

MEETING:	ENVIRONMENT SCRUTINY COMMITTEE
DATE:	28 FEBRUARY 2011
TITLE OF REPORT:	INTRODUCTION TO EMERGENCY PREPAREDNESS PLANNING FOR FLOODING IN HEREFORDSHIRE
REPORT BY:	Assistant Director Public Health

CLASSIFICATION: OPEN

Wards Affected – County-wide

Purpose

To brief and provide information to the Committee on the Herefordshire Multi-Agency Flood Plan (MAFP) and the development of a Generic Reservoir Inundation Off-site Plan. Furthermore, to draw the committee's attention to the ongoing work programme that will enhance and develop our emergency preparedness for flooding; acknowledging the resources being committed by the Joint Emergency Planning Unit (JEPU).

Recommendations

THAT:

- (a) **Note the development of the Herefordshire MAFP and the Generic Reservoir Inundation Off-Site Plan;**
- (b) **Note the continued work of the JEPU to maintain and enhance these plans.**

Key Points Summary

- The JEPU has produced the Herefordshire MAFP in line with: the Civil Contingencies Act 2004 (CCA) duties required of Category 1 emergency responders; the guidance provided by the Environment Agency (EA) and DEFRA; and, the recommendations made within the Pitt¹ Review.
- Local Authorities are the lead responders in relation to multi-agency planning for severe weather emergencies.
- The Plan has been exercised on a multi-agency basis and scored (against DEFRA requirements) by the Environment Agency (EA) and our Multi-Agency Partners and is considered "very satisfactory"; the EA are considering using it as their exemplar for other counties to follow. The Chief Executive endorsed the plan on 23 February 2011.

¹ Lessons from the 2007 Floods, An independent review by Sir Michael Pitt, (The Pitt Review), December 2007.

- The JEPUs have contributed to the development of a West Mercia Local Resilience Forum (WMLRF) generic Reservoir Flood Inundation Off-Site Plan that incorporates specific hazard mapping for Herefordshire.

Alternative Options

1. Not Applicable - this is a legal compliance process.

Reasons for Recommendations

2. To inform, promote and give assurance that adoption of these key flooding response plans (which follow national statutory and non-statutory guidance) provide a vehicle for training, validation and audit. These plans also provide the stimulus to enhance Category 1 & 2² partner engagement, ensuring critical infrastructure interdependences are considered in response planning.

Introduction and Background

Increasing Risks from River and Surface Water Flooding - Drivers for Emergency Preparedness

3. With increasingly accepted evidence that the climate of the UK is changing, Herefordshire along with the rest of Western UK, is projected to experience increasingly wetter winters raising the risks associated with river and surface water flooding. Indeed, the recent Strategic Defence and Security Review placed flooding as one of the top three national risks.
4. Of the 92 recommendations made within the Pitt Review, recommendation 41 became a driver for an improved coordinated response at a local resilience forum level. Pitt observed that although the 2007 floods stretched multi-agency resources, improved command and control at Strategic (Gold) and Tactical (Silver) levels would maximise response efficiency. Pitt also suggested that upper tier local authorities (LAs) were best placed to assess the potential impact of local flooding based on previous experience, assessments by their staff and with the advice of other emergency responders. Therefore, upper tier LAs should lead the triggering of local multi-agency arrangements. Consequently, within the Flood and Water Management Act 2010 and the Flood Risk Regulations 2009, Government identified LAs as the lead responders in relation to: multi-agency planning for severe weather emergencies; triggering multi-agency arrangements for warning and informing; and, carrying out local impact assessments.
5. The Herefordshire MAFP has been drawn up by the JEPUs in compliance with guidance³ and has been peer reviewed by WMLRF partner agencies (e.g. Police, Ambulance, Fire, EA) and considered "very satisfactory" when scored against the DEFRA MAFP Checklist.

Risks from Reservoir Flood Inundation

² As defined within the Civil Contingencies Act 2004, Schedule 1.

³ Part 3, Section 12 of the National Flood Emergency Framework www.defra.gov.uk/environment/flooding/documents/planning/emergency-framework-290710.pdf

6. Reservoir Safety Legislation dates back to the Reservoirs (Safety Provisions) Act 1930⁴. The Act was superseded by the Reservoirs Act 1975 which currently provides the legal framework for ensuring the safe operation of large raised reservoirs, i.e. greater than 25,000 M³ capacity. The risk from catastrophic reservoir flooding is very low and putting the risk in context, between 2004 and 2008 there were 14 incidents that were deemed to be serious⁵, the most high profile being the Ulley reservoir in Rotherham which was at risk of collapse following rainfall damage during the summer of 2007. This incident led to the evacuation of some 1000 people from their homes and closed the M1 motorway. The Pitt Review highlighted the need to improve reservoir emergency preparedness, recommending that reservoir flood inundation maps be prepared allowing local resilience forums to prepare generic emergency off-site plans and meet their duties under the CCA.
7. The responsibility to maintain a register of large raised reservoirs transferred from LAs to the EA under the Water Act 2003; LAs still have a duty to register those reservoirs for which they are an 'undertaker'. In addition, the Flood and Water Management Act 2010 makes a number of amendments to the Reservoirs Act 1975⁶ including:
 - Reducing the capacity at which reservoirs will be regulated from 25,000M³ to 10,000M³;
 - All undertakers with reservoirs over 10,000M³ are to register their reservoirs with the EA;
 - All undertakers are to prepare a reservoir flood plan.
8. In response to the Pitt recommendations and DEFRA requirements, a country-wide survey was carried out by the EA on all high risk and large raised reservoirs. For Herefordshire, this survey confirmed that there were no high risk reservoirs but offered inundation mapping and risk assessments for 9 large raised reservoirs.

Key Considerations

The Herefordshire MAFP

9. Part 1 & 2 of the MAFP focuses on the risks associated with fluvial (river flooding). Part 3 offers an initial assessment of pluvial (surface water) flooding in Herefordshire and, in so doing, references the work undertaken within the Herefordshire Strategic Flood Risk Assessment⁷. For the purposes of risk assessment, the plan divides the county into 10 river catchment areas (see Appendix 1), these catchments are then further subdivided by Parish or Parish Group, allowing community based risk assessments to be conducted.
10. The MAFP details how all responding Category 1 & 2 emergency responding agencies will work together on an agreed coordinated response to severe flooding and uses existing multi-agency Strategic (Gold) and Tactical (Silver) command and control arrangements.
11. Key elements of the plan include:
 - The vulnerable areas at risk from different forms of flooding at Parish or Parish Group level, including properties, critical infrastructure, health economy assets as well as vulnerable groups such as schools and residential care/nursing homes;

⁴ Following a number of reservoir failures in the 1920's which resulted in loss of life.

⁵ Requiring the emergency drawdown of water to affect repair.

⁶ Secondary legislation will be required before these amendments can come into force and at this time there is no requirement for undertakers to complete an on-site emergency plan, however it remains best practice to do so.

⁷ Local Development Framework-Strategic Flood Risk Assessment, 2009.

- How the plan will be activated through Met Office/EA intelligence and actions required against the new EA Flood codes;
 - The roles and responsibilities of partner agencies at certain trigger points;
 - Links and interdependencies of other emergency response arrangements held across all partners.
12. The MAFP has been validated in “Exercise UNITE”, a Herefordshire multi-agency flood exercise held in Nov 2010. It will be further evaluated as a tactical tool during the national strategic exercise “WATERMARK” on 8 Mar 2011.

The Generic West Mercia Local Resilience Forum Reservoir Inundation Off-Site Plan

13. The Reservoir Inundation Off-Site Plan provides a framework to facilitate a co-ordinated multi-agency response to the off-site consequence of a potential or actual dam breach at a reservoir. This may be either within West Mercia, or from a dam in a neighbouring region whose water course provides a path to inundate West Mercia.
14. It aims to ensure that local emergency responders are able to make a swift and effective response to any reservoir emergency and covers activation, alerting (warning & informing) and command and control arrangements during the response phase. For example, it outlines the type of response (e.g. rescue, setting up Rest Centres, etc) which may be necessary during a reservoir emergency and the facilities and resources which would be available to do so. Although a generic response plan, it contains specific hazard mapping relating to the Herefordshire.

Further work and ongoing enhancement of planning arrangements

15. The following work programme and plan enhancements are required/ongoing:
- Currently, the MAFP does not cover flooding risks from foul sewage, burst water mains, canals or ground water. Specific response arrangements will be incorporated into successive plan iterations in accordance with Flood Risk Regulations 2009 compliance;
 - Development of a Tactical Flood Advisor training programme to embed the plan across partner agencies;
 - The recent issue of EA surface water flood mapping data allows for more detailed surface water risk assessments to be carried out at Parish/Parish Group level;
 - Collaborative working/research with the EA in the development of a flood visualisation tool for Herefordshire – improving warning and informing protocols;
 - Development and delivery of a local multi-agency table exercise to validate the Generic Reservoir Inundation Off-Site Plan.

Community Impact

16. Information at community level was sought during the development of the MAFP through a Parish questionnaire. The plan has incorporated local intelligence for those Parishes that responded. In addition the JEPUs, in support of the Sustainable Communities Directorate and the Herefordshire Association of Local Councils, has developed a community resilience

coordinator training package and template tool.

17. This package, which incorporates EA best practice community flood planning advice, is designed as a non-prescriptive support tool for communities/Parish Councils who wish to take part in the Herefordshire community resilience planning programme. The programme outcomes will provide improved community resilience, promote community risk awareness and enhance the links between communities and emergency responders.

Financial Implications

18. In order to undertake the work referred to in paragraph 15, there will be associated costs. With JEPU funding maintained at existing levels, these costs will be met from within existing budgets.

Legal Implications

19. The undertaking of this work is a legal requirement under the Civil Contingencies Act 2004.

Risk Management

20. The recent Strategic Defence and Security Review identified flooding as one of the top 3 domestic risks. The development of these plans help to mitigate this risk.

Consultees

21. West Mercia Local Resilience Forum partners have been fully consulted in the development of these plans.

Appendices

22. Appendix 1 offers a map of Herefordshire divided into 10 river catchments.

Background Papers

- None.

Appendix 1. Designation of MAFP river catchment areas

