

Water safety plan	<b>Emergency management plan</b>	
	<i>Checklist</i>	
<b>Information derived from:</b> <ul style="list-style-type: none"> <li>○ Feedback from water suppliers</li> <li>○ WHO Guidelines on drinking water quality.</li> </ul>	<b>Related tools:</b> <ul style="list-style-type: none"> <li>○ Incident response framework</li> </ul>	
<b>Important Notes to users:</b> <i>This document provides general guidance to support improved management of drinking water quality. It cannot however be definitive and users must ensure that they assess local factors and particularly take account of any national or regional legislative requirements before adoption. This may also require close collaboration with others. The priority to be given to implementing controls to manage identified risks to water quality will depend on a proper prioritisation process by each water supplier.</i>		
<b>Summary</b> Preparation of a well documented and up to date emergency management plan is an essential component of an effective incident response framework. The structure and content can only be determined by each water supply taking account of a wide range of different local factors. However this document provides a checklist of those items which need to be considered.		
<b>Detailed information</b>  <b><i>Roles and responsibilities</i></b> The plan needs to clearly define the roles and responsibilities of each person involved in the management of an emergency including an incident manager plus a range of other key support roles. The responsibility and procedure for initiating the establishment of a formal emergency team also needs to be documented.  <b><i>Process for mobilising resources</i></b> An emergency usually requires mobilisation of wide range of additional resources with the first few hours of the response being particularly important. The plan should thus define the method and timing of the mobilisation process. This should take into account the fact that during normal working hours, teams can be in place fairly quickly, but at night, weekends or during holidays it will take a lot longer to contact people and for them to make the journey to where they are required. Thus up to date callout arrangement and out of hours contact lists for key staff are important.  <b><i>Support and back up for all key staff</i></b> All staff involved in emergency management should be trained in their specific duties. This should include participation in exercises to test emergency procedures. If it is expected that an incident will last for more than 6-12 hours then planned staff rota and rest systems need to be established. As well as those staff involved in the emergency, it is important to ensure that there are also plans to maintain adequate staffing for vital ongoing routine operational activities.  <b><i>Emergency management centre</i></b> The emergency management team should ideally be established in a room which is specially identified and equipped for this purpose. This could include dedicated phones and other communication equipment, adequate working space and appropriate administrative support. Consideration also needs to be given to the potential need for other logistical support on a 24 hour basis including refreshment for team members, security and access to buildings and other practical issues. When not in use the room can be used for other purposes but it has to be understood that when an emergency incident is declared, the room and all the facilities are to be dedicated to the Incident Management Team immediately.		

### ***Access to records and plans***

The emergency management team will need to have easy access to relevant maps, records, plans, operating procedures and other relevant information. In particular information should be available on all the major assets, including layout drawings of the treatment works and pumping stations and plans of the trunk main pipelines and the distribution system. These may be held electronically or on paper. Similar information may need to be available at other operational centres dealing with the emergency. More detailed information can be produced during the emergency but if it starts during the night or at weekends the response time may be slow.

### ***Access to emergency equipment and spares***

Depending on the cause of the problem, it is likely that rapid access to a range of specialist emergency equipment and vital spare parts will be needed. Lists of such equipment should be drawn up, indicating whether it is; specifically held for emergencies only; used operationally; or borrowed or hired from other organisations

For each piece of equipment, details should be recorded of key facts such as: normal location, responsible officer, mobilisation time, method of transportation, training required by driver/operator, fuels and other items required to operate the equipment, details of all pipe and cable connections.

### ***Emergencies impacting public health***

For any emergency impacting, or potentially impacting, public health, even faster and more effective response will be required. Close liaison will need to be maintained with public health authorities and appropriate arrangements made to access their advice on such matters as risks and appropriate response to both microbiological and chemical contamination. Necessary measures to protect public health could include a range of responses depending on the situation. As far as possible emergency plans should include procedures for those that are most likely including for example notifying consumers of advice to boil water before use or temporary distribution of water via tankers or other means. Before issuing such advice the criteria for discontinuing the advice needs to be agreed with the health authorities. It must also be remembered that during emergencies affecting public health, additional monitoring programmes will need to be put in place and mechanisms established for rapid analysis, and dissemination of the results to all interested parties.

### ***Communication***

Effective internal and external communication procedures are a vital part of an emergency plan. A list of all organisations, officers and individuals who may have to be contacted during an incident should be kept up to date, and made available in the Incident Management Room. External communications will typically be required with municipal and regional authorities, regulatory authorities, health authorities, other utilities (e.g. power suppliers), the emergency services and the media.

During a major incident regular and effective communication with consumers is of vital importance. This might be proactive via TV or radio, to inform the public of the ongoing situation and advice on what they should do and reactive to deal with consumer enquiries. During such an incident the number of telephone calls or other contact from consumers will increase substantially. It is therefore important to organise an emergency consumer response system which has the ability to receive, handle and process the contents of the high number of calls that might be expected. The system design should allow for the transition from a normal to the emergency situation. Frequent briefing should be given to all the team members to ensure they are kept up to date on the changing situation.

### ***Incident logs***

It is of vital importance to maintain an incident log which records all key decisions taken, contacts made, information received and instructions issued and the time at which these occurred. Such information will be invaluable during any incident debrief.

**Stand down procedures**

Once an emergency has been dealt with it will be necessary to formally notify all the people and organisations involved directly in the incident, the press and consumers that it has ended. Where necessary appropriate instructions should be given on all the actions still to be taken and the timescales for this. There should be a clear process for a smooth transition from emergency management situation back to the organisation's normal management structures and procedures.

Once an incident has ended a full and detailed review of any incident should be carried immediately to identify any lessons learned and things that could be improved. Many organisations use an independent expert to carry out the review and make the results available to their customers to demonstrate open management.

**Reference for further detailed information:**

Further examples of emergency management plans may be found in case studies.

See also:

WHO guidelines on drinking water quality 3<sup>rd</sup> edition:

[http://www.who.int/water\\_sanitation\\_health/dwq/guidelines/en/index.html](http://www.who.int/water_sanitation_health/dwq/guidelines/en/index.html)

**Typical resources needed:**

The time to prepare emergency plans will depend very much on the size of the utility and complexity of the system. However it could be substantial and will need to be maintained and updated at regular intervals.

**Document creation:**

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