



BASIC PRINCIPLE OF SPRING DEVELOPMENT

THE FIRST PRINCIPLE IS TO KEEP THE SPRING FLOWING FREELY. AT ALL TIMES WATER FROM THE SPRING MUST BE ALLOWED TO FLOW FREELY AWAY FROM THE "EYE" OR SOURCE OF THE SPRING WITHOUT ANY OBSTRUCTION. THE WATER SHOULD NEVER DAM UP, AS THIS WILL CAUSE BACKPRESSURE ON THE SPRING, WHICH CAN LEAD TO THE GROUNDWATER FINDING AN EASIER ALTERNATIVE ROUTE AND THE SPRING WILL STOP FLOWING. THE WATER MUST FLOW FREELY EVEN UNDER MAXIMUM FLOW CONDITIONS, DURING CONSTRUCTION AND WHEN THE CONSTRUCTION IS COMPLETED.

THE SECOND PRINCIPLE IS PROTECT THE GROUNDWATER FROM SURFACE WATER CONTAMINATION. THE DESIGN AND CONSTRUCTION MUST ENSURE THAT SURFACE WATER CANNOT INFILTRATE THE SPRING WATER. THIS INVOLVES THE PROTECTION OF THE IMMEDIATE AREA OF THE SPRING WITH FENCING, EROSION CONTROL, ADEQUATE DRAINAGE OF SURFACE WATER AND CONTROL OF VEGETATION.

NOTES:

- EXACT SPRING LOCATION AND DETAILS OF SPRING EXCAVATION TO BE SPECIFIED BY ENGINEER
- ENGINEER TO INSPECT EXCAVATION BEFORE STARTING SPRING PROTECTION CONSTRUCTION
- ALL GRASS SODS EXCAVATED FOR SPRING AND CUT OF DRAIN OF BERM AND BEVELLED SPRING EXCAVATION SLOPES.
- EXCAVATE UNTIL ROCK OR IMPERMEABLE LAYER IS REACHED
- CUT OF DRAIN AND BERM TO BE SPECIFIED BY ENGINEER ON SITE
- LEVELS IN SPRING CAPTURE BOX THAT WATER DOES NOT POOL AND CREATE BACK PRESSURE.
- SPRING CAPTURE BOX TO BE FILLED WITH STONE, BASE LAYER IN LAYERS TO 30mm Ø STONE BELOW CRUSHED STONE LAYER

No.	Date	Description	By
Revision Details			

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PROUDLY SOUTH AFRICAN

Client: CSIR

Project: Mt Fletcher Springs Protection

Drawing Title: Spring Abstraction

Designed: N.Weyer	Scale: As Shown
Drawn: N.Weyer	Size: A2
Checked: L.Ketye	Date: April 2019
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FOR INFORMATION