



How to use the Spring Tool



STEP 1: SITE OVERVIEW

(A) Before conducting the spring assessment using the spring tool, determine the following factors:

1. **Determine spring location** - where is it located (area and GPS co ordinates)
2. **Determine the type of spring** - Spring "types" are based on their characters and can be classified into the following types
3. **Determine surrounding land use** -land use refers to activities practiced on the earth's surface surrounding the spring
4. **Rock type of the area** - this includes knowing the parent rock and soil type in the area

Record this information in the fieldwork sheet.

STEP 2: IDENTIFYING IMPACTS

(B) To determine the health of the spring you are assessing, there are 10 potential impacts on Spring Health that the user must identify and rate:

- Livestock grazing
- Pollution near the spring
- Physico-chemical modification
- Changes in the flow of water
- Spring structure modification
- Vegetation removal
- Groundwater withdrawal
- Development and pathways
- Invasive Alien Species (IASs)
- Soil erosion

STEP 3: RATING IMPACTS

(C) The rating impact varies from 0 (no impact) to 25 (Critical impact) and is dependent on how much the spring changed, compared to what it would look like naturally, or before the impacts.

(D) Use the Spring tool Field sheet to record the ratings of each negative impact.

STEP 4: DETERMINING OF THE ECOLOGICAL CONDITION

(E) The impact ratings recorded are used to create a score that indicates the percentage of change that has occurred to the spring system from its natural (original) condition. The EC is calculated using this equation:

$$\text{Percentage} = (\text{total score} / \text{potential total}) * 100$$

The score then gives us an Ecological Condition (EC) that describes the condition of the system.



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STEP 1: SITE OVERVIEW



STEP 2: IDENTIFYING AND RATING IMPACTS

Rating	Percentage Change or Coverage	Description
0.0	0	No Impact
0.5	1-10	Minor Impact
1.0	11-20	
1.5	21-30	
2.0	31-40	Moderate impact
2.5	41-50	Large impact
3.0	51-60	
3.5	61-70	
4.0	71-80	Serious impact
4.5	81-90	Critical impact
5.0	91-100	

STEP 3: DETERMINING OF THE ECOLOGICAL CONDITION

Calculated percentage change	Ecological Condition
0-20	Natural
21-40	Good
41-60	Fair
61-80	Poor
81-100	Very Poor (Critical)