

# Trouble Shooting for Water Bores

One problem often encountered with a bore is reduced supply. Other problems are dirty water, pumping of sand and deteriorating water quality. Whilst problems are often associated with the bore itself, this is not always the case. Before work is carried out on a bore you should first try to identify the cause of the problem. You can waste a lot of time and money on rehabilitation works which do not target the reason for the problem.

Broadly, problems encountered with bores fall into three categories:

- State of the resource
- Physical condition of the bore
- Condition of pumping equipment.

The table below lists a number of problems, possible causes, and checks and possible solutions to determine the most likely cause of your problem. Please contact your local groundwater consultant for further advice.

PROBLEM	POSSIBLE CAUSE	TEST	POSSIBLE SOLUTION
Supply reduced or failed completely	Pump blockage/ malfunction	Check power and pump operation	Repair/replace pump
	Water entry to bore partly or fully blocked—Physical encrustation	Measure standing water level and compare to when drilled, taking into account seasonal conditions	Redevelop/clean bore. Treat with chemicals
	Bore dewatered – CSG impacts	Measure standing water level and compare to when drilled, taking into account seasonal conditions	Contact CSG Hotline (13 71 07). Potential make good scenario.
	Bore collapsed	Measure bore depth	Decommission and replace bore
	Formation collapsed	Measure standing water level and compare to when drilled	Decommission and replace bore or clean out and re-case
	Water level low – seasonal conditions	Measure standing water level and compare to when drilled, taking into account seasonal conditions	Reduce pumping rate. Deepen the bore
	Water entry to bore restricted—Bacterial (Iron/ Manganese) blockage	Measure water level. Check discharge for deposits. (Generally iron is a red and manganese black algae looking material)	Redevelop/clean bore. Treat with chemicals.
	Interference with neighbouring bores	Observe effect on standing water level of while neighbouring bore is operating	Reduce pumping rate
Discoloured and / or bad smelling water	Clay or silt particles or organic matter entering bore	Check discharge for deposits (fine silty or sand material)	Inspect/redevelop bore.
	Potential contamination source e.g. septic, dead animals	Water analysis	Relocate bore. Seal surface casing. Remove source of contamination
Pumping sand	Hole in casing or screen	Measure bore depth	Inspect, reline or replace bore
	Incorrect screen or slot size	Measure bore depth. Check discharge water	Redevelop bore. Replace screen/slots
	Pumping sand through incorrect screen/slot size	Check drilling log. Check discharge water. Measure bore depth	Redevelop bore. Replace screen/slots