



MONTEREY COUNTY WATER RESOURCES AGENCY

WELL APPLICATION REVIEW

Permit Type: Construction

Permit #17-12916

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| Owner Name: General Farm Investment Chris Bunn | Hydrologic Subarea: 180/400 Foot Aquifer Subbasin – Deep Aquifers | Proposed Borehole Depth (ft.): 1,700 |
| Address: PO Box 247, Salinas, CA 93902 | APN: 414-011-001-000 | Proposed Sealing Depth (ft.): 860 |
| Well Address: Cooper Rd & McFadden Rd | TRS number: 14S/02E-22J | Proposed Well Perforation Intervals (ft.): 900 to 1,600 |
| Date Submitted To Agency: 10/13/2017 | Driller/Contractor: Alsop Pump | Proposed Production Casing Diameter (in.): 16 |
| Date Application Received: 10/13/2017 | Drilling Method: Reverse rotary | Proposed Pumping Rate (gpm): 1,800 |
| | Ground Surface Elevation (ft.): 28 | Intended Use: Agricultural irrigation |

The Water Resources Agency (Agency) recommends denial of well construction permit #17-12916 for the following reasons:

1. The proposed well will be constructed with a screened interval(s) in the Deep Aquifers.
 - a. Existing studies¹ suggest that the predominant source of recharge to the Deep Aquifers is leakage from the overlying Pressure 180-Foot and Pressure 400-Foot Aquifers.
 - b. Groundwater in the Pressure 180-Foot and Pressure 400-Foot Aquifers at the proposed well site has been impacted by seawater intrusion. Operation of a high capacity well in the Deep Aquifers at this location has the potential to induce additional leakage of impaired groundwater from the overlying aquifers.
2. Isotope analysis of water from the Deep Aquifers indicates that it was recharged thousands of years ago.² Though stored groundwater may not be the primary source of current extractions from the Deep Aquifers, continued pumping of this “old” water represents mining of a groundwater resource.
3. The applicant has indicated that the proposed well is a replacement for “Cooper #7,” also is referred to using State Well Identification Number 14S/02E-22Q51. On the basis of reported pumping data submitted by the applicant for Cooper #7 for the period 2014 to 2016, and the applicant’s statement that water use at the new well will not exceed historical usage on the acreage³, annual extractions will plausibly average 311 acre-feet per year.
 - a. While the destruction of Cooper #7, which the Agency would recommend as part of the replacement well process, would decrease the amount of groundwater pumping in the Pressure 400-Foot Aquifer within the Area of Impact by approximately 2%⁴, construction of the replacement well in the Deep Aquifers represents an increase in groundwater pumping of approximately 11% over the average annual pumping from wells in the Deep Aquifer within the Area of Impact for the period 1995 to 2015.

¹ Feeney, M.B. and L.I. Rosenberg (2003) *Technical Memorandum – Deep Aquifer Investigation – Hydrogeologic Data Inventory, Review, Interpretation, and Implications* and WRIME (2003) *Marina Coast Water District Deep Aquifer Investigative Study*.

² Hanson, R.T. et al. (2002) *Geohydrology of a Deep-Aquifer System Monitoring-Well Site at Marina, Monterey County California*. U.S. Geological Survey. *Water Resources Investigations Report 02-4003*.

³ Via email send to the Agency on January 25, 2018.

⁴ Based on an average of pumping from Pressure 400-Foot Aquifer wells within the Area of Impact for 1995 to 2015.

4. Until an investigation of the Deep Aquifers can be completed, insufficient data exists on the hydraulic properties and long-term viability of the Deep Aquifers to allow for knowledge-based water resource planning.⁵

The Water Resources Agency makes this recommendation to the Monterey County Health Department - Environmental Health Bureau in its role as a technical consultant to the well permitting program.⁶ The Water Resources Agency finds that recommending denial of this well construction permit supports the purpose of Monterey County Code Chapter 15.08.

Reviewer: 
Amy Woodrow, PG – Hydrologist

Date: January 30, 2018

⁵ Monterey County Water Resources Agency (2017) *Recommendations to Address the Expansion of Seawater Intrusion in the Salinas Valley Groundwater Basin – Special Reports Series 17-01*.

⁶ The Water Resources Agency role in the well permitting program is discussed in the *Delineation of Responsibility for Water Management Between Division of Environmental Health & the Monterey County Flood Control and Water Conservation District* (1990).