The Government's response to the Exercise Watermark final report

Final report

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Llywodraeth Cymru Welsh Government



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Government Response to the Exercise Watermark Final Report

Introduction

- 1. Following the widespread summer 2007 floods, Sir Michael Pitt produced a Review which made a number of key recommendations to improve how the country responds to widespread flooding. The Review made it clear that communities and individuals need to share the responsibility by preparing themselves for flooding, and Recommendation 49 stated that, 'A national flooding exercise should take place at the earliest opportunity in order to test the new arrangements which central government departments are putting into place to deal with flooding and infrastructure emergencies.'
- 2. Government ¹accepted the recommendations made in the Pitt Review and began planning a wide ranging and publicly engaging exercise to test arrangements across England and Wales to respond to all aspects of severe flooding.
- 3. Exercise Watermark took place in March 2011 with UK government departments, the Welsh Government, government agencies, emergency responders, businesses and communities testing the country's response to groundwater, surface water, reservoir, river and coastal flooding.
- 4. Exercise Watermark was on a larger scale and was more complex than any other exercise undertaken in UK modern civil resilience planning. It was a Defra led tier 1 emergency exercise, planned, delivered and reviewed by the Environment Agency and contractors in partnership with response organisations on behalf of Defra and the Welsh Government.
- 5. The National level scenario involved Ministers at the Cabinet Office Briefing Room (COBR), the Welsh Government, more than ten UK government departments, 14 local resilience forums and over 40 separate locations. Over 20,000 people took part in the Exercise including emergency responders, water and energy companies, hospitals and schools, and covering wide-ranging activities involving local communities and businesses.
- All aspects of how a severe flood scenario would be managed in England and Wales were tested, including how new arrangements would cope such as National Flood Rescue Arrangements (NFRA), Multi-Agency Flood Plans (MAFP), new flood warning codes and elements of the Flood Forecasting Centre (FFC), along with other initiatives implemented since 2007.

¹ In this document 'Government' means the UK Government and the Welsh Government acting jointly unless otherwise stated.

- 7. Since the exercise, all groups and organisations involved have debriefed and fed in to a Report published by the Environment Agency (EA) on the lessons to be learnt, as well as in many cases aiding the production and implementation of specific organisation action plans.
- 8. Exercise Watermark was a success and met the targets set by Defra, the Welsh Government and the Pitt Review. As such the exercise has left England and Wales in a much better state of flood preparedness than it was previously. Government have worked on implementing the findings of the EA Report, and a full response to the 36 recommendations can be found in Annex A.

Background

- 9. In England alone, 5.2 million properties are at risk of flooding. Of these, 1.4 million are at risk from rivers or the sea alone, 2.8 million are at risk from surface water alone and 1 million are at risk from both. There are also an estimated 200 homes at risk of complete loss to coastal erosion in the next 20 years. It is possible 2,000 more could become at risk over this period.
- 10. In Wales 357,000 properties are at risk of flooding. Of these 220,000 are at risk from rivers or the sea alone and 137,000 from surface water alone. Data shows that 97,000 of the 357,000 properties at risk in Wales are at risk from all three sources of flooding. The number of properties at risk from coastal erosion is less well defined than those at risk of flooding, but the draft Shoreline Management Plans suggest that the numbers are significantly smaller, and that the majority of these would not be affected until the medium to long term,
- 11. Defra has national policy responsibility for flood and coastal erosion risk management in England. Defra does not build or manage flood defences. Instead, government provides funding through grants to the Environment Agency and local authorities. The Environment Agency also administers grants for capital projects to local authorities and Internal Drainage Boards.
- 12. In Wales, national policy responsibility for flood and coastal erosion risk management sits with the Department for Environment and Sustainable Development within the Welsh Government, The Welsh Government provides capital and revenue grant-in-aid funding to the Environment Agency and administers a capital grant scheme for local authorities.
- 13. The UK Government has committed to take forward the findings of the Pitt Review to improve our flood defences, and prevent unnecessary building in areas of high flood risk. The Pitt Review was carried out following devastating flooding in 2007, and resulted in a series of recommendations for improving the way flood risk is managed in England. These were also welcomed and accepted by the Welsh Government.

- 14. One of the key recommendations from the Pitt Review was to implement a wideranging test (while engaging with the public) of our emergency response to severe flood events. To achieve this, Exercise Watermark was created.
- 15. Given the risk of flooding in England and Wales and its likely severity, the purpose of Exercise Watermark, which ran from 7-11 March 2011 and cost £1.8m, was to test how prepared we are in England and Wales since actions have been put in place from lessons identified following the summer floods in 2007 and other recent floods. It also identified learning objectives and provided recommendations to ensure our flood response capability continually improves.
- 16. It is the largest and most successful civil defence 'preparedness' event ever held in England and Wales. Over 20,000 individual players from response organisations took part and existing plans and arrangements were thoroughly tested. As always, there were lessons to learn, but thanks to greater awareness, community rehearsals of emergency activities and professional responders testing and improving, people and communities in England and Wales are safer than before.
- 17. Exercise Watermark has been extremely valuable in a number of ways. The exercise provided the opportunity for both local and central government responders in England and Wales to test new arrangements put in place since the floods in 2007. National flood rescue arrangements, new flood warning codes, multi-agency flood plans and elements of the Flood Forecasting Centre, and DCLG's new arrangements for a single operations centre response model located with departmental policy leads, the office of the Chief Fire and Rescue Advisor (CFRA), senior officials and the Ministerial team, are just some examples of initiatives which were tested. The activities provided the opportunity to rehearse these arrangements for a severe flood scenario and showed where arrangements work well and where there is need for adjustments. The learning was used to improve arrangements so that the Departments and Agencies involved have been better able to respond to a range of subsequent events.
- 18. Over 125 community events helped to raise awareness of the risk of flooding and enabled communities to test and develop community flood plans. Comprehensive planning and delivery of the events ensured strengthened relationships and greater understanding of different organisations capabilities.
- 19. The Watermark Review Team received feedback as part of the debriefing process from professional partners, volunteers, community groups and individuals with over 1,100 questionnaires and 84 reports reviewed. This feedback, as well as further input from a subsequent key stakeholder forum which considered an Interim Report, directly fed into the production of the final Environment Agency Exercise Watermark Report. This report contained learning points and 36 specific recommendations from the exercise itself, and a further document forming lessons and guidance on running an exercise of this scale.

What is this Report?

20. This report presents Government's response to the key themes from the 36 recommendations for the UK and Welsh Governments to consider. Defra, along other key UK government departments together with the Welsh Government have reviewed the recommendations and a full list of responses can be found in Annex A. The response outlines the work that has been carried out since Exercise Watermark, and our continuing work to further enhance our preparedness for managing widespread severe flooding in England and Wales.

Government Response

- 21. Since Exercise Watermark, much work has been completed to build upon the lessons learnt at national, regional and local levels.
- 22. The East Coast Flood Group has brought together emergency responders and key partners along the east coast of England to work together to improve plans for mass evacuation and improving the coordination of the emergency response by sharing best practices and improving mutual aid. This includes the production of a comprehensive East Coast Flood Emergency Framework. A Central Government Group for coastal flooding has also been created to ensure a coordinated and consistent approach developing work which will improve our flooding preparedness.
- 23. Defra and the Welsh Government have committed to update their lead department plans for flooding and flood emergency frameworks. The UK government, the Civil Contingencies Secretariat (CCS) and the Department for Communities and Local Government (DCLG) are liaising to ensure information flows more efficiently from the centre to local level taking account of new structures which have been put in place in England following the closure of regional government offices.
- 24. DCLG is considering ways of improving recovery processes in light of Watermark, including working with the insurance industry to evaluate its state of preparation for flooding. Many local resilience fora (LRFs) and individual organisations have also put action plans in place.
- 25. A joint initiative has begun with the Meteorological Office (Met Office), EA and FFC to understand customer training requirements to inform subsequent development and delivery of training solutions in a way which better informs responders understanding of flood forecasts.
- 26. At a local level, there have been many examples of action plans being implemented and communities are working to improve community flood plans.

Key Recommendations

27. The Environment Agency's Report on Exercise Watermark of September 2011 set out 11 key areas where lessons needed to be learnt to further improve preparedness for dealing with widespread flooding emergencies.

Central and local management: the Cabinet Office, with other government departments, the Welsh Government and local responders needs to further consider the relationship between Cabinet Office Briefing Room, the lead government department, the Department for Communities and Local Government and local responders for incidents falling between level two (serious emergency) and level three (catastrophic emergency). More explicit triggers would signal when issues need to be escalated and clearer guidance on what that means in terms of central coordination and local direction would be useful.

- 28. Government is always open to identifying improvements to how it operates during emergencies including through the relationship between the relevant Government Departments including Defra (as the lead department for flooding in England), DCLG, Welsh Government and local responders to deal with circumstances where flooding events do not fall into pre-defined levels with associated trigger points.
- 29. The current version of the UK's Concept of Operations lays out general guidelines regarding the factors which could determine whether an incident should be regarded as a Level 2 or Level 3 incident, and generally what this might mean in terms of central government's roles. In practice, it is the entirety of impacts such as numbers of casualties and fatalities, media response, number of properties flooded, depth of flooding and impact on critical infrastructure, which will determine the level of the emergency response and central government's involvement. Each incident is likely to be different and the nature and level of response determined in light of it. In response to this recommendation, Government intends to consider with stakeholders what the possible trigger points should be for moving between a Level 2 and 3 flood, and what in practice this shift would mean for central government and local responders. This will be facilitated in part through the newly established Central Government Group for coastal flooding.
- 30. Exercise Watermark provided the opportunity for DCLG to trial the new arrangements and pilot the single operations centre response model, located with departmental policy leads, the office of the CFRA, senior officials and the Ministerial team. The response model proved to be effective and has been developed further using the Exercise Watermark experience and lessons, further improving future relationships and coordination that has been shown in subsequent events and exercises.
- 31. DCLG assumed the emergency coordination role in England, carried out previously by regional resilience teams, by setting up the new Resilience and Emergencies Division (RED). While Exercise Watermark happened just three

weeks after their staff took on new roles, DCLG were able to provide Government Liaison Officers and deputy support to core Strategic Coordinating Groups (SCG) and the evacuation bolt-ons, as well as running a national operations centre and feeding information into Defra and to COBR. In Wales, the Welsh Government acted as Lead Government Department and linked into SCGs in accordance with agreed arrangements.

Engagement and planning: wide-area planning and arrangements for flood response organisations on the east coast should be developed and adapted for different wide-area emergencies. These groups should consider producing wide-area plans or frameworks.

- 32. The East Coast Flood Group (ECFG) was formed as a collaboration between the seven LRFs affected by H19 (Humber to Kent), Lead Government Departments (LGDs) and national agencies to coordinate planning. As lead Government Department for flooding, Defra acts as the key sponsor of the group within its own Flood Emergencies Sub-Programme. This work is also being taken forward in the Central Government Group for coastal flooding.
- 33. Specific drivers for this project include an identified need to close gaps in resilience planning and understanding of the threat of a coastal flood (including community preparedness), addressing the challenges of effective coordination of resilience responses and recovery to a coastal flood event at national, subnational and local level, and establishing the groups' role as a recognised consultative body to examine contributions to, or recommendations from, government papers such as the Exercise Watermark Report.
- 34. To achieve the aim of identifying and closing gaps in resilience planning and addressing the challenge of effective coordination of resilience responses, a comprehensive set of objectives has been produced, including the development of an integrated and coordinated response and recovery framework plan to an East Coast flood event. A draft framework has now been produced and is being further developed by a multi-agency task and finish group.
- 35. The group will ensure that the response to an East Coast flood addresses the challenges identified. The current set of objectives will be delivered and integrated into East Coast emergency planning by 2014.

Evacuation planning: the Department for Communities and Local Government, the Cabinet Office, the Welsh Government and UK government departments need to set out clear arrangements for integrating multi-area evacuation plans and national coordination; in particular, evacuation routes, shelter, communication and mutual aid arrangements.

36. Adequate evacuation planning is a key aspect of ensuring we are prepared to deal with a widespread flooding event.

- 37. Defra, as the LGD for flood emergencies in England, is responsible for developing plans to co-ordinate the cross-government and multi-agency response to flooding. Through the East Coast Flood Group, we are supporting the East coast LRFs in developing and co-ordinating their Multi-Agency Flood Plans. These plans include provisions for the evacuation and shelter of the impacted population and a vehicle to ensure they can be shared appropriately, possibly through the National Resilience Extranet, is being explored.
- 38. DCLG is engaging East Coast LRFs and their inland neighbours in developing strategic alliances across LRF boundaries to integrate multi-area evacuation plans. The development of these plans is prioritised based on the relevant risk to those geographical areas. During a flood emergency, the multi-agency and multi-area response, including evacuation and shelter, would be co-ordinated by the local Strategic Coordination Group and multi-area Response Coordination Group coordinated by DCLG, guided by the Multi-Agency Flood Plans. For very severe, wide area emergencies in England, Defra and Cabinet Office would coordinate central Government support for the response including, if necessary, local and multi-area evacuation and shelter activities. Plans have already been developed for much of the East Coast and will be set out in the East Coast Flood Emergency Framework. Severe, wide area emergencies in Wales would be co-ordinated by the Welsh Government.

Situation reporting (sitrep) and information requirements: the review recommends that information requirements and reporting processes during an emergency are evaluated, including how available resources can best be used to satisfy audiences at all levels. Reporting and briefing processes need to be amended to meet information requirements and reflect current arrangements.

- 39. Reporting arrangements for incidents need to be kept flexible as reporting requirements can vary hugely given the situation at hand. Given the wide diversity of incidents the UK might face, the SITREP is intended to be flexible, and to act as a guide to departments on likely COBR information requirements. In central government the Commonly Recognised Information Picture (CRIP) provides an effective and flexible mechanism for providing COBR with a clear overview of the given situation. Additional information requirements specific to floods are updated and outlined within the DEFRA LGD plan.
- 40. New arrangements have been introduced to link COBR to local Strategic Coordinating Groups in a crisis through the DCLG Resilience and Emergencies Division (RED). Exercise Watermark came at a time when new arrangements were being developed to enable the smooth flow of information between the central and local levels. The response model was shown to be effective and the learning on information flows has been built on so that this worked well during the response to public disorder and other incidents. In Wales, the reporting lines linking in the SCGs, Welsh Government and COBR are set out in the Pan-Wales Response Plan which was tested as part of the exercise and proved to be effective.

Better use of technology for information sharing and reporting: government should consider how to use technology better for information sharing and reporting to inform the national and local responses. Government should consider using a live, simple (mandatory) common information platform to use for mapping, digital visualisation, media and other source information.

41. A review and upgrade programme of information communication technology within COBR is currently being undertaken to improve real time information flows at a range of classifications. This includes where appropriate the use of the National Resilience Extranet. The review is also focused on infrastructure and audio improvements across COBR and supporting facilities. Ongoing implementation will be completed by National Security Secretariat who has responsibility for managing the COBR suite, once the Olympics are complete.

IT infrastructure: future exercises involving strategic coordination centres and incident rooms /operation centres should be used to further test location-specific IT and communications infrastructure. The IT issues identified from Watermark, incidents and other exercises need to be resolved. In particular issues like internet guest logins, firewalls, blackberry users and multi-agency access need solutions which can then be shared as good practice.

42. The Government agree that ensuring IT compatibility and appropriate communications infrastructure is imperative. Work is ongoing to resolve any issues raised by Watermark, and the possible need for testing as part of future exercises will be explored.

The National Resilience Extranet (NRE): the Cabinet Office should review NRE usability and future expansion plans based on experience to date, encouraging more responders to use it.

- 43. The NRE system includes a full 'request for change' process through which the system is developed in line with user feedback and ideas for improvement. Direct Electronic Incident Transfer (DEIT) Phase 1A is now live. This partly addresses the problems of compatibility **of IT systems**. Cabinet Office are currently investigating its use during the recent floods but as they seemed to affect mid-Wales who aren't part of the pilot area it may not have been utilised.
- 44. A new version (V2.1) of Collaborate, in the NRE, contains enhancements added from the feedback from users – V2.1.1 will appear shortly and V2.2 will be released after the Olympic Games. NRE is now in use by over 740 organisations.
- 45. NRE Maps is currently in Alpha mode (this means it work, but only for Cabinet Office). The Beta version (this means it works but there's still a few niggles) will be released to a limited audience very shortly. This can help solve EA's problem of sharing a Common Operating Picture and the ability for agencies to

share and visualise flood mapping. Cumbria and Lancashire and Wales are competing to be the pilot site on this.

Flood Visualisation: the Environment Agency should improve its flood visualisation capabilities and consider the merits of pre-prepared flood maps for emergencies, in consultation with local and national partners.

- 46. The EA has made further improvements to its Flood Visualisation capability since Exercise Watermark through their off-line visualisation tool, and through improvements to the content and presentation of their internal Mapping tool, which is available to EA staff through a network connection at partner locations. These improvements include current river and sea levels, historic flood extents, and clearer base maps for presentation, allowing viewing at national as well as local scales.
- 47. The EA are developing pre-prepared information for likely flood scenarios based on the risk assessment for communities. Further development work will be undertaken where real benefits to incident response can be identified to justify the delivery. In order to assess these benefits, the EA will be seeking opportunities to demonstrate their capabilities to partners and to receive feedback on the usefulness of the products and future requirements.

Coordination of flood rescue assets: Defra should work with the Department for Communities and Local Government, the Cabinet Office and the Welsh Government to clarify how local and national flood rescue assets should be coordinated, for example statutory duty, framework, Memorandum of Understanding, etc.

48. Government agrees that this is an area where greater clarity is required. It has discussed this issue with partners in order to find the best way forward which would give the greatest flexibility at the local level whilst ensuring that plans are in place to deal with an emergency. Government and most partners view is that improved guidance on this issue would give the greatest flexibility at the local level and imposing a statutory duty is not the best way forward at this time. Guidance will need to be developed and implemented and good practice shared at the local level. The Welsh Government will lead on this in Wales and will link into the work being done by Defra to ensure a joined up approach.

Allocation of National resources: Defra and the Department for Communities and Local Government should work with others to develop guidance and improve responders' understanding of how national resources and flood rescue assets should be allocated and coordinated during a flood. National level organisations and local resilience forums need to do more resource and asset planning before an incident.

49. As with improving the coordination of flood assets, government accepts that we need to improve responders' understanding of how national resources and flood rescue assets should be allocated and coordinated during a flood.

- 50. There is already national co-ordination of major rescue boats, declared assets already fall under the National Co-ordination Advisory Framework, and further consideration is taking place as part of work on East Coast inundation. This could also be considered by the newly created Fire and Rescue Strategic Resilience Board at some suitable date in the future.
- 51. Defra has funded the training of Flood Rescue Subject Matter Advisers (SMAs) who will be able to provide key advice on the number of assets required and how the assets should be coordinated in a flooding emergency. The SMAs will be able to operate at the Fire and Rescue Service National Coordination Centre, at Strategic and Tactical Coordination Groups, as well as in Central Government during a flooding event.
- 52. The Welsh Government has provided funding to the Welsh Fire Rescue Service (WFRS) to improve their flood rescue capability through the upgrade and purchase of rescue craft and equipment. The WFRS and RNLI have entered into reciprocal agreement where respective rescue skills of the organisations can be shared thus saving on training costs.

Social Media: all government departments and emergency responders should assess social media capability, capacity and access and think about removing any barriers so they can start to lead the way in social media conversation.

53. Government agree that appropriate use of social media will form a key aspect of warning and informing in future flooding emergencies. The EA has recently launched a Flood Warning Facebook application. This is an area of work that will be developed as we look to improve how we communicate with local responders and the public in all emergency scenarios. Since Watermark, LRF have worked on the use of social media in response to a number of emergencies, including flooding, many developing protocols. The learning is being shared by an active programme of work led by Cabinet Office and DCLG.

Next steps

- 54. The success of Exercise Watermark demonstrates that England and Wales are now better prepared for flood. This Report sets out some of the work that has been undertaken to date in response to specific recommendations on the lessons to be learnt from the Exercise. However, we will continue to strive to improve our preparedness for dealing with flooding emergencies, and look at how we can make further progress.
- 55. Annex A provides a full response to each of the 36 recommendations, outlined in the Environment Agency Final Report, September 2011.

Annex A: Full breakdown of responses to the 36 recommendations

No	Recommendation	Lead Departme nt	Summary of Action	Implementation date
1	The review recommends that the Cabinet Office should communicate the roles, responsibilities and interfaces between the lead government department, Cabinet Office Briefing Room and Scientific Advise Group for Emergencies before and during an incident.	Cabinet Office	The UK's Concept of Operations (CONOPs) (www.cabinet-office.gov.uk/ukresilience) lays out the roles of the various parts of national Government during major incidents. This description includes the specific and related roles of COBR and Lead Government departments. A revised version of CONOPs is due for publication autumn 2012. This new version will, among other things detail the role of SAGE and also new arrangements for interaction between central and local Government. As well as laying out these roles and relationships in the official CONOPs document it is also important to communicate them via other means, and exercise them regularly. The Civil Contingencies Secretariat regularly gives presentations and inputs to training courses for a wide variety of audiences that cover these arrangements, and will continue to place great value on such activities. Exercises such as Watermark allow the various parts of central Government to cement their working relationships and build the understanding of roles and responsibilities and the interlinkages amongst staff across the responder community. Such exercises should build on the regular interaction between Government departments and a basic knowledge of roles and responsibilities gained through internal departmental training and exercise programmes.	Autumn 2012 and ongoing.

2	The review recommends that the Cabinet Office, with other government departments, the Welsh Government and local responders needs to further consider the relationship between Cabinet Office Briefing Room, the lead government department, the Department for Communities and Local Government and local responders for incidents falling between level two (serious emergency) and level three (catastrophic emergency). More explicit triggers would signal when issues need to be escalated and clearer guidance on what that means in terms of central coordination and local direction would be useful.	Cabinet Office	The current version of CONOPs lays out general guidelines regarding the sorts of factors that could determine whether an incident should be regarded as a Level 2 or Level 3 incident, and generally what this could mean in terms of central Governments roles. In practice, it is the entirety of impacts such as numbers of casualties and fatalities, media response, number of properties flooded, depth of flooding and impact on critical infrastructure that will determine the level of the emergency response and central Government involvement. Each incident is likely to be different and the nature and level of response determined in light of it. In light of this recommendation Government intends to consider with stakeholders what the possible trigger points are for moving between a Level 2 and 3 flood, and what in practice this shift would mean for central Government Group for coastal flooding.	From Autumn 2012'
3	The review recommends more regular training and exercises for those who only act as government liaison officers during an incident, to help them to understand their role and responsibilities. This should include local responders and government to make sure they also understand the role and the support government liaison officers can give at a local level.	DCLG	The Government accepts this recommendation and DCLG has committed to deliver a programme of training for the staff that will act as Government Liaison Officers during an incident. This role has been fully articulated to local and national partners via the revised Chapter 6 to the Government Concept of Operations which has been widely distributed. This information has been highlighted and discussed during meetings of Local resilience Fora. DCLG Resilience advisers have been involved in a further range of training courses and Exercises, both local and national, since Exercise Watermark to further learn and practice their role. These have also been used as opportunities to explain the role to partners. DCLG have also taken part in a range of National and Local Exercises around the Olympics. The role was tested during public disorder events during the summer and Government Liaison Officers were found to perform well.	On-going

4	The review recommends that the multi-agency teleconferences involving responder organisations along the east coast, led by the Department for Communities and the Local Government-Resilience Emergencies Division should be developed to adapt them for different types of wide area emergencies. An alternative communication mechanism should be in place in case telecoms fail.	DCLG	The Government accepts this recommendation and a newly revised Chapter 6 of the <i>Central Government Concept of Operations</i> (CONOPs) has been distributed. This revised chapter will be fully incorporated into CONOPs during its imminent update (revised version due to be issued in spring 2012). This Chapter makes it clear a Multi-Strategic Co-ordination Group - a Response Co-ordinating Group may be convened where the local response has been or may be overwhelmed and wider support is required, or where an emergency affects a number of neighbouring Strategic Co-ordinating Groups and would benefit from co-ordination or enhanced support. It is made clear that this coordination of response is likely to take place via a teleconference. DCLG is investing in implementing a resilience telecoms strategy and the testing of resilience of telecoms across LRFs is supported by the Department's Resilience Advisers working with Cabinet Office. The Revised CONOPs has been widely distributed to local and national partners. The full revised CONOPS will be published on in Spring 2012. DCLGs resilience advisers have been discussing the new approach at meetings of Local Resilience Fora. DCLG, as with other Government Departments with a lead responsibility for response, is investing in resilience and Emergency Division locations. All RED staff can now access the National Resilience Extranet (NRE). Resilient Telecoms as a capability across LRFs and their partners is being monitored by DCLG RED, as part of an ongoing project, in partnership with Civil Contingencies Secretariat of the Cabinet Office primarily through the activity of LRF Telecoms Sub Groups. DCLG RED will ensure resilient telecoms are built into future exercises regards its response arrangements.	Sep-12
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6	The review recommends that the Department for Communities and Local Government, the Cabinet Office, the Welsh Government and UK government departments need to set out clear arrangements for integrating multi-area evacuation plans and national coordination; in particular, evacuation routes, shelter, communication and mutual aid arrangements.	Defra	Defra, as the Lead Government Department for flood emergencies, is responsible for developing plans to co-ordinate the cross-government and multi-agency response to flooding. Through the East Coast Flood Planning Group, it is supporting the East coast LRFs in developing and co-ordinating their Multi-Agency Flood Plans. These plans include the evacuation and shelter of the impacted population and a vehicle for ensuring these can be shared appropriately, possibly through the National Resilience Extranet, is being explored. DCLG are engaging East Coast LRFs and their inland neighbours in developing strategic alliances across LRF boundaries to integrate multi area evacuation plans. The development of these is prioritised based on the relevant risk to those geographical areas. During a flood emergency, the multi-agency and multi-area response, including evacuation and shelter, would be co-ordinated by the Strategic Coordination Group and through any Resilience Coordination Group facilitated by DCLG, guided by the Multi-Agency Flood Plans. For very severe, wide area emergencies Defra and Cabinet Office would coordinate central Government support for the response including if necessary for local and multi-area evacuation and shelter activities. Plans have already been developed for much of the East Coast and will be described in the East Coast Flood Emergency Framework.	
7	The review recommends that the lead government department list should be reviewed with an explanation to clarify the UK government department policy lead for evacuation and shelter.	Cabinet Office	The Government Departments are designated 'Lead Government Departments' (LGD's) for each potential risk are detailed here (www.cabinet-office.gov.uk/ukresilience). LGDs are expected to lead the planning for and response to incidents for which they are responsible. LGDs are not designated for cross-cutting capabilities such as evacuation and shelter. Cabinet Office produces guidance for evacuation and shelter planning given its lead of the National Resilience Capability Programme's Evacuation and Shelter work stream. As the Lead Government Department for flood events, Defra leads on planning for, and responding to such emergencies, which includes consideration of any required evacuation and shelter. Other Government departments may have to help in the evacuation and shelter response with issues that arise in the policy areas they are responsible for. The Cabinet Office is working to what those issues might be in order to assist departments with any required planning.	On-going

8	The review recommends that local resilience forums, supported by the Cabinet Office and the Department for Communities and Local Government, should share examples of good practice and peer review the evacuation plans.	Cabinet Office/ CLG	Government agrees with the need to share examples of good practice and peer reviewing on a wide range of information to aid flood emergency management, including evacuation plans. Such an approachis currently being developed and the East Coast Flood Group is developing a good practice and information sharing platform for East Coast stakeholders (ensuring dissemination of all planning, research, exercise and incident learning, case studies, 'EU expert exchanges' and any other relevant material).	
9	The review recommends that local resilience forums' evacuation planning should involve Category two responders and other relevant groups, such as transport operators and the Highways Agency.	DCLG	This recommendation for LRFs is supported by Cabinet Office's Evacuation and Shelter Guidance which also recommends that Category 2 responders and other relevant groups should be involved with evacuation and shelter planning.	
10	The review recommends that the Cabinet Office should consider including good practice examples and case studies in its evacuation and shelter guidance when it is next updated.	Cabinet Office	Cabinet Office will be including case studies and examples of good practice in the next edition of the Evacuation and Shelter Guidance. The Guidance is being reviewed in 2012/13	On-going
11	The review recommends that government department emergency response teams should engage with their department policy teams to embed national planning assumptions and impact assessments.	Defra	Government Department emergency response teams will work closely with policy colleagues to ensure that national planning assumptions for flood emergencies will be embedded. The revision of the National Flood Emergency Framework by Autumn 2012 will act as a vehicle for ensuring this.	

12	The review recommends that more responders should use existing training on Military Aid to Civil Authorities (MACA). Exercises locally and nationally should include the arrangements for activating MACA more frequently. The military should be involved to make sure everyone understands what military support may or may not be available and how to access it in an emergency.	Defra	Government agree that developing the capability of responders to call upon military aid in an emergency is vitally important. The requesting of Military Aid to Civil Authorities (MACA) was explored during Exercise Watermark, and this relationship is being developed and revised, in collaboration with MOD. An updated framework for requesting MACA will be established in the Autumn revision of the National Flood Emergencies Framework.	
13	The review recommends that the Environment Agency, the Flood Forecasting Centre and the Met Office should reinforce the programme to improve responders' awareness and understanding of flood forecasts, rainfall alerts, flood warnings and their possible impact.	FFC	 A joint initiative has started with the Met Office, EA and FFC to understand customer training requirements to inform subsequent development and delivery of training solutions. We are gathering information from customers on what is required – through the FFC Stakeholder User Group (held end-January 2012) and the joint Met Office and FFC survey currently underway. Next steps: Establish and record current training delivered to customers. Document the findings in a directory to include; training provider, audience, content, duration, frequency and delivery method. Identify quick wins and simple improvements to existing training materials Consult with customers and discuss their incident management role and requirements, their level of awareness and understanding, training received previously and currently, future training requirements and preferred training delivery method in both the short and medium term; Consult with business leads and subject matter experts to present findings and confirm workable customer training solutions. Please note, it is anticipated that delivery of any formal training 'workshops' will start after the Olympics, but any identified quick wins will be implemented / delivered from April 2012 onwards. 	Scoping complete – end-April 2012. Directory of existing training developed – end-April 2012. Updated suite of material – by Dec 2012. Training will be delivered as an ongoing programme.

14	The review recommends that the Environment Agency should provide clearer guidance on how the decision to issue a severe flood warning is reached, and the role of the strategic coordination group and the Environment Agency in this process.	EA	The EA has offered the guidance and training sessions on the decision making for issuing of Severe Flood Warning since the new Flood Warning Codes were introduced in 2010, and has completed a review of this guidance. The offer to train members of the Strategic Coordinating Groups remains open, and they plan to combine this with the further training being developed on flood forecasts, rainfall alerts and other weather products in response to Recommendation 13. The EA expect that the further training will take place during 2012, to suit the Strategic Coordination Groups, and we will conduct a survey early in 2013 to check that the guidance and the weather products are understood by members of the Strategic Coordination Groups.	The Environment Agency has completed the review of the guidance. Progressive implementation to meet the demand by Strategic Coordination Groups, with an aim to complete the further training by 31 December 2012. Conduct a survey to determine if the needs identified during the feedback from Exercise Watermark have been met by 31 March 2013.
15	The review recommends that local resilience forums should consider expanding the role and membership of scientific and technical advice cells to include technical skills relevant in a flood, (for example hydrologists, structural engineers and forecasters).	DCLG	Guidance has already been provided on the general make up of STACs and this emphasises that this should be relevant to the emergency that the STAC is advising on. This means that guidance on dealing with flood emergencies is covered in general terms. The guidance covers a range of specific situations where a STAC might provide advice. However, this does not cover flooding. The guidance will be updated to cover the types of expertise that might be called on during a flood incident. STAC guidance is currently available and is tested by Local Resilience Fora in their local Exercises.	Jan-12

16	The review recommends that information requirements and reporting processes during an emergency are evaluated, including how available resources can best be used to satisfy audiences at all levels. Reporting and briefing processes need to be amended to meet information requirements and reflect current arrangements.	Cabinet Office	Reporting arrangements for incidents need to be kept flexible as reporting requirements can vary hugely given the situation at hand. Given the wide diversity of incidents the UK may face, the SITREP is intended to be flexible, and to act as a guide to departments on likely COBR information requirements. In central Government the Commonly Recognised Information Picture (CRIP) provides an effective and flexible mechanism for providing COBR with a clear overview of the given situation. Additional information requirements specific to floods are updated and outlined within the DEFRA LGD plan. New arrangements have been introduced to link COBR to local Strategic Co-ordinating Groups in a crisis through the Department of Communities and Local Government Resilience and Emergencies Division (DCLG RED). Exercise Watermark came at a time when new arrangements were being developed to enable the smooth flow of information between the central and local levels. Exercise Watermark gave the opportunity for DCLG to trial the new arrangements and pilot the single operations centre response model, located with departmental policy leads, the office of the Chief Fire and Rescue Advisor (CFRA), senior officials and the ministerial team. The response model was effective and was further tested during public disorder and reporting arrangements worked well during the developing situation around fuel availability.	n/a
17	The review recommends that government should consider how to use technology better for information sharing and reporting to inform the national and local responses. Government should consider using a live, simple (mandatory) common information platform to use for mapping, digital visualisation, media and other source information.	Cabinet Office	A review and upgrade programme of Information communication technology within COBR is currently being undertaken to improve real time information flows at a range of classifications. This includes where appropriate the use of the National Resilience Extranet. The review is also focused on infrastructure and audio improvements across COBR and supporting facilities.	Ongoing

18	The review recommends that future exercises involving strategic coordination centres and incident rooms /operation centres should be used to further test location-specific IT and communications infrastructure. The IT issues identified from Watermark, incidents and other exercise need to be resolved. In particular issues like internet guest logins, firewalls, blackberry users and multi-agency access need solutions which can then be shared as good practice.	Cabinet Office	Government agree that ensuring IT compatibility and appropriate communications infrastructure is imperative. Work is ongoing to resolve any issues raised by Watermark, and the possible need for testing as part of future exercises will be explored. Direct Electronic Incident Transfer (DEIT) Phase 1A is now live. This partly addresses the problems of compatibility of IT systems. Cabinet Office are currently investigating its use during the recent floods but as they seemed to affect mid-Wales who aren't part of the pilot area it may not have been utilised.	
19	The review recommends that the Cabinet Office reviews NRE usability and future expansion plans based on experience to date, encouraging more responders to use it.	Cabinet Office	The National Resilience Extranet system includes a full 'request for change' process through which the system is developed in line with user feedback and ideas for improvement. NRE version 2 is due for release in early 2012 and includes over 70 changes requested by the current end user community. Use of NRE. V2.1 of Collaborate is available and enhancements have been added from the feedback from users. V2.1.1 will appear shortly and V2.2 will be released after the Olympics. NRE is now in use by over 740 organisations	Due soon

20	The review recommends that the Environment Agency improves its flood visualisation capabilities and consider the merits of pre- prepared flood maps for emergencies, in consultation with local and national partners.	EA	The EA has made further improvements to its Flood Visualisation capability since Exercise Watermark through their off-line visualisation tool, and through improvements to the content and presentation of their internal Mapping tool, which is available to EA staff through a network connection at partner locations. These improvements include current river and sea levels, historic flood extents, and clearer base maps for presentation, allowing viewing at national as well as local scales. The EA are developing pre-prepared information for likely flood scenarios based on the risk assessment for communities. Further development work will be undertaken where real benefits to incident response can be identified to justify the delivery. In order to assess these benefits, the EA will be seeking opportunities to demonstrate their capabilities to partners and to receive feedback on the usefulness of the products and future requirements.	The Environment Agency has already made improvements to their flood visualisation capability, and will consult with partners during 2012/13 to determine future requirements.
21	The review recommends that LRFs identify data sets to help their response arrangements. They should work with the Environment Agency to make these available in a compatible format for flood mapping and visualisation services for individual local-level commands during an incident.	EA	The EA has identified suitable data sets within its ownership which will help to inform the incident response. Data sets owned by other organisations will also be useful and can complement the EA data sets. Work on the compatibility of formats will depend on the IT and communications infrastructure at the local level command centres, referred to under Recommendation 18. The EA has discussed with Ordnance Survey opportunities to improve compatibility of data sets held by the two organisations. The EA will discuss the improvements required to meet this recommendation with incident response partners.	We will work with professional partners to identify data sets and improve compatibility to the timetable to be agreed as set out in response to Recommendation 18.
22	The review recommends that the Environment Agency shares flood mapping more widely during an incident, so that it is accessible in tactical coordinating groups, strategic coordinating groups and national emergency operation centres.	EA	The EA has a number of options available to share flood mapping during an incident with tactical and strategic coordinating groups and national emergency operation centres. Which of these options is preferred at any location will depend on the IT and communications infrastructure in use at that location, which is addressed under Recommendation 18. The solution adopted may require systems development within the EA to improve data accessibility. The EA remains committed to making its trained and experienced staff available to ensure that the flood maps are interpreted correctly at all locations relevant to the management of the incident response. They will be seeking views of partners about different types or detail of information required to meet tactical, strategic and national needs.	The Environment Agency will work with professional partners to improve the ways of sharing flood mapping to the timetable to be agreed as set out in response to Rec.18.

23	The review recommends that UK government departments and the Welsh Government need to make better use of existing mapping and imagery services for emergency planning and response.	Defra & Welsh Governme nt	Government agree that the use of all forms of information for sharing, including the use of mapping and imagery services, needs to be more consistent. This is essential for use in an emergency scenario. The Environment Agency are currently exploring the rationalisation of flood likelihood information with the National strategic aim of understanding flood likelihood across all sources, meeting legislative requirements (Regulations) and creating clear and simple risk information enabling efficient and effective FCRM by authorities and better risk communication to the public. The use of flood information will also be further clarified in the revision of the National Flood Emergency Framework.	
24	The review recommends that the Cabinet Office continues to work with the Department for Communities and Local Government, the Welsh Government and relevant UK government departments to review the arrangements for utility companies' involvement in local resilience forums and strategic coordination groups etc, now government offices have closed. There needs to be a better match between the supply and demand for their expertise during incident response and recovery.	Cabinet Office/ DCLG	The Cabinet Office published their guide on infrastructure resilience, Keeping the Country Running: Natural Hazards and Infrastructure ' in October 2011. The Guide was developed with representatives from utility companies, devolved administrations, emergency responders, lead government departments and regulators. It includes a protocol for sharing information on infrastructure between Category 1 and Category 2 responders and example terms of reference for utility groups. The document has been shared across the emergency planning and infrastructure community.	

25	The review recommends that the Cabinet Office and lead government departments should engage with utility companies to improve the level of their involvement preparing for incidents. This needs to include sharing information as described in Keeping the Country Running: Natural Hazards and Infrastructure and multi-agency training and exercising.	Cabinet Office	The Cabinet Office published their guide on infrastructure resilience, Keeping the Country Running: Natural Hazards and Infrastructure' in October 2011. The Guide was developed with representatives from utility companies, devolved administrations, emergency responders, lead government departments and regulators. It includes a protocol for sharing information on infrastructure between Category 1 and Category 2 responders and example terms of reference for utility groups. The document has been shared across the emergency planning and infrastructure community. The Cabinet Office also coordinates an annual programme of Sector Resilience Plans by Lead Government Departments. Departments are encouraged to engage with industry in order to provide Ministers with an assessment of the resilience of each sector's infrastructure to major risks. Plans include an assessment of the quality of testing and exercising arrangements within the sector. The Plans are classified, but the Cabinet Office publishes a public summary.	
26	The review recommends that Defra should work with the Department for Communities and Local Government, the Cabinet Office and the Welsh Government to clarify how local and national flood rescue assets should be coordinated, for example statutory duty, framework, Memorandum of Understanding, etc.	DCLG	The Government agrees that this is an area where greater clarity is required. It has discussed this issue with partners in order to find the best way forward which would give the greatest flexibility at the local level whilst ensuring that plans are in place to deal with an emergency. The Government and most partners view is that improved guidance on this issue would give the greatest flexibility at the local level and imposing a statutory duty is not the best way forward at this time. Guidance will need to be developed and implemented and good practice shared at the local level.	Agreement on a way forward to be made by end of March 2012, new guidance to be in place by December 2012

27	The review recommends that Defra works with the Cabinet Office, the Department for Communities and Local Government, the Department for Transport, Welsh Government and the Ministry of Defence, with support from the Fire and Rescue Service, Maritime Coast Guard Agency and voluntary organisations to agree how to share information about coordinating SAR assets, for situation reporting and any role that COBR may need to play in an emergency.	Defra	Defra, DCLG and Cabinet Office are working with the East Coast Flood Group to develop an Emergency Framework for managing a flooding emergency. This will add clarity to the roles of Defra and DCLG in a flooding event, and the relationship and information channel between the Government Departments and Fire and Rescue Service National Coordination Centre which manages the National Asset Register for specialist flood rescue teams. Work on ensuring the asset register is used in the most effective way is also being established at the Chief Fire Officers Association multi-agency Water Rescue Group. Further clarity on the relationships of Government Departments and key organisations, as well as the use of the Military Aid to Civil Authorities (MACA), will be defined in the revision of the National Flood emergencies Framework. The issue of flood rescue coordination could also be considered by the newly created Fire and Rescue Strategic Resilience Board at some suitable date in the future.	
28	The review recommends that Defra and the Department for Communities and Local Government should work with others to develop guidance and improve responders' understanding of how national resources and flood rescue assets should be allocated and coordinated during a flood. National level <i>organisations</i> and local resilience forums need to do more resource and asset planning before an incident.	DCLG (FRS)	Government believes that by clarifying how flood rescue assets are coordinated, we will be in a better position to understand how national resources can be allocated in a National event. There is already national co-ordination of major rescue boats, declared assets already fall under the National Co-ordination Advisory Framework, and further consideration is taking place as part of work on East Coast inundation. This could also be considered by the newly created Fire and Rescue Strategic Resilience Board at some suitable date in the future. Defra has funded the training of Flood Rescue Subject Matter Advisers (SMAs) who will be able to provide key advice on the number of assets required and how the assets should be coordinated in a flooding emergency. The SMAs will be able to operate at the Fire and Rescue Service National Coordination Centre, at Strategic and Tactical Coordination Groups, as well as in Central Government during a flooding event.	

Department for Environment, Food and Rural Affairs

29	The review recommends that those involved in media briefing during an emergency should get specific training which needs to include the arrangements for mutual aid between organisations.	Defra	Government agree that further training is necessary and will be developing this, not just for flooding events, but to cover all emergencies.	
30	The review recommends that local resilience forums need to establish a clear process for media communications that guarantees fast formal approval from senior management.	DCLG	The Government considers that Local Resilience Fora (LRF) are best placed to consider the right level and mechanisms for agreeing media responses during an emergency. The Government agrees that LRF are advised to have these processes agreed in advance of an emergency, possibly in the form of a media protocol, and many are already doing this. Cabinet Office and Department for Communities and Local Government will assist LRF in this process by sharing good practice. West Yorkshire LRF media protocol was recognised as good practice during Exercise Watermark and this has been shared with other LRFs. Further good practice around media briefing with shared with LRFs as it is identified.	Complete – but any further practice emerging will also be shared
31	The review recommends that examples of good press releases are shared and used as a template for future multi-agency releases on flood incidents.	Defra	Government agree that examples of good press releases are shared as part of a drive to ensure best practices are utilised in the response to all emergencies including flooding.	
32	The review recommends that all government departments and emergency responders assess social media capability, capacity and access and think about removing any barriers so they can start to lead the way in social media conversation.	EA	The Environment Agency is making extensive use of social media channels across all of its activities and remains willing to share the knowledge we have gained with others. Through work completed so far the EA has: ~Established national social media channels. As a result they have grown a strong following on social media, allowing them to reach tens of thousands of people through this media. These channels are verified & well established, & therefore will be seen as trusted, official sources of information during major incidents. These pages have also secured ownership of official EA channels for use into the future; ~Integrated social media into their communications plans. Social media forms a key part of the	The EA is following a progressive plan to improve & increase its use of social media, with annual targets set as part of the business planning round. In 2012/13,

	EA's Digital Communications Plan & Major Incident Communications Plan. They have also developed a Social Media Plan outlining how this channel will be used by communications teams across the EA; -Embedded social media channels into their website making these channels easily accessible during an incident; -Staff guidance & training: The EA has developed a social media strategy & guidance for staff, outlining their approach, opportunities & risks. Over 150 staff have had 1-day training & now uses social media on a frequent basis to promote the work of the EA & improve engagement with customers. Incident Management & Flood & Coastal Risk Management teams have also been trained in its use during incidents; -Launched a Facebook community in October 2011 for people at risk or impacted by flooding in partnership with the National Flood Forum & Scottish Flood Forum Our use of social media is recognised as good practice. For example: FloodAlerts, a new service which provides flood warnings on Facebook, has scooped a prestigious national award in The Guardian and Virgin Media Business's 2012 Innovation Nation awards. The unique app was created by data presentation specialists Shoothill, using data captured from our monitoring stations. It overlays the data onto Microsoft Bing maps, allowing users to zoom in and set up their own, personalised alerts. For the first time users will be able to see where warnings have been issued on a map rather than text-only messages. The information could be crucial in helping them protect their properties or identify safe routes for travel in flooded areas. The award, in the Innovation in Enterprise category, comes hot on the heels of praise in recent weeks by Government ministers for the service's ability to keep the public updated as river levels rose rapidly during the wettest April on record. FloodAlerts quickly became a focal point for the 200 plus flood warnings and alerts we issued in one 24-hour period. Since Watermark, LRFs have worked on the use of social media in respons	there are targets to increase the number of followers to their social media pages. Workshops with partners can take place from October 2012.
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33	The review recommends that emergency responder's media and press officers do some basic social media training so they understand the language, strengths, weaknesses, opportunities and threats posed by social media. Training should cover practical guidance on using existing internet tools to monitor and respond to comments on Twitter etc.	Defra	As Recommendation 29, Government agree that further training is required to ensure best practice techniques are used in an emergency, and this extends to the use of social media and internet tools.	
34	The review recommends that local resilience forums discuss to what extent community flood planning and wider community emergency planning should be integrated to help communities become more aware and prepared for flooding and other risks.	Defra	Government agree that community emergency planning should be integrated to help raise the awareness of both the issues facing communities from flooding, and also the ongoing work being undertaken to improve our preparedness. Defra are working with other Government Departments and LRFs to ensure we establish good communications, and are using the East Coast Flood Group as a vehicle for engagement with communities and local responders.	
35	The review recommends that communities and responders work together so local residents are more prepared by developing community flood plans or community emergency plans if they currently don't exist.	Defra	As Recommendation 34.	

36	The review recommends that communities with a flood plan or community emergency plan should regularly review and test their plans to improve them.	Defra	As Recommendation 34, in working with partners and improving communications with local communities, we will be assessing how community emergency plans are reviewed, improved and tested.		
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