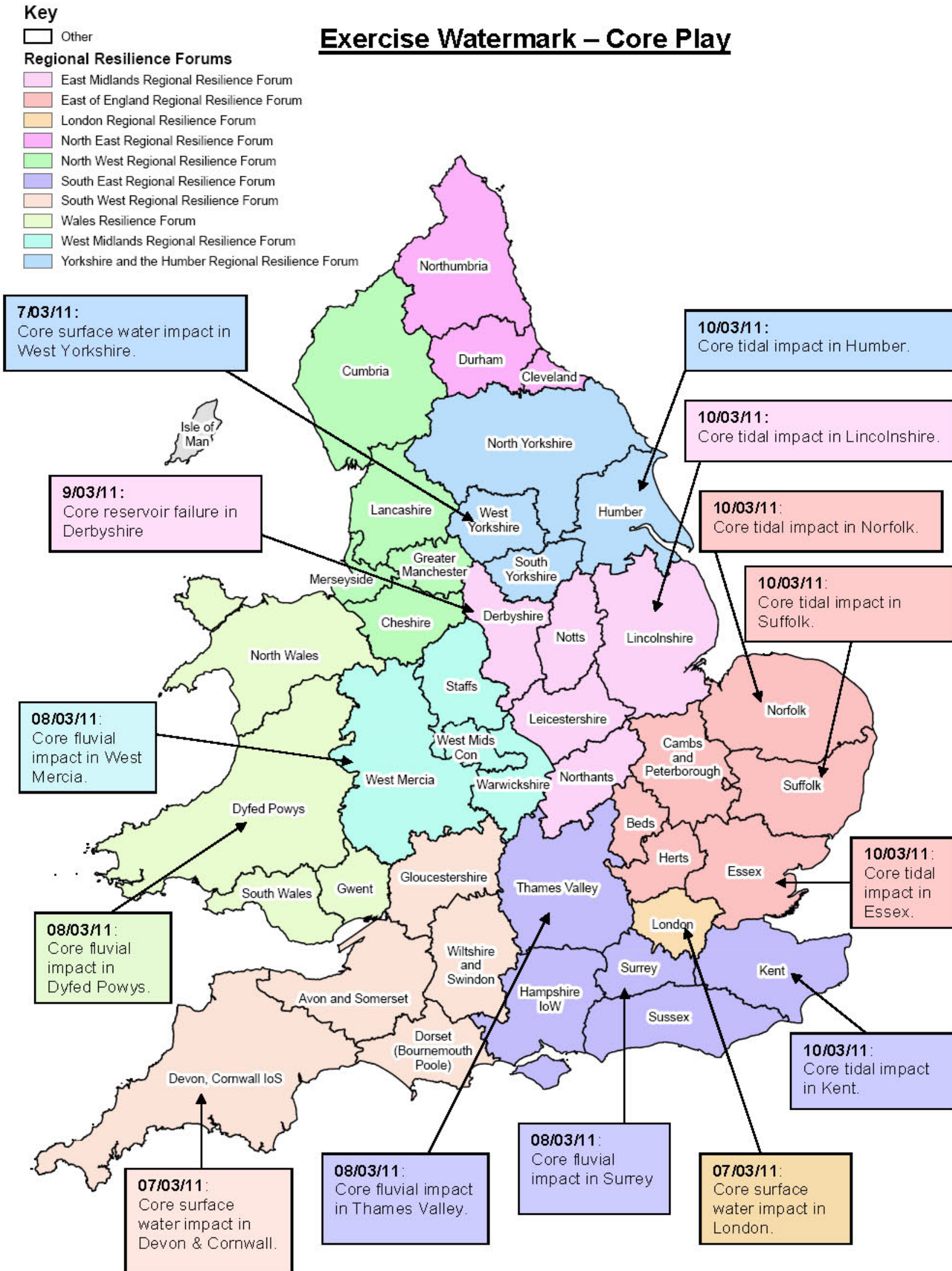
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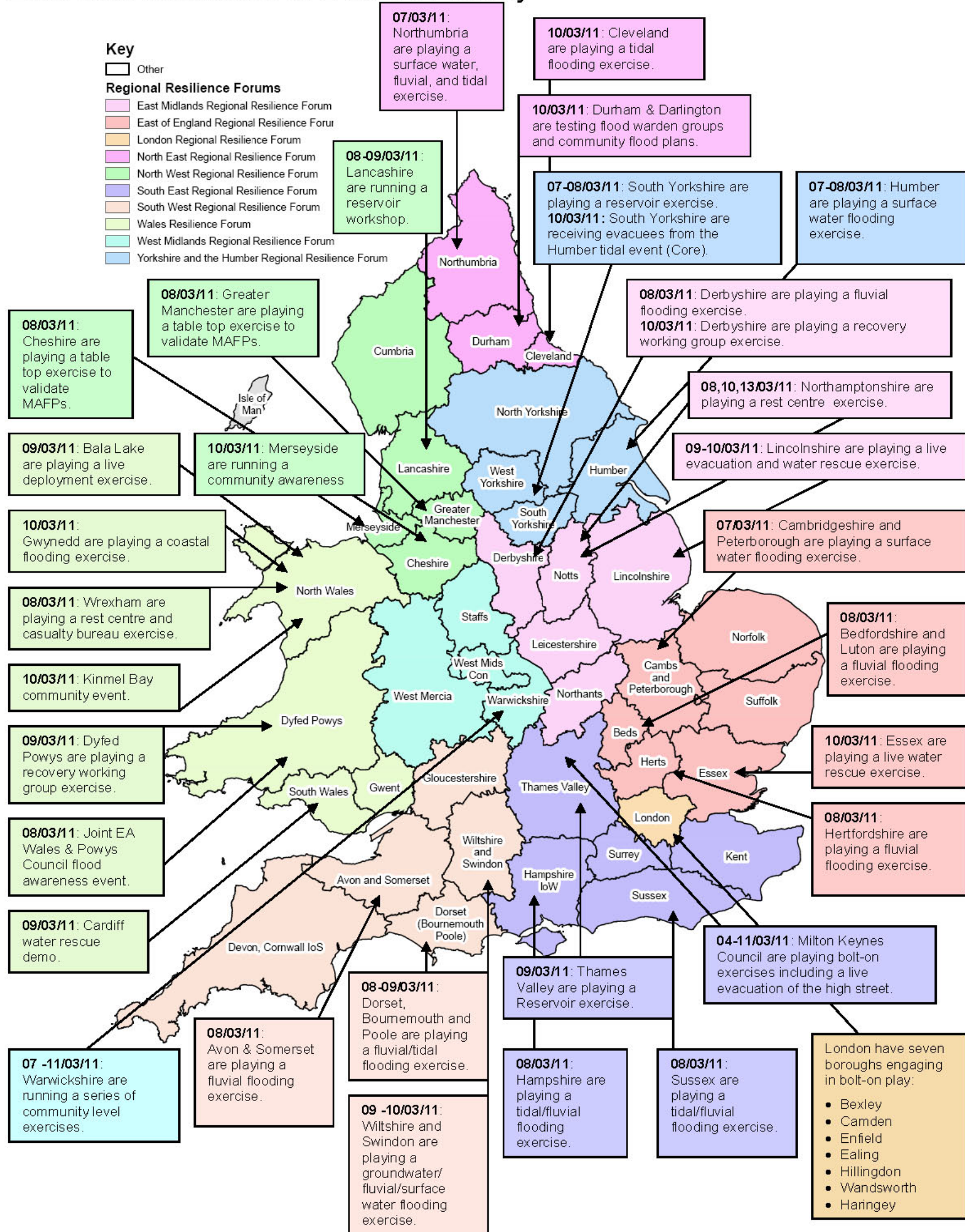
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Annex 1. Core, bolt-on and community Exercise Watermark activity

The maps on the following pages show where Exercise Watermark core, bolt on and community engagement activities took place.

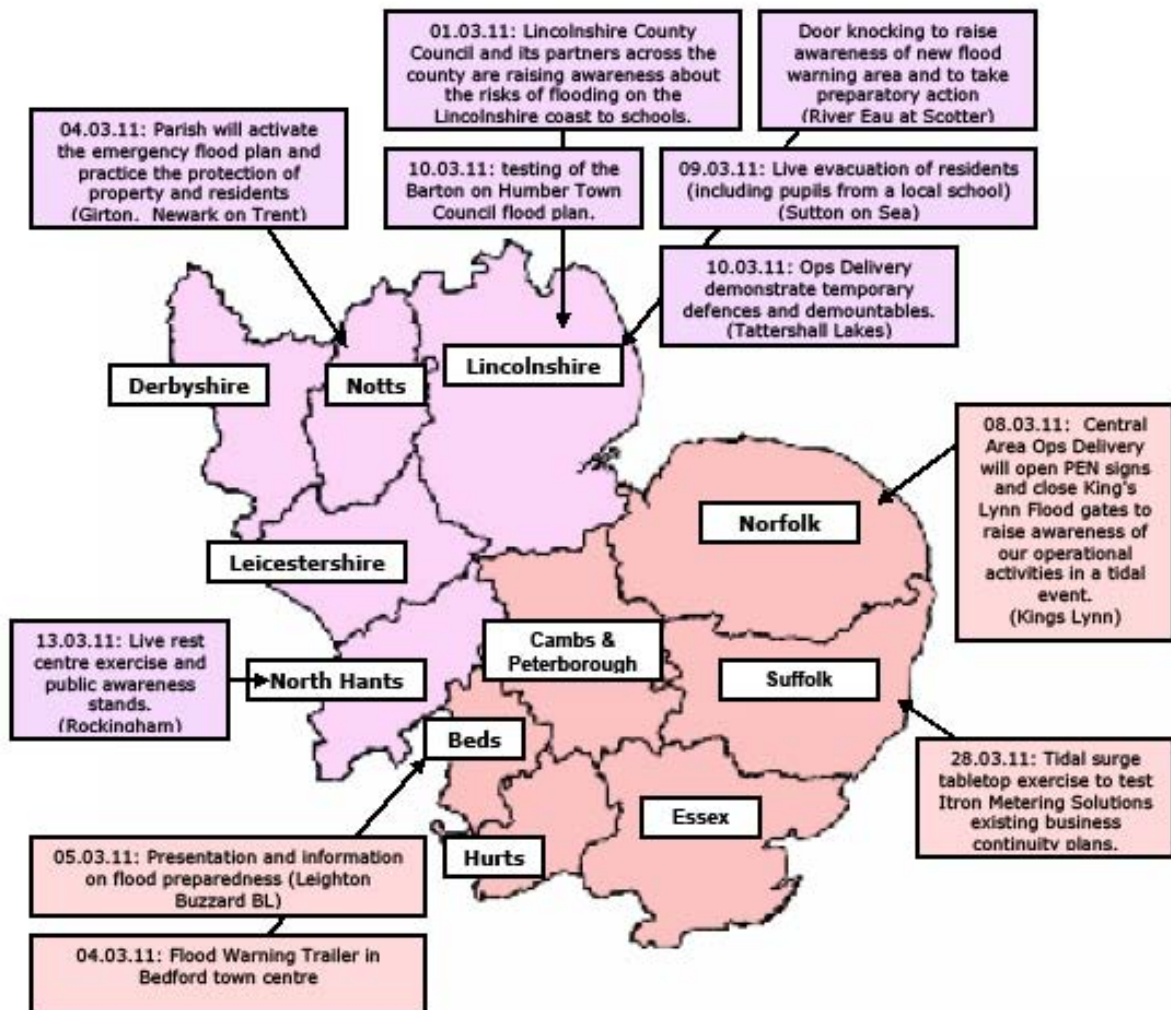


Exercise Watermark: Bolt-On Activity



Community engagement activity – Environment Agency Anglian region

Community Engagement Activity

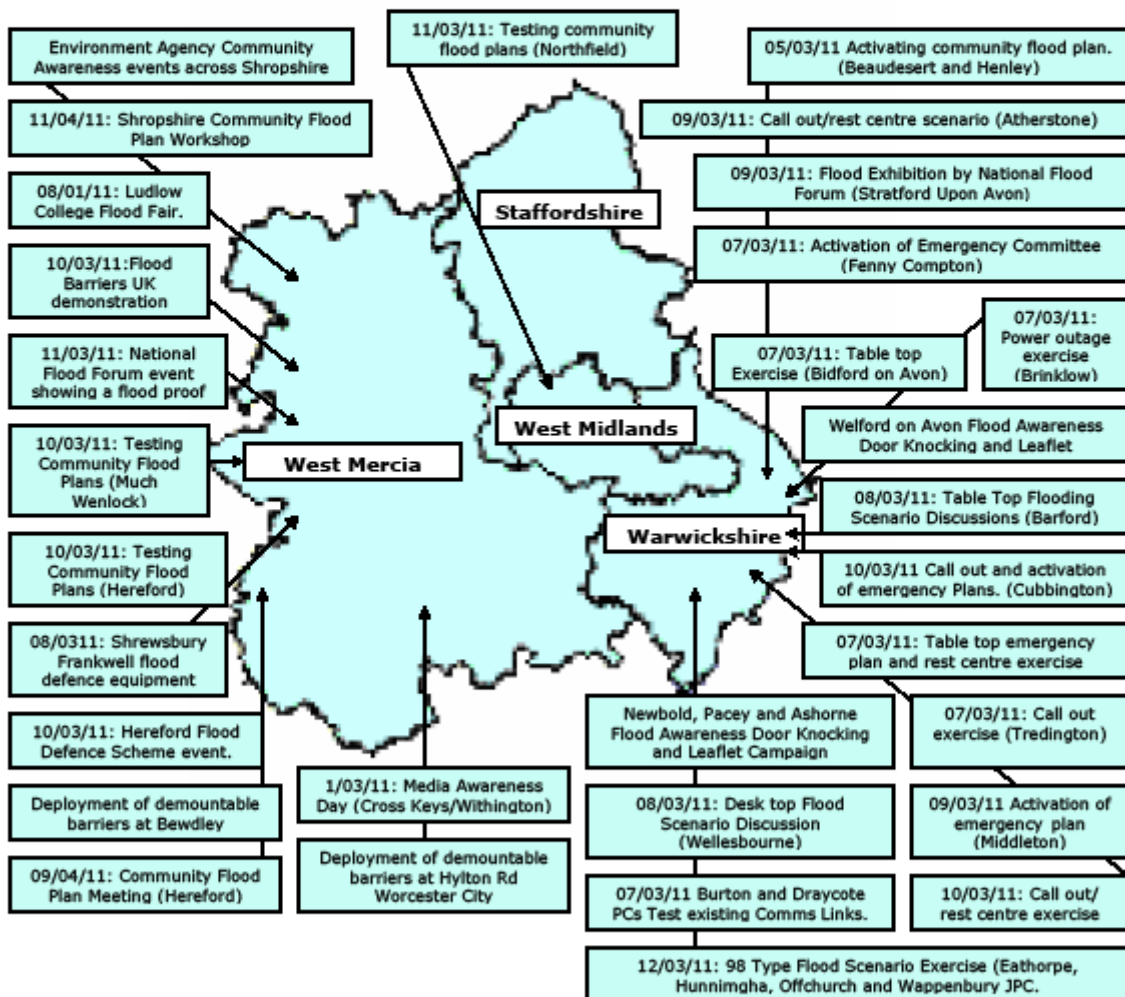


Community engagement activity – Environment Agency Midlands region



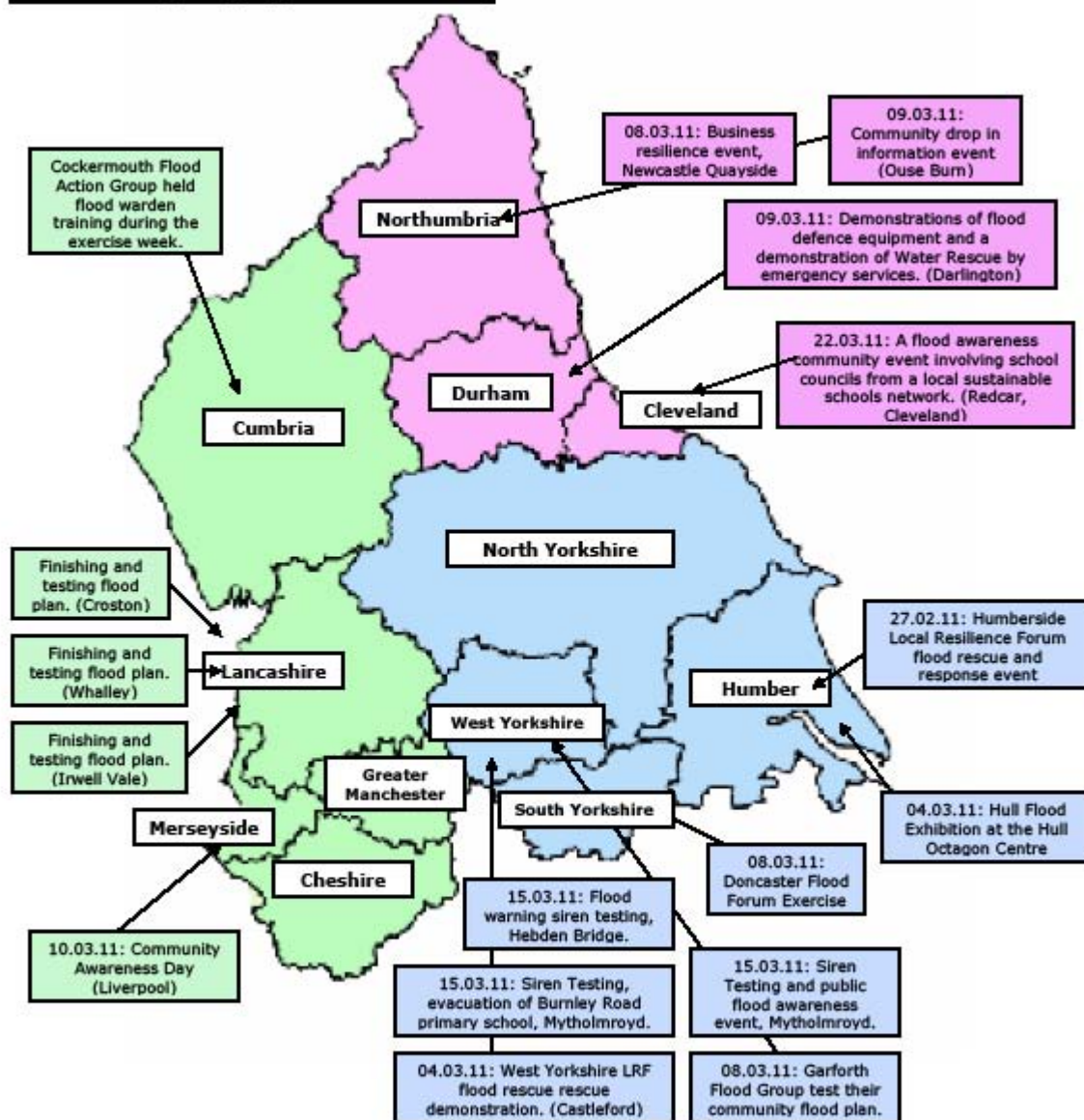
Supporting community action, testing professional response

Community Engagement Activity



Community engagement activity – Environment Agency north east and north west regions

Community Engagement Activity

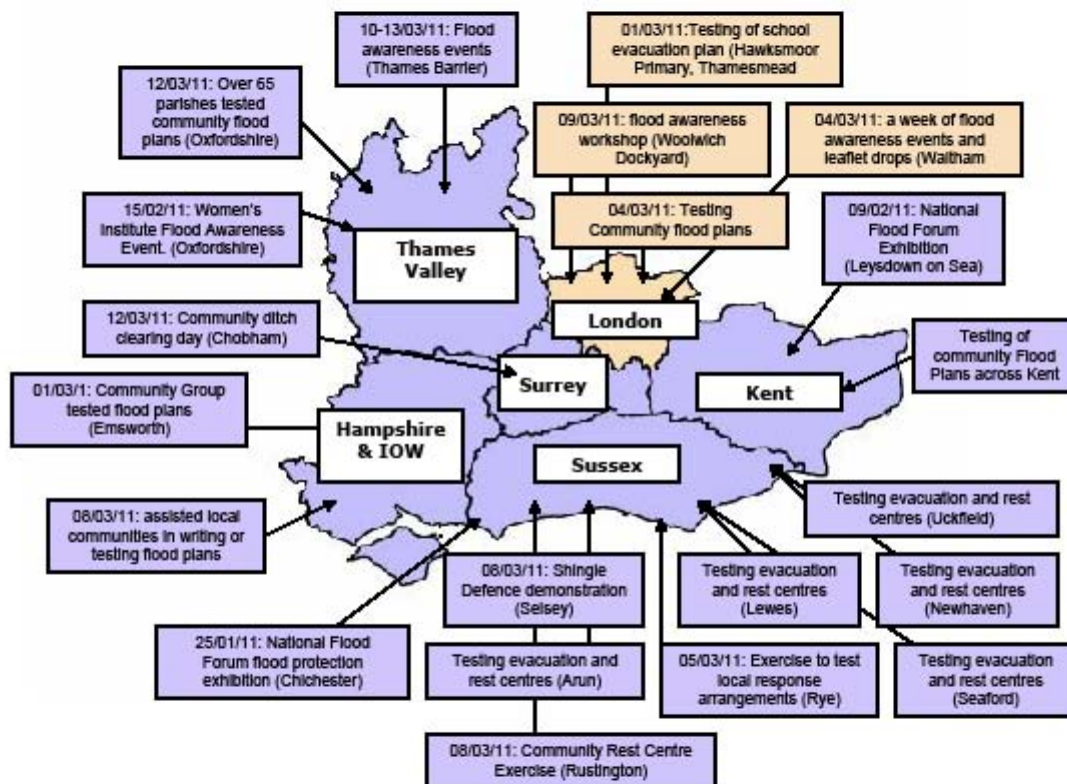


Community engagement activity – Environment Agency south east and London region



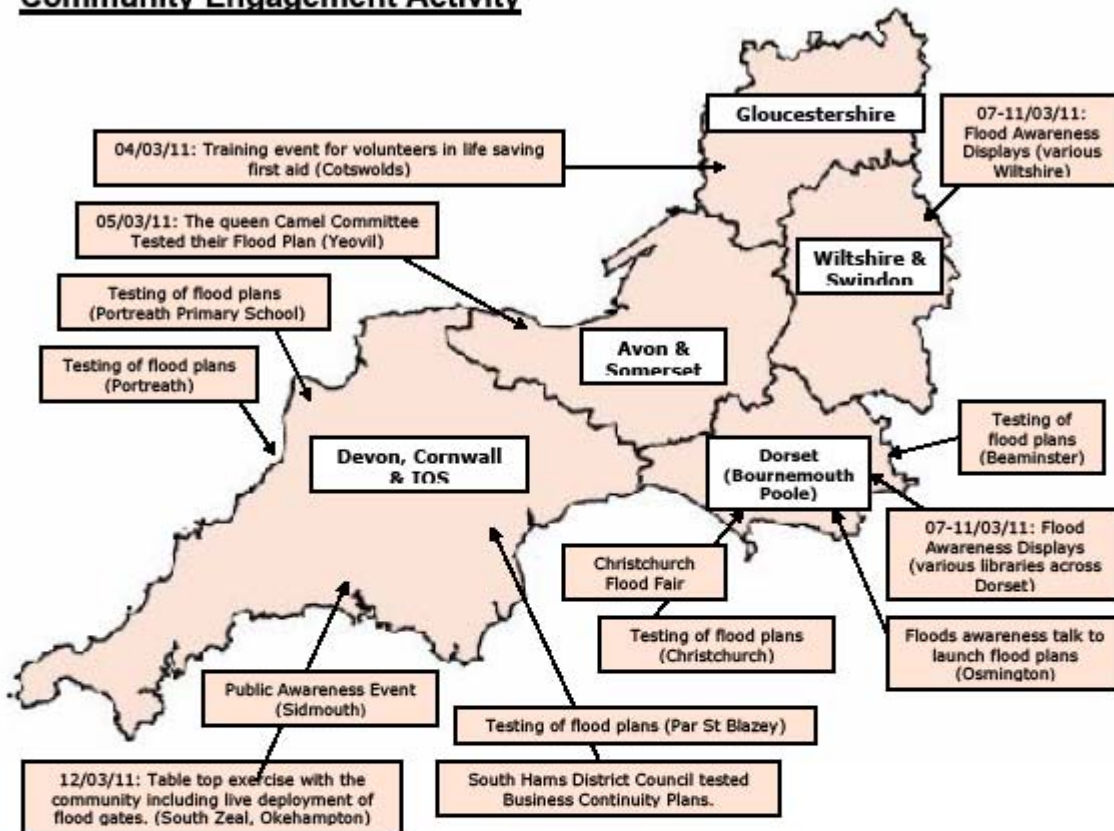
Supporting community action, testing professional responses

Community Engagement Activity



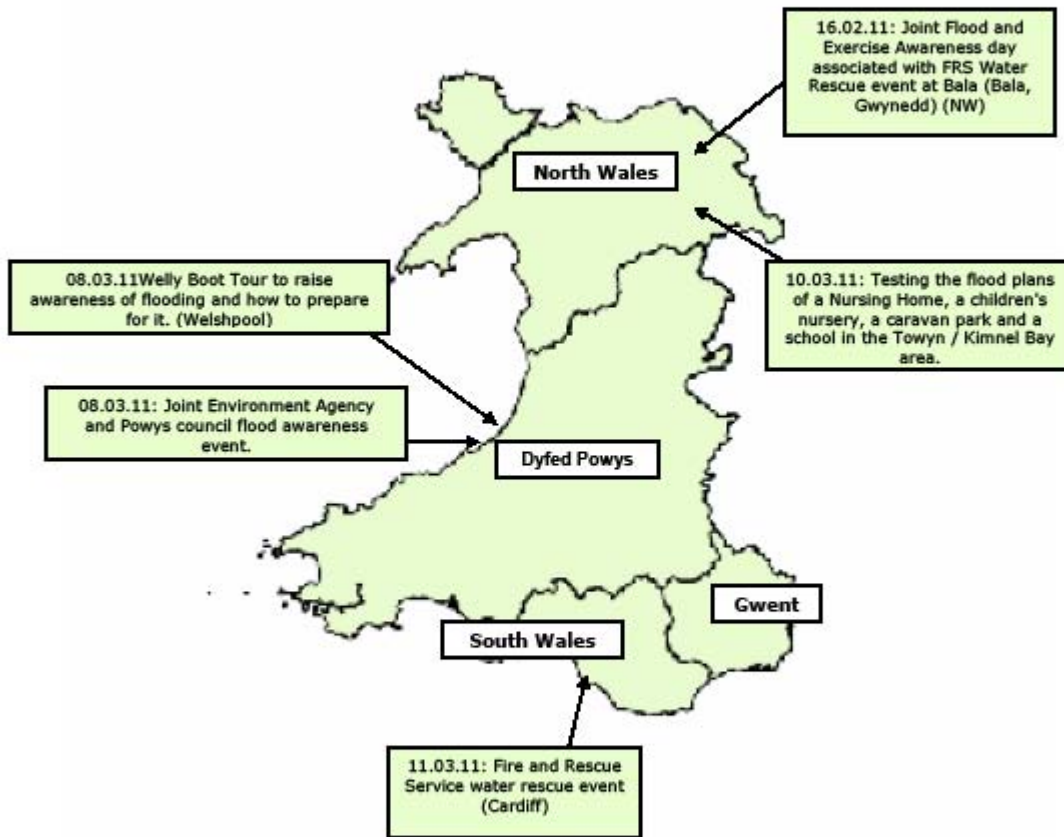
Community engagement activity – Environment Agency south west region

Community Engagement Activity



Community engagement activity – Wales

Community Engagement Activity

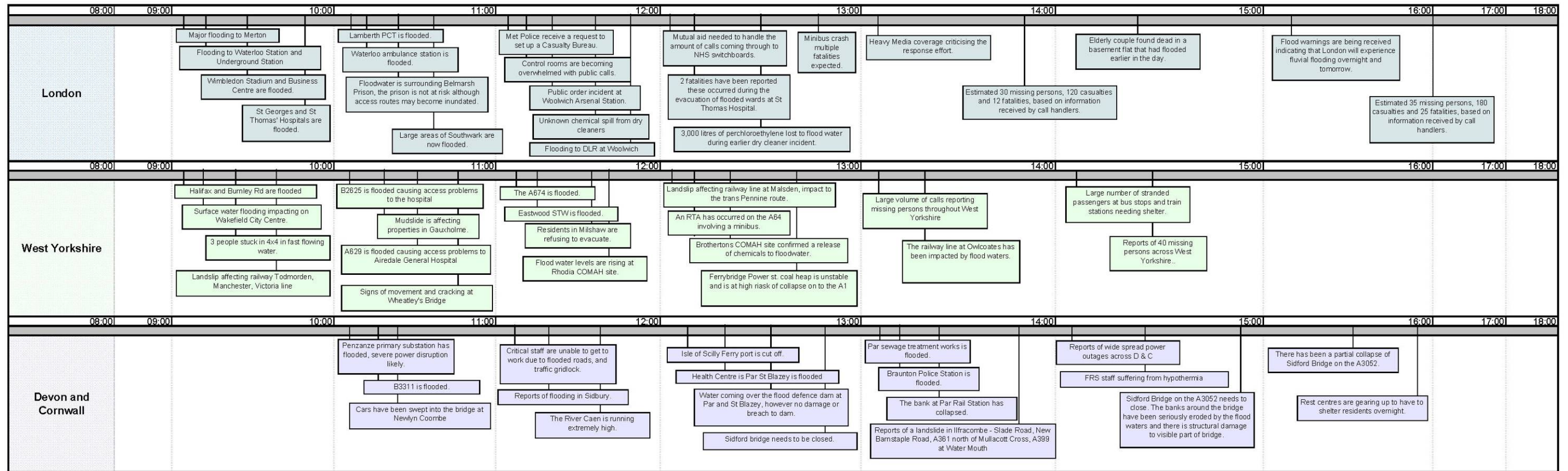


Annex 2. Exercise Watermark core timeline

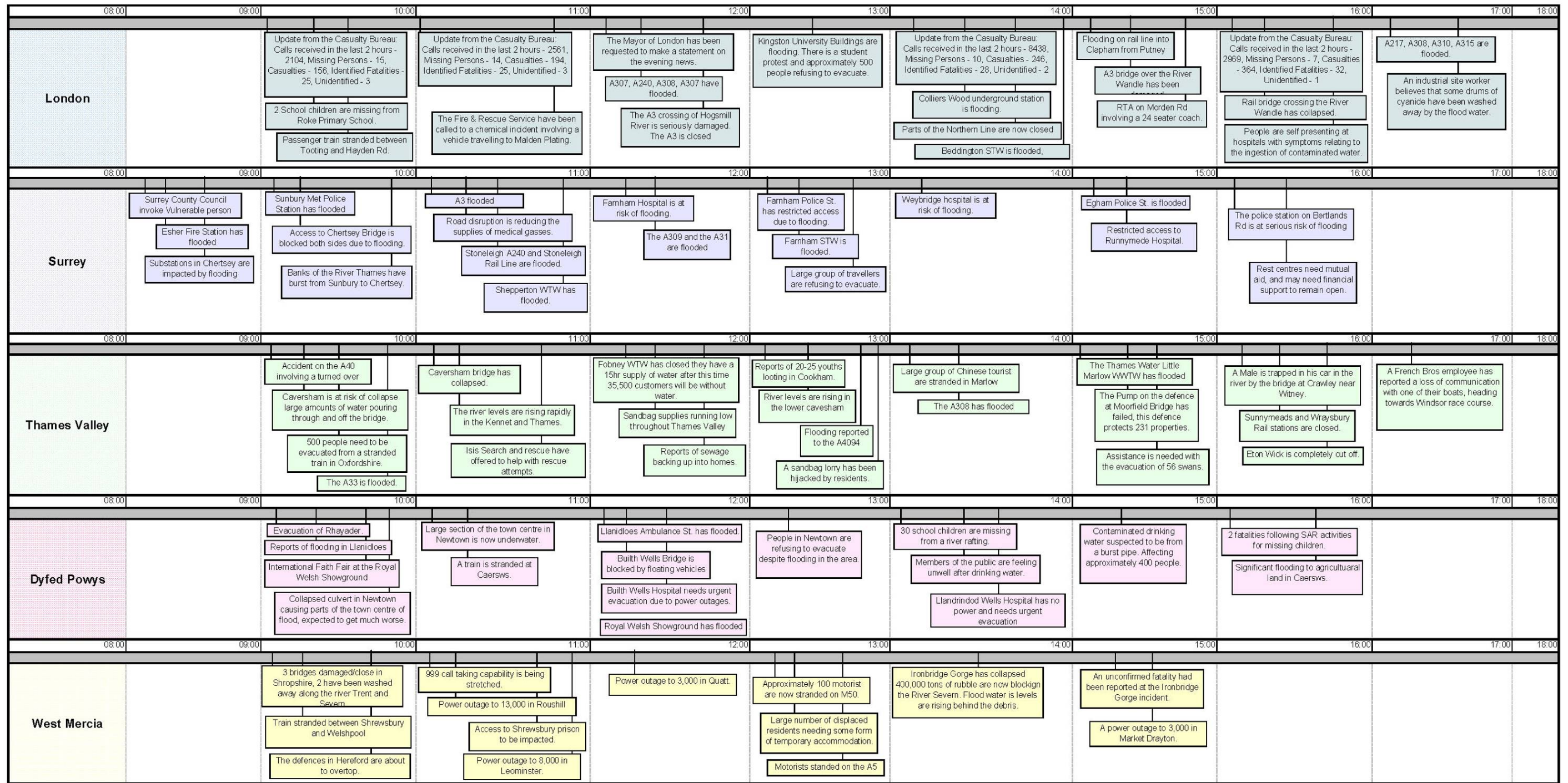
The core timeline shows the key decisions made during the core exercise. These pages will be easier to view if they are printed on A3 paper.

Key Actions – Monday to Thursday

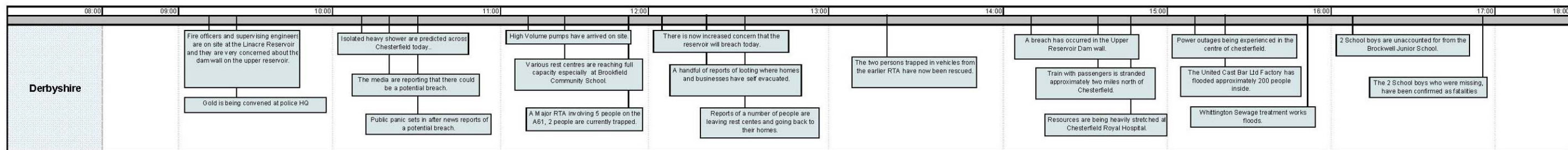
	Monday 7th March		Tuesday 8th March		Wednesday 9th March		Thursday 10th			
	AM	PM	AM	PM	AM	PM	AM	PM		
Scenario overview	<p>Heavy rain across Wales, South West South East England and Yorkshire and Humber, some localised flooding is to be expected.</p> <p>Reports of Surface Water Flooding in London and West Yorkshire and the South West</p>		<p>Impacts of Surface Water Flooding in London, Yorkshire and Devon and Cornwall: 20,400 properties flooded 540 casualties 81 deaths</p> <p>Rain across Wales, South West South East England and West Midlands will persist into the afternoon and become heavy at times.</p> <p>1600 hrs Flood warning issued for the whole Lincolnshire coast.</p> <p>Impacts of Fluvial Flooding in Dyfed & Powys, Surrey, London, Thames Valley and West Mercia: 50,000 properties flooded 5,000 casualties 15 deaths</p>		<p>Isolated heavy showers in Yorkshire and Humber throughout the day, dying out this evening.</p> <p>The upper dam wall of Linacre Reservoir has breached at 1400 hrs</p> <p>Impacts of Reservoir breach in Derbyshire: 3,000 properties flooded 1,000 casualties 200 deaths</p>		<p>Humber defences at Hull have overtopped</p> <p>North or north-easterly winds, with gust between 45 and 60mph particularly in coastal areas, before gradually easing this evening</p>		<p>Impacts of Coastal flooding along the East Coast of England: 150,000 properties flooded 2,000 casualties 75 deaths</p>	
COBR Key Actions	<p>Activated: Ministerial Meetings at 1100 hrs and 1500 hrs (attended by WAG) CRIP produced Set strategic objectives Establish national-level support Review of CNI against EA flood Zones Identify areas likely to be affected by potential East Coast surge Review of current position and availability of assets</p>		<p>Running: Ministerial Meeting 1000 hrs and 1600 hrs Activation of Belwin Scheme East Coast SCGs to report on capabilities Review contingency plans for the potential evacuation of prisons Establish longer-term recovery issues Modelling of East Coast scenarios</p>		<p>Running: Officials meeting</p>		<p>Running: Officials meeting</p>			
SCG Key Actions	<p>Devon & Cornwall SCG Activated: First Meeting 1030 hrs and every 2 hrs following. Major incident declared. Over 2000 properties evacuated in Penzance, Par, Newlyn, Portreath and St Blaizey. Rail travel to stop after Plymouth and advisory against travel to Cornwall and North Devon issued. Casualty bureau activated and recovery groups being formed.</p>		<p>Dyfed & Powys SCG Activated: Meetings held at 0930 hrs, 1130 hrs, 1330 hrs. Emergency Co-ordination Centre (Wales) established At risk fire stations and assets evacuated to higher ground Logistics cell set up to co-ordinate 7 rest centres set up across Powys, evacuation arrangements, assets and mutual aid. Media Cell issuing public warnings and advice including advice on water pollution and alarm at Clywedog Reservoir</p>		<p>Derbyshire SCG Activated: Meetings held at 1100 hrs and 1400 hrs Assessment of dam condition and implementation of the reservoir plan. Identification of key infrastructure at risk. Work to identify vulnerable people and evacuation of area at risk. Strategic placement of resources. Recovery group set up. Set up casualty recovery and temporary mortuary Nottinghamshire</p>					
	<p>West Yorkshire SCG Activated: First Meeting 1100 hrs and 1400 hrs (5 TGCs established) Resource issues identified. Considered threat to Airedale and Leeds Hospitals. M1 closed at Junction 39. Casualty bureau activated.</p>		<p>Surrey SCG Activated: Meetings held at 0930 hrs, 1130hrs, 0200 hrs, 1530 hrs Major incident declared, request for mutual support for rest centres and transportation. Initiated evacuation of at risk areas, activated vulnerable persons plan. Additional sand bags sourced. Considered requirement to provide shelter to East Coast evacuees later in the week. Set up bureau to manage public enquiries and Media Cell facilitating media conferences</p>		<p>Humber SCG Activated Request for additional assets and MOD assets. HVPs and Water craft deployed with a focus on protecting vulnerable persons. 16000 persons evacuated from areas at most risk in the Humber area. 5 HVPs deployed to protect CNI. Recovery group set up</p>		<p>Humber SCG Running: SCG Meetings held at 0900 hrs, 1130 hrs and 1300 hrs Four Multi Agency Recovery Working groups set up. Silver Air Cell, Multi Agency Resilient Telecommunications cell, Boat cell set up and running. Confirmed that East & West Hull pumping stations will be back at 50% capacity by 0200 hrs on Saturday. The Hull Tidal Barrier is to be opened to allow the River Hull to drain before this evening's high tide to reduce the depth of the floodwater. Recovery Working groups now considering recovery of the deceased. Scientific Technical Advisory Cell (STAC) to be established in case of problems at COMAH sites</p>			
	<p>London SCG Activated: Meeting held at 1000 hrs, 1335 hrs and 1600 hrs Sought additional 10 HPVs and 4 boats from FRSNCC, deployment of Assets to protect key utilities infrastructure. GLA liaising with Met Police and other partners, requested national mutual aid and Military Aid. Mayor to give a press conference to coincide with evening news coverage.</p>		<p>London SCG Running: Meeting held at 1000 hrs 1330 hrs Evacuation Group set up, evacuation of SW London Recovery cell set up, worst case scenario planned for Forward look on East coast surge and potential impact on Thames barrier Mayor to act as spokesperson for London</p>		<p>Kent SCG Activated: Meetings held at 1300 hrs and 1500hrs Declared civil emergency for the county. Set up Multi-agency Communication Cell (initial objective warning and informing residents) Scientific and Technical Advice Cell and Recovery Advisory Group Activated early warning for military support. Identified locations and establish interim evacuation centres. Considered the tactical elements of the mass evacuation of Sheppy and Medway, 44,000 people</p>		<p>Kent SCG Running: SCG Meetings held at 0830 hrs reconvened at 0920 hrs, 1300 hrs Sheerness and North Kent Coast evacuation underway from 0800 hrs MAC(C) has been invoked to support evacuation and engineering activity.</p>			
			<p>Thames Valley SCG Activated: Meetings held at 1000 hrs, 1130 hrs, 1200 hrs, 1430hrs Major incident declared. Caversham bridge closed at 0925 hrs. Evacuation of approx 2000 people from Lower Caversham Area. Resources organised to distribute drinking water. Military aid requested for sandbagging Road closures in the area of M4 leading to Reading, diversions in place 7000 evacuees accommodated in Kassam Stadium, 2,400 displaced people in West Berks accommodated in rest centres. Pumping appliances, high volume pumps, Flood control barriers deployed and water rescue teams mobilised</p>		<p>Norfolk SCG Activated: Meetings held at 0900 hrs, 1100 hrs and 1400 hrs Review of resource capacity and evacuation strategy and implications Issue severe flood warnings Requested 40 class B Boats, 10 SMA's, and 1 NRAT Declared major incident for evacuation to proceed Evacuation of severe flood warning areas to begin</p>		<p>Norfolk SCG Running SCG Meetings held at 0900 hrs, 1100 hrs, 1300 hrs Evacuation of Kings Lynn has taken place. Rest centres are over capacity, Request for mutual aid made. Overnight re-deployment of national assets. Revisiting evacuation plans for North Norfolk in view of latest flood warnings. Response plan at Bronze level to seal breach in Flood gate at Kings Lynn North Norfolk rest centres opened</p>			
			<p>West Mercia SCG Teleconference held at 16:00hrs</p>		<p>West Mercia SCG Activated: Meetings held at 0930 hrs, 1130 hrs, 1330 hrs Major incident declared. 700 houses evacuated in the Shropshire area Military assistance requested to protect sub station. Mutual aid required for evacuation in north of Herefordshire Media spokes person to warn and inform in particular on self evacuation activity and public health advice regarding contaminated water. Use of HITS with Dyfed Powys SCG</p>		<p>Essex SCG Activated: Meetings held at 1100 hrs, 1400 hrs and 1630 hrs Working group established to identify vulnerable persons. Decision to begin evacuation at 1600 hrs of around 4,000 properties in five areas that are expected to be affected. Gold chair attends meeting with other East Coast SCGs (1202 hrs). Identification of resource capability for evacuation/ ensure red routes. Rest Centres opened in the north of the county and regular media updates issued. Recovery Plan discussed and consideration of potential requirement to assist Suffolk.</p>		<p>Essex SCG Running: Meetings held at 0900 hrs, 1100 hrs, 1330 hrs and 1530 hrs Identified how many people have not evacuated, issued suitable warning and advice Regular media updates issued. Recovery Cell set up SCG will now sit 24hrs. Military Sea Kings on standby. Rest centre capacity increased. RPU units deployed to key sites</p>	
	<p>Lincolnshire SCG declared an Emergency at 2pm and activated multi-agency response structures</p>		<p>Lincolnshire SCG Activated: East Coast Fire stations preparing (staffing and resilience) on standby for evacuation. Operational Support mobilised. Business Continuity Plans and the Fuel Plan considered. NCC warned that assets may be required The Strategic Holding Area Coordinating Centre opened at Newark Showground</p>		<p>Lincolnshire SCG Running: Meetings held at 1130 hrs and 1505 hrs Emergency evacuation plans from 0900 hrs. Police presence where homes have been evacuated. Warning and informing co-ordinate with EA flood warnings. Evacuation Policy changed - now mass evacuating all sectors. SCG given TCG authority to make a decision as to whether to refocus resources. RAF MACP approved by COBR. Several helicopters deployed throughout area. Overnight media message warning public they now being advised to stay where you are.</p>		<p>Lincolnshire SCG Running: Meetings held at 1100 and 1400 hrs Evacuation has now been halted due to safety fears. Estimated that approx 6,000 failed to evacuated of whom 750 are 'known' to be vulnerable. Rescue of vulnerable people is being prioritised. Media messages urging people to stay in doors, tune in to their radio. Infection control measures in place to deal with the E-coli break-out. Pumping stations and waste-water services switched off. Flood barrier erected around Theddlethorpe sub station.</p>			
			<p>Essex SCG Multi agency Teleconference 1130 hrs</p>		<p>Suffolk SCG Activated: Meetings held at 1130 hrs, 1430 hrs and 1630 hrs Planned phased evacuation. Northern area (Lowestoft to Southwold) commenced Rest Centres activated from 1600hrs. Southern area (Felixstowe to Ipswich) planned to commence 10 Mar. Rest Centres activated from 0700hrs Plan to deal with situation from own resources as limited national resources likely to be available. Scope risk from hazardous materials at Felixstowe and activate plan if required.</p>		<p>Suffolk SCG Running: Meetings held at 0930 hrs, 1300 hrs and 1500 hrs Evacuations of Risk Areas from Lowestoft to Felixstowe completed 1000 hrs Evacuation of Felixstowe to Bawdsey and risk areas in Ipswich (Dock area) commenced at 0700 hrs. Port of Felixstowe closed 1000 hrs and completed at 1327 hrs Assessment of risk to HMP Hollesley Bay underway. Orwell Bridge closed.</p>			
			<p>Suffolk EA FAS Teleconference 1045 hrs SRF Teleconference 1500 hrs</p>							

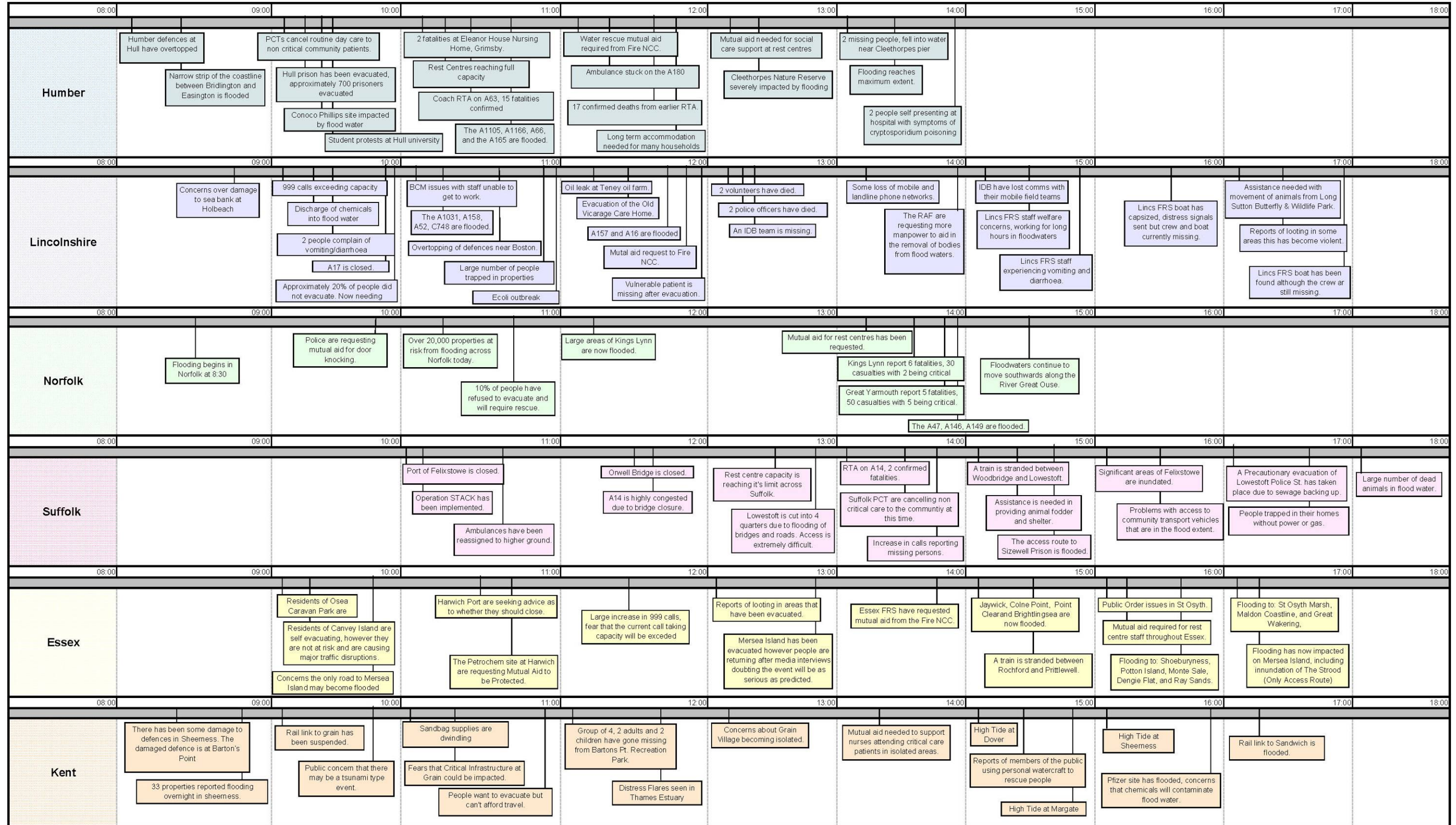


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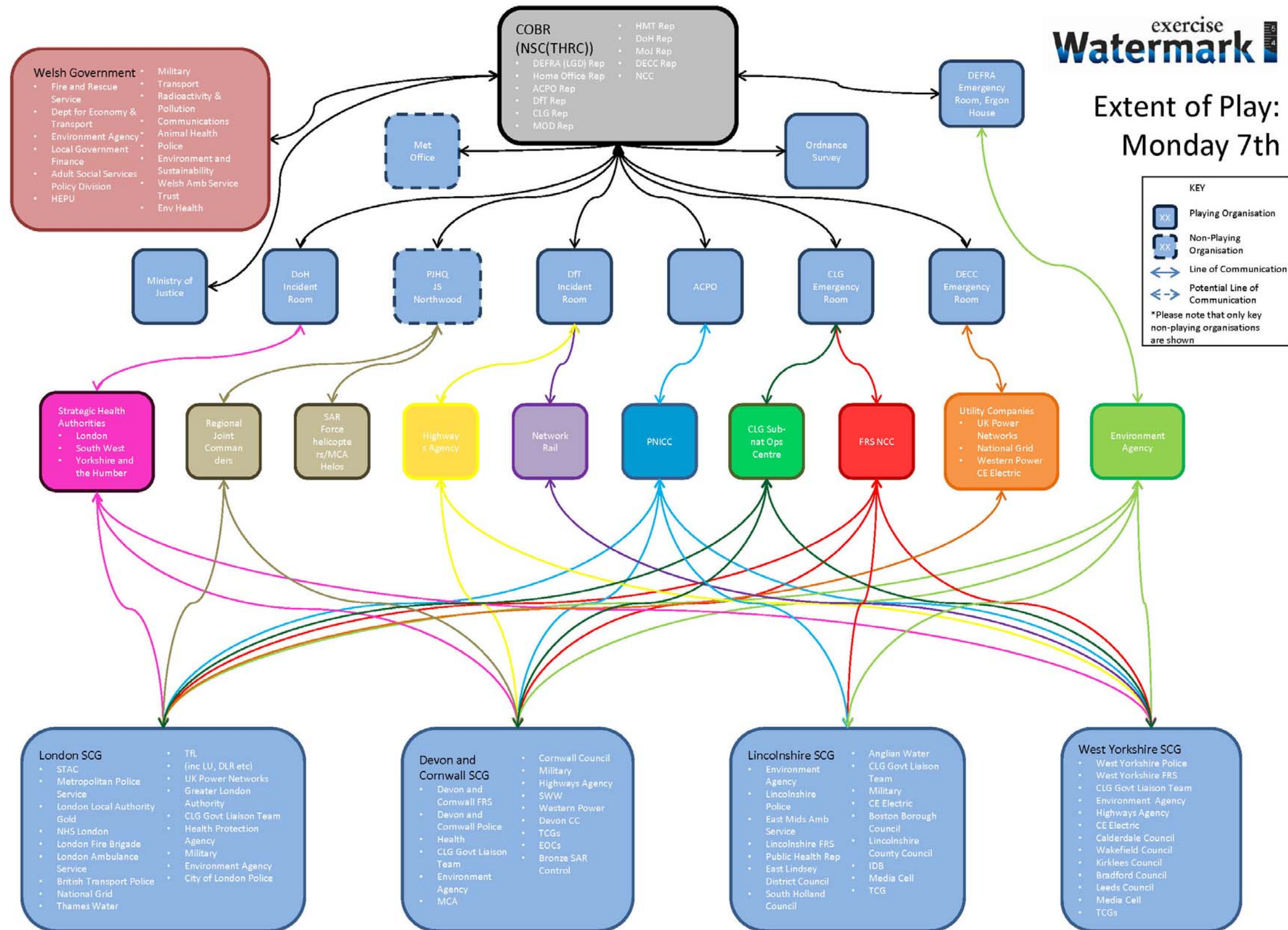
Wednesday



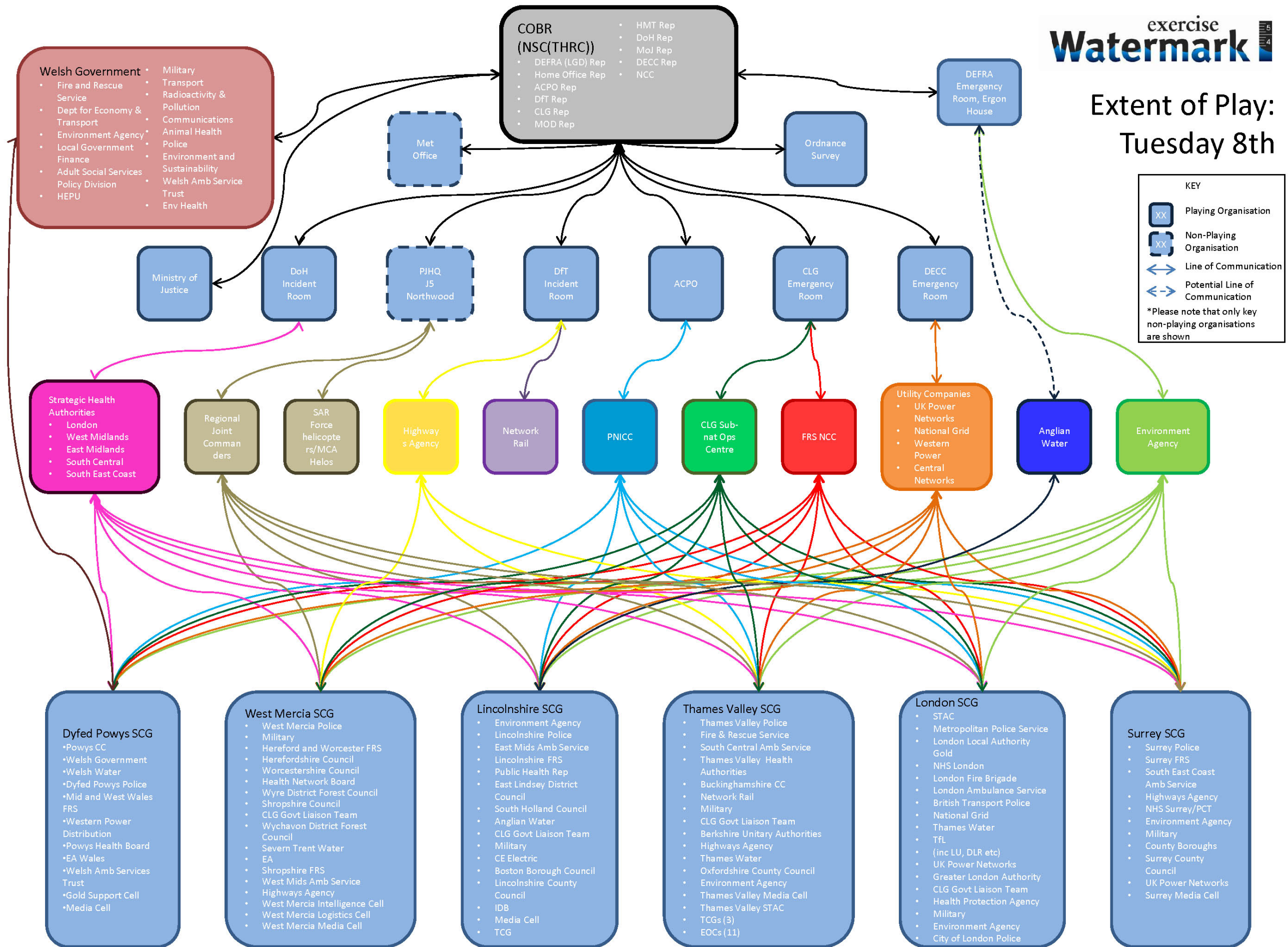


Annex 3. Player organograms

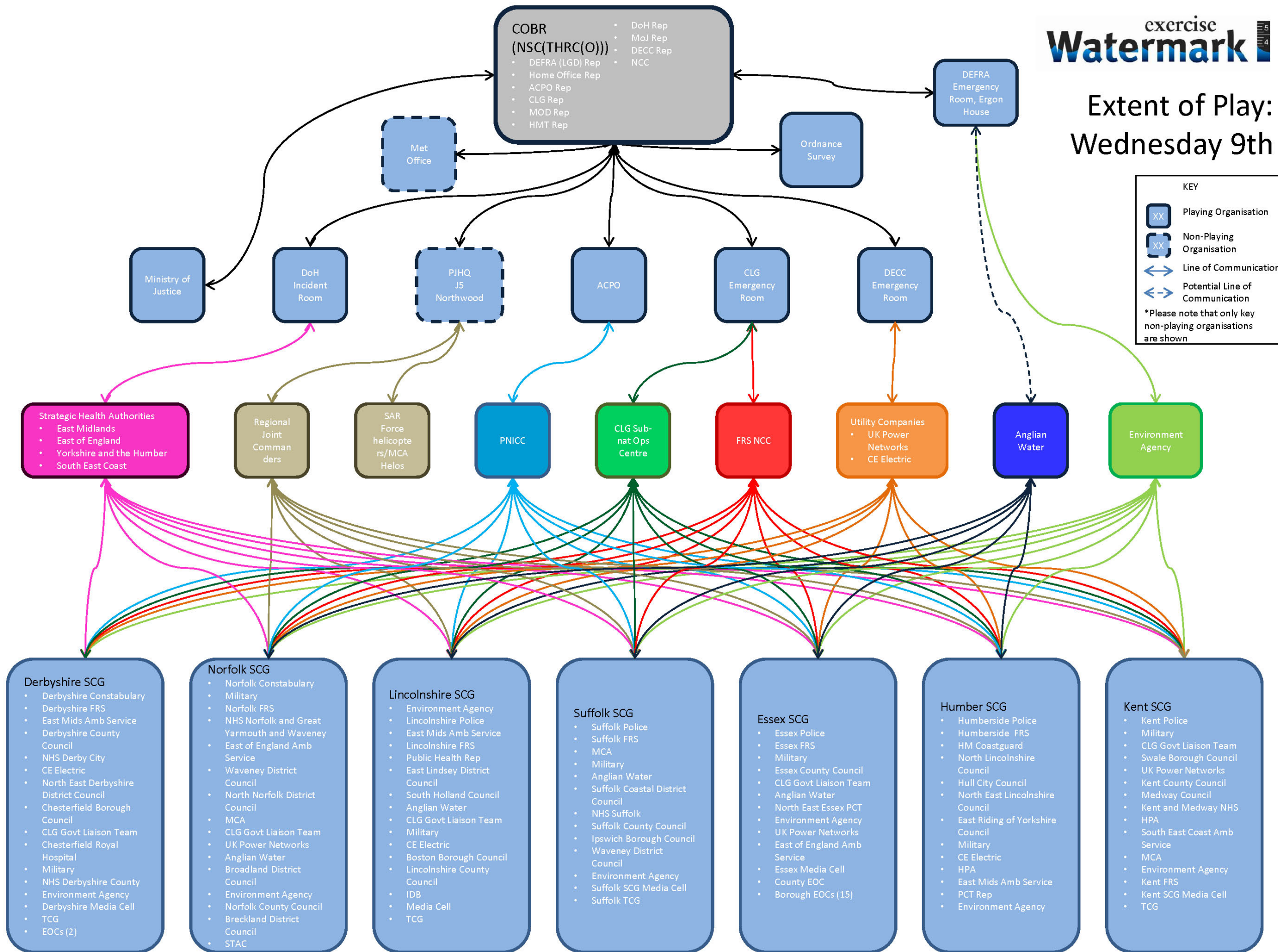
The organograms on the following pages show which organisations participated each day and their shared lines of communication.



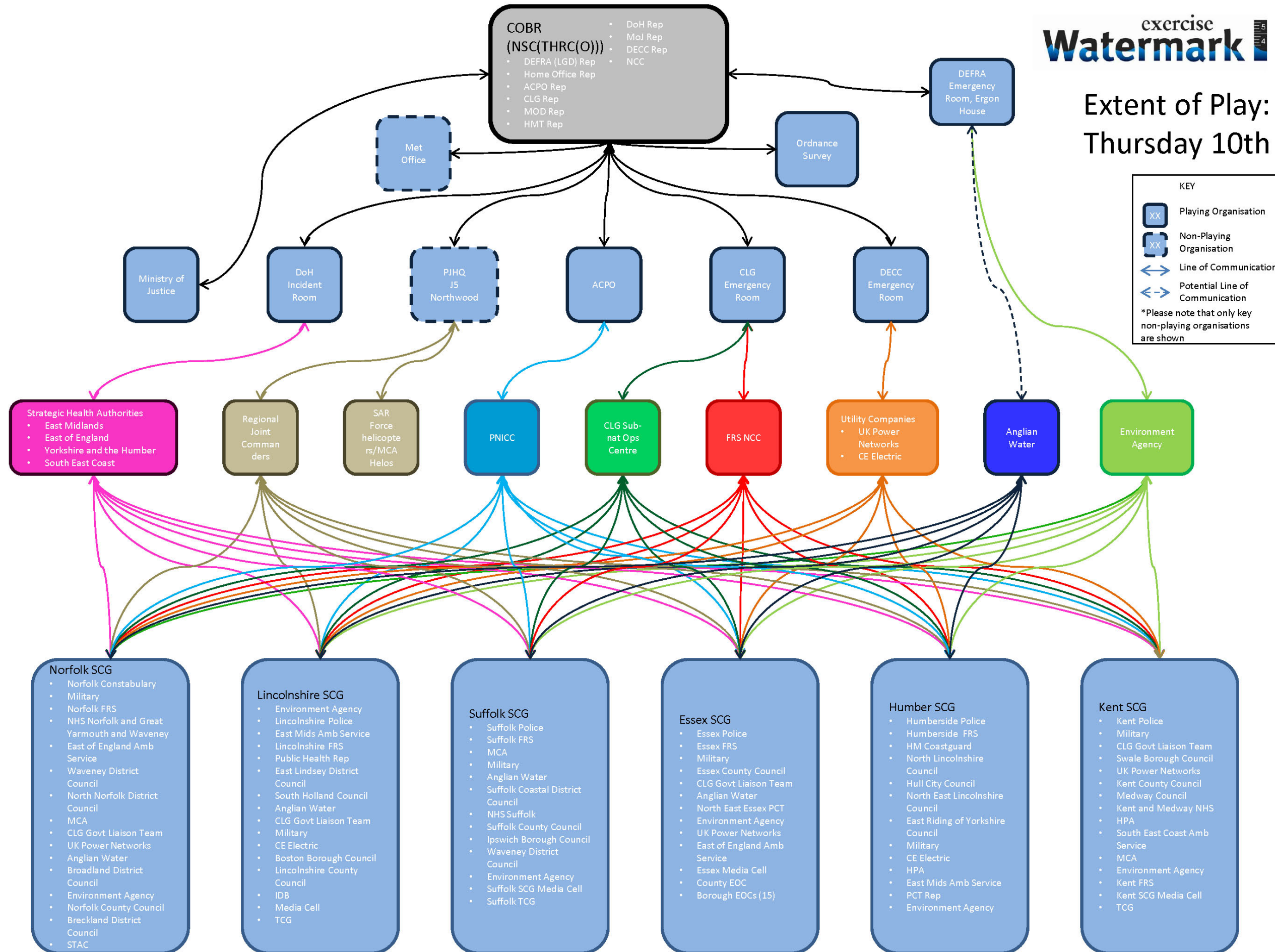
Extent of Play:
Tuesday 8th



Extent of Play:
Wednesday 9th

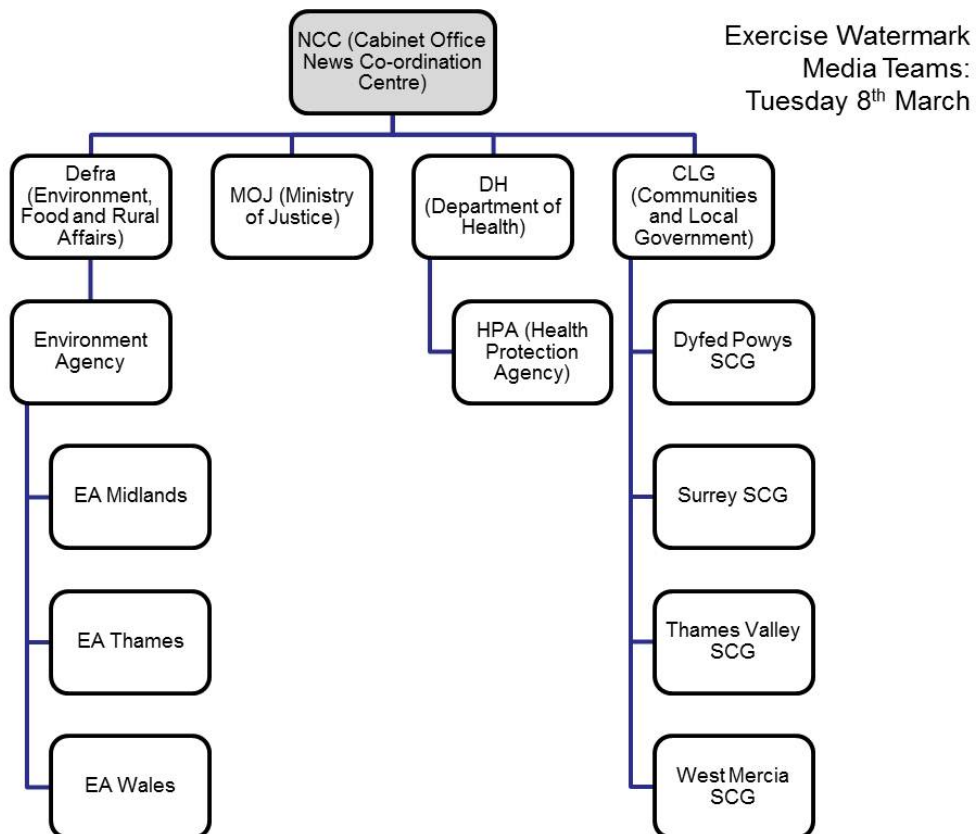
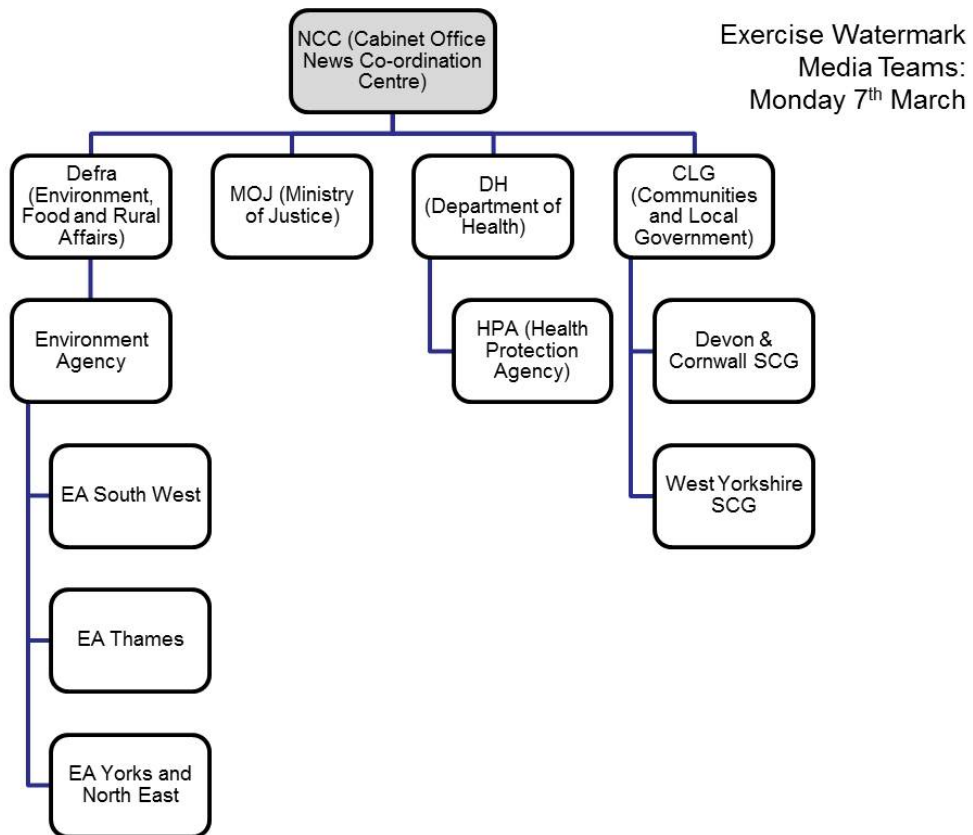


Extent of Play:
Thursday 10th

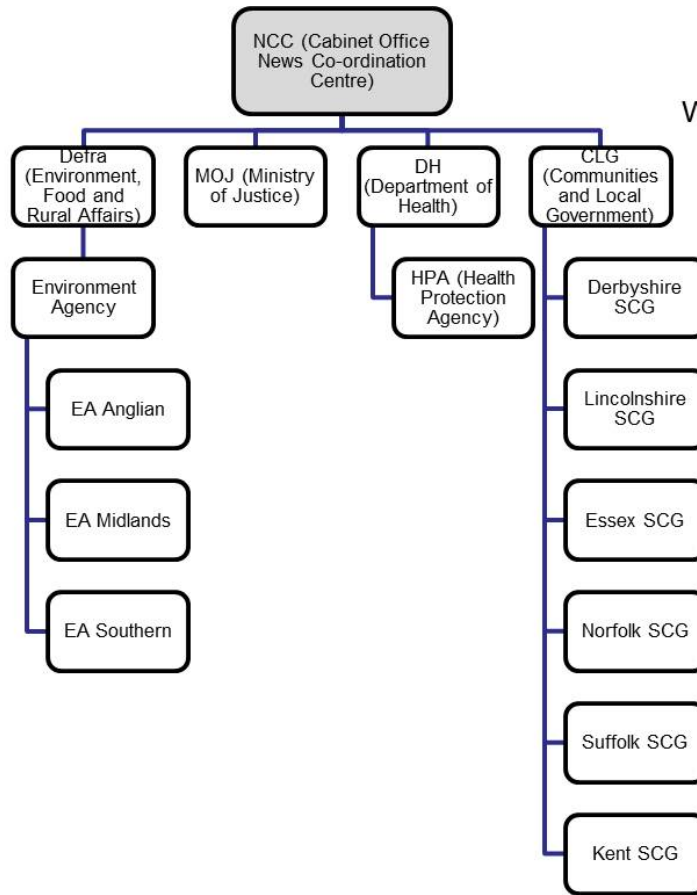


Annex 4. Core Playing Press Offices

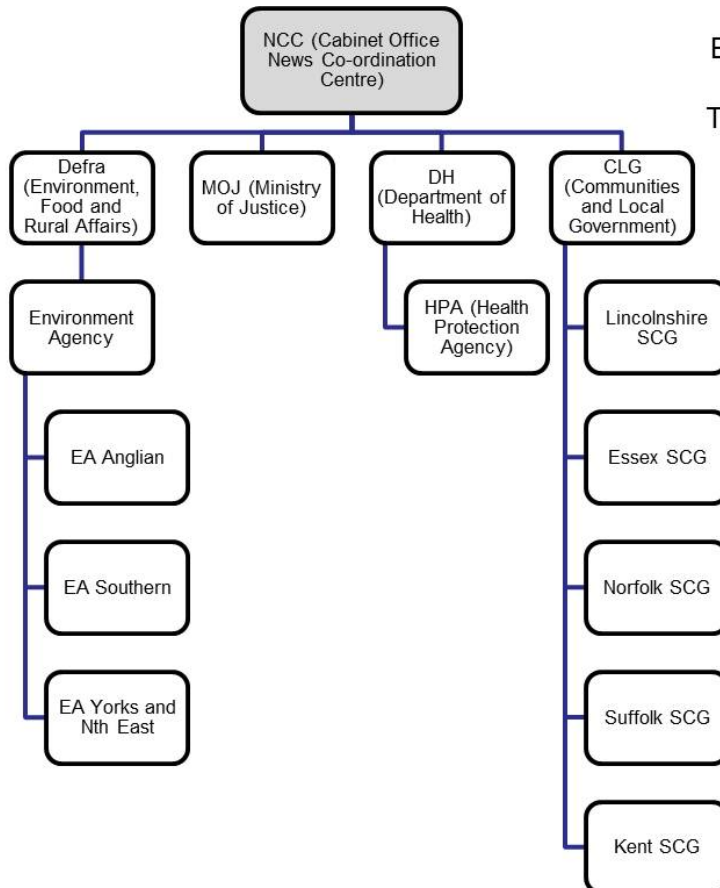
These organograms show the media teams involved in the core Exercise Watermark.



Exercise Watermark
Media Teams:
Wednesday 9th March



Exercise Watermark
Media Teams:
Thursday 10th March



Annex 5. Exercise assessment against national Watermark objectives

The Exercise Watermark Project Executive set nine national objectives, which are outlined in this annex. Another layer of objectives sit below, to enable and support these objectives, and to show how the exercise achieved them. The supporting objectives refer to the Civil Cabinet Office Civil Contingencies Secretariat Concept of Operations (CONOPS), the Defra-led Department Plan, and the National Flood Emergency Framework (NFEF).

	Evidence	Description
Collected during exercise play	Core injects	All injects during the core exercise. Detailed information given to players to build up a picture of the scenario and help them to make decisions.
	Materials generated by the core players	Situation reports (sitreps), strategic coordination group (SCG) minutes, Commonly Recognised Information Picture (CRIP), National Security Council (NSC) minutes and papers.
	Core exercise correspondence	Archive of emails between key players copying in regional, umpire or directors desk control teams.
	TES NoteTaker Log	Archive of umpire notes typed into TES at COBR, Defra Emergency Operations Centre and Environment Agency Strategic Management Team.
	Core exercise control hot debrief notes	Notes captured during Exercise control daily debriefs, and hot debriefs done by playing groups.
	Core umpire correspondence	Umpire assessment tools, updates and email correspondence to exercise control umpire desk.
Collected post exercise	Evaluation forms	Evaluation forms from individual players, umpires and observers.
	Online community feedback	Summary of online feedback survey.
	Core communications survey	Survey responses describing and ranking the communications systems used during the core exercise, assessing their efficiency and effectiveness.
	Core hot debriefs	Summary of the points captured at hot debriefs in participating locations.
	Community reports	Reports and findings from community events and activities sent to the national project team.
	Bolt on exercise reports	Bolt on Exercise Watermark reports and findings sent to the national project team.
	Core exercise reports	Core cold debrief reports and final exercise reports sent to the national project team by individual organisations.
	Debrief workshops	Reports from feedback workshops held with government departments, key groups, bolt-on and core local resilience forums.

National Objective 1.0:		Test the overall coordinated response to a wide-area flooding emergency, including the national, regional and local tiers, and public, voluntary and private sectors' roles and responsibilities (and in particular the National Flood Emergency Framework).			
No	Objective	Tested	How	Evidence base	Assessment
1.1. National Security Council (Threats, Hazards, Resilience and contingencies) (NSC (THRC)) and National Security Council (Threats, Hazards, Resilience and contingencies) (Officials) NSC (THRC(O)) also referred to as Cabinet Office Briefing Rooms (COBR) (Exercised as part of the core of Exercise Watermark on Monday and Tuesday)					
1.1.1	Test ability to react with speed and decisiveness	Fully tested	Monday - preparations for river flooding on Tuesday. Tuesday - preparations for forecast coastal flooding on Thursday.	<ul style="list-style-type: none"> Materials produced by core players CRIPS and NSC minutes evaluation forms core exercise reports 	Adequate: quick decisions and a fast reaction to the threat of east coast tidal flooding meant that initial preparations to evacuate began earlier than expected in some east coast locations. There was less focus on river flooding and a slower, less decisive reaction. This was partly because events were overshadowed by the threat to the east coast.
1.1.2	Test ability of COBR to respect local knowledge and decision-making wherever possible, without losing sight of the national strategy	Fully tested	Monday – response to surface water flooding. Tuesday – response to river flooding.	<ul style="list-style-type: none"> Materials produced by core players CRIPS and NSC minutes Mon and Tue evaluation forms core exercise reports 	COBR respected local responders' knowledge and decision-making during the response to surface water and river flooding and during the build up to coastal flooding. A small amount of feedback suggested that local decisions were occasionally challenged. There was no clear national strategy until day 2 (Tuesday).
1.1.3	Test ability to prioritise access to scarce national resources	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding.	<ul style="list-style-type: none"> CRIPS and NSC minutes Mon and Tue evaluation forms core exercise reports 	Little high level prioritisation: COBR left individual agencies to prioritise assets and to coordinate bodies. It did not recognise that the response might have been better if it had received national direction. Feedback from the local resilience forums which were impacted later in the scenario, suggested that flood rescue resources were allocated on a first come first served basis with no communication about how they would be prioritised.

1.1.4	Test use of data and information management systems to gain a national picture and support decision-making, without overburdening frontline responders	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding.	<ul style="list-style-type: none"> • Strategic coordination group situation reports, • DCLG collated reports • CRIPS with detailed publication/release times on Mon and Tue • Evaluation forms • Core exercise reports • Debrief workshops 	<p>Extensive use of data and information management systems: COBR had access to prepared flood maps and planning assumptions. Lots of data from responder agencies was available via the Scientific Advisory Group in Emergencies (SAGE). COBR and its support cells used internal email across government and external email across responder agencies, as well as access to NRE Collaborate. In all cases reporting was in the form of text-based documents which took time to collate and process. This meant that the CRIP usually took several hours to create.</p> <p>Local responders said the reporting process created a burden for frontline responders. The reporting process was slow which meant government departments sometimes asked them for information that was already in the sitreps to brief central and senior staff. This was not helped by unrealistic timescales and requests for unavailable, very detailed information.</p>
1.1.5	Test ability to base policy decisions on the best available science and ensure that the processes for providing scientific advice are widely understood and trusted	Fully tested	Tuesday – SAGE activated to provide advice on risk of flooding on the east coast.	<ul style="list-style-type: none"> • NSC (officials) Tuesday minutes • Debrief workshops • Core umpire correspondence 	<p>Policy decisions were based on best available science advisors and systems. A meeting of NSC (THRC) officials activated SAGE on Tuesday and asked it to produce a paper in time for the afternoon NSC(TH) meeting on the risk of east coast flooding.</p> <p>Processes for providing scientific advice were generally understood and trusted. SAGE produced its paper based on discussions with the Flood Forecasting Centre (FCC), but there was some confusion in how to interpret this advice and apply it locally for planning purposes. Feedback said there was confusion around the ‘surge tide’ heights at points along the east coast. A surge tide is when high tide (for example, the autumn equinox) coincides with high wind and low atmospheric pressure.</p>

1.1.6	Test ability to draw on existing legislation to respond effectively to the emergency and consider the need for additional powers	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding.	<ul style="list-style-type: none"> • CRIPS and NSC minutes Mon and Tue • Debrief workshops 	<p>Able to draw on existing legislation to respond effectively. Local Government Act 2000, Civil Contingencies Act 2004, Fire and Rescue Services Act 2004, Police Powers and Responsibilities Act 2000 and COMAH Regulations used to help the response.</p> <p>Little consideration given to additional powers. Even though the impact of floods on the east coast forecast by players appeared to meet the threshold for a level 3 emergency as defined in Cabinet Office <i>Concept of Operations</i> (catastrophic), no consideration was given to activating Part 2 of the Civil Contingencies Act.</p>
1.1.7	Test ability to apply risk assessment methodology and cost benefit analysis within an appropriate economic model to inform decision-making	Fully tested	Monday - preparations for river flooding on Tuesday. Tuesday - preparations for coastal flooding on Thursday.	<ul style="list-style-type: none"> • NSC (Officials) minutes 	<p>Adequate risk assessment. NSC(TH) asked SAGE to assess the risk of an east coast tidal surge demonstrating an understanding of the need to do a risk assessment but this did not happen on Monday for the threat of river flooding on Tuesday.</p> <p>No evidence of cost benefit analysis or appropriate economic model to inform decisions. No cost benefit analysis had been done to decide how national assets should be allocated or how to develop the national strategy.</p>
1.1.8	Test ability to work with international partners to share information and request assistance if necessary	Fully tested	Tuesday - preparations for coastal flooding on Thursday.	<ul style="list-style-type: none"> • NSC (Officials) minutes • Exercise correspondence 	<p>Limited work with international partners. COBR did not proactively contact any international partners who were near enough that they might also be threatened by the tidal surge. COBR did consider international assistance but did not feel it was appropriate at the time.</p> <p>Information was not shared proactively with international partners. COBR did not actively share information with international partners mimicked by exercise control.</p>

1.1.9	Test ability to explain policies, plans and practices by communicating with interested parties (including the public) comprehensively, clearly and consistently, in a transparent and open way that addresses national and local concerns while encouraging and listening to feedback	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding.	<ul style="list-style-type: none"> • Core debrief reports • Debrief workshops 	Some explanation of policies, plans and practices. COBR passed enough information to the News Coordination Centre to handle the media. Ministers tried to reassure the public during televised interviews. They did not take the opportunity to explain decisions openly and transparently but this might be because there were not many major decisions.
1.2. Lead government department (Defra)					
1.2.1	Acting as the focal point for communication between central government and the multi-agency strategic co-ordinating group(s) on the ground	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuated. Thursday – response to east coast flooding.	<ul style="list-style-type: none"> • CRIPS and NSC minutes • Exercise correspondence 	Defra was successful in its communications role as focal point between central government departments. Defra performed well on Monday and Tuesday, and particularly well on Wednesday and Thursday when the NSC(TH) was mimicked by Cabinet Office staff in Defra’s emergency operations centre. Limited role as focal point between central government and multi-agency strategic coordination groups. Despite the best efforts of those involved, this was mainly because DCLG had new arrangements to replace the obsolete regional government offices. Many individuals were involved at a late stage and their experience of dealing with incidents ranged greatly.
1.2.2	Test the production of brief, accurate situation reports on the nature and scale of the emergency and a handling plan drawing upon and applying the relevant capabilities applicable to the emergency in hand	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuation. Thursday – response to east coast flooding.	<ul style="list-style-type: none"> • Defra sitreps • Debrief workshops 	Defra did produce brief, accurate (based on information available) situation reports describing the nature and scale of the emergency, but with limited evidence of how it would handle the situation except for a departmental media handling plan. Defra produced its own situation reports regularly and on time. They were as accurate as possible using the information available. There was little evidence to show that they communicated a formal handling plan.

1.2.3	Test the process and quality of executive decisions and actions needed from the centre to handle the emergency or to help the local responders to deal with it	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuation. Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Defra sitreps • Debrief workshops 	Defra <i>did</i> make executive decisions and distribute the work to help local responders. There may be room to improve its processes in the context of a disaster of a catastrophic scale. As lead government department, Defra showed it understood the decision-action cycle, reviewing the situation, making decisions, acting on these decisions and then reviewing the outcome but information could have flowed more quickly which would have helped Defra's decisions to make a greater impact.
1.2.4	Test co-ordination and dissemination of information for the public and the media at the national level	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and evacuation of east coast. Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Defra sitReps • Debrief workshops 	There was evidence that Defra disseminated information to the public and media. There was evidence that they coordinated communications across national response organisations. The best example was good communications with the Environment Agency national level.
1.2.5	Test the Hand over of LGD role to CLG as Response transitions to Recovery	Fully tested	Defra meeting with DCLG to hand over the lead government department role mimicking moving into the recovery phase of an emergency	<ul style="list-style-type: none"> • Debrief workshops • Bolt-on exercise reports 	Successful handover session between Defra and DCLG included Cabinet Office and Other Government Departments. Actions to develop clearer triggers for handover between Defra and DCLG, easier access to planning assumptions for Association of British of Insurers (ABI) and more detailed waste disposal policies.

1.3. Regional coordination groups / regional civil contingencies committees – during Exercise Watermark arrangements for these groups / committees were not necessary because regional government offices were closed. The regional government offices and regional coordination roles were replaced with new sub-national arrangements.

1.3.1	Tests the collation and maintenance of a strategic picture of the evolving situation within the region, with a particular (but not exclusive) focus on consequence management and recovery issues	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuation Thursday – response to east coast flooding.	<ul style="list-style-type: none"> • DCLG sitreps • Debrief workshops 	DCLG sub-national hub <i>successfully produced a compilation of strategic coordination group (SCG) reports.</i> This would be more useful if it summarised the overall picture using a précis and aggregated figures.
1.3.2	Test the ability to facilitate mutual aid arrangements within the region and, where necessary, between regions	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuation. Thursday – response to east coast flooding.	<ul style="list-style-type: none"> • DCLG and SCG sitreps • Bolt on exercise reports • Core exercise reports • Debrief workshops 	There was evidence of the DCLG Sub-national Hub facilitating mutual aid. Most of this evidence was from preparations for the east coast evacuation. The Fire and Rescue Service National Coordination Centre (FRS NCC) and Police National Information Coordination Centre (PNIC) coordinated mutual aid between fire services and police forces, but there was no formal operational coordination for local authority or health assets or capabilities which needed multiple agencies (for example, humanitarian assistance centres).

1.3.3	Test the ability to ensure an effective flow of communication between local, regional and national levels, including the co-ordination of reports to the national level on the response and recovery effort	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuation Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Core debrief reports • Debrief workshops 	The DCLG sub-national hub made sure that information flowed from local to national level but participants did not feel information from national down to local level was satisfactory. SCGs said that in many cases, information was not received from national level teams. Some reports suggested that the commonly recognised information picture (CRIP) was not passed down for security reasons and that top line briefs were available on the National Resilience Extranet (NRE) but not cascaded via email to those without access.
1.3.4	Test the ability to raise to a national level any issues that cannot be resolved at a local or regional level	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuation Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Core debrief reports • Debrief workshops 	If issues could not be resolved locally, the DCLG sub-national hubs <i>did raise them to a national level.</i> It was not always clear how these issues were resolved or communicated. SCGs said that they expected government liaison officers (GLOs) to provide feedback on this.
1.3.5	Tests the ability to guide the deployment of scarce resources across the region by identifying regional priorities	No longer applicable	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuation Thursday – response to east coast flooding.	<ul style="list-style-type: none"> • DCLG and SCG sitreps • FRS NCC cold debrief • Core debrief reports • Debrief workshops 	Now that regional coordination groups / regional civil contingencies committees have been replaced by sub-national hubs, the role has changed and is no longer regional focus. Sub national hubs were aware of resource deployment issues but there was no evidence or expectation of sub national involvement in prioritising scarce resources.

National Objective 2.0:		National flood rescue arrangements - command & control and national capability are exercised (Pitt recommendation 39 see 9.7 below).			
No	Objective	Tested	How		Conclusion
2.1. Test activation of:					
2.1.1	Chief Fire & Rescue Advisor (CFRA)	Fully tested.	Monday – response to surface water flooding and preparations for river flooding.	<ul style="list-style-type: none"> • Umpire evaluation forms • Exercise correspondence • Core debrief reports • FRS NCC cold debrief 	The Chief Fire & Rescue Adviser’s team <i>did</i> activate their cell in the DCLG emergency room when they were told that COBR was likely to meet to consider the national flooding implications. The National Strategic Advisory Team (NSAT) supported the CFRA role but was not fully used as part of the exercise. Mobilising resources and senior guidance pre-emptively was the key to a good operational response to wide area flooding.
2.1.2	Fire & Rescue Service National Coordination Centre (FRS NCC)	Fully tested	Monday – response to surface water flooding and preparations for river flooding.	<ul style="list-style-type: none"> • Umpire evaluation forms • Exercise correspondence 	West Yorkshire Fire & Rescue Service <i>did</i> activate the Fire & Rescue Service National Coordination Centre at its headquarters when it was told that severe flooding was likely to need mutual aid between services. New dimension and water rescue assets were mobilised.
2.1.3	MCA Marine Emergency Information Room (MEIR)	Not tested			MCA MEIR did not participate in the exercise.
2.2. Test running of:					
2.2.1	Fire & Rescue Service National Coordination Centre (FRS NCC)	Fully tested	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • SCG sitreps • Umpire evaluation forms • Exercise Correspondence • Core debrief reports • FRS NCC cold debrief 	The FRS NCC <i>worked throughout</i> the exercise, to control and mobilise all FRS responses during the exercise. With advice from the National Resilience Assurance Team (NRAT) and National Strategic Advisory Team (NSAT) the FRS NCC managed mobilisation of FRS and non government organisations assets.
2.3. Test interim flood rescue arrangements					
2.3.1	Test establishment of Chief Fire Officer Association (CFOA) National Flood Support Team (FST) by FRSNCC	Partially tested	Tuesday – response to river flooding	<ul style="list-style-type: none"> • FRS NCC cold debrief 	Arrangements for a Chief Fire Officer Association (CFOA) national FST no longer exist and have been replace with a Flood Rescue Advisor (FRA). A list of FRAs was provided by Defra and one FRA advised on the Tuesday of the exercise. .

2.3.2	Test Flood Support Team (FST) liaison with Flood Forecasting Centre and DCLG ER (Chief Fire Rescue and Advisor Duty Officer)	Not tested		<ul style="list-style-type: none"> FRS NCC cold debrief 	FRS NCC <i>did</i> liaise with CLG ER but not via the Chief Fire Rescue and Advisor Duty Officer (CFRA) duty officer. .
2.3.3	Test FST access to Flood Rescue National Enhancement (FRNE) database	Fully Tested. This role was done by FRS NCC.	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> Umpire evaluation forms Exercise correspondence FRS NCC cold debrief 	The FRS NCC <i>did</i> have access to the National Asset Register managed by West Yorkshire Fire and Rescue Authority on behalf of Defra.
2.3.4	Test FST development of course of action and decision process	Not tested. This role was done by FRS NCC.		<ul style="list-style-type: none"> Umpire evaluation forms Exercise correspondence FRS NCC cold debrief 	The FRS NCC used <i>their standard operating procedures.</i>
2.3.5	Test FRSNCC requesting of FRS assets	Fully tested	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> Umpire evaluation forms Exercise correspondence FRS NCC cold debrief 	The FRS NCC worked <i>efficiently and effectively</i> managing requests for FRS assets. This is a well-understood and practised procedure.
2.3.6	Test FRS NCC requests for non-FRS land/water based assets	Fully tested	Tested in advance of the exercise. The NCC contacted organisations with declared assets and built an understanding of their availability.	<ul style="list-style-type: none"> Umpire evaluation forms FRS NCC cold debrief 	The FRS NCC <i>proved it could</i> contact non-FRS land/water-based assets. A range of different teams were contacted and rehearsed.
2.3.7	Test FST requesting of Air assets via Aeronautical rescue Coordination Centre	Not tested		<ul style="list-style-type: none"> FRS NCC cold debrief 	
2.3.8	Test FST overview of flood rescue asset deployments	Fully Tested.	Monday – response to surface water flooding	<ul style="list-style-type: none"> Umpire evaluation forms 	The FRS NCC <i>did</i> maintain an overview of flood rescue assets in use, but it was not available to

		This role was done by FRS NCC	Tuesday – response to river flooding Wednesday – preparation to response to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Exercise correspondence • FRS NCC cold debrief • CRIPs on Mon and Tues 	COBR or other agencies. This would have helped to build, share and maintain a more accurate, timely and consistent national operational picture. There was some confusion when it was not clear if some rescue teams had been identified as a national asset or were to be held back solely for local use.
2.3.9	Test FST provision of strategic advice	Fully Tested. This role was done by CFOA FRAs.	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Umpire evaluation forms • Exercise correspondence • FRS NCC cold debrief 	Chief Fire Officer Association (CFOA) <i>did</i> provide national strategic advisors to national and local teams to offer strategic advice on water rescue. Arrangements for a CFOA national FST no longer exist and have been replaced with a Flood Rescue Advisor (FRA).
2.3.10	Test FST communications with all flood rescue organisations throughout emergency	Fully tested This role was done by FRS NCC.	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Umpire evaluation forms • Exercise correspondence • FRS NCC cold debrief 	The FRS NCC <i>established and maintained</i> communications with all the fire and rescue services involved in flood rescue throughout the exercise.
2.3.11	Test FST arrangements for communicating ‘stand down’	Partially tested	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • FRS NCC cold debrief 	The exercise ended before water rescue operations had finished. Communication arrangements between local, Regional and National resilience tiers were tested. This included the National Resilience Extranet COI, BBC, Connecting in a Crisis, local media forums.

National Objective 3.0:		Emergency plan activation arrangements (triggers from weather alerts and flood warnings given to emergency services from the National Flood Forecasting Centre) exercised.			
No	Objective	Tested	How		Conclusion
3.1	Test National Activation	Fully tested	Monday – response to surface water flooding and preparations for river flooding.	<ul style="list-style-type: none"> • Umpire evaluation forms • Exercise Correspondence 	The Cabinet Office (COBR), Defra as lead government department and other relevant government departments <i>did</i> activate their emergency rooms and crisis management arrangements on Monday morning. Defra did a flood advisory service telecon with the Environment Agency and other key groups over the weekend before the exercise.
3.2	Test Regional Activation	Fully tested	Monday – response to surface water flooding and preparations for river flooding.	<ul style="list-style-type: none"> • Umpire evaluation forms • Exercise correspondence 	The Department for Communities and Local Government <i>did</i> activate a Sub-national Hub in their Emergency Room on Monday morning.
3.3	Test Local Activation	Fully tested	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Umpire evaluation forms • Exercise correspondence • DCLG Sitreps 	Local responders <i>did</i> activate virtual strategic coordination groups as a precautionary measure when they received flood warnings, and then they established their strategic coordination centres. In some cases this was entirely unplanned and <i>triggered realistically</i> in real time by exercise play.

National Objective 4.0:		Communication arrangements at all levels - speed of information between local, regional and national resilience tiers including COBR; as well as National Resilience Extranet functionality and other arrangements such as the COI, BBC, Connecting in a Crisis, Regional Media Forums etc exercised.			
No	Objective	Tested	How		Conclusion
4.1	Test requesting, submission and circulation of Situation Reports (Sitreps)	Fully tested	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to response to east coast flooding Thursday – response to east coast flooding.	<ul style="list-style-type: none"> • Exercise correspondance • Gov dept’s sitreps • DCLG sitreps • SCG sitreps • SCG cold debriefs 	COBR did request situation reports daily from government departments, non-departmental public bodies and strategic coordination groups (SCGs). Government departments, non-departmental public bodies and SCGs did submit situation reports to COBR, directly and via the DCLG sub-national hub. Information was not always successfully circulated to those who needed it. Some SCGs said they felt isolated and uninformed.
4.2	Test compilation and circulation of Common Recognised Information Picture (CRIP)	Fully tested	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to response to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • CRIPS on Mon and Tues • Exercise correspondance • Govt depts sitreps • DCLG sitreps • SCG sitreps • SCG cold debriefs 	COBR did compile a daily Common Recognised Information Picture (CRIP) in PowerPoint, and did circulate this to government departments. Unfortunately the .pptx format was incompatible with some less advanced IT systems. The data came from multiple Word documents, so the process for collating and entering it into a single CRIP usually took up to four hours (from the request for information to CRIP completion). In PowerPoint slides, the CRIP could not be used to aggregate or extract data. It was a single file on a closed system in COBR and it could not be updated in real time by the information owners.
4.3	Test the functionality of the National Resilience Extranet (NRE)	Partially Tested.	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Exercise email archive • Comms survey results 	There is little evidence to suggest that NRE was fully tested. Some participants used the NRE as an incident response tool during Exercise Watermark. Issues with its speed and how easy it was to use were highlighted in the feedback.
4.4	Test the functionality of other such arrangements - HITS	Partially Tested	Tuesday – response to river flooding	Comms survey results	The High Integrity Telecoms System (HITS) was used by a limited number of participants.

National Objective 5.0:		The wider media management issues arising from an emergency are exercised			
No	Objective	Tested	How		Conclusion
5.1	Activation of News Coordination Cell (NCC)	Fully tested	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Top line briefs • CRIPs Mon and Tuesday • DCLG sitreps • SCG sitreps 	The news coordination cell <i>did</i> activate and provided top line briefs.
5.2	Test media management at all levels	Fully tested	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Top line briefs • CRIPs Mon and Tuesday • DCLG sitreps • SCG sitreps • Exercise correspondance • Core debrief reports 	Government departments, agencies, and responders actively used their press officers and communications teams at all levels although not every participating organisation tested this during the exercise. Participating organisation who did not involve these specialists often asked them to manage real media interest in the exercise. A range of traditional and social media was tested and a number of recommendations have been identified in the main report.

National Objective 6.0:		Business continuity arrangements of essential service providers and critical infrastructure operators (infrastructure resilience and sector resilience plans and arrangements could be tested) are exercised.			
No	Objective	Tested	How		Conclusion
6.1	Business continuity arrangements of essential service providers and critical infrastructure operators are exercised.	Fully tested	Monday – response to surface water flooding Tuesday – response to river flooding Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • CRIPs Mon and Tuesday • DCLG sitreps • SCG sitreps • Exercise correspondance • Plans tested annex • Bolt-on reports • Core Reports 	Category one responders and key Category two responders <i>did</i> have business continuity plans and were able to activate them. A number of responders activated their plans and responded by withdrawing assets from flood-threatened sites or provided flood protection. Staffing, IT and site access issues were included in many of the national and local players scenarios. Others showed an understanding of the likely secondary impacts of flooding on power and water, reviewing the need to take precautions to mitigate these impacts.

National Objective 7.0:		Mutual aid arrangements across LRF and regional boundaries are exercised.			
No	Objective	Tested	How		Conclusion
7.1.	Test mutual aid between two LRFs in the same region (predetermined arrangement).	Fully tested	Wednesday – preparation to respond to east coast flooding Thursday – response to east coast flooding	<ul style="list-style-type: none"> • DCLG sitreps • SCG sitreps • Exercise correspondance • Bolt-on reports • Core reports 	Local resilience forums (LRFs) in the same region were able to use arrangements already in place to request and provide mutual aid. There were formal and informal examples of mutual aid during exercise play. The Lincolnshire evacuation engaged the neighbouring LRFs.
7.2.	Mutual aid between LRFs in adjoining regions (predetermined arrangement).	Partially tested	Thursday – response to coastal flooding.	<ul style="list-style-type: none"> • DCLG sitreps • SCG sitreps • Exercise correspondance 	LRFs on the east coast were able to use arrangements they had prearranged to request mutual aid from LRFs in inland regions. The DCLG sub-national hub coordinated and monitored this process.
7.3.	Mutual aid between LRFs in non-adjoining regions (ad hoc arrangement).	Partially tested	Thursday – response to coastal flooding.	<ul style="list-style-type: none"> • DCLG sitreps • SCG sitreps • Exercise correspondance 	There were arrangements to provide mutual aid between regions that were not adjacent to each other. These worked on an organisational basis (fire, police, Environment Agency) but there was little evidence to show that this happened if there was no formal national operational control (e.g. local authorities). The mutual aid between fire services, police forces and the Environment Agency was coordinated effectively by the FRS NCC, PNIC and the Environment Agency National Incident Room respectively.
7.4.	Mutual aid between LRFs in adjoining regions (across boundary with a Devolved Authority).	Partially tested	Tuesday – response to river flooding	<ul style="list-style-type: none"> • DCLG sitreps • SCG sitreps • Exercise correspondance 	A small amount of evidence showed there was mutual aid between LRFs across the boundary with a devolved administration. Dyfed Powys and West Mercia LRF areas were both affected by widespread flooding. Dyfed Powys communications showed a request for assistance to search the river Wye. There was little evidence at national level (COBR or Wales ECC) that this mutual aid should be coordinated at the highest level.

National Objective 8.0:		Mass evacuation and sheltering arrangements - including health and social care during a severe flooding incident and evacuation of prisons / detention centres are exercised.			
No	Objective	Tested	How		Conclusion
8.1.	Test mass evacuation arrangements.	Partially tested	Wednesday – evacuation in response to reservoir flooding, and large scale evacuation of high risk areas on east coast. Thursday – ongoing evacuation in response to east coast flooding	<ul style="list-style-type: none"> NSC minutes Mon and Tues CRIPs Mon and Tuesday DCLG sitreps SCG sitreps Exercise correspondance Exercise email archive Plans tested annex 	Local evacuation plans were tested on the east coast, but nobody tested large-scale centrally-coordinated evacuation. While the decision to evacuate was part of the exercise, there was little evidence to show that the resource requirements had been realistically assessed, or any assessment of the volumes of people told to evacuate on to major transport routes.
8.2.	Test arrangements for evacuation of prisoners/detainees.	Partially tested	Thursday – prison evacuation in response to east coast flooding	<ul style="list-style-type: none"> SCG sitreps Exercise correspondance Exercise email archive Plans tested annex 	The decision to evacuate was tested, but the detailed arrangements were not tested for a severe east coast flood. Participants did test the decision and options available. No evidence that the decision to evacuate was properly resourced or communicated at the national level.
8.3.	Test arrangements of evacuation of acute health facilities.	Fully tested	Tuesday – response to river flooding and preparations for coastal flooding Thursday – response to flooding of East coast	<ul style="list-style-type: none"> SCG sitreps Exercise correspondance Exercise email archive 	The decision to evacuate was tested, however the detailed arrangements were not fully tested. Several hospitals were evacuated, but there was limited evidence to suggest these decisions were resourced or coordinated.
8.4.	Test arrangement for the provision of evacuation advice to providers of sheltered housing and nursing care.	Fully tested	Tuesday – response to river flooding and preparations for coastal flooding Thursday – response to flooding of East coast	<ul style="list-style-type: none"> Core injects SCG sitreps Exercise correspondance Exercise email archive 	Arrangements for the evacuation of sheltered housing and nursing care were exercised. Advice, alternative arrangements and resources to do these evacuations where tested locally.

National Objective 9.0:		The implementation of relevant recommendations from Sir Michael Pitt's review that were accepted by the Government following the summer 2007 floods are exercised.			
No	Objective	Tested	How		Conclusion
9.1.	The Environment Agency should progressively take on a national overview of all flood risk, including surface water and groundwater flood risk, with immediate effect (Pitt 2).	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuation Thursday – response to east coast flooding	<ul style="list-style-type: none"> NSC minutes Mon and Tues CRIPs Mon and Tuesday DCLG sitreps SCG sitreps Exercise correspondance Bolt-on reports Core reports Core injects 	The Environment Agency took the lead in providing the NSC(THRC) and SCGs with an overview of the flood risk. Real-time forecasting and risk assessment helped responders to take a much broader view of potential impacts than the exercise scenario allowed. This included worst case scenarios including defence failure.
9.2.	The Environment Agency should make relevant flood visualisation data, held in electronic map format, available online to Gold and Silver Commands (Pitt 36).	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuation Thursday – response to east coast flooding	<ul style="list-style-type: none"> Umpire evaluation forms Exercise correspondence SCG cold debriefs Environment Agency cold debriefs 	The Environment Agency made flood visualisation data available online for gold and silver commands. The Environment Agency also provided flood visualisation for SCGs using the Environment Agency laptops.
9.3.	Local authorities should establish mutual aid agreements in accordance with the guidance currently being prepared by the Local Government Association and the Cabinet Office (Pitt 38).	Fully tested	A limited number of individual local authorities activated their emergency coordination centres.	<ul style="list-style-type: none"> DCLG sitreps SCG sitreps Core reports Bolt-on reports 	Most of the evidence of local authority mutual aid arrangements, was in participating local resilience forums with multiple participating tactical coordinating groups Local authorities provide mutual aid to one another in the form of shelter, transport and staff.
9.4.	The Government should urgently put in place a fully funded national capability for flood rescue, with Fire and Rescue Authorities playing a leading role, underpinned as necessary by a statutory duty (Pitt 39).	Fully tested	(see 2 above)		(see national objective 2 above)

9.5.	Gold Commands should be established at an early stage on a precautionary basis where there is a risk of serious flooding (Pitt 43).	Fully tested	Tuesday – preparation for Thursday’s coastal flooding. Wednesday – preparation for Thursday’s coastal flooding.	<ul style="list-style-type: none"> • NSC minutes and action points Mon and Tues • SCG sitreps • DCLG sitreps 	Strategic coordination groups (SCGs) were established at an early stage as a precaution. Questions from COBR about how prepared participants were to evacuate prompted several east coast LRFs to set up SCGs on Tuesday.
9.6.	The Ministry of Defence should identify a small number of trained Armed Forces personnel who can be deployed to advise Gold Commands on logistics during wide-area civil emergencies and, working with Cabinet Office, identify a suitable mechanism for deployment (Pitt 47).	Fully tested	Monday – response to surface water flooding and preparations for river flooding. Tuesday – response to river flooding and preparations for coastal flooding. Wednesday – response to reservoir flooding and east coast evacuation Thursday – response to east coast flooding	<ul style="list-style-type: none"> • Umpire evaluation forms • SCG sitreps • SCG cold debriefs 	Armed forces personnel supported SCGs, who found their logistics expertise very useful. Evidence from the exercise shows that local and national teams need more awareness and training about how to request Military Aid to the Civil Authorities.
9.7.	Central government crisis machinery should always be activated if significant wide-area and high-impact flooding is expected /occurs (Pitt 48).	Fully tested	Monday – preparation for Tuesday’s river flooding. Tuesday – preparation for Thursday’s coastal flooding.	<ul style="list-style-type: none"> • CRIPs • NSC minutes Mon 	NCS(THRC) and COBR were established as soon as wide-area, high-impact flooding was forecast. Defra, as the lead government department, identified the risk from Flood Forecasting Centre (FFC) forecasts and initiated the mechanism to activate COBR.
9.8.	In the short-term, the Government and infrastructure operators should work together to build a level resilience into critical infrastructure assets that ensures continuity during a worst case flood event (Pitt 52).	Not Tested		<ul style="list-style-type: none"> • CRIPs • NSC minutes Mon and Tues • SCG minutes • Utilities cold debrief 	It is not clear what was done to protect critical infrastructure assets in advance of the river or the coastal flooding. Further work will improve the continuity with the Cabinet Office coordinated sector plans but these were not exercised as part of Watermark.

Annex 6. Glossary

This glossary explains many of the phrases and acronyms used in the report. A full emergency planning glossary can be found at the following website address:

<http://www.cabinetoffice.gov.uk/cplexicon>

Primary term	Abbreviation or acronym	Definition
Airwave		An encrypted communications network used by the emergency services.
Association of Chief Police Officers	ACPO	The professional body of chief police officers responsible for developing police policy.
Association of Train Operating Companies	ATOC	Group of train companies from British national rail network responsible for shaping policy on railways.
Battle rhythm		A schedule for presenting situation reports, briefings, formal collaboration sessions, and other activities during the planning stages and live during an emergency response and recovery event.
Bolt-on		Local exercises which ran alongside the Exercise Watermark core exercise using similar scenarios and content.
Bronze (operational level)		The command control tier where 'hands-on' work is done at incident site(s) or related locations.
Business continuity plan	BCP	A plan to ensure businesses can continue to run in the event of an emergency or disruption.
Cabinet Office Briefing Room	COBR	UK government's dedicated crisis management facilities. These will be used during emergencies that need to be supported and coordinated nationally.
Civil Contingencies Secretariat	CCS	The Cabinet Office secretariat sits at the centre of all the departments and agencies involved in a national disruption or crisis, to provide commitment, coordination and cooperation to ensure the UK responds in the right way.
Category 1 responder	Cat 1	A person or body listed in Part 1 of Schedule 1 in the Civil Contingencies Act. They are likely to play a key role in most emergencies, so they must follow the full range of civil protection duties in the Act.
Category 2 responder	Cat 2	A person or body listed in Part 3 of Schedule 1 in the Civil Contingencies Act. These are cooperating responders who are less likely to be involved in the heart of multi-agency planning work, but will be heavily involved in preparing for incidents that affect their sectors. They have to cooperate and share information with other Category 1 and 2 responders.
Central Government Emergency Response Training	CGERT	Training course providing knowledge, skills and awareness for national roles in emergency management.
Central Office of Information	COI	The government's centre of excellence for marketing and communications. It includes COI News and PR (formerly Government News Network).
Chief Fire Officer Association	CFOA	Professional body representing senior fire officers in the UK.
Civil Contingencies – Resilience Gateway		Central briefing system for communicating with practitioners on multi-agency civil protection issues.
Civil Contingencies Act (2004)	CCA	This 2004 act introduced a single framework for civil protection in the UK. Part 1 describes a clear set of roles and responsibilities for local responders. Part 2 describes emergency powers.
CLIO		System to record and track decisions by police incident control rooms.
Coastal flooding		Coastal flooding occurs when land by the sea is covered with more water than a normal tide.
Cold debrief		A written or verbal communication which takes place after an event or incident to discuss how it was managed.
Command and control		Process by which a person in a role with authority or responsibility will manage available assets and capabilities, to achieve defined objectives.
Common recognised information picture	CRIP	A high level emergency or crisis overview in a standard template which acts as a brief to support decision making. Within COBR, this is usually managed by a central situation cell and circulated to relevant MPs and responders.

Primary term	Abbreviation or acronym	Definition
Communications cell		Responsible for coordinating communications within the Strategic Coordination Centre.
Community engagement		Engaging with local communities about flooding and Exercise Watermark, including organisations like schools, care homes and businesses.
Concept of operations	CONOPS	Central government statement outlining how it will respond to an emergency.
Contingency plan		Plan prepared by an authority describing how it will respond to a potential incident in its area of jurisdiction.
Core		The Exercise Watermark core scenario ran from 7-11 March 2011. The core included the 'tier 1' participants (including ministers, government departments and local responders).
Critical Infrastructure		Infrastructure for example water and power supply assets. Losing or compromising these would have a severe effect, impacting on a wide area.
Critical Infrastructure Resilience Programme	CIRP	This programme is relevant to a number of sectors and aims to make critical infrastructure and essential services more resilient to severe disruption from natural hazards.
Critical national infrastructure	CNI	These are the parts of critical infrastructure identified by government as being nationally important to essential services such as water or power supply. Losing or compromising these assets would have a severe impact across the UK.
DCLG's Resilience and Emergencies Division	RED	A division of DCLG with a role to share information with local responders and represent government at local or multi-area strategic coordination groups in the event of a significant emergency.
Delivery desk		Desks in Exercise Control at Fareham dedicated to communicating exercise materials that created a flood scenario for core exercise participants.
Department for Communities and Local Government	DCLG	The government department responsible for policies that support local government, communities and neighborhoods and fire. Note: The Welsh Government is responsible for communities and local government in Wales.
Design desk		A desk at Exercise Control in Fareham responsible for managing and producing any additional exercise material and the daily briefings for the core exercise. Also know as scenario desk.
Devolved administrations	DA	Welsh, Scottish and Northern Ireland governments.
Emergency		An event or situation which threatens to seriously damage human welfare. <i>Note: to constitute an emergency this event or situation needs special arrangements to be implemented by one or more Category 1 responder.</i>
Emergency control centre	ECC	Where an emergency or incident response is coordinated from.
Emergency Co-ordination Centre (Wales)	ECC(W)	This Welsh Government centre coordinates the multi-agency response to an emergency and acts as a link between local teams and the Cabinet Office Briefing Rooms.
Emergency operations centre	EOC	The place where an organisation coordinates its operational response to an emergency or incident.
Emergency plan		A document or collection of documents describing the overall framework for initiating, managing, coordinating and controlling people and assets to reduce, control or mitigate the impact of an emergency.
Emergency planning		Part of integrated emergency management which develops and maintains procedures to prevent emergencies and to reduce their impact if possible.
Emergency powers		This is the last resort in responding to the most serious emergencies. If existing emergency services are not enough, part two of the Civil Contingencies Act (2004) allows for additional powers. These allow government to make temporary legislation in the event of an emergency.
Emergency preparedness		1. The extent to which good emergency planning can prevent, reduce or control an emergency. 2. Publication describing civil protection responsibilities under the Civil Contingencies Act 2004 for anticipating, assessing, preventing and preparing for emergencies.

Primary term	Abbreviation or acronym	Definition
Emergency services		The police, fire and rescue services and health agencies. May also include HM Coastguard and other responders.
ENDEX		End of exercise.
Environment Agency	EA	An executive non-departmental public body responsible for protecting and improving the environment, and promoting sustainable development in England and Wales. It is also a nuclear regulator responsible for controlling discharges to the environment.
Environment Agency National Strategic Management Team	(EA) National SMT	National team responsible for overseeing large-scale incidents which either impact Environment Agency assets and reputation, or need a high level of operational incident response.
Environment Agency regional leads		Network of Environment Agency officers responsible for coordinating, planning, delivering and reviewing Exercise Watermark for an Environment Agency region or devolved administration in Wales.
Evacuation		Moving people and (if necessary) other living creatures from a dangerous or potentially dangerous place to somewhere safer.
Evacuation and shelter guidance		Non-statutory guidance for local responders and planners on evacuation and shelter produced by the Civil Contingencies Secretariat in the Cabinet Office.
Exercise		A simulated event designed to test, practice and assess capability to manage incidents and emergencies. It may test training, procedures or systems in emergency or business continuity plans.
Exercise Control	Excon	Location where an exercise is managed. Exercise Watermark Control was based in Fareham. Its role is to issue information updates (injects) to mimic an incident or emergency.
Exercise Directing Team		The team with overall responsibility for managing Exercise Watermark.
Exercise Director		This person had overall responsibility for the exercise.
Exercise first run		This was a trial exercise which took place on 11 and 12 January 2011, to test the design, planning and technology before Exercise Watermark.
Exercise management tool		An IT solution designed to manage and deliver the exercise.
Exercise media cell cold de-brief		Post-exercise feedback from the exercise media cells and press officers.
Exercise planning and delivery team		Team responsible for delivering and planning the exercise.
Exercise programme		Planned series of exercises developed by an organisation or group of organisations to test training and plans.
Exercise Triton		National flood event exercise which took place in June and July 2004 with an extreme (up to one every 1,000 years) flood affecting England and Wales.
Exercise Watermark planning groups		Local and national groups responsible for planning Exercise Watermark.
Exercise Watermark Project Executive Group		Group responsible for overseeing the development of Exercise Watermark including representatives from Defra, the Welsh Government, Cabinet Office, the Civil Contingencies Secretariat and the national project team.
Fire and Rescue Service	FRS	National service responsible for responding to fires and other emergencies and non-emergencies.
Fire and Rescue Service National Coordination Centre	FRSNCC	National team responsible for tracking, monitoring, mobilising and coordinating new dimension resources in the event of a major emergency.
Firewalls		Tool designed to protect communication networks from unauthorised access.
Flood Forecasting Centre	FFC	Partnership between the Environment Agency and the Met Office. Staff use meteorological and hydrological expertise to forecast river, tidal and coastal flooding and extreme rainfall which may lead to surface water flooding.

Primary term	Abbreviation or acronym	Definition
Flood guidance statements		Information for Category 1 and 2 responders to help them make planning and response decisions. They present a five-day overview of the flood risk across England and Wales and identify potential severe weather, which could cause flooding and significant disruption.
Flood plan		Describes actions and procedures for an individual, household, community, business or responder(s) in the event of a flood.
Flood support team	FST	Provides advice on flood rescue in consultation with the Flood Forecasting Centre (FFC) and Department for Communities and Local Government (DCLG).
Flood warnings and flood warning codes		The Environment Agency uses a four-stage flood code warning system: flood alert, flood warning, severe flood warning and warnings no longer in force. Each stage will trigger procedures for relevant organisations.
Floodline Warnings Direct		Free Environment Agency service subscribed to by members of the public and businesses who want to receive direct messages warning them of potential flooding.
Fluvial flooding		Flooding caused by rivers overflowing and bursting their banks, after high or intense rainfall.
Geographical Information System	GIS	Computer-based system that captures, manages, analyses and models geographical data.
Gold (<i>strategic coordinating group</i>)		High level command and control (above silver and bronze level), responsible for policy, strategy and the overall response framework for responders.
Gold commander		The gold level commander is responsible for setting the strategy which other plans need to follow.
Government liaison officer	GLO	A representative from Department for communities and Local Government or other government department responsible for leading the government liaison team.
Government liaison team	GLT	Multidisciplinary team from central government, led by a government liaison officer and dispatched to the site of an emergency to support the relationship between the government and local responders.
High integrity telecommunications system	HITS	A hybrid satellite or terrestrial communications system designed to link communications between crisis management centres across the UK. <i>Note: HITS is designed to be available in the event of loss of all or part of the Public Switched Telephone Network. It has a network of fixed sites as well as transportable satellite terminals.</i>
High volume pumps	HVP	Pumps providing water for fire fighting at a rate of 7,000 litres of water per minute. They can remove water from a flooded area at the same rate.
Hot debrief		A discussion or written briefing communicated immediately after an event.
Incident site controllers		Responsible for the overall management of an incident and responsible for coordinating fire wardens and health and safety for all staff at an incident.
Injects		Information and materials designed to mimic an incident or emergency sent to participating organisations by email, telephone calls, sms etc.
Inter-agency		More than one agency is involved.
IT resilience		IT system reliability and capability during emergency situations.
Joint regional liaison officer	JRLO	Officer from the Ministry of Defence (MOD) liaising between local emergency control centres and the MOD's UK command structure.
Joint-agency		Two agencies are involved.
Large-scale evacuation		Moving between 25,000 and 100,000 people from a dangerous place to somewhere safer.
Lead government department	LGD	UK government department or devolved administration responsible for managing the government's response to an emergency or disaster. In an emergency, LGDs work in the response and recovery phases.
Lead organisation		Organisation appointed by a group of organisations to speak or act on their behalf, or to take the lead with their support. The exact role depends on the circumstances.
Lead responder		A Category 1 responder responsible for carrying out a duty under the Civil Contingencies Act 2004, on behalf of other responders, to avoid duplication.
Level of emergency		The <i>Central Government Arrangements for Responding to an Emergency</i>

Primary term	Abbreviation or acronym	Definition
		issued by the Cabinet Office in 2010, has three levels of nationally significant emergencies. In descending order: <ul style="list-style-type: none"> • catastrophic emergency (level 3) • serious emergency (level 2) • significant emergency (level 1) There is a further category below the national level called, local emergency. This is managed locally in conjunction with local government.
Local emergency		Emergency handled by local responders in conjunction with local government.
Local resilience forum	LRF	Brings together all category 1 and 2 responders within a police force area to make sure they work together to fulfil their duties under the Civil Contingencies Act.
Local responder		Organisation that responds to emergencies at a local level. Includes category 1 and category 2 responders and other organisations not covered by the Civil Contingencies Act.
London Local Authority Coordination Centre	LLACC	Centre managed by London's fire brigade to coordinate London local authorities during a gold level London emergency.
Maritime and Coastguard Agency	MCA	Executive agency of the Department for Transport. Made up of Her Majesty's Coastguard and the former Marine Safety Agency.
Maritime Rescue Coordination Centre	MRCC	Her Majesty's Coastguard regional centre overseeing and coordinating regional search and rescue operations.
Marketing and advertising exemption process		Process introduced by the coalition government to control public spending on marketing and advertising.
Mash-up sites		Internet tools combining data from two or more sources, for example, Ushahidi (crowdsource crisis information), Twitscoop (latest information on Twitter) , Addict-o-matic (searches all social media sites for information) or Trendsmap (live Twitter trends).
Mass evacuation		Moving a large number of people (100,000 or more) from a dangerous place to a safer place.
Media		Print, broadcast and electronic news reporting organisations.
Memorandum of understanding	MoU	A document describing an agreement between two or more parties.
Met Office		The UK's national weather service and a trading fund within the Department for Business Innovation and Skills (BIS). Responsible for weather forecasting and does research on climate change.
Military aid to civil authorities arrangements	MACA	Assistance provided by the Ministry of Defence to the civil authorities.
Military aid to government departments	MAGD	Assistance provided by the Ministry of Defence to maintain essential supplies during a national emergency.
Military aid to the civil community	MACC	Assistance provided by Ministry of Defence in three categories: <ul style="list-style-type: none"> - in an emergency - for projects and events - in social services (by volunteers)
Military aid to the civil power	MACP	Military assistance to maintain law and order in situations beyond the capacity of central government and other non military authorities.
Military liaison officer	MLO	Officer appointed by the regional military headquarters to act as the point of contact in a civilian authority's command and control structure.
Military SAR Assets		Military resource, unit or team used for land or water search and rescue.
Multi-agency		Several agencies are involved.
Multi-agency flood plans	MAFP	Plans to help the range of organisations involved in flooding to work together to manage the consequences.
Multi-agency plan		A plan to coordinate and integrate more than one organisation's response to an emergency.
Multi-level plan		A plan to help Category 1 and 2 responders work with more than one level

Primary term	Abbreviation or acronym	Definition
		of government.
Mutual aid		An agreement between Category 1 and 2 responders and other organisations not covered by the Civil Contingencies Act to share resources during an emergency.
National asset register (flood rescue)	NAR	Information gathered by Defra about flood rescue assets. Updated by asset holders to provide information to the Fire and Rescue Service National Coordination Centre (FRSNCC).
National co-ordination and advisory framework	NCAF	Fire and Rescue Service Operational Guidance. The NCAF is a structure offering fire and rescue service assistance during incidents that are of national significance or require national co-ordination.
National emergency mortuary arrangements	NEMA	Service offered by the private sector under a Home Office contract to set up an emergency mortuary anywhere in the UK to deal with large numbers of fatalities.
National flood emergency framework	NFEF	Information to help and support contingency planning in England provided by Defra. It's aimed at emergency managers but is also useful for business continuity managers.
National Flood Forum	NFF	Charity run by people who have experienced the trauma, loss and frustration caused by flooding, or have first-hand experience of supporting flood victims during and after the event.
National flood rescue arrangements	NFRA	National capability to deal with severe and widespread flooding.
National flood risk assessment	NAFRA	National assessment of flood risk for England which sets out the current level of risk from rivers and the sea and what the Environment Agency is doing to manage it.
National incident room	NIR	Location used to respond consistently to a national emergency.
National planning assumptions	NPA	These assumptions describe the consequences to which organisations should be prepared to respond. These will be supported by the risk assessment process.
National project team		A core team from the Environment Agency supported by contractors responsible for designing, delivering and reviewing Exercise Watermark.
National resilience assurance team	NRAT	Provides operational assurance, advice and support to the Department of Communities and Local Government and fire and rescue services to make sure the country is resilient to emergencies. This includes reviewing their capabilities to make sure they are fit for purpose.
National Resilience Extranet	NRE	Secure web tool used to share multi-agency information and provide specific information during emergency response and recovery.
National Security Council	NSC	Chaired by the prime minister (or deputy), to coordinate and integrate all parts of government that contribute to national security.
National Security Council sub committee on Threats, Hazards, Resilience and Contingencies (Officials)	NSC (THRC)(O)	A National Security Council sub committee of government department officials, which jointly manages policy and crisis response.
National Security Council sub committee on Threats, Hazards, Resilience and Contingencies	NSC (THRC)	A National Security Council ministerial sub committee which will jointly manage policy and crisis response.
National Steering Committee on Warning and Informing the Public	NSCWIP	The UK's primary independent advisory group on warning and informing the public.
New Dimension		Programme providing specialist fire-fighting vehicles, equipment and training so the fire and rescue services can respond to terrorist and other large-scale incidents such as flooding.
News coordination centre	NCC	A Cabinet Office unit working with the lead government department to provide media and public communications support during an emergency.
Non-governmental	NGO	Private organisation dedicated to aid and community activities for

Primary term	Abbreviation or acronym	Definition
organisation		example, relieving suffering and poverty, protecting the environment and community development.
Operational (bronze)		Generally this is how an emergency service responds to an incident but specifically it also means the level below tactical, where the hands-on work is done at the incident site(s). For single agencies this is equivalent to bronze level.
Operational control		Responsible for coordinating, directing and allocating mutual aid during a major incident (local authority guidance term).
Other government department	OGD	Government department involved in responding to an incident or emergency who is not the lead government department.
Pan-Wales response plan		Describes how Wales will respond to a major emergency in Wales or which affects Wales.
Pitt Review		A review commissioned by the UK government and run by Sir Michael Pitt to review the 2007 floods in England.
Plan maintenance		Procedures to make sure that emergency plans are appropriate, and kept up to date so they are ready for an emergency.
Plan validation		Tests to make sure that an emergency plan is fit for purpose.
Planning and collaboration tool		Microsoft SharePoint site hosted by Capita Symonds and used by the National Project Team and the Environment Agency regional leads to develop the exercise scenarios.
Planning assumptions		See national planning assumptions.
Police National Information Co-ordination Centre	PNICC	Coordinates police resources in England, Wales and Northern Ireland for complex or large-scale operations (pre-planned or a major incident). Responsible for coordinating mutual aid between forces and managing the flow of information between forces and with central government.
Preparedness		Process to deal with known risks and unforeseen events or situations that could result in an emergency.
Private sector		Non-government, for-profit organisations, involved in responding to an emergency.
Project board		Board responsible for overseeing Exercise Watermark planning, delivery and review.
Property affected		Property that has lost its utility supply because of flooding.
Property flooded		Where flood water has caused damage to or limited how a property can be used.
Public awareness		Community knowledge about risks and how prepared it should be for emergencies. Includes actions for public authorities and the public.
Public sector		Government organisations involved in responding to an emergency.
Recovery		Rebuilding, restoring and rehabilitating communities after an emergency.
Recovery coordinating group	RCG	Body set up to make decisions during the recovery phase of an emergency or incident after the police have done a handover.
Recovery phase		Phase after an incident or emergency focused on recovery. It begins at the earliest opportunity and runs alongside the response phase.
Regional Civil Contingencies Committee	RCCC	Former multi-agency group set up in the most serious circumstances. It included representatives from the emergency services, local authorities and central government and managed strategic coordinating groups in English regions. Prior to new sub-national government arrangements, it aimed to improve the emergency response, in particular, consequence management and recovery.
Regional coordinating group	RegCG	Former group set up in a government office region to support and manage strategic coordinating groups (SCGs) in an emergency. Prior to new sub-national government arrangements, the group would form when there was more than one strategic coordination group and more than one police force area affected.
Regional coordination centre	RCC	Location where members of the now obsolete regional coordinating group or regional civil contingencies committee meet.
Regional resilience forum	RRF	Former forum set up by a government office to discuss regional civil protection issues. Prior to new sub-national government arrangements, the group liaised between local and central government about resilience.
Regional resilience	RRT	Former team in each English regional government office (GO). Prior to

Primary term	Abbreviation or acronym	Definition
team		new sub-national government arrangements, it coordinated the whole GO response and acted as the GO's first point of contact for resilience.
Rescue		Moving people threatened or affected by an incident, emergency, or disaster and taking to somewhere safer.
Reservoir breach		When water overflows from a reservoir wall or dam or they fail.
Resilience		Resilience applies to communities, services, areas or infrastructure and means their ability to detect, prevent or withstand, handle and recover from disruption.
Responder		Organisation that needs to plan and prepare a response to an emergency. See Category 1 responder and Category 2 responder.
Response		Emergency responders have three levels of objectives: strategic, tactical and operational. A response is the decisions and action taken in line with these objectives which are designed to protect life, contain and reduce the impact of an emergency and bring the situation under control and back to normal.
Response phase		Phase during which decision making and actions are focused on responding to an actual emergency or disaster.
Rest centre	RC	A building, including overnight facilities, which the local authority has assigned to temporarily accommodate evacuees.
Review team		Team responsible for reviewing Exercise Watermark.
Risk		The significance of a potential emergency in terms of how likely it is to happen and what impact it will have.
Risk management		Tasks and processes to assess and manage risks and potential impact.
Royal National Lifeboat Institution	RNLI	Charity responsible for lifeboat search and rescue service on the UK coast and a seasonal lifeguard service on many beaches in England and Wales.
Scenario desk		See design
Science and technical advice cell	STAC	Technical experts from the agencies involved in emergency response. They can give scientific and technical advice to the strategic co-ordinating group chair or single service gold commander.
Scientific advisory group in emergencies	SAGE	Group of scientific and technical experts set up to give consistent advice to central government to inform its decisions during an emergency.
Search and rescue	SAR	Trained people and specialist equipment used to find people in distress or in danger and take them somewhere safer.
Severe flood warnings	SFW	Environment Agency warning issued when flooding could endanger lives or severely disrupt communities.
SharePoint		Secure website hosted by Capita Symonds. A planning and collaboration tool used by the Exercise Watermark National Project Team and the Environment Agency regional leads.
Short message service	SMS	A way of communicating text via phone, web, or mobile communication systems.
Silver (<i>tactical coordinating group</i>)		This is the tactical layer of command and control in a single agency response to an emergency. It sits between gold and bronze.
Situation report	SitRep	A report outlining the current situation, potential development and response to an incident.
Situational awareness	SA	How much a group or individual knows about past or current events, their implications and potential future development.
Small-scale evacuation		Evacuating up to 1,000 people from somewhere dangerous to somewhere safer.
Social media		Using web and mobile technology to communication interactively. For example, Facebook and Twitter.
Specialist advisory group	SAG	Virtual group of technical specialists. The group helped the core exercise control team with ad hoc scenario materials and queries during the core exercise.
Specialist advisory group desk		A team or individual based at core exercise control coordinating, logging and closing queries passed to the virtual specialist advisory group.
Specific (emergency) plan		One or more category 1 responder's plan describing a particular risk which is not addressed by a generic emergency plan.
Stakeholder panel		A panel of representatives from the emergency response community, including the voluntary sector, local authorities, government departments,

Primary term	Abbreviation or acronym	Definition
		the military and the emergency services.
STARTEX		The start of the exercise.
Statutory responder		Any responder listed in schedule 1 of the Civil Contingencies Act.
Strategic		The level above tactical and operational, responsible for policy, strategy and the overall response framework.
Strategic coordinating group (gold)	SCG	Multi-agency body responsible for co-ordinating the joint response to an emergency locally.
Strategic coordination centre (location of gold/strategic group)	SCC	Where the strategic coordinating group meets.
Strategic Health Authority	SHA	Part of the National Health Service (NHS) in England. Each SHA is responsible for following and implementing the Department of Health's directives and financial policies at a regional level.
Strategic management team	SMT	See EA SMT
Subject matter expert	SME	A team helping to develop and quality assure (QA) the injects (information about the scenario sent to participating organisations by email, telephone calls and sms messages).
Surface water flooding		Flooding caused by rainfall unable to run into the natural ground or drainage systems because of a blockage, or volumes of water over and above the drainage capacity.
Tactical (silver)		Level below strategic and above operational in an emergency response.
Tactical coordinating group (silver)	TCG	A multi-agency group of commanders working at the tactical (silver) level to agree, coordinate and deliver the tactical response to an emergency.
The Chief Fire and Rescue Adviser	CFRA	Team advising ministers, civil servants, fire and rescue services in England and other partners about how the fire and rescue services work.
Tier 1 exercise		An exercise involving the top tier of government which might include ministers and cross-government departments.
Top line briefings	TLB	Statements for media releases produced by the news coordination centre.
Training and exercising system	TES	The VectorCommand IT system used to deliver and coordinate exercise information updates (known as injects) during Exercise Watermark.
Umpires		Officials who impartially oversee the exercise play. The umpire works in the playing organisations' control and emergency rooms and sends their observations to Exercise Control.
Utilities		Companies providing essential services, such as water, energy and telecommunications. Can sometimes include other infrastructure sectors such as transport.
Validation		Measures to make sure that plans, procedures and other emergency response measures are fit for purpose.
Voluntary		Can be a voluntary agency or a voluntary activity but means non-government, not-for-profit, or charitable.
Voluntary sector		A group of organisations involved in an emergency response. Also known as the third sector.
Vulnerability		How susceptible individuals or communities, services or infrastructure are to damage or harm from an emergency or other incident.
Vulnerable establishment		An institution housing vulnerable people during the day or night.
Warning and informing the public		Ways to make the public aware of risks and for responders to warn, inform and advise the public when an emergency is likely to occur or has occurred, and to provide them with information and advice.
Welsh fire and rescue services	WFRS	National service responsible for responding to fires and other emergencies and non-emergencies in Wales.
Welsh Government liaison officer	WGLO	See GLO
Welsh Government liaison team	WGLT	See GLT