

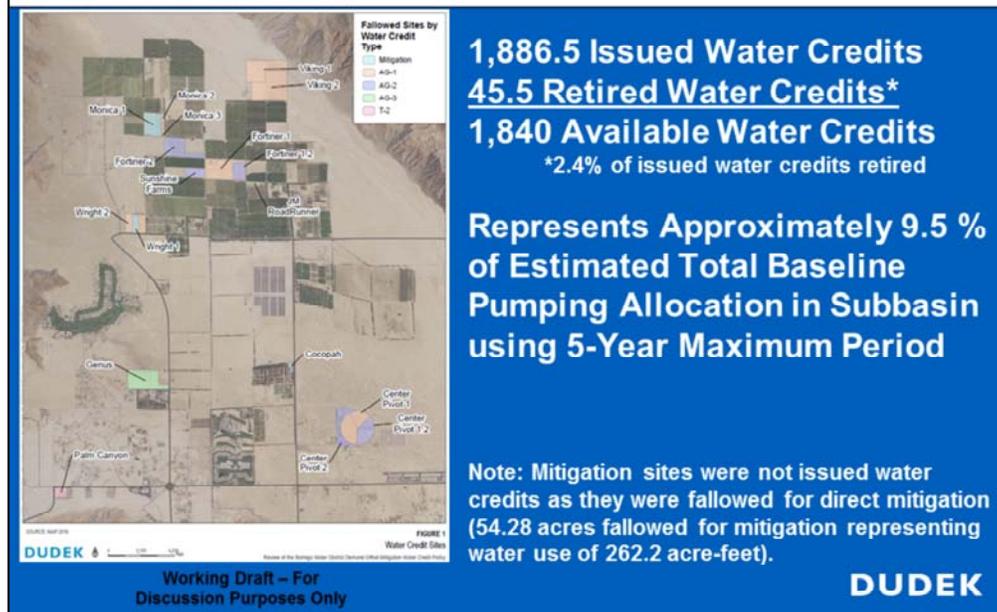
In order to enable new development and not make the overdraft condition any worse in the Borrego Springs Subbasin, the Borrego Water District (BWD, District), in cooperation with the County of San Diego (County), developed and implemented a Demand Offset Mitigation Water Credit Policy (WCP). The policy establishes credit procedures for fallowing of agricultural land based on crop type and a defined watering intensity.

The current WCP for new development consists of two policies: one to satisfy the *County Groundwater Ordinance and Policy Regarding Cumulative Impact Analyses for Borrego Valley Groundwater Use* and one to satisfy the District's *Policy for Water And Sewer Service to New Developments*, as amended.

One water credit is defined as a one acre-foot per year reduction in pumping and converts to the approximate water demand of a single equivalent dwelling unit (EDU) or single family residence (current BWD residential EDU demand = 0.55 acre-feet per EDU).

The WCP has been used by the County and BWD to offset or mitigate groundwater impacts of new development projects in Borrego Springs.

Water Credits



An audit of the Water Credits Program was performed to assist with determining whether previously issued water credits should be counted as part of the baseline pumping allocation water use under SGMA.

Preliminary results of the water credits audit indicates that 1,886.5 water credits have been issued. To date, 45.5 water credits have been retired primarily to offset new development in the Borrego Springs Subbasin (Subbasin). There are currently 1,840 available water credits. Only 2.4% of the issued water credits have been retired.

The issued water credits represent approximately 9.5% of the estimated total baseline pumping allocation for the Subbasin using the 5-year maximum period from January 1, 2010 to January 1, 2015.

Aside from sites where water credits were issued, there are sites where following occurred and it was used to directly mitigate groundwater impacts from development projects. These mitigation sites were not issued water credits. To date 54.28 acres have been allowed for direct mitigation representing water use of 262.2 acre-feet

Water Credits Evaluation Methodology

Evaluated in context of Baseline Pumping Allocation

- Determined maximum irrigated acreage by assessor's parcel number (APN) for all water credits sites in geographic information systems (GIS) using aerial imagery
- Documented crop types by APN
- Maximum Irrigated Acreage by APN was multiplied by crop-specific groundwater consumptive use factor to determine baseline pumping allocation
- Baseline pumping allocation compared to issued water credits to determine conformance

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The available water credits were evaluated in context of the proposed baseline pumping allocation methodology. That is, would the available water credits be issued a baseline pumping allocation?

To complete the analysis, the maximum irrigated acreage was determined by assessor's parcel number (APN) for all parcels in the Subbasin including water credits sites using aerial imagery taken during the baseline pumping allocation period. Additionally, the crop types by APN were documented.

Maximum Irrigated Acreage by APN was multiplied by crop-specific groundwater consumptive use factor to determine the baseline pumping allocation.

Baseline pumping allocation was compared to issued water credits to determine conformance.

Water Credits Evaluation Results/ Recommendation

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Preliminary Results (in acre-feet per year)

Available Water Credits = 1,568 (AG-1 equivalent)

Baseline Pumping Allocation = 1,599.5 acre-feet per year

Difference = +31.5

Consultant Recommendation

Acceptable water credits should be converted to baseline pumping allocation to be included in the Groundwater Sustainability Plan (GSP).

The water credits program should be dissolved and replaced by a GSA water trading program.

Converted water credits would be subject to pumping reductions required as part of the GSP.

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Available water credits that were AG-1 equivalent equaled 1,568.¹ This was practically equivalent to the apportioned Baseline Pumping Allocation of 1,599.5 acre-feet per year using the parcel level estimate of maximum water use over the period January 1, 2010 – January 1, 2015. The difference was only 31.5 acre-feet per year or about 2%.

The Consultant recommends the following:

- 1) Acceptable water credits should be converted to baseline pumping allocation to be included in the Groundwater Sustainability Plan (GSP).
- 2) The water credits program should be dissolved and replaced by a GSA water trading program. The water trading program has yet to be developed but would allow trading among all sectors and be more expansive than the current water credits program that is limited to mitigation for new projects and development
- 3) Converted water credits would be subject to pumping reductions required as part of the GSP.

¹ The ratio of BWD alternative water credit types to the AG-1 credit is determined by the BWD in terms of how many credits must be retired to equal 1 AFY of future groundwater use. For example, 1 AG-1 credit is equal to 1.33 AG-2 credits (AG-1: AG-2 = 1: 1.33)

Questions and Discussion

