Certification of Self-Certified Conservation Standard

Recognizing persistent yet less severe drought conditions throughout California, on May 18, 2016, the State Water Board adopted an emergency water conservation regulation that replaces the February 2 emergency regulation. The May 2016 regulation requires locally developed conservation standards based upon each agency's specific circumstances. It replaces the prior percentage reduction-based water conservation standard with a localized "stress test" approach. Each water supplier is required to evaluate its supply portfolio and self-certify the accuracy of its information; the State Water Board assigns each supplier a mandatory conservation standard equal to the percentage deficiency the supplier identifies in its supply under certain specified assumptions. See this webpage Water Conservation Portal for more information on the May 2016 emergency regulation. The new conservation standards take effect in June and remain in effect until the end of January 2017.

Requirements:

The regulation requires individual urban water suppliers to conduct a stress test and self-certify the level of available water supplies they have assuming three additional dry years, as well as the level of conservation necessary to assure adequate supply over that time. Suppliers that would face a shortage after a third dry year are required to comply with a conservation standard equal to the amount of that shortage. Water supply reliability after the 2018-19 winter is calculated as follows:

- The supply projection for the next three years is based on **current supply conditions** plus an assumed three-year hydrology mirroring the 2012-13, 2013-14, and 2014-15 water years. (A water year runs from October 1 through September 30).
- No temporary change orders that increase the availability of water to any urban water supplier are issued in the next three years.
- Demand over that same period is based on each supplier's average total potable water production for calendar years 2013 and 2014.
- Suppliers factor into their calculations all of their water sources that are realistically capable of being treated to potable standard during the three-year projected period.
- Supplier's conservation standards are calculated as a percentage and rounded to the nearest whole percentage point.
- Suppliers self-certify accuracy of their conclusions and provide their analysis and supporting data to the State Water Board and at a publicly available website.
- The State Water Board posts information provided by suppliers on its website and assigns each supplier, as a mandatory conservation standard, reductions equal to the supplier's projected percentage deficiency in supply at the end of the third dry year.
- Wholesale water suppliers are required to make projections about how much water they would deliver to retail water suppliers under the three-dry-years scenario. While the wholesale suppliers may aggregate water supply production data for a region, they will need to assign how the water would be apportioned among retailer water suppliers that are its customers (e.g., using the same apportionments as in water years 2013, 2014, and 2015.)
- Additionally, if a wholesaler in a region, along with every one of its urban water supplier customers in that region all agree, in a legally binding document, those suppliers and wholesaler may submit an aggregate stress test and conservation standard. While the conservation standard would be in lieu of an individual conservation standard, the submittal shall include all the supporting documentation required of each retail supplier covered by the aggregated conservation standard for individualized self-certified conservation standards, and responsibility for compliance remains ultimately on the individual water suppliers.

Suppliers that do not submit a water reliability certification and supporting information retain their current conservation standard in almost all cases.

What to submit:

The online form, this certification form, and supporting data and analysis **must be submitted to the State Water Board by June 22, 2016**. Late submittals will not be reviewed. The online form is accessed at this link: http://drinc.ca.gov/dnn/applications/publicwatersystems/waterreliabilitycertification.aspx

Complete the online form, which includes a step to upload this signed certification form and supporting data and documents. The submittal includes:

1. **Worksheet:** *Worksheet 1 Total available water supply for individual water supplier* **or** *Worksheet 2 Calculation for Aggregated Self-Certification Conservation Standard*
2. **Supporting data and analysis:** Worksheet 1 will have a specific place for listing each type of supply that the supplier intends to use for each of the next three years. Suppliers will also be asked to provide an itemized list of these sources of supply, by type. For example, the form will have a place to record aggregate local surface water. This information must be itemized and show each individual local surface water source. Data can be provided in a separate document, if they do not fit on the online form and worksheet. Supporting documents that explain data and calculations, including assumptions, must be uploaded to the online form and should not exceed 10 pages.
3. **Certification Form:** the next page of this document must be signed and submitted **as part of the** online form submittal. **This form needs to be completed prior to completing and submitting the online form.**

Effective Date:

The State Water Board will review the data and supporting documentation reported by the supplier. The self-certified conservation standard becomes effective on June 1, 2016. (June potable water production reports are due by July 15, 2016 and this allows an effective date to occur prior to the submittal date.)

Certification of Self-Certified Conservation Standard Form

I hereby certify that: **Atascadero Mutual Water Company**

1. I will oversee, review, and take full responsibility for the completeness and accuracy of all data submitted to the State Water Resources Control Board as part of the reporting required pursuant to California Code of Regulations, title 23, section 864.5, subdivisions (a)(3) and (h);
2. I have the authority to make the aforesaid certifications on behalf of

Atascadero Mutual Water Company

I acknowledge that submitting any information required by California Code of Regulations, title 23, section 864.5, including this certification, that I know or should know to be materially false is a violation punishable by civil liability of up to five hundred dollars ($500) for each day in which the violation occurs. Every day that the error goes uncorrected constitutes a separate violation. Civil liability for the violation is in addition to, and does not supersede or limit, any other remedies, civil or criminal.

Printed Name	John B Neil
Title *(General Manager or equivalent)*	General Manager
Signature	John B Neil cn=John B Neil, o=General Manager, ou, email=jneil@amwc.us, c=US 2016.06.17 07:46:41 -07'00'
Date	June 17, 2016
Email Address	jneil@amwc.us
Phone Number	805.466.2428

Please print, sign and submit completed form and upload the form to this weblink (see Step 5 of the online form): http://drinc.ca.gov/dnn/applications/publicwatersystems/waterreliabilitycertification.aspx

WATER - WASTEWATER - REUSE

P.O. Box 1604
Arroyo Grande CA 93421
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Technical Memorandum

To: John Neil, PE
Atascadero Mutual Water Company
From: Robert Lepore
Mike Nunley, PE
Date: June 20, 2016

Re: Water Supply Reliability Certification - Supporting Analysis

1. INTRODUCTION

Michael K. Nunley & Associates (MKN) was retained by Atascadero Mutual Water Company (AMWC) to assist in the preparation of the Water Supply Reliability Certification and Data Submission required by the State Water Resources Control Board (SWRCB). Self-certification of supply reliability is required of urban water retailers by the State Water Board no later than June 22, 2016.

The scope of services for this project included the following:

- Review and preparation of data for Water Supply Reliability and Data Submission form;
- Preparation of Water Supply Resources Spreadsheet;
- Preparation of Supporting Analysis technical memorandum summarizing historical production and anticipated supply availability.

2. OVERVIEW

Per the SWRCB: On May 18, 2016, the State Water Board adopted an emergency water conservation regulation that replaces the February 2 emergency regulation. The May 2016 regulation that will be in effect from June 2016 through January 2017 requires locally developed conservation standards based upon each agency's specific circumstances. It replaces the prior percentage reduction-based water conservation standard with a localized "stress test" approach. These standards require local water agencies to ensure a three-year supply assuming three more dry years like the ones the state experienced from 2012 to 2015.

Water suppliers are required to establish a conservation standard that will reduce total potable water production by the percentage by which the supplier's total potable water supply is insufficient to meet its expected annual demand over the next three years, assuming the annual demand over the next three years is the average of years 2013 and 2014 and assuming rainfall for water years (WY) 2017-2019 will be the same as WYs 2013-2015.

3. PROJECTED WATER DEMANDS 2017-2019

Based on the requirements of the Water Supply Reliability assessment the projected water demands for 2017-2019 are assumed to be similar to the 2-year average demand for 2013-2014 (6,181 acre-foot and 5,300 acre-foot respectively). For AMWC the projected water demand is project to be 5,740 acre-foot per (AFY).

4. WATER SUPPLY OVERVIEW

Imported Water

The Nacimiento Water Project (NWP) regional raw water transmission facility delivers water from Lake Nacimiento to communities in San Luis Obispo County. The NWP includes 45 miles of pipeline ranging from 12 inches to 36 inches in diameter, an intake structure at Nacimiento Lake, three pump stations ranging from 1,200 horsepower (hp) to 3,500 hp, and three water storage tanks ranging from 300,000 gallons to 850,000 gallons. The NWP is designed to deliver 15,750 acre-feet of water per year (AFY) to participating agencies. Up to 3,244 acre feet per year is delivered to Atascadero Mutual Water Company (AMWC) for discharge into a 1.6 acre recharge basin over a 4 to 6 month period in summer/fall. Existing downstream wells draw a blend of recharged surface water and groundwater for AMWC customers. The calculated water supply from the NWP for 2017-2019, provided by Monterey County Water Resources Agency (MCWRA), is included in Attachment A.

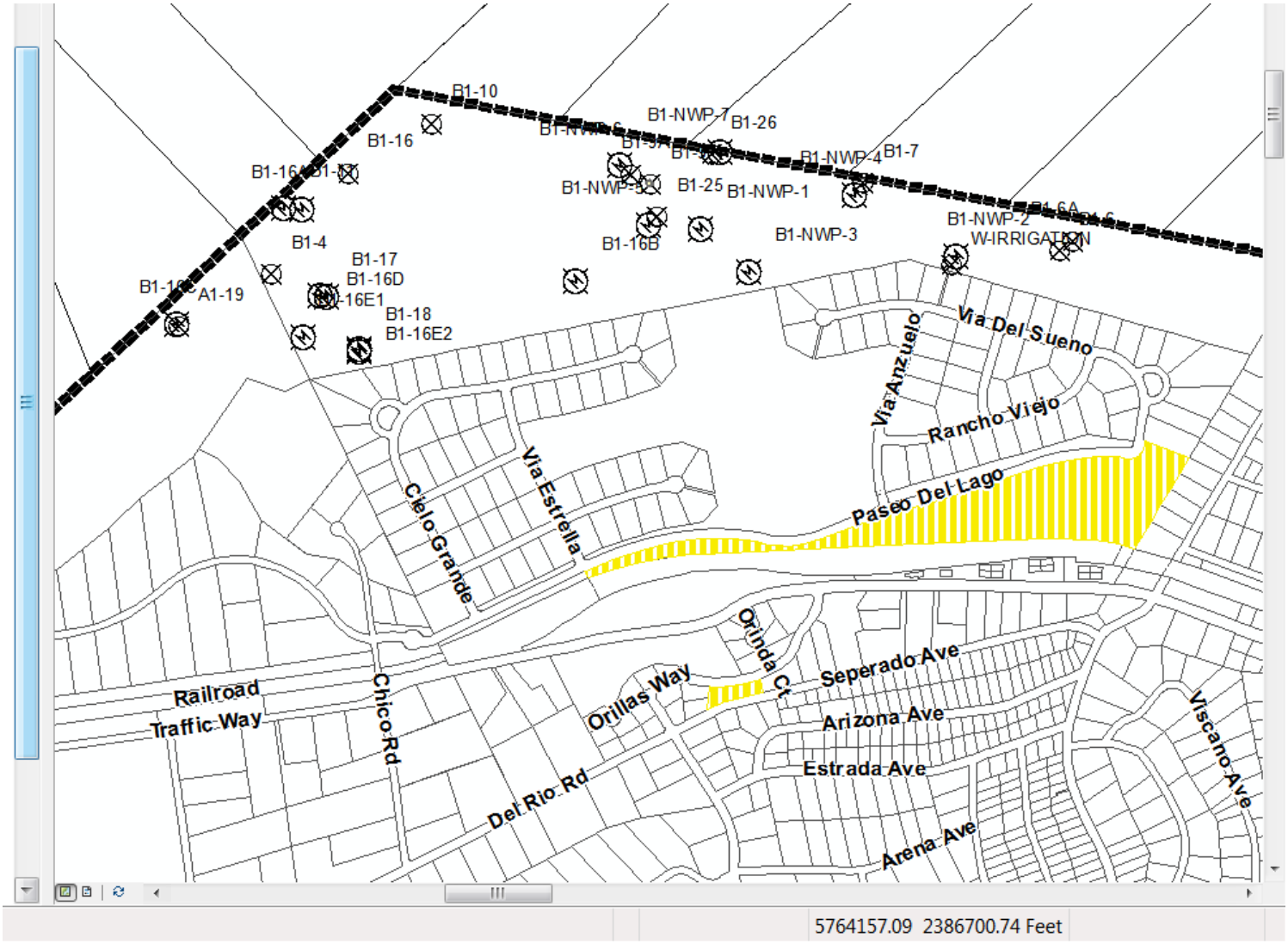
Groundwater

AMWC pumps groundwater from two distinct yet interrelated groundwater sources, the Salinas River Underflow and the Atascadero Sub-basin of the Paso Robles Groundwater Basin. AMWC has eight wells pumping from the Salinas River Underflow and seven wells pumping from the Atascadero Sub-basin. Figure 4-1 provides an overview of AMWC well fields. It should be noted as of April 17 the Salinas River Underflow aquifer has been fully recharged with a static water level of 17 feet below ground surface.

Descriptions of the existing groundwater sources have been included based on information from the County of San Luis Obispo Master Water Report (Carollo, 2012):

The Atascadero Groundwater Sub-basin is a sub-basin within the Paso Robles Groundwater Basin. The northern boundary of the sub-basin is approximately the southern end of the City of Paso Robles and the southern sub-basin boundary is located just south of the community of Garden Farms. The eastern boundary of the sub-basin is the Rinconada fault. Because the fault displaces the Paso Robles Formation, the hydraulic connection between the aquifer across the Rinconada fault is sufficiently restricted to warrant the classification of this area as a distinct sub-basin. Therefore, the Atascadero Groundwater Sub-basin of the Paso Robles Groundwater Basin is defined as that portion of the basin west of the Rinconada fault. The Atascadero Groundwater Sub-basin includes the City of Atascadero and the communities of Templeton and Garden Farms. The Salinas River is the major hydrologic feature in the sub-basin. Outflow (primarily surface flow and Salinas River underflow) occurs in the northern direction from the sub-basin into the Estrella subarea of the Paso Robles Groundwater Basin. Pumping test data from wells in the sub-basin suggest the presence of three aquifer groups with distinctly different hydraulic characteristics:

Figure 4-1: ATASCADERO MUTUAL WATER COMPANY MAIN WELL FIELD



1) *Alluvium along the floodplain of the Salinas River: The Salinas River alluvium is an unconfined aquifer with a high hydraulic conductivity. The thickness of the alluvium ranges widely, with an estimated maximum thickness of 100 feet. Shallow wells up to 100 feet deep are located in the immediate vicinity of the Salinas River along its entire reach, typically tapping the younger alluvium and/or shallow Paso Robles Formation aquifer zones. Approximately half of the total pumping in the sub-basin is from these shallow, alluvial wells.*

2) *Paso Robles Formation deposits directly underlying the Salinas River alluvium: In the City of Atascadero area, the Paso Robles Formation underlies the younger Salinas River alluvium. Wells in the Paso Robles Formation in hydraulic communication with the overlying river alluvium tend to have higher hydraulic conductivity values when compared to wells that penetrate the portions of the Paso Robles Formation not in contact with the alluvium.*

3) *Paso Robles Formation deposits along the east side of the sub-basin that are not directly connected to the younger alluvium: Paso Robles Formation deposits east of the Salinas River comprise the largest portion of the sub-basin. The deepest part of the formation is the area between Templeton and the Rinconada fault. In general, deep wells reach several hundred feet deep and tap the Paso Robles Formation.*

The main source of recharge in the alluvium is the Salinas River. Recharge to the Paso Robles Formation occurs through the overlying Salinas River alluvium as well as the overlying channel deposits of the Santa Margarita, Atascadero, Graves, and Paso Robles creeks.

5. HISTORICAL SUPPLY DELIVERIES

AMWC pumps groundwater from the Salinas River Underflow and the Atascadero Sub-basin of the Paso Robles Groundwater Basin. AMWC has eight wells pumping from the Salinas River Underflow and seven wells pumping from the Atascadero Sub-basin. **Table 5-1** summarizes historical groundwater pumping from the Salinas River Underflow and the Atascadero Sub-basin and imported water from the NWP for 2007 through 2015.

Table 5-1: Historical Pumping and Imported Water

Calendar Year	Alluvial Well Production (AFY)	Atascadero Sub-Basin Well Production (AFY)	Total Water Production (AFY)	NWP Recharge (AYF)	Net Pumping (AFY)
2007	3,004	3,817	6,822	0	6,822
2008	3,014	3,563	6,577	0	6,577
2009	2,180	3,523	5,702	0	5,702
2010	4,486	1,071	5,557	0	5,557
2011	4,164	1,195	5,359	0	5,359
2012	3,973	1,891	5,864	0	5,864
2013	3,237	2,944	6,181	2,029	4,152
2014	1,994	3,305	5,300	423	4,876
2015	1,438	3,099	4,537	2,915	1,621

AWMC's production strategy to serve customer demands is to pump from the Salinas River Underflow (alluvial wells) to the fullest extent possible, and supplement demands from the Atascadero Sub-Basin (deep wells) if demands exceed the alluvial pumping capabilities. Deliveries of water from the NWP are based on well levels in the deep well field (Atascadero Sub-Basin). When the static water level in monitoring well No. 11 reaches

50'± below ground surface, AMWC begin deliveries of NWP water. **Table 5-2** summaries AMWC's active wells including groundwater source, well field location, estimated flow rate, well depth and SWL as of June 1, 2016.

Table 5-2: AMWC Active Wells

Well No.	Groundwater Source	Well Field	Estimated Flow Rate (gpm)	Well Depth (feet)	Static Water Level as of June 1, 2016 (feet)
1B	Salinas River Underflow	Sycamore Well Field	250	75	23.8
2A			700	105	23.2
3A			260	70	24.1
5			480	95	32.1
5A			440	100	30.5
4		Deep Well Field	675	86	22.7
16			420	72	18.9
19			580	115	27.1
12	Atascadero Sub-basin	Deep Well Field	470	600	73.7
6A			530	480	30.4
7			800	500	30.9
9A			800	425	27.5
10			820	550	28.6
25	NWP Recharge to Atascadero Sub-basin		750	400	23.8
26			850	520	24.9

Figure 5-1 presents historical groundwater production, NWP inflow to the Atascadero Sub-Basin and static water levels (SWL) from 2012 through June 2016.

Figure 5-1: Deep Well Field Production & NWP Inflow vs. SWL

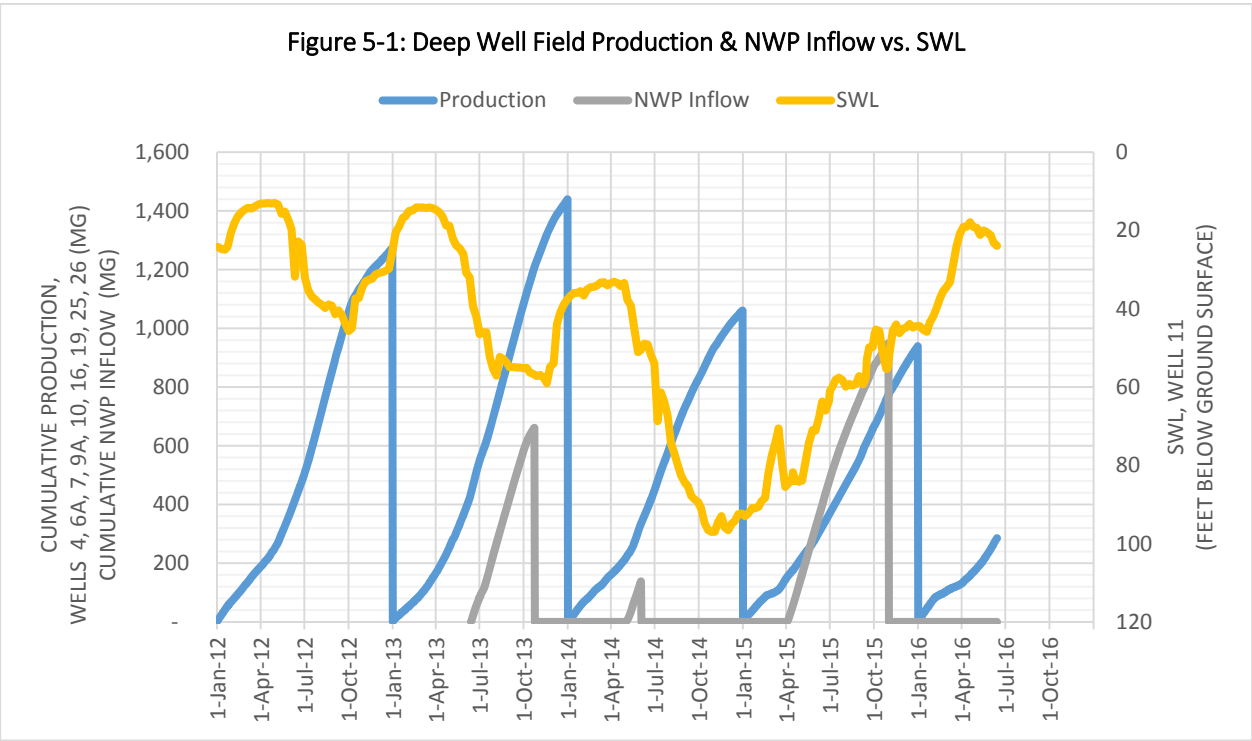
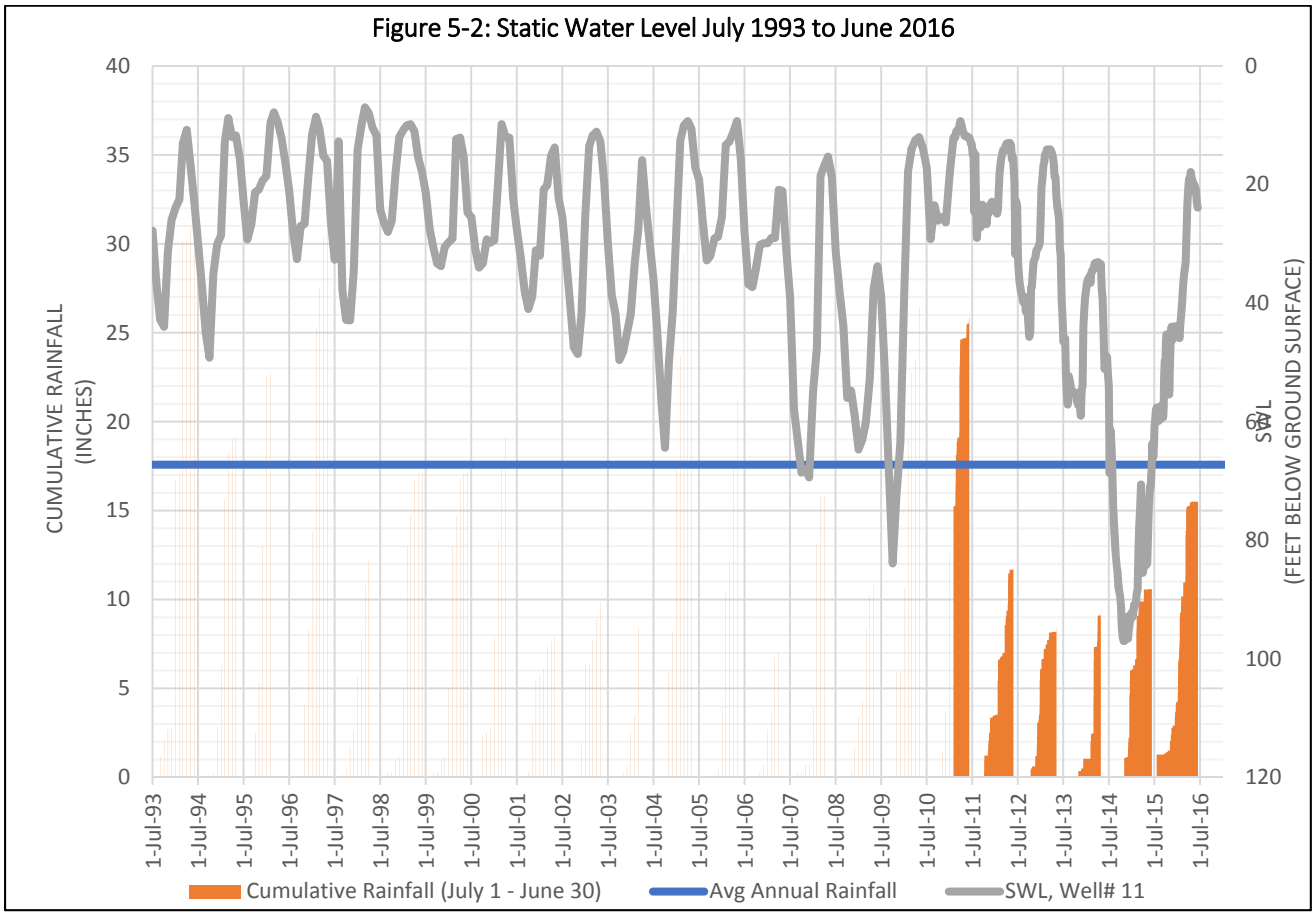


Figure 5-2 presents historical static water level, cumulative rainfall, and average annual rainfall from 1993 through 2016.



6. PROJECTED AVAILABLE WATER SUPPLY 2017-2019

Based on the estimated available NWP supplies provided by MCWRA (Attachment A) and review of historical pumping capacities from 2007 through 2015 it is anticipated that AMWC will have sufficient water supplies to serve customer demands for WY 2017-2019. As described previously, AMWC production strategy is to pump from the Salinas River Underflow to the fullest extent possible, and supplement demands from the Atascadero Sub-Basin (deep wells). As shown in **Table 5-1** AMWC has pumped up to 6,822 AFY from their groundwater sources to meet demands. The anticipated imported water and groundwater pumping required to meet 2017-2019 demand are summarized in **Table 6-1,** which can be served by AMWC's existing water supplies.

Table 6-1: Calculated Supplies for 2017-2019						
Calendar Year	**Demand (AFY)**	**NWP Supplemental Water (AFY)**	**Salinas River Underflow (AFY)**	**Atascadero Sub-Basin Groundwater Production (AFY)**	**Total Water Production (AFY)**	**Conservation Standard**
2017	5,740	3,244	3,237	2,503	8,984	0
2018	5,740	2,055	1,994	3,746	7,795	0
2019	5,740	3,244	1,438	4,302	8,984	0

Attachment A – Wholesaler Calculated Available Water Supply

Estimated Nacimiento Water Supplies (October 1, 2016 - September 30, 2019)

All Values in Acre Feet

Participant	Yearly Entl.	%	WY 2017 Available	WY 2018 Available	WY 2019 Available
Paso Robles	6,488	37.07%	6,488	4,111	6,488
Templeton	406	2.32%	406	257	406
Atascadero	3,244	18.54%	3,244	2,055	3,244
City of SLO	5,482	31.33%	5,482	3,473	5,482
CSA 10A	40	0.23%	40	25	40
Santa Margarita	80	0.46%	80	51	80
Bella Vista MHP	10	0.06%	10	6	10
Lakeside	1,750	10.00%	1,750	1,109	1,750
Totals	17,500	100%	17,500	11,088	17,500

Notes: Yearly total delivery cannot exceed 17,500 acre feet

Available Water Calculation provided by MCWRA 6/16/2016:

Projection Year	Hydrologic Reference Year	Water Year Type	Start Date	Oct. 1 Storage (AF)	Winter Inflow from Reference Year (AF)	Storage Above Minimum Pool After Winter Inflow (AF)	Estimated Reservoir Evaporation (AF)	Fisheries Releases (AF)	Block Flow Releases (AF)	Block Flow Status	SVWP / Conservation Releases (AF)	SRDF Operation	NWP and Lakeside Use (AF)	End of WY Storage (AF)	Comments
WY 2017	WY 2013	dry-normal	10/1/2016	94,209	56,252	128,161	18,000	43,439	0	Triggers not met in WY 13	48,080	Apr-May	17,500	23,442	
WY 2018	WY 2014	dry	10/1/2017	23,442	7,500	8,642	8,000	5,144	0	Dry YT	0	No	11,088	6,710	MCWRA can not release below 10,300 AF, SLO can not pump below 6,710 AF
WY 2019	WY 2015	dry	10/1/2018	6,710	50,513	34,923	9,000	21,685	0	Dry YT	0	No	17,500	9,038	

The following assumptions were used to estimate Nacimiento Reservoir water availability to the Nacimiento Water Project for Water Years 2017-2019 in response to the May 2016 Emergency Regulation from the State Water Resources Control Board:

- Hydrologic conditions including reservoir inflow for the Water Year (WY) 2017, 2018, 2019 projections are based on actual WY 2013, 2014, 2015 conditions respectively
- The October 1, 2016 starting reservoir storage is a projection is from the Monterey County Water Resources Agency (MCWRA) 2016 Reservoir Release Schedule
- Reservoir evaporation is estimated from WY 2013, 2014, 2015 values as reported in MCWRA Reservoir Release Schedules
- As required by the Salinas Valley Water Project (SVWP) Biological Opinion (BO), fisheries releases of 60 cfs will be made from Nacimiento Reservoir above the minimum pool storage of 22,300 AF
- Water Conservation/SVWP releases totals are calculated from estimated daily release values that consider concurrent releases from San Antonio Reservoir to provide flow to the Salinas River Diversion Facility (SRDF)
- Block Flow Releases are under certain circumstances, required by the BO for the downstream migration of smolting steelhead
- The Nacimiento Reservoir Dead Pool is the physical minimum pool of the reservoir at which water can no longer be released by gravity, elevation 670 ft, 10,300 AF of storage
- The Nacimiento Water Project intake is at elevation 662 feet, approximately 6,710 AF of storage