



October 9, 2023

Lori Schmitz, Environmental Scientist
State Water Resources Control Board
Division of Financial Assistance
Special Project Review Unit
1001 I Street, 16th Floor
Sacramento, CA 95814

Governor's Office of Planning & Research

Oct 10 2023

STATE CLEARINGHOUSE

**Subject: Vaughn Water Company
Meadow Creek Well Water Supply and Treatment Facility Project
State Clearinghouse #2023070417**

Dear Ms. Schmitz,

Your comments for the above referenced project dated August 11, 2023 were received and have been reviewed. Below are responses to each comment:

1. The statement in the IS/MND referencing Vaughn Water Company as the lead agency is a mistake. The document will be updated in the Final Draft to reflect the North of the River Recreation and Park District (NRRPD) as the Lead Agency.
2. Almondale Park is owned by and under the jurisdiction of NRRPD. NRRPD had discretion over this project when they elected to grant the well site property to Vaughn Water Company therefore NRRPD seemed the most appropriate for acting as the Lead Agency, however this action was taken prior to this environmental document.

The well site will also require pipeline easements from NRRPD in order for the well site to be connected to the existing Vaughn Water Company water system and this discretionary approval will be subject to NRRPD.

3. GAC treatment is not expected to be needed; however, the water company is being proactive in making sure the design layout has room and can accommodate treatment vessels in the event that it does become necessary once the well is drilled and completed.

GAC treatment was not originally included in the project description as it is considered future and not necessary at this time. If GAC treatment becomes necessary in the future, then a separate environmental document will be prepared.

4. The potential operational impacts of the project will be added to the project description.

- a. The well site will be routinely visited by a Vaughn Water Company operator – typically once per day to check on the operation and inspect for any issues along with the preparation of a daily report. Routine maintenance operations will include:
- Well Lubrication Check - daily
 - Chlorine Tank Level Check – daily
 - Chlorine Residual Check – daily
 - Water Production Reading Check - daily
 - Check dew point - monthly
 - Booster Pump check – monthly
 - Well water level measurements – monthly
 - Dryer Unit oil vapor filter replacement – quarterly
 - Hydrocarbon filter replacements on dryer units, compressor units, fisher valves – quarterly
 - Air Conditioning service – quarterly
 - Site Cleanup - quarterly
 - Oil changes for electric motors – semi-annual
- b. A back-up emergency generator will not be installed as part of this project.

5. a. Vaughn Water Company has two existing water wells within approximately 2,000-ft and 4,600-ft of the Meadow Creek well location. A review of groundwater levels for these Vaughn Water Company wells show that the static water levels have historically ranged (1997 – 2023) from approximately 147-feet below ground surface to 321-feet below ground surface (bgs). The current static water level in the area for July 2023 is approximately 269 feet bgs.

The KRGSA GSP notes minimum thresholds of 20-feet below the historic low water level for greater than three months. This would equate to static water levels of approximately 341-feet bgs for Vaughn Water Company. Should the static water level drop below 341-ft bgs for greater than three months, then the Water Company will inform the overlying water districts so that they can determine next steps to ensure the groundwater basin is balanced and being recharged appropriately.

- b. Vaughn Water Company typically completes their municipal wells approximately 1,200-feet to 1,500-feet bgs. This is much deeper than the 600-ft to 800-ft depth that wells in this area are routinely completed too. The soil formation in this area is composed of silts, sands, and clays and is considered an unconfined aquifer, however there are significant clay layers typically around 350-ft, 400-ft, 500-ft 650-ft, and 800-ft. This deeper aquifer, below 800-ft, often encounters a color change and has reduced dissolved oxygen concentrations resulting in taste and odor issues. Pumping from this deeper aquifer results in less impact on the shallower aquifer and any nearby wells, but requires the water company to treat with ozone.

The nearest municipal water well is an existing Vaughn Water Company well and it is approximately 2,000-ft away. A well spacing of approximately 1,300-ft to 1,500-ft generally mitigates any effects from the cone of depression.

- c. The increase in water demand on the system is a result of residential and commercial growth in the Rosedale area of NW Bakersfield. The increase in water demand is a peak demand increase of approximately 2,500 gpm or approximately 1,000 ac-ft per year.
The normal demand is 4,162 MG or approximately 12,775 ac-ft per year. The normal year supply is approximately 28,080 ac-ft per year. The annual supply for a single dry year is not expected to change and the available supply remains approximately 28,080 ac-ft per year. Based on the multiple dry year period from 2013 through 2017, it is expected that there might be a 20% decline in water supply availability. This equates to an available supply of approximately 22,464 ac-ft per year which exceeds the normal demand of 12,775 ac-ft per year.
- d. The amount of water anticipated to be extracted from the Meadow Creek well on an annual basis is approximately 1,000 ac-ft. Vaughn Water Company overlies two local water agencies: the Kern County Water Agency - Improvement District No. 4 (ID4) and Rosedale Rio Bravo Water Storage District (RRBWSD). Vaughn Water Company supports the efforts of both agencies to achieve a groundwater balance in the Company's service area and recognizes that Company-served landowners within both agencies have contributed significant amounts of money to aid in the achievements made thus far and will continue to contribute towards those efforts. The Company pays tolls on the water pumped out of the ground within the ID4 service boundary to the Kern County Water Agency. These charges help pay for the operation of ID4 projects including operation and maintenance of the Cross Valley Canal and recharge and recovery operations. Furthermore, the Water Company has a Memorandum of Understanding with the underlying water district – Rosedale Rio Bravo Water Storage District. RRBWSD has endeavored to create a groundwater balance within the RRBWSD District through importation of water for recharge and in-lieu water supply programs and through cooperative programs with other agencies. Studies by the District indicate that a groundwater balance is being achieved. Therefore, as a result of the recharge operations by both local water agencies, the project will not significantly impact the basin. The Water Company participates in financing these District programs through property taxes paid by Company shareholders and by fees levied against each acre-foot of water pumped by the company within ID4.
- e. The Project will not result in cumulative effects on the groundwater basin for the reasons noted above in Item d. The Water Company shareholders (customers) pay property taxes and pump taxes to the underlying local water agencies: Kern County Water Agency – Improvement District No. 4 and Rosedale Rio Bravo Water Storage District. Those water districts implement groundwater

replenishment programs and recharge operations to store water in the underlying groundwater basin when excess water is available.

6. Vaughn Water Company has not typically installed a water line discharge to waste. In the event that a water supply well needs to be flushed or discharged to waste, they typically rent temporary piping and install the piping to discharge to land or a retention basin. If a discharge to waste line is required it will discharge to the ground under Statewide Water Quality Order 2003-0003-DWQ, Statewide General Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality. The likely locations that this water will be pumped to are either – above ground sprinkler application of water to NRRPD’s Almondale Park or to the existing retention basin within approximately 700-ft of the site with approval from the County of Kern.

If you have any questions or concerns, please feel free to contact me or Curtis M. Skaggs at cskaggs@djacivil.com or (661) 393-4796.

Sincerely,



Steph Thisius-Sanders
Planning & Construction Director
North of the River Recreation and Park District