

Spring source

I. GENERAL INFORMATION

A. Spring location and specification

(Record information on the spring location and specification. Add "N/A" where information is not applicable.)

Village/town	Community	District	Province	State		
Additional location information: (If using coordinates, state the type and unit e.g. national grid reference coordinates; GPS coordinates.)						
Year of spring construction		Approximate number of households served by this water supply: (Circle one of the options below.)				
		1-10	11-50	51-100	101-500	500+
Is the spring located in a flood zone?	Circle one of the options below			If Yes , details (e.g. typical flood frequency, duration, severity):		
	Unknown	No	Yes			

B. System functionality

(Circle **Yes** or **No** to indicate whether water is currently available from the spring. If **No**, provide details (e.g. faulty or missing component, no/limited water available etc.) and skip to Section II. Record key remedial actions in Section III that are needed to ensure the spring can provide water.)

Is water currently available from the spring?		If No , details (and skip to Section III):
Yes	No	

C. Weather conditions during the 48 hours prior to inspection

(Indicate the predominant temperature and precipitation conditions during the 48 hours prior to inspection by placing a circle around the options below. Where conditions have been changeable, more than one option may be circled. Additional information may be recorded in Section III.)

Temperature	<0° Celsius	0-15° Celsius	15-30° Celsius	>30° Celsius
Precipitation	Snow	Heavy rain	Rain	Dry

D. Water sample information

(Use the table below to record details of any water sample taken during the inspection. Include information for any parameters tested. Add "N/A" where information is not applicable. Additional parameters may be recorded in Section III.)

Sample taken?	Sampling location				Sample no. /code		Other sample information			
	No	Yes								
Parameter tested	<i>E. coli</i>		OR Thermotolerant (faecal) coliforms		Additional parameter		Additional parameter		Additional parameter	
	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS	RESULT	UNITS
Result and units										

E. Water treatment prior to abstraction/collection

(Answer the question by ticking [✓] the appropriate box and providing further information, where applicable.)

No treatment applied at the spring

Chlorine applied directly to the spring. If so, describe (e.g. chlorine dose, frequency):

Other. Describe (e.g. method, frequency):

Notes:

- If there are more spring sources in your community, or if other water sources are used by the community (e.g. wells, boreholes), carry out individual sanitary inspections for these sources as well using the relevant sanitary inspection forms.
- If users store water in the household, also carry out sanitary inspections using the form "Household practices".

II. SANITARY INSPECTION

IMPORTANT: Read the following notes before undertaking the sanitary inspection

1. Answer the questions by ticking (✓) the appropriate box. For guidance, refer to the numbered risk factors in the illustration below, which are linked to each question on the next page. Note: these are typical risk factors; consider what additional risk factors may be relevant in your local context. Refer also to the *Technical Fact Sheet* for information on the individual components of the spring.
2. If there is no risk present, or a question does not apply to the spring being inspected, tick the **NO** box.
3. If a risk is present, tick the **YES** box. For important situations that require attention, record the actions to be taken in the column provided. These notes can be used to develop a detailed improvement plan, outlining what will be done, by whom, by when and what resources are required. For guidance, refer to the *Management Advice Sheet*. Where possible, corrective actions should focus on addressing the most serious risks first. Consider low/no cost improvements that can be made immediately.



Sanitary inspection questions	NO	YES (risk)	What action is needed?	
Answer the following questions 1-11 for all types of spring structures				
1	<p>Is a protective wall or spring box structure missing or inadequate to prevent contaminants entering the spring?</p> <p>The absence of a protective structure, or the presence of a poorly maintained one (e.g. damaged, eroded or with deep cracks) may allow contaminants to enter the spring.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
2	<p>Is the outlet pipe unclean or inadequately positioned to prevent contaminants entering the spring?</p> <p>An unclean and/or poorly maintained outlet pipe may introduce contaminants into the spring water. If the outlet pipe is positioned too close to the ground, there is a risk of contaminants entering the spring via backflow of surface water or entry of vermin.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
3	<p>Is the backfill area eroded or prone to erosion due to the absence of vegetation?</p> <p>If the backfill area becomes eroded (e.g. due to the absence of vegetation), it may act as a direct pathway for contaminants to enter the shallower groundwater as it approaches the spring structure.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
4	<p>Is the drainage inadequate, which may result in stagnant water in the spring area?</p> <p>A missing, damaged or blocked drainage channel, and/or the absence of a downward slope for water to drain away from the spring structure, could result in ponding and stagnant water contaminating the spring area.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
5	<p>Is a storm water diversion ditch above the spring missing or inadequate to prevent contaminants entering the spring?</p> <p>If the diversion ditch is missing or inadequate (e.g. blocked or lacks sufficient capacity to divert heavy surface water flows), contaminated surface water may enter the spring area.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
6	<p>Is the fencing or barrier around the spring missing or inadequate to prevent animals entering the spring area?</p> <p>If the fencing or barrier around the spring is missing, broken, or poorly constructed (e.g. with wide gaps), animals could enter and damage or contaminate the spring area.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
7	<p>Is the fencing or barrier upstream of the spring missing or inadequate to prevent contaminants entering the spring?^a</p> <p>If the fencing or barrier upstream of the spring is missing, broken, or poorly constructed (e.g. with wide gaps), animals could enter and contaminate the shallower groundwater as it approaches the spring structure. Contaminating activities such as agriculture or open defecation could also be practiced in this area without the protection of a fence or barrier.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
8	<p>Is there sanitation infrastructure within 15 meters^b of the spring?</p> <p>Sanitation infrastructure (e.g. a latrine pit, septic tank or sewer line) close to groundwater supplies may affect water quality (e.g. by seepage or overflow and subsequent infiltration). You may need to visually check structures to see if they are sanitation-related, in addition to asking residents.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
9	<p>Is there sanitation infrastructure on higher ground within 30 meters^b of the spring?</p> <p>Groundwater may flow towards the spring from the direction of the sanitation infrastructure. Pollution on higher ground poses a risk, especially in the wet season, as faecal material and other pollutants may flow into the spring.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
10	<p>Can signs of other sources of pollution be seen within 15 meters^b of the spring (e.g. animals, rubbish, human settlement, open defecation, fuel storage)?</p> <p>Animal or human faeces on the ground close to the spring constitute a serious risk to water quality. Presence of other waste (e.g. household, agricultural, industrial etc.) also constitute a risk to water quality.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
11	<p>Is there any point of entry to the groundwater that is unprotected within 100 meters^b of the spring?</p> <p>Any point of entry to the groundwater aquifer that is unprotected (e.g. uncapped/open well or borehole) is a direct pathway for contaminants to enter the spring.</p>	<input type="checkbox"/>	<input type="checkbox"/>	

Sanitary inspection questions		NO	YES (risk)	What action is needed?
Where there is a spring box, also answer the following additional questions				
12	<p>Are there any visible signs of contaminants inside the spring box (e.g. animals and/or their waste, sediment accumulation)? The presence of animals or their wastes constitute a serious risk to water quality. Sediments may contain microbial pathogens and other contaminants (such as metals) that can be resuspended and impact the safety or acceptability of the spring water. (Note – if there is no inspection port, and an internal visual inspection of the spring box is not possible, record this in Section III.)</p>	<input type="checkbox"/>	<input type="checkbox"/>	
13	<p>If there is an inspection port, is the lid missing or inadequate to prevent contaminants entering the spring? A missing, unsealed or unlocked inspection port lid provides a potential route of entry for contaminants to the spring (e.g. via contaminated surface water, animals or vandalism). Such openings may also allow light to enter the spring box, which can result in algal growth within.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
14	<p>Is the overflow pipe inadequately designed to prevent contaminants entering the spring? If water from the overflow pipe falls from a height and erodes the ground beneath the pipe, the spring box structure may be undermined, providing a route of entry for contaminants into the shallower groundwater.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
15	<p>Is the overflow pipe inadequately covered to prevent contaminants entering the spring? If the overflow pipe is not covered with a screen (e.g. with a mesh or gauze), contaminants may enter the spring box (e.g. vermin).</p>	<input type="checkbox"/>	<input type="checkbox"/>	
16	<p>If there are air vents, are they inadequately designed or covered to prevent contaminants entering the spring box? If air vents are angled upwards, and/or are not covered with a screen, contaminants may enter the spring box.</p>	<input type="checkbox"/>	<input type="checkbox"/>	
<p>Total number of risks identified</p> <p>Where there is no spring box: /11</p> <p style="text-align: center;">OR</p> <p>Where there is a spring box: /16</p>				

- a. Adequate fencing or barrier implies that the upstream area is closed off to where the groundwater is at least 2 meters deep or 30 meters away from the eye of the spring. (General guidance only; refer to note b.)
- b. General guidance only. Depends on local factors including soil type and permeability, depth of the water table and the volume and concentration of contaminants. Refer to [Guidelines for drinking-water quality, 2nd edition: Volume 3 - Surveillance and control of community supplies](#) (WHO, 1997) for guidance on determining minimum safe distances for potentially contaminating activities.

