

Northumbria Local Resilience Forum

Multi-Agency Generic Reservoir Flooding Off Site Plan

Developed by:

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DOCUMENT CONTROL AND DISTRIBUTION

The Generic Off-Site Plan is maintained by Northumberland County Council as lead Local Authority. All users are requested to advise this local authority of any change in circumstances that may materially affect this Plan.

The Plan is distributed in accordance with the list in section 3. The Plan will be subject to review in conjunction with the Northumberland Flood Action Plan; every 6 months with a full revision on an annual basis to ensure the accuracy of the information held within it.

Details of changes are to be sent to Northumberland County Council Civil Contingencies Team at eplan@northumberland.gov.uk

This Plan is predicated upon the existence and maintenance by Category 1 and 2 responders and other responding agencies of their own plans and procedures for a response to an Off-Site Reservoir Flooding Emergency.

Document Version:

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1.1	Mar 2011	NCC CCT	Draft
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Important

The outline reservoir flooding maps for the reservoirs in the Northumbria Local Resilience Forum area are accessible via the Environment Agency Website and are not reproduced in this Plan

Copies of more detailed maps are held on the Resilience Direct information sharing system but are **Official - Sensitive** and **not available** for public access.

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- 3) The information contained in these maps DOES NOT in any way reflect the structural integrity or likelihood of failure of the dams.



- 4) These maps give an indication only of the areas that may be flooded if the dams completely failed. They are based on a simplified modelling approach. Actual reservoir failure may give rise to conditions (flooded areas, flood depth, extent, velocity, hazard, and timing) which vary from those indicated.
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GLOSSARY				
ССТ	Civil Contingencies Team (Northumberland)			
ECAP	Emergency Community Assistance Plan (Northumberland)			
HE	Highways England			
HVP	High Volume Pump			
LA	Local Authority			
MIP	Major Incident Plan			
МВС	Media Briefing Centre			
NEAS	North East Ambulance Service			
NHS (E)	National Health Service England			
NFRS	Northumberland Fire and Rescue Service			
NLRF	Northumbria Local Resilience Forum			
PHE	Public Health England			
PIZ	Public Information Zone			
RD	Resilience Direct			
RC	Rest Centre - Premises where evacuees are sheltered until they can return home or make their own arrangements.			
Reception Centre	A temporary assembly point for people who have been evacuated and/or an identified collection point for transportation to a rest centre.			
RCG	Recovery Coordinating Group			
RVP	Rendezvous point			
SCG	Strategic Co-ordinating Group			
SWR Swift Water Rescue				
Supervising Engineer	Supervises the operation and maintenance of the reservoir at all times, unless the reservoir is under construction.			
TCG	Tactical Co-ordinating Group			
TWFRS	Tyne and Wear Fire and Rescue Service			
Undertaker	Reservoir owner, manager or operator			



SUMMARY EMERGENCY RESPONSE STAGES

TA	ASK	LE	EAD RESPONDER	PLAN REF
PHASE 1: Standby				
•	Initial alert	•	Undertaker	6.2
•	Notification of lead department EA	•	Undertaker	6.2.1
	and Supervising / Panel Engineers			
•	Be prepared to notify Police / Local	•	Police / LA	6.3.1
	Authority on advice from Engineer			
•	Notify partners and agencies as			
	necessary.	•	LA	6.4.2
•	Consider implementation of LA			
	ECAP/Major Incident Plan.	•	LA	6.4.2
•	Consider Warning and Informing			
	residents in PIZ.	•	Police / LA	5.5
•	Be prepared for evacuation.			
•	Be prepared to activate Rest	•	Police / LA	5.6
	Centre(s) . Identify and warn	•	LA	5.9
	potential rest centre locations.			
Ph	IASE 2: Implementation	l		
•	Subsequent alert: Alarm, Imminent	•	Undertaker	6.2.2
	Failure or Failed.			
•	Implement generic off-site plan (if no	•	Police / LA	6.3.2
	specific plan)			
•	Stand up TCG and SCG as	•	Police / Police at	6.3.2
	appropriate.		request of other	
			responder	
•	Co-ordinate response of emergency	•	_Police	6.3.2
	services.			
•	Implement LA ECAP/ MIP and stand	•	LA	6.4.3
	up LA Emergency Committee as			
	appropriate.		D. II. / . A	
•	Warn and Inform residents in PIZ of	•	Police / LA	5.5
	W and I strategy.		D.II. / FDO / L A	(appendix C)
•	Evacuate residents in PIZ.	•	Police / FRS / LA	5.6
•	Activate LA Rest Centre Plan.	•	LA	5.9.1
•	Implement medical support.	•	NEAS / NHS (E)	6.6.1
•	Implement swift water/search and	•	Fire and Rescue	6.5.2
	rescue response.			



T	ASK	LE	AD RESPONDER	PLAN REF
•	Coordinate Media response. Implement traffic control measures. All agencies should maintain a record of key decisions made and actions carried out.	•	Police Police / LA / HE All	6.3.2.2 6.3.2.3
Pl	HASE 3: Standdown / Recovery			
•	Notification of 'All Clear' from Undertaker. On-site plan.	1.	Undertaker	6.2.3
•	Decision to stand down emergency services and hand over recovery phase to LA.	2.	SCG	6.3.3
•	Consider controlled return of evacuees to properties.	3.	SCG / TCG	6.3.3
•	Implementation of LA Recovery and Restoration Plan.	4.	LA	6.4.4
PHASE 4: Debrief				
•	Lead agencies should carry out a debrief process as soon as is practical, either during, or after the recovery phase.	5.	All / NLRF	4.6



1. PURPOSE OF THE OFF-SITE PLAN

1.1.1 The purpose of the generic off-site plan is to ensure that local responders are able to make a swift and effective response to any reservoir emergencies involving reservoirs for which specific off-site plans have not been constructed. It covers activation, alerting, management and co-ordination aspects of the response to such emergencies. It also outlines the type of response which may be necessary to respond to, and recover from such an emergency and the facilities and resources which would be available to do so.

The overall aim of the off-site plan is to provide a framework of procedures to facilitate a co-ordinated multi-agency response to the off-site consequence of a potential or actual dam breach at a reservoir either;

- a. within the Northumberland LA / Northumbria LRF boundary; or,
- b. whose water course may inundate areas within the Northumberland LA / Northumbria LRF boundary.
- 1.1.2 A list of these reservoirs and reservoir owner/undertaker contact details are attached at Appendix A.
- 1.1.3 The advice contained within this off-site plan should be treated as a guide only. It offers a framework in order that those responding to an incident can work together as efficiently and effectively as possible. This off-site plan also takes into consideration the duties outlined in the Civil Contingencies Act 2004.



2. SCOPE OF THE OFF-SITE PLAN

2.1 Mapping

- 2.1.1 The mapping associated with this Plan on the Environment Agency Website is of outline reservoir flooding areas only, and are therefore "not" protectively marked.
- 2.1.2 Detailed mapping, showing velocity, depth and other significant information are protectively marked and are only accessible for CCA Category 1 and Category 2 Responders via Resilience Direct (RD).

2.2 Scenario

- 2.2.1 This plan addresses the Off-Site, or downstream, consequences of flooding from any of the reservoirs listed at Appendix A as a result of a potential or actual dam breach. The actions outlined are based upon an assumption that there would be sufficient time to enact a response.
- 2.2.2 Notwithstanding the above, a dam failure may involve
 - a complete collapse of a dam wall and a sudden release of water; or
 - a "slow build" scenario.
- 2.2.3 If a complete collapse is forecast, the velocity details and maps held on the RD, combined with the predicted period of time until collapse, will indicate how much time is available to evacuate downstream properties.
- 2.2.4 In a "slow build" scenario, i.e. if an emergency drawdown is required a controlled release of water will be necessary, the response to increased water within the river system will be mitigated by the actions outlined in the Northumbria LRF Flood Plan(s), but the dam will continue to be monitored to assess the risk of a major failure.



3. IMPACT OF A RESERVOIR OR DAM EMERGENCY

3.1 Effects

- 3.1.1 The impact of flooding caused by a dam breach is likely to differ from conventional fluvial and pluvial floods with the following effects:
 - <u>sudden impact</u>: speed of development of the emergency limits time for evacuation.
 - <u>destruction</u>: the increased force of the water being likely to lead to the total destruction of buildings near the dam, reducing to partial structural damage and flooding damage with distance downstream.
 - <u>disruption to infrastructure</u>: likelihood of damage to critical infrastructure such as roads, railways, electricity, gas, water storage, water treatment, sewerage, telecommunications and other essential services.
 - <u>injury and death</u>: potential for injury and possible death to those caught in a flood wave.

3.2 Overall Risk Assessment

The generic risk of reservoir flooding has been given an overall rating of MEDIUM in the Northumbria LRF Community Risk Register.



4. EMERGENCY PHASES

4.1.1 There are four phases involved in the activation of this off-site plan. The triggers for the activation of these phases are outlined below. (see Summary pages 6/7)

4.2 Standby

This phase is activated when initial identification of a possible reservoir emergency is made, usually by the Reservoir Undertaker and their On-Site plan, where these exist, is activated. The Standby level of this plan is activated as soon as the Undertaker notifies the Environment Agency (EA) (as lead Department).

The Supervising / Panel Engineer will be called to give expert advice and to determine the potential for a breach and notify the Police of a potential problem.

The Police may determine to activate the LRF Major Incident Protocol to mobilise a multi agency response.

4.3 Implementation / Response

Where a dam breach may be considered possible or imminent based on expert advice and information from the Undertaker or Panel Engineer to the EA / Police / LRF to categorise the incident and take the JESIP decision making approach.

- 4.3.1 The Implementation / Response level of this plan is activated when a message is received from the Undertaker, based on advice from the Supervising / Panel Engineer that the trigger level for 'Alarm', 'Imminent failure' or 'Failed' in the reservoir's on-site plan (where this exists) is met.
- 4.3.2 The Implementation level may also be reached by escalation from Standby level.
- 4.3.3 It is crucial that the EA, Police and LRF liaise with the Undertaker to determine the timing of any expected failure and whether the anticipated dam failure will involve:
 - a complete collapse of a dam wall and a sudden release of water; or
 - a "slow build" scenario.



4.4 Stand-down and Recovery

- 4.4.1 The decision to move from the Implementation / Response phase to the Recovery phase is likely to occur when the immediate response efforts to save life, property and recover evidence have concluded. This judgement will need to be taken by the LRF Strategic Co-ordinating Group (SCG), which will address the issue of transition from response to recovery.
- 4.4.2 Following the dissemination of an 'All Clear' communication from the Undertaker, and the decision to stand-down has been made by the SCG, further action should be taken in accordance with the relevant LA Recovery and Restoration Plan.

4.5 Debrief

4.5.1 It is essential to keep records in order to facilitate operational debriefing and to provide evidence for inquiries (whether judicial, public, technical, inquest or of some other form). Single-agency and inter-agency debriefing processes should occur as soon as is practical, either during, or after the recovery phase in accordance with the Northumbria Local Resilience Forum Debrief Protocol. The aim is to capture information while memories are fresh.

4.6 LRF Debrief Protocol

4.6.1 A comprehensive record should be kept of all events, decisions, reasoning behind key decisions and actions taken. Each organisation should maintain its own records. The lead LA will take responsibility for organising and co-ordinating the Debrief process on behalf of the Northumbria LRF.



5. COMMAND CONTROL AND COORDINATION

5.1.1 Northumbria Police will retain overall coordination of the multi-agency response to the incident until the recovery phase, where this will be handed to the relevant LA(s). Detailed roles and responsibilities for each lead agency are outlined in section 6.

5.2 Plan Activation

If no specific off-site plan exists, the generic plan should be activated. The plan is activated in accordance with the triggers outlined in section 4.

The Northumbria LRF Major Incident Activation Protocol would be implemented

5.3 Related Plans

- 5.3.1 The Northumbria LRF Generic Reservoir Flooding Off-Site Plan provides a framework for the response to a reservoir emergency resulting in downstream flooding. Other contingency plans and arrangements should be used in conjunction with this plan:
 - Casualty Bureau Plan
 - Emergency Community Assistance Plan (ECAP) or other LA alternative
 - Metro Centre Evacuation Plan (Gateshead)
 - Relevant LA Rest Centre Guidance
 - Relevant LA Recovery and Restoration Plans
 - Northumbria LRF Mass Fatalities Plan
 - Northumbria LRF Multi Agency Flood Plan
 - Northumbria LRF Resilient Telecommunications Plan
 - Northumbria Police Severe Weather and Flood Plan
 - Northumbria Police Major Incident Plan
 - On-site Plans maintained by Undertakers (owner/manager) of relevant reservoirs (where these exist)
 - Relevant LA and Agency Business Continuity Plans
 - Relevant LA Temporary Mortuary Plans

5.4 Management Areas or Zones

5.4.1 In the event of an emergency the potential affected area(s) may be split into more easily identifiable, smaller and more manageable areas, to facilitate the Police's role in co-ordinating the response to the incident. The downstream flooding area may be divided according to circumstances. In a sudden dam breach scenario, management zones may be prioritised by time taken for water to arrive (eg. Immediate, 1-2 hours, 3-4 hours etc.). A "slow build" flood scenario, where more time is available, may be managed in line with police command areas, for example.



- 5.4.2 The flooding zone could be managed as follows:
 - Silver Commander: provides tactical co-ordination for the whole incident area.
 - Bronze Commander: allocated to each management area/zone as resources allow and manage the incident within these sub-divisions.

5.5 Public Warning and Informing

5.5.1 This activity should be carried out in line with the "Warning and Informing the Public" protocol at Appendix C.

5.6 Evacuation

- 5.6.1 <u>Door Knocking:</u> In preparing an evacuation, the Police and other attending responders will determine the zones that need to be placed on standby or to be evacuated and identify suitable Rendezvous / Assembly points. On receipt of the decision to evacuate an area and **only where safe and practical to do so**, the LA, working with the Police, may co-ordinate a multiagency door-knocking exercise or other process, such as public broadcast message via television or radio, to advise residents in the evacuation area to leave.
- 5.6.2 <u>Evacuation Cards:</u> The door-to-door knocking will, where time allows, be supported with an Evacuation Card to alert residents that they may need to evacuate. A sample copy of this can be found at Appendix D.
- 5.6.2.1 The Evacuation Card should be pre-prepared before dissemination to residents requiring evacuation and provide details of pre-determined Reception Centre, Rendezvous / Assembly Point and/or Rest Centre being used. Details from returned cards should be recorded by the lead authority and those records held for the co-ordination of any subsequent search and rescue operations.

<u>Transport:</u> Transport for evacuation will be primarily sourced from LA resources. If required, commercial providers and voluntary organisations may be required to assist in the evacuation. Refer to relevant LA Emergency Community Assistance Plan or Major Incident

Plan

for

details.



5.7 Vulnerable People/Groups

- 5.7.1 During a reservoir flood event even those people who may not normally be deemed vulnerable can become vulnerable due to the circumstances they find themselves in. Assisting those who are risk from flooding is key; however some groups may require additional assistance. Vulnerable persons could include, among others, those identified as:
 - The elderly
 - The frail
 - Children
 - Non English speaking residents
 - Transient populations
 - Those with health problems
 - Those with disabilities
- 5.7.2 Records of those persons who are deemed as vulnerable should be regarded as time sensitive information that changes on a regular basis.
- 5.7.3 During a reservoir flooding event, information on vulnerable persons can be obtained in accordance with the respective LA Flood Action Plans and LRF Information Sharing Protocol

5.8 Critical Infrastructure

- 5.8.1 Infrastructure that has been identified as critical has been deemed so as it may cause significant disruption if affected by flood water.
- 5.8.2 Critical infrastructure is identified within the Information Sheets at Appendix B.
- 5.8.3 Examples of critical infrastructure include:
 - Electricity Sub Stations
 - Sewage Works
 - Sewerage Networks
 - Water Pumping Stations
 - Gas (above ground) Installations
 - Water Supply
 - Police / Fire / Ambulance Stations
 - Hospitals and other health facilities
 - Schools
 - Those roads and bridges which could potentially be affected within flood risk zones

5.9 Reception and Rest Centres

5.9.1 Reception and/or Rest Centres should be opened in accordance with the relevant LA Rest Centre Plans. Possible Rest Centre locations will be identified as necessary.



6. KEY ROLES AND RESPONSIBILITIES

6.1.1 This section details the potential roles and responsibilities for each organisation during each phase of the incident.

6.2 The Reservoir Undertaker

- 6.2.1 Standby: In the event of a potential reservoir failure the Undertaker will:
 - Activate the On-Site Plan (where these exist) this may include the involvement of the Fire and Rescue Service on site.
 - On detecting a potentially serious problem relating to the dam, lake or reservoir the Undertaker should alert:
 - Environment Agency
 - Maintain a log.
 - In the absence of a formal TCG on-going surveillance and situation assessments will be provided to the Police Silver / Tactical Commander) and informed by the Supervising Engineer.
 - Consider establishing an Emergency Control Centre.
 - Be prepared to dispatch a pathfinder to meet the emergency services at an agreed RVP and provide details of safe approach routes to the emergency services.
 - Be prepared to provide an appropriately knowledgeable person to advise or participate in multi-agency control arrangements for the Off-Site response and provide timely updates on the progress of the incident. This is likely to involve the mobilisation of the Inspecting Engineer to provide advice on measures to be taken to avert failure or reduce the effects of an actual breach.
 - Be prepared to implement business continuity plans.
- 6.2.2 <u>Implementation</u>: On the activation of the **Alarm, Imminent Failure** or **Failed** trigger level in the On-Site Plan (where these exist), the Undertaker (or their nominee) will:
 - Alert the following:
 - Police Silver / Tactical Commander / LRF
 - Fire and Rescue (if this would assist in mitigating the effects of a breach on site)
 - Maintain a log.
 - Provide on-going surveillance and situation assessments to TCG.



- Establish an emergency control centre.
- Dispatch a pathfinder to meet the emergency services at an agreed RVP and provide details of safe approach routes to the emergency services.
- Provide an appropriately knowledgeable person to advise or participate in multi-agency control arrangements for the Off-Site response and provide timely updates on the progress of the incident. This is likely to involve the mobilisation of the Inspecting Engineer to provide advice on measures to be taken to avert failure or reduce the effects of an actual breach.
- Implement business continuity plans.
- 6.2.3 Recovery: Refer to On-Site Plan (where available)

6.3 Police

- 6.3.1 <u>Standby</u>: On receiving a **Standby** alert from the Undertaker (or other party) notifying them that a potentially serious problem has been detected, the Police Silver / Tactical Commander (in consultation with the LA) will consider convening a Tactical Coordination Group (TCG) to discuss preparatory and precautionary measures appropriate to the situation.
- 6.3.1.1 In the event of such a group being convened, the Police Silver / Tactical Commander (or their nominee) will arrange for the following organisations to be contacted to request their attendance at the initial meeting:
 - Northumberland or Tyne and Wear Fire and Rescue,
 - North East Ambulance Service
 - Environment Agency
 - Local Authority Civil Contingency / Emergency Planning Officers
 - Maritime and Coastquard Agency
 - NHS(E)
 - any other relevant organisations identified in this plan
 - any other identified resources from within the Police e.g. the appropriate Area Command.
- 6.3.2 <u>Implementation</u>: On receiving a notification of an *Implementation* alert from the Undertaker (or other party) notifying them that either:
 - an emergency drawdown that would result in potential downstream flooding is required to mitigate the impact;
 - control of the situation has been lost and failure is inevitable;
 - a large uncontrolled release of water has occurred.
- 6.3.2.1 The Police Silver / Tactical Commander, in consultation with tactical commanders in partner agencies as appropriate, will consider whether the



hazard requires an immediate evacuation or may give rise to an evacuation in the near or immediate future and invokes the Off-Site Plan.

6.3.2.2 Further to this, the Police will:

- Deploy a liaison officer at the site if safe and appropriate to do so.
- Co-locate with Commanders from Ambulance and Fire and any other Agency as soon as practicably possible at a single, safe and easily identified location near to the scene.
- Communicate with each other using plain English
- Co-ordinate agreed lead service, identify priorities, resources and capabilities for an effective response, encourage Bronze / Operational Commanders to frequently review the understanding of risks (threats, hazards, control measures) using Joint Decision Model (JESIP).
- Jointly understand risk by sharing information about the likelihood and potential impact of threats and hazards to agree potential control measures.
- Shared situational awareness using METHANE and the Joint Decision Model (JESIP)
- Advise critical infrastructure operators likely to be affected of the Incident.
- Consider declaration of a Major Incident and inform partner agencies as appropriate.
- Determine the necessary RVP(s) for the incident and inform appropriate partner operational responders e.g. Fire and Ambulance Services etc.
- Provide overall strategic, tactical and operational co-ordination of the incident response provided by the emergency services, local authorities and other agencies.
- Ensure an appropriate Silver / Tactical Commander is identified to provide tactical coordination for the whole incident area and to chair the multiagency Tactical Coordination Group (TCG).
- Identify an appropriate venue for the TCG. This will be decided by the Police Silver Commander in consultation with partner from the TCG at the time of the incident.
- Request key partner agencies identified in this plan including the LA, NHS (E) and other emergency services – send appropriate tactical level representatives to the TCG.
- Ensure Bronze / Operational Commanders for each of the management areas are identified (where resources allow), who will manage the incident at the operational level in these pre-identified sub-divisions.



- Initiate the evacuation of the management areas in consultation with the LA in line with the incident scenario.
- Deploy officers where available and appropriate to the evacuation areas (within the management areas) in support of the evacuation, and work with other agencies to notify / identify vulnerable individuals (accessing available records) in the evacuation areas.
- Work with other agencies to notify / identify specific vulnerable establishments in the evacuation areas (accessing available records) to be evacuated and ensure that appropriate measures are in place.
- Make arrangements to mobilise other staff resources, such as Police Community Support Officers to assist in the evacuation where appropriate and available.
- Support the Highways England where appropriate and make arrangements to establish the pre-identified road blocks.
- Support the LA and Highways England (where appropriate) to establish diversions around the management areas and seek to move traffic away from these areas.
- Identify properties not evacuated (if resources allow).
- The designated ACPO Officer (Duty Gold) will decide when to activate the Strategic Co-ordinating Group in liaison with strategic commanders from other responding agencies. The venue for the Strategic Co-ordinating Group to meet is likely to be Northumbria Police Headquarters, Ponteland.
- Inform the Corporate Communications Department of the incident so they can consider all public information issues.
- Consider the use of National Police Air Support Unit (NPAS) to provide an overview of the situation if appropriate. A 'skyshout' public address system is available on the police helicopter to disseminate evacuation messages to the public if appropriate.

6.3.2.3 In terms of operational matters, the Police will:

- The Bronze Commander for each management area (where resources allow) will coordinate the evacuation of their management area in liaison with the LA and will notify Silver Command when the area is 'sterile' of people;
- Officers at the scene will establish cordons (where practical, appropriate and safe to do so) and ensure that risk assessments are undertaken in conjunction with partner agencies e.g. Fire and Rescue Service, prior to access being granted to areas inside the cordon. Any person being passed through the cordon must have the authority of Silver Command.



- Where available, appropriate and safe to do so, officers at the scene will evacuate people from streets and buildings using evacuation cards (if deemed appropriate) and will direct them away from the incident scene towards pre-identified assembly / reception points for onward transport to rest centres by the LA. If an evacuee takes the decision to find their own alternative arrangements in terms of accommodation etc. or not to evacuate at all, officers at the scene will ensure the evacuee provides information to them on where they will be staying, using the reverse of the Evacuation Card, if applicable, so follow-up enquiries can be conducted by the LA;
- Officers on the ground will provide advice on safe evacuation routes as based on information via Silver Command from the Undertaker and other specialists.
- Officers will attend LA Rest Centres to assist e.g. providing initial security, noting who is present / missing etc. and will inform the Bronze Commander of any important issues to be resolved so these can be considered by Silver Command;
- Officers may also assist other agencies in providing specific assistance for people with additional needs such as the old, very young and disabled;
- Officers will control and direct traffic to prevent bow waves from flooding properties and vehicles from breaking down in floodwaters. Assistance with closures where roads are impassable etc. will be required from the LA, Highways Agency and other road network providers i.e. AOne if appropriate.

6.3.2.4 Other Police responsibilities will include:

- Maintaining an incident log;
- Establishing the Casualty Bureau as required.
- Providing appropriate advice and assistance to the public, including assisting in the dissemination of warnings e.g. on Force website, via Call Handlers in the Communications Centres etc.

6.3.3 Recovery

- 6.3.3.1 The Police (as the coordinating agency in the response phase of the incident) will determine when the response phase is complete and will then handover central coordination of the multi-agency response to the LA for the recovery phase of the incident.
- 6.3.3.2 If an uncontrolled breach has been averted and the structure is made safe, the Silver / Tactical Commander in conjunction with the LA and other responders, will consider whether to allow a controlled return of evacuees to their properties and other affected parts of the Management Areas. For such



a decision to be made by the TCG, the authority of the SCG will be required and specialist advice will need to be taken e.g. from the Undertaker and from the Fire Service / LA on the structural safety of buildings etc. The following factors are considered as a part of the controlled returned process:

- the return of people to evacuated zones should be phased and controlled as far as possible.
- normal transport services should be resumed as soon as possible.
- during re-entry to the area empty properties should remain secure.

6.4 Local Authority Civil Contingency Team

- 6.4.1 Note: The following represents the Northumberland arrangements the Tyne and Wear Local Authorities will have their own arrangements which can be referenced through their specific Flood Plan(s).
- 6.4.2 <u>Standby</u>: On receipt of a **Standby** message from the Undertaker, the Civil Contingencies Duty Officer or Emergency Planning Officer will:
 - Liaise with the police, assess the implications and determine the need to activate a TCG in consultation with the Police Silver / Tactical Commander.
 - Consider activation of the LA Emergency Community Assistance Plan / Major Incident Plan as appropriate.
 - Contact in particular:
 - o Chief Fire Officer
 - LA Chief Executive
 - Alert relevant emergency contacts within the ECAP Confidential Telephone Directory (Northumberland) in order to assess availability of manning and resources.
- 6.4.3 <u>Implementation</u>: On receipt of an alert relating to the *Implementation* level from the Undertaker, the Civil Contingencies Duty Officer / Emergency Planning Officer will:
 - Support the activation of a TCG in consultation with the Police Silver / Tactical Commander. (This includes facilitating the availability of the Operations Room at Northumberland County Council Fire and Rescue HQ, West Hartford, Cramlington).
 - Activate the LA Emergency Community Assistance Plan / Major Incident Plan as appropriate:

Contact in particular:



Chief Fire Officer

LA Chief Executive

Alert relevant emergency contacts within the Confidential Telephone Directory (Northumberland) / MIP for attendance at the TCG as appropriate.

- 6.4.3.1 As is appropriate to the circumstances, the Civil Contingencies Duty Officer may consider:
 - Activation of the relevant LA Flood Action Plan
 - Activation of the LA Rest Centre Plan

6.4.3.2 Further duties include:

- Communicating and co-ordinating with downstream LAs.
- Alerting operators of vulnerable or critical infrastructure sites.
- Providing appropriate representation at SCG (Gold) and TCG (Silver) level.
- Maintaining a log of events.
- Liaising with building managers of LA buildings within the management areas to ensure they are aware of the situation.
- Identifying specific vulnerable people and establishments (accessing available records) in the area to be evacuated and communicating this information, with the Police, as necessary.
- Ensuring that appropriate measures are in place to meet the needs of those affected.
- Providing general information and guidance to departments, Senior Management, Elected Members and the Communications Team by phone, e-mail and the intranet.
- Implementing Business Continuity Plans.
- Establishing an incident contact telephone helpline if necessary.
- Requesting mutual aid where required.

6.4.4 Recovery:

6.4.4.1 In the event that there has been substantial damage and any evidence gathering process has been completed, the LA will take over formal control of



the incident from the Police and each affected LA will initiate its own Recovery and Restoration Plan.

- 6.4.4.2 This will involve the establishment of a Recovery Co-ordinating Group (RCG) which will seek to:
 - Ensure that longer-term recovery priorities are reflected in the planning and execution of the response.
 - Ensure that relevant organisations in the public, private and voluntary sectors are engaged in the recovery effort from the earliest opportunity.
 - Ensure continuity of the management of the emergency once the response phase has been concluded.
- 6.4.4.3 The RCG will need to consider and assess -
 - The scale of any required clean-up operation
 - Health implications
 - Waste and pollution
 - Number and location of residential properties flooded
 - Number and location of businesses affected
 - Damage to the infrastructure
 - Disruption to transport
 - Social Impacts
 - Financial assistance to both businesses and individuals
 - Charitable donations
 - Recovering costs
 - Disruption to residential and social care
 - Public meetings
 - Media /VIP visits
 - Damage to bio-diversity, ecosystems and natural resources
 - Damage to the built environment.
- 6.4.4.4 For further and full details on the recovery process, council responsibilities and group structuring, see the LA Recovery and Restoration Plan.

6.5 Fire and Rescue

- 6.5.1 <u>Standby</u>: On receipt of a **Standby** message from the Undertaker, Fire and Rescue may be required to attend the reservoir location to assist in accordance with the on-site plan. This may include:
 - Deployment of High Volume Pumping equipment.
 - Provision of advice during an emergency drawdown process.
- 6.5.2 <u>Implementation</u>: On receipt of an alert relating to the *Implementation* level from the Police or Civil Contingencies Duty Officer / Emergency Planning Officer, a Fire and Rescue response may include:



- Assisting in the evacuation process.
- Deploying Swift Water Rescue capability.
- Undertaking Search and Rescue activity.
- Providing a liaison officer to attend at SCG or TCG level as appropriate.
- Undertaking damage control operations, which may include pumping-out floodwater from homes (where resources allow) and key installations, such as electricity substations.
- 6.5.3 Recovery: Following completion of the response phase, the Fire and Rescue may be involved in:
 - Assisting in the controlled return of evacuees to their properties.
 - Advising on the structural integrity and safety of affected buildings

6.6 North East Ambulance Service

- 6.6.1 In the event of a potential or actual dam breach incident, the North East Ambulance Service (NEAS) may have additional responsibilities for:
 - Providing a Command and Control point for all emergency services and medical resources near the incident scene as a Forward Command Point to ensure JESIP principles are adhered to.
 - Implementing Business Continuity plans for Trust premises within the foot print of the incident.
 - Where appropriate, providing patient transport facilities to evacuate vulnerable individuals from properties at risk to hospitals, Rest Centres or other accommodation.
 - Maintaining a log.

6.7 Highways England

- 6.7.1 The Highways England may have responsibility for:
 - Providing a representative at SCG/TCG level.
 - Monitoring traffic flows and clearing debris from HE roads and road drainage systems.
 - Identifying and implementing the closure of HE roads and diversion routes in conjunction with the Police and LA and supplying signage (as appropriate).
 - Overseeing repairs to road bridges and evaluating whether bridges affected by floods should remain open for use.



6.8 Health Services

- 6.8.1 In the event of a potential or actual dam breach incident, the **Health Service** may have additional responsibilities for:
 - Co-ordination of the local NHS response.
 - Sharing information to and liaising with LA, Police and the Ambulance Service on the location of vulnerable people.
 - Providing clinical support to the LA at Reception / Rest Centres.
 - PHE leading and co-ordinating the Scientific and Technical Advice Cell (STAC), if established, to provide specialist advice on public health implications etc. to the SCG
 - Maintaining a log.
 - Investigating and providing guidance on public health issues.

6.9 Environment Agency

- 6.9.1 <u>Implementation</u>: In addition to their statutory role in relation to enforcement on bodies of water falling under the Reservoirs Act, the EA will be required to:
 - Assist the emergency response by the provision of personnel to assist as directed by the EA Tactical Commander / TCG.
 - Provide appropriate personnel to advise at SCG and TCG level.
 - Support the operational response roles of other agencies by providing materials, equipment and staff, where resources allow.
 - Continue to operate and maintain flood defences on main rivers lying both upstream and downstream of the dam;
 - Continue to provide information to the public using the Floodline service (only in areas that currently receive a flood warning service).
 - Maintain a log.

Recovery:

Upon transition to the recovery phase of the emergency, the EA is likely to be involved in the following activities:

- Ensuring clean-up operations are carried out in a professional manner.
- Investigating the cause of the incident and the emergency response and



taking appropriate follow-up action.

6.10 DEFRA

6.10.1 In the event of a potential or actual dam breach incident with national implications, Defra will be the lead Government Department responsible for coordinating the national response.

6.11 Northern Gas Networks

- 6.11.1 The Gas Utility contact considers the impact of a large release of water on the gas network in the inundation area and attends or liaises with the TCG to communicate the potential areas which will be affected by loss of supply to ensure appropriate contacts with the utility's incident control room. They may be required to send a representative to a Strategic (Gold) Co-ordinating Group.
- 6.11.2 The gas network provider may also have responsibility for:
 - Maintaining the safety and integrity of the gas supply system.
 - Implementing Business Continuity plans.
 - Obtaining pumps to maintain the continuity of supplies at key locations.
 - Informing the TCG as soon as practicable in the event that the key supply points need to be shut down.
 - Activating contingency plans for any Major Accident Hazard Pipelines.

6.12 Northern Powergrid / Electricity North West / SP Energy Networks / Scottish Power Systems / National Grid Electricity Transmission

- 6.12.1 The Electricity Utility contact considers the impact of a large release of water on the electricity network in the inundation area and attends or liaises with the TCG to communicate the potential areas which will be affected by loss of supply to ensure appropriate operational contact arrangements are in place. They may be required to send a representative to a Strategic Co-ordinating Group.
- 6.12.2 The electricity network operator may also have responsibility for:
 - Maintaining the safety and integrity of the electricity supply system.
 - Liaising with the Fire and Rescue Service and others regarding pumping operations at substations.
 - Implementing internal emergency plans.
 - Taking any additional reasonably practicable mitigating actions to maintain continuity of supply and minimise the impact on the electricity network.



- Responding to requests from TCG or other partner agencies of the details
 of the premises affected as soon as reasonably practicable in the event
 that part of the electricity network may need to be shut down or as soon
 as possible following any shutdown.
- Implementing recovery actions to restore power to the electricity network as soon as reasonably practicable.

6.13 Northumbrian Water Ltd.

- 6.13.1 As one of the key Undertakers in the Northumbria LRF area Northumbrian Water Ltd will respond in accordance with its own On-Site Plan(s). The NWL contact considers the impact of a large release of water on the water and sewerage networks in the reservoir flooding area and attends the TCG to communicate the potential areas which will be affected by loss of supply to ensure appropriate contacts with the utility's incident control room. They will be requested to send a representative to a Strategic Co-ordinating Group to provide expert knowledge and advice on the potential implications and severity of any reservoir breach etc.
- 6.13.2 The water company also have responsibility for:
 - Maintaining the safety and integrity of the clean and waste water systems, and dealing with flooding in public sewers.
 - Providing alternative water supplies in the event of failure.
 - Operating their assets connected with flood alleviation measures.
 - Implementing Business Continuity plans.
 - Providing information to the public on water quality and sewer flooding issues during and following floods.
 - Ensuring that blockages in its sewer system are cleared following a flood; and in advance where it is safe and practical to do so.

6.14 British Telecom Openreach

- 6.14.1 The BT contact considers the impact of a large release of water on the telephone network in the reservoir flooding area and attends or liaises with the TCG to communicate the potential areas which will be affected by loss of supply to ensure appropriate contacts with the utility's incident control room. They may be required to send a representative to a Strategic Co-ordinating Group.
- 6.14.2 In a dam breach incident, BT Openreach may have responsibility for:
 - maintaining the safety and operation of its networks.



- implementing Business Continuity plans.
- obtaining pumps to maintain the continuity of supplies at key locations.
- informing the TCG as soon as practicable in the event that the key supply points need to be shut down.
- seeking to provide alternative means of supply during the interruption and restoring power as soon as possible.

6.15 Other Organisations

- 6.15.1 Other organisations that may need to be involved include:
 - Transport industry, including Network Rail, train operating companies, airport authorities, Passenger Transport Executive.
 - British Transport Executive.
 - British Transport Police.
 - Ministry of Defence Military Aid to the Civil Community arrangements
 - Pipeline Operators.
 - COMAH site operators.
 - UK Search and Rescue.
 - Maritime and Coastguard Agency.
 - Voluntary Sector.
 - Community Resilience Groups, including Flood Action Groups.
 - NFU,
 - Animal Health.
- 6.15.2 This list is not exhaustive. These may be requested to attend the TCG and SCG as required.



7. LEGAL BASIS FOR THE OFF-SITE PLAN

- 7.1.1 The authority for Off-Site plans for reservoir flooding is the Civil Contingencies Act 2004. The Act requires action to be taken to improve and maintain and support the country's resilience. This Off-Site Plan is written in accordance with the requirements of the Act.
- 7.1.2 The Reservoirs Act 1975 (as amended by the Water Act 2003, and Flood and Water Management Act, 2010, Schedule 4) provides for undertakers of large raised reservoirs (i.e. over 25,000 cu metres) to draw up On-Site flood plans setting out what actions the undertaker should take in the event of a potential or actual uncontrolled release of water; this would include maintaining contacts with Category 1 responders. The Flood and Water Management Act, 2010, makes further provisions to empower the lead local authority to prepare and publish Off-Site plans.



8. COSTS

8.1 Emergency Expenditure

- 8.1.1 There are a number of organisations and funding schemes (either operated by or accessible through the UK Government or the Welsh Assembly Government) that may help local responders meet extraordinary financial costs incurred during the response to, and recovery from, an emergency. See Annex 1A of "Emergency Response and Recovery" for further details and Recovery section below.
- 8.1.2 The Government Liaison Officer on the Strategic Coordinating Group is responsible for communicating any request for financial support to Central Government for consideration.

8.2 Central Government

8.2.1 The Environment Agency (EA) can provide advice on enactment of financial/compensation provision in the event of a dam breach.

8.3 The Bellwin Scheme

- 8.3.1 The Government operates a scheme of emergency financial assistance (Bellwin) to assist local authorities in covering costs they incur as a result of work in coping with emergencies such as, typically, floods.
- 8.3.2 The scheme may be activated in any case where an emergency involving destruction of, or danger to, life or property occurs, and, as a result, one or more local authorities incur expenditure on, or in connection with, the taking of immediate action to safeguard life or property, or to prevent suffering or severe inconvenience, in their area or among its inhabitants.
- 8.3.3 Bellwin is applicable only in the response phase of an incident, since the grant is limited by Section 155 of the Local Government and Housing Act 1989 to contributing to immediate costs incurred on or in connection with safeguarding life or property or preventing inconvenience following an incident. It is important to be aware that precautionary actions and longer term clearing up action are ruled out by the terms of the statute.
- 8.3.4 General guidance notes are issued from time to time, which set out the conditions applying and more general information about the Bellwin Scheme. This includes qualifying emergencies, who can claim, grant rates and thresholds and how to notify an incident or make a claim.



9. PLAN DISTRIBUTION, MAINTENANCE AND VALIDATION

9.1 Plan Distribution

9.1.1 This Off-Site plan and associated outline reservoir flooding maps are not protectively marked. This Off-Site Emergency Response Plan is intended for use by the Strategic Co-ordination Group in the event of a reservoir flooding event in the Northumberland County Council / Northumbria LRF areas.

The Plan will be available via the Northumbria LRF Website and relevant partners informed, no special arrangements will be made for wider distribution.

9.2 Plan Maintenance

- 9.2.1 Northumberland Civil Contingencies Team, in collaboration with members from the Northumbria LRF Environment Theme Group, has agreed to maintain this plan and will co-ordinate its revision with partner agencies who have committed to provide updates to the Northumberland Civil Contingencies Team around any changes which could have an impact upon the procedures, technical systems, key personnel or contact numbers identified in the plan.
- 9.2.2 It is envisaged that this plan and related risk assessments will be subject to an annual review in relation to contact numbers. This process will include contacting Reservoir Undertakers to update any contact details and availability of On-Site Plans. A comprehensive review will be carried out every three years in conjunction with reviews of any other linked plans.
- 9.2.3 An annual update and canvass of the relevant Reservoir Undertakers will form part of the Plan maintenance process.

9.3 Maintenance Schedule

9.3.1 A maintenance schedule has been developed as follows:

06/15 Revised Plan published 2016 – Plan Exercise

9.4 Plan Validation

- 9.4.1 To ensure that key staff in partner agencies are appropriately familiar with the procedures and that these are validated, the following actions have been agreed:
 - Internal briefings to be provided to all Category 1 and 2 responders upon completion of the initial draft in order to promote feedback for consultation period.
 - Reservoir Flooding exercise linking On-Site and Off-Site (where available)



plans 2016/17 and then every 3 years subject to acceptance within the Northumbria LRF Exercise and Training Calendar.





10. APPENDICES

Appendix A

List of Scheduled Reservoirs and Undertaker (Owner/Manager)

Note: these are scheduled in accordance with Environment Agency priorities

Appendix B

Reservoir Flooding Information Sheets

Note: i) these are scheduled alphabetically for ease of reference

ii) Some Reservoirs have been linked due to following the same Flooding Routes e.g. Whittle Dene Reservoirs

Public versions of corresponding Reservoir Flood Maps are available on the

Environment Agency Website at "What's in your backyard"

http://www.environment-agency.gov.uk and are not reproduced in this document.

Detailed "Restricted" Reservoir Flooding Maps are held by relevant authorities and are also available on the National Resilience Extranet and <u>are not</u> public access documents.

Appendix C

Public Communications Strategy: Warning and Informing

Appendix D

Sample Evacuation Card



LIST OF LOCAL RESERVOIRS AND UNDERTAKER (OWNER/MANAGER) CONTACT DETAILS

Appendix A

Serial	Reservoir	Reservoir Indicator	Undertaker contact details	LA areas affected by downstream inundation	On Site Plan? Yes/No
01	Fontburn Reservoir	KP3735BR	Northumbrian Water Limited	Northumberland	Restricted – under development
02	Catcleugh	LP3335BC	Northumbrian Water Limited	Northumberland	Restricted – under development
03	Colt Crag	MP3235BF	Northumbrian Water Limited	Northumberland	Restricted – under development
04	Whittle Dene Northern	FP3936BD	Northumbrian Water Limited	Northumberland Gateshead	Restricted – under development
05	Whittle Dene Lower	FP3036BS	Northumbrian Water Limited	Northumberland Gateshead	Restricted – under development
06	Whittle Dene Great Southern	TP3138BJ	Northumbrian Water Limited	Northumberland	Restricted – under development
07	Hallington West	FP3835BV	Northumbrian Water Limited	Northumberland	Restricted – under development
08	Whittle Dene Western	FP3536BC	Northumbrian Water Limited	Northumberland Gateshead	Restricted – under development
09	Kielder	ZP3135BJ	Northumbrian Water Limited	Northumberland Gateshead, Newcastle, North and South Tyneside	Restricted – under development
10	Whittle Dene Great Northern	TP3638BK	Northumbrian Water Limited	Northumberland	Restricted – under development
11	Derwent	GP3335BG	Northumbrian Water Limited	Northumberland Durham, Gateshead, Newcastle, North and South Tyneside	Restricted – under development

Serial	Reservoir	Reservoir Indicator	Undertaker contact details	LA areas affected by downstream inundation	On Site Plan? Yes/No
12	Hallington East	FP3535BH	Northumbrian Water Limited	Northumberland	Restricted – under development
13	Airy Holme	YP3839BR	Northumbrian Water Limited	Northumberland Durham / Gateshead	Restricted – under development
14	Sweethope Lough (Great)	TP3238BP	Davenport	Northumberland	No
15	Alcan Ásh Lagoon	JP3033SW	Lynemouth Power Ltd.	Northumberland	Yes
16	Angerton Lake	KP3838BL	Angerton Gentlemen's Fishing Assoc.	Northumberland	No
17	Bakethin	QP3039BR	Northumbrian Water Limited	Northumberland	Restricted – under development
18	Bolam Lake	DP3936BA	Northumberland C. C.	Northumberland	No
19	Byerhope Reservoir	JP3334MR	Allendale	Northumberland	No
20	Coatenhill Reservoir	YP3134MX	Allendale	Northumberland	No
21	Debdon	MP3636BY	Lord Armstrong's Estate	Northumberland	No
22	Doxford Lake	TP3134BN	Runciman	Northumberland	No
23	Folly Lake	KP3238BE	Straker	Northumberland	No
24	Hallypike Lough	KP3638BQ	Allgood	Northumberland	No
25	Harnham	JP3034MZ	Buddist Monastery Trust Ltd.	Northumberland	No
26	Holburn Lake	ZP3337SQ	Ford and Etal Farms 1994	Northumberland	No

Serial	Reservoir	Reservoir Indicator	Undertaker contact details	LA areas affected by downstream inundation	On Site Plan? Yes/No
			Ltd.		
27	Langley Dam	KP3138BZ	Bates	Northumberland	No
28	Linnheads	KP3738BB	Davenport	Northumberland	No
29	Little Swinburne	TP3338BS	Northumbrian Water Limited	Northumberland	Restricted – under development
30	Nelly's Moss North	MP3436BW	National Trust	Northumberland	No
31	Nelly's Moss South	MP3236BZ	National Trust	Northumberland	No
32	Rayburn Lake	TP3038BD	Craigs	Northumberland	No
33	Rothley East Lake	TP3538BX	Bainbridge	Northumberland	No
34	Rothley Lake South	TP3938BN	National Trust	Northumberland	No
35	Sir Edward's Lake	TP3838BC	Trustees of Chollerford Estate	Northumberland	No
36	Sweethope Lough (Little)	TP3438BM	Davenport	Northumberland	No
37	Tumbleton Lake	MP3836BB	National Trust	Northumberland	No

Appendix B

RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Airy Holm Reservoir	Indicator Code	YP3839BR
Priority	Low	Grid Reference	404793
-			553841
		vithin Flooding Zone	
Airy Holm Farm -	- flows east		
Shotley Field Mil			
Road - Hammern			
Follows Shotleyf			
B6278 - Burnmill	Ford		
Burn House			
Shotley Hall			
B6278 – Burnhill	Bank		
A691 – Benfields			
		own and Crossed Swo	
		Meadows / Spa Drive	
		Dak River Holiday Ho	mes
Sewage Works -	East Law		
B6309 – Chare B	ank -		
Ebchester CoE F	Primary School / I	Mill Lane / Chesters D	rive /
Properties juncti	on of B6309 / A69	94 Ebchester	
Front Street / Vir	ndomora Road, E	bchester	
Vindomora Roma			
		iver View / Mill Race	
		ne Cres. /Mil Road / Ri	
		y Centre /Armonside	
		Tce. / Peartree Bunga	
		age Works / Derwente	cote Farm
Run off Haggder	ne Woods		
Rest Centre		Command and C	-
		Bronze – to be co	onfirmed
		Silver – Fire H.Q.	, West Hartford
		Gold - Police H.C	Q., Ponteland

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Alcan Ash	Indicator Code	JP3033SW
	Lagoon No.4		
Priority	Low Risk	Grid Ref:	430596
-			589665
Key Population	ns / Infrastructure wi	ithin Flooding Zone	
1) South Flow			
The Moor, New	biggin by the Sea a	nd adjacent streets	
Woodlea; East	Lea; Manor Drive; N	lanor View; Front S	treet;
Sea Crest Road	d; Home Croft		
Golf Course			
2) West Flow			
Alcan Power P			
Lynefield Hous	se		
Rest Centre		Command and C	• • • • • • • • • • • • • • • • • • •
		Bronze – to be c	onfirmed
		O'Lean Fire II O	West Heather
		Silver – Fire H.Q.	., west Hartford
		Cold Police U.	2 Pontoland
		Gold – Police H.	ي., Funteianu

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Angerton Lake	Indicator Code	KP3838BL
Priority	Low Risk	Grid Reference	407463 586794
	Infrastructure with	hin Flooding Zone	
No property ident			
	off B6343 - Scot's		
	urn through Meldo	n Park	
Road - Dyke Neu	k to Meldon		
Flow run off withi	n Burn before Mitf	ord	
Rest Centre		Command and Co	•
		Bronze – to be co	ontirmed
		Silver – Fire H.Q.	West Hartford
		Gold - Police H.C	., Ponteland

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Bakethin	Indicator Code	QP3039BR
Priority	Low Risk	Grid Reference	364342 591284
Key Population	s / Infrastructure v	within Flooding Zone	
Car park Leapli			
Run off contain	ned within Kielder		
Doot Contro		Command and C	antral Ontions
Rest Centre		Command and C Bronze – to be co	
		Bronze – to be co	Jiiiiinea
		Silver – Fire H.Q.	West Hartford
		Onver – rine m.w.	, HOST HAITIOIA
		Gold - Police H.C	Q Ponteland
		30.0 . 0301110	7-,
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Appendix B

RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Bolam Lake	Indicator Code	DP3936BA				
Priority	Low Risk	Grid Reference	408468 584805				
Key Populations / Infrastructure within Flooding Zone							
	ectly affected dowr						
Some minor roads	s may suffer floodi	ng downstream					
	nalton and Whitesid	de					
Road Howburn Br							
Road Shilvington	Bridge						
Road Bellasis Bri	dge						
Emptying to Blag	don Lake / Lake Wi	seman					
No critical infrasti	ructure identified a	t risk					
Rest Centre		Command and Co					
		Bronze – to be co	nfirmed				
		Silver – Fire H.Q.,	West Hartford				
		Gold - Police H.Q	., Ponteland				

Appendix B

RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Byerhope	Indicator Code	JP3334MR					
	Reservoir							
Priority	Low Risk	Grid Reference	385620					
			546198					
	Key Populations / Infrastructure within Flooding Zone							
		ng properties (Wes						
Road and propert	ies – parallel to an	d west of B6295 at	East Allen Dale					
Dirt Pot Outdoor I								
	properties to East a							
	dows and unclass	ified road north						
Byerhope Bridge	/ B6295							
Road - Huntwell								
		n Hope (west of B6						
		north to Spartylea						
Road - Rye Close								
		djoining River East	: Allen / Bridge					
Flow runs out in r	iver west of Allend	lale at Cupola						
Rest Centre		Command and Co						
		Bronze – to be co	nfirmed					
		Silver - Fire H.Q.,	West Hartford					
		Gold - Police H.C	., Ponteland					
								

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Catcleugh	Indicator Code	LP3335BC						
Priority	Low Risk	Grid Reference	374818 603110						
Key Populations /	Infrastructure wit	hin Flooding Zone	1						
A68 - south of Re	eservoir								
Properties - Byerness and sewage works / A68 south of Byerness									
Properties - Cotto	Properties - Cottonhopeburnfoot								
Properties - Blake	hopeburnhaugh								
Flow follows Rive	r Rede								
Bellshiel Bridge									
Properties - Bells	hiel / Burnfoot and	A68 south							
Properties - Burd	lhopecrag								
Woolaw (Quad Bi									
Brigantium Roma	n Remains (Roche	ester)							
	on opposite bank								
A68 Ellishaw Brid	ge / A696 south to	Otterburn							
A696 at Otterburn	- properties south	of A696 road							
Otterburn Mill									
Sewage Works, O	tterburn								
Brownchesters									
(flow north) A696	at Monkridge Brid	ge							
(flow south/west)									
Yellow House Far	m / West Woodbui	n Bridge / Cheery 1	Trees (Bastle)						
Roads, School ar	nd Post Office								
Risingham - Rom									
Low Leam and mi	nor road south Wo	oodburn to Bellingh	nam						
Hindhaugh / Rede	ehaugh								
Rede Bridge									
	dge / Road / Farm	and Hall							
Bridgeford									
Run off within Riv	ver Rede south of I	Bridgeford							
Rest Centre		Command and Co	ontrol Options						
		Bronze – to be co	•						
		Silver – Fire H.Q.,	West Hartford						
	Gold – Police H.Q., Ponteland								

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Coatenhill	Indicator Code	YP3134MX
	Reservoir		
Priority	Low Risk	Grid Reference	384570
			584208
		hin Flooding Zone	
Coatenhill Farm C			
Properties Corn F			
	Mill Bridge - north	1	
Road – south of S	Spartylea Bridge		
Corn Mill			
Flow follows Rive			
Road - Black Way			
	ies at Bridge End,		
	ng Haugh, Allenda	ile Town	
Catton Lea Haugh			
Flow runs out Cu	pola Banks / Bridg	е	
Deat Contro		0	antual Ontions
Rest Centre		Command and Co	•
		Bronze – to be co	ontirmea
		Cityon Fine U.O.	Meat Hertfand
		Silver – Fire H.Q.	, vvest Hartiord
		Cold Police II C	Dontolond
		Gold – Police H.C	k., Ponteiana

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Colt Crag / Little Swinburne	Indicator Code	MP3235BF TP3338BS	
Priority	Low Risk	Grid References	394069/578060 394447/577129	
Key Populations /	Infrastructure with	nin Flooding Zone		
		and into Little Swir	nburne Reservoir	
	Dry Burn south and			
	of Greta Swinburne			
Reavercrag / Grea				
Swinburn Castle				
Road - Chishill W	ay, south west of (Great Swinburne		
The Hermitage (S				
Barrasford Green	,			
Barrasford (East /	Acres inc School a	nd road to Barrasfo	ord to Edge Hill)	
Wester Hall / Hou				
A6079 Humshaug				
•	36320 & B6316 at C	hollerford Bridge		
Road - A6079 to \		<u> </u>		
Humshaugh				
Wayne Rigg Farm				
Dunkirk (A6079)				
	rge Hotel / Bridge a	ınd Road		
B6318				
B6320				
Waterside				
Roman Bridge - C	Cilvrnum Roman Fo	ort		
Low Brunton				
Walwick Grange /	Farm / road B6319			
Homer's lane				
Nether Warden				
Warden - Church	/ road to West Boa	nt		
	Tyn <mark>e - Bridge End /</mark>	West Boat / West	Wood (Hexham)	
and Paper Mill				
A69 Junction A60				
		k – inc land bound	ed by Rotary Way	
/ Alemouth Road / Haugh Lane and Eilangate				
Tyne Green Road / Chareway Lane / Garden Terrace / Burn Lane / Prior				
Terrace / Spittal Terrace inc Tesco's Store & Hexham and Northern Mart				
Industrial Estate Tyne Mills / Sewage Works				
Newcastle to Carlisle Rail line and Hexham Station				
Campact / Egger plant / Priestpopple (A6079) / Perth Head				
A69 East – Bank Foot				
Dilston Haughs Bridge / Styford Hall A695				
Hermitage / Bridg		4 4 51 11	RA'II	
Flow continues ea	ast in River Tyne ui	ntil run out at Ridin	g Mill	

Appendix B

RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Debdon	Indicator Code	MP3636BY					
m t t		0:10 (400404					
Priority	Low Risk	Grid Reference	406484					
Kan Danielatiana	lledes steers to establish	in Election Zene	602820					
Key Populations / Infrastructure within Flooding Zone B6341 flows into Tumbleton Lake and follows Debdon Burn								
		na follows Debaon	Burn					
Thrum Mill, Rothb	oury	- Oc						
Property off Will 18	ane - south of Rive	r Coquet						
	d towards Pauperh	augh						
Flow run out at B	rinkburn Priory							
Doot Contro		Command and Co	entral Ontions					
Rest Centre		Command and Co						
		Bronze – to be co	ntirmea					
		Cilver Fire II O	West Houtend					
	Silver – Fire H.Q., West Hartford							
		Cold Dallas II C	Domtolo::-I					
		Gold – Police H.C	., Ponteland					

Appendix B

RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Derwent	Indicator Code	GP3335BG
Priority	Low	Grid Reference	402763
			551420
Key Populations /	Infrastructure wit	hin Flooding Zone	
Derwent Bridge at	t B6278 – flow foll	ows River Derwent	
Redwell Hall Farm	1		
Eddy's Bridge and	d minor road		
Combfield House			
A68 Road and Bri		-	
Pemberton Road	 east from Allens 	ford	
Properties / Road		otley Grove	
A691 Benfieldside	-		
Shotley Hall / Sho	•		
Road B6278 junct			
		I / Cullers Avenue	/ The Crescent /
Riverside /Wood S	Street		
Properties north a			
		Street / Green Stree	t
A694 Front Street	•		
Shotley Bridge Cr	•		
Sewage Works Cr			
Bridge / Road Ebo		ds	
Vindamora Roma			
		er View / Mill Race	•
		ine Crescent / Mill I	
			nmunity Centre /
	•	•	/ Connolly Tce. /
Peartree Bungalows / Forge Lane / Peartree Farm / Sewage Works /			
Derwentcote Farm			
Armonside			
A694 Lintzford			
Lintzford Farm			
		The Dell / Linteford	
Riverside Way / Holmewood Drive /Orchard Road / Bowes Lion Close /			
Lintzford Gardens / Dipwood Way / Friarside Crescent / Dipwood Road			

Derwent Bridge B6314 Properties Warrens Haugh Sewage Works Derwent Walk Country Farm A694 Winlaton Mill and properties adjoining Axwell Park inc Axwell Park Road / Shibdon Way / Derwent Way / Dear Park Way / Lake Approach / Napier Way / Western Way **B6317 New Derwent Bridge / A694 Junction Shibdon Nature Reserve Blaydon Rugby Club Bates Lane / Farm Court / The Copse** Swallwell inc The Covers / Sands Road / The Pavilion / **Broadmeadows Close / Hexham Road** South Bank River Tyne all property north of A1/ A184 Metro Centre to Johnson St / Yetholm St. (Teams) Moving west along Tyne from Metro Centre area A1 Blaydon Bridge All property north of B6317 Shibdon Road inc Blaydon Haughs **Property north of B6317 Stella Road** Land north of railway line from B6317 Ryton **Industrial Estate and access Ryton Willas / Ryton Golf Course** Hagg Bank – property between Front Street and River Tyne **Industrial Estate, Castlefield Woods, Low Prudhoe** North Bank River Tyne from A1 Blaydon Bridge moving west All land south of A6085 Lemington Road inc Riverside Business Park **Newburn Haugh and Newburn Bridge** Newburn inc Station Road / Grange Road and streets off Azalea Way / **Barbells Way / Davison Street Newburn Leisure Centre** Keelman's Lodge **Keelman / Big Horn Brewery Blaney Row / Moor Court Property Station Road Close House Golf Course** George Stephenson's Birthplace Wylam Library / Falcon Tce. / Stephenson Tce. / Ingham Tce. /

Main Road / Wylam Garage / Ovingham Road

Flow West runs off in Tyne after Wylam

South bank River Tyne moving East

All Team Valley Trading Estate between Al and railway line and south to Lamersley inc Gateshead Hospital (part) / Aintree Gardens / Sandown Gardens and Armstrong St.

Follow Tyne east

Baltic Centre HMS Calliope

Land north of South Shore Road inc Friars Goose

Tyne Main Road

Felling Shore Wharf inc Green Lane / Tyne Street / Pelaw Fields / Jonadab Road / Station Road / Reay Street / Prince Consort Road / Ellison Street / Yorkwood

Docks Wagonway (Lever Arnold and Co.)

Windmill Way

D&J Motorcycle Training

The Approach / Rolling Mill Road

Carlew Road, Jarrow

Slake Road

Tyne Car Terminal / Jarrow Slake

Don Road / Church Bank / St. Paul's Church and Monastery

Jarrow Bridge

Bede Training Centre

A185 Straker St. / Swinburne St. / Jarrow Road

A194 Jarrow Road Western Approach

Car terminal Tyne Docks Jarrow

Temple Town / Devonshire Street / Barehirst St. / Greathead St. /

Mitre Place

Smith Street / Anson Close / Garwood St. / South Eldon St. /

The Captain's Row / Vernon Close / Cook Close / Drake Close

Elsdon Street / West Walpole Street

Land at West Holburn to river

Customs House / Mill Dam / Harton Quay / Broad Landing /

Captain's Wharf (Ballast Hill) / Long Row / Wapping Street

Flow East runs off into sea after this point

OFFICIAL			
North bank flow East from A1 Blaydon Bridge			
Land between A695 Scotswood Roa	ad and East to Newcastle Business		
Park			
William Armstrong Drive / Amethyst	Road / Hampshire Court / Monarch		
Road / Water Street / Dunn Street			
B6330 to Quayside (inc Environmen	t Agency Offices)		
Skinnerburn Lane			
B1600 Banks Close to Tyne Bridge (i	inc Copthorne Hotel)		
Sandhill / Quayside / Guild Hall / Law	/ Courts / Broad Green /		
Broad Chare			
Land between A186 (City Road) and	River		
Malmaison / Pitcher and Piano etc			
Ouseburn Quayside and flow up Ou	seburn between roads either side to		
railway line			
Properties between St Lawrence Roa	ad and River - east		
St Peter's Basin and The Ropery			
Windcomblee Road between Warves	and River		
Nelson Road / Rendle Road			
White Street			
Docks and Yards bordering River so	uth of Segendum		
Oceana Business Park, Davy Bank			
Point Pleasant - Riverside car Depot	<u>t</u>		
A187 - Hadrian Road, Point Pleasant			
Willington Gut / Western Road / Ro	pery Lane / Potter St. / Stephenson		
St. / Willington Quay			
A187 – Berwicke St./ Tyne View Tce.			
Sewage Works Howdon Staith			
Northumberland Dock Road / Hayho	le Road Whitehill Point		
Commissioner's Wharf inc Coble De	ne / New Quay / Clive St. / Liddell St.		
/Bell St. / Western Quay			
North Shields Fish Quay area inc Un	ion Road, Low Lights		
Flow East runs off into Sea after this point			
Rest Centre	Command and Control Options		
	Bronze – to be confirmed		

OFFICIAL 51

Silver – Fire H.Q., West Hartford

Gold - Police H.Q., Ponteland

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Doxford Lake	Indicator Code	TP3134BN		
Priority	Low Risk	Grid Reference	418591 624070		
	s / Infrastructure wit	thin Flooding Zone			
Road - south of	Burnhouses				
Fallodon Mill					
	rd Plantation (south				
	Coast - east of Alla				
	erties on south side	!			
B1340 - Bruntoi					
Flow follows Bro					
Flow runs ouit s	outh Tughall Mill				
Post Contro		Command and C	antral Ontions		
Rest Centre		Bronze – to be co			
		Bronze – to be co	mirmea		
		Silver – Fire H.Q.,	West Hartford		
		Sliver - Fire H.Q.	, west nattion		
	Gold – Police H.Q., Ponteland				
		Gold - Police n.c	c., Fulltelatiu		

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Folly Lake	Indicator Code	KP3238BE
Priority	Low	Grid Reference	380868 571354
Key Populations /	Infrastructure with	nin Flooding Zone	
Immediately south	h of and in Flood F	low of Halleypike L	ough
Follows Crook Bu			
No properties or i	nfrastructure affec	ted	
Doot Contro		Commond or d Or	netual Ontions
Rest Centre		Command and Co	
		profize – to be co	mirmea
		Silver – Fire H.Q.,	West Hartford
		Gold - Police H.Q	., Ponteland

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Fontburn	Indicator Code	KP3735BR		
	Reservoir				
Priority	Low Risk	Grid Reference	404979		
			593773		
Key Populations	/ Infrastructure w	ithin Flooding Zone			
		/ Combhill Bridge			
Flow follows Rive					
Coltpark (Caravai					
Nunnykirk Schoo					
Undesignated roa	ad – Flaggy Ford <i>i</i>	Netherwitton			
Newpark Wood					
Netherwitton - ro	ads and property	, 			
Longshaw's Mill					
Wood House					
Road at Stantonfe	ence				
Newton Mill					
Properties north					
Road Mitford / Ab					
		Morpeth Town Cent	re		
Flow runs out in I	River Wansbeck e	east of Morpeth			
Rest Centre		Command and C			
	Bronze – to be confirmed				
		Silver – Fire H.Q.	, West Hartford		
	Oald Dallas H.O. Brotsland				
Gold – Police H.Q., Ponteland					

Appendix B

RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Halleypike	Indicator Code	KP3735BQ	
	Lough			
Priority	Low Risk	Grid Reference	380770	
			571594	
	Infrastructure with	nin Flooding Zone		
Follows Crook Bu				
	n to Townhead and	unspecified settle	ment	
B6330				
South Townhead				
Chipchase Stroth	ers			
Nunwick Mill				
Run off in River N	orth Tyne at Simor	nburn		
Rest Centre		Command and Co	ontrol Ontions	
Vesi Cellife		Bronze – to be co	•	
		Divilze – to be co	iiiiiileu	
		Silver – Fire H.Q.	West Hartford	
		Silver - File H.Q.	, wcst Haitioiu	
		Gold – Police H.G) Ponteland	
		Solu – i Olice II.d	ki, i Olitelallu	

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Hallington East and West	Indicator Code	FP3535BH FP3835BV		
Priority	Low Risk	Grid Reference	397216/576123 396025/575884		
Key Populations /	Infrastructure witl	nin Flooding Zone	1		
1) East Flow					
Whiteside law					
Road – Hallington					
Flow follows Errin					
A68 - Bridge at Be					
A6079 – Cocklaw					
George Hotel, Cho					
	h Humshaugh and	adjacent roads			
B6318 / B6320 / A					
Chesters Roman					
B6319 - Walwick (Grange				
2) West Flow					
	operty adjacent B6	342			
Follows Coal Burn					
A6079 / A68 / B63	42 junction / north				
The Hermitage (S					
Barrasford Green		Carlo Para al a	_ 1		
		ties including scho	01		
Road - Barrasford					
Run off into River	North Tyne				
Rest Centre		Command and Co	ontrol Ontions		
Rest Centre		Bronze – to be co			
		DIVINZE - 10 DE CC	JIIII III CU		
		Silver – Fire H.Q.	, West Hartford		
	Gold – Police H.Q., Ponteland				

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Harnham	Indicator Code	JP3034MZ
Priority	Low Risk	Grid Reference	408104 580407
		within Flooding Zone	
Flow follows Rive	er Blyth		
Shortflatt Farm			
Minor Road - Blyt	h Bridge East		
Bridge - East Trev			
Ogle Dene House			
Road - Ogle Bridg			
Road - Shilvingto	n Bridge		
Flow runs out at I	Kirkley Hall / Th	ornyford Bridge	
Rest Centre		Command and C	ontrol Options
		Bronze – to be co	
		Silver - Fire H.Q.	, West Hartford
		Gold - Police H.C	Q., Ponteland

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Holburn Lake	Indicator Code	ZP3337SQ		
Priority	Low Risk	Grid Reference	404555 636523		
Key Populations	/ Infrastructure wi	thin Flooding Zone			
Flow follows Lig	htfoot Burn - west	/ south			
Holburn Bridge /					
Flow s into Hetto					
Holburn Mill / Bri					
Road - Hazellrig					
Hettonburn Bridg					
Flow run out afte	er Hettonburn Brid	ge into River Till			
Rest Centre		Command and C	ontrol Ontions		
103t Ochtic		Bronze – to be co			
		2.0.120 10 00 0	J		
		Silver – Fire H.Q.	West Hartford		
		5.1701 THOTHIQ.	, most martiona		
	Gold - Police H.Q., Ponteland				
		23.4 . 330	, . Jiitoiaiia		

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Kielder	Indicator Code	ZP3135BJ	
Priority	Low	Grid Reference	371126 587622	
Key Populations	/ Infrastructure wi	thin Flooding Zone	9	
Flow follows Rive	er North Tyne			
Yarrow (Shilling I	Pot Road)			
Hawkhope / Mous	seyhaugh (North F	laul Lane)		
Falstone (Blackco	ock Inn / Falstone	Barns)		
Stannersburn (Ph	neasant Inn)			
Ridge End / Smal	esmouth			
Stokoe				
Public Parking ar	ea north of Ridley	Stokoe		
Old Hall				
The Eals Lodge				
Holt / Greystead /	Bent House			
Rushend				
Flow north at this	point			
Bridge / Road at I	Redmire / Lanehea	ad		
Boughthill				
Flow run off at m	inor road west of	Greenhaugh		
Main Flow River	North Tyne from R	edmire Bridge		
Birks / Snabdaug	h / Tarset Castle a	nd Hall		
High Carriteth				
Newton				
Low Carriteth				
Charlton				
Hesleyside Mill				
Hesleyside				
The Riding, Bellingham				
The Shaws, Bellingham				
Riverside Hotel				
Bellingham – nearly all properties will be affected inc. Fire Station and				
Police Station				

NOTE Evacuation routes only North on B6320 and North West to Rawside / Rawfoot NOT B6320 South as road will be subject to flooding Brown Rigg Eals **Boat Farm** Redeswood **Bridgeford / Redesmouth** Flow north at Redesmouth on River Rede Rede Bridge Hindhaugh Little Ridsdale / West Woodburn (A68) **Yellow House Farm** East Woodburn / Townhead Flow runs out at this point Main Flow on River North Tyne from Redesmouth **Redesmouth House** Lea Hall The Green **Low Carry House** Kirkfield / Blindburn Kirkfield Bridge Wark - most properties affected - Evacuation routes West to Pasture House or East to Warkhaugh Bank NOT South as main route in flooding flow Warksbaugh Bridge Wark Haugh Glen Ridley Gardens Wood / Park End / Low Park End **Chipchase Mill Chipchase Strothers** Nunwick Mill / Burnmouth Cotages **Haughton Strother** River Mill Farm Barrasford inc East Acres / Dalla Bank Haughton Castle / Wester Hall A6079 south of Chollerton

Humshaugh inc Wyan Riggs Close / Wyan Riggs Farm / East Lead / Humshaugh C of E First School / Valley Court road south to Swallow George Hotel

Chollerford inc Beech Croft / Hadrian Court / George Hotel

B3620 / B6318 junction

Dunkirk

B6320 to junction with A6079 and properties adjoining

Waterside

Cilvrnum Roman Fort

Welbeck Grange / Farm

Homer's Lane

Nether Warden

Warden

Flow following River South Tyne

Bridge End / West Boat / Westwood / Newcastle to Carlisle Rail line

Paper Mill – flow runs out after this point

Flow following River North Tyne

A69 at Kingshaw Haugh

Acomb inc Howford Lane / Cross Bank / Orchard Avenue / Post Office / Redburn Crescent / Garden House Drive / A6079 to junction with A69

Hexham flow now follows River Tyne

The Hermitage

Carlisle to Newcastle Rail line

Tynedale Golf Club

Tyne Green Country Park

All properties between Haugh Lane / Rotary Way / west of A6079 and river inc. Spital Lane / Tyne Green Road / Burn Lane / Tyne Green / Tesco's / Garden Tce. / Chareway Lane / Hexham and Northern Marts

To east of A6079

Bridge End Industrial Estate inc SABBIC COMAH site / Sewage Works Tyne Mills Industrial Estate / A69 / Hallochard Road / Hexham Rail Station / Hallgate

Anick Road south of A69

Harwood Meadows

Land between A695 / A69 along River Tyne to Corbridge

Prior Thorns

Corbridge Roman Site / Cemetery / Spoutwell Lane

B6321 Corbridge Rail Station / Well bank / The Valley Sports Ground and properties adjoining inc Caravan Park

Styford Hall

Riding Mill inc Riding Close / Millfield Road / A695 / Wellington Inn / Mill Grange and adjoining streets and properties

Sewage works west of Styford Bridge

A695 Low Shilford

Bywell and Bywell Hall

Bywell Bridge / Stocksfield Hall

Stocksfield inc Mount View Tce. / Guessburn / Community Centre / Post Office / Rail Station / Brunwell Court / Hall Farm Close /

The Pastures / Stocksfield School

Merry Shield / Green Hill

Coal Lane to Alder Wood / The Alders

Ferry Landing

Ovingham inc Middle School / Ovingham Bridge / Castle Way / Burnside Close / Horsley Road / Nunnykirk Close / Castle View / Piper Road / Dene Close / Wheatfield Close / Welburn Close

Prudhoe inc Sewage Works / Station Road to junction with A695 and all property between Princess Way and River / Castle Lea / Industrial Estate / Dukes Way / Marquis Court Regent Drive to Hagg Bank

From Ovingham / Prudhoe Flood Flow from Kielder is same as Derwent see below

Axwell Park inc Axwell Park Road / Shibdon Way / Derwent Way / Dear Park Way / Lake Approach / Napier Way / Western Way

B6317 New Derwent Bridge / A694 Junction

Shibdon Nature Reserve

Blaydon Rugby Club

Bates Lane / Farm Court / The Copse

Swallwell inc The Covers / Sands Road / The Pavilion /

Broadmeadows Close / Hexham Road

South Bank River Tyne all property north of A1/ A184 Metro Centre to Johnson St / Yetholm St. (Teams)

Moving west along Tyne from Metro Centre area A1 Blaydon Bridge

All property north of B6317 Shibdon Road inc Blaydon Haughs

Property north of B6317 Stella Road

Land north of railway line from B6317 Ryton

Industrial Estate and access

Ryton Willas / Ryton Golf Course

Hagg Bank - property between Front Street and River Tyne

Industrial Estate, Castlefield Woods, Low Prudhoe

North Bank River Tyne from A1 Blaydon Bridge moving west

All land south of A6085 Lemington Road inc Riverside Business Park

Newburn Haugh and Newburn Bridge

Newburn inc Station Road / Grange Road and streets off Azalea Way / Barbells Way / Davison Street

Newburn Leisure Centre

Keelman's Lodge

Keelman / Big Horn Brewery

Blaney Row / Moor Court

Property Station Road

Close House Golf Course

George Stephenson's Birthplace

Wylam Library / Falcon Tce. / Stephenson Tce. / Ingham Tce. / Main Road / Wylam Garage / Ovingham Road

Flow West runs off in Tyne after Wylam

South bank River Tyne moving East

All Team Valley Trading Estate between Al and railway line and south to Lamersley inc Gateshead Hospital (part) / Aintree Gardens / Sandown Gardens and Armstrong St.

Follow Tyne east

Baltic Centre HMS Calliope

Land north of South Shore Road inc Friars Goose

Tyne Main Road

Felling Shore Wharf inc Green Lane / Tyne Street / Pelaw Fields / Jonadab Road / Station Road / Reay Street / Prince Consort Road / Ellison Street / Yorkwood

Docks Wagonway (Lever Arnold and Co.) Windmill Way **D&J Motorcycle Training** The Approach / Rolling Mill Road Carlew Road, Jarrow Slake Road Tyne Car Terminal / Jarrow Slake Don Road / Church Bank / St. Paul's Church and Monastery **Jarrow Bridge Bede Training Centre** A185 Straker St. / Swinburne St. / Jarrow Road A194 Jarrow Road Western Approach Car terminal Tyne Docks Jarrow Temple Town / Devonshire Street / Barehirst St. / Greathead St. / Mitre Place Smith Street / Anson Close / Garwood St. / South Eldon St. / The Captain's Row / Vernon Close / Cook Close / Drake Close **Elsdon Street / West Walpole Street** Land at West Holburn to river Customs House / Mill Dam / Harton Quay / Broad Landing / Captain's Wharf (Ballast Hill) / Long Row / Wapping Street Flow East runs off into sea after this point North bank flow East from A1 Blaydon Bridge Land between A695 Scotswood Road and East to Newcastle Business Park William Armstrong Drive / Amethyst Road / Hampshire Court / Monarch Road / Water Street / Dunn Street **B6330** to Quayside (inc Environment Agency Offices) **Skinnerburn Lane B1600 Banks Close to Tyne Bridge (inc Copthorne Hotel)** Sandhill / Quayside / Guild Hall / Law Courts / Broad Green / **Broad Chare** Land between A186 (City Road) and River Malmaison / Pitcher and Piano etc Ouseburn Quayside and flow up Ouseburn between roads either side

to railway line

Properties between St Lawrence Road and River - east			
St Peter's Basin and The Ropery			
Windcomblee Road between Warve	es and River		
Nelson Road / Rendle Road			
White Street			
Docks and Yards bordering River s	south of Segendum		
Oceana Business Park, Davy Bank			
Point Pleasant – Riverside car Dep	ot		
A187 - Hadrian Road, Point Pleasa	nt		
Willington Gut / Western Road / Ro	opery Lane / Potter St. / Stephenson		
St. / Willington Quay			
A187 – Berwicke St./ Tyne View To	e.		
Sewage Works Howdon Staith			
Northumberland Dock Road / Hayh	ole Road Whitehill Point		
Commissioner's Wharf inc Coble I	Dene / New Quay / Clive St. / Liddell		
St. /Bell St. / Western Quay			
North Shields Fish Quay area inc U	Inion Road, Low Lights		
Flow East runs off into Sea after th	is point		
Rest Centre	Command and Control Options		
	Bronze – to be confirmed		
	Silver – Fire H.Q., West Hartford		
Gold – Police H.Q., Ponteland			
1 1			

Appendix B

RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Langley Dam	Indicator Code	KP3138BZ			
Priority	Low Risk	Grid Reference	382534 560922			
	Infrastructure wit	hin Flooding Zone				
1) North Flow						
B6295 – Langley						
	orth / Castle farm /	Crook Hill				
A686 – Haydon Bı						
Properties south						
Geas Wood to Ty						
		o west of A686 Jun	ction			
Cemetery, Haydor						
		tis Road / Shaftoe S				
		Street / Anchor Ph	_			
		ol / Land Ends Roa				
		south-west of Hayd	on Briage			
Run off into River	i yne					
2) West Flow						
Nilston Rigg Farm	•					
A686 near junctio						
Garage on A686	ii witii bosos					
Flow run off along	n Rurn					
ow rail on along	<u>, – a </u>					
Rest Centre	Rest Centre Command and Control Options					
		Bronze – to be co	onfirmed			
		Silver – Fire H.Q.	, West Hartford			
Gold – Police H.Q., Ponteland						

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Linnheads	Indicator Code	KP3738BB
Priority	Low Risk	Grid Reference	393834 586325
Key Populations	/ Infrastructure w	thin Flooding Zone	
Linnheads Weir			
Flow follows List	es Burn		
	l Bridge / East Wo	odburn	
Some properties			
		es including school	and post office
A68 at Woodburr			
Road - West to E			
Yellow House Fa			
	t Woodburn Bridg	е	
Follows River Re			
Risingham (Habi	tancum) Roman F	ort	
	odburn to Low Le	am	
Flow runs out be	fore Hindhaugh		
		1	
Rest Centre		Command and C	•
		Bronze – to be co	onfirmed
			10.
		Silver – Fire H.Q.	, West Hartford
		Gold – Police H.C	Dontoland
		Gold – Police H.C	x., Ponteiana

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Nelly's Moss North and South	Indicator Code	MP3436BW MP3236BZ
Priority	Low Risk	Grid References	407985/602188 408205/601781
Key Populations /	Infrastructure with	in Flooding Zone	
Enters River Coqu			
B6344 – west of P			
Road south of Par	uperhaugh		
Flow run out at Br	rinkhurn Brion		
Flow full out at Di	IIIKDUIII FIIOIY		
Rest Centre		Command and Co	
		Bronze – to be co	ntirmed
		Cilver Fire II C	Most Houtered
		Silver – Fire H.Q.,	west Hartiora
		Gold – Police H.Q	Pontoland
		Gold - Police H.Q	., FUIILEIAIIU

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Rayburn Lake	Indicator Code	TP3038BD	
Deiovity	Low Risk	Grid Reference	411152	
Priority			593039	
	Infrastructure wit			
	y Burn into Todd E	Burn		
Road – west of So				
Road - north wes	t of Todburn			
Todburn Bridge				
Road – south of T	histleyhaugh			
Weldon Bridge				
Flow into and run	off in River Coque	et at Weldon Bridge	•	
Rest Centre		Command and Co	ontrol Options	
		Bronze – to be co	•	
		Silver – Fire H.Q.	, West Hartford	
		Gold – Police H.C	Q., Ponteland	

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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Rothley East	Indicator Code	TP3538BX
	Lake and South		TP3938BN
Priority	Low Risk	Grid Reference	405022
			590755
	Infrastructure with		
,	- follows Ewesley		
	ost properties and	roads	
Joins River Font			
Road - Shotly / No			
Road - Stantonfe			
Properties Newton			
Properties Mitford			
Road Mitford to M			
Properties Abbey			
	by Ground – Newm	inster	
Refer to Morpeth			
Run off in River W	/ansbeck		
ii) Flow South Lak			
Flows south towa	•		
	st of Rothley Cross	Roads	
Joins Delf Burn a	nd into Hart Burn		
Oakford Bridge			
Run off by Hartbu	rn Village		
Rest Centre		Command and Co	ontrol Ontions
Kesi Centre		Bronze – to be co	
		DIVINZE - 10 DE CO	IIIIIIIEU
		Silver – Fire H.Q.,	West Hartford
		Onver – File H.W.,	TTGSL HAILIUIU
		Gold - Police H.Q	Ponteland
		Join Foliacities	i, i Oiltolalla
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RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Sir Edward's	Indicator Code	TP3838BC	
	Lake			
	(Capheaton)			
Priority	Low Risk	Grid Reference	403494	
			580050	
		hin Flooding Zone		
Flow follows How	Burn			
A696 Edgehouse				
Road – north of C	Oxfoot to Sandyfo	rd		
Shortflatt Tower				
	ise (Bolam to Mide	dlepart)		
Road – East of W	hiteside Bridge			
Sewage Works -	Whiteside Bridge			
Road - Howdurn				
Road - North of C	gle to Roguery			
Ogle Bridge				
Flows in to River	Blyth			
Road - Shilvingto				
Road - Thornyfor	d Bridge (Kirkley	Hall/Blyth Law)		
Road - Bellasis B	ridge			
Flow run out in Ri	ver Blyth at Stann	ington Bridge / A1		
	<u> </u>			
Rest Centre		Command and Co	ontrol Options	
		Bronze – to be co	•	
		Silver - Fire H.Q.	West Hartford	
		Gold - Police H.C	., Ponteland	
			,	
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Appendix B

RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Sweethope	Indicator Code	TP3238BP
	Loughs (Great /		TP3438BM
	Little)		
Priority	Low Risk	Grid References	394654/582293
			395108/582140
	Infrastructure with	nin Flooding Zone	
A696 – Kirkwelpir			
	Wansbeck at Cornh	_	
	Walkmill Ford Roa	d	
Topley Wood Nati			
	n Hall to Old Deanh	am	
Road – Garden Ho			
Road - Middleton	Bridge		
Mill Greens			
	est and road) road		
	ark Corner (Dyke N	euk to Clay House)	
Rivergreen Mill			
Mitford East – Mil			
Road – Mitford to			
Highford Bridge, I			
Abbey Mills Farm			
	Abbeyfields School	S	
Rugby Ground, A			
	ntre - See relevant	Flood map(s)	
Sewage Works Mo			
Sheepwash Bridg			
Flow run off in Riv	ver Wansbeck		
		,	
Rest Centre		Command and Co	
		Bronze – to be co	nfirmed
		Silver - Fire H.Q.,	West Hartford
		Gold - Police H.Q	., Ponteland

Appendix B

RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Tumbleton Lake	Indicator Code	MP3836BB
Priority	Low Risk	Grid Reference	407260 602221
Key Populations /	Infrastructure with	nin Flooding Zone	
B6341			
Thrum Mill, Rothb	oury	_	
Property off Mill Is	ane - south of Rive	r Coquet	
B6344 – west of P			
Flow run out at B	rinkburn Priory		
Rest Centre		Command and Co	ontrol Options
		Bronze – to be co	
		Silver - Fire H.Q.	, West Hartford
		Gold - Police H.C)., Ponteland

Appendix B

RESERVOIR FLOODING INFORMATION SHEET

Reservoir	Whittle Dene	Indicator Code	FP3036BS	
	Lower / Western		FP3536BC	
	/ Northern /		FP3936BD	
	Great Northern /		TP3638BK	
	Great Southern		TP3138BJ	
Priority	Low Risk	Grid References	406915/567647	
			406511/567865	
			406564/567957	
			407302/567256	
			406546/568321	
	Infrastructure with	in Flooding Zone		
Water Works				
Flow follows Whit				
	m / Ruins of Tower			
Ovingham – signi	ficant no. of prope	ties affected inc. S	School	
Ovingham Sewag	e Works			
Low Prudhoe				
Flow into River Ty	/ne			
1) Flow West				
Tyne Riverside Co				
Newcastle / Carlis	sle rail line			
2) Flaw Foot				
2) Flow East Low Prudhoe Indu	ratrial Fatata			
The Hermitage	ustriai Estate			
	le rail / road infras	Lu a.1 u.a		
A695	sie raii / roau inirasi	ructure		
Tynewood				
Hagg Bank / Hagg	Rank Bridge			
Mill Wood and roa				
Stephenson's Cot				
Flow run out east				
1 low run out east or vryiain				
Rest Centre		Command and Co	ontrol Options	
		Bronze – to be co	•	
		Silver - Fire H.Q.,	West Hartford	
		,		
		Gold - Police H.Q	., Ponteland	
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PUBLIC COMMUNICATIONS STRATEGY- WARNING AND INFORMING THE PUBLIC

Public Awareness

In consideration of the Medium Risk posed by the scheduled Reservoirs in the Northumbria Local Resilience Forum area no advance leafleting will be undertaken in regard to the individual Reservoirs.

Northumberland County Council, as lead authority, has advertised the publication of the Reservoir Flood Maps by the Environment Agency in 2010 and information is available at

http://www.northumberland.gov.uk/default.aspx?page=9077

Public Warning

In the event that a breach of any scheduled reservoir is identified / threatened the following actions for alerting by all appropriate means the members of the community whose immediate safety is at risk will be considered and implemented as appropriate.

Some of the options for disseminating warnings are as follows:

- Local Authority / Police / multi-agency / Reservoir Undertaker door-to-door knocking with Evacuation Cards.
- use of Environment Agency loudhailer vehicles (where available and safe to do so).
- use of the Police helicopter's 'Skyshout' system.
- Local radio and /or TV bulletins.
- Environment Agency Flood Warning Service.
- Metro Centre Evacuation Plan.

Priority will be given to individuals or properties that may be vulnerable or have special needs.

Arrangements will also be made for critical infrastructure operators to be contacted promptly.

Informing and Advising the Public

To provide relevant and timely information about the nature of the emergency as it develops is essential. The media can play a crucial role in conveying to the public key messages about the emergency. Following the establishment of a multi-agency

TCG / SCG co-ordination of public information will be undertaken by the Police in accordance with the local emergency media protocol. The Police will liaise with the press officers from Northumbria LRF partner agencies to ensure a consistent message is communicated to the public. Each organisation will mobilise its emergency communications or public information arrangements to complement the activities of the Police.

Note: To operate Floodline effectively, the Environment Agency National Flood Risk Systems team need to be given the earliest possible warning of a potential incident. This will enable the content of Floodline (either via call centre staff or automated messages) to be accurate and effective, and will enable EA to ensure they have sufficient available resources to manage the demand. They will endeavour, if possible, to put a headline message on Floodline to provide an easily accessible portal for the latest information.

Further information to the public may also be provided through:

- Northumbria Emergency Information Line (NEIL)
- local alert systems; (Council / LRF Partner Websites)
- specific internet sites used for emergencies e.g. Northumbria LRF's Website
- any public information lines invoked for the event.

Priority will be given to individuals in communities who may have special or particular needs; and to operators of critical infrastructure.

Media

The media may attend in large numbers from an early stage of any reservoir emergency, arriving locally within hours, and seeking information probably before the emergency services co-ordinated response is operational.

They will attempt to get as close to the site as possible, in search of information and images. They will be equipped with up-to-date communications technology seeking information for immediate broadcast and to reporting deadlines. Most importantly, they are likely to provide the most effective and resilient method of quickly reaching large numbers of people.

In the event of a major potential or actual dam breach incident Northumbria Police will take the co-ordinating lead in the response to the media in its overall Public Information role.

Additionally, the Local Authority Communications Team will be required to agree a media strategy in relation to the incident. Refer to the Northumberland County Council ECAP Confidential telephone Directory or LA equivalent for media contact arrangements.

Appendix D

MAJOR INCIDENT IN YOUR AREA

EVACUATE YOUR PROPERTY NOW

EVACUATION CARD

Evacuation Area	
There is a concern that you and your pr	•
Make your way to	by foot/car
Do not drive (delet	e as appropriate)

If you need assistance please alert one of the Officials or Police Officers in the area.

Before leaving your home remember to:

Switch off gas, electricity and water at mains

Close and lock all windows and doors

Take any medication and medical equipment with you

Take your pets and some pet food

If a neighbour has particular needs, please inform one of the Officials or Police Officers

If you choose to go elsewhere, complete the details overleaf and hand this to one of the Police Officers in your area.

Remember to tune-in to the television or to local BBC Radio or other local radio station on

(insert frequency) FM & (insert frequency) AM to keep up-to-date on the situation.

ONLY COMPLETE THIS IF YOU ARE NOT GOING TO (insert reception centre details)
NAME:
ADDRESS:
POST CODE:
NUMBER OF PEOPLE IN HOUSEHOLD:
CONTACT NUMBER (Mobile Number If Available):
WHERE WILL YOU BE STAYING?:
POST CODE:
TEL. NO
THANK YOU FOR YOUR COOPERATION
IF YOU CHOOSE NOT TO LEAVE YOUR HOME
PLEASE READ AND SIGN THE STATEMENT BELOW –
I/we have been informed that I/we should evacuate my/our home/premises, due to a
reservoir emergency. I/we understand that if I/we choose to remain in my/our
home/premises, I/we do so at my/our own risk.
Signed

OFFICIAL	
OFFICIAL	79