



Elsinore Valley Municipal Water District

**BOR WaterSMART Drought Resiliency Grant
(BOR-DO-18-F008)**

Palomar Well Replacement Project

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February 13, 2018

Elsinore Valley Municipal Water District



BOR WaterSMART: Drought Resiliency Grant FY 2018

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Elsinore Valley Municipal Water District

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TECHNICAL PROPOSAL & EVALUATION CRITERIA

Begin 20-page limit

Executive Summary

Date: February 13, 2018

Applicant Name: Elsinore Valley Municipal Water District (EVMWD)

Elsinore Valley Municipal Water District (EVMWD) is a non-profit agency and a sub-agency of the Western Municipal Water District. Incorporated December 23, 1950 under the Municipal Water District Act of 1911, its purpose is to finance, construct, operate, and maintain wastewater systems servicing properties within EVMWD's boundaries. As a special district, EVMWD was formed to protect local water supplies and import supplemental water to alleviate shortages.

City, County, State: City of Lake Elsinore, Riverside County, California

Project Summary: EVMWD proposes to construct a new potable water well with pumps, motors, discharge piping, disinfection facilities, electrical, and supervisory control and data acquisition (SCADA) facilities. The proposed project will supplement local drinking water supplies and replace a non-operating and poorly built well that previously served as a non-potable well. The new well will be constructed to include SCADA equipment to better manage water flows and control water supply. In 2015, EVMWD developed a comprehensive Integrated Resources Plan (IRP) to address the uncertainty associated with water supply reliability due to climate change, extended drought conditions, and the increasing cost of imported water. In 2017, EVMWD built upon the IRP by developing a Drought Contingency Plan (DCP) with funding from the Bureau of Reclamation (BOR). The proposed project is part of the long-term strategy identified in these plans to provide a reliable and redundant water supply to a growing customer base by optimizing the use of EVMWD's local water supply sources. **The project is expected to yield approximately 1,937 AFY of new potable groundwater each year, or 58,110 AF over the 30-year life of the well. The new water represents approximately 7% of the District's annual average demand of 27,700 AFY, and almost 10% of the District's imported water.**

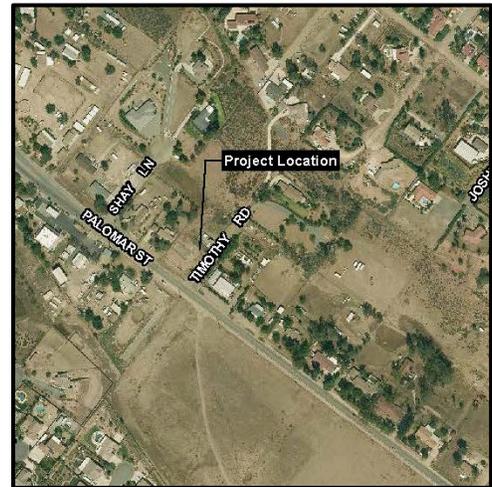


Exhibit 1: The new potable well will replace an abandoned non-potable well, providing a new source of drinking water.

Project Timeline: The proposed project is in final design, with permitting and CEQA/NEPA environmental documentation largely complete. Construction is scheduled to begin immediately upon notification of grant funding and is anticipated to be completed well within 24 months. EVMWD will continue to monitor and evaluate the project throughout the grant period.

Federal Facility: The project is not located on a federal facility; nor will it provide any negative impacts to any Bureau of Reclamation (BOR) facilities.

Background Data

Project Location. The proposed Palomar Well Project is located in the City of Wildomar, just off Timothy Road, approximately 175 feet northeast of the intersection of Palomar Street and Timothy Road as shown in Exhibits 2 and 3. The well site lies along the southern edge of the Elsinore Graben between Rome Hill fault to the northeast and the Wildomar Fault Zone to the southwest (Latitude: 33.613153; Longitude: -117.2868). The well site is approximately 40 ft. x 60 ft. and lies within a groundwater storage basin that spans 1,250 acres containing approximately 38,000 acre-feet of groundwater in storage. Within this subunit, multiple wells of varying depths have been constructed; the majority no longer exist, including the Palomar well, which penetrated a depth of 1,200 feet. The well site is located in the Elsinore Groundwater Basin, which occupies approximately 26 square miles of land and contains approximately 150 water wells. The original Palomar Well has a State designation 6S.4W-27P01S. See Exhibit 3 for more details.

Project History. The Palomar Well was originally constructed in August 1967 by a private owner, Midway Drilling and Pump Company. In 1993, EVMWD (District) acquired the well and utilized it for potable water production until February 2006 when the well collapsed and was no longer operational. Review of video logs of the well completed November 3, 2005, March 2, 2006, and April 7, 2006, depict a leakage of shallow perched waters into the well casing below 20 feet in depth. This indicated a failure of the cement seal, causing an eventual destruction of the steel casing and resulting in the well collapse.

Current Water Use. Elsinore Valley Municipal Water District (EVMWD/District) is located in Elsinore Valley in the western portion of Riverside County, one of the fastest growing areas in California. EVMWD provides water supply and wastewater collection services to approximately 148,587 residential customers, and 3,767 institutional, commercial, and industrial users in the cities of Lake Elsinore, Canyon Lake, Wildomar, parts of Murrieta, Corona, unincorporated areas of Riverside County, and Temescal System. **The average annual water production from 2005-2013 was approximately 27,700 AFY with the highest production occurring in 2007 (33,800 AFY) and the lowest production in 2011 (23,700 AFY) (2017 Drought Contingency Plan). Future demand is anticipated to double by 2040 to approximately 50,000 AFY.**

Over 93% of the service connections within EVMWD are single-family residential connections, with no large commercial or industrial water consumers within its service area. Since EVMWD has no seasonal population and demand is entirely dependent on residential connections, their service population remains consistent throughout the year at 149,600. Should the current Palomar Well remain inoperable, hundreds of thousands of residents could be adversely affected during a dry spell or drought when imported water is limited. The new well will provide an additional water supply, reduce the percentage of imported water in the District's portfolio, and increase available potable water throughout the District. By improving groundwater storage capacity and availability, EVMWD is efficiently increasing the reliability of water supply and delivery service to its customers.

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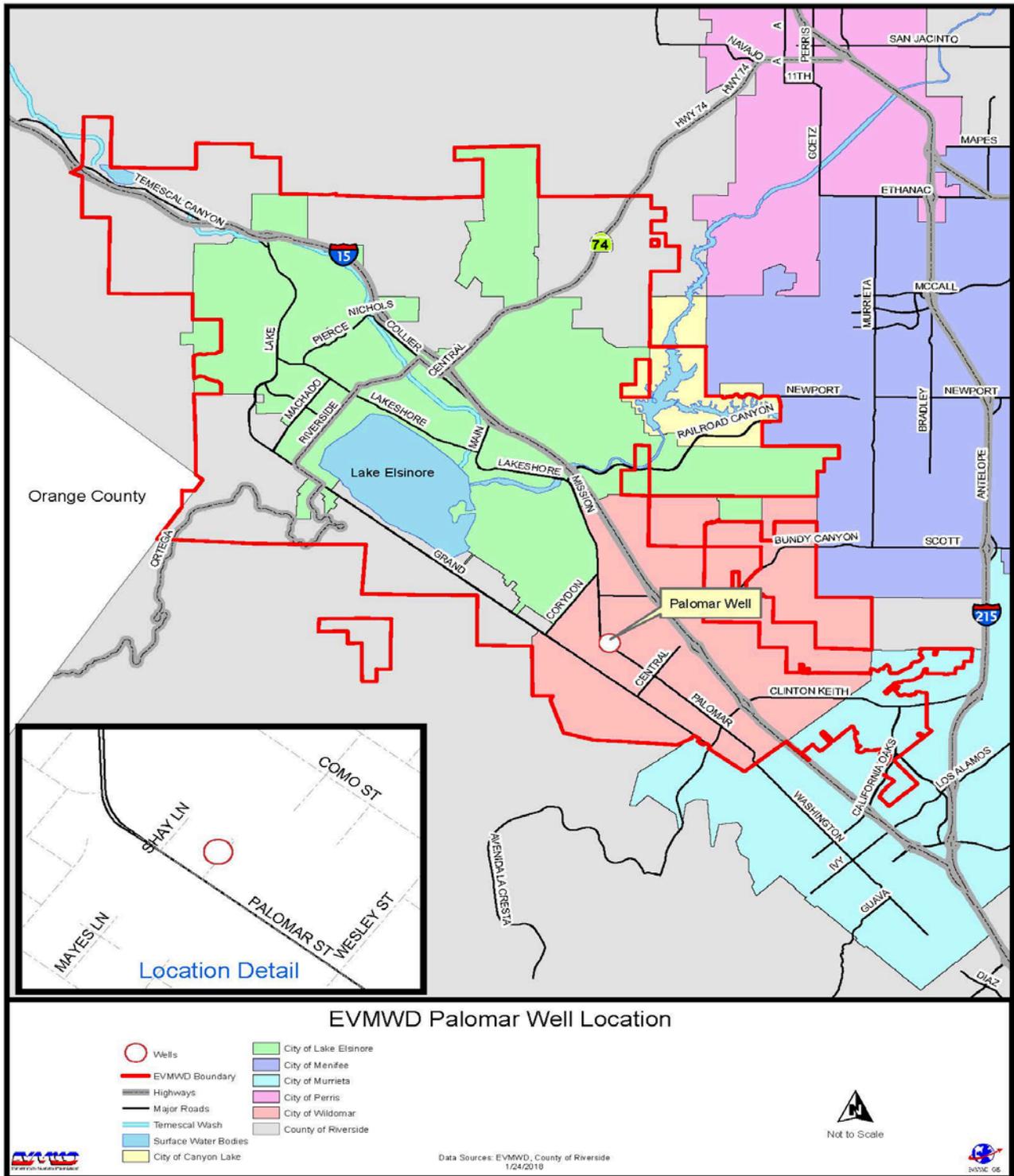


Exhibit 2: EVMWD Service Area and Palomar Well Project Location

Latitude: 33.613153; Longitude: -117.2868

The proposed Palomar Well Project is located in the City of Wildomar, just off Timothy Road, approximately 175 feet northeast of the intersection of Palomar Street and Timothy Road.

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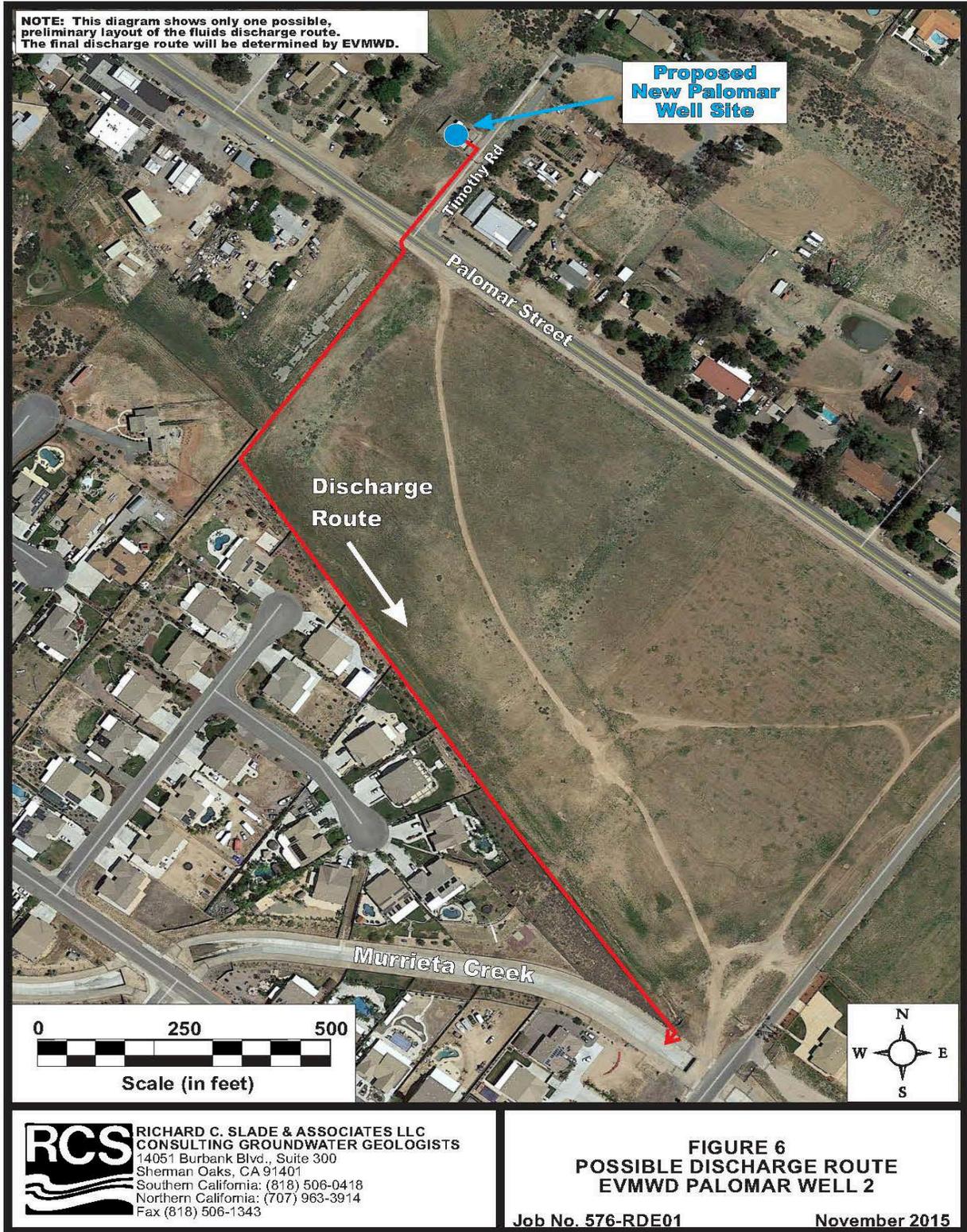


Exhibit 3. Palomar Well Project Location

The well site is approximately 40 ft. x 60 ft. and lies within a groundwater storage unit that spans 1,250 acres containing approximately 38,000 acre-feet of groundwater in storage.

Current Water Supply. EVMWD has three primary sources of water supply: local surface water (5%), local groundwater (25%), and imported water (70%) obtained via the California State Water Project (SWP) and the Colorado River Aqueduct (both BOR facilities). With future water demands expected to double over the next 25 years, EVMWD faces a number of challenges stemming from its reliance on imported water. Long-term water reliability is uncertain due to drought shortages, climate change, seismic events, environmental impacts, and flow restrictions in the Sacramento-San Joaquin Delta, which is the origin for the SWP, and salinity of the Colorado River supplies. EVMWD also faces additional financial burdens to fund infrastructure improvements as the cost of imported water is expected to increase significantly, resulting in more funding needed to allocate for future imported water purchases from the Metropolitan Water District of Southern California (MWD), which is the District's water supplier. MWD routinely increases water costs to maintain water delivery, system reliability and improve water supplies.

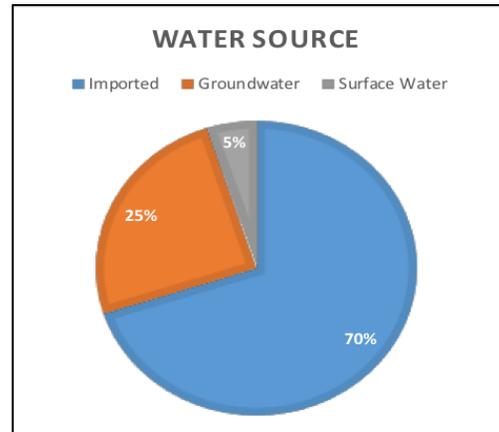


Exhibit 4: EVMWD Water Sources.

Current Water Rights. Through the acquisition of the Temescal Valley Creek (TVC), EVMWD acquired surface water rights to divert up to 12,000 AFY of natural inflow from the San Jacinto River annually and store water in the Railroad Canyon Reservoir. EVMWD also acquired the right to divert 2.4 cubic feet per second of San Jacinto River water from April 1 to May 31 each season. In a settlement of litigation regarding the release of water into Lake Elsinore, EVMWD and the City of Lake Elsinore agreed that EVMWD would not treat more than 8,000 AFY (about 7.1 MGF continuous flow) of San Jacinto River flows in any water year at EVMWD's Canyon Lake Water Treatment Plant. This 8,000 AFY limit applies only to San Jacinto River and runoff water and excludes any imported water conveyed in the river channel.

Additionally, EVMWD proactively reviews ongoing and proposed regional and statewide water programs and works closely with Western Metropolitan Water District (WMWD) in consideration of purchasing permanent water rights on the open market. EVMWD also participates in groundwater banking programs (outside its service area) and regional desalination programs, etc.

EVMWD has been using groundwater from local basins, which are non-adjudicated. Per Table 3-5, of the IRP the total amount of groundwater used has been approximately 7,831 AFY. The Palomar Well is in the Elsinore Basin which has a total amount of 5,500 AFY.

Projected Water Demand. According to the 2015 Urban Water Management Plan (UWMP), over the next 25 years the total water use is anticipated to more than double (See Exhibit 5 – Current and Projected Water Use). This increase is attributed to the anticipated population growth and usage. In addition, EVMWD's General Plan Land Use shows parcels that are currently vacant and anticipated to be developed over the next 20 years. These vacant parcels account for approximately two-thirds of the total area within EVMWD's service area that will require water once developed.

Exhibit 5. Current and Projected Water Use for EVMWD

Water Demand	2015	2020	2025	2030	2035	2040 (opt)
	22,569	36,205	40,605	45,005	49,205	53,605

Source: EVMWD 2015 Urban Water Management Plan: Page 4-6.

Potential Shortfalls. Potential shortfalls in water supply can be broken down by source type: **imported water, groundwater supply, and surface water supply reliability**. Constraints to these sources can cause a decline in both water quantity and water quality.

Imported Water (70% of EVMWD water supply). Existing supplies are adequate to meet projected demands through 2040 (Metropolitan, 2015). However, during any fiscal year (beginning on July 1st and ending on June 30th), Metropolitan may deliver up to 3,000 acre-feet of water for storage in the Elsinore Basin. EVMWD’s dual-purpose wells are used to inject these deliveries in the Elsinore Basin. Metropolitan may extract up to 4,000 acre-feet of water stored in the Elsinore Basin as part of the Groundwater Storage Program, thereby reducing EVMWD’s imported water sources. Water Quality. Imported Metropolitan water is treated at Skinner Filtration Plant then conveyed to EVMWD. The Total Dissolved Solids (TDS) content of this water supply, which is primarily Colorado River water, ranges between 440 to 640 mg/L. In 1999, Metropolitan adopted a policy to maintain the TDS concentration at 500 mg/L (secondary standards for drinking water) or less. This is being accomplished by blending the Colorado River water, which has TDS levels as high as 700 mg/L, with SWP water that has an average TDS of 300 mg/L. The TDS content of this blended water supply has an average of 315 mg/L. Therefore, there are no current restrictions on water supply due to imported water quality. **The biggest constraint in imported water availability of Metropolitan water supply is dependent on legal, environmental, or climatic changes.**

Groundwater (25% of EVMWD water supply). EVMWD is the largest groundwater producer in the Elsinore Basin, accounting for approximately 99% of the total production. Groundwater production from the Elsinore Basin is considered a reliable source of supply due to the long-term natural recharge of the groundwater basin. Over the past several years, EVMWD has implemented well pumps to extract groundwater resulting in satisfactory management of the Elsinore Basin, which must remain at or below the safe yield of the basin (5,500 acre-feet/year and 1,200 acre-feet/year, respectively). EVMWD has a total well capacity of 20,800 acre-feet/year, making EVMWD’s capacity to meet anticipated average year production of 6,700 acre-feet/year manageable. Water Quality. High arsenic concentrations have been found in groundwater. EVMWD has constructed arsenic treatment and removal facilities to address these water quality issues, in addition to blending pipeline blends production from wells to reduce arsenic concentrations. Overall, this has resolved the issue and Elsinore Basin groundwater quality is considered to be good. EVMWD does not anticipate any groundwater quality to have adverse impacts on supply reliability. **Groundwater is not expected to be impacted by any other factors such as legal, environmental, or climatic changes.**

Surface Water (5% of EVMWD water supply). The reliability of water supply from the Canyon Lake Water Treatment Plant (CLWTP) is dependent on local hydrology and is reduced during dry year conditions. A review of historical data indicates a reduction of up to 50% in available natural recharge at Canyon Lake during dry years from average or normal year flows. Water Quality. Canyon Lake water has

elevated concentrations of disinfection by product (DBP) precursors, mainly dissolved organic carbon (DOC) and bromide. Canyon Lake has the highest Total Dissolved Solids (TDB) among all EVMWD’s water sources with the highest running annual average of TDS treated water of 680 mg/L. With a proposed implementation of UV disinfection facilities at the WTP, it is expected that Canyon Lake water quality will not affect supply reliability at the WTP. ***Supply from Canyon Lake is not expected to be impacted by legal, water quality, or environmental factors.***

The following table (Exhibit 6) summarizes factors that can potentially impact supply deliveries from EVMWD’s water sources that include legal, environmental, water quality, and climatic changes.

Exhibit 6. Factors Resulting in Inconsistency of Supply

Water Supply Sources	Specific Source Name	Legal	Environmental	Water Quality	Climatic
Local Surface Water	Canyon Lake				X
Local Groundwater	Groundwater Wells			X	
Imported Water	TVP/AVP	X	X		X

Water Delivery System. The existing water system consists of 74 active storage reservoirs, 49 booster pumping stations, 12 groundwater wells, 44 pressure reducing stations, and approximately 685 miles of pipeline. EVMWD currently has 45,245 connections which are primarily single family residential customers. The remaining customers are multi-family, commercial, industrial, and institutional customers.

Bureau of Reclamation Past Relationship. EVMWD imports on average approximately 70% of its water from the Colorado River and State Water Project (SWP) (both BOR facilities) through purchases from Eastern and Western Municipal Water Districts. Additionally, in 1985, EVMWD entered an agreement with the BOR for a \$39.6 million loan for Lake Stabilization that became known as the Lake Management Project. EVMWD has continued to build relationships with the Southern California Area Office (SCAO) of the Bureau of Reclamation to discuss partnerships on upcoming projects and was awarded funding through the SCAO Water Conservation Field Services Program to develop a hot water recirculation system rebate program. While the nationwide economic downturn affected EVMWD in 2011, the District continues to work toward developing a local match that is committed to available for funding a Title XVI project in the near future. In 2016, the District was awarded a Title XVI Program Feasibility Studies grant and a Drought Contingency Planning grant. Both have recently been completed.

Technical Project Description

The proposed project is to construct a new well to replace the existing Palomar well structure, originally built in 1967, which has not been operational for the last 10 years. The well site lies within a groundwater storage unit that spans a total of 1,250 acres containing approximately 38,000-acre feet of groundwater storage. The Palomar Well Replacement Project will also include upgraded communication equipment for better water management practices. The proposed project is pending final design, but preliminary permitting and CEQA environmental is largely complete (Please see Appendices A and B for design layouts and preliminary environmental documentation). The scope of work includes:

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- Construction of a new well structure to replace the existing Palomar Well structure with motorized controls, pumps, discharge piping, electrical equipment, new electrical service connection, and communication equipment to allow for groundwater extraction.
- Removal of three septic systems and installation of a new sewer pipeline to connect District customers and mitigate future groundwater contamination.
- Installation of supervisory control and data acquisition (SCADA) equipment, a computer system for gathering and analyzing real time data that will better control water flows, monitor water levels, and control water system operations in real time.

For a detailed Scope of Work, please see Project Criterion D – Project Implementation on Page 14. The new Palomar Well will remain in the existing footprint of the original structure. The total project size is 40 feet by 60 feet with various pipeline corridors constructed in the public right-of-way. The new well will replace the existing non-operational well, which will be abandoned per Department of Health guidelines.

Project Benefits. Construction of the new well will provide many benefits to both District customers and the surrounding areas near the project as follows: **1)** create an additional local water supply from the Elsinore Groundwater Basin; **2)** reduce the percentage of imported water in the District’s water portfolio; **3)** increase flexibility of available potable water throughout the District, allowing for the use of imported water to be supplemented by groundwater in the event of any water shortages; and **4)** removal of three septic systems and associated leach fields to mitigate potential groundwater contamination.

The Palomar Well Project has been identified as one of the priority projects in EVMWD’s Drought Contingency Plan to mitigate and/or respond to drought conditions (See page E-10 of attached DCP). Construction of the new Palomar Well will increase the local water supply adding capacity to the District’s groundwater storage to help meet needs during dry years or droughts and help with operational flexibility. This system will improve water supply management of the District’s groundwater banking and management program, specifically by making stored water supplies available for in-District uses during dry years and/or drought conditions. The total amount of water expected to be better managed through increased pumping capacity is 58,110 AF of new potable groundwater over the 30-year life cycle of the project, equal to 1,937 AFY annually when averaged over that period.

Groundwater will be substantially increased by implementing the proposed project. The north area of EVMWD is served by imported water by the Temescal Valley Pipeline (TVP). As a result of the Flagler Well Project, which is a prior groundwater project and part of EVMWD’s Near-Term Water Supply Program to increase groundwater supplies, the north area of EVMWD, which receives imported water through the TVP, will now have a groundwater source. The Flagler project is currently under construction and is anticipated to be complete by September 2018. The south area of EVMWD is also served by imported water through the Auld Valley Pipeline (AVP), which will now have a groundwater source through the proposed Palomar Well Project. Both groundwater projects are mixed throughout the transmission system and allow for imported water to be reduced and able to leverage water sources for routine maintenance. When one pipeline is out of service, the other will compensate as a reliable and redundant water supply.

From a drought resiliency standpoint, the proposed project is expected to improve EVMWD's response to dry years and drought conditions by making available stored water that is returned to in-District uses through the increase of the District's capacity to recover stored water. Water supply conditions will be improved by the well's pumping capacity to extract stored water supplies and be available to meet the District's demands when other water sources (imported water and/or surface water) are limited.

The proposed project is not routine maintenance, but improvement work required to replace a non-operating well structure that has been unable to deliver water to cities served by the District (all and/or portions of the Cities of Lake Elsinore, Wildomar, Murrieta, Canyon Lake, and Unincorporated areas). The primary goal of the project is to increase local water supplies, reduce the percentage of imported water in the District's portfolio, and increase operational flexibility throughout the District. The new well will supplement imported water with groundwater in the event of any water shortages.

Evaluation Criteria

Evaluation Criterion A—Project Benefits

Long-term Resiliency to Drought. Protecting and managing the current water supply will build long-term resilience in the face of dry years and/or drought. As the existing well infrastructure is collapsed and has not been operational for the last 10 years, EVMWD intends to abandon it and construct a new well to provide a new water supply. The new well infrastructure will provide increased reliability and water storage capacity for the life of the proposed project, which is estimated at 30 years. The project will allow the District to make banked wet year water supplies available during dry years or during drought conditions. The new well will be equipped with pumps and motors creating a streamlined conveyance through the District's infrastructure to effectively extract previously stored water supplies for in-District uses.

The proposed project will increase the District's ability to 1) recover water stored underground with more pumping outflow; and 2) move water in any direction with an increased number of pumps, which will provide more flexibility in providing water supply should one of the pipes become damaged. The well will be constructed and managed to enable the District's groundwater banking program to remain operational for the life of the project, which is estimated at 30 years for well pumps, control mechanisms, and outlet pipe operational life.

Estimated Quantity of Additional Water. The DCP lists the project as producing an estimated 560 AFY of new potable water per year. However, this DCP estimate was based on an older desktop study. A newer downwell study, completed by Richard C. Slade & Associates LLC, consulting groundwater geologists, estimated an average pre-design target pumping rate of between 1,000 gpm – 1,500 gpm (**or an average of 1,937 AFY**), using pumping data supplied by EVMWD staff from nearby wells to determine potential well yields and specific capacities for the new well. Because the new well will be located in proximity to the former onsite well, available pumping data from that well was also used to help evaluate pumping characteristics of the new well (Source: Technical Memorandum, Richard C. Slade & Associates, LLC, November 17, 2015, pages 8-9). The 1,937 AFY was derived by using the assumption that the well would pump 52 weeks per year, 24-hours per day, 7 days per week. Every five years, the well will need two weeks down for flushing, etc. **The new water represents approximately 7% of the District's annual average demand of 27,700 AFY (1,937/27,700), and almost 10% of the District's imported water (1,937/ (70% x 27,700)).**

The project addresses the District's concerns regarding the impacts of drought, population growth, and increased water use. In addition, the proposed project will help to reduce future needs for imported water by ensuring a reliable local water supply.

Improved Water Management. The primary objective of the project is to provide an additional water supply to the District's current water delivery service. However, the project will also allow the District to better manage water supplies to improve operational flexibility because this new local supply is included in this pressure zone and will not have to be pumped into it. Equipping the new well with pumps and outlet pipes will increase the return capacity of the District to meet dry period needs, thereby improving water supply management for the District's groundwater banking and management program. Since the water is a new local supply and is delivered directly into one of the District's main water transmission pipelines, it will immediately add redundancy and supply to this area. The project also has its own disinfection facilities, which mean the residual of the water leaving the Palomar Well Facility will be higher and drive the residual up in this area. This is good for water quality and keeping this rural area with long transmissions lines with a boost of higher chlorinated water. With SCADA communication equipment, the District will be able to efficiently manage water supplies, better track unaccounted for water, and improve water system operations. SCADA equipment will enable the District to remotely operate the facility, and monitor water being stored in the banking program. The total amount of water expected to be better managed through increased pumping capacity is 58,110 AF of new potable groundwater over the 30-year life cycle of the project, equal to 1,937 AFY annually when normalized over that period.

New Information Available to Water Managers. The proposed project will make new water supply information and water storage capacity available via SCADA equipment to water managers and maintenance staff. This information will also help in stakeholder meetings with other cities and water authorities to develop effective plans that help to address future drought conditions.

Quantity of Water Managed and Quantified Water Supply. All the water that will flow through the proposed well will be for customer use or groundwater storage (banking system). As a result, 100% of the water that flows through the proposed project will benefit from improved water management practices and help with limited water supplies during the dry periods or any future droughts. Assuming a 30-year life cycle for the proposed project and up to 1,937 AFY of projected water flow – the total amount of water expected to be better managed equates to over 58,110 AF of water over the life of the project. This estimate was calculated by Richard C. Slade & Associates LLC, consulting groundwater geologists, using pumping data supplied by EVMWD staff from nearby wells to determine potential well yields and specific capacities for the new well. Because the new well will be located in proximity to the former onsite well, available pumping data from that well was also used to help evaluate pumping characteristics of the new well (Source: Technical Memorandum, Richard C. Slade & Associates, LLC, November 17, 2015, pages 8-9). The 1,937 AFY was derived by using the assumption that the well would run 52 weeks per year, 24-hours per day, 7 days per week. Every five years, the well will need two weeks down for flushing, etc. The new water represents approximately 7% (1,937/27,700) of the District's annual average demand of 27,700 AFY, and almost 10% of the District's imported water (1,937/ (70% x 27,700)).

Benefits to Fish, Wildlife, Environment. The proposed project will indirectly benefit fish, wildlife, and the environment by reducing the amount of surface water extracted from Canyon Lake Reservoir, which serves as both a source of water for EVMWD and a recreational lake and habitat for wildlife. Elsinore Valley is made up of 16 distinct biotic habitats with an abundant amount of flora and fauna including



Exhibit 7. Canyon Lake Reservoir.

Chaparral, Riversidian Sage Scrub, Coast Live Oak Woodland, Southern Willow Scrub, Coastal and Valley Freshwater marsh, Vernal Pool, and Open Water/Reservoir/Pond, to name a few. The City of Lake Elsinore’s 2011 General Plan listed 19 plants and 36 animals within the Elsinore Valley area habitats that are given “special status” designation with a high wildlife value defined by federal, state, and local government conservation programs. There are also several federally and state recognized threatened or endangered species specifically present in the Elsinore

Valley including, but not limited to Delta Smelt, the Stephen’s Kangaroo Rat, the Dessert Slender Salamander, San Jacinto Valley Crownscale. The project will also indirectly benefit the Bay-Delta habitat and the Delta Smelt (along with 22 other species of fish in the Bay-Delta and Colorado River regions) by allowing more imported water to remain at the source.

Salt Water Barriers. Not Applicable. The proposed project does not include salt water barrier components.

Wells. The proposed well is estimated to produce approximately 1,937 AFY. This estimate was calculated by Richard C. Slade & Associates LLC, consulting groundwater geologists, using pumping data of an average pre-design target pumping rate of between 1,000 gpm – 1,500 gpm supplied by EVMWD staff from nearby wells to determine potential well yields and specific capacities for the new well. Because the new well would be located in proximity to the former onsite well, available pumping data from that well was also used to help evaluate pumping characteristics of the new well (Source: Technical Memorandum, Richard C. Slade & Associates, LLC, November 17, 2015, pages 8-9). The 1,937 AFY was derived by using the assumption that the well would run 52 weeks per year, 24-hours per day, 7 days per week. Every five years, the well will need two weeks down for flushing, etc.

New Water Marketing Tool or Program. Not Applicable.

Metering/Water Measurement Projects. The proposed project will implement supervisory control and data acquisition (SCADA) equipment as a tool to monitor water supplies, program water diversion methods, and study water calculations to determine the impact of and predict drought conditions. The project will include an updated ultrasonic flow meter that measures the height of the water flowing out of the well. The meter will provide daily reads and electronically record water supply flows 24 hours a day. This information will enable the District to observe and record water supply levels to manage the water banking program. As population and land-use densities increase, the District will use the information to support local water supply projects to help reduce its dependence on imported and surface water and focus efforts on the existing groundwater supply to maximize the local water supply sources available.

Environmental/Wildlife Projects. No species will be adversely affected by the proposed project. The well construction will reduce the need to draw surface water from Canyon Lake Reservoir, reducing the likelihood of negatively impacting aquatic and other wildlife that make Canyon Lake their home.

Evaluation Criterion B—Drought Planning and Preparedness

As noted previously, in 2017, EVMWD completed a Drought Contingency Plan (DCP), funded in part by a grant from the Bureau of Reclamation’s (BOR) 2016 WaterSMART grant.

How Plan Addresses Drought. The DCP was developed based on EVMWD’s previous planning efforts including EVMWD’s Water Shortage Ordinance 225, which was drafted and updated for consistency with Metropolitan Water District’s (MWD) Water Surplus and Drought Management Plan and Western Municipal Water District’s (WMWD) Water Shortage Contingency Plan. In addition, the DCP builds upon the District’s Integrated Resources Plan (IRP) to address the uncertainty associated with water supply reliability due to climate change, extended drought conditions, and the increasing cost of imported water. The DCP addresses drought using the six required elements of the BOR’s 2016 WaterSMART guidelines including: 1) Drought Monitoring; 2) Vulnerability Assessment; 3) Mitigation Actions; 4) Response Actions; 5) Operational and Administrative Framework; and 6) Plan Update Process (see attached DCP Executive Summary for details).

Input from Multiple Stakeholders. EVMWD’s DCP was developed through a collaboration of its Board of Directors and water agencies participating in preparation of the plan, providing feedback to drafts of the plan, and attending public hearings. The District created the EVMWD Drought Task Force as a partnership between EVMWD and the cities of Murrieta, Lake Elsinore, Wildomar, Canyon Lake, Lake Elsinore and Murrieta Unified School Districts, and the County of Riverside. The Task force provided a mechanism for agencies to exchange drought information, discuss issues and solutions, and coordinate response activities related to the drought. Along with the expert drought consultant, the Task Force coordinated with other relevant regional and statewide agencies including the Metropolitan Water District of Southern California, State Water Resources Control Board, and the Inland Empire Coalition of Water Agencies.

Climate Change Impacts. The DCP included consideration of climate change impacts to water resources. EVMWD is subject to climate vulnerabilities including more frequent and longer drought periods, reduced imported water supply availability and impacted water supply reliability (See DCP, Page E-7 for details).

Project Supported by Plan/Implements Goals and is Prioritized. The Palomar Well Project is identified as a potential mitigation action in the DCP E.2.3 Mitigation Actions section (Page E-8) and implements the following DCP goals:

- Optimizes the use of EVMWD’s local water supply sources;
- Has an effective unit cost relative to current and forecasted cost of imported water;
- Has one of the lowest Total Dissolved Solids (TDS) concentration values. A critical factor for EVMWD given the regulatory and financial implications of TDS management in the groundwater basins;

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- Has the highest reliability relative to the other scenarios;
- Satisfies the highest priority set forth by the EVMWD Board of Directors.

The Project is also **prioritized** as #4 in the Hybrid Water Supply Projects Table (Table E-2, Pg. E-10).

Evaluation Criterion C—Severity of Actual/Potential Drought Impacts Addressed by Project

Statewide Drought Impacts. Drought conditions continue to be a critical issue for the State of California’s water supply. Climate data demonstrates that California has experienced several periods of severe drought: 1928-1934, 1976-1977, 1987-1991, 2007-09, and most recently 2013-16 resulting in significant impacts to the State’s water supplies, with the years 2012-15 representing the driest in California’s recorded history (see Exhibit 8, U.S. Drought Monitor Map). A recent article from the Associated Press¹ noted that “California is rapidly plunging back into drought, with severe conditions now existing in (Southern California) ...44 percent of the state is now considered to be in a moderate drought, a dramatic jump from just last week when the figure was 13 percent.” Additionally, according to a new climate model released by the University of California, freshwater flows from mountain-fed rivers could see significantly less water due to climate change. The State of California has documented climate change assessments found at:

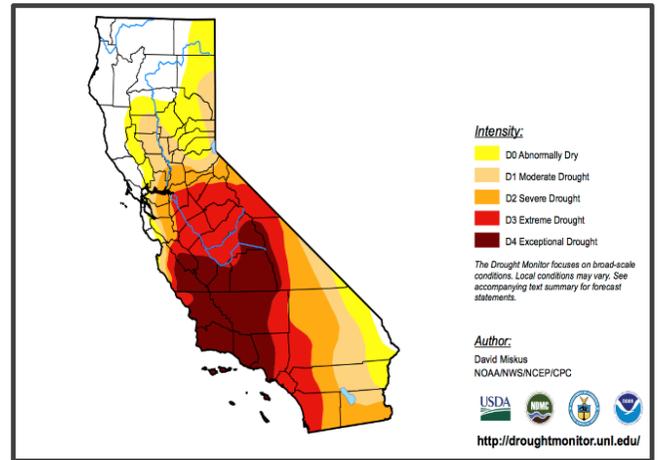


Exhibit 8. U.S. Drought Monitor shows that more than half of California remains in moderate to extreme drought with Riverside County still experiencing extreme drought.

http://climatechange.ca.gov/climate_action_team/reports/climate_assessments.html

Furthermore, the “Scenarios of Climate Change in California: An Overview,” (Page 14) states that although most climate model simulations project relatively moderate changes in precipitation over this century, rising temperatures are expected to lead to diminishing snow accumulation in mountainous watersheds.² This will significantly affect California’s water supply as snowpack is a primary source.

Per the 2010 California Drought Contingency Plan, regions that rely heavily upon surface water could be particularly affected as runoff becomes more variable and more demand is placed on groundwater. Climate change and a projected increase in California’s population will also affect regional water demand. Southern California entered a drought condition in 2012, continuing through 2016.

¹ Ellen Knickmeyer, Associated Press, “Santa Barbara, Ventura, L.A. Counties Facing Severe Drought,” Orange County Register, February 2, 2018.

² Climate Change Impacts in the United States, Melillo, Jerry M., Terese (T.C.) Richmond, and Gary W. Yohe, Edition 2014.

Project Area Drought Impacts. EVMWD is particularly subject to climate vulnerabilities including more frequent and longer drought periods, reduced imported water supply availability and impacted water supply reliability (Page E-7). More specifically:

- The reliability and availability of imported water will play a key role in EVMWD’s water resource management strategies. Hydrologic conditions in tributaries that feed the SWP, originating from the California Northern Sierras and the Colorado River Aqueduct, which originate from the Colorado River Basin, affect the quantity and quality of imported water available to meet water demands and to replenish regional storage. Reductions to the Sierra snowpack levels would reduce the availability of water that would normally fill the SWP reservoirs. This would require the State to further reduce SWP “Table A” entitlements, including water delivery allocations to EVMWD.
- The current and future reliability at the Canyon Lake Water Treatment Plant depends on hydrology in the Lake Elsinore Area and San Jacinto River Watershed. This water availability is reduced during dry year conditions. A review of historical data indicates a reduction of up to 50% in available natural recharge at Canyon Lake during dry years from average or normal year flows.
- Local surface water quality would decrease. Warming temperatures will result in lower dissolved oxygen levels in water bodies. Warming water temperatures promote algal blooms and in turn enhance eutrophication. Eutrophication is defined as an excessive richness of nutrients in a lake or other body of water, frequently due to runoff from the land, which causes a dense growth of plant life and death of animal life from lack of oxygen. Changes in stream flows with increased ETo may affect pollutant concentrations in water bodies resulting in poor water quality.
- Low stream flow conditions are expected to be more extreme and last longer. This may result in higher pollutant concentrations.

By converting the existing non-potable Palomar well to a potable water well, the project will supplement local drinking water supplies by an estimated 1,937 AFY, increase water management flexibility, and improve the resiliency of water resources within the district by reducing dependence on imported drinking water.

Evaluation Criterion D—Project Implementation

The proposed project is ready to proceed to construction upon an executed agreement with the Reclamation. The following details the scope of work, major tasks, deliverables, and a project schedule.

Project Work and Tasks. The District has completed design and engineering plans, specifications, and an engineer’s estimate for construction costs. The following tasks defined below will complete the proposed project and are organized to parallel the Budget and Schedule items:

Task 1: Execute Grant Agreement – The District will meet with the BOR to review and finalize a project schedule, deliverables, and execute a grant agreement.

Deliverables: Executed grant agreement.

Task 2: Develop Plan, Specifications, and Cost Estimate (PS&E) – The proposed project will be constructed on property owned by the District. Design work to construct a new well and selection of SCADA equipment will be developed.

Deliverables: Final design.

2.1: Prepare Bid Package for Well Construction – The Project Manager will prepare a bid package for well construction to include the development of a new well and subsequently the abandonment of the old well. This work will be performed under the supervision of a licensed hydrogeologist.

Deliverables: Bid Package for Well Construction.

2.2: Prepare Bid Package for Well Head Facilities -- The Project Manager will prepare a bid package for well head facilities.

Deliverables: Bid Package for Well Head Facilities.

Task 3: Provide Environmental Documentation – Environmental documentation meeting the requirements of CEQA and NEPA has already been prepared for the proposed project. CEQA is complete for the Well Drilling and the draft IS/MND is complete for the Wellhead facilities, but the AB52 is still in process and has not yet gone to the State Clearing House (SCH). The District will have BOR evaluate the project area to determine the level of environmental documentation required. If we can get the noise level down for construction with noise attenuation screens then this project will be considered an NOE as well. This is the assumed CEQA documentation needed for the project, but this is still in review.

Deliverables: Project Manager will coordinate with BOR for the completion of any additional environmental documentation required. Complete and report results of any pre-activity biological survey work done at the time of construction.

Task 4: Obtain Permits and Approvals – Permitting and approvals for the proposed project have been obtained verbally and include the certification from the Department of Environmental Health for the Well Drilling, a certified Drinking Water Source Assessment and Protection (DWSAP) from the Division of Drinking Water and Environmental Management of the California Department of Health Services. Extensions for all agencies, as needed, will be requested by the Project Manager.

Deliverables: Completion of necessary permits, approvals and extensions, as needed, prior to construction.

Task 5: Bid, Award, and Execute Contract – EVMWD will issue a Request for Qualifications (RFQ) to procure a qualified Contractor. The Project Manager will bid, award, and execute a contract with the selected Contractor.

Deliverables: Executed Contract.

5.1: Kick-off Meeting: The Contractor and Project Manager will discuss the proposed project.

Deliverables: Meeting Minutes.

5.2: Refined Timeline and Expectation Plan: The Project Manager and Contractor will establish tasks and a project timeline with deliverables in accordance with the BOR grant requirements.

Deliverables: Contractor Timeline with scheduled deliverables.

Task 6: Notify Water Customers about Near-Term Water Supply Program – The Palomar Well has been highlighted on the District’s website as the second project for the Near-Term Water Supply Program. Customers can request subsequent information through the District’s hotline. There also have been several community meetings at the site and with individual homeowners who will be potentially affected by the construction. District will continue to notify stakeholders of progress made.

Deliverables: Public Announcements.

Task 7: Construct Well Facility and Start-Up and Testing – Complete construction of the new Palomar Well with facility improvements. Activities include mobilization and site preparation (pre-construction surveys, pre-construction meetings, and equipment delivery), construction of a new well with motorized controls, installation of a power line connections, start up and performance testing, SCADA communication equipment.

Deliverables: Construction completion.

7.1: Well Construction and Testing: District will contract with a well drilling contractor and drill and develop a new well to current DEH and AWWA standards. This will include water quality sampling in order to design the well disinfection facilities to treat the well’s specific water quality.

Deliverables: Performance Reports for well testing, water quality results, and a certified DWSAP

7.2: Well Head Facility and Appurtenances (Treatment Facilities and SCADA): The District will contract with a mechanical contractor to construct the well head facilities, including well head pumps, disinfection and other treatment facilities, civil site work, and electrical and SCADA facilities.

Deliverables: Compaction testing reports, equipment testing reports, and special inspection reports.

7.3: Start Up and Testing of the Palomar Well Facility.

Deliverables: Final DEH Well Completion certificates and Final Operations and Maintenance Manuals

Task 8: Grant Administration, Reports, Reimbursements – The Project Manager will perform all construction administration activities that include organization of files and grant tracking activities to ensure compliance with complex state and federal regulations; completion of project reports, financial reports and payment requests; grant close-out reports and final reporting requirements; audit preparation and records retention, as needed.

Deliverables: Semi-annual status reports, significant development reports, Construction progress pay estimates, documentation and authorization of Change Orders, responses to Request for Information (RFIs), final Project Report and final Notice of Completion as specified in the grant agreement.

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Exhibit 9 – Project Schedule

Project Implementation Schedule									
No.	Timeline	2018				2019			
	Major Project Tasks	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Execute Grant Agreement								
2	Develop Plans, Specifications, Cost Estimate (PS&E)								
2.1	Prepare Bid Package for Well Construction								
2.2	Prepare Bid Package for Well Head Facilities								
3	Provide Environmental Documentation								
4	Obtain Permits and Approvals								
5	Bid, Award, and Execute Contract								
5.1	Kick-off Meeting								
5.2	Refined Timeline and Expectation Plan								
6	Notify Water Customers about Near-Term Water Supply Program								
7	Construct Well Facility and Start up and Testing								
7.1	Well Construction and Testing								
7.2	Well Head Facility and Appurtenances (Treatment Facilities and SCADA)								
7.3	Start Up and Testing of the Palomar Well Facility								
8	Grant Administration, Reports, Reimbursements								

Notes: Grant Management Administration includes executing a grant agreement with BOR, kick-off meetings, and daily operations managing the project. Construction is anticipated to be completed by December 2019.

- **Describe any permits that will be required, along with the process for obtaining such permits.**

Required permits obtained for this project include the following: 1) encroachment permits from the City of Wildomar obtained by contractor; 2) certification from the Department of Environmental Health for the well Drilling; and a 3) certified Drinking Water Source Assessment and Protection (DWSAP) from the Division of Drinking Water and Environmental Management of the California Department of Health Services. No other permits or approvals are anticipated. The Project Manager will apply for extensions from the appropriate agencies, as needed.

- **Identify and describe any engineering or design work performed specifically in support of the proposed project.**

The District will prepare and finalize design plans, specifications, and engineer's estimate for the cost of construction. The District will procure and pre-qualify two qualified Contractor's (one for the well drilling and the other for the wellhead/mechanical facilities) for construction of the project.

- **Describe any new policies or administrative actions required to implement the project.**

A Resolution has been adopted by the District's Board of Directors to authorize and finance the project. An executed copy is included in this application.

- **Describe how the environmental compliance estimate was developed. Have the compliance costs been discussed with the local Reclamation office?**

The District recently completed the first phase of the Near-Term Water Supply Program with the Flagler Well Project. Initial environmental estimates were derived from Flagler project as the Palomar scope of work is similar. Additionally, EVMWD staff contacted the Southern California Area Bureau of Reclamation Office to discuss further environmental compliance costs noted in the budget.

Evaluation Criterion E—Nexus to Reclamation

Reclamation Project Water. EVMWD imports an average of 70% of its water from the Colorado River and State Water Project (SWP) (both BOR facilities) through purchases from Eastern and Western Municipal Water Districts. Additionally, in 1985, EVMWD entered an agreement with the BOR for a \$39.6 million loan for Lake Stabilization that became known as the Lake Management Project. EVMWD has continued to build relationships with the Southern California Area Office (SCAO) of the Bureau of Reclamation to discuss partnerships on upcoming projects and was awarded funding through the SCAO Water Conservation Field Services Program to develop a hot water recirculation system rebate program. While the nationwide economic downturn affected EVMWD in 2011, the District continues to work toward developing a local match that is committed to available for funding a Title XVI project in the near future. In 2016, the District was awarded a Title XVI Program Feasibility Studies grant and a Drought Contingency Planning grant. Both have recently been completed.

Finally, the geographic area of the proposed project also resides within the Santa Ana River Watershed, Southern California's largest watershed covering nearly 3,000 square miles and home to more than six million people. In 2012, BOR completed the Santa Ana River Watershed Basin Study in collaboration with Santa Ana Watershed Project Authority (SAWPA), of which EVMWD is a member agency. The

purpose of the Study was to incorporate climate change into the region’s water projection and identify potential adaptation strategies for dealing with drought conditions. The goals of the study included: incorporating existing regional and local planning studies; sustaining regional water resources management planning; ensuring a collaborative approach; using science and technology to assess climate change and greenhouse emissions affects, watershed adaptation planning; and expanding outreach to water uses and stakeholders.

Performance Measures

Well structures are important components of sustainable design systems. The proposed project has been designed to achieve specific performance measures that include the following:

Water Supply Reliability. The District will measure performance by the reliability to efficiently and consistently deliver an annual average of 1,937 AFY of water through the new well. The proposed project will increase the reliability of the current water supply by replacing a non-working well structure, providing an additional water source for the District’s 149,600 customers. Water supplies will be measured by the total volume of water flowing through the structures and calculated using SCADA equipment. The District will utilize pre- and post-project water calculations to evaluate the project performance. The District has completed a Hydrogeologic Assessment that tabulated historical groundwater elevation level data for monitoring the production of wells. Post-project performance will be measured by documenting the amount of time each pump motor operates, and the total volume of water discharged. The District will compare pre-project (from the Hydrogeologic Assessment) and post-project water level conditions.

Measurement Tools. Digital flow meters will be utilized to measure water supply via supervisory control and data acquisition (SCADA) equipment. SCADA is a control system that uses computers, networked data communications, and graphical user interfaces for a high-level process of supervisory management. The proposed project includes the installation of SCADA equipment to better manage the water delivery system and accurately measure water volumes. The District will log any problems encountered during the performance period of one year after completion of the project.

Energy Efficiency. The energy required to operate the well and motorized piping systems will be recorded and reported monthly. Therefore, the power meter readings and acre-feet of water supply will be gathered and assessed as a kilowatt hour (kWh) per acre-feet efficiency value analyzed by the District. The data will be compared to other operating wells and will be used to quantify how much energy is used to operate the proposed well to determine energy efficiency. Energy improvements will be presented in both energy (kWh/acre-foot) and water flow units (volume of water) with the assumption that the new system will utilize less energy compared to the current inefficient system.

Water Management. The proposed project is estimated to provide an additional water supply of 1,937 AFY, helping to improve operational efficiency and save the District money in operating a well structure that bolsters sustainability. Upgraded automated SCADA equipment will allow the District to better monitor water supply, identify water issues (shortages, breaks in service, etc.), and address problems more quickly and efficiently.

End 20-page limit

PROJECT BUDGET – FUNDING PLAN

- **How you will make your contribution to the cost share requirement, such as monetary and/or in-kind contributions and source funds contributed by the applicant (e.g., reserve account, tax revenue, and/or assessments).**

EVMWD will fund all non-Reclamation share of the proposed project through District resources. No other sources will be used. The total project cost is \$1,152,649 with \$300,000 requested in grant funding from the Reclamation. EVMWD will provide a match of \$852,649 to complete the proposed project.

- **Describe any in-kind costs incurred before the anticipated study start date that you seek to include as study costs. Include:**

Although prior in-kind costs have been incurred, EVMWD does not intend to seek funding for them.

- **Provide the identity and amount of funding to be provided by funding partners, as well as the required letters of commitment.**

EVMWD has no funding partners.

- **Describe any funding requested or received from other Federal partners. Note: Other sources of Federal funding may not be counted towards the applicant’s 50 percent cost share unless otherwise allowed by statute.**

EVMWD has not requested nor received other Federal funds.

- **Describe any pending funding requests that have not yet been approved and explain how the project will be affected if such funding is denied.**

EVMWD has no pending funding requests for the planning effort.

LETTERS OF COMMITMENT

Not applicable. EVMWD is not requesting funding from any potential partners to implement the proposed project. The total cost of the project is estimated at \$1,152,649 EVMWD will provide a 74% share of \$852,649 and is requesting reclamation funding of \$300,000, or 26% as follows:

Exhibit 10. Funding Sources

Funding Sources	% of Total Study Cost	Total Cost by Source
Non-Federal: Recipient Funding	74%	\$852,649
Federal: Reclamation Funding	26%	\$300,000
Total	100%	\$1,152,649

A further breakdown of these costs is noted on the next page.

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Exhibit 11. Detailed Budget

Palomar Well Replacement Project						
Proposed Budget						
Budget Item Description	Computation			Recipient Funding	Reclamation Funding	Total Cost
	\$/Unit	Unit	Quantity			
<i>Salaries and Wages</i>						
Matthew Bates, Engineering Manager(1 hour per week for 2 years)	\$ 75.79	Hour	104	\$ 7,882	\$ -	\$ 7,882
Tim Collie, Water Operations Manager (10% for 18 months)	\$ 63.75	Hour	156	\$ 9,945	\$ -	\$ 9,945
Serena Johns, SMA	\$ 53.65	Hour	100	\$ 5,365	\$ -	\$ 5,365
Jason Dafforn, Director of Engineering and Water Resources	\$ 86.28	Hour	104	\$ 8,973	\$ -	\$ 8,973
Natalee Dee, Accountant	\$ 48.25	Hour	20	\$ 965	\$ -	\$ 965
Scott Thompson, Accounting Manager	\$ 60.26	Hour	10	\$ 603		\$ 603
Subtotal Salaries				\$ 33,733	\$ -	\$ 33,733
<i>Fringe Benefits</i>						
Matthew Bates, Engineering Manager(1 hour per week for 2 years)	55%	Percent	\$ 4,335	\$ 4,335	\$ -	\$ 4,335
Tim Collie, Water Operations Manager (10% for 18 months)	50%	Percent	\$ 4,973	\$ 4,973	\$ -	\$ 4,973
Serena Johns, SMA	58%	Percent	\$ 3,112	\$ 3,112	\$ -	\$ 3,112
Jason Dafforn, Director of Engineering and Water Resources	44%	Percent	\$ 3,948	\$ 3,948		\$ 3,948
Natalee Dee, Accountant	57%	Percent	\$ 550	\$ 550		\$ 550
Scott Thompson, Accounting Manager	53%	Percent	\$ 319	\$ 319		\$ 319
Subtotal Fringe				\$ 17,237	\$ -	\$ 17,237
<i>Equipment (per unit cost greater than \$5,000)</i>						
						\$ -
Subtotal Equipment				\$ -	\$ -	\$ -
<i>Materials and Supplies</i>						
Procurement Advertising for DBE/MBE				\$ 4,000	\$ -	\$ 4,000
Subtotal Materials				\$ 4,000	\$ -	\$ 4,000
<i>Contractual</i>						
Installation				\$ 450,000	\$ 300,000	\$ 750,000
Subtotal Contractual				\$ 450,000	\$ 300,000	\$ 750,000
<i>Environmental</i>						
NEPA				\$ 1,000		\$ 1,000
CEQA Permitting				\$ 30,000		\$ 30,000
CEQA Monitoring & Mitigation				\$ 20,000		\$ 20,000
Subtotal Environmental				\$ 51,000		\$ 51,000
Total Direct Costs				\$ 555,970	\$ 300,000	\$ 855,970
<i>Indirect Cost Rate</i>						
Federal Approved IDC is 34.66%	34.66%	Percent		\$ 296,679		\$ 296,679
Total Project Costs				\$ 852,649	\$ 300,000	\$ 1,152,649
Percentage Contribution by Funding Source				74%	26%	100%

BUDGET NARRATIVE

Salaries and Wages – Total salaries and wages \$33,733 are anticipated for the following staff

1. **Matthew Bates, Engineering Manager.** It is estimated that Mr. Bates will spend one hour per week on the project for up to 24 months. He will be responsible for management of the Task Force and all internal and outward facing communication efforts with stakeholders and the public. Hourly wage is $\$75.79 \times 104 \text{ hours} = \$7,882$.
2. **Tim Collie, Water Operations Manager.** It is estimated that Mr. Collie will spend 10% of his time on this Project for up to 18 months. He will be responsible for management of all Plan aspects. Hourly wage is $\$63.75 \times 156 \text{ hours} = \$9,945$.
3. **Serena Johns, Senior Management Analyst.** It is estimated that Ms. Johns will spend 5% of her time on this Project for up to 24 months. She will be responsible for managing the various tasks associated with proposed project. Hourly wage is $\$53.65 \times 100 = \$5,365$.
4. **Jason Dafforn, Director of Engineering and Water Resources.** It is estimated that Mr. Dafforn will spend one hour per week on the project for up to 24 months. He will be responsible for supervising Mr. Bates and reviewing all activity related to the project. Hourly wage is $\$86.28 \times 104 = \$8,973$.
5. **Natalee Dee, Accountant.** It is estimated that Ms. Dee will spend approximately 20 hours over the project period assisting with payment processing and grant management reporting. Hourly wage is $\$48.25 \times 20 = \965
6. **Scott Thompson, Accounting Manager.** Mr. Thompson will spend approximately 10 hours over the project period supervising Ms. Dee and ensuring accuracy of reporting. Hourly wage is $\$60.26 \times 10 = 603$.

Fringe Benefits - The total fringe benefits are \$17,237 for the staff identified above and are estimated at between 44% - 58% of the employees' salary. Fringe typically includes retirement, vacation, sick leave, health and life insurance, disability, workman's comp, etc. Fringe benefits for everyone on the Project team are noted below:

1. Matthew Bates, Engineering Manager = \$4,335 (55%).
2. Tim Collie, Water Operations Manager = \$4,973 (50%).
3. Serena Johns, Senior Management Analyst = \$3,112 (58%).
4. Jason Dafforn, Director of Engineering and Water Resources = \$3,948 (44%).
5. Natalee Dee, Accountant = \$550 (57%).
6. Scott Thompson, Accounting Manager = \$319 (53%).

Travel - Not Applicable. No travel costs are anticipated for the proposed project.

Equipment – Not Applicable. Equipment will be included in the Contractual/Construction costs.

Materials & Supplies – Total supplies are estimated at \$4,000 for advertising expenses for announcements to District customers to notify them of the project and any potential changes in their water delivery service. Communication will be extended via mailers and email communication.

Contractual/Construction – The District will hire a qualified contractor to complete the construction phase of the project. Construction costs are estimated at \$750,000 and include the costs for mobilization and site preparation (pre-construction surveys, pre-construction meetings, and equipment

delivery), construction of a new well with motorized controls, installation of a power line connections, start-up and performance testing, and SCADA communication equipment.

Environmental - Costs to ensure environmental compliance are estimated at \$51,000 and include costs for NEPA compliance (\$1,000), CEQA Permitting (\$30,000) and CEQA Monitoring and Mitigation (\$20,000).

Indirect Costs – Estimated at \$296,679. The District has included a federally-approved 34.66% indirect cost rate in the total project budget to cover office supplies, utilities, use of office space, etc.). This item will be funded from the local match.

Total Costs – Total project cost is anticipated to be approximately \$1,152,649.

ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

Environmental documentation meeting the requirements of CEQA have already been prepared for the proposed project. The District is ready to file a Notice of Exemption, within the next few months (See Appendix B). The District will discuss with BOR further evaluation needed to determine the level of environmental documentation required and comply with all environmental regulations, including NEPA, as required. Below are answers to the environmental and cultural resources questions.

• Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.

The proposed project will construct a new well structure and render the current system inoperable. Per the required permits, the District is required to complete the project within the seasonal work period and implement all avoidance and mitigation measures to protect fish and wildlife resources. Seasonal work periods shall take place during the months of June, July, August, and September, which is considered the dry-season when minimal water is present. This project is currently in the final stages of the IS/MND and will have a full Mitigation and Monitoring Report (MMRP) with the project in order to mitigate any impacts to fish and wildlife resources. Project related activities shall not cause a disturbance or removal of any vegetation within the vicinity of the work site. Neither the construction work or installation of equipment and materials will negatively affect the air, water or animal habitat.

The project construction will be completed prior to the rainy season causing minimal impacts to the current water supply. The construction will be completed in Q3 of 2019 and therefore, will go through one rainy season but this will have minimal impact on any water supplies.

• Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by activities associated with proposed project?

No endangered species or critical habitat will be adversely affected by any activities associated with the project.

- **Are there wetlands or other surface waters inside project boundaries that potentially fall under Clean Water Act (CWA) jurisdiction as “Waters of the United States?” If so, please describe and estimate impacts the proposed project may have.**

There are no wetlands or other surface waters that potentially fall under Clean Water Act jurisdiction.

- **When was the water delivery system constructed?**

The Palomar Well was originally constructed in August 1967 by a private owner, Midway Drilling and Pump Company. In February 2006, the well collapsed and was no longer operational. Review of video logs of the well completed November 3, 2005, March 2, 2006, and April 7, 2006, depict a leakage of shallow perched waters into the well casing below 20 feet in depth. This indicated a failure of the cement seal, causing an eventual destruction of the steel casing and resulting in the well collapse.

- **Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.**

No. The project infrastructure is not part of an irrigation system. Since the initial build of the original well, there have been no extensive alterations or modifications to the existing structure, which will remain in place. The proposed project will be a new build and will include pumps, motors, discharge piping, and electrical equipment.

- **Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.**

No. To the District’s knowledge, there are no buildings, structures, or features in the district listed or eligible for listing on the National Register of Historic Places.

- **Are there any known archeological sites in the proposed project area?**

No. There are no known archeological sites in the proposed project area.

- **Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?**

No. The proposed project will not have a disproportionately high or adverse effect on low-income or minority populations. In fact, the proposed project will ensure more water reliability for low-income and minority populations in the District’s service areas.

- **Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?**

No. The proposed project will not limit access to any ceremonial use of Indian sacred sites or result in other impacts to tribal lands.

- **Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?**

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No. The proposed project will not contribute to the introduction, continued existence, or spread of noxious weeds of non-native invasive species.

See Appendix B for environmental documentation.

PERMITS OR APPROVALS

The District has obtained verbal approval of the required permits for this project including:

- 1) Certification from the Department of Environmental Health for the Well Drilling.
- 2) Certified Drinking Water Source Assessment and Protection (DWSAP) from the Division of Drinking Water and Environmental Management of the California Department of Health Services.

No other permits or approvals are anticipated. The Project Manager will seek any necessary extensions required from the appropriate agencies, if needed.

LETTERS OF SUPPORT

1. Santa Ana Watershed Authority
2. Western Municipal Water District
3. City of Lake Elsinore
4. City of Wildomar



Santa Ana Watershed Project Authority

OVER 45 YEARS OF INNOVATION, VISION, AND WATERSHED LEADERSHIP



One Water One Watershed

AWRA INTEGRATED WATER RESOURCES MANAGEMENT AWARD

HARVARD KENNEDY SCHOOL'S TOP 25 INNOVATIONS IN AMERICAN GOVERNMENT

January 8, 2018

Susan Lien Longville
Commission
Chair

John D. Vega, General Manager
Elsinore Valley Municipal Water District
31315 Chaney Street
Lake Elsinore, CA 92530

Richard E. Haller, P.E.
General
Manager

SUBJECT: Bureau of Reclamation Drought Response Program/WaterSMART
Program: Elsinore Valley Municipal Water District - Palomar Well Conversion Project

Dear Mr. Vega:

Orange
County
Water
District

The Santa Ana Watershed Project Authority (SAWPA) fully supports Elsinore Valley Municipal Water District's (EVMWD's) application to the Bureau of Reclamation Drought Response Program/ WaterSMART Program to convert an existing non-potable well to a potable water well to supplement local drinking water supplies.

Western
Municipal
Water District

The purpose of the project is to increase water management flexibility and improve the resiliency of water resources within the local area. The addition of the Palomar Well as a drinking water source will reduce dependence on imported drinking water sources and will supplement current supplies, ensuring water availability for the future of the service area.

Eastern
Municipal
Water
District

The Santa Ana Watershed Project Authority is one of California's leading regional water agencies and works with local agencies to provide high quality water of sufficient quantity to meet the demands of a growing population. With the challenges that the watershed faces, it is imperative for local agencies to be able to maximize their local sources and ensure that safe, reliable, clean water is available to its population. The Palomar Well Project is key in adding another local water source to EVMWD's supplies. This project will increase sustainability and reliability for the district and is consistent with SAWPA's One Water One Watershed Integrated Regional Water Management Plan for the Santa Ana River Watershed.

San
Bernardino
Valley
Municipal
Water
District

The Palomar Well Project is an excellent opportunity to add another drought proof measure to EVMWD's water resources portfolio, ensuring water from within the Santa Ana River and San Jacinto River Watersheds.

Inland
Empire
Utilities
Agency

Sincerely,

Richard Haller P.E.
General Manager



Craig D. Miller
General Manager



Robert Stockton
Division 1

Thomas P. Evans
Division 2

Brenda Dennstedt
Division 3

Donald D. Galleano
Division 4

S.R. "Al" Lopez
Division 5

Securing Your Water Supply

January 20, 2018

John D. Vega
General Manager
Elsinore Valley Municipal Water District
31315 Chaney Street
Lake Elsinore, CA 92530

SUBJECT: BUREAU OF RECLAMATION DROUGHT RESPONSE PROGRAM/ WATERSMART PROGRAM: ELSINORE VALLEY MUNICIPAL WATER DISTRICT – PALOMAR WELL CONVERSION PROJECT.

Dear Mr. Vega:

Western Municipal Water District (Western) enthusiastically supports Elsinore Valley Municipal Water District's (EVMWD's) application to the Bureau of Reclamation Drought Response Program/ WaterSMART Program to convert an existing non-potable well to a potable water well to supplement local drinking water supplies.

The purpose of the project is to increase water management flexibility and improve the resiliency of water resources within the local area. The addition of the Palomar Well as a drinking water source will reduce dependence on imported drinking water sources and will supplement current supplies, ensuring water availability for the future of the service area.

Understanding the severity of the drought, Western supports EVMWD's Palomar Well Project to promote water sustainability for the future of its service area. Western provides wholesale water service to EVMWD, and understands the importance of water reliability and sustainability for the people we serve. Serving as a partner on EVMWD's drought task force, Western has seen firsthand the projects that will increase EVMWD's local water supply sources. After years of drought conditions, it is on the forefront of every water agencies mind to ensure secure water supplies. This effort is another piece of EVMWD's plan to create a more sustainable water supply when drought conditions are faced.

EVMWD's project will provide a sustainable source of water and create reassurance for the communities during dry times. We hope that you will join us in supporting EVMWD's worthwhile Palomar Well Conversion Project.

Sincerely,

A handwritten signature in blue ink that reads "Craig Miller".

Craig Miller
General Manager
Western Municipal Water District



January 20, 2018

John D. Vega, General Manager
Elsinore Valley Municipal Water District
31315 Chaney Street
Lake Elsinore, CA 92530

**SUBJECT: BUREAU OF RECLAMATION DROUGHT RESPONSE PROGRAM/
WATERSMART PROGRAM: ELSINORE VALLEY MUNICIPAL
WATER DISTRICT – PALOMAR WELL CONVERSION PROJECT.**

Dear Mr. Vega,

The City of Lake Elsinore fully supports Elsinore Valley Municipal Water District's (EVMWD's) application to the Bureau of Reclamation Drought Response Program/ WaterSMART Program to convert an existing non-potable well to a potable water well to supplement local drinking water supplies.

The purpose of the project is to increase water management flexibility and improve the resiliency of water resources within the local area. The addition of the Palomar Well as a drinking water source will reduce dependence on imported drinking water sources and will supplement current supplies, ensuring water availability for the future of the service area.

With growth and demand, the City of Lake Elsinore depends on EVMWD to find creative and innovative ways to strengthen local water supplies, especially during dry times. Development of new water supplies ensure that water will be available for our residents now and for the future. The Palomar Well project will aid the City in assuring its residents and businesses that a local supply is available and attainable for a more secure water future.

The City is constantly looking at ways to improve the quality of life for our residents and be at the forefront of sustainability in the Inland Empire. EVMWD's project will provide a sustainable source of water for the future of Lake Elsinore. We hope that you will join us in supporting EVMWD's worthwhile Palomar Well Conversion Project.

Sincerely,

Grant Yates
City Manager

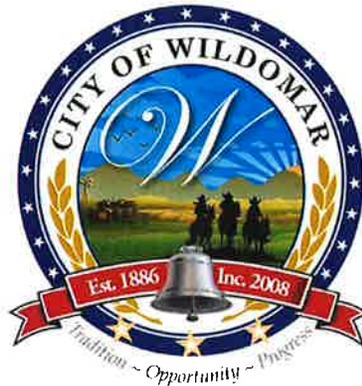
951.674.3124

130 S. MAIN STREET

LAKE ELSINORE, CA 92530

WWW.LAKE-ELSINORE.ORG

Ben J. Benoit, Mayor, District 1
Marsha Swanson, Mayor Pro Tem, District 5
Bridgette Moore, Council Member, District 4
Dustin Nigg, Council Member, District 2
Timothy Walker, Council Member, District 3



23873 Clinton Keith Rd, Ste 201
Wildomar, CA 92595
951/677-7751 Phone
951/698-1463 Fax
www.CityofWildomar.org

January 20, 2018

John D. Vega, General Manager
Elsinore Valley Municipal Water District
31315 Chaney Street
Lake Elsinore, CA 92530

SUBJECT: BUREAU OF RECLAMATION DROUGHT RESPONSE PROGRAM/ WATERSMART PROGRAM: ELSINORE VALLEY MUNICIPAL WATER DISTRICT – PALOMAR WELL CONVERSION PROJECT.

Dear Mr. Vega:

I am writing to express my support for the Elsinore Valley Municipal Water District's (EVMWD's) application to the Bureau of Reclamation Drought Response Program/ WaterSMART Program to convert an existing non potable well to a potable water well to supplement local drinking water supplies.

The purpose of the project is to increase water management flexibility and improve the resiliency of water resources within the local area. The addition of the Palomar Well as a drinking water source will reduce dependence on imported drinking water sources and will supplement current supplies, ensuring water availability for the future of the service area.

Developing sustainable water supplies for our City is essential for the future of Wildomar. As our City continues to grow, EVMWD is constantly securing water supplies to ensure water is always available to our residents and businesses. With the recent drought in California, it is key to maintain sustainable and reliable water sources locally. EVMWD has found an opportunity to expand its resources within the city of Wildomar at the Palomar Well site and convert a resource into a drinking water commodity. Beneficial projects, such as these, ensure a bright future for Wildomar.

I, as Mayor, fully support the efforts of EVMWD in another step to drought proof our community. We hope that you will join us in supporting EVMWD's worthwhile Palomar Well Conversion Project.

Sincerely,



Ben J. Benoit
Mayor

DROUGHT PLAN

Attached is the District's 2017 Drought Contingency Plan (relevant pages only).



Elsinore Valley Municipal Water District

DROUGHT CONTINGENCY PLAN 2017

Prepared for the
Elsinore Valley Municipal Water District
31315 Chaney Street, Lake Elsinore, CA 92530
Tel: (951) 674-3146



Prepared by



**General Civil, Municipal, Water and Wastewater Engineering,
Planning, Construction Management and Surveying**

availability of water that would normally fill the SWP reservoirs. This would require the State to further reduce SWP “Table A” entitlements, including water delivery allocations to EVMWD.

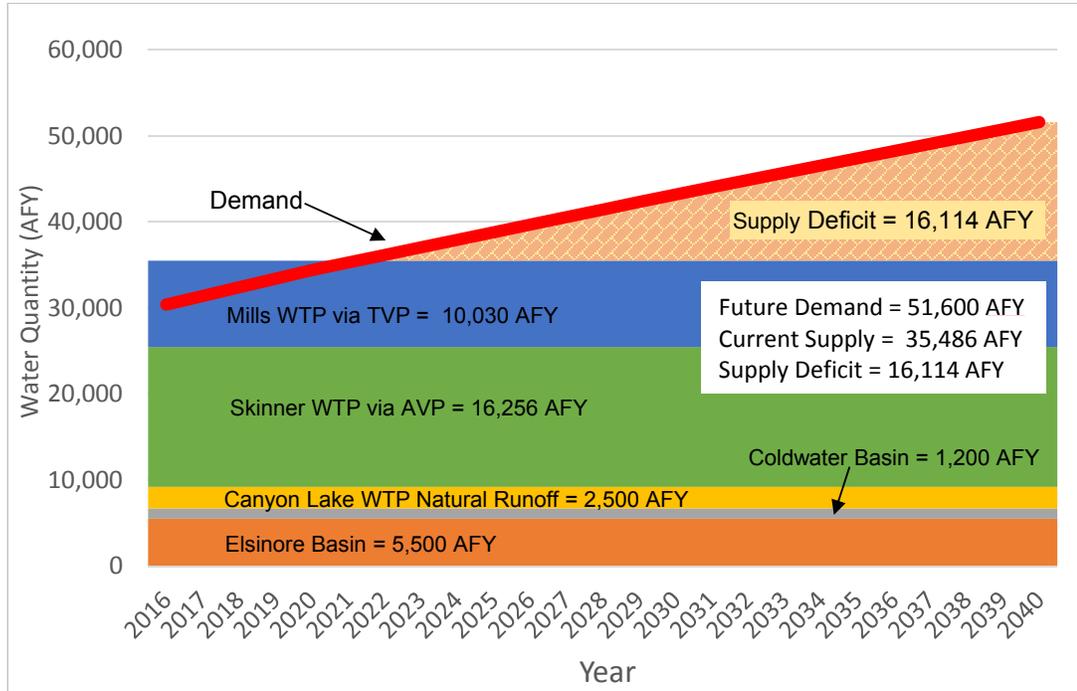
2. The current and future reliability at the Canyon Lake Water Treatment Plant (CLWTP) depends on hydrology in the Lake Elsinore Area and San Jacinto River Watershed. This water availability is reduced during dry year conditions. A review of historical data indicates a reduction of up to 50% in available natural recharge at Canyon Lake during dry years from average or normal year flows.
3. Local surface water quality would decrease. Warming temperatures will result in lower dissolved oxygen levels in water bodies. Warming water temperatures promote algal blooms and in turn enhance eutrophication. Eutrophication is defined as an excessive richness of nutrients in a lake or other body of water, frequently due to runoff from the land, which causes a dense growth of plant life and death of animal life from lack of oxygen. Changes in stream flows with increased ETo may affect pollutant concentrations in water bodies resulting in poor water quality.
4. Low stream flow conditions are expected to be more extreme and last longer. This may result in higher pollutant concentrations.

E.2.3 Mitigation Actions

“Mitigation” – is taking steps ahead of time to prevent known potential impacts from a natural disaster. Mitigation measures are actions, programs, and strategies implemented before drought occurs to address potential risks and impacts. These actions are intended to decrease water availability and water supply reliability vulnerabilities and reduce the need for response actions. To address the uncertainty associated with water supply reliability due to climate change, extended drought conditions, and the increasing cost of imported water, EVMWD embarked upon preparing a comprehensive Integrated Resources Plan (IRP). The IRP is a long-term strategy for providing reliable water supply to its growing customer base.

The IRP considers a 25-year planning horizon covering years 2016-2040. Figure E.6 depicts a comparison between current supplies and projected demand for EVMWD’s service area for the next 25 years. At the end of the planning horizon water demand is estimated to be approximately 51,600 AFY. Overall supply available to EVMWD is estimated to be approximately 35,500 AFY. The IRP identified a deficit of approximately 16,114 AFY by 2040. The IRP considered 44 supply alternatives and evaluated water supply scenarios to address this deficit including additional supply options such as producing water from untapped groundwater basins, indirect potable reuse, local brackish and recycled water desalination, sea water desalination, water exchanges and transfers, and continued water conservation.

Figure E.6 – Demand Versus Current Supply



A hybrid water supply scenario was selected to satisfy EVMWD’s future water supply deficit. This water supply scenario exhibits the following:

- Optimizes the use of EVMWD’s local water supply sources.
- Has an effective unit cost relative to current and forecasted cost of imported water.
- Has one of the lowest Total Dissolve Solids (TDS) concentration values. A critical factor for EVMWD given the regulatory and financial implications of TDS management in the groundwater basins.
- Has the highest reliability relative to the other scenarios.
- Satisfies the highest priority set forth by the EVMWD Board of Directors.

Table E.2 lists the water supply projects that constitute the hybrid scenario. These projects comply with the overarching objectives of the IRP as established by EVMWD’s Board of Directors.

Table E.2 – Scenario 7 (Hybrid) Water Supply Projects in Relation to IRP Objectives

Projects	Capacity (mgd)	Average Yield (AFY)	Dry Year Yield (AFY)	Reliability	Capital Cost (Million dollars)	Annual O&M Cost (\$)	Unit Cost (\$/AF)	TDS (mg/L)	Phase and Status
1J. Transfer Bunker Hill Basin Groundwater via Riverside and Corona	5.56	6,223	6,223	1.00	30.6	3,547,000	847	400	Phase 1 Consultant has been retained to further evaluate and refine alternative options. Report is expected in approximately 2-3 months.
2A-1. Pump Lee Lake Basin Groundwater via the TVP. No Desalination Treatment	0.89	1,000	500	0.50	11.3	227,000	593	800	Phase 1 Ongoing negotiations with developer to define location of wells.
2A-2. Pump Bedford Groundwater via the TVP. No Treatment	1.37	1,300	1,045	0.80	6.6	345,000	542	800	Phase 1 EVMWD has selected a consultant to design the well equipping. Construction anticipated in 2018.
3D. Palomar Well Replacement	0.50	560	560	1.00	3.1	106,000	496	400	Phase 1 EVMWD has completed design of the well and construction completion anticipated in 2018.
4A. Extract Groundwater from Warm Springs Basin - No Desalination Treatment	0.89	1,000	1,000	1.00	6.9	428,000	794	1,000	Phase 1 EVMWD has selected the consultant to study the groundwater basin. Design is expected to begin in 2018 and construction in 2020.
5E. Modify Operation of Canyon Lake	7.00	1,500	1,125	0.75	5.9	502,000	589	800	Phase 2 EVMWD has selected a consultant to prepare CLWTP – Facilities Master Plan. This study will be the basis to define the

Table 4-2 – Summary of Top Ranked Projects Based on Source

Alternatives Investigated	Capacity (mgd)	Average Yield (AFY)	Dry Year Yield (AFY)	Reliability (DYY/AYY Ratio)	Capital Cost	Annual O&M Cost	Unit Cost	TDS (mg/L)	Implementability	Environmental Impacts
1J. Transfer Bunker Hill Basin Groundwater via Riverside and Corona	5.56	6,223	6,223	1.0	\$30,634,000	\$3,547,000	\$847	400	2.5	3.0
2A-2. Pump Bedford Groundwater via the TVP. No Salt Removal Treatment	1.37	1,300	1,045	0.8	\$6,599,000	\$345,000	\$542	800	4.0	4.0
3D. Palomar Well Replacement	0.50	560	560	1.0	\$3,120,000	\$106,000	\$496	400	4.0	4.0
4A. Extract Groundwater from Warm Springs Basin – No Salt Removal Treatment	0.89	1,000	1,000	1.0	\$6,859,000	\$428,000	\$794	1,000	3.0	3.0
10B. IPR at Regional WRF. Injection/Extraction with AWT	6.00	5,700	5,415	1.0	\$132,082,000	\$5,707,000	\$2,515	100	2.0	2.0
12B. Implement Increased Water Conservation Measures - Enhanced	0.00	3,100	3,100	1.0	Not Identified	\$1,240,000	\$400	450	4.0	4.0

Scenario 6 - Top Ranked Projects Based on Source

This scenario represents the supply portfolio presented in Table 4-2. The supply projects in this scenario represent the highest ranked among the 44 projects considered to offset EVMWD’s future water supply deficit.

Scenario 7 - Hybrid

The intent of this scenario is to develop a supply portfolio that offers the highest supply reliability at a reasonable cost. This is accomplished by modifying the supply portfolio identified as part of Scenario 6 to include additional local projects such as: 2A-1. Lee Lake Basin, 5E. Modify Operation of Canyon Lake, and 11. Temecula Pauba Well.

These scenarios were evaluated using the same methodology used to identify the highest yielding projects and rank accordingly. In addition, by using the Water Resources Decision Support System (WRDSS), the following tactical evaluation criteria were used to determine performance of each scenario:

- Salinity (total dissolved solids in mg/L)
- Unit cost of water
- Reliability under historical hydrologic conditions
- Projected cumulative supply deficit under historical hydrologic conditions

Table 4-3 – Selected Projects Scenarios

Scenarios	List of Projects
Scenario 1. Current Philosophy (or Baseline Scenario)	3D. Palomar Well Replacement
	5E. Modify Operation of Canyon Lake
	7A. Obtain MWDSC Mills Treated Water through the TVP Expansion with Additional Capacity in MGL
	12B. Implement Increased Water Conservation Measures - Enhanced
Scenario 2. Other Imported Water	3D. Palomar Well Replacement
	5E. Modify Operation of Canyon Lake
	9B. Construct an Ocean Desalination Plant at San Onofre (Nuclear Station)
	12B. Implement Increased Water Conservation Measures - Enhanced
Scenario 3. Maximize Local Resources	1J. Transfer Bunker Hill Basin Groundwater via Riverside and Corona
	2A-1. Pump Lee Lake Basin Groundwater via the TVP. No Salt Removal Treatment
	2A-2. Pump Bedford Groundwater via the TVP. No Salt Removal Treatment
	3D. Palomar Well Replacement
	3E-2. McVicker and Leach Canyon Stormwater/Imported Water Recharge
	4A. Extract Groundwater from Warm Springs Basin - No Salt Removal Treatment
	5E. Modify Operation of Canyon Lake
	6B. Lee Lake Reservoir Storage (using Surface water rights) for non-potable use
	12A. Implement Increased Water Conservation Measures
11. Temecula-Pauba Groundwater	

Groundwater from Coldwater, Bedford, Lee Lake and San Bernardino basins will be delivered to EVMWD’s system via TVP. These projects will provide a total capacity of 10.5 mgd. The current operational capacity of TVP is approximately 21 cfs, constrained by bottlenecks in EVMWD’s distribution system. Consequently, a TVP expansion will be required by 2020, as depicted in Figure 4-7. A concurrent feasibility study evaluating TVP expansion, initially shows an additional 20 cfs (13.8 mgd) requirement, for an ultimate capacity of 41 cfs.

Table 4-5 – Scenario 7 (Hybrid) Water Supply Projects in Relation to IRP Objectives

Projects for Hybrid	IRP Objectives						
	Create "New Water"	Improve Supply Reliability	Decrease Dependence On Imported Supply	Promote Reuse Projects	Improve Water Quality	Improve Groundwater Management	Promote Conservation
1J. Transfer Bunker Hill Basin Groundwater via Riverside and Corona	X	X	X		X		
2A-1. Pump Lee Lake Basin Groundwater via the TVP. No Salt Removal Treatment			X				
2A-2. Pump Bedford Groundwater via the TVP. No Salt Removal Treatment			X				
3D. Palomar Well Replacement	X	X	X				
4A. Extract Groundwater from Warm Springs Basin - No Salt Removal Treatment	X	X	X				
5E. Modify Operation of Canyon Lake			X				
10B. IPR at Regional WRF. Injection/Extraction with AWT	X		X	X	X	X	
11. Temecula-Pauba Groundwater	X	X	X				
12B. Implement Increased Water Conservation Measures - Enhanced		X	X			X	X

RESOLUTION

Attached is the signed resolution.

RESOLUTION NO. 18-01-02

RESOLUTION OF THE BOARD OF DIRECTORS OF THE
ELSINORE VALLEY MUNICIPAL WATER DISTRICT
APPOINTING AND AUTHORIZING JOHN D. VEGA TO FILE
AN APPLICATION WITH THE UNITED STATES
DEPARTMENT OF INTERIOR, BUREAU OF
RECLAMATION'S WATERSMART DROUGHT RESILIENCY
PROJECT GRANT FOR THE PALOMAR WELL

WHEREAS, the Elsinore Valley Municipal Water District (EVMWD) is a non-profit agency created on December 23, 1950 under the Municipal Water District Act of 1911. As a 'special district,' EVMWD's powers include provision of public water service, water supply development and planning, wastewater treatment and disposal, and recycling. Currently, the district has over 42,000 water, wastewater and agricultural service connections; and

WHEREAS, the District's Board of Directors sets governing policy and is the final authority for related appeals. The Board is authorized to set rates, fees and charges for district services, operations, and debt financing of capital improvements; and

WHEREAS, the District authorizes preparing an application to apply for federal funding from the United States Department of the Interior, Bureau of Reclamation (Reclamation) to assist in the funding of the Palomar Well Project to develop a new well, including installation of approximately 2,490 feet of well flushing pipeline, approximately 1,895 feet of new 8-inch sewer main on Palomar Street, and installation of a sewer lateral for APN 368-170-045 (property adjacent to the well site). The installation of the new sewer main will provide the potential for the connection of future customers; and

WHEREAS, the funding opportunity provided by Bureau Reclamation through their Grant Program entitled "WaterSmart Drought Response Program: Drought Resiliency Projects for FY 2018" Funding Opportunity Announcement No. is BOR-DO-18-F008; and

WHEREAS, the District owns an inoperable well structure that has become antiquated and is unsafe to operate; and

WHEREAS, the proposed Palomar Well Project will benefit current residents and future customers by providing clean water flow for improved safety and system operations; and

WHEREAS, the Elsinore Valley Municipal Water District intends to enter into an agreement with Reclamation to carry out the Palomar Well Development Project if the WaterSmart Grant is awarded to Elsinore Valley Municipal Water District.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Elsinore Valley Municipal Water District hereby finds, determines and declares as follows:

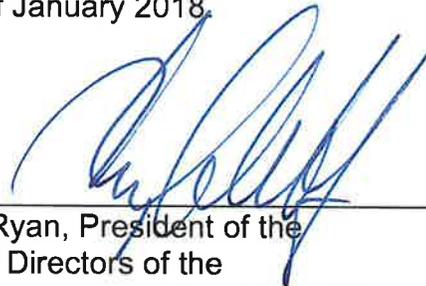
SECTION 1. Approves the filing of an application for the Palomar Well Development Project;

SECTION 2. Certifies that District understands they will work with Reclamation to meet established deadlines for entering into a grant or cooperative agreement;

SECTION 3. Certifies that Applicant is capable of providing the amount of funding specified in the application; and,

SECTION 4. Appoints the General Manager, or designee, as agent to conduct all negotiations, execute and submit all documents including, but not limited to applications, agreements, payment requests and so on, which may be necessary for the completion of the aforementioned project.

ADOPTED and APPROVED this 25th day of January 2018.



Harvey Ryan, President of the
Board of Directors of the
Elsinore Valley Municipal Water District

ATTEST:



Terese Quintanar, Secretary to the
Board of Directors of the
Elsinore Valley Municipal Water

STATE OF CALIFORNIA)
) ss:
COUNTY OF RIVERSIDE)

I, Terese Quintanar, Secretary of the Board of Directors of the Elsinore Valley Municipal Water District, do hereby certify that the foregoing Resolution No. 18-01-02, was duly adopted by said Board at its Regular Board Meeting held on January 25, 2018, and that it was so adopted by the following roll call vote:

AYES: Horton, Morris, Ryan, Williams

NOES: None

ABSENT: Cambero

ABSTAIN: None

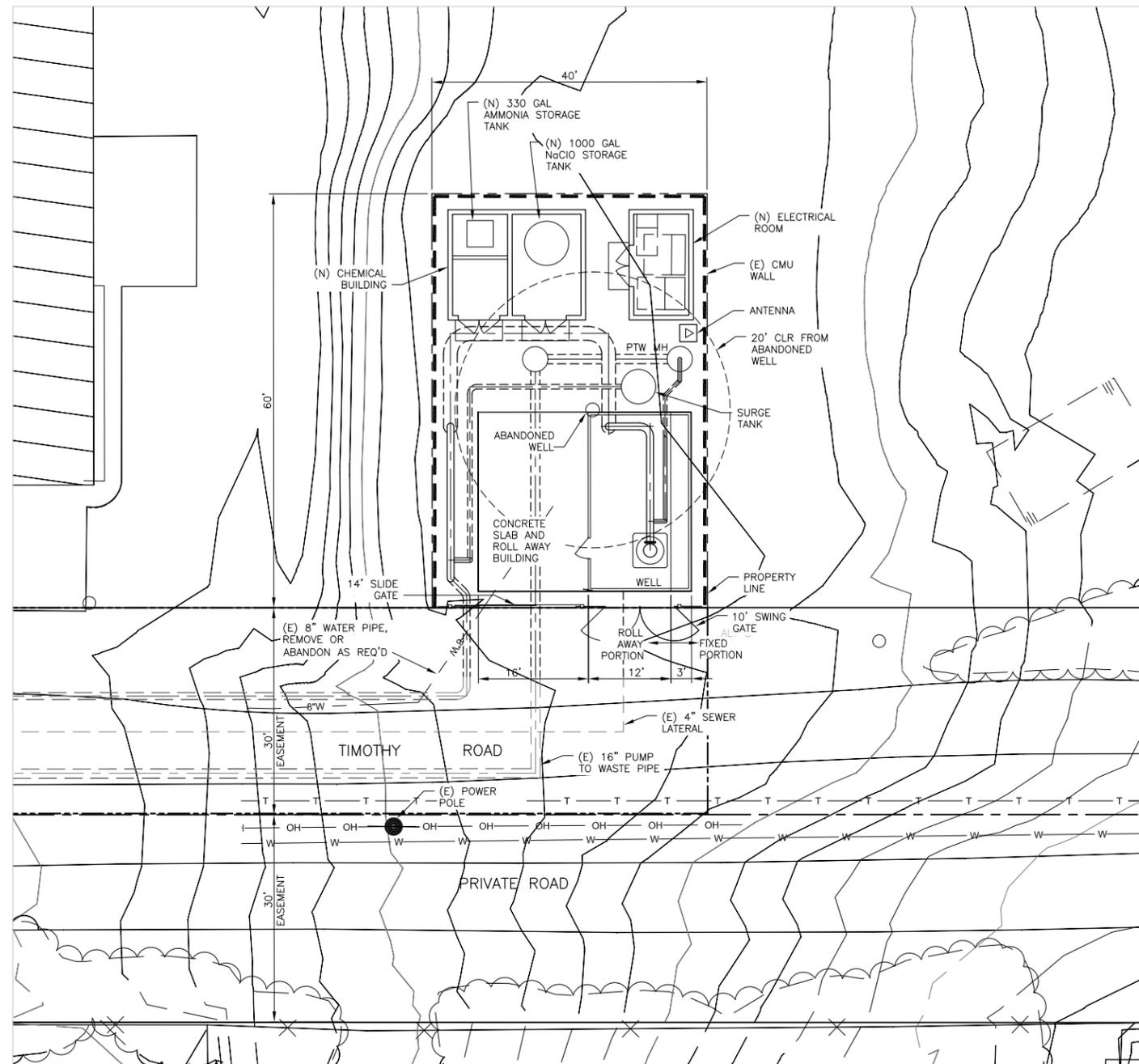


Terese Quintanar, Secretary of the
Board of Directors of the
Elsinore Valley Municipal Water District

APPENDICES

- A. Design Layouts – Palomar Well Replacement Project
- B. Environmental Documentation

Appendix A: Preliminary Drawings



SITE PLAN

SCALE: 1"=10'



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Underground Service Alert



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VERIFY SCALES

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

THE DESIGN AND CONSTRUCTION OF THE PROJECT AS WELL AS THE ACCURACY OF FIGURES, ARE THE RESPONSIBILITY OF THE DESIGN ENGINEER. PLAN CHECK SERVICES BY E.V.M.W.D. WILL BE LIMITED TO ADHERENCE OF THE DISTRICT'S STANDARDS, MATERIALS, QUANTITIES AND SIZE OF FACILITIES, AS THEY RELATE TO THE SERVICE DEMANDS OR THE APPROVED MASTER PLAN.

REV	BY	DATE	REVISIONS	APPR.	DATE

DESIGNED BY: XX DRAWN BY: XX CHECKED BY: XX

SUBMITTED BY: _____
DATE: _____

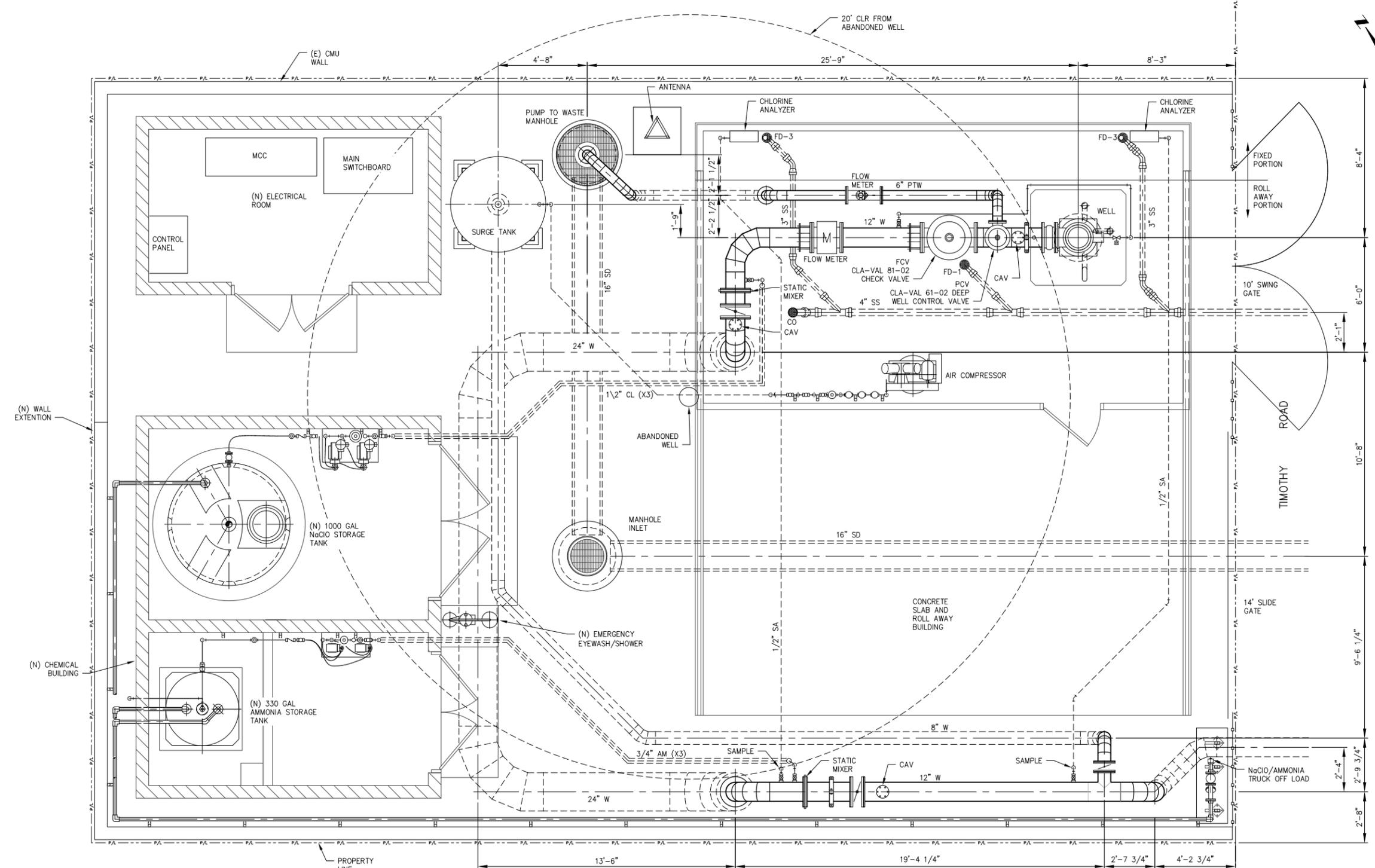
PLANS PREPARED BY:
Kennedy/Jenks Consultants
9665 Granite Ridge, Suite 210
San Diego, California 92123
(858) 676-7500

ELSINORE VALLEY MUNICIPAL WATER DISTRICT
WATER AND SEWER IMPROVEMENT PLANS
PALOMAR WELL NO. 2
SITE LAYOUT ALTERNATIVE B

RES: - P.Z.: _____

SHEET NO. **46**
OF - SHTS
XX

INSPECTION W.O.# _____
ENG. W.O.# _____



PLAN

SCALE: 3/8" = 1'-0"



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REV	BY	DATE	REVISIONS	APPR.	DATE

DESIGNED BY: **CBY** DRAWN BY: **LMM** CHECKED BY: **XX**

SUBMITTED BY: _____
 DATE: _____

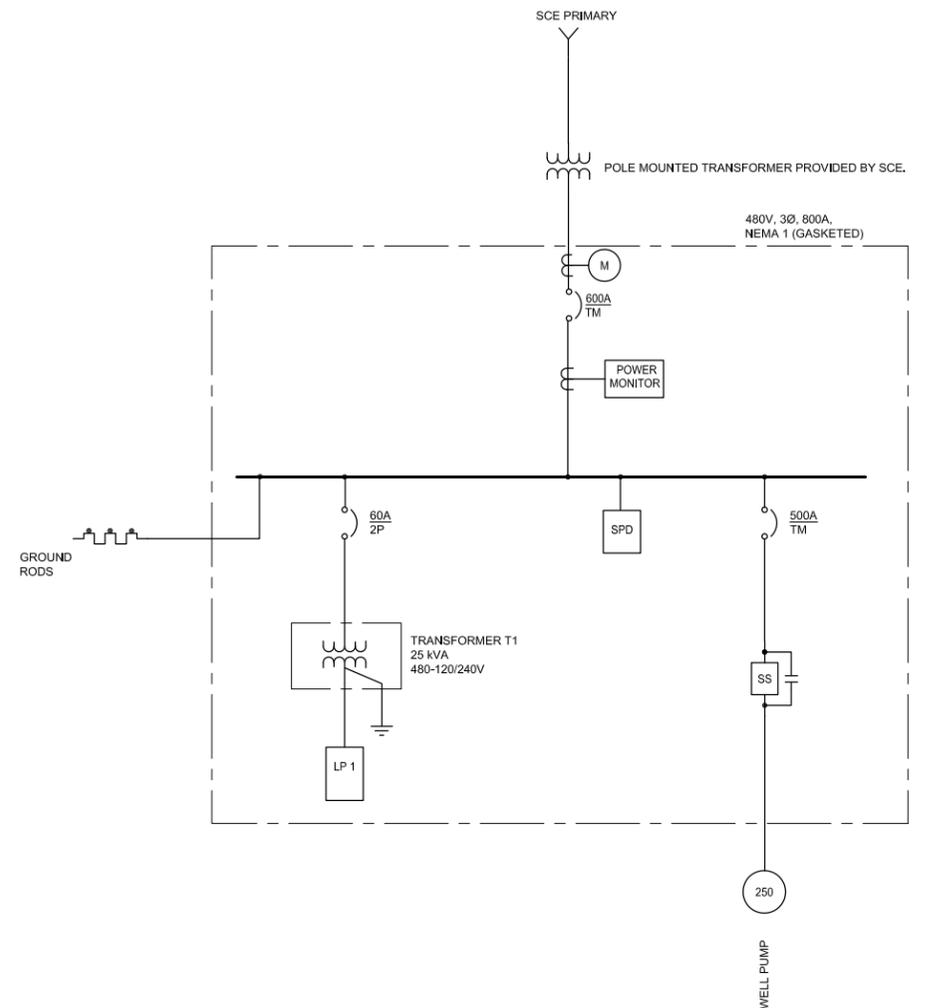
PLANS PREPARED BY:
Kennedy/Jenks Consultants
 9665 Granite Ridge, Suite 210
 San Diego, California 92123
 (858) 676-7500

ELSINORE VALLEY MUNICIPAL WATER DISTRICT
 WATER AND SEWER IMPROVEMENT PLANS
PALOMAR WELL NO. 2
OVERALL MECHANICAL PLAN

RES: - P.Z.: _____

SHEET NO. **X**
 OF - SHTS
XX

INSPECTION W.O.# _____
 ENG. W.O.# _____



LOAD SUMMARY	
DESCRIPTION	CALCULATED LOAD (KVA)
WELL PUMP (250 HP)	251
TRANSFORMER	25
25% OF LARGEST MOTOR	62.75
25% CONTINUOUS	62.75
TOTAL KVA	401.5
AMPS AT 480V, 3-PHASE, 3-WIRE	482.93

Underground Service Alert



TWO WORKING DAYS BEFORE YOU DIG

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 DESCRIPTION: XX.XX

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THE DESIGN AND CONSTRUCTION OF THE PROJECT AS WELL AS THE ACCURACY OF FIGURES, ARE THE RESPONSIBILITY OF THE DESIGN ENGINEER. PLAN CHECK SERVICES BY E.V.M.W.D. WILL BE LIMITED TO ADHERENCE OF THE DISTRICT'S STANDARDS, MATERIALS, QUANTITIES AND SIZE OF FACILITIES, AS THEY RELATE TO THE SERVICE DEMANDS OR THE APPROVED MASTER PLAN.

REV	BY	DATE	REVISIONS	APPR.	DATE

DESIGNED BY: **CWJ** DRAWN BY: **CWJ** CHECKED BY: **SLS**

SUBMITTED BY: _____
 DATE: _____

PLANS PREPARED BY:
Kennedy/Jenks Consultants
 9665 Granite Ridge, Suite 210
 San Diego, California 92123
 (858) 676-7500

ELSINORE VALLEY MUNICIPAL WATER DISTRICT
 WATER AND SEWER IMPROVEMENT PLANS
PALOMAR WELL NO. 2
SINGLE LINE DIAGRAM

RES: - P.Z.: _____

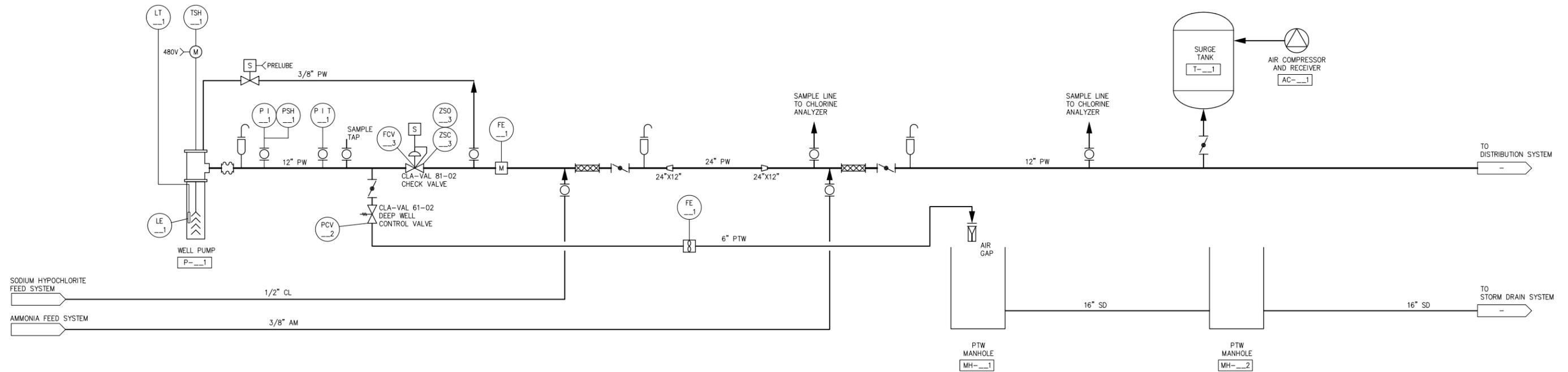
SHEET NO. **49**
 OF - SHTS
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INSPECTION W.O.# _____
 ENG. W.O.# _____

HMI-1 AND SCADA
(SITE)

PLC-1
(SITE PLC)



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Underground Service Alert



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BASIS OF BEARING

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DESCRIPTION: XX.XX

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REV	BY	DATE	REVISIONS	APPR	DATE

DESIGNED BY: **XX** DRAWN BY: **LMM** CHECKED BY: **XX**

SUBMITTED BY: _____
DATE: _____

PLANS PREPARED BY:
Kennedy/Jenks Consultants
9665 Granite Ridge, Suite 210
San Diego, California 92123
(858) 676-7500

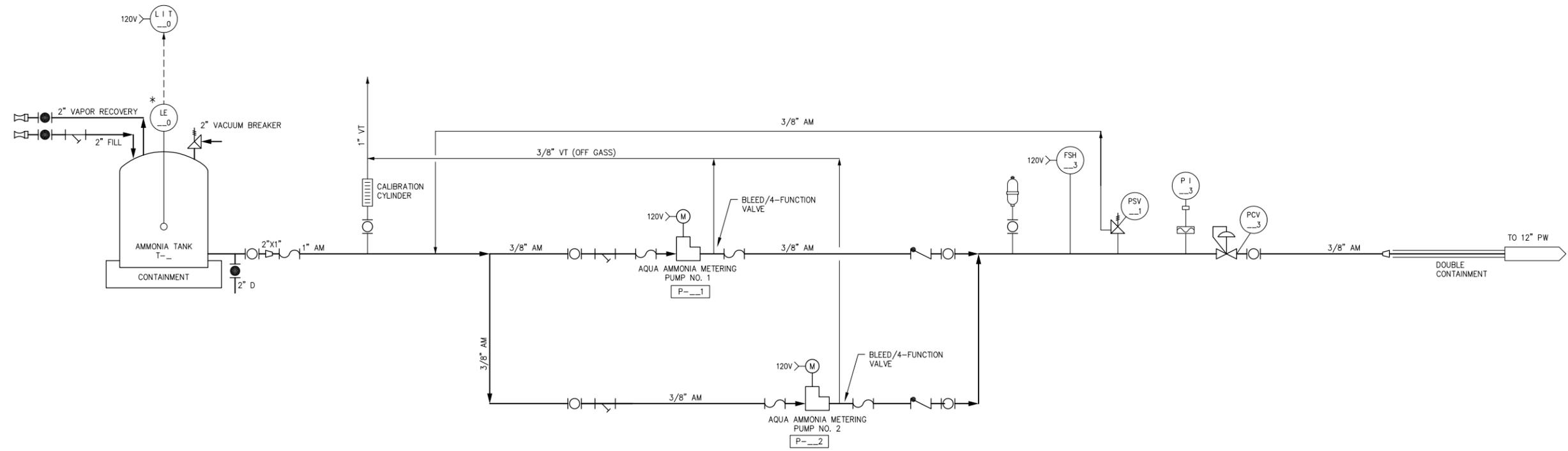
ELSINORE VALLEY MUNICIPAL WATER DISTRICT
WATER AND SEWER IMPROVEMENT PLANS
PALOMAR WELL NO. 2
P&ID - WELL NO. 2
RES: - P.Z.: _____

SHEET NO. **50**
OF - SHTS
XX

INSPECTION W.O.# _____
ENG. W.O.# _____

HMI-2
(CHLORAMINATION SYSTEMS)

PLC-2



Underground Service Alert



TWO WORKING DAYS BEFORE YOU DIG

BASIS OF BEARING
COORDINATE SYSTEM: XX.XX
DESCRIPTION: XX.XX

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

THE DESIGN AND CONSTRUCTION OF THE PROJECT AS WELL AS THE ACCURACY OF FIGURES, ARE THE RESPONSIBILITY OF THE DESIGN ENGINEER. PLAN CHECK SERVICES BY E.V.M.W.D. WILL BE LIMITED TO ADHERENCE OF THE DISTRICT'S STANDARDS, MATERIALS, QUANTITIES AND SIZE OF FACILITIES, AS THEY RELATE TO THE SERVICE DEMANDS OR THE APPROVED MASTER PLAN.

REV	BY	DATE	REVISIONS	APPR.	DATE

DESIGNED BY: **XX** DRAWN BY: **XX** CHECKED BY: **XX**

SUBMITTED BY: _____
DATE: _____

PLANS PREPARED BY:
Kennedy/Jenks Consultants
9665 Granite Ridge, Suite 210
San Diego, California 92123
(858) 676-7500

ELSINORE VALLEY MUNICIPAL WATER DISTRICT
WATER AND SEWER IMPROVEMENT PLANS
PALOMAR WELL NO. 2
P&ID - AMMONIA FEED SYSTEM 51
RES: - P.Z.: -

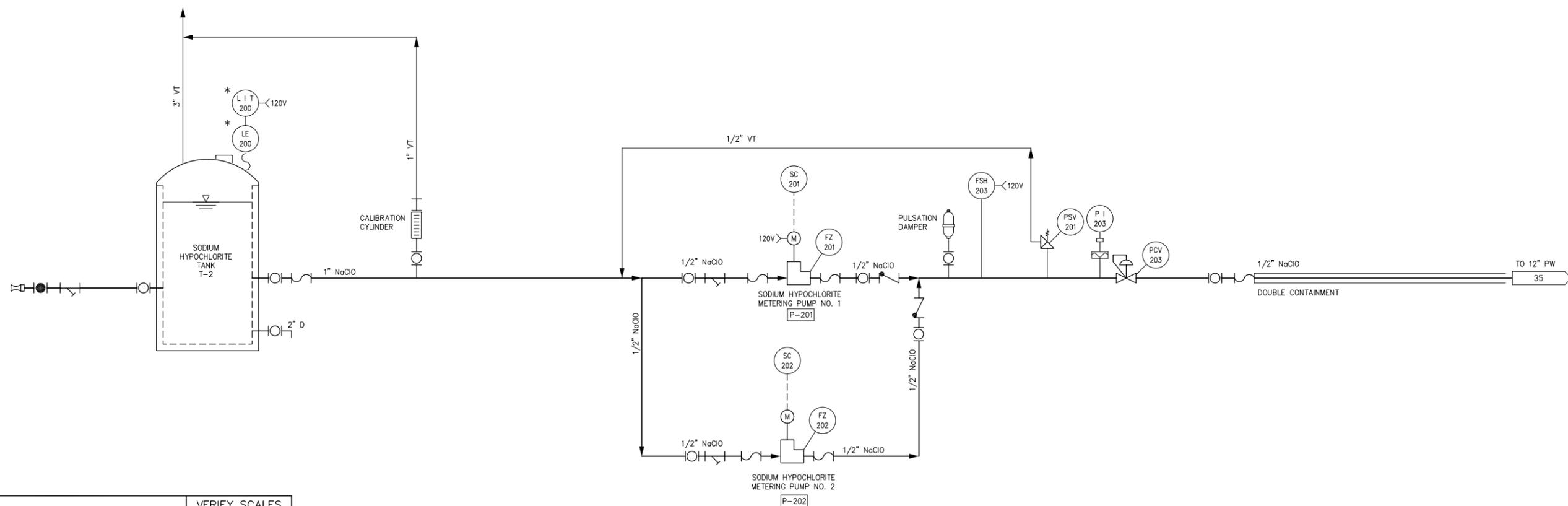
SHEET NO. **51**
OF - SHTS
XX

C:\pms\pms-user\east-005\pms-user\pms-user\dms21675\174410200_1-003.dwg

INSPECTION W.O.# _____
ENG. W.O.# _____

HMI-2 AND SCADA
(CHLORAMINATION
SYSTEMS)

PLC-2



Underground Service Alert



TWO WORKING DAYS BEFORE YOU DIG

BASIS OF BEARING
COORDINATE SYSTEM: XX.XX
DESCRIPTION: XX.XX

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING
0 1
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

THE DESIGN AND CONSTRUCTION OF THE PROJECT AS WELL AS THE ACCURACY OF FIGURES, ARE THE RESPONSIBILITY OF THE DESIGN ENGINEER. PLAN CHECK SERVICES BY E.V.M.W.D. WILL BE LIMITED TO ADHERENCE OF THE DISTRICT'S STANDARDS, MATERIALS, QUANTITIES AND SIZE OF FACILITIES, AS THEY RELATE TO THE SERVICE DEMANDS OR THE APPROVED MASTER PLAN.

REV	BY	DATE	REVISIONS	APPR.	DATE

DESIGNED BY: **XX** DRAWN BY: **XX** CHECKED BY: **XX**

SUBMITTED BY:

DATE: _____

PLANS PREPARED BY:
Kennedy/Jenks Consultants
9665 Granite Ridge, Suite 210
San Diego, California 92123
(858) 676-7500

ELSINORE VALLEY MUNICIPAL WATER DISTRICT
WATER AND SEWER IMPROVEMENT PLANS
PALOMAR WELL NO. 2
P&ID - SODIUM HYPOCHLORITE FEED SYSTEM
RES: - P.Z.: _____

SHEET NO. **35**
OF - SHTS
XX

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INSPECTION W.O.# _____
ENG. W.O.# _____

APPENDIX B - CEQA DOCUMENTS

PRELIMINARY EXEMPTION ASSESSMENT

(Certificate of Determination
When Attached to Notice of Exemption)

1. Name or description of project:	Palomar Well Replacement Project	
2. Project Location – Identify street address and cross streets or attach a map showing project site:	The project consists of the replacement of a well within an existing well enclosure located just off Timothy Road, approximately 175 feet northeast of the intersection of Palomar Street and Timothy Road in the City of Wildomar.	
3. Entity or person undertaking project:	A. Elsinore Valley Municipal Water District	
	B. Other (Private)	
	(1) Name	
	(2) Address	
4. Staff Determination:	<p>The Lead Agency’s staff, having undertaken and completed a preliminary review of this project in accordance with the Lead Agency's "Local Guidelines for Implementing the California Environmental Quality Act (CEQA)," has concluded that this project does not require further environmental assessment because the proposed project consists of the replacement or reconstruction of an existing public utility with negligible or no increase in capacity. The project is being designed to ensure compliance with the City of Wildomar’s noise limits at the adjacent residential property line both during construction and operation of the well.</p>	
a. <input type="checkbox"/>	The proposed action does not constitute a project under CEQA.	
b. <input type="checkbox"/>	The project is a Ministerial Project.	
c. <input type="checkbox"/>	The project is an Emergency Project.	
d. <input type="checkbox"/>	The project constitutes a feasibility or planning study.	
e. <input checked="" type="checkbox"/>	The project is categorically exempt.	
	Applicable Exemption Class:	State CEQA Guidelines § 15302(c), Replacement or Reconstruction of existing utility systems
f. <input type="checkbox"/>	The project is statutorily exempt.	
	Applicable Exemption:	
g. <input type="checkbox"/>	The project is otherwise exempt on the following basis:	
h. <input type="checkbox"/>	The project involves another public agency which constitutes the Lead Agency.	
	Name of Lead Agency:	

Date: _____

Staff: _____

Jason Dafforn, Engineering Manager

APPENDIX B - CEQA DOCUMENTS

NOTICE OF EXEMPTION

TO:	FROM: Elsinore Valley Municipal Water District (Public Agency)
<input type="checkbox"/> Office of Planning and Research P. O. Box 3044, Room 113 Sacramento, CA 95812-3044	
<input checked="" type="checkbox"/> Clerk of the Board of Supervisors or County Clerk County of: Riverside	Address 31315 Chaney Street Lake Elsinore, CA 92530

1. Project Title:	Palomar Well Replacement Project
2. Project Applicant:	Elsinore Valley Municipal Water District
3. Project Location – Identify street address and cross streets or attach a map showing project site:	The new well will be located within an existing well enclosure located just off Timothy Road, approximately 175 feet northeast of the intersection of Palomar Street and Timothy Road.
4. (a) Project Location – City of Wildomar	(b) Project Location – County: Riverside
5. Description of nature, purpose, and beneficiaries of Project:	The project consists of the replacement of the existing Palomar Well with a new well in Elsinore Valley Municipal Water District’s existing Palomar Well enclosure. The project is being designed to ensure compliance with the City of Wildomar’s applicable noise limits at the property line of an adjacent residence. The project will improve water supply reliability and benefit the customers of the Elsinore Valley Municipal Water District.
6. Name of Public Agency approving project:	Elsinore Valley Municipal Water District
7. Name of Person or Agency undertaking the project, including any person undertaking an activity that receives financial assistance from the Public Agency as part of the activity or the person receiving a lease, permit, license, certificate, or other entitlement of use from the Public Agency as part of the activity:	Elsinore Valley Municipal Water District 31315 Chaney Street Lake Elsinore, CA 92530
8. Exempt status: (check one)	
(a) <input type="checkbox"/> Ministerial project.	(Pub. Res. Code § 21080(b)(1); State CEQA Guidelines § 15268)
(b) <input type="checkbox"/> Not a project.	
(c) <input type="checkbox"/> Emergency Project.	(Pub. Res. Code § 21080(b)(4); State CEQA Guidelines § 15269(b),(c))
(d) <input checked="" type="checkbox"/> Categorical Exemption. State type and section number:	State CEQA Guidelines § 15302(c), Repair or Replacement of an existing utility system
(e) <input type="checkbox"/> Declared Emergency.	(Pub. Res. Code § 21080(b)(3); State CEQA Guidelines § 15269(a))
(f) <input type="checkbox"/> Statutory Exemption. State Code section number:	
(g) <input type="checkbox"/> Other. Explanation:	