

# WaterAid UK

## Water Quality

### Policy



Programme Support Unit  
February 2019



WaterAid

# WaterAid UK Policy on Water Quality Assurance for WaterAid-funded Programmes

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<b>Version:</b> 2019 updates	<b>Author(s):</b> Vincent Casey, Senior Water Manager Ellen Greggio, Monitoring & Mapping Advisor
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This policy sets out the **minimum requirements for water quality assurance in WaterAid funded programmes**. It refers to water quality assurance at the time that facilities are handed over to local institutions and WaterAid's commitment to follow up testing on a sample basis. It does not make provision for day-to-day water quality assurance beyond the time that facilities are handed over to local institutions.<sup>1</sup> This is the responsibility of local institutions.

## Updates to the policy in February 2019 that have implications for Country Programme Water Quality policies:

- Addition of minimum standards on the frequency of follow-up water quality testing
- Stipulation that CP policies can be updated less frequently
- Limit applied to the length of Country Programme water quality testing policies
- Additional guidance on sampling methods for different water supply technologies
- Addition of recommendation to use mWater for water quality test result reporting and mWater Water Quality console for water quality data analysis and interpretation

This policy is **aimed at WaterAid Country Programmes involved in delivering new water services and rehabilitating existing water services**. It outlines exactly where WaterAid's responsibility and accountability for water quality exists and where it ends.

<sup>1</sup> Long term assurance of water quality at source and at household level is beyond WaterAid's control and is beyond the scope of this policy. It is recommended that WaterAid addresses long term water quality through high quality service delivery, promotion of water safety, sanitary surveillance, promotion of household water treatment and safe storage, hygiene behaviour change and support to national institutions with a water quality assurance mandate, including district local government.

WaterAid's vision is of a world where everyone has access to safe water and sanitation. Provision of safe water therefore forms a core component of our mandate. Furthermore, in order for WaterAid to effectively influence other actors in the WASH sector, holding governments and service providers to account, the quality of the service delivery we support must be exemplary.

In order to ensure that safe water is provided, WaterAid wishes to take a highly responsible approach to water quality assurance in the work it supports. WaterAid wishes to ensure that its partners do not put water sources<sup>2</sup> into operation that pose a significant health risk to service users or cause damage to WaterAid's reputation.

This policy should be used to inform the content of Country Programme Water Quality Policies together with:

1. WaterAid's Guidelines for Water Quality Testing
2. WaterAid's Water Security Framework

### **WaterAid UK's Water Quality Objectives**

The quality of drinking water delivered to service users by the new and rehabilitated water services that WaterAid funds should:

1. be of significantly better quality than that of existing unimproved sources
2. be such that no significant health risk arises from its use
3. wherever possible, conform to national or WHO standards<sup>3</sup>
4. be acceptable to service users in appearance, taste and odour

### **WaterAid's minimum commitments related to water quality assurance**

WaterAid recognises that in order to meet its water quality objectives, a consistent approach must be applied to problems of water quality in the countries where it operates. All of the responsibilities outlined below are mandatory and will be audited periodically.

All WaterAid UK Country Programmes must:

1. Have a **Country Programme Water Quality Policy** (not more than 20 pages long with additional supporting information displayed in annexes which may be

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<sup>2</sup> Water source: point at which water can be accessed. Improved sources include boreholes or dug wells capped with handpumps, protected springs, rainwater storage tanks, public or private tap stands or standpipes connected to reticulated networks

<sup>3</sup> See [www.who.int/water\\_sanitation\\_health/water-quality/guidelines/](http://www.who.int/water_sanitation_health/water-quality/guidelines/)

more than 20 pages), which adheres to the format set out in the organisational guidelines<sup>4</sup>.

2. **Review and update the country programme Water Quality Policy every five years** OR when national standards and legislation on water quality changes.
3. Ensure all implementing partners have a copy of the policy and understand its provisions.
4. Ensure that **all new and rehabilitated WaterAid financed water sources are tested for high risk contaminants** (as defined in each Country Programme Water Quality Policy and in line with requirements in Appendix 2) before putting them into public service. The aim of this routine activity is to ensure that we do not harm service users or our reputation by putting hazardous water sources into service.
5. Ensure that test results are followed up in accordance with country programme water quality policies.
6. Report test results internally as part of the six-month and annual reporting process. Share test results with government and other relevant institutions.
7. Carry out **follow-up testing** on a sample of previously constructed or rehabilitated water sources. The purpose of this is to understand the effectiveness of previous WASH work.

Follow-up testing should be carried out on annual basis. There is an opportunity to perform this as part of PIMS processes on years where these are being run.

Follow up testing should:

- a. Test a minimum of 30 water sources previously built or rehabilitated over the last 10 years
- b. Prioritise water sources that currently have or previously reported high risk contamination
8. If the water quality standards outlined in the Country Programme water quality policy are more lenient than national standards, Country Programmes will carry out a clearly documented risk assessment to understand the potential impact of the deviation and gain written agreement from the government to implement the deviation.
9. **Demonstrate best practice through our service delivery work.** WaterAid service delivery work should set a good example of how water quality can be assured at the point of collection through provision of safe sources, water safety planning and source protection, awareness raising, and improved sanitation.

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<sup>4</sup> In Document “Organisational Guidelines for water quality testing”

10. Ensure that all partners' water quality obligations are clearly outlined in signed partnership agreements and any contracts that partners sign with contractors
11. Ensure that water quality testing is clearly budgeted for in each Country Programme's budget and make financial and technical resources available to partners for implementation of the Country Programme water quality policy for WA funded work
12. Ensure that all partners or Country programme staff send samples to reputable laboratories or use robust field testing methodologies. If this is not possible, partners should highlight this to the CP who will need to investigate options. Drillers or other contractors should not be responsible for water quality testing as they have a strong interest in reporting positive non-representative results. Implementation of the policy should be part of drilling or construction supervision activities or arranged by partners independently. If this is not possible partners should highlight this to the CP who will need to investigate capacity building options.
13. Add water quality to their Country Programme risk registers, and rate it according to the local context in terms of being a threat to service users and a threat to WaterAid's reputation
14. Routinely monitor partner implementation of the Country Programme water quality policy
15. Analyse and interpret water quality tests results in a timely manner, compare to Country Programme's water quality policy standards to identify non-compliant water points to be followed-up on. To facilitate this, the use of the mWater WaterAid inventory: Water Quality survey is strongly recommended to report water quality testing results and the use of the mWater Water Quality Console for water quality data analysis and interpretation.
16. Document the results of water quality tests in the WaterAid intervention inventory dataset provided as part of the annual report or through the mWater Water Quality survey linked to WA inventory
17. Collate documentation of water quality test results on file in the Country Programme head office and hold these records in a secure and fully backed up environment
18. **Support and build capacity of local institutions and service providers to meet their obligations to ongoing water quality assurance and water quality testing** – for example by providing training for water quality testing or equipment for water quality testing.
19. WaterAid will undertake **advocacy** that promotes safe water for the poorest and most marginalised communities

## WaterAid UK will:

1. Maintain organisational guidelines on water quality assurance
2. Update the Water Quality Policy document every 5 years or when required due to organisation requirements or global water quality policy changes
3. Ensure alignment between Water Quality Policy requirements and PMER processes

## Water Quality testing responsibilities

This section outlines where WaterAid's responsibilities for water quality assurance exist and where they end.

### Responsibility for long term repeat water quality testing

WaterAid is responsible for testing all new and rehabilitated water sources before they are put in public service. WaterAid is also responsible for repeat testing a small sample of previously constructed water sources annually. WaterAid does not have an ongoing responsibility for routine water quality surveillance once implemented work and services is handed over to a third party. This is the responsibility of national and local institutions. WaterAid will try to support the necessary training required to protect water sources from contamination in the long term and may be involved in related capacity building to local institutions and service providers for regular monitoring.

### Roles and responsibilities for policy implementation

Control of this organisational Water Quality risk is not a “technical” issue to be delegated solely to technical staff, champions or focal points within the organisation. Improving access to safe water is central to the work WaterAid does and as such carries management responsibility at all levels of the organisation:

Role	Responsibility
Board of Trustees	<ul style="list-style-type: none"><li>• Ensure WaterAid is committed to its vision, which includes provision of safe water as a central component.</li><li>• Ensure water quality issues are prioritized as part of governance</li></ul>
Chief Executive	<ul style="list-style-type: none"><li>• Ensure that water quality assurance is an organizational priority and processes are implemented to minimize risk</li></ul>
Director of International Programmes	<ul style="list-style-type: none"><li>• Ensure that WaterAid has a policy on water quality assurance</li><li>• Ensure that organisational guidelines exist for development of CP Water Quality Policies</li><li>• Ensure arrangements are made for reporting of WQ results to regions and UK office</li><li>• Require regional teams and CPs to conform to this policy</li></ul>

Regional Director – can delegate to Regional Programme Managers but not Regional Technical Advisors who have no line management responsibility	<ul style="list-style-type: none"> <li>• Ensure all CPs have a water quality policy in place that is up to date and implemented within each CP in the region</li> <li>• Ensure CPs have adequately communicated WaterAid's water quality commitments to partners</li> <li>• Ensure CP water quality results are collated at the regional level as part of the annual report.</li> <li>• Require Country Programmes to conform to Country Programme water quality policies</li> <li>• Ensure Regional Technical Advisor provides an adequate level of policy implementation support to country programmes and has sufficient time in his/her workplan to carry out this activity</li> <li>• Ensure new CPs prepare a water quality policy and apply it in their countries</li> <li>• Check that all CPs have an induction protocol that includes this organizational policy as well as the CP water quality policy so that all new starters are aware of their responsibilities</li> </ul>
Regional Technical Advisors	<ul style="list-style-type: none"> <li>• Support CP staff to develop and implement the CP water quality policy</li> <li>• Monitor CP water quality policy implementation and ensure CPs adequately meet their water quality testing commitments</li> <li>• Ensure CP water quality data in the regional annual report is complete and presented accurately before the reports are submitted to UK</li> <li>• Provide analysis of the CP water quality data in the regional annual report outlining any issues and support needs</li> </ul>
Country Directors	<ul style="list-style-type: none"> <li>• Ensure that CP water quality policies are up to date and implemented by the HoP in the CP</li> <li>• Ensure water quality features on the CP risk register</li> <li>• Ensure that partners are aware that WaterAid requires them to comply with the CP water quality policy as a condition of receiving funding from WaterAid</li> <li>• Agreeing follow-up actions that should be taken if contamination is identified</li> <li>• Ensure that there is an induction protocol that includes this organizational policy as well as the CP policy so that all new starters are aware of their responsibilities</li> </ul>
Heads of Programme	<ol style="list-style-type: none"> <li>1. Ensure that all Programme Officers apply the CP water quality policy</li> <li>2. Ensure that all partners have an up to date copy of the water quality policy and are aware that they have to comply with it in order to continue to receive funding</li> <li>3. Ensure that the CP adequately budgets for water quality testing and submits this budget as part of annual budget planning</li> <li>4. Ensure that partnership agreements and contracts clearly stipulate partner and contractor obligations to CP WQ policy compliance</li> <li>5. Keep the policy up to date</li> <li>6. Periodically identifying the best methods for carrying out testing and reporting results to the CP office</li> </ol>

	<ul style="list-style-type: none"> <li>7. In instances where partner capacity to carry out water quality testing is weak, identifying other institutions to support testing such as national laboratories</li> <li>8. Report results to the Country Director and to the Region in the WQ reporting template used in the annual report (as per PMER procedures), ensuring it is correct before submission</li> <li>• Agree follow-up actions should contamination be identified</li> </ul>
Programme officers	<ul style="list-style-type: none"> <li>9. Ensuring that all partners implement the water quality policy as part of supervision of works</li> <li>10. Monitoring partner implementation of the water quality policy</li> <li>11. Collation of WQ results from partners and filling out the water quality result reporting template or mWater dedicated survey for annual report accurately</li> <li>12. Agreeing follow-up actions should contamination be identified</li> <li>13. In instances where partners or national laboratory staff cannot undertake water quality testing, carrying out testing</li> <li>14. Verifying that water quality testing carried out by partners or national laboratories is accurate through the performance of spot cross checks</li> </ul>
Partners	<ul style="list-style-type: none"> <li>• Implementing the CP Water Quality policy as part of supervision activities</li> <li>• Reporting results to WaterAid and filing the results in their office</li> <li>• Agreeing follow-up actions with WaterAid should contamination be identified</li> <li>• Building capacity of communities on water safety</li> <li>• Working with local and national governments to instil local government support to communities in relation to ongoing water safety</li> </ul>
Programme Support Unit  WASH Manager- Water	<ul style="list-style-type: none"> <li>• Keeping WaterAid's Organisational Water Quality Guidelines up to date</li> <li>• Keeping this policy up to date</li> <li>• Collating Regional water quality result templates at the organizational level (as per PMER procedures)</li> <li>• Evaluating WaterAid's work on water quality and providing a global analysis</li> </ul>
Internal Audit	<ul style="list-style-type: none"> <li>• Auditing compliance with CP water quality policies and this organizational policy</li> </ul>

### Policy reviewed by

Vincent Casey, Ellen Greggio

Programme Support Unit

February 2019

### Policy approved on 11<sup>th</sup> February 2019 by:

Olga Ghazaryan

Director of International Programmes

## Appendix 1. Water quality threats

WaterAid's [organisational water quality guidelines](#) outline three major types of contamination that affect the water security of poor and marginalised communities:

- **Microbiological contaminants**

Infectious diseases caused by pathogenic bacteria, viruses and parasites are the most dangerous and widespread health risk associated with drinking water. Microbiological contaminants originating from human and animal excreta that can contaminate water resources and has the capacity to rapidly cause illness and death. Unprotected surface and ground water supplies are all vulnerable to contamination with human and animal excreta. Microbiological contamination is thus an extremely high priority parameter that requires monitoring.

- **Inorganic hazardous contaminants**

Inorganic contaminants such as arsenic, fluoride and nitrate pose a significant danger to health if present at hazardous levels. Elevated concentrations of arsenic and fluoride can be harmful after prolonged consumption. These can be found naturally in regions with specific geology. Manganese and salinity in high concentration can also be categorised as health hazards. Specific inorganic contaminants pollutants from anthropogenic activities such as heavy metals, fertilisers and pesticides may also be a health hazard.

- **Nuisance contaminants**

Other inorganic contaminants exist that could be described as 'nuisance contaminants' in that, although they are not directly harmful to health at concentrations found in drinking water, they may impact on aesthetic considerations such as taste, odour and appearance, and cause people to abandon safe sources for unsafe ones. Common nuisance contaminants include iron and salinity. High water hardness can clog pipes and reduce the design life of water supply schemes.

## Appendix 2. Water quality sampling testing location and minimum parameters

The following table provide further guidance on the different locations for water quality testing sampling and minimum parameters to be tested according to the type of water supply infrastructure built extended or rehabilitated. This should be used to inform the detailed Country Programme Water Quality Policy.

Infrastructure type	Location of sampling	Minimum parameters to be tested
All water point sources (e.g. single handpumps or wells with no distribution network)	<ol style="list-style-type: none"> <li>1. All public / community or institutional water sources</li> <li>2. Minimum of 5% of household private supported point sources</li> </ol>	High risk contaminants as per country policy
New or rehabilitated entire water systems	<ol style="list-style-type: none"> <li>1. Test main water source to be exploited before it is converted into a productive water supply system</li> <li>2. All public and institutional tap stands of water systems (one tap per block only)</li> <li>3. Minimum of 5% of total private connections / household tap stands with minimum of 1 sample per system (select furthest away from source)</li> </ol>	Source: high risk and nuisance contaminants as per country policy  Tap stands: testing for microbiological contaminants
Extension of existing water systems	<ol style="list-style-type: none"> <li>1. Test initial point of connection for extension as source</li> <li>2. All public and institutional tap stands of extension (one tap per block only)</li> <li>3. Minimum of 5% of total private connections / household tap stands with minimum of 1 sample per system (select furthest away from source)</li> </ol>	High risk and nuisance contaminants as per country policy  Tap stands: only microbiological contaminants testing
Rainwater harvesting	<ul style="list-style-type: none"> <li>• Household: no testing required</li> <li>• Institutions: all to be tested</li> </ul>	Microbiological test only