NOTICE OF PUBLIC HEARING AND INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

Vaughn Water Company has completed an initial study of the possible environmental effects of the following described project and has determined that a Mitigated Negative Declaration is appropriate. It has been found that the proposed project, as described and proposed to be mitigated (if required), will not have a significant effect on the environment. This determination has been made according to the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and Vaughn Water Company's CEQA Implementation Procedures. As mandated by State law, the minimum public review period for this document is 30 days. The document and documents referenced are available for review by contacting Curtis Skaggs of Dee Jaspar & Associates, Inc. (Company Engineer) at (661) 393-4796.

PROJECT TITLE: Meadow Creek Well Water Supply and Treatment Facility

PROJECT LOCATION: APN 526-010-14 at Meadow Creek Street and Polo Drive intersection in Bakersfield, Kern County, California.

PROJECT DESCRIPTION:

The proposed project is for Vaughn Water Company and involves drilling and equipping a new municipal water well, constructing an Ozone Treatment facility, and connecting it to the existing VWC distribution system.

The well is located to the west of the City of Bakersfield on the southwest side of Almondale Park approximately 650-ft west of Verdugo Lane in Section 18, T29S, R27E, M.D.B.&M. The well site property is approximately 105-ft by 210-ft or approximately ½-acre. The site is currently irrigated lawn as part of the community park landscaping. The grass and sprinkler system will be removed within the limits of the well site and the site graded to be level and uniform. The earthwork will involve moving approximately 470 cubic yards and the material will balance so there is no import or off-haul of dirt.

The well is planned to be drilled to an approximate depth of 1,500-ft using the reverse rotary method. Water quality zone testing will be performed in the well pilot hole in an effort to complete a well not requiring treatment. The well construction work will include installing a 50-ft deep, 36-inch diameter steel conductor, drilling a 17 ½ - inch diameter pilot hole, performing geophysical logging, water quality depth sampling, reaming of the pilot hole to 28-inch diameter, installation of 16-inch diameter steel casing, installation of gravel pack, installation of a cement annular seal, and well development. The initial development water will be disposed of in a 20,000 gallon tank and removed from the site. The development water will then be discharged to the existing storm drain system. It is

expected that the completed well will have hydrogen sulfide and that well head treatment in the form of ozonation will be used to remove taste and odor.

The site will require over-excavation to 18-inches below proposed concrete foundations and will be recompacted to 90% relative compaction to reduce the potential for settlement. Concrete foundations will be constructed for the deep well, the treatment building, the booster pumps, and the hydropneumatic tank.

The deep well will have a 10-ft by 10-ft by 30-in thick concrete foundation and be equipped with a vertical turbine pump and vertical hollowshaft electric motor with a variable speed drive. The well will have a 10-ft by 10-ft by 11-ft high removable metal enclosure building for noise attenuation. The site will be secured with approximately 575-ft of 8-ft tall masonry block wall and include a drive gate and a personnel gate to Meadow Creek Street for access. The well site will be surfaced with ¾" Class II aggregate base with the limits being the perimeter block wall. The 16-inch well discharge piping will be routed into an approximate 36-ft long by 28-ft wide by 16-ft tall steel building structure with a concrete foundation that is 46-ft by 38-ft by 6-in thick and that houses the electrical equipment including the meter main, motor control center, and PLC and also houses the treatment equipment. Two air conditioner units will be mounted on a concrete pad on the exterior of the building for interior climate control.

The flow rate from the well will be regulated by a flow control valve to maintain 2,500 gpm and will be metered. The water will pass through a Mazzei flash reactor for mixing of the raw well water with a treated water bypass prior to entering the stainless steel storage tank. Ozone gas will be injected into a bypass flow stream of approximately 250 gpm as a strong oxidant to convert the sulfide to sulfate. The pressure drop across a venturi injector will create a suction that draws in the ozone. The ozone will be generated by a 54 lb/day ozone generator (Model CFS-14) manufactured by Suez. The ozone generator will be supplied cooling water and dry oxygen. It will utilize oxygen and electricity to convert oxygen to ozone. All ozone piping will be stainless steel. The process piping, electrical equipment, ozone generator, air compressor, air dryer, oxygen concentrator, and receiver tanks will be installed in the air-conditioned metal treatment building. An ozone analyzer will be installed inside the treatment building and at the ozone destruct unit to detect any ozone leaks and in that event the analyzer will send an alarm and shutdown the well and ozone operation.

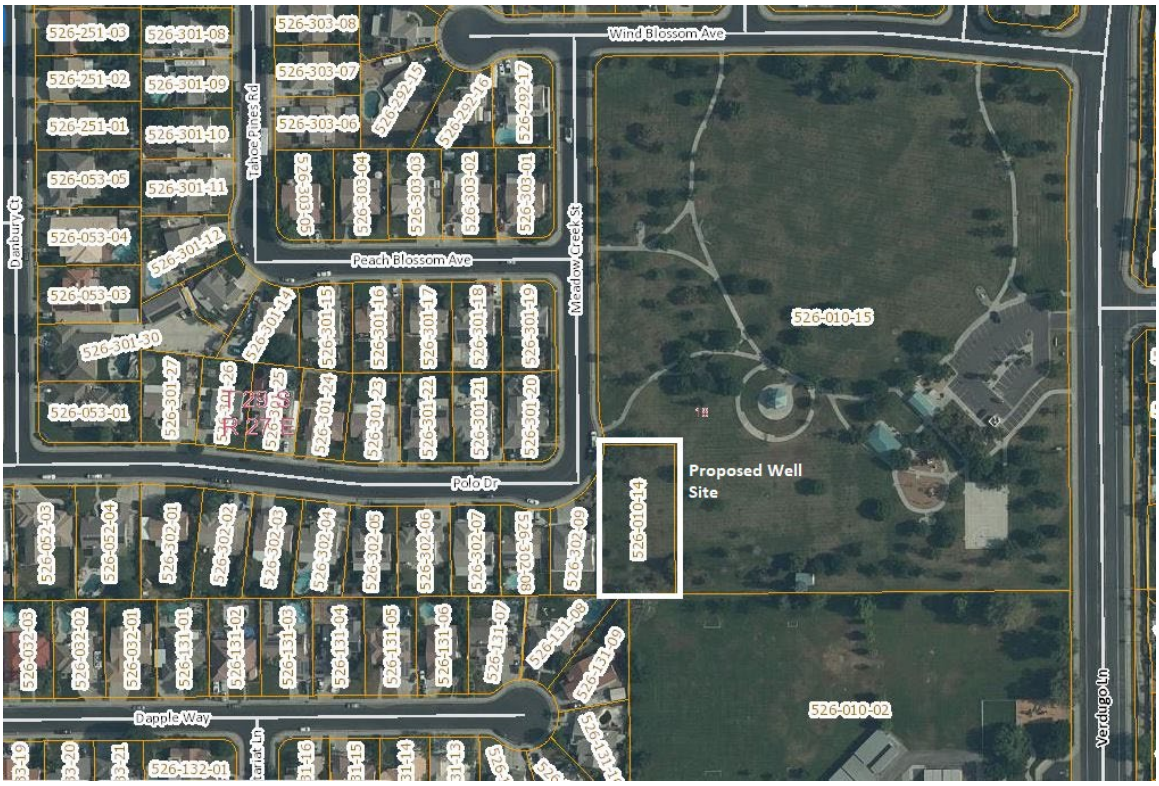
A 6-ft by 7-ft by 8-in thick concrete foundation for a 12.5% sodium hypochlorite storage tank and chemical feed pump is located between the treatment building and the stainless steel storage tank. The well discharge piping will exit the building, transition underground, and resurface and enter an AWWA D103 stainless steel bolted tank that will be constructed with a gravel ring foundation. The stainless steel contact tank dimensions will be 30-ft diameter and 16-ft side shell height. The tank is also equipped with an ozone destruct unit that converts any residual ozone gas back to oxygen. The stainless steel tank discharge piping will be 18-inch diameter steel piping that feeds the suction header for three horizontal centrifugal split-case booster pumps. Each booster pump will have a concrete foundation that is 3-ft by 6-ft by 36-in thick. The booster pumps are equipped with variable speed drives. Two of the pumps are 50hp and the third pump is 100hp. The pump discharge piping then enters a 16-in diameter discharge header. The discharge header enters a 3,000-gallon hydropneumatic pressure vessel. There are two pressure vessel concrete footings each 13-ft long by 5-ft wide

by 24-in thick. The 16-inch diameter booster station piping will transition below ground after the pressure vessel and transition to 16-inch C900 PVC pipe. The piping will connect to the existing VWC distribution system at the intersection of Meadow Creek Street and Polo Drive on the west side of the well site, approximately 30-ft in length, and a second connection will be made to the east to the existing VWC distribution system piping in Verdugo Lane via a 16-inch C900 PVC conveyance pipe routed approximately 650-ft east through the park in a private easement.

The well and treatment facility will be painted a neutral color (tan) and site landscaping installed around the perimeter of the site for it to be aesthetically pleasing and blend in with the adjacent park and neighborhood.

COMMENT PERIOD BEGINS: July 28, 2023

COMMENT PERIOD ENDS: August 31, 2023



Vicinity Map of Meadow Creek Well Site