

	Possible causes:	What to check for:	How to correct:
Static Water Level (max) same Pumping Water Level (min) same Specific Yield (max-min)/Q same	Pump and/or water system	Low pump production in spite of normal water level in well. <u>Leak in system; worn pump impeller.</u> (5)	Have a <u>licensed drilling contractor/pump specialist</u> or plumber check the pump and water system.
Static Water Level (max) lower Pumping Water Level (min) lower Specific Yield (max-min)/Q same	Aquifer depletion - rate of withdrawal exceeds rate of recharge - periods of drought can temporarily deplete shallow groundwater zones	Compare current non-pumping static water level with the level at the time of well construction. A lower level confirms aquifer depletion. <u>Contact prov. gov't groundwater agency to see if water levels are declining.</u>	Reduce the water use. <u>Install cistern to meet peak water requirements.</u> Drill a deeper well or one that taps into another aquifer.
	Neighboring well interference.	Check for significant drop in water levels in nearby wells. <u>Contact prov. gov't groundwater agency to determine if groundwater use in the area has increased.</u>	Identify other nearby wells located in the same aquifer. Reduce pumping rates as required.
Static Water Level (max) same Pumping Water Level (min) lower Specific Yield (max-min)/Q lower	<u>Biofilm</u> buildup in well casing, well screen or pump intake.	Slime buildup on household plumbing fixtures and livestock waterier. <u>Inspect pump and use down-hole camera to check for slime build-up.</u> (1)	<u>Shock chlorinate</u> the well and water system as required—usually once or twice a year. See Module 6 "Shock Chlorination—Well Maintenance."(2)(3)(6)
	Mineral scale (incrustation) buildup on perforated well casing, well or pump screen.	Scale formation on plumbing fixtures and livestock waterier. <u>Inspect pump. Use down-hole video camera to check for mineral build-up. Calculate the Ryznar Stability Index to determine the water's incrusting potential.</u>	<u>Once the type of mineral scale has been identified, the well should be cleaned by a licensed water well treatment specialist. Treatment could include both physical agitation and chemical/acid treatment.</u> (3)(4)
	Sediment plugging on outside of perforated casing or screen.	Sediment in water, followed by sudden decline in yield.	Have a <u>licensed drilling contractor</u> redevelop the well.(4)
	Collapse of well casing or borehole due to age of well.	Compare current depth of well with original records. A collapsed well will show a shallower depth than the original well.	Recondition the well. If repair is not economical, plug the well and <u>redrill</u> . See Module 9 "Plugging Abandoned Wells" for more information on plugging a well.(4)