

INFORMATION NOTICE • AGUA CALIENTE PARK

Why is the pond level dropping?

The spring flow, which historically supported the pond, has dropped significantly. Flows from the spring drop significantly most years in the summer. However, over the past decade the flows have continuously trended downward as can be seen in the flow graph shown in the lower left corner.

Reading history:	11/21/00	106 gpm	9/28/09	6.5 gpm
	6/09/03	13 gpm	6/15/11	1.5 gpm
	7/26/06	1.5 gpm	7/18/12	Immeasurable
	gpm (gallons per minute)			

The decrease in spring flow may be a result of insufficient recharge rainfall as a result of the ongoing drought. Evaporation from the pond surface and transpiration from the growing cattails in the pond cause additional water loss. Extended high average daily temperatures have also been a contributing factor on water level reductions. You may see the spring intermittently stop, only to recharge the same day. This will cause areas of the stream to temporarily dry out creating an intermittent flow over the waterfall to the pond. Over the years, pond one has slowly been capturing silt so that the layer of sediments is getting deeper and is getting closer to the surface.

What is being done to improve the water levels?

A well is used to supplement the natural spring flows. The available water for this supplemental input is restricted by output of the well and an Arizona Department of Water Resources permit that limits our water withdrawal levels. Currently (June 2013), we are adding approximately 55,000 gallons of supplemental water daily. To date the rain has not caused an increase in springflow. You may see a short term increase in the pond level after a rain.

Has the pond ever dropped this low before?

Yes. In 2003 the static pond level reached 24" below the pond overflow. On September 30, 2009, the pond level reached 17 1/2" below the pond overflow. On July 18, 2012 the pond level was approx. 14"-15" below the overflow grate. In June 2013 the pond is 30" low. Without sufficient spring flow or rainfall the pond level will continue to drop.

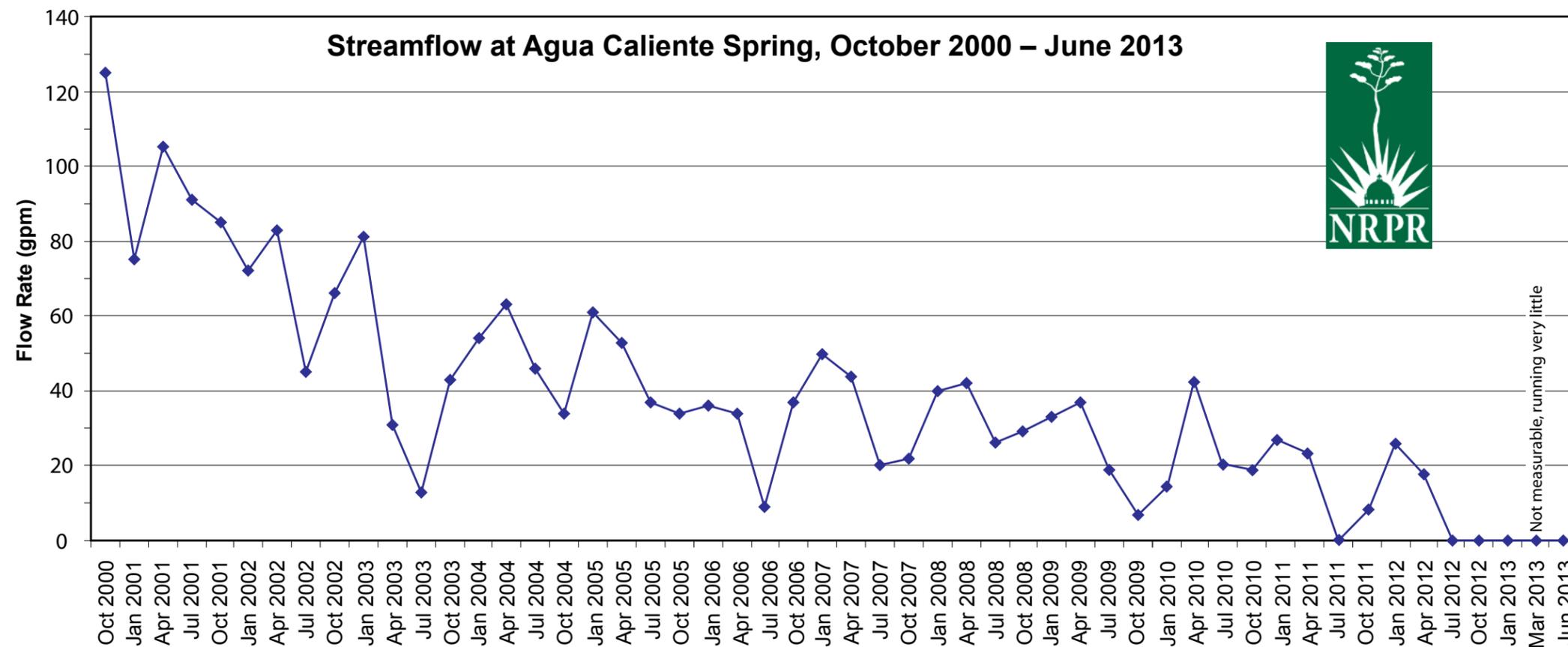
Historically, the pond recovers and overflows from the first pond to the second pond during the winter months. NRPR is trying to manage water levels in pond one on an annual basis. Pond two only receives water as overflow when the natural spring flows fill pond one. No supplemental ground water from the well is pumped to put water in pond two.



September 2007



June 2013



Note: Monthly gpm is an average for the month.