

Prescott AMA AG Demand with Surface Water

Discussion: TWG members recognized that there may be some agriculture that relied on surface water supplies. These uses are not accounted for by the ADWR annual reports. Two locations in particular needed to be researched, agriculture associated with Del Rio Spring, and the SW releases off of Watson Lake (Granite Dells Ranch).

Del Rio Springs: The identified parcel and nearby lands were reviewed using 2005 and 2007 imagery. Neither year showed a strong vegetation pattern. *See file: DelRioBond_AgwithSW.pdf.* It was somewhat patchy. The GIS file NDVI July17_2006 which was completed by ADWR staff was also referenced. In that file the blue line polygons were ones that were digitized into the dataset because it looked like the field may be idle. The red line polygons were fields identified by the NDVI due to their strong vegetation signal. Since the polygons in blue were so patchy, it was thought that Del Rio spring discharge records should be checked. There is a USGS gage at Del Rio near Chino Valley (09502900), *see table to right.* ADWR, 2002 also stated, “The generalized decrease in hydraulic head throughout the LIC sub-basin is projected to further decrease the groundwater discharge rate near Del Rio Springs (spring flow at the surface and subsurface flow).”

Water Year	Discharge, cubic feet per second
1997	2.10
1998	1.96
1999	1.95
2000	1.91
2001	1.76
2002	1.56
2003	1.50
2004	1.32
2005	1.31
2006	1.08
2007	1.05
2008	1.04

Based in this evidence and discussions at the July 2009 TWG meeting, water supplies used at Del Rio would not be included in the CYHWRMS demand table. *See July 2009 TWG meeting minutes.*

Granite Dells Ranch: The same imagery and GIS data sets were reviewed. The NDVI showed two fields that had strong signatures. Three others were in blue (hand digitized as potential AG polygons). ADWR, 2000 GIS coverage was applied to determine the historic cope type(s) field checked back in 1997-98. Both red line polygons were pasture. The other three were identified to be 2 alfalfas and 1 native pasture. The two red polygon areas totaled approximately 19 acres. If the ADWR, 2000 irrigation requirement for pastures is applied, 3.65 AF/acre, it can be estimated that the agricultural demand is 69 AF. *See files: GraniteDellsRanch_AGwithSW and GraniteDellsRanch_AgwithSW_zoom*

Connie Tucker was contacted by email on 8/14/2009. She stated that once Granite Creek flows, GD Ranch can make the call for releases off of Watson Lake. COP generally releases about 375 AF/year for irrigation and stock water. This volume was chosen for the study.