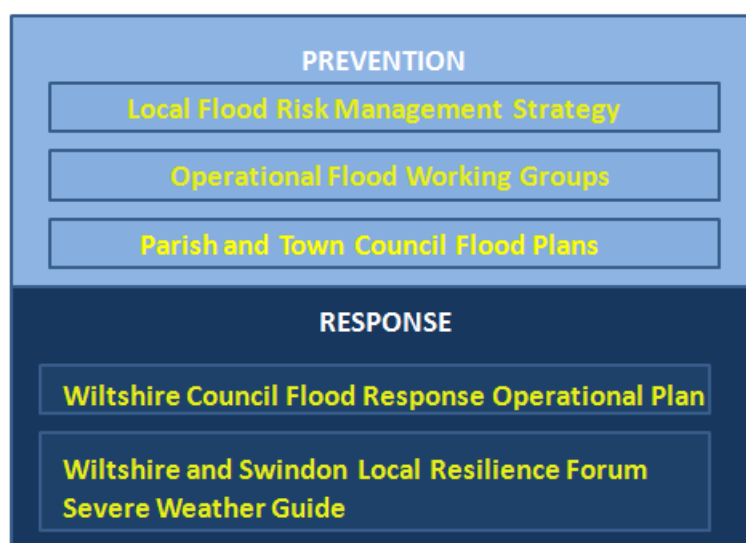


Wiltshire Council Flood Response Operational Plan



Relationship with Other Strategic Flooding Plans and groups:



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1. Introduction

Plan Title:	Wiltshire Flood Response Operational Plan
Plan Author:	Surriya Subramaniam
Date of Publication:	11 November 2014
Review Date:	10 October 2015, or if triggered after flooding
Training Requirements:	Wiltshire Council Training
Training Date:	21 November and 9 December 2014
Exercise Requirements:	Annual
Exercise Date:	TBC

Document History

Version	Date	Comments	Reviewer
0.1	25.09.14	First Draft	Surriya Subramaniam
0.2	25.09.14	Second Draft	Surriya Subramaniam
0.3	08.10.14	Third Draft	Debbie Haynes

Purpose	Operational Plans for Wiltshire Council's response to flooding events
Background Information	Flooding is one of the highest risks faced by Wiltshire's communities. Due to the geography of the county, there are issues from river, rain and groundwater flooding. The county is experienced at dealing with flooding, and has learnt from previous flooding incidents. The county has a well developed Local Flood Risk Management Strategy, and Operational Flood Response Groups. In addition, many Parish and Town Councils have taken responsibility to engage their communities in preventing and protecting against flooding.
Emergency Definition	The definition of emergency is found in the <i>Wiltshire Council Major Incident Plan</i> and is taken from the Civil Contingencies Act 2004.
Aim	The aim of this plan is to provide an overview of Wiltshire Council's arrangements during flooding and for identifying clear roles, responsibilities and dependencies with other agencies.
Objectives	The aim will be achieved by providing: <ul style="list-style-type: none"> • Action cards • Situation reporting and clear communication • Identifying risks and mitigations
Scope	The scope of this plan covers Wiltshire Council's responsibilities during flooding, and <ul style="list-style-type: none"> • All Wiltshire Council departments having a role, • All the agencies that will be involved in the delivery of a multi-agency response and recovery.
Links to other plans	This template will link to all relevant Wiltshire Council and LRF emergency plans, many of which are specified in 'Issues to Consider' in section 4 below. Preparing for, and mitigating the effects of flooding is a continuous role of the Council in line with Local Flood Risk Management Strategy. The critical preventative work of Operational Flood Working Groups is recognised, and this operational plan will compliment them by providing additional detail in the event of actual flooding and its consequences.

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2. Summary Action Card

Risk	Trigger	Actual or forecast Impact	Key Actions (not exhaustive)
0. (Low flood risk)	No flood warning / alerts and / or no warnings of severe weather in force that may result in flooding.	No flooding occurring	No specific response, normal awareness of possible flood risk. Drainage Team, Environment Agency and Emergency Planning teams to coordinate community resilience
1. (Moderate flood risk)  FLOOD ALERT	EA Flood alerts in force, and / or Met Office Yellow Warnings of severe weather in force that may result in flooding and / or Flood Forecasting Centre's Flood Guidance Statement indicating potential flooding and/or minor impact flooding.	Low impact flooding of fields, gardens and minor roads.	Highways Duty Engineers to monitor, and cross-reference with Wiltshire-specific forecasts. Emergency Planning share information, especially for weekend out-of-hours staff. Maintain a heightened awareness of flood risk.
2. (Substantial flood risk)  FLOOD WARNING	EA Flood Warnings in force, and / or Met Office Amber Severe Weather Warnings in force that are likely to result in flooding and/or Flood Forecasting Centre's Flood Guidance Statement indicating potential flooding and / or Reports of property flooding.	As level 1, plus: Flooding of homes Flooding of Businesses Flooding of major road infrastructure Flooding of rail infrastructure Significant Flood Plain inundation High risk to caravan and campsites Potential damage to flood defences Contamination/ Pollution	As for level 1, plus: Duty AD to lead internal response and agree resources with Duty CD. Duty CD to represent Wiltshire Council at multi-agency level / National level, and link with media. - Obtain situational awareness - Attendance to FastCon or Op Link teleconference - Consider Wiltshire Council's role in multi-agency responses, including vulnerable people searches by Adult Social Care, evacuation to rest centres, etc - Put in place gold, silver and bronze structure, with appropriate services represented. - Consider the need for Communications support at internal and external response meetings. To prepare press releases, Customer Service Unit briefing, daily briefings to stakeholders, updating website/social media, and monitoring external social media. - Consider deployment of Local Authority Liaison Officer to the location of flooding to gather information. - Consider Out of Hours calls brought in-house. -Consider Business Continuity issues. Highways Duty Engineers to consider putting appropriate staff and contractors on standby, and invoking call handling protocol. Emergency Planning to open incident room and provide Tactical advice to Duty AD and Duty CD Collate information from services and distribute a Situation Reports. Contact necessary voluntary groups. Drainage Team to liaise with Environment Agency and stand up Parish, Flood coordinators and wardens.
3. (Severe flood risk)  SEVERE FLOOD WARNING	Severe flood warnings or multiple Flood Warnings in force, and / or Met Office Red Warnings of severe weather in force that are highly likely to result in flooding and/or Flood Forecasting Centre's Flood Guidance Statement indicating potential flooding and / or Reports of significant, catastrophic flooding.	As level 2, plus: Large numbers properties expected to flood within the LRF area Large numbers of people affected High risk to life Severe adverse impact on local infrastructure Severe impact on the capacity of responders Potential flood defence failures/ overtopping	As for level 2, plus: Control Centres open, consider activating 24 hour capability if required. AD to work with CD to agree appropriate response. Provide appropriate representation at Multi-agency control centres Emergency Planning to provide situational awareness to AD and CD. -Consider all relevant 'Issues to consider' (p7) -Relevant responders to support multi-agency media arrangements
4. (Recovery)	Flood warnings / severe flood warnings downgraded and / or EA Warnings No Longer in Force and / or No Met Office warnings of severe weather in force that may result in flooding and Flood Forecasting Centre's Flood Guidance Statement is green	Flood water receding.	Wiltshire Council lead Recovery Phase and will follow the principles set out in the Wiltshire Council Recovery Plan.

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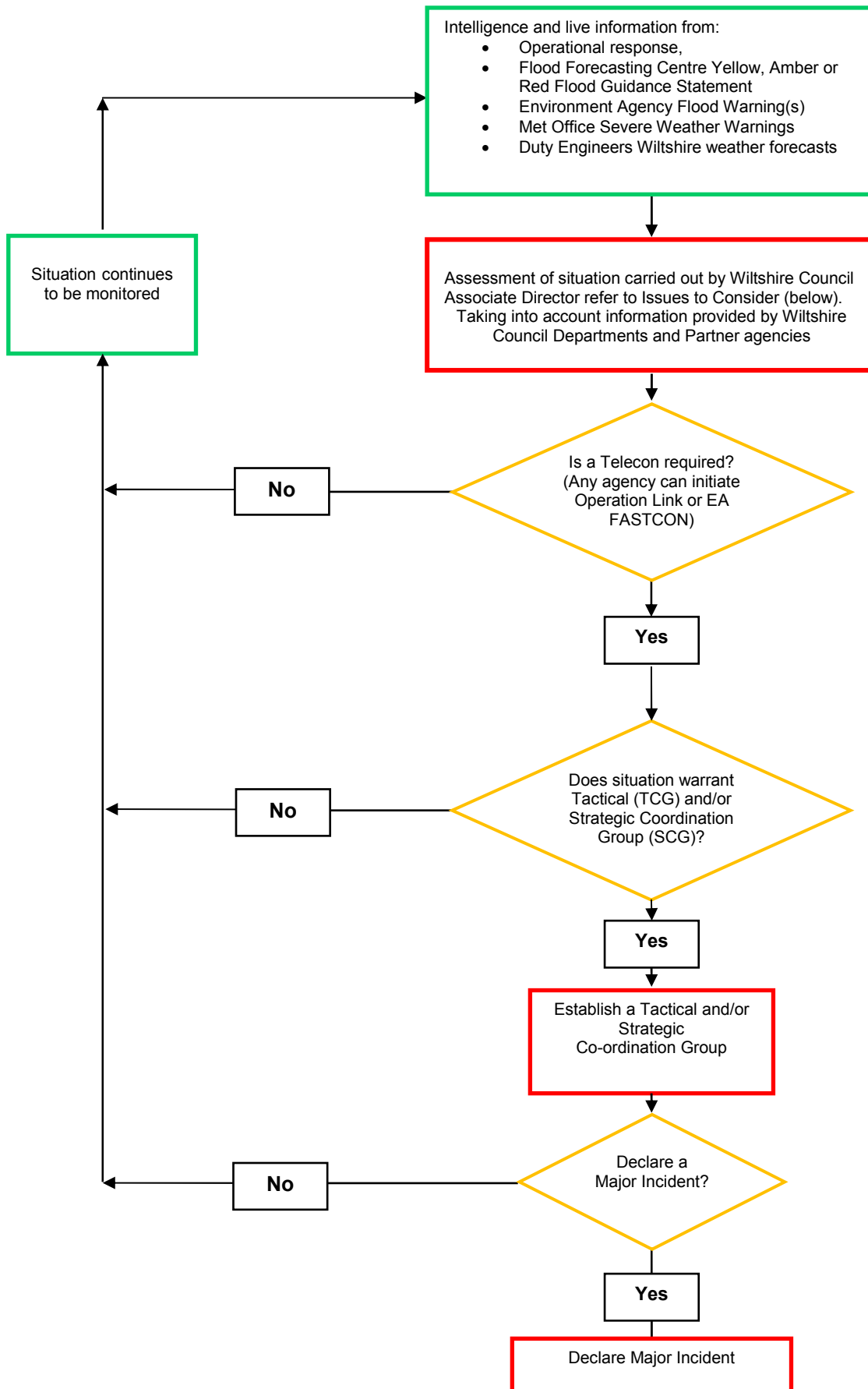
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3. The Assessment Process



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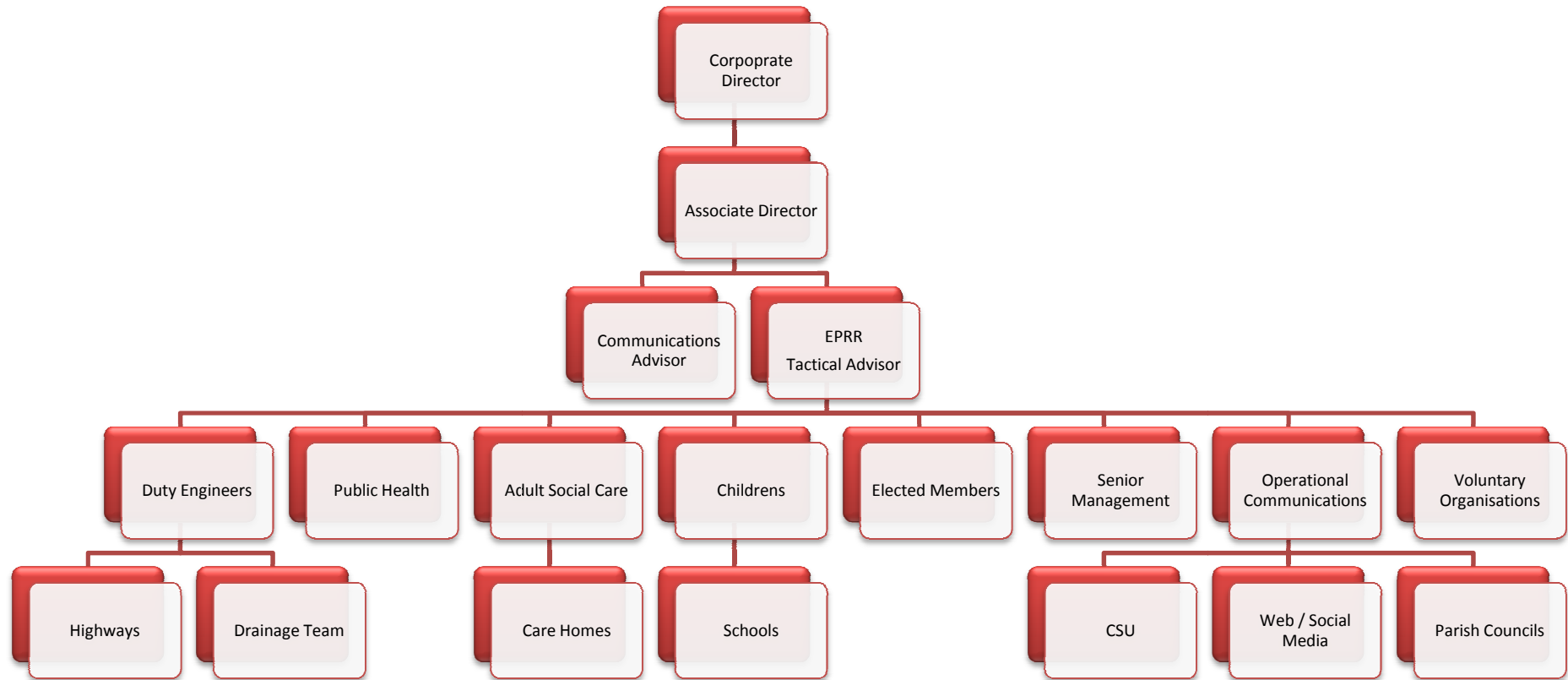
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4. Command, Control and Communication



5. Issues to Consider

5.1 General Resources

ISSUE	REFERENCE	PROCESS OWNER
Emergency Actions		
Vulnerable People	Adult Social Care search flood risk areas by postcode	Adult Social Care
Evacuation and Shelter	Welfare Plan (includes Rest Centre, Humanitarian Assistance and Multi Faith)	Adult Social Care, and supported by EPRR team.
Transport and Traffic management	LRF Transport Plan (incorporating 4x4 Protocol)	Duty Engineer
Voluntary Agency Support	VASEC Guide and Directory	Wiltshire Council
Search and Rescue	LRF Search and Rescue Guide	Wiltshire Fire and Rescue Service
Critical Infrastructure	Information from Wiltshire Police and GIS	Wiltshire Police with Wiltshire Council sand Category 2 responders
Reservoirs	LRF Generic Offsite Reservoirs Plan and Onsite Reservoir Plans	Wiltshire Council Reservoir Undertaker(s): Environment Agency Water companies
Contamination and Pollution	Environment Agency Operational Instructions FRS/ EA MOUs EA Waste Disposal Guidance	Environment Agency Environment Agency/ Wiltshire FRS Environment Agency
Information Sources		
Information and Intelligence	Situation Report CRIP	Emergency Planning Wiltshire Police
Flood Visualisation and Incident mapping	EA Fluvial, Surface Water and Groundwater Flood Maps; Reservoir inundation mapping	Environment Agency
Wiltshire Flood Information	Flood Risk Management Strategy Flood Supporting Information Document	Drainage Team Environment Agency
Generic Flood information for the public	Environment Agency PHE	Wiltshire Council
Communications		
Media and Public Communications	LRF Media Guide LRF Warning and Informing Protocol	Wiltshire Police Wiltshire Police
Inter Agency Communications	LRF Resilient Telecommunications Guide LRF Bronze Interoperability Document	Wiltshire Police Wiltshire Police
Community Communications	Groundbase Flood Wardens Database Community Emergency Volunteers	Environment Agency Drainage Team
Recovery		
Recovery	Recovery Plans	Wiltshire Council Swindon Borough Council

The Tactical and Strategic Co-ordination Groups should use the standard agenda (Emergency Planning to provide from Emergency Multi Agency Plan). The issues in the table above should be considered as part of the multi-agency discussions at Tactical and Strategic Co-ordination Groups.

The reference documents detailed in the table above should be used to inform the response to the relevant issue.

All documents are available on Resilience Direct or from the listed document owner.

5.2 In-house Resources

The following resources can be obtained from the stated Wiltshire Council teams.

All the teams and organisations listed in this plan can be contacted by using the Emergency Contact Directory, which is kept and maintained by the Emergency Planning Resilience and Response Team.

Resource	Tasked by
4x4	Duty Engineers
Call Handlers	Emergency Planning
Cones	Duty Engineers
Control Room	Emergency Planning
Evacuation	Adult Social Care
Flood Plans	Drainage Team
GIS	Emergency Planning
Highways Officers	Duty Engineers
Local Authority Liaison Officer (LAIO)	Public Protection
Loggist	Emergency Planning
Mapping	Emergency Planning
Military	LRF
Parish Contacts	Drainage Team
Portaloos	Duty Engineers
Pumping Equipment	Duty Engineers
Road Closures	Duty Engineers
Road Signs	Duty Engineers
Sandbags	Duty engineers
Situation Reports	Emergency Planning
Voluntary Groups	Emergency Planning

6. Communications

6.1 Warning and Informing the Public

The LRF Warning and Informing Guide details procedures for the issuing of guidance and information to the public prior to, during and following an incident.


It is also essential that advice for organisations which raise awareness and promote self help prior to and during a flooding event are maintained. These include:

- The Environment Agency's Floodline Warnings Direct System;
- Wiltshire Council website to be updated with information of Service disruption, including road closures.
- Highways Agency Information Line (HAIL) 08457 50 40 30 & e-mail;
- AA Road Watch to broadcast warnings;
- The Environment Agency website at www.environment-agency.gov.uk/flood
 - Leaflets produced by the EA, with information and advice;
- The Met Office website at; <http://www.metoffice.gov.uk/>
- Local radio stations;
- During major events, regional or national television may broadcast flood warning information;

Information to specific local areas can be passed through the Flood Warden network.

6.2 Information / Media Arrangements.

The LRF Major Incident Media Guide sets out procedures for the gathering and dissemination of information during incidents. Lists of current flood warnings, road closures and details of flooded areas should be published as appropriate by the agencies involved.



 [Flooding: Advice for the Public \(PDF, 5.3 MB\)](http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317140405287)
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317140405287

7. Health Precautions and Advice

Practical flooding health and safety advice can be provided by the Environment Agency, Health Protection Agency, NHS Wiltshire, NHS Swindon, Wiltshire Council and Swindon Borough Council Environmental Health Officers. General Advice may include:

- Move to a safe area if life is at risk;
- Prevent water from entering property if possible;
- Switch off electricity and gas supplies at the mains;
- Move valuable possessions above floor areas liable to be flooded;
- Do not walk, drive or swim through floodwater (fast flows and missing manhole covers and other hidden dangers may be present);
- Be aware of hidden dips in roads;
- Floodwater may contain sewage effluent;
- Do not eat or drink anything contaminated by flood water;
- Do not handle wet electrical equipment;
- Ventilate property but be aware of security risks;
- Remind householders not to throw everything away. Evidence of damage for insurance purposes.

Further Information is available at:

-  [Flooding and mental health: Essential information for front-line responders \(PDF, 175 KB\)](http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317140780425)
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317140780425
-  [Health advice: General information about mental health \(PDF, 164 KB\)](http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317140780334)
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317140780334

7.1 Specific Health Risks

- Risks from sewage contamination of water and other possible risks from infectious diseases;
- Risks from chemical contamination;
- Risks posed by carbon monoxide fumes from the use of generators and other fuel powered equipment brought indoors to dry out buildings.

7.2 Disruption to Mains Water

- Bottle feeding babies without access to mains water supply;
- Sanitation, in particular risks from blocked toilets and waste disposal;
- Hygiene advice in a situation where access to water is limited;
- Water quality during re-connection including adequacy of proposed sampling strategy.

7.3 Disruption to Power


- If no electricity and cannot boil water.
- Danger to health if no heating

7.4 Clean-up Advice

Practical health advice on clean-up can be provided by the Health Protection Agency, NHS Wiltshire, NHS Swindon, Wiltshire Council and Swindon Borough Council Environmental Health Officers with regard to the following issues:

- Private dwelling and public buildings/areas (such as schools playing/sporting fields);
- Health risks associated with prolonged contact with water;
- Advice on what to do with foodstuffs (natural produce or tinned) exposed to floodwater;
- Flooded gardens/allotment produce;
- Fruit trees/bushes;
- Dried/tinned foods.
- Advice on avoidance of displaced rodents.

More detailed guidance can be found in the Appendix

-  [Floods – how to clean up your home safely \(PDF, 176 KB\)](http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317140784662)
http://www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317140784662

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8. Appendix A

Flood Supporting Information

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A.1 Introduction

The aim of this document is to provide additional information in support of the flooding section of the Severe Weather Guide.

A.2 Generic Planning Assumptions for Flooding

The following non exhaustive list of generic items should be referred to when undertaking flooding planning:

- Evacuation and/or shelter of people;
- People becoming stranded throughout the affected area and in need of rescue. Severe weather may impede rescue efforts;
- Possible fatalities and casualties;
- Requirement to locate missing persons;
- Temporary accommodation may be required. Length of time required will vary and may be for a significant length of time;
- Contamination of water supplies;
- Loss of other essential services (water; electricity; telecommunications);
- Health hazards due to sewer back up in homes and buildings;
- Failure of drainage systems;
- Rescue of livestock and disposal of dead animals;
- Widespread structural damage, blocked roads and bridges through debris;
- Transport disruption and closure of main routes caused by debris and structural damage to bridges ;
- Security of cordoned areas;
- Self evacuation of some people and the possible requirement to assist people with transport to alternative accommodation;
- Owing to the nature of flooding events recovery operations are likely to be prolonged. This will include drying out of homes and infrastructure and repairing damage.
- A single fluvial event or a regional event occurring following sustained heavy rainfall;
- Possible flooding of a large urban area affecting a significant number of properties.

- Evacuation due to overtopping of defences;
- Some notice to evacuate would be received.

Flooding of properties in both rural and urban areas;

- Closure of roads, rail links and bridges;
- Stranded people requiring rescue;
- Failure of drainage systems due to water run off.

Major communities that could be affected by flooding	Properties at risk from surface water flooding
Salisbury	1476
Chippenham	1192
Westbury	1174
Trowbridge	935
Devizes	866
Warminster	751
Calne	652
Corsham	642
Bradford on Avon	445
Melksham	387
Marlborough	374
Wootton Bassett	345
Ludgershall	276
Tidworth	274
Amesbury	270
Pewsey	161
Malmesbury	120
Major communities total	10340
Total other smaller communities within Wiltshire	7680
Combined total communities at risk of future flooding within Wiltshire	18020

A.3 The Risk of Flooding

3.1 Background

The assessment of the risk of severe flooding in Wiltshire and Swindon is contained in the Community Risk Register. This plan is an element of the response to potential major and significant flooding in Wiltshire and Swindon. Consequences will depend upon the exposure of people and property to the hazard and their respective vulnerability to harm.

The chances of flooding are increasing due in part to climate change. Increased winter rainfall, and more intense summer rainfall add to existing risks.

Within Wiltshire floods are mostly events that result either from excessive rainfall that leads to pluvial flooding or to rivers overflowing their banks. In urban areas, drainage systems may have inadequate capacity or become blocked leading to flooding also. In the southern half of Wiltshire underlying chalk provides an increased risk of Groundwater flooding as experienced in winter 2002/3.

Types of response have included the construction of raised defences by walls or embankments or other structural measures such as pumped drainage systems and flood storage areas. These defences limit the chance and consequences of flooding. However they do not eliminate the chance of flooding entirely and large scale protection against groundwater inundation is not possible.

3.2 Sources of Flooding

River (Fluvial) Flooding – A river overtopping its banks leading to flooding is usually caused by prolonged periods of heavy rainfall. Fluvial flooding can be both deep and high velocity, depending on the nature of the river catchment. The Environment Agency Flood Zones 2 and 3 define the area that could be affected by flooding, either from rivers or the sea, if there were no defences.

Details of Wiltshire properties at risk are as follows (as of August 2014):

Signed up to Floodline Warnings Direct (FWD): 3012

The Environment Agency will monitor and warn for fluvial flooding where systems and procedures are in place.

Fluvial Flooding is considered a Very High Risk within the community risk register for Swindon and Wiltshire.

Reservoirs Breach – This refers to a collapse of a reservoir dam located within Wiltshire & Swindon.

Flooding from these would be instantaneous with significant movement of debris (possibly including vehicles) and sediment.

Reservoirs Breach is considered a medium risk for Swindon and Wiltshire.

There are two types of reservoir plans, on site and off site. The on site plan is the responsibility of the undertaker. Specific off site plans for Reservoirs within Wiltshire & Swindon will be prepared in accordance with guidance received from DEFRA.

Detailed inundation mapping is now available. Outline maps are on the EA website and more detailed mapping is being placed on the National Resilience Extranet.

Groundwater Flooding – Groundwater flooding is the result of a rise in the water table to above the rock or soil that makes up the land surface. The problem is most common in areas with chalk strata but can occur in any area with underlying permeable deposits, including sands and gravels.

Groundwater flooding is significant in Wiltshire particularly in a band across the south of the county, where the underlying rock is primarily chalk. We are currently unable to determine exact numbers of properties at risk from ground water sources but experience from the winter of 2002/3 showed the potential impact to be significant.

Groundwater flooding is considered a high risk for Wiltshire and Swindon.

Surface Water Flooding – This usually happens where drainage systems are unable to cope with heavy spells of rainfall. It will be most problematic when catchments are already saturated or frozen and in urban areas with impermeable surfaces. It will usually occur rapidly, but be relatively short lived.

Accurately predicting and mapping surface water flooding is currently not possible. The best available information is provided by the Met Office Severe Weather Warnings and a local understanding of the most commonly effected areas. Indicative surface water mapping has been issued by the Environment Agency but should be used as guidance only.

Surface Water flooding is considered a high risk for Wiltshire.

N.B. All at risk property data is approximate.

A.4 Environment Agency Flood Warning System

The Environment Agency (EA) issue warnings of potential flooding from main rivers. The EA aim to give at least two hours warning of river flooding.

Flood warnings are currently only issued for flooding from a river. Ground water information is available from Floodline in addition to information on river flooding. A Groundwater flood warning service for Wiltshire and Swindon is being developed.

Severe weather warnings are issued by the Met Office and emailed to local authorities and others by Highways Control Centre (HCC). It also provides severe weather information in relation to highways and this may include forecasts of very heavy precipitation which could lead to flash flooding.

It is sometimes difficult to distinguish between sources of flooding. For example, groundwater and surface water flooding can often appear to be similar.

- FLUVIAL River flooding
- PLUVIAL Rainwater flooding
- FLASH Roads, ditches, fields
- GROUNDWATER High water table
- SEWAGE Sewers, rising mains and pumping stations
- POTABLE WATER Mains failure

A.5 The Flood Warning Codes

In England and Wales the Environment Agency operates a flood warning service in areas at risk of flooding from rivers. If flooding is forecast, warnings are issued using a set of three easily recognisable codes. For the latest information on Flood Warning Codes visit www.environment-agency.gov.uk/flood

The EA issue four flood codes as follows;



FLOOD ALERT

This means “Flooding is possible. Be prepared”. We issue Flood Alerts for targeted specific locations that are at risk of flooding. It will indicate that flooding is possible and that people should make some low impact preparations (e.g. move small valuable items upstairs, check travel plans) and remain vigilant.

The EA issue a Flood Alert for large areas of floodplain that have similar characteristics. A Flood Alert is not specific to individual areas and can cover several communities and locations of flooding.

There is always a potential that parts of the floodplain may suffer from more serious flooding than initially indicated in the Flood Alert. It is not always possible to forecast when and where such flooding will occur. In these circumstances the local Flood Incident Management team will record further details on Floodline and, if possible, a description of where they expect flooding to occur.

Community actions should be:

- Be Prepared to act on your flood plan;
- Prepare a flood kit of essential items;
- Monitor local water levels and the flood forecast on our website.



FLOOD WARNING

This means that “Flooding is expected. Immediate action required”. We mainly target Flood Warnings at specific communities that are at risk from flooding. Some Flood Warnings may apply to stretches of coast and river.

It will indicate that flooding is expected and that people should take more direct impact actions e.g. move belongings upstairs.

Community actions should be as for Flood Alert plus:

- Move family, pets and valuables to a safe place;
- Turn off gas, electricity and water supplies if safe to do so;
- Put flood protection equipment in place.



SEVERE FLOOD WARNING

This means “**Severe Flooding. Danger to life**”. All customers who receive a Flood Warning will receive a Severe Flood Warning if conditions are met.

It will be used in extreme circumstances to tell people that flooding is posing significant risk to life or significant disruption to communities which could also cause risk to life. Depending on the circumstances it would indicate that people should evacuate the area or take shelter within safe buildings.

Community actions should be as for Flood Warning plus:

- Stay in a safe place with means of escape;
- Be ready should you need to evacuate from your home;
- Co-operate with emergency services and local authorities;
- Call 999 if you are in immediate danger.

Warnings no longer in force

We issue a message to tell people that the flood threat has passed and include useful advice on what to do next.

Community Actions should be:

- Be careful. Flood water may still be around for several days;
- If you’ve been flooded, ring your insurance company as soon as possible.

Many parts of the country are covered by a full three stage Flood Warning Service. The lowest level of warning that the general public normally receives is the Flood Warning.

A.6 FLOOD FORECASTING CENTRE (FFC)

The Flood Forecasting Centre (FFC) is a partnership between the Environment Agency and the Met Office, combining meteorology and hydrology expertise to forecast for river, tidal and coastal flooding as well as extreme rainfall which may lead to surface water flooding.

The FFC provides the best possible intelligence and support to existing Environment Agency flood warning and Met Office weather warning services for England and Wales.

The FFC provides the following services:

- Extreme Rainfall Guidance & Alert Service
- National Flood Guidance Statements
- Web Service

These services are designed to assist Category 1 and 2 Responders in planning and preparing for flood events.

A.7 Community Resilience

The Environment Agency and Wiltshire Council Teams (Drainage Team and Emergency Planning Risk and Resilience) have worked with Parish and Town Councils to encourage the development of local flood plans that cover practical advice and information.

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9. Appendix B: Plan Administration

Document History

Version	Date	Comments	Reviewer
0.1	25.09.14	First Draft Plan	S.Subramaniam

Amendment History

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Distribution List

Name of Organisation	Format	Copies	Date

Training Schedule

Date	Training Details	Location

Exercise Schedule

Date	Exercise Details	Location