

**BS 8551:2015**



**BSI Standards Publication**

# **Provision and management of temporary water supplies and distribution networks (not including provisions for statutory emergencies) – Code of practice**

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### Summary of pages

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## Foreword

### Publishing information

This British Standard is published by BSI and came into effect on 30 September 2015. It was prepared by BSI Panel EH/3/-/1, *Panel for BS 8551*, under the authority of Technical Committee EH/3, *Water quality*. A list of organizations represented on this committee can be obtained on request to its secretary.

### Supersession

BS 8551:2015 supersedes BS 8551:2011, which is withdrawn.

### Information about this document

This is a full revision of the standard to keep it up to date.

This document is intended for application when there is a temporary loss of a piped water supply or where there is a limited or no piped water supply available that is not the responsibility of a water undertaker or licensed water supplier (e.g. burst of private supply pipe). It is also intended to be applicable to the provision of temporary water distribution systems for public events or construction sites.

### Use of this document

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

All personnel involved in the deployment and use of tankers, static tanks and bowzers (for drinking water purposes) are expected to hold the National Water Hygiene Card  
(see <https://www.eusr.co.uk/eusr/the-eusr-card/the-national-water-hygiene-card>)  
[viewed: 14 September 2015].

**Test laboratory accreditation.** Users of this British Standard are advised to consider the desirability of selecting test laboratories that are accredited to BS EN ISO/IEC 17025 by a national or international accreditation body.

A list of accredited laboratories is provided at [www.dwi.gov.uk](http://www.dwi.gov.uk)  
[viewed: 14 September 2015].

**WARNING.** This British Standard calls for the use of substances and/or procedures that can be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

### Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is "should".

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

The word "should" is used to express recommendations of this standard. The word "may" is used in the text to express permissibility, e.g. as an alternative to the primary recommendation of the Clause. The word "can" is used to express possibility, e.g. a consequence of an action or an event.

Notes and commentaries are provided throughout the text of this standard. Notes give references and additional information that are important but do not form part of the recommendations. Commentaries give background information.

### Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

#### **Compliance with a British Standard cannot confer immunity from legal obligations.**

In particular, attention is drawn to the following statutory regulations.

- Water Industry Act 1991 [1];
- The Water and Sewerage Services (Northern Ireland) Order 2006, as amended [2];
- The Water (Scotland) Act 1980, as amended [3];
- Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption [4];
- The “Water Quality Regulations”, which set out provisions for the quality of drinking water provided by a public water supplier (water undertaker):
  - The Water Supply (Water Quality) Regulations 2000, as amended, in England [5];
  - The Water Supply (Water Quality) Regulations 2010, as amended, in Wales [6];
  - The Water Supply (Water Quality) Regulations (Northern Ireland) 2007, as amended, in Northern Ireland [7];
  - The Public Supply Water Supplies (Scotland) Regulations 2014, in Scotland [8];
- The “Private Water Supplies Regulations”, which set out provisions for the quality of water from a private supply:
  - The Private Water Supplies Regulations 2009, as amended, in England [9];
  - The Private Water Supplies (Wales) Regulations 2010, as amended, in Wales [10];
  - The Private Water Supplies (Northern Ireland) Regulations 2009, as amended, in Northern Ireland [11];
  - The Private Water Supplies (Scotland) Regulations 2006, in Scotland [12];
- The “Water Fittings Regulations”, which set out provisions for plumbing systems in premises to which a supply of public mains water has been provided:
  - The Water Supply (Water Fittings) Regulations 1999, in England and Wales [13];
  - The Water Supply (Water Fittings) Regulations (Northern Ireland) 2009, in Northern Ireland [14];
  - The Water Supply (Water Fittings) (Scotland) Byelaws 2014, in Scotland [15];
- The Natural Mineral Water, Spring Water and Bottled Drinking Water (England) Regulations 2007, as amended [16];
- The Natural Mineral Water, Spring Water and Bottled Drinking Water (Wales) Regulations 2007, as amended [17];

- The Natural Mineral Water, Spring Water and Bottled Drinking Water (Northern Ireland) Regulations 2007, as amended [18];
- The Natural Mineral Water, Spring Water and Bottled Drinking Water (Scotland) Regulations 2007, as amended [19];
- The Workplace (Health, Safety and Welfare) Regulations 1992 [20];
- The Control of Substances Hazardous to Health Regulations 2002 (COSHH) [21];
- The Control of Substances Hazardous to Health Regulations (Northern Ireland) 2003 [22];
- The Health and Safety at Work etc. Act 1974, as amended [23].

*NOTE* Bottled water held in storage for emergency uses has to be suitable for supply under the same Regulations [5], [6], [7] and [8] as that which is supplied through the distribution network.



## 0 Introduction

The provision of safe, clean drinking water is essential to support public health and well-being.

Where there is a need to provide a temporary supply of water for domestic purposes <sup>1)</sup> (i.e. drinking, washing, cooking, central heating and sanitary purposes) this British Standard provides guidance which, if followed carefully, can help ensure the wholesomeness <sup>2)</sup> of the temporary water supply.

Temporary water supplies can be provided by various means, including:

- water delivered in bottles, containers, tankers, bowsers, static tanks; or
- piped supplies from a public main; or
- water delivered as above, but derived from a private source, such as boreholes, springs, wells and river abstraction schemes.

Water supplied by a licensed water undertaker needs to conform to the Water Quality Regulations [5], [6], [7] and [8]. Any water fitting supplied with water by a water undertaker has to conform to the Water Fittings Regulations [13], [14] and [15]. Water supplied by an alternative source, such as a private water supply, needs to conform to the Private Water Supply Regulations [9], [10], [11] and [12]. Water supplied via a stand-alone vessel or tanker is not covered by these Regulations. However, it is necessary that all installations, regardless of source, satisfy the provisions of the Water Fittings Regulations [13], [14] and [15].

This standard acknowledges the duty to ensure that temporary supplies are wholesome.

This standard gives guidance on the provision of an appropriate management system(s) for temporary water supplies capable (through documentation) of demonstrating to the water supplier and/or the local authority that all necessary procedural steps have been carried out.

Management systems assist in ensuring wholesomeness of the water supplied and demonstrate due diligence by the relevant people (for private supplies) or the water undertaker (for public supplies) in relation to Water and Health and Safety Law <sup>3)</sup> as it applies to temporary water supplies.

Guidance is also given on the preparation and use of temporary water transfer vessels which can be pre-prepared and stored ready for collection and deployment, either for stand-alone use or for connection to a temporary network.

In addition to the temporary supply of wholesome water, this standard covers methods of extraction of water from a wholesome supply and its subsequent transfer to the point of use.

<sup>1)</sup> As defined in the Water Industry Act 1991, as amended (for England and Wales) [1], and corresponding Acts in Scotland and Northern Ireland [2] and [3].

<sup>2)</sup> As defined in the Water Quality Regulations [5], [6], [7] and [8] or the Private Water Supplies Regulations [9], [10], [11] and [12] depending on where the water is sourced.

<sup>3)</sup> Those responsible for the provision of temporary supplies are subject to the requirements of the Health and Safety at Work etc. Act 1974 [23].

# 1 Scope

This British Standard gives recommendations and guidance for the provision and management of temporary water supplies and distribution networks to ensure the water supplied for domestic purposes is wholesome. It is applicable to situations when a permanent supply is insufficient, not available or not required, for example, at building sites and outdoor public events.

*NOTE The drinking water regulators, water undertakers and local authorities have in place collective arrangements for dealing with operational events, incidents and emergencies in relation to both public and private water supplies, and they ought always to be informed and/or consulted before a temporary water supply arrangement is put in place.*

The standard gives recommendations and guidance on procedures and documentation for:

- a) risk assessment and management;
- b) supplying, maintaining and cleaning vessels used to collect and transport wholesome water or function as temporary supply points;
- c) storage and quality control of bottled water stocks intended for temporary supply;
- d) connecting to a permanent distribution network for extraction purposes, avoiding contamination risks;
- e) installing temporary water storage vessels and temporary pipework for distribution networks serving temporary water draw-off points whilst avoiding contamination risks; and
- f) monitoring and sampling.

This British Standard is intended to provide guidance on good practice related to anticipated temporary water supplies and installation of temporary distribution networks, but its principles are applicable to contingency arrangements for water supply incidents and emergencies.

The British Standard also gives guidance on water supply hygiene and management practices which can involve staff training and/or operational procedures.

The British Standard relates to the supply of water that has already been treated to make it safe for drinking, and its provisions are intended to prevent contamination.

The British Standard is not applicable to:

- 1) the use and maintenance of large-bottle water dispensers, for example, the bottles often used in office water coolers/dispensers (although the management of stocks of water held for use in such devices is covered);
- 2) the dispensing of the water supplied from vessels which are managed outside a predefined management regime, such as:
  - i) personalized utensils (for example, sports water bottles or personal filters);
  - ii) personal portable containers designed for carrying water; and
  - iii) vending machines;
- 3) the supply of water for the flushing of toilets/urinals only; and
- 4) the extraction and treatment of raw water from springs, streams, wells, boreholes, lakes, rain or seawater as part of the provision of either a public or private water supply (regulated activity).

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 1710, *Specification for identification of pipelines and services*

BS 6920-1, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water – Part 1: Specification*

BS 6920-2, *Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water – Part 2: Methods of test*

BS 8550, *Guide for the auditing of water quality sampling*

BS EN 806 (all parts), *Specifications for installations inside buildings conveying water for human consumption*

BS EN 938, *Chemicals used for treatment of water intended for human consumption – Sodium chlorite*

BS ISO 5667-5, *Water quality – Sampling – Part 5: Guidance on sampling of drinking water from treatment works and piped distribution systems*

## 3 Terms and definitions

For the purposes of this British Standard, the following terms and definitions apply.

### 3.1 audit

systematic examination to determine whether activities and related results conform to planned arrangements and whether these arrangements are implemented effectively and are suitable for achieving the organization's policy and objectives

### 3.2 audit programme

set of one or more audits planned for a specific time frame and directed towards a specific purpose

[SOURCE: BS EN ISO 9000:2005, 3.9.2]

### 3.3 available chlorine

measure of the amount of chlorine available in chlorine based disinfection materials

### 3.4 best before date

advisory date before which the quality of the product is assured by the producer

*NOTE This is in contrast with a use-by date or best-by date which indicates that the product is no longer fit for use after a specified date.*

**3.5 biofilm**

structured community of microorganisms encapsulated within a self-developed polymeric matrix and adherent to a living or inert surface

*NOTE Environmental organisms adhere to the surfaces of all types of material and form an invisible film on the inner surfaces of pipes or fittings. In certain circumstances where conditions for microbial growth are optimal, such biofilms develop to form visible slimes, turbid water or unpleasant tastes and odours. In such situations organisms will be shed into the flowing water.*

**3.6 clean**

domestic standard of cleanliness, free from faecal matter, dirt or any other contaminating substance

**3.7 competent person**

person deemed to be capable, proficient or expert through training, knowledge and experience

**3.8 contact water**

water that is stored prior to super chlorination

**3.9 customer**

individual or organization that has contracted with a supplier to receive temporary water supply services

**3.10 deployment log**

record of the activities of transferring water into the storage vessel(s)

**3.11 disinfection**

process which removes or renders inactive pathogenic microorganisms or parasites

**3.12 distribution network**

permanent network of pipes (often called mains) that convey wholesome water from a public or private water supply treatment facility to a customer service connection or user draw-off point

**3.13 emergency supply**

immediate unplanned requirement for wholesome water via an alternative water supply method other than that arising from a civil emergency

*NOTE Section 208 (7) of the Water Industry Act 1991 [1] defines "civil emergency" as any natural disaster or other emergency which could:*

- a) disrupt water supplies or sewerage services; or*
- b) involve destruction of or damage to life or property.*

**3.14 filling log**

record of the activities of transferring water from the filling point into the transfer vessel(s)

*NOTE This records "local" journeys only, not those from the base to the filling point, and contains, for example, data, operator, times, water supply and supplier, water company, identity of transfer vessel, chlorine readings, volume and destination/use.*

**3.15 filling point**

chosen fixture providing access to the wholesome water supply to the person or organization providing the temporary water supply

- 3.16 operator**  
person qualified to prepare vessels, fill and transfer water into vessels, and connect temporary supplies to a temporary distribution network
- 3.17 prepared vessel**  
vessel prepared to ensure that it is clean and, when filled with wholesome water, does not become contaminated
- 3.18 residual free chlorine**  
amount of chlorine remaining after a given contact period under specified conditions of dose and time
- 3.19 responsible person**  
individual appointed as competent to carry out tasks, or arrange for others to carry out tasks, in relation to the temporary supply of water
- NOTE Such persons become "relevant persons" under the water legislation together with the organization or person appointing them.*
- 3.20 service pipe**  
permanent pipe connection from a public or private water supply main or pipe to a property or a communal user draw-off point
- 3.21 static temporary supply tank**  
stand-alone tank that is not connected by pipes to a public or private water supply main or pipe
- 3.22 storage vessel**  
temporary or permanent tank or reservoir which is constructed and maintained in a manner that after inspection has been determined as suitable for storing wholesome water
- NOTE Suitability includes the type of construction materials, the condition of the structure and the arrangements that safeguard against ingress of environmental matter, rain or surface water, insects, vermin, etc., and minimize the likelihood of deliberate or accidental contamination.*
- 3.23 tamper evident**  
process that makes unauthorized access to the protected object easily detected
- 3.24 temporary distribution system**  
non-permanent network that conveys wholesome water, including pipework, fittings and appliances, installed either above ground or *in situ*, but not those which comprise part of the permanent public or private water supply or the temporary storage tank or vessel which comprises the source of wholesome water for the temporary supply
- 3.25 temporary wholesome water supply**  
water deployed from stand-alone temporary vessels (including bottles) for public consumption where no other temporary water infrastructure is involved
- 3.26 total residual chlorine**  
sum of the combined chlorine and the residual free chlorine
- 3.27 testing facility**  
laboratory for testing water samples
- 3.28 total viable count (TVC)**  
estimate of number of bacteria in a sample
- NOTE Also known as aerobic plate count (APC) or heterotrophic plate count (HPC).*

**3.29 transfer vessel**

vessel for collecting water from a filling point, transporting water and decanting water into a static temporary supply tank, but which is not left on site and does not comprise part of the temporary water supply infrastructure

*NOTE 1 Transfer vessels can be either tankers or bowzers, and are usually transported by road on a flatbed truck or trailer.*

*NOTE 2 A transfer vessel would normally be used several times in one day.*

**3.30 water provider**

organization providing source water

**3.31 water supplier**

organization transporting and delivering water

**3.32 water technician**

competent installer of water supply networks, either mains or temporary distribution systems

*NOTE See Annex A for an explanation of competence.*

**3.33 water undertaker**

licensed water provider supplying a water supply via a public mains network

## 4 Water safety planning and risk management

### 4.1 General

To ensure the safety of a drinking water supply a comprehensive risk assessment and risk management approach should be followed that encompasses all steps in the water supply from catchment to consumers.

### 4.2 Roles and responsibilities

#### COMMENTARY ON 4.2

*Organizers are responsible for securing a wholesome and sufficient supply for any temporary installation. Possible water sources include a connection to the mains water supply, tankers, bowzers or bottled water which could derive from public or private water supplies.*

*A wholesome supply is defined in the Water Quality Regulations [5], [6], [7] and [8] and the Private Water Supplies Regulations [9], [10], [11] and [12], as one that does not contain any microorganism or parasite, or any substance at a concentration or value that would constitute a potential danger to human health. A sufficient supply is one which is adequate for normal domestic purposes, defined in section 218 of the Water Industry Act [1] as water used for drinking, washing, cooking, central heating and sanitary purposes.*

For connections to the public water supply, the water undertaker will already have risk-assessed the catchment, treatment and distribution elements of the supply under the current applicable water regulations. Therefore a temporary installation derived from a public water supply should be risk-assessed from the point of connection to the water main onwards, including any additional treatment, storage and distribution elements installed as part of the event.

*NOTE For a temporary installation originating from a private water supply (e.g. private borehole) the local authority is required to carry out a risk assessment of the catchment, treatment, storage and distribution elements of the supply.*

### 4.3 Components of a water safety plan (WSP)

To ensure that a supply is safe, the WSP should comprise, as a minimum, the following responsibilities of the organizers:

- a) a system assessment to identify potential hazards in each part of the supply system, the risk presented by those hazards and any control measures to control those risks;
- b) effective operational monitoring (see Clause 11) of an appropriate frequency and nature to identify any deterioration in the supply; and
- c) management and communication, including actions in the event of non-compliance with the standards, investigation protocols, remediation measures, reporting and communication.

### 4.4 Preparing a water safety plan

The WSP should be prepared in accordance with Figure 1.

*NOTE Guidance on water safety planning and risk assessment is available from:*

- WHO Guidelines for Drinking-water Quality [24], fourth edition, chapter 4;
- WHO Water safety plan: a field guide to improving drinking-water safety in small communities [25]; and
- DWI Guidance Note, A Brief Guide to Drinking Water Safety Plans [26].

### 4.5 Risk assessment

A risk assessment should be carried out in accordance with a) to d) and the measures recommended in e) to h) implemented, to ensure a wholesome and sufficient supply that conforms to the water industry legislation [1], [2] and [3]. Any organization commissioned to provide a temporary water supply should be competent. As well as ensuring it is operating in accordance with this British Standard, the employees of the organization should undergo the appropriate training in various aspects of water supply, in accordance with Annex A.

#### a) Securing a sufficient supply

The first stage in the risk assessment process should be to ensure that an adequate supply has been secured. Discussions about sufficient supply should take into account water required for the preparation of the site/event, e.g. flushing of fittings. If a connection to the public water supply is required organizers should contact the relevant water company at least 12 weeks prior to the event.

If water for the event is to be taken from an existing connection to the public water supply (e.g. a farm where additional pipes are used to supply marquees and catering units) the local water company should still be notified (see Commentary on 8.2) of the additional demand in the area.

*NOTE 1 As part of the connection process, the water undertaker will undertake a risk assessment.*

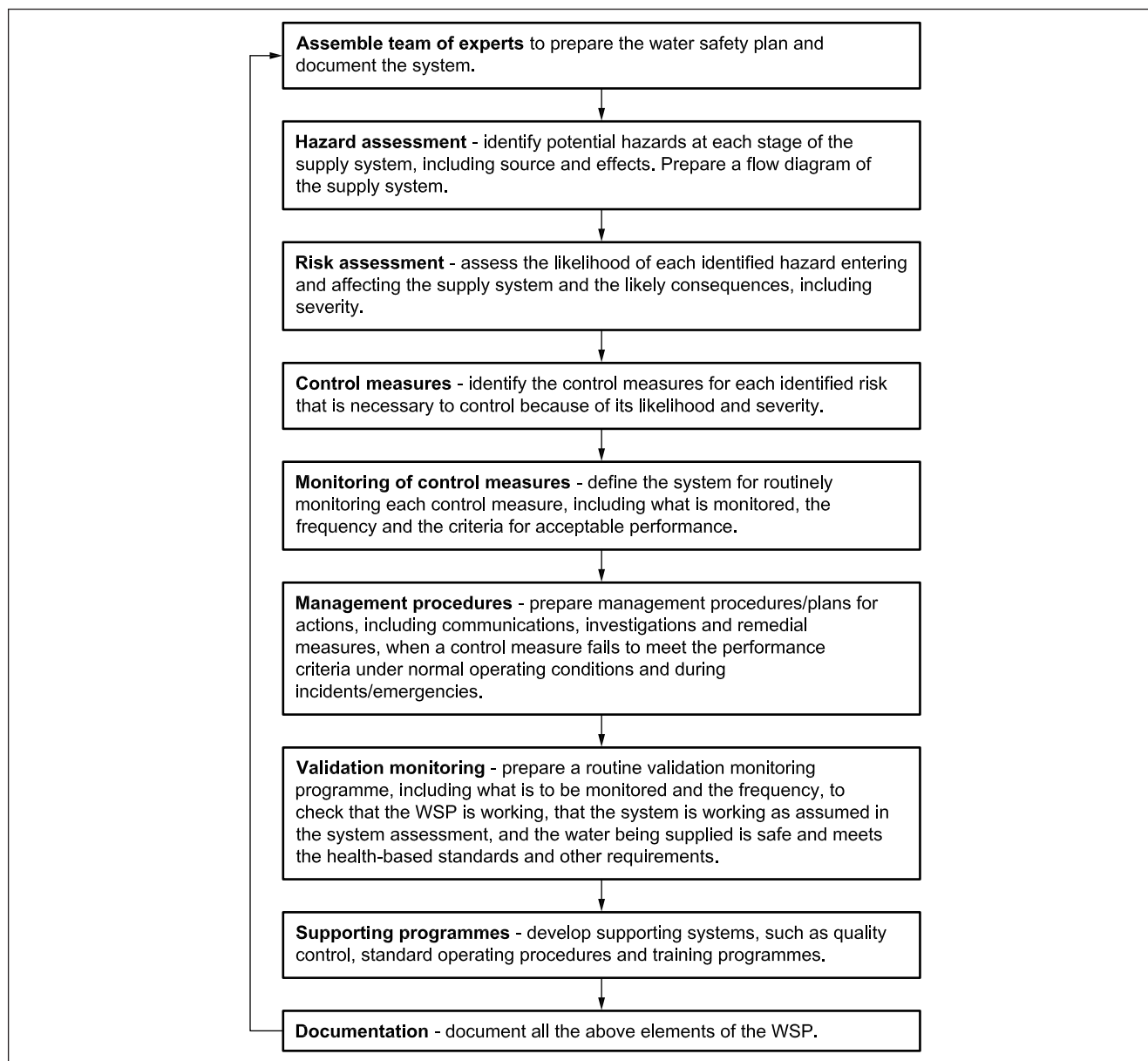
If the event is to be supplied via tankers or bowzers from a public water supply, permission should be obtained from the local water company (see Clause 7 on filling of vessels).

*NOTE 2 To ensure a sufficient supply, Annex B provides the typical flow demands in litres per day of various uses of the supply. Using information about intended use and population to be supplied the overall requirement in litres per day can be calculated.*

The WSP should set out the actions to be taken in the event of insufficiency of supply due to drought, mains fracture, sample failure, risk to public health, etc.

(see DWI Technical Guidance Note, *Provision of alternative supplies in emergency and non-emergency situations* [27]).

Figure 1 Preparing a water safety plan



#### b) Assessing the temporary supply

All relevant information should be gathered about the supply system, the distribution network, any storage facilities and its operational control, including:

- 1) storage tank design (capacity, number of units, position of inlets/outlets), material of construction and retention time;
- 2) a schematic of the supply;
- 3) protection from unauthorized human and animal access to service reservoirs, such as hatches, and from surface water ingress;
- 4) materials of the network;
- 5) normal range of pressures, flows, water age and retention time;
- 6) normal method of operation and permitted variations to suit demands for water;

- 7) condition of distribution network (upstream of any connection plus within the event location); and
- 8) location of monitoring and sampling points.

c) **Hazard identification**

The next step of the risk assessment should be the identification of the hazards that could arise during the distribution of water to consumers.

*NOTE 3 Some examples are given in Table 1.*

Table 1 **Possible hazards**

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**Source of hazard**

---

**Direct mains connection**

Sediment in the mains water  
Taste or odour in the mains water (descriptor and likely cause)  
Stagnant water (low flows, dead legs)  
Sufficiency of supply

**Mains water used to fill vessels**

Hoses – condition, storage, disinfection, labelling, approved material  
Filling points – location/hygiene

**Private supply (refer to local authority risk assessment for the supply)**

Vicinity of oil tanks/fuel stores, etc.  
Land use (exposure to faecal material/pesticides/heavy metals, etc.)  
Naturally occurring chemicals in ground water, e.g. arsenic and fluoride  
Faecal contamination from livestock, wild animals, etc.

**Storage**

Inappropriate vessels used  
Vessels inadequately disinfected, sampled or sealed  
Vessels constructed of unapproved materials  
Storage of fuel, oil, etc., adjacent to storage vessels  
Exposure to sunlight (algae, temperatures)  
Exposure to physical damage, e.g. vehicles  
Insufficient supply  
Vandalism  
Security arrangements  
Malicious activity  
Faecal contamination from septic tanks, sewers, portable toilets

**Distribution**

Faecal contamination from septic tanks, sewers, portable toilets  
Creation of disinfection by-products  
Stagnant water from dead legs  
Backflow from standpipes, catering units, etc.  
Damage of pipes by sunlight, vehicles, vermin, vandalism, etc.  
Storage of fuel, oil, etc., adjacent to pipes (migration of hydrocarbons)  
Cross-connection to other systems, e.g. rainwater harvesting, grey water, etc.  
Corrosion of pipes (iron, lead, copper)

---

**d) Assess risk**

The next step should be to assess the likelihood and severity of risk associated with each identified hazard and rank these risks in priority order.

**e) Control measures**

Following the risk assessment, the control measures necessary for the storage units or within the distribution network to reduce or eliminate the risk should be identified.

*NOTE 4 Examples include:*

- *operate the network in such a way that minimizes sudden changes in flow and practise routine flushing;*
- *maintain adequate network pressures;*
- *have written procedures for conducting repairs that include appropriate disinfection;*
- *maintain a residual disinfectant throughout the network (if possible) to reduce microbiological growth;*
- *document the status of all valves (open/closed);*
- *carry out a risk assessment before conducting any operation; and*
- *only use approved materials in the network.*

**f) Validation and monitoring of control measures (see Clause 11)**

Each control measure should be validated and monitored, through a plan for sampling and on-site checks, to determine whether it is working properly. Internal audits may be carried out to ensure procedures are being followed. Inspection of installations, the distribution network and regular inspection of the site in general should be scheduled and documented.

**g) Supporting programmes**

Appropriate supporting programmes should be implemented, such as:

- 1) training staff in water safety planning, procedures;
- 2) developing appropriate operational procedures; and
- 3) quality control procedures.

**h) Management procedures**

The WSP should define the actions to be taken in response to variations that occur during normal operating conditions, actions to be taken during incident situations, and procedures to be followed in unforeseen or emergency situations.

*NOTE 5 Where a critical limit is exceeded during operational monitoring this is often referred to as an "incident". This is any situation where the water being supplied for drinking or other domestic purposes has or might have become unsafe. Incident triggers include:*

- *non-compliance with monitoring criteria;*
- *spillage of hazardous substances into the water;*
- *failure of power supply to an essential control measure;*
- *unusual taste, odour or appearance of the water;*
- *disease outbreak; and*
- *detection of faecal indicator organisms.*

Incident response plans are likely to require the resources of organizations other than the organizer, e.g. public health agencies, so management procedures should include:

- 1) accountabilities and contact details of key personnel;
- 2) indicators/limits/triggers;
- 3) actions required in response to the alerts;
- 4) location of operating procedures and equipment;
- 5) checklists; and
- 6) criteria and mechanism to deliver advice (boil water, do not drink, do not use).

*NOTE 6 Incident response plans can have a range of alert levels, the most serious of which is an emergency.*

## 4.6 *Legionella*

### COMMENTARY ON 4.6

*Risk assessments are a health and safety at work requirement.*

**4.6.1** Where the water supply system could produce an aerosol (droplets) that might be inhaled, e.g. showers, pressure jetting and other spray or irrigation systems, then the water supply arrangements should prevent standing water, poor turnover or excessive storage, poor flow through the vessels, and silt or scale, as these conditions encourage the growth of *Legionella* organisms.

*NOTE 1 Poorly fitted vessel lids can allow organic matter to enter the vessels, which in turn will encourage bacterial growth.*

*NOTE 2 Following the recommendations of this code of practice contributes to reduction of the risk of legionella proliferation. See also BS 8580, HSE Approved Code of Practice and guidance L8 [28] and HSG274 Part 2 [29].*

**4.6.2** A *Legionella* risk assessment should be carried out following the installation of a temporary system, and regular monitoring of the installation maintained until decommissioning.

## 5 Medical assessment and water quality hygiene awareness training

All operational personnel involved in the provision of a water supply should be subject to scrutiny and training outlined in Annex A, and be competent to connect a supply.

## 6 Quality assurance documentation

**6.1** Because water might have been consumed before the results of testing active containers are known, a traceable audit trail should be maintained, demonstrating the application of good hygiene practice in the management and servicing of all related equipment and installation of the supply.

**6.2** Robust systems should be put in place to record and monitor test results of pre-cleaned vessels and stored bottled water. The water supplier should produce a hard or digital copy of a list of the quality checks that have been carried out on any temporary wholesome water supply to allow:

- a) an end-user to follow the tests that have been undertaken on that water and equipment during transportation from wholesome supply to point of use; and
- b) speedy audit by supervisors at any stage during the provision process.

**6.3** The results of microbiological tests should also be recorded when they become available during deployment.

**6.4** The operator should record data on site during the transfer process and whenever maintenance to vessels or equipment is carried out, including disinfection, as well as any action which might potentially affect water quality, such as replacement of connection couplings or pipes. The record forms should be designed to ensure that the operator can review the operational history of each vessel and item of equipment in order to trace the source of water supplied on any occasion to any site.

*NOTE For temporary supplies for public events the local authority requires a schematic drawing of the water supply arrangements as part of the risk assessment.*

## 7 Wholesome supply suitability

### 7.1 General

*NOTE 1 The supply of all water is subject to availability from the local public or private water supply company and local extraction licence agreements.*

Because the water company can restrict access to the public water supply, unless specifically authorized, the operator should seek clearance to draw water on every occasion, unless the licence granted by the water company is open for use in all areas within its area of supply.

*NOTE 2 Some water undertakers limit the size of hydrant standpipe to be used in order to prevent high-flow extraction and reduce the risks to the network to acceptable standards.*

### 7.2 Connection to source water

#### COMMENTARY ON 7.2

*As explained in 7.1, the operator requires a valid licence (under the Water Industry Act [1]) to draw off water from a public water distribution network, and this is notifiable under Regulation 5 of the Water Fittings Regulations [13], [14] and [15].*

**7.2.1** In the case of a regulated private supply the operator should obtain:

- a) evidence from the local authority that the supply is suitable; and
- b) the permission of the owner/manager.

**7.2.2** Equipment used for draw-off should be clean, disinfected and sealed (if stored before use) to avoid contamination of the water. Standpipes should have a permanently installed, double-check valve in line to prevent backflow. Only standpipes of a type approved by the water company should be used.

*NOTE The same principles regarding equipment also apply to private water supplies.*

**7.2.3** Only equipment conforming to the Water Fittings Regulations [13], [14] and [15] should be used to make the connections. The equipment should be