

Star Valley Ranch Estimated Water Consumption and Supply: Summer 2007 (Revised)

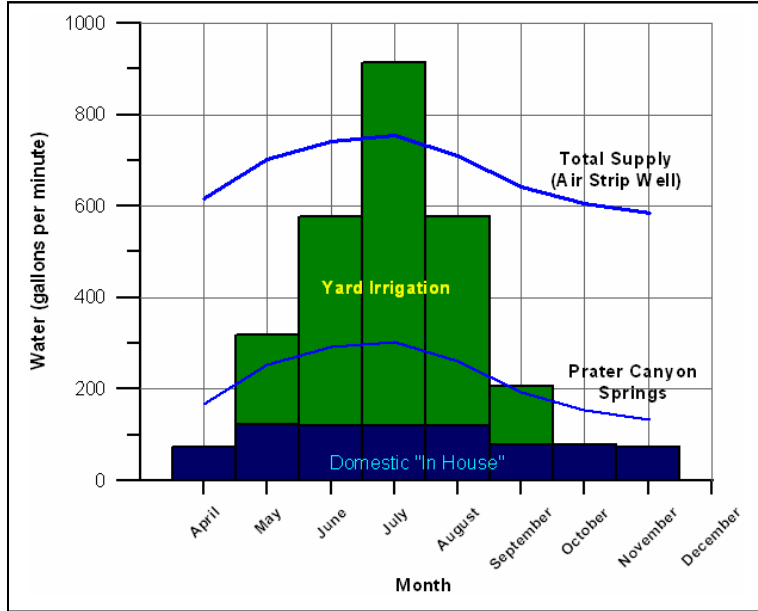


Figure 1. Summer water balance Star Valley Ranch. Estimates based on spring discharges in Special Report #3 and water consumption data in 2006 from Forsgren Engineering. (All categories are stacked and represent total consumption or supply)

INTRODUCTION

The water balance for the summer of 2007 that was developed in Special Report #3 is herein revised based on recently acquired water consumption data from Forsgren Engineering (Clarence Kemp, personal communication, 5/07). The new data are combined with the supply estimates in Special Report #3 to produce the water balance in Figure 1 and Table 1. The revised balance indicates that the Town's culinary water supply should be sufficient to meet normal domestic water demands as long as average consumption is similar to that of 2006.

DATA

Forsgren Engineering began monitoring selected metered residences in July 2007. The residences were selected as representative of the Ranch for the purpose of estimating domestic water consumption. The monthly domestic consumption data are expressed as average consumption per connection for the months of July 2006 through December 2006. The "in house" consumption is estimated by the monthly consumption for November – December when lawn irrigation should be non-existent or minimal as 200 gallons/day/connection. The yard irrigation consumption is estimated by subtracting the "in house" quantity from the total monthly consumption for the months of July through October. Data for June 2006 is not available and was estimated by the August 2006 data. Water supply estimates for Prater Springs are presented in Special Report #3 and Air Strip Well #1 is assumed to produce at its maximum output of 450 gpm.

INTREPRETATION

During the summer of 2006, water conservation practices were in effect as demand exceeded supply. The 2006 consumption data on which this estimate is based show the effects of these conservation practices. Even with the 2006 conservation practices in place, the estimated July demand in 2007 exceeds the anticipated water supply. Water conservation practices at least as severe as those 2006 will be required during part or all of July of this year.

Town of Star Valley Ranch
Summer Water Assessment (Revised)

Table 1. Summary of monthly water consumption and supply for Star Valley Ranch during the summer of 2007. See text for assumptions and data sources

Month	Average Connection Demand (gpm)		Community Demand (gpm)			Community Supply (gpm)		
	House	Yard	In House	Lawn	Total	Prater Canyon Spring	Air Strip Well	Total
April	0.17	0.00	73.06	0.00	73.06	167	450	617
May	0.17	0.28	122.71	196.33	319.04	253	450	703
June	0.17	0.66	120.16	456.59	576.75	292	450	742
July	0.17	1.15	120.16	793.03	913.19	304	450	754
August	0.17	0.66	120.16	456.59	576.75	260	450	710
September	0.17	0.28	79.57	127.31	206.87	192	450	642
October	0.17	0.00	79.57	0.00	79.57	155	450	605
November	0.17	0.00	73.91	0.00	73.91	134	450	584