Water Health Partnership for Wales

Guidelines for the provision of temporary drinking water supplies at events

September 2019

The Water Health Partnership for Wales

This guidance document was produced by the Water Health Partnership for Wales which is a public health initiative that brings together relevant organisations and agencies to work together on public health and water related issues. A large number of organisations and agencies are involved in the Water Health Partnership for Wales, including:

- Welsh Government
- Health Boards
- Local Authorities
- Public Health Wales
- Consumer Council for Water Wales
- Drinking Water Inspectorate (DWI)
- Natural Resources Wales
- Water Companies:
  Dŵr Cymru Welsh Water, Severn Trent Water and Hafren Dyfrdwy
- Food Standards Agency

Contents

Who should use this Guidance?

This guidance document is intended to be used by organisers of temporary events such as an Eisteddfod, agricultural show or carnival to help them provide a safe and secure source of drinking water whether it is from a Water Company supply, a private supply or temporary tanks.

It applies to all licensed and unlicensed events even those that use the same water supply every time they are held. It is the responsibility of all event organisers to ensure that the water they supply is safe to drink. While some of the guidance in this document may not be relevant to small scale events, such as a village fete, there are general principles that any event organiser is advised to follow to make sure they supply safe drinking water.

A shortage of water or supplying water that is contaminated poses a serious public health risk that could close an event with organisers potentially facing:

- Additional, significant costs
- Prosecution
- A high risk of an outbreak of illness and civil action by those affected
- The loss of reputation and reluctance of the public to attend future events
- Adverse media coverage and publicity

Event organisers are encouraged to contact the Local Authority Environmental Health department and, if using the public supply, the Water Company, **as soon as possible** in the planning of an event. These organisations are key in helping organisers plan and deliver a safe and secure water supply to their event.

Images: bbc.co.uk | cardiffhalfmarathon.co.uk

Who is responsible for the water supplied to an event?

It is the organiser's responsibility to make sure that fittings and fixtures meet regulatory requirements[1] and ensure that the safety and security of the drinking water is maintained throughout the course of the event.

Local Authorities expect organisers to comply with British Standard BS8551:2015 Provision and management of temporary water supplies and distribution networks (not including provisions for statutory emergencies) – Code of Practice.

Events supplied from the public water supply

The Water Company is responsible for making sure the water at the point of connection is safe and wholesome and meets UK regulations[2]. The Water Company has the power to carry out inspections of the supply pipework and fittings within the site ensuring UK regulations[1] are met in order to prevent the contamination of both the public network and event water supply.

Under certain circumstances, the Local Authority is responsible for making sure the water is wholesome and safe when a public water supply is further distributed from a water company customer to a non-water company customer i.e. where regulation 8 of The Private Water Regulations 2016[3] apply. Organisers should contact the environmental health department of the Local Authority if they believe regulation 8 applies to the water they intend to supply.

Further guidance may be found on The Drinking Water Inspectorate's website found here:
www.dwi.gov.uk/private-water-supply/regs-guidance/Guidance/info-notes/Regulation%208.pdf

Events supplied from private and tanked water supplies

A private water supply means a supply of water other than a supply provided directly by a water company or water supply licensee. The Local Authority is responsible for carrying out a risk assessment and monitoring the drinking water supply at an event if it is a private water supply within the scope of The Private Water Supplies (Wales) Regulations[3].

A special type of private supply falls under Regulation 8 of this legislation, which covers a private supply where a public supply from a water company customer is further distributed to non-water company consumers on a secondary premises. Organisers should contact the environmental health department of the Local Authority if they believe regulation 8 applies to the water they intend to supply.

It may be necessary for Local Authorities to collaborate with the local water company to assist with their understanding of the supply arrangements of the temporary supply in order to establish whether it constitutes a regulation 8 private supply or not. Where a regulation 8 supply arrangement has been identified, Local Authorities and the water company will collaborate to ensure that the supply complies with the Water Fittings Regulations 1999.

1. Water Supply (Water Quality) Regulations 2018
2. Water Supply (Water Fittings) Regulations 1999
3. The Private Water Supplies Regulations (Wales) 2017, or The Private water Supplies (England) Regulations 2016

Stages to be followed to ensure a safe supply of drinking water

1a

Arranging a connection to the public water supply

For a new connection

If new connection to the public water supply is needed the Water Company must be contacted **at least 12 weeks in advance of the event**. In exceptional circumstances it is possible that a new connection may take longer to arrange so organisers are advised to contact the Water Company at the earliest opportunity. Contact details are provided in Box 4.

The Water Company will decide on the most suitable point in their distribution system for the connection. A charge will be made for this service and the supply will be metered.

For an existing connection

If the water supply for the event is to be taken from an existing connection then the relevant Water Company must have **at least 28 days' notice. However, event organisers are again encouraged to contact them at the earliest opportunity**. This notice is required as they may need to make changes to their system to provide for an increase in water demand to ensure the local residents' supply is not affected when the event is taking place, which organisers will find helpful. The contact details for obtaining a water supply from an existing connection can be found in Box 4.

The information that you will need to provide when you make this first contact includes:

- The ownership and details of the land being used
- If the existing water supply is supplied by a Water Company, details of the customer account holder.
- The size and type of supply needed
- The duration of the event and anticipated numbers attending the event
- An outline of the main facilities needing a water supply e.g. festival site and camping sites
- Contact details including telephone numbers and emails

Organisers must also contact the Environmental Health department at the relevant Local Authority to give them notice of the event – see Box 4 for where to find contact details.

1b

Use of Standpipes

Standpipes connected to Water Company owned pipework

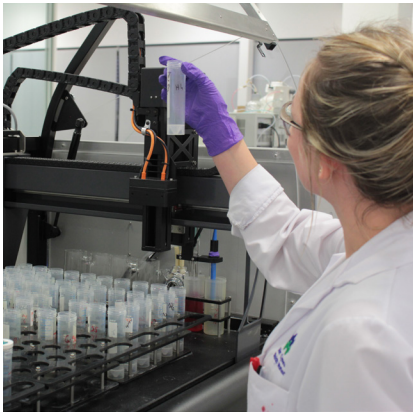
Standpipes connected to Dŵr Cymru owned pipework must be hired through Dŵr Cymru: **www.dwrcymru.com/en/My-Water/Standpipe-hire**

As Dŵr Cymru will need to sample the water from these standpipes before they can be used for the event it is important that organisers give at least 28 days' notice.

Hafren Dyfrdwy customers: **www.hdcymru.co.uk/businesses/pipes-and-drains/standpipes**

Standpipes connected to private networks

Where standpipes are to be connected to a private network i.e. pipework that is not owned by the water company, organisers are advised to disinfect and sample the water from the standpipes before the event starts.



2

Connecting to a private water supply

If the organisers intend to use a private water supply i.e. not from a Water Company or bring in tanked water it is important that as much notice as possible (minimum 28 days) is given to the Environmental Health department (or other responsible department as applicable) at the relevant Local Authority. This is required even if the supply is taken from an existing private supply connection.

The information that you will need to provide when you make this first contact includes:

- The ownership and details of the land being used
- If the existing water supply is supplied by a Water Company details of the customer account holder
- The relevant person/s under the Private Water Supplies (Wales) Regulations 2017
- The size and type of supply needed
- The duration of the event and anticipated numbers attending the event
- An outline of the main facilities needing a water supply e.g. festival site and camping sites
- Contact details including telephone numbers and emails

NB. See Box 4 for how to find contact details for the Local Authority

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Tank and bottle water supplies

A British Standard has been issued that provides guidance on providing a temporary supply of safe drinking water to events where a permanent supply is not available i.e. when tanks or other vessels or bottled water are used to provide water:

BS8551:2015 Provision and management of temporary water supplies and distribution networks (not including provisions for statutory emergencies) — Code of Practice available from **shop.bsigroup.com**

The organisers of events that will provide water through tanks or bottles are strongly recommended to obtain a copy of this standard to ensure they are meeting the necessary requirements given for supplying safe drinking water.

It is important to note that if tankers are used and proposed to be filled from a Water Company's public water supply:

- Permission **must** be obtained from the Water Company before the tanker is filled.
- **Only** standpipes hired from the Water Company's appointed agent can be used to connect to the potable water supply.

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Contact details

Dŵr Cymru Welsh Water

New connections to the public supply:

Phone: 0800 917 2652

Email: new.connections@dwrcymru.com

Water supplied from an existing connection:

Phone: 0800 052 0130

Visit: **dwrcymru.com/contactus**
Click on the Water Services and Emergencies tab

Hafren Dyfrdwy

Email: **water.regulations@hdcymru.co.uk**

Water Regulations Duty Desk: **01332 683 711**

Severn Trent

Email: **water.regulations@severntrent.co.uk**

Water Regulations Duty Desk: **01332 683 711**

Local Authorities

Contact details for each Local Authority are provided in telephone directories and on their website.

The Welsh Government website has links to each of the 22 Local Authorities:
www.gov.wales/find-your-local-authority

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Produce a site plan

In order to ease the process of providing a safe water supply, organisers may be asked by the Local Authority and Water Company to provide plans and drawings for the water supply at the event including but not limited to:

- The lay-out of the water supply pipes with the direction of flow
- The location and description of the source of water
- The location of:
  - — pumps (specifying their size)
  - — toilet, wash hand basins and showering facilities
  - — drinking water points
  - — water supply points for food preparation
  - — additional facilities e.g. animal troughs, garden hoses
  - — tankers or bowsers
  - — standpipes
  - — back flow devices/meters
  - — any other connections
  - — any treatment points e.g. for chlorine disinfection, de-chlorination and water testing / measurements
  - — proposed sampling / monitoring points these will need to be discussed with the Local Authority
  - — emergency infrastructure

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Setting up the water supply

- Once informed of the event, the Water Company can start their process for either connecting to a new supply or ensuring existing supply arrangements are suitable.
- The Water Company may also visit the site when organisers have the supply set up on site to do a water fittings inspection to check the water system and fittings comply with regulations[1] and will not contaminate the public water supply through e.g. backflow[2].
- **The Inspector will only authorise connection to the public water supply if they are satisfied the fittings and facilities comply with the regulations and do not pose a risk to the water supply. If the inspector finds any infringements, a formal notice will be issued to the event organiser to make the appropriate changes or in serious cases, the public supply may be disconnected immediately. Failure to make the necessary changes to meet the regulations will result in the event not having a water supply.**
- Organisers may find the Water Regulations Advisory Scheme (WRAS) guide to these regulations useful (www.wras.co.uk/Regulations_guide.htm).
- **There must be no direct cross connection between a public water supply and a private water supply or tanked water supply.** This is illegal and may result in the event being closed until the private/tank supply is disconnected and evidence is given to the water company that no contamination of the water supply has occurred.
- The preparation of the drinking water supply pipe work and facilities should only be undertaken by personnel with the appropriate training and certification. WaterSafe is a national accreditation scheme for plumbers with specific training in Water Fittings Regulations and Byelaws, protecting against poor installation or sub-standard plumbing products which could contaminate drinking water. To find a WaterSafe plumber visit www.watersafe.org.uk.
- Event organisers may be asked to provide evidence e.g. certificates to the Local Authority or Water Company to demonstrate that they or their contractor have the appropriate training.
- Pipework should not have been used for any other purpose than supplying drinking water. The pipework will need to be disinfected and thoroughly flushed before use and a Certificate of Disinfection will need to be provided to the Water Company. This should only be carried out by personnel or contractors with the appropriate training - the Water Company or Local Authority may ask to see the training certificates. Brand new, unused pipes may not need disinfecting but will require flushing before use.
- Every water fitting shall be of an appropriate quality and standard and be suitable for the circumstance in which it is used.
- **For public supplies the correct backflow prevention device at the point of connection to the mains must be in place before any disinfection or flushing goes ahead.** This will need to be inspected by the Water Company.

1. The Water Supply (Water Fittings) Regulations 1999
2. Backflow is where water flows in the wrong direction in or from a water fitting, it can cause contaminated water from an appliance e.g. toilet cistern or drain to enter the water supply pipework and emerge at a drinking water outlet. There must be no risk of contamination of drinking water on site by backflow from one water outlet to another and the water company public supply must be protected against backflow from the water in the event's supply network.

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Sampling

Sampling the water supply

The Water Company may take a sample for microbiological and chemical analysis at the nearest suitable sample point to the incoming supply. For private water supplies sampling may be done by the Local Authority for which there may be a charge.

It is recommended that once fixtures and fittings are in place and disinfected where necessary (see Box 6), organisers arrange for samples to be taken at various points in the system and be analysed by an accredited laboratory.

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Emergency plans

It is extremely important that event organisers consider how they will deal with a situation where the water supply is contaminated or where the supply fails. An emergency plan must be produced that documents how such circumstances are dealt with e.g. close the event or have contingency in place for emergency water supplies. If the latter approach is planned, organisers should document the logistics of receiving and distributing emergency supplies in their emergency plan e.g. if the plan is to use tankers then consider if the site is accessible. **Organisers cannot rely on emergency water supplies being provided for an event by the Local Authority or the Water Company.**

Organisers may be asked to submit their emergency plan to the Local Authority before the event takes place.

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Storing pipework and fittings between events

Where pipework and fittings are held by the event organisers to reuse at different events it is very important that they are stored and prepared to prevent the contamination of the water supply:

- When not in use, pipes and fittings should be drained and stored off the ground, to avoid entry of dirt or vermin. Plastic pipework and fittings should be stored out of sunlight as this can have a detrimental effect on the product.
- All pipes should have close-fitting end caps and these should remain in place until the pipe is connected.
- All pipes and fittings (and in particular plastic pipes) should be kept clear of fuel oils and paints and any materials so contaminated should be discarded. Fuel oils can penetrate plastic pipes and result in water having an unpalatable taste and odour.
- The pipework will need to be disinfected and thoroughly flushed before use and this should only be carried out by personnel or contractors with the appropriate training - the Water Company or Local Authority may ask to see the training certificates.

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Carry out a risk assessment

Organisers are strongly advised to carry out a risk assessment on the water supply arrangements for the event.

- The risk assessment involves looking at the whole of the water supply from the source through to tap(s) and other outlets to see if there are any possible circumstances or arrangements, both before and during the event that could pose a risk to the quality or supply of drinking water. If done properly, the information held in the risk assessment will help organisers deliver a swift response and recovery to any water related issues that may arise.
- The risk assessment needs to be documented and contain the following key information (see the example in Appendix 1):
  - A description of the potential risks at the site that could cause the water supply to be contaminated or interrupted.
  - The measures that are needed to control or prevent these risks.
  - How these risk control/prevention measures are to be checked or monitored.
- If there is an incident with the water supply it is recommended that a log is kept of the actions taken - an example action log form is given in Appendix 2.
- Event organisers should appoint a person to be responsible for producing and maintaining the risk assessment. This person should ensure that all relevant employees are made aware of the risk assessment and are trained appropriately to respond to incidents that could affect the safety or supply of the water.
- Event organisers may be asked to submit a copy of their risk assessment and action log to the Local Authority or Water Company before or during the event.

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During the event

- Officers from the Environmental Health department and the Water Company may carry out inspection/s and take samples during the event in line with the Private Water Supplies (Wales) Regulations 2017 and The Food Safety (General Food Hygiene) Regulations 1995.
- Organisers are advised to monitor chlorine residuals during the event at appropriate points. This will provide evidence that the supply is wholesome.
- Organisers are advised to carry out regular inspections of drinking water taps to make sure they remain in a hygienic condition throughout the event.
- Operational personnel involved in the supply of water should be appropriately trained including water quality hygiene awareness training. In common with food preparation and supply, personnel involved in water supply should be aware of the ongoing need to report certain illnesses e.g. vomiting and diarrhoea to management so that they are removed from tasks where they have direct contact with the water supply and drinking water facilities.

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More good practice recommendations

- Find out the location of any existing buried sewer, water pipes (buried or over ground) or electricity cables and mark them on your map.
  - — Are there any old mains water or private water supply pipes on the site and where are they?
  - — Are there any mains water or untreated private water supplies to gardens or farm animal troughs and where are they?

Make sure everyone involved in preparing the water supply are made aware of their location.

- Have you spoken to the Environmental Health department about your emergency plan and considered the access of emergency tankers or bowers to the site?
- Consider the location of power availability for operating pumps and water treatment systems if required.
- Consider the environmental conditions (indoors or outside) which could cause contamination during connection and operation. Include this as part of the risk assessment.
- Where water is allowed to stagnate there is a risk of contamination; to reduce the risk, ‘dead legs’ on the pipework should be identified and removed.
- Ensure that there is control and restriction of access to water storage by unauthorised people.
- Ensure there is access to and around the site for samplers, plumbers, auditors, etc.
- Consider where illegal connections are possible and ensure additional checks are in place to prevent contamination e.g. regular inspections of the site as the event is taking place.
- Consider the location of fuel or paint stores near water pipes and the use of bunding or barrier pipes if there are risks of spillage and contamination.
- If the event is to take place during warm weather over several days, consider where insulation could be best applied to prevent water temperatures rising.
- Label taps that are suitable drinking water points and disinfect before the event.
- Ensure mobile traders that have water tanks on their facility have disinfected the tank before it is used for water storage.
- Consider where pipes are laid, overland pipes should be made safe and secure and should avoid through routes for cars etc. or if this is not possible ensure they are protected from damage.

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Checklist and timeline for preparing for an event

Action	Timeline
Submit application for a water connection to either: a. The relevant Water Company and Environmental Health department at the Local Authority if to a public supply or b. The Environmental Health department at the relevant Local Authority if to a private water supply or both if a tankered water supply is to be used	**New connection** Minimum 12 weeks in advance **Existing connection** Minimum of 28 days in advance
If a public supply is used, **make fixtures and fittings available for a Water Company Water Regulations inspection**	As soon as available
Submit and discuss Risk Assessment and Emergency Plan with the Environmental Health department from the relevant Local Authority and the Water Company	Minimum of 14 days in advance
Disinfect and flush pipework and take any necessary samples to check water quality. Provide water company with a certificate of disinfection.	Maximum of 7 days in advance
Submit any microbiological results to the Water Company and the Environmental Health department	As soon as available Minimum of 5 days in advance
Flush all pipework to charge it with fresh water	Maximum of 1 day in advance

Appendix 1
Example of a risk assessment

Event Risk Assessment

Person responsible for risk assessment:
Date completed:

Risk	Measures to be taken to control/ manage risk	Monitoring of measures	Action if measures fail
Failure to supply water due to incoming mains failure or distribution pipe failure or contamination.	Develop an Emergency plan	Emergency Plan agreed by Local Authority Alternative sources of supply agreed	Consider closing the event
Contamination of water through cross connection between the incoming mains supply and a private water supply or an illegal connection.	– Private supply disconnected and 'locked' off. – Staff informed not to reconnect the private supply – Signage put in place	Regular checks made	Inform the Local Authority and water company immediately
Contamination of water supply from the water fittings and facilities e.g. through backflow	– Contact the water company to carry out a water fittings inspection before the event takes place. – Ensure access to and around the site for samplers, plumbers, auditors, etc	– Checks made of any new connections to the water supply. Contact the Water Company or Local Authority for advice. – Regular checks made of the condition of facilities connected to the supply	– Use site plans to establish which sections of the water supply pipework have been contaminated. – Do not allow the contaminated water to be used for drinking, washing or cooking purposes – Issue notices to all affected food and drink outlets and close affected drinking water taps and standpipes. – Contact the Local Authority for advice on how to deal with contamination of the water. – Contact the water company for advice on how to protect the public water supply – If contamination is widespread invoke the Emergency Plan for alternative supplies or closure of the event.

Risk	Measures to be taken to control/ manage risk	Monitoring of measures	Action if measures fail
Contamination of water supplied from damaged or contaminated taps, standpipes, etc.	– Maintenance of the hygienic standard of taps and standpipes. – Signage for users	Regular checks of taps and standpipes to ensure clean	Replace or repair and disinfect as required.
Contamination from waste pipes, waste storage tanks, septic tanks or latrines	– Make sure on waste facilities and disposal arrangements are separated from water pipes. – Protect waste pipes from damage and have procedures to prevent spillages during disposal of waste	– Regular visual checks of condition of water and waste facilities – Monitor the disposal of waste at the site	– Use site plans to establish which sections of the water supply pipework have been contaminated. – Do not allow the contaminated water to be used for drinking, washing or cooking purposes – Issue notices to all affected food and drink outlets and close affected drinking water taps and standpipes. – Contact the Local Authority for advice on how to deal with contamination of the water. – Contact the water company for advice on how to protect the public water supply – If contamination is widespread invoke the Emergency Plan for alternative supplies or closure of the event.
Contamination of water supply from stagnant water in existing pipes or contaminated water from damaged existing pipes on site	Check the condition of existing pipes Flush and pressure test existing pipes	Take chlorine measurements at various supply points in the distribution system and of the incoming supply. A large decrease in chlorine level between the incoming supply and supply points may indicate stagnant or contaminated water	– Flush and disinfect the pipework. Contact the water company for advice on disinfection procedures. – Take samples for microbiological analysis if significant contamination is suspected.
Failure to supply water due to a power failure	– Document security of power availability e.g. for operating pumps and water treatment systems. – Ensure staff on site are aware of who to report power failures to	Regular checks of water facilities reliant on power	Invoke the Emergency Plan for alternative supplies or closure of the event

Risk	Measures to be taken to control/ manage risk	Monitoring of measures	Action if measures fail
Contamination of the water supply through environmental conditions e.g. flooding	– Prevention of pipe connections being submerged in rainwater – Maintain integrity of pipes/ connections to include the supply pipe connected to the mains water pipe.	Regular checks of water facilities and site conditions	– Use site plans to establish which sections of the water supply pipework have been contaminated. – Do not allow the contaminated water to be used for drinking, washing or cooking purposes – Issue notices to all affected food and drink outlets and close affected drinking water taps and standpipes. – Contact the Local Authority for advice on how to deal with contamination of the water. – Contact the water company for advice on how to protect the public water supply – If contamination is widespread invoke the Emergency Plan for alternative supplies or closure of the event.
Deliberate/ accidental contamination of water supply by person(s)	– Describe how access to water storage by unauthorised people will be controlled – Restrict access through e.g. lockable covers on tanks.	Regular checks of water facilities and site conditions	– Use site plans to establish which sections of the water supply pipework have been contaminated. – Do not allow the contaminated water to be used for drinking, washing or cooking purposes – Issue notices to all affected food and drink outlets and close affected drinking water taps and standpipes. – Contact the Local Authority for advice on how to deal with contamination of the water. – Contact the water company for advice on how to protect the public water supply – If contamination is widespread invoke the Emergency Plan for alternative supplies or closure of the event.

Risk	Measures to be taken to control/ manage risk	Monitoring of measures	Action if measures fail
Contamination of the water supply with fuel	– Mark on plans the location of fuel or paint stores near water pipes. – Consider the use of bunding or barrier pipes if there are risks of spillage and contamination.	Regular checks of water facilities and site conditions	– Use site plans to establish which sections of the water supply pipework have been contaminated. – Do not allow the contaminated water to be used for drinking, washing or cooking purposes – Issue notices to all affected food and drink outlets and close affected drinking water taps and standpipes. – Contact the Local Authority for advice on how to deal with contamination of the water. – Contact the water company for advice on how to protect the public water supply – If contamination is widespread invoke the Emergency Plan for alternative supplies or closure of the event.
Warm temperature of the water could potentially make it unwholesome or in very cold temperatures there could be frost damaged pipes	– If the event is to take place during warm weather over several days, consider where insulation could be best applied to prevent water temperatures rising – If very cold weather, appropriate lagging will need to be applied.	Monitor site conditions	
Water for drinks or food preparation being taken from non- drinking water points	Labelling of taps i.e. those that are suitable drinking water points.	Monitor site activities	Train staff to be aware of unacceptable uses of water and how to report or intervene to prevent it

Risk	Measures to be taken to control/manage risk	Monitoring of measures	Action if measures fail
Contamination of water through entry of soil/small animals etc. through open ends of pipes	– Ensure arrangements are in place to store the open ends of pipes or hoses – they need to be appropriately stored above ground level and the pipework capped. – Potential entry points to tanks/bowsers to be secured with bags and tags to prevent contamination after installation and disinfection	Visual checks of pipe storage and tank condition arrangements before they are fitted.	– Do not use pipes that have been stored with open ends. – Check the interior of tanks or bowers and reject if there are signs of animal entry
Contamination risk from dirty or unsuitable bowsers or tanks or inadequately disinfected water	Ensure the contractor and supplier of bowsers/ tanks are compliant with BS 8551	Check : – records of disinfection of the water inside the tanks, – check tanks have only been used for water, – check taps covered and tagged, etc.	Reject tanks or bowsers that are non-compliant

Appendix 2: Example Action Log

Event Action Log

Number	The Issue	Action Taken (refer to risk assessment)	Responsible Officer	Date action taken	Date action completed	Signed