



Annual Report Water Year 2017/2018

Prepared by:

Jordan Kear, Kear Groundwater
John R. Mundy, JMundy Consulting LLC
Cece VanDerMeer, Executive Secretary

Approved By: Ojai Basin Groundwater Management
Agency Board of Directors, March 28, 2019

Table of Contents

1. Mission Statement.....	2
2. Executive Summary.....	3
3. Ojai Groundwater Management Agency.....	5
4. Sustainable Groundwater Management Act of 2014 Compliance.....	7
5. SGMA Annual Report Requirements.....	8
6. Inventory and Status of Wells.....	10
7. Precipitation.....	12
8. Groundwater Elevations.....	14
9. Groundwater Extractions.....	18
10. Surface Water.....	20
11. Total Water Use.....	21
12. Groundwater Storage.....	22
13. Conclusions.....	23
14. Summary of Accomplishments.....	24
15. OBGMA Planned Activities.....	25

Figures/Tables

1. Figure 1 - OBGMA Boundaries.....	5
2. Figure 2 - Active Well Location Map.....	10
3. Figure 3 - Inactive & Destroyed Location Map.....	11
4. Figure 4 - New & Destroyed Well Location Map.....	11
5. Figure 5 - Precipitation at Ojai Valley Floor.....	12
6. Figure 6 - Accumulative Departure Curve	12
7. Figure 7 - Precipitation Ojai Fire Station.....	13
8. Figure 8 - Historical Key Monitoring Well.....	14
9. Figure 9 - Location of Monitoring Wells.....	15
10. Figure 10 - Historical Water Table Elevations of Well 6D5.....	15
11. Figure 11 - Historical Water Table Elevations of Well 5D3.....	16
12. Figure 12 - Historical Water Table Elevations of Well 4Q1.....	16
13. Figure 13 - Historical Water Table Elevations of Well 6K3.....	17
14. Figure 14 - Groundwater Extraction 1985 - 2017.....	18
15. Table 1 - Groundwater Extraction by Sector.....	19
16. Table 2 - Groundwater Extractions, Demands and Inputs.....	21
17. Table 3 - Springtime Basin Storage.....	22

Appendix

1. Figure 15 – Groundwater Contour Map.....	26
2. Table 4 & Figure 16 – Groundwater Use, Cumulative Storage Change, Annual Storage Change, Annual Storage Capacity.....	27/28

Mission Statement

It is the mission of the Ojai Basin Groundwater Management Agency to preserve the quantity and quality of groundwater in the Ojai Basin in order to protect and maintain the long-term water supply for the common benefit of the water users in the Basin.

The mission of the OBGMA is derived from its enabling legislation, the Ojai Basin Groundwater Management Agency Act, which became law in 1991. The act was approved as a response to the needs and concerns of local water agencies, water users, and well owners of the Ojai Basin. The Agency was established in the fifth year of a drought, amidst concerns for potential Basin overdraft.

The mission is in keeping with the history of the Basin and the circumstances existing when the Agency was formed. Since that time, although there have been some good water years and the Ojai Basin has continued to provide sufficient water for its well owners, competition for scarce water resources in Southern California and Ventura County is ever expanding, water resource planning is intensifying, and the importance of the OBGMA mission is even greater today.

Executive Summary

Overview. Since its inception in 1991 the Ojai Basin Groundwater Management Agency has monitored, recorded and reported the conditions of the groundwater water use in the Ojai Valley Basin. This effort over the last twenty-seven years has assisted the agency and groundwater users to recognize how the basin interacts with rainfall and groundwater extractions. Rainfall and extractions are regularly recorded, along with the collection of water well drilling data, and used to create hydrologic modeling in helping to further validate the hydrology within the watershed. These past and current efforts provide critical information that will continue to improve the long-term sustainability of the basin.

Based upon the studies conducted by and for the Agency, and due to a relatively wet 2016-2017 water year despite the effects of the Thomas Fire, the water supplies and demands in the basin are largely in balance and capable of meeting the annual demands of overlying landowners and in-basin water users under present conditions. As experienced in Water Year 2016/2017 and demonstrated in this report, the Ojai Valley Basin continues to operate within its sustainable yield with no evidence of undesirable results. These results support this same conclusion in the Alternative Demonstration previously submitted to the Department of Water Resources. However, after a series of dry years, water levels in some wells in the basin decline to the point where an alternative water source must be used. This additional water is supplied from Lake Casitas and will be discussed in more depth later in this report.

Through the Agency's outreach efforts, many stakeholders better understand these conditions, and the importance of conjunctive use in using groundwater when available and relying on Casitas water when basin storage is minimized. This practice has a somewhat self-regulating effect on the basin, as the charges for purveyor water encourage conservation and good stewardship of the groundwater resource.

Therefore, the focus of the Agency's efforts is on monitoring and protecting and preserving the basin groundwater resource for in-basin uses; and guarding against the export of water from the basin.

Two critical facts underline the importance of the Ojai Basin Groundwater Management Agency (OBGMA) and this Annual Report, which represents a summary of the basin conditions, the OBGMA activities and efforts to manage the basin in keeping with its enabling legislation and the Sustainable Groundwater Management Act of 2014.

Chronic drought is a climatic reality. Over the last 100 years there were several serious droughts, and climate change may likely bring an increase in the number and intensity of years with below average rainfall. Local precipitation, the only source of water in the Ventura River watershed, is predicted by several models to decrease in annual averages. Extended periods of drought are likely.

The Ventura River watershed is used by numerous interests. Most water available to the various water purveyors in the watershed is accounted for; it has been predicted that, in a long-term drought, the Lake Casitas could go dry. Existing wells already in the Ojai Basin are producing groundwater at a rate that is considered to be at or slightly below the safe yield of the basin, and it is predicted (with historical precedence) that in a long term drought a significant number of the existing wells will go dry. Stakeholders in the Ojai Basin cannot expect an economically reasonable new source of water.

The OBGMA has been given the responsibility for managing the Ojai groundwater basin and, working with its constituents, the well operators in the basin, for conserving that groundwater. The intent of this plan is to avoid, where possible, and strive to minimize, the adverse economic and social impacts facing our valuable but limited water supply.

Water Year 2017-18 Observations. While the rainfall experienced in the 2017-18 water year was deficient relative to the long-term average, remnant recharge gained from the preceding 2016/17 water year was still available. Moderate reductions in water demand, as Thomas Fire effects remained heavily present within the watershed. Drought conditions remained in effect, rainfall is critically important to recharge in the Ojai Basin, and as flashier and less frequent storm systems pass through the area with changing climate, capturing and optimizing groundwater recharge is even more critical. In the 2017-2018 water year, 11.39 inches of rain fell on the valley floor with slightly more in the headwaters of San Antonio Creek. An estimated 2,000 acre feet of groundwater were recharged to the basin, raising groundwater levels at the key well 8 feet from an December 31, 2017 low of 190.548 feet at the key well to 182.21 feet on May 7, 2018.

Ojai Basin Groundwater Management Agency

The Ojai Basin Groundwater Management Agency (OBGMA) was created in 1991 in the fifth year of a drought amidst concerns of local water agencies, water users, and well owners about potential overdraft of the Ojai Groundwater Basin, in Ventura County. Creation of the agency required a special act of the California legislature, the Ojai Basin Groundwater Management Agency Act (SB 534, October 1991). OBGMA is one of only 13 special act districts with legislative authority to manage groundwater in California.

OBGMA is responsible for managing the supply and demand of the Ojai Groundwater Basin for the protection and common benefit of agricultural, municipal, and industrial water users of the basin. The agency is required to have a groundwater management plan to guide its operations. Elements of OBGMA's Groundwater Management Plan are implemented in the form of policies, rules, regulations, and ordinances.

Agricultural demand accounts for about 60% of the water drawn from the basin and urban demand accounts for about 40%.

Figure 1 depicts the boundaries of the Ojai Valley Groundwater Basin and Groundwater Sustainability Agency.

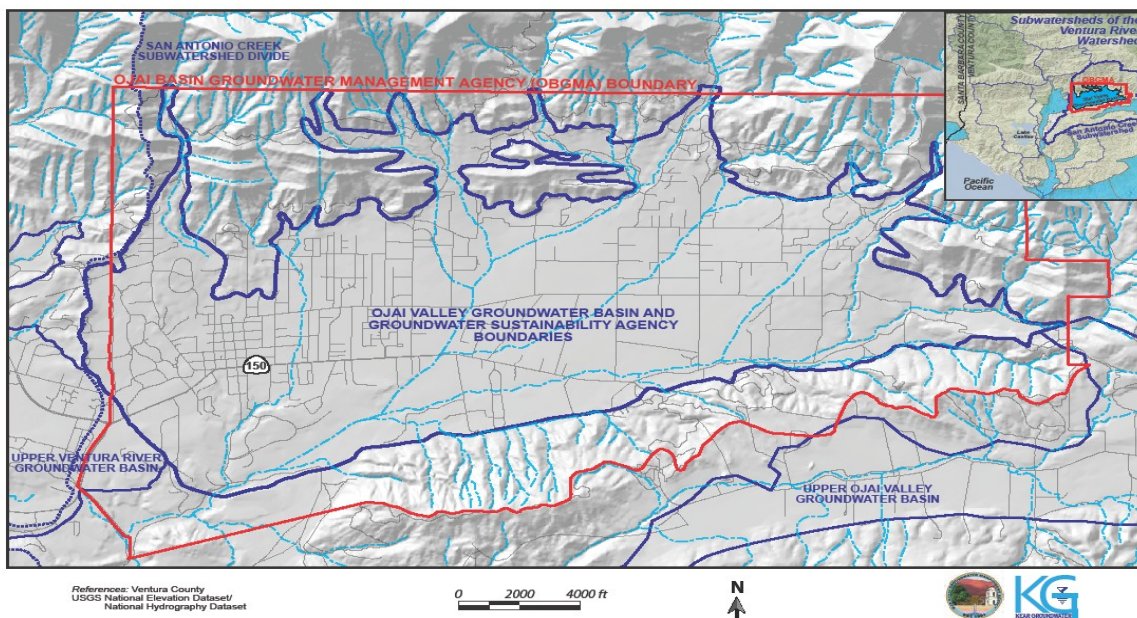


Figure 1 – OBGMA Boundaries

Fi

Board of Directors

The OBGMA Board of Directors consists of five members and their alternates. The five seats comprise representatives of each of the following entities:

- Ojai Water Conservation District
- City of Ojai
- Casitas Municipal Water District
- Mutual water companies
- Community Facilities District seat designated to "a member of the public at large residing within the CFD"

The Board is comprised of the following members, with alternates occasionally representing and attending meetings:

- Dan Breen, President, (Mutual water companies)
- Jim Finch, (Ojai Water Conservation District)
- Russ Baggerly (Casitas Municipal Water District)
- Johnny Johnson (City of Ojai)
- Richard Hajas (Community Facilities District Representative)

Key activities of the Agency

- Conducts groundwater management and planning.
- Documents groundwater extraction from reported pumping.
- Collects extraction charges from well owners.
- Coordinates with the county and private entities to monitor basin conditions.
- Supports the operation and maintenance of the San Antonio Spreading Grounds Rehabilitation Project.
- Maintains a groundwater model of the basin.
- Monitors water levels in the basin.
- Performs groundwater-related outreach and education activities.
- Participates in watershed, county, and state meetings.
- Observes and records precipitation and stream flow conditions within the basin

Sustainable Groundwater Management Act of 2014 (SGMA)

In September of 2014, the California Legislature enacted comprehensive legislation aimed at strengthening local control and management of groundwater basins throughout the state. Known as the Sustainable Groundwater Management Act of 2014, the legislation provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for state intervention when necessary to protect the resource.

The Sustainable Groundwater Management Act of 2014 (“SGMA”) requires that all groundwater basins in California be managed sustainably. (Water Code §§ 10720.1(a).) SGMA defines “sustainable groundwater management” as the “management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.” (Water Code §§ 10721(v).)

SGMA uses the term “sustainability goal,” defined as the “implementation of measures targeted to ensure that the applicable basin is operated within its sustainable yield.” (Water Code § 10721(u).) A basin’s “sustainable yield” is calculated as “the maximum quantity of water that can be withdrawn annually from a groundwater supply without causing an undesirable result.” (Water Code § 10721(w).) SGMA defines “undesirable result” as any of the following effects:

- Chronic lowering of groundwater levels (not including overdraft during a drought, if a basin is otherwise managed properly);
- Significant and unreasonable reductions in groundwater storage;
- Significant and unreasonable seawater intrusion;
- Significant and unreasonable degradation of water quality;
- Significant and unreasonable land subsidence; and
- Surface water depletions that have significant and unreasonable adverse impacts on beneficial uses. (Water Code § 10721(x).)

SGMA Compliance

The Ojai Basin Groundwater Management Agency (“OBGMA”) is one of fifteen (15) special act districts created by statute to manage groundwater within its statutory boundaries. Pursuant to its enabling legislation, the OBGMA has been managing the quantity and quality of groundwater in the Ojai Groundwater Basin since 1991. These management efforts have resulted in protection and maintenance of the long-term water supply for the common benefit of all water users in the Basin. As a result, the Ojai Valley Basin has been operated within its “sustainable yield” for the past several decades with no evidence of “undesirable results.”

SGMA identifies OBGMA as an “exclusive local agency” within its statutory boundaries for purposes of implementing the requirements of the Act. (Water Code § 10723(c)(1).) This affords OBGMA the opportunity to demonstrate to the California Department of Water Resources (“DWR” or “Department”) that the Ojai Basin is already being sustainably managed and has been operating within its “sustainable yield” for a period of at least 10 years. SGMA authorizes OBGMA to make this demonstration as an alternative to and in lieu of preparing a Groundwater Sustainability Plan. (Water Code §§ 10723(c)(3); 10733.6(b)(3).) OBGMA has elected to proceed with such a demonstration.

Report Prepared Supporting Alternative Demonstration

Water Code § 10733.6(b)(3) requires an analysis of Ojai Basin conditions that demonstrates the Basin has operated within its “sustainable yield” over a period of at least 10 years. The analysis must include a report prepared by a registered professional engineer or geologist who is licensed by the state. In compliance with Section 10733.6(b) (3), OBGMA has sanctioned such a report. (Report Supporting Alternative Demonstration Pursuant to Water Code § 10733.6(b) (3)) OBGMA Draft Red Line Alternative Demonstration 12/13/16. The Report demonstrates the Ojai Basin has operated within its “sustainable yield” for the past several decades with no evidence of “undesirable results” as drought conditions are clearly the driving forces behind groundwater in storage and stream flow.

The OBGMA approved the Report for submittal to DWR at its Board meeting on December 8, 2016 and submitted the Report to DWR for review and evaluation prior to the January 1, 2017 deadline. It is understood that the DWR is currently reviewing the Alternative Demonstration.

SGMA Annual Report Requirements

SGMA also requires that Groundwater Sustainability Agencies file an Annual Report of basin conditions. OBGMA is required to submit this report by April 1st of each year covering the prior Water Year ending September 30. The Annual Report is required to include the following elements:

- (a) General information, including an executive summary and a location map depicting the basin covered by the report.
- (b) A detailed description and graphical representation of the following conditions of the basin managed in the Plan:
 - (1) Groundwater elevation data from monitoring wells identified in the monitoring network shall be analyzed and displayed as follows:
 - (A) Groundwater elevation contour maps for each principal aquifer in the basin illustrating, at a minimum, the seasonal high and seasonal low groundwater conditions.
 - (B) Hydrographs of groundwater elevations and water year type using historical data to the greatest extent available, including from January 1, 2015, to current reporting year.
 - (2) Groundwater extraction for the preceding water year. Data shall be collected using the best available measurement methods and shall be presented in a table that summarizes groundwater extractions by water use sector, and identifies the method of measurement (direct or estimate) and accuracy of measurements, and a map that illustrates the general location and volume of groundwater extractions.
 - (3) Surface water supply used or available for use, for groundwater recharge or in-lieu use shall be reported based on quantitative data that describes the annual volume and sources for the preceding water year.
 - (4) Total water use shall be collected using the best available measurement methods and shall be reported in a table that summarizes total water use by water use sector, water source type, and identifies the method of measurement (direct or estimate) and accuracy of measurements. Existing water use data from the most recent Urban Water Management Plans or Agricultural Water Management Plans within the basin may be used, as long as the data are reported by water year.

(5) Change in groundwater in storage shall include the following:

(A) Change in groundwater in storage maps for each principal aquifer in the basin.

(B) A graph depicting water year type, groundwater use, the annual change in groundwater in storage, and the cumulative change in groundwater in storage for the basin based on historical data to the greatest extent available, including from January 1, 2015, to the current reporting year.

(c) A description of progress towards implementing the Plan, including achieving interim milestones, and implementation of projects or management actions since the previous annual report.

Inventory and Status of Wells

During Water Year ending 2018, 155 wells were actively reporting groundwater extraction from the Ojai Valley Basin. This number increased by 1 since 154 wells were actively reporting in Water Year ending 2017. Typically the number of active wells may vary from year to year due to fluctuations in the water table causing pump suction to be above the water table, destruction and construction of wells, well owners not pumping during the year due to changes in agricultural use and properties that have access to well water and Casitas Municipal Water who choose to purchase water from Casitas. Figures 2, 3 and 4 demonstrate active, inactive, destroyed and new wells in the Basin.

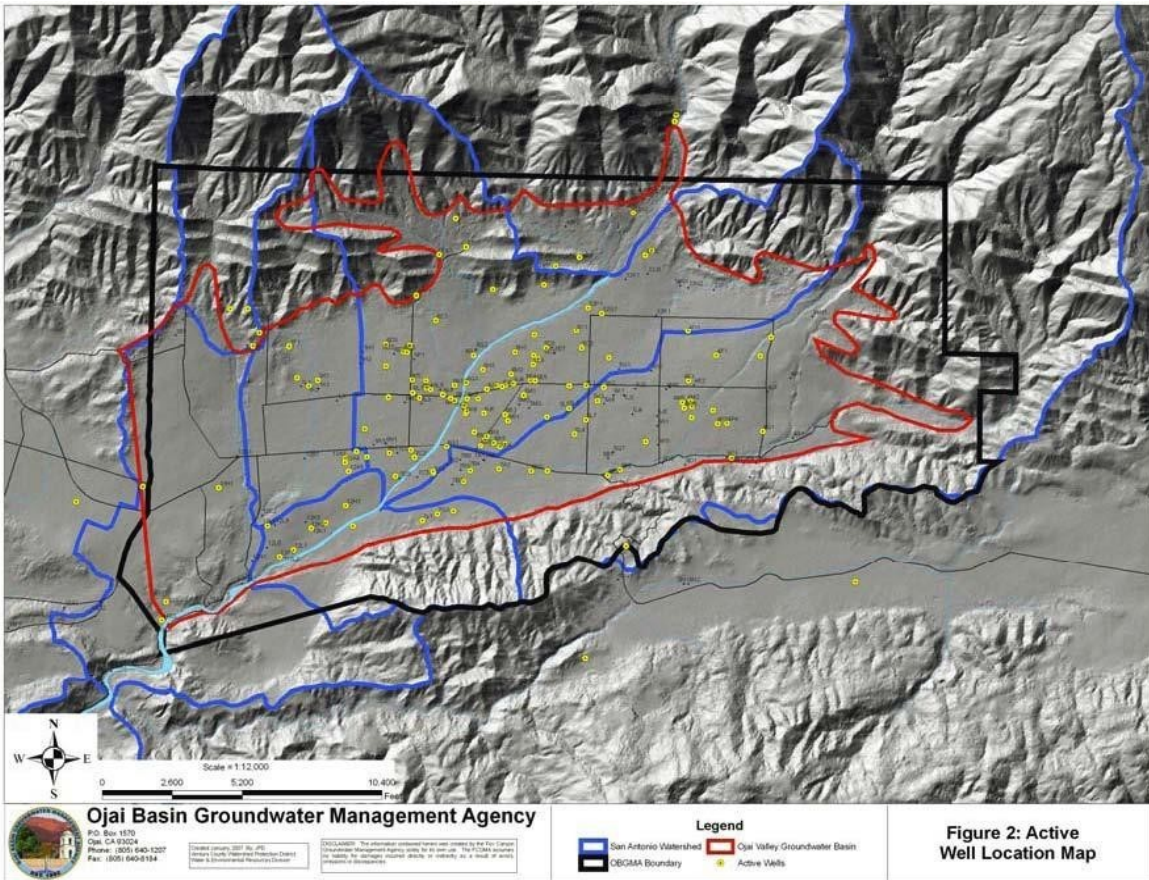


Figure 2- Active Well Location Map

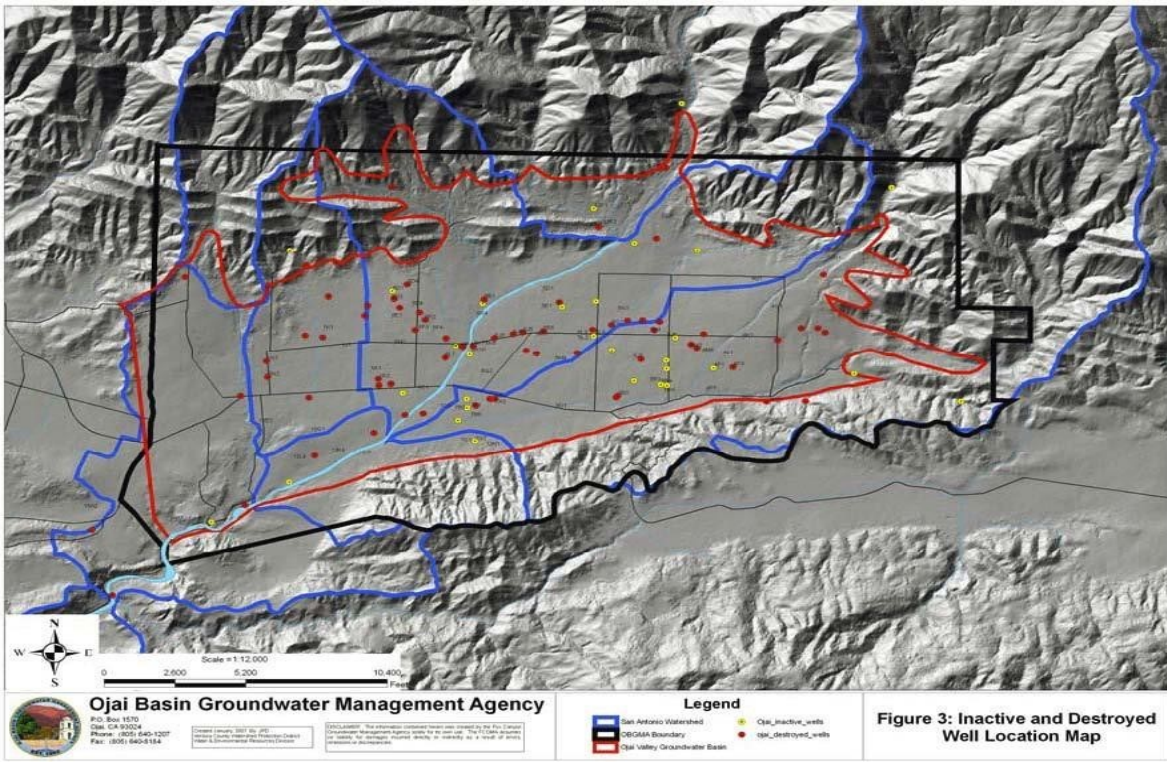


Figure 3- Inactive and destroyed Well Location Map



Figure 4- New Well Location Map

Precipitation

In the Ventura River Watershed, no significant water is imported for human uses including agricultural, irrigation, or municipal supplies. Virtually all water tributary to the Ojai Groundwater Basin derives from the hydrologic cycle as precipitation within the mountainous area surrounding the Ojai Basin and, to a lesser degree, precipitation on the valley floor itself.

An excellent proxy for recharge is precipitation as measured at the Ojai Fire Station. Long-term (1931-2018) average annual rainfall at that location is 20.64 inches; higher in the watershed, the average annual precipitation is nearly 36 inches. (See Fig. 7)

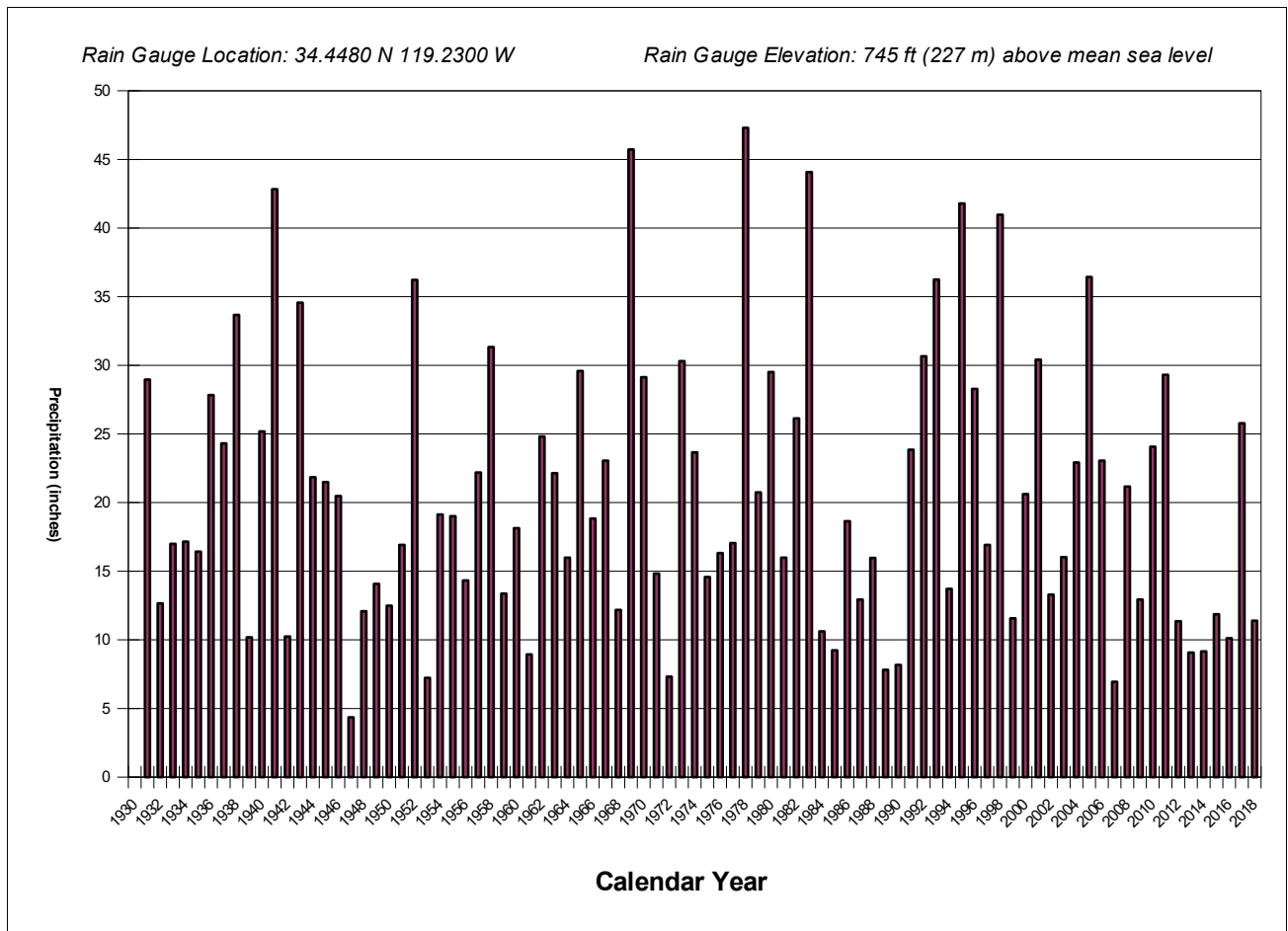


Figure 5- Precipitation at Ojai Valley Floor

In addition to the bar chart presented above, the accumulative departure from average annual precipitation is an indicator of drought periods versus periods of "normal" or "wet" periods. As the curve declines to the right, a period of drought is realized. Locally, it appears that a drought period began after the end of the 2010-2011 water year and has continued through the 2017-18 water year.

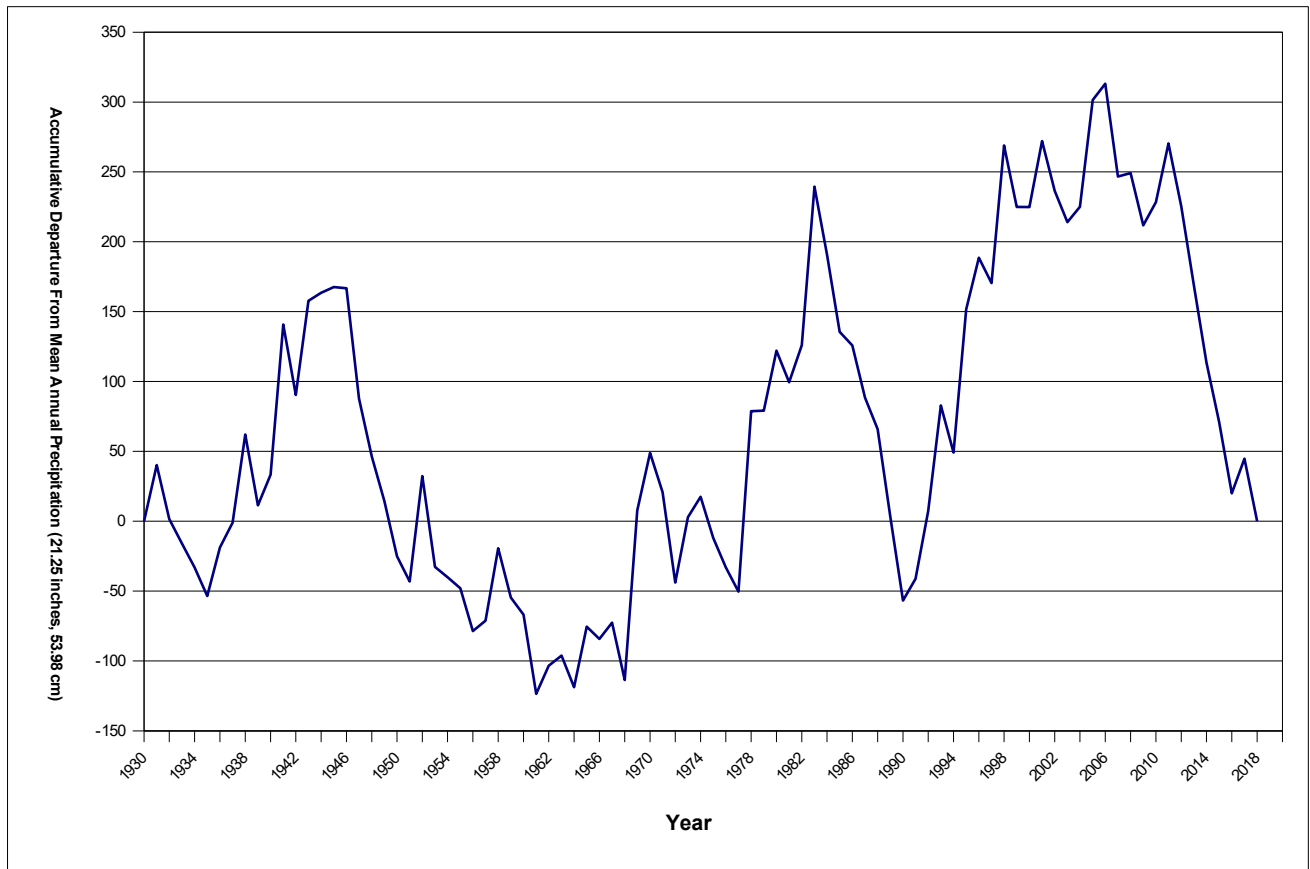


Figure 6- Accumulative departure curve (1930-2018)

Based on the amount of precipitation measured within the watershed, and modeled recharge estimates, the OBGMA estimates that during water year ending 2018, 11.39 inches of rain fell on the valley floor and upwards of 2000 acre-feet of water recharged to the basin. A significant impediment to recharge was fine material deposited on creek bottoms due to Thomas Fire debris.

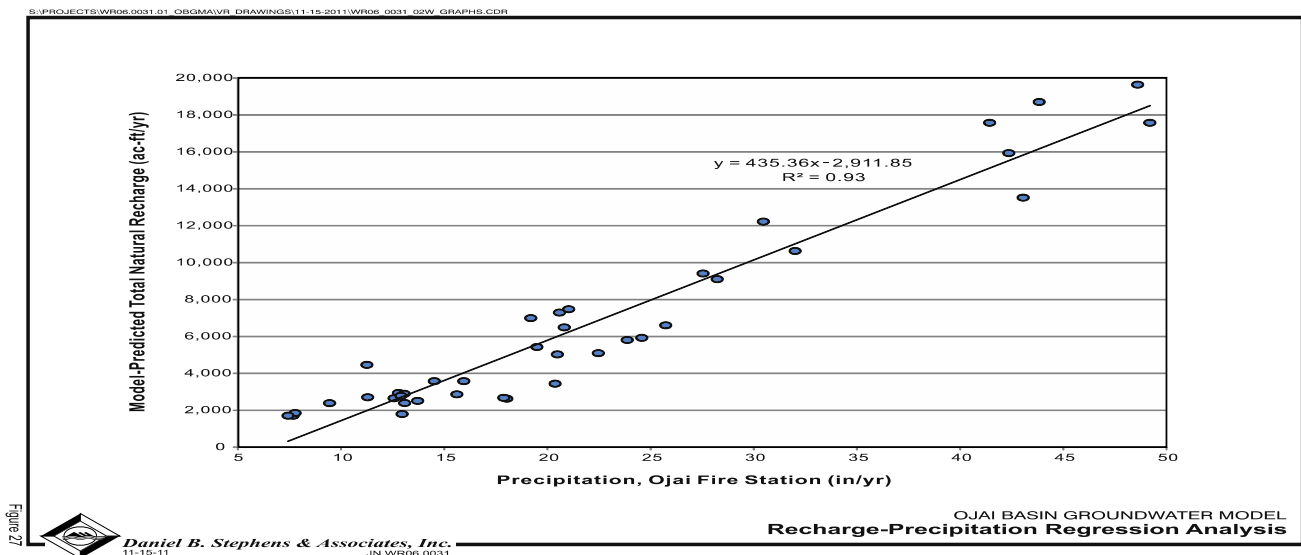


Figure 7- Precipitation at Ojai Fire Station and precipitation

Groundwater Elevations

Monitoring of water levels by the County and OBGMA in several key wells provide a direct insight into basin storage and the effects of drought on portions of the basin. Generally, peripheral northern and eastern areas appear to be less affected by the droughts as they store the bedrock-derived recharge first as compared to central and southern portions of the basin. Additional storage capacity and extraction from the central portions of the basin compared to the peripheral areas also contribute to this phenomenon of discrepancy in water levels.

Figure 8 provides a historical recordings of the basin elevations in the key monitoring well for the Ojai Valley Basin between 1949 and 2018. During recent years, identically-tracked water levels are shown in Well 4N/22W-5L3 due to frequent pumping and access issues at well -5L8.

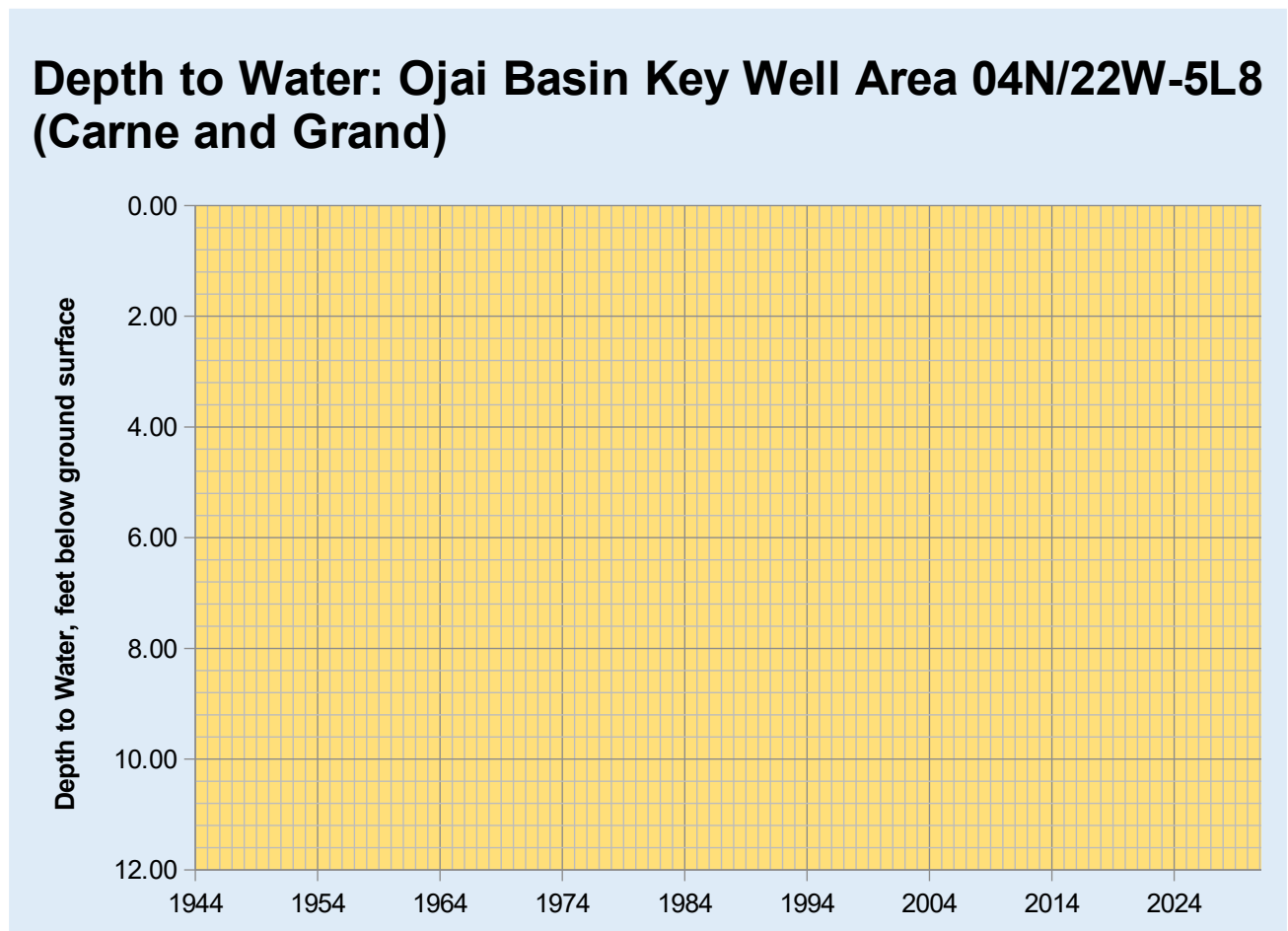


Figure 8 – Historical Key Monitoring Well Elevations (1940 – 2018)

Figure 9 shows the general locations of other monitoring wells where groundwater elevations are recorded in the Ojai Valley Basin. Figures 10 through 13 are the historical groundwater elevation recordings for the wells depicted in Figure 9.

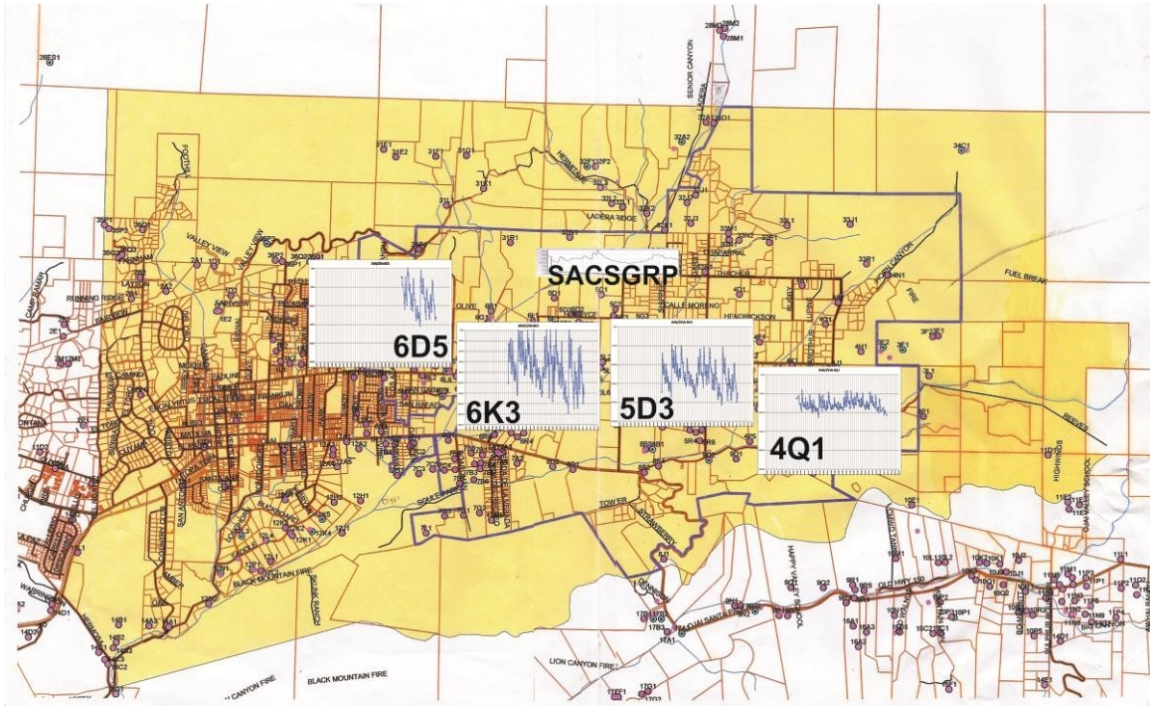


Fig 9 – Location of Historical Monitoring Wells

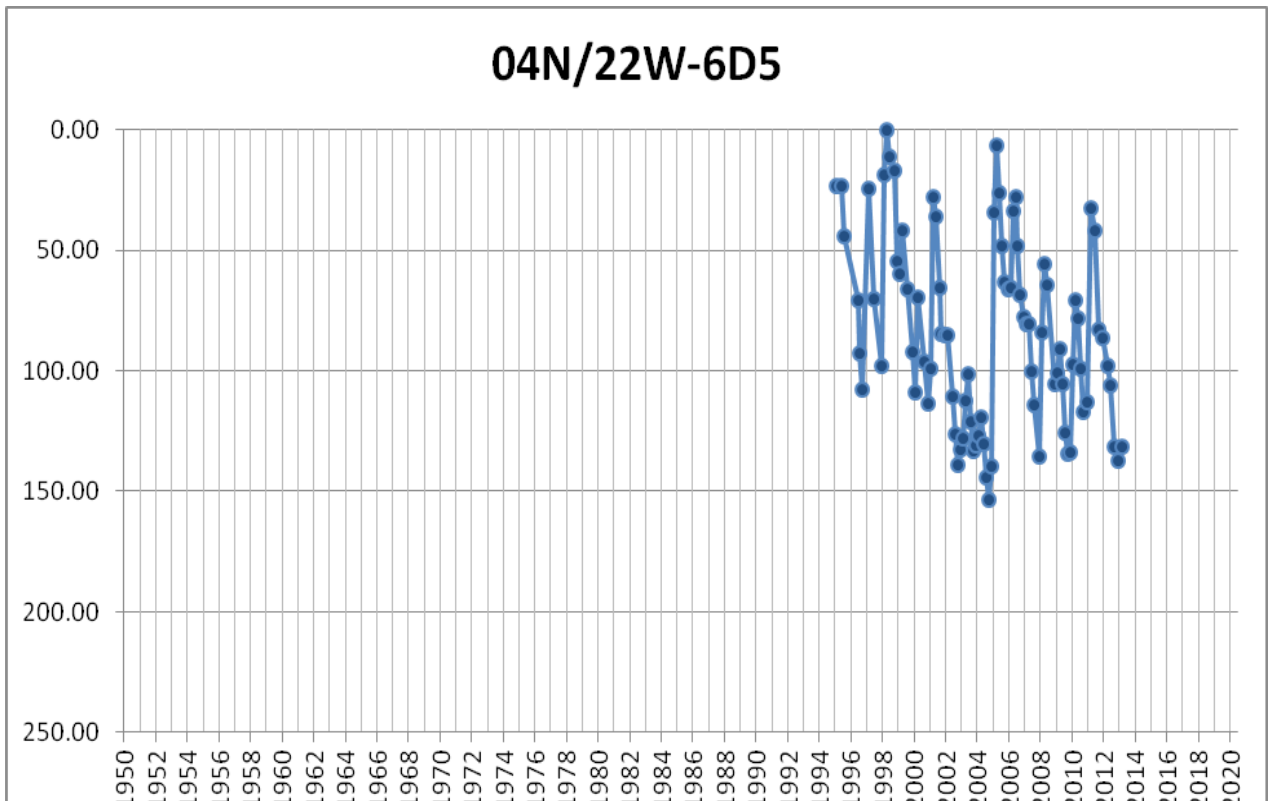


Figure 10 – Historical Water Table Elevations of Well 6D5

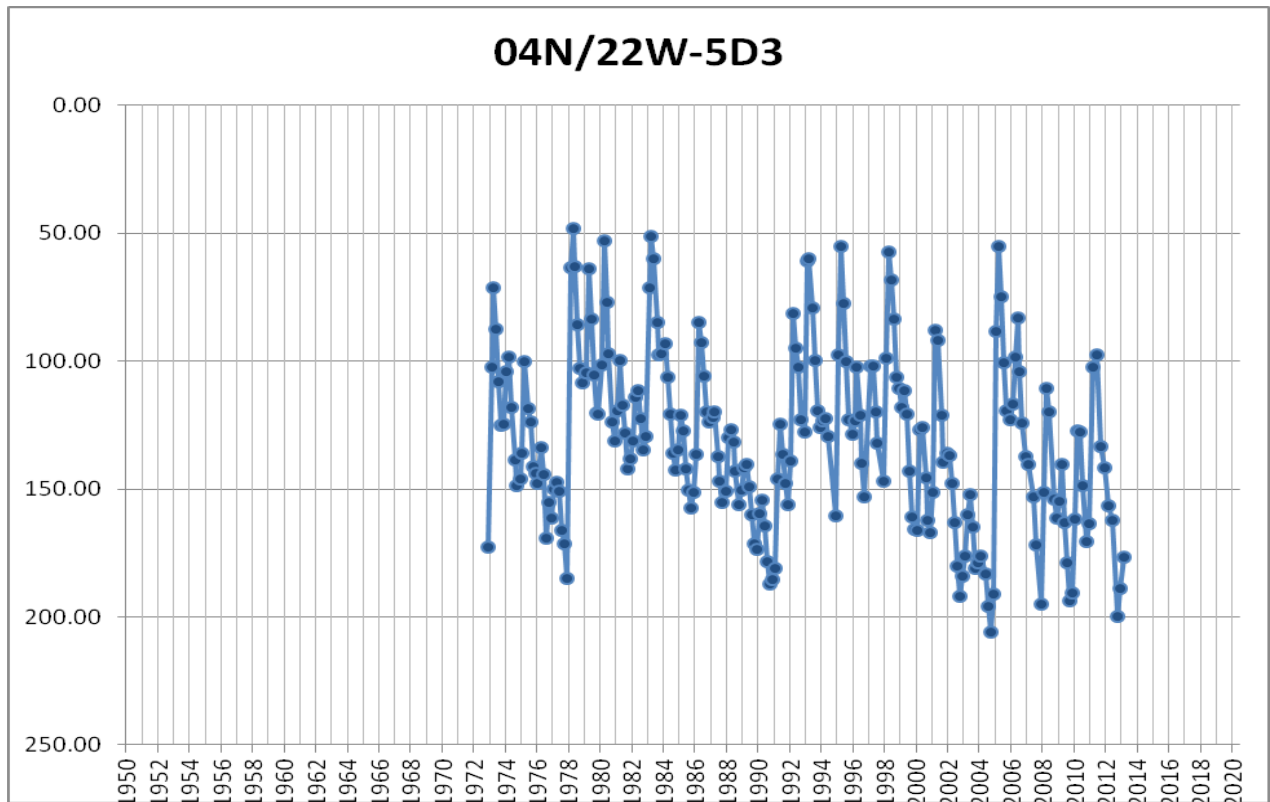


Figure 11 – Historical Water Table Elevations of Well 5D3

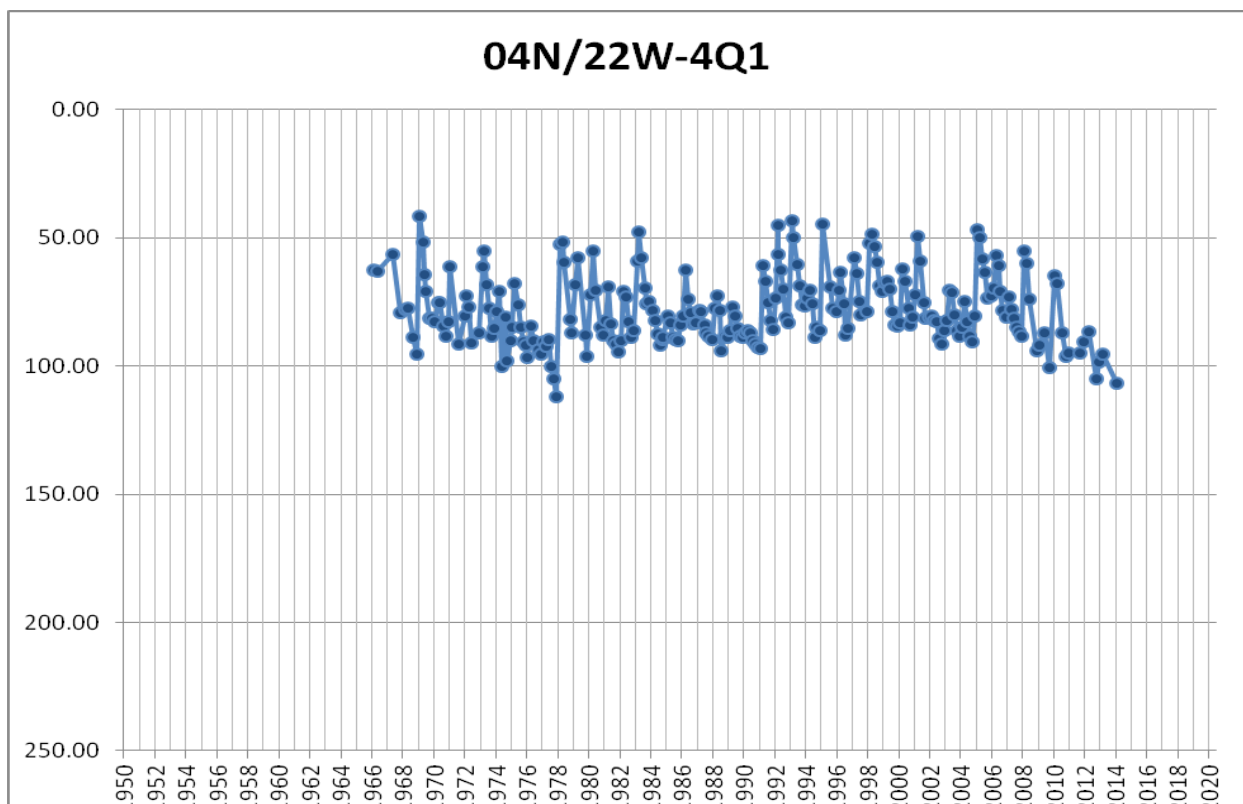


Figure 12– Historical Water Table Elevations of Well 4Q1

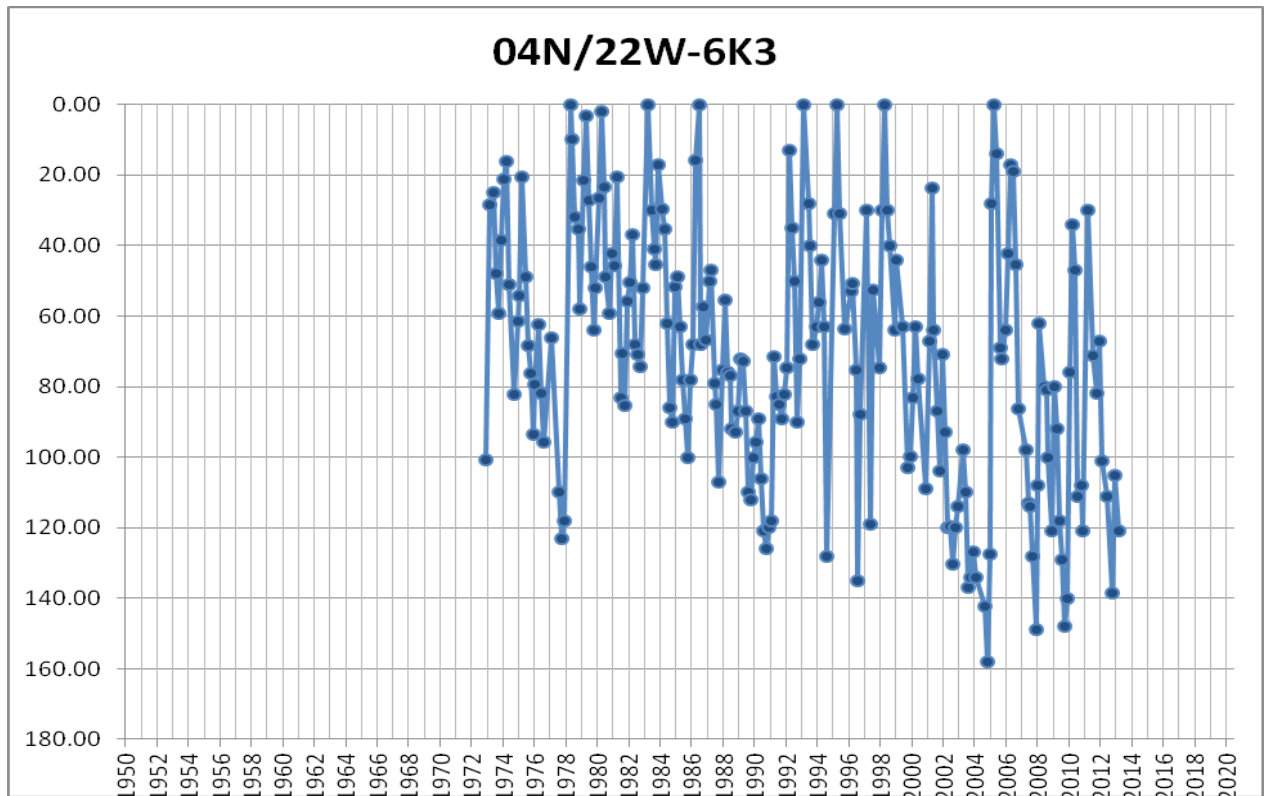


Figure 13 – Historical Water Table Elevations of Well 6K3

Groundwater Extractions

Reported extractions from 158 wells in the basin for Water Years 2017-18 indicate an extraction quantity of 4514.98 acre-feet.

These extraction totals are below historical use and trends since the OBGMA has been monitoring extractions from the Basin. These lower extraction totals are a result of the continuing drought. Pumpers are extracting less water from the basin due to requested conservation activities and lowering of the water table has reduced the number of wells in the upper reaches of the aquifer that can extract from the basin. Graphical depiction of these extractions, compared to the estimated irrigation demand, imported water, and municipal groundwater extraction, are presented and tabulated below. Notably absent from this calculation is the imported water from Lake Casitas that Golden State Water Company (GSWC) provided to its customers.

Since the passage of OBGMA Ordinance No. 7 requiring metering of extraction facilities, an increased accuracy is afforded to these calculations and reporting. Additionally, a general declining trend may be observed owing to the fact that crop factors, formerly used to estimate extraction, often overestimated the actual amount of groundwater extraction.

Figure 14 depicts the total groundwater extractions between 1985 through 2017.

Estimated Total Groundwater Extractions

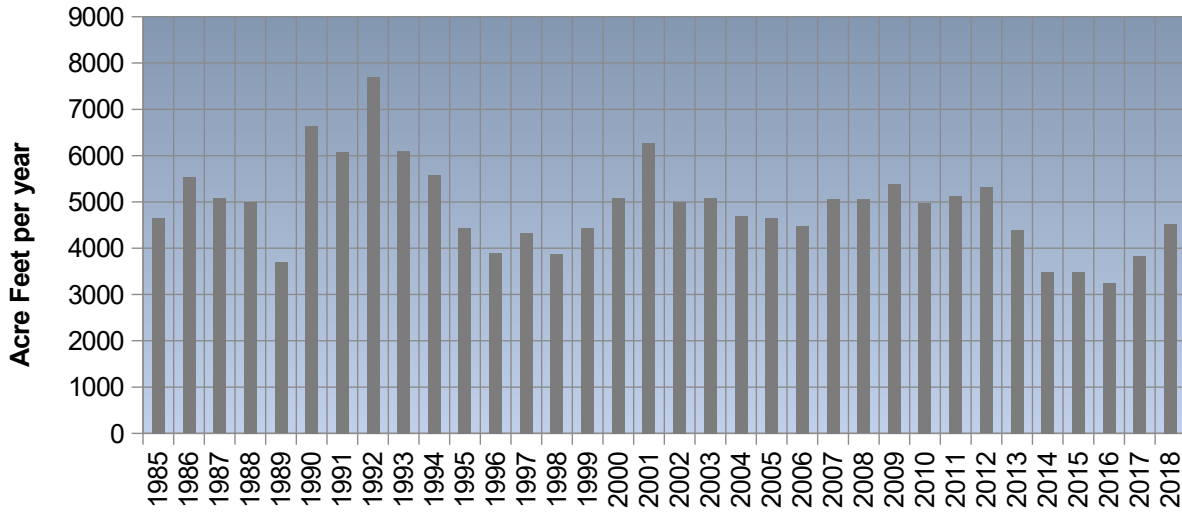


Figure 14 - Groundwater Extraction 1985 - 2018 (Acre-Feet)

Groundwater Extractions by Sector

The following table illustrates the groundwater extractions for the Water Year 2017-18, extractions by sector, method of measurement and accuracy of measurement.

Sector	Extractions for Water Year 2017-18 Acre-Feet	Method of Measurement	Accuracy of Measurement as Percent +/-
Agriculture	2565.59	Meters/Estimates	+/- 10%
Domestic/Land	418.64	Meters/Estimates	+/- 10%
Municipal	61.55	Meters/Estimates	+/- 10%
GSWC/Casitas	1469.2	Meters	+/- 5%

Table 1 – Groundwater Extraction by Sector (Acre-Feet)

- See the Appendix, starting on Page 26, for Figure 15 – Ojai Basin Contour Map, Table 4 and Figure 16 depicting Groundwater Use, Cumulative Storage Change, Annual Storage, Change and Annual Storage.

Surface Water

No surface water was directly diverted for artificial recharge during the 2017-2018 water year.

San Antonio Creek Flows

The Basin is recharged with runoff from the watershed via percolation whenever rainfall occurs. Rainfall that does not percolate runs off into San Antonio Creek. This runoff results in outflows of the basin to the Ventura River.

Modeled discharge to surface streams is reported to average 2,282 Acre feet per year. Smaller components of discharge are to evapotranspiration (258 AF/YR) and outflow to downgradient bedrock and alluvium (129 AF/YR).

In Water Year Ending 2018, a total of 513 acre feet is estimated, based on a percentage of measured flows at county surface water gauges to have discharged at San Antonio Creek beneath the Casitas Springs Bridge on Highway 33. Despite deficient rainfall, discharge from the perched aquifer system and the through-basin runoff associated with Thomas Fire Debris complicated the balance between surface water and groundwater in this anomalous year. The Ojai Basin, including its headwaters outside of the basin, comprises approximately 70.3 percent of the surface water tributary area to this gage and is one of the only groundwater basins that provides perennial discharge to the creek system.

Although no active gage is present to date near the discharge point from the Ojai Basin, monitoring of the San Antonio Creek at Creek Road is within the OBGMA purview and a planned activity.

Typically this water is not diverted and helps to supplement downstream municipal and environmental use. Therefore, this water is not counted as an available supply and not reported in this report in total water use for the basin.

Lake Casitas

Water users presently import some 3,682 acre-feet (1985 to 2012 average) of Casitas Municipal Water District (Casitas) water into the basin annually, mostly for irrigation.

If Casitas water was not available or not used in a series of dry years, considering the present understanding of the hydrology of the basin and the existing water uses, some shallower and peripheral wells would probably not produce water, pumping lift costs to pump groundwater would be excessive, some wells would produce excessive amounts of sand, water quality of pumped groundwater would likely be compromised, and other detrimental effects of a reduced amount of storage in the Basin.

Further, during extended dry periods many wells in the upper portions of the basin loose suction due to a lowered water table and the basin's bowl configuration.

When this occurs many of these well owners have access to Lake Casitas water in supplementing their water need until the basin recovers, typically during most winter periods

Total Water Use

Table 2 shows that the amount of water use in acre-feet from each sector during Water Years 1985 through 2018. While this amount of data is not required for this report, it does provide a good historical depiction of water use within the basin over this period.

Calendar Year (A)	Estimated Basin Demand (B)	Casitas Importation (C)	Estimated Groundwater Extraction (Private Wells) (D)	Estimated Groundwater Extraction (GSWC/CFD) (E)	Estimated Total Groundwater Extractions (F)
1985	7200	4181	3019	1638	4657
1986	7500	3633	3867	1663	5530
1987	7800	4473	3327	1744	5071
1988	7796	4635	3161	1839	5000
1989	7093	5169	1924	1766	3690
1990	9804	4961	4843	1804	6647
1991	7631	3377	4254	1819	6073
1992	8769	2744	6052	1645	7697
1993	6829	2800	4029	2070	6099
1994	7072	3433	3639	1946	5585
1995	6117	3530	2587	1846	4433
1996	6801	4468	2333	1569	3902
1997	8017	5272	2745	1583	4328
1998	5071	3115	1956	1913	3869
1999	6185	3922	2263	2181	4444
2000	7054	4044	3010	2080	5090
2001	7204	3195	4009	2258	6267
2002	7021	4249	2772	2220	4992
2003	6450	3428	3022	2066	5088
2004	7058	4185	2873	1824	4697
2005	5462	2768	2694	1955	4649
2006	5462	2796	2666	1818	4484
2007	6877	3770	3107	1963	5070
2008	6492	3176	3316	1736	5052
2009	7054	3411	3643	1751	5394
2010	5633	2404	3229	1742	4971
2011	6181	2990	3191	1934	5125
2012	6650	2986	3664	1646	5310
2013	8319	4295	4024	1445	5469
2014	7501	4978	2523	1087	3610
2015	6564	4133	2431	1189	3620
2016	6528	4319	2209	1030	3239
2017	5473	2924	2547	1279	3826
2018	6077	3031	3046	1469	4515

Table 2. Groundwater Extractions, Demands and Imports.

(1) Column Calculations: C+D = B and D+E = F

As you can see from this table water use within the basin has declined in recent years, but ticked up in 2017-2018. This is due in part by the constant conservation messages that are presented to the public, the change in water user's habits and cropping patterns, lowered basin levels resulting in the loss of pump suction for some well owners and lower water allocations to Casitas Customers that affected Golden State Water Company

Groundwater Storage

Based on the hydrographic data, the OBGMA estimates that the amount of groundwater in storage in the Basin at the spring high point is as follows:

The historic nadir in basin storage was in 1951 during a significant drought and before the current practice of conjunctive use including Casitas water imports was commonplace. At that time, in 1951, 43,741 acre-feet were estimated to have been in storage in the Basin. This nadir is a significant threshold because the confined aquifer skeleton would have been maximally compacted at that time. Static water levels below that depth would increase compaction and potentially cause subsidence and cause irrecoverable storage capacity in the Ojai Basin.

Year	Springtime Basin Storage (Acre-Feet)	Comments
2002	62,567	
2003	57,087	
2004	55,094	
2005	80,000	Artesian Flow Observed
2006	62,810	Artesian Flow Observed
2007	49,750	
2008	59,000	
2009	50,000	
2010	54,627	
2011	63,944	Artesian Flow Observed
2012	62,402	
2013	48,000	
2014	45,000	
2015	45,000	
2016	41,310	
2017	57,087	
2018	48,642	

Table 3: Springtime Peak Basin Storage

Conclusions

Outlook for Water Year 2018-19

Local precipitation for Water Year 2018 was about half of the historical average. Persistent drought continued during Water Year 2017-18 and the Thomas Fire, which burned virtually all of the brush in the tributary area to the Ojai Basin, had a pronounced effect on the surface and groundwater resources. While surface water flows are present, the infiltration capacity was reduced and the recharge limited.

A moderate "El Nino" event in 2018-19 has resulted in above average rainfall and water levels in the Ojai basin are rapidly recovering to more than a 7-year high. Surface water flows are above average, and regional drought conditions have softened. The OBGMA will continue to monitor these conditions.

As experienced in several water years, the Ojai Valley Basin continues to operate within its sustainable yield with no evidence of undesirable results. These results support this same conclusion in the Alternative Demonstration previously submitted to the Department of Water Resources. At some point demand hardening will reach its peak resulting in a more consistent draw from the basin than prior years. However, demand hardening will also make it much more difficult for water users to reduce water demand in future years without taking drastic reduction measures.

In helping to assist those users in the basin to continue to have an available supply OBGMA will develop and implement demand reduction targets to protect the overall availability of the basin during continued drought conditions. Further, OBGMA now has more opportunity to work closely with Casitas Municipal Water District, due to Casitas' purchase of Golden State Water, in better understanding and coordinating local water resources. It is expected this change in ownership will provide opportunities for OBGMA and Casitas to develop and implement conjunctive use opportunities for better resource management of the Ojai Basin and Lake Casitas.

Summary of Accomplishments

During Water Year 2017-18 OBGMA accomplished many activities in keeping with its enabling legislation and management planning, including:

- Held monthly board meetings with public participation to carry out the objectives of its enabling SGMA legislation and development of the groundwater monitoring plan.
- Supported recordation of water extractions for individual well owners.
- Documented groundwater extraction from reported pumping.
- Monitored water levels in the basin both automatically via a network of data loggers and manually.
- Coordinated with County and private entities to monitor basin conditions.
- Permitted the construction of five water wells in 2017-18.
- Supported State Water Resources Control Board modeling efforts of the Ventura River Watershed.
- Supported the ongoing design, permitting and implementation of the San Antonio Spreading Grounds rehabilitation project (SACSGRP).
- Participated in outreach programs, including a booth at Ojai Day, presentations to the Ojai City Council, and presentations at regular Board Meetings.
- Compiled geologic and hydrogeologic data to further the understanding of the basin.
- Participated in watershed, county, and statewide meetings, conferences, and discussions further the Agency's participation and exposure to affect policy.
- Assisted individual stakeholders to understand their roles, rights, and responsibilities as overlying landowners of the groundwater basin.
- Developed, maintained and updated the website (www.obgma.com) to inform the public regarding the OBGMA activities and basin conditions.
- Approved Ordinances and resolutions on meter testing, reporting and revenue enhancement.
- Revised the OBGMA Act to replace the SCWC/GSWC seat with a CFD representative
- Adopted a 2018 updated Groundwater Management Plan.

OBGMA Planned Activities

For Water Year 2018-19 the OBGMA is planning several key objectives:

- Continued Implementation the provisions of the Sustainable Groundwater Management Act.
- Revising extraction fees to cover the increasing cost related to sustainable groundwater management.
- Continue with the development of a full groundwater management plan update which will include triggers for reductions of groundwater extractions during extended periods of drought.
- Coordinate planning activities with the Upper Ventura River Groundwater Sustainability Agency and Casitas Municipal Water District in working toward better understanding the conjunctive water needs between the agencies.
- Installing and monitoring additional continuous water level monitoring devices in key stakeholders' wells.
- Adding hydrographs to the website.
- Permitting of wells.
- Running model updates to evaluate dynamic conditions and scenarios.
- Holding monthly board meetings with public participation to carry out the objectives of its enabling legislature and groundwater monitoring plan.
- Supporting recordation of water extractions for individual well owners.
- Documenting groundwater extraction from reported pumping.
- Coordinating with County and private entities to monitor basin conditions
- Participated in outreach programs.
- Compiling geologic and hydrogeological data to further the understanding of the basin.
- Participating in watershed, county, and statewide meetings, conferences, and discussions further the agency's participation and exposure to affect policy.
- Assisting individual stakeholders to understand their roles, rights and responsibilities as overlying landowners of the groundwater basin.
- Maintaining and updating the website to inform the public regarding the OBGMA activities and basin conditions.
- Continue to explore and apply for grant funding opportunities to carry out the OBGMA responsibilities, goals and objectives.

Appendix

1. Figure 15 – Ojai Valley Basin Contour Map.
2. Table 4 - Groundwater Use, Cumulative Storage Change, Annual Storage Change and Annual Storage Capacity Data.
3. Figure 16 – Groundwater Use, Cumulative Storage Change, Annual Storage Change and Annual Storage Capacity Graph.

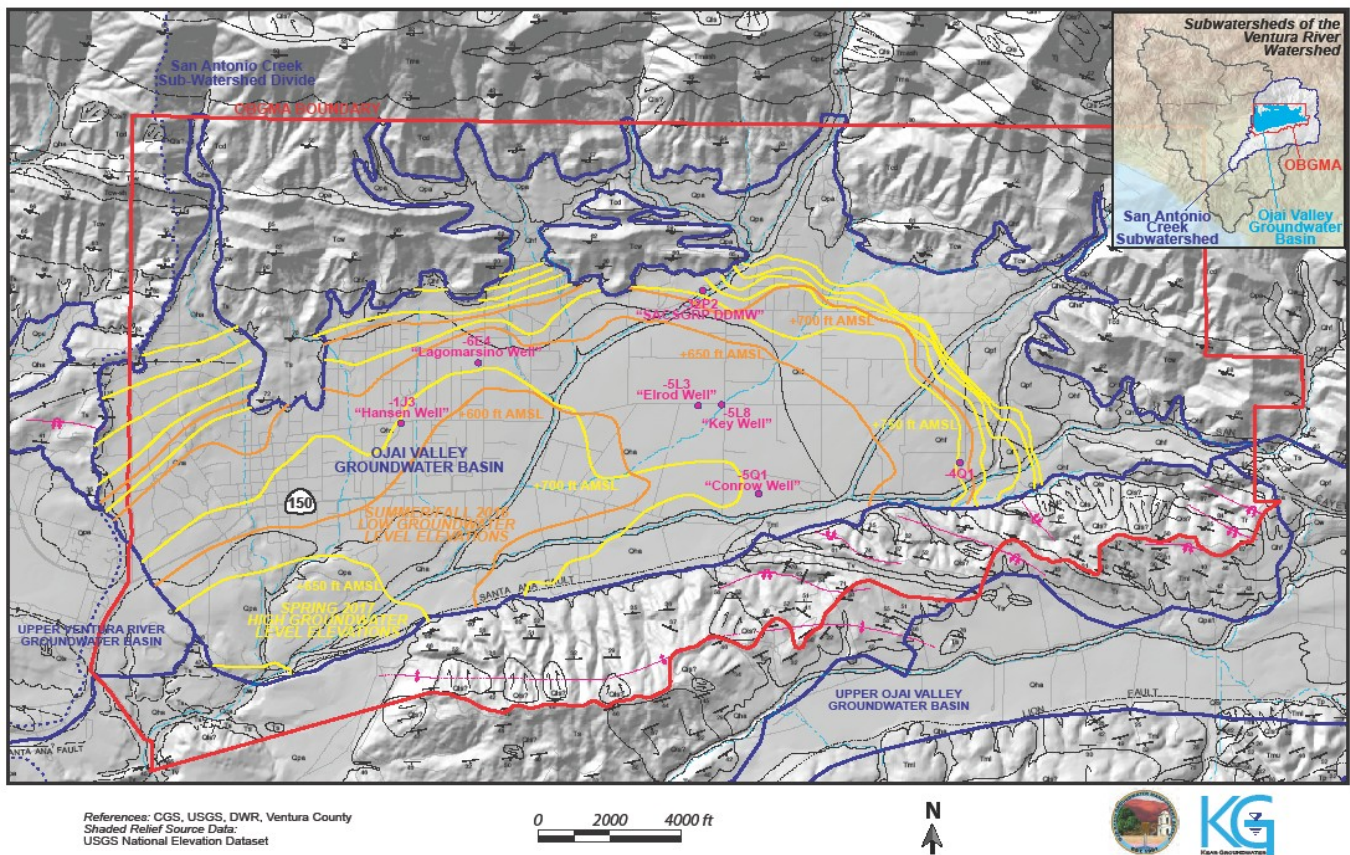


Figure 15 - Ojai Valley Basin Contour Map

Groundwater Use, Cumulative Storage Change, Annual Storage Change & Annual Storage Capacity				
Year	Groundwater Use	Cumulative Storage Change	Annual Storage Change	Annual Storage Capacity
2002	4,992	0	0	62,567
2003	5,088	-5,480	-5,480	57,087
2004	4,697	-7,473	-1,993	55,094
2005	4,649	17,433	24,906	80,000
2006	4,484	243	-17,190	62,810
2007	5,070	-12,817	-13,060	49,750
2008	5,052	-3,567	9,250	59,000
2009	5,394	-12,567	-9,000	50,000
2010	4,971	-7,940	4,627	54,627
2011	5,125	1,377	9,317	63,944
2012	5,310	-165	-1,542	62,402
2013	5,469	-14,567	-14,402	48,000
2014	3,610	-17,567	-3,000	45,000
2015	3,620	-17,567	0	45,000
2016	3,239	-21,257	-3,690	41,310
2017	3,826	-5,480	15,777	57,087
2018	4,515	-13,925	-8,445	48,642

Table 4 - Groundwater Use, Cumulative Storage Change, Annual Storage Change & Annual Storage Capacity. Base Year 2002.

Groundwater Use, Cumulative Storage Change, Annual Storage Change and Capacity

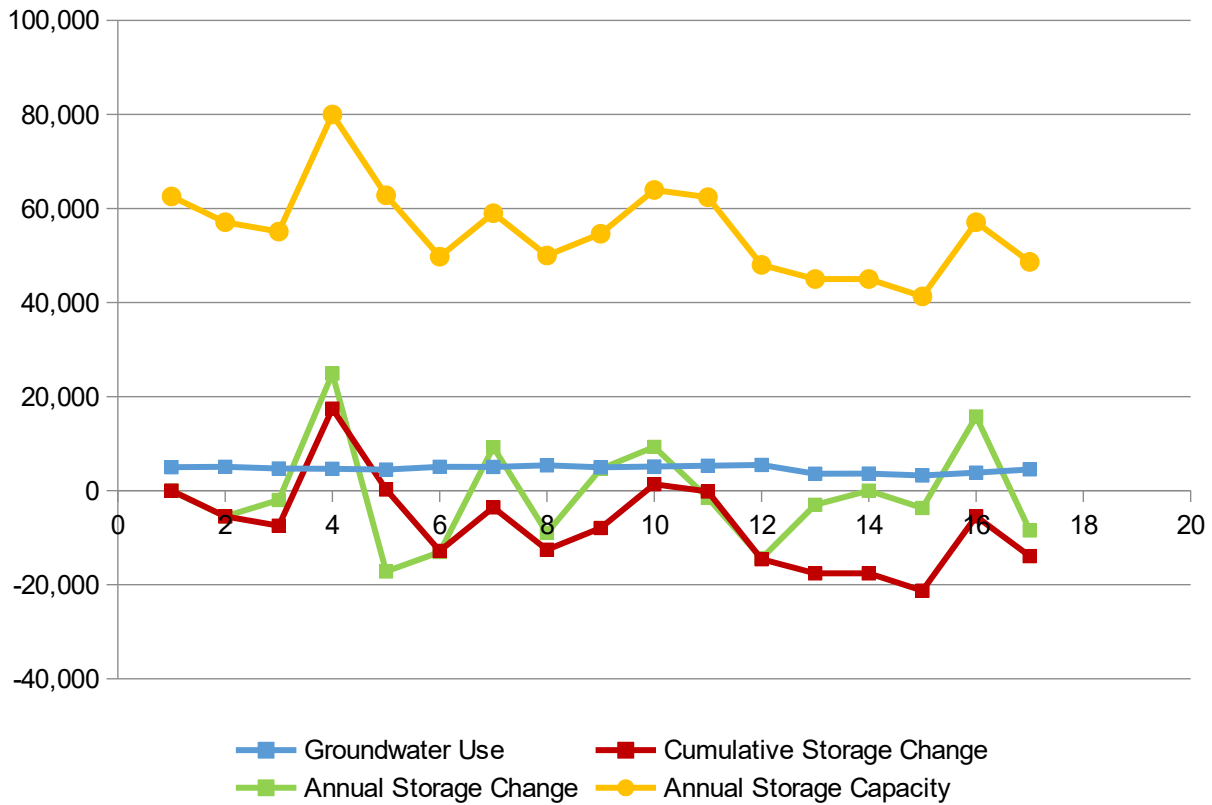


Figure 16 - Groundwater Use, Cumulative Storage Change, Annual Storage Change & Annual Storage Capacity. Base Year 2002.