

Notice Of Completion & Environmental Document Transmittal

Frazier Nut Farms – Ion Exchange Water Treatment System – Water System No. 5000530

Project Description (Proposed actions, location, and/or consequences):

This project includes the installation and operation of a nitrate removal treatment system to a single well that currently supplies untreated groundwater utilized by Frazier Nut Farms (FNF). Due to nitrate detected in the FNF water supply at concentrations exceeding the California Maximum Contaminant Level (MCL) of 10 mg/L, Stanislaus County Department of Environmental Resources (DER) issued Compliance Order No. DER-18R-006 (Order) in March 2018 that required action by FNF to address nitrate levels in the water supply. Prior to operation of the treatment system, FNF will install a well backflow prevention device and have it tested by a Stanislaus County approved tester. The proposed groundwater treatment system components include six Culligan stainless steel portable ion exchange tanks filled with Resintech SIR-100-HP nitrate reducing resin, and six replacement exchange tanks which will be housed at the Culligan Water Company. The system also includes an inline nitrate analyzer, high nitrate shut off valve, sample port, chlorine disinfection injection port, and 1500-gallon storage tank for treated water. The system will be placed on a 10 ft x 12 ft concrete pad adjacent to an existing corrugated metal building. Water from the supply well will be treated by the system and then distributed via pipeline for use at the FNF use. Water from the supply well will enter the treatment system for removal of nitrates by the ion exchange system which will operate automatically. The well pump will turn on when the water level in the storage tank reaches a low level and will shut down when the water level reaches a high level. To ensure that the treatment system is effectively removing nitrates from groundwater, FNF personnel will observe and log real-time nitrate concentrations in the system effluent daily via the in-line nitrate analyzer. When nitrate levels approach 8 mg/l, FNF will arrange for Culligan to deliver the six replacement exchange tanks and remove the six used exchange tanks for regeneration and storage at the Culligan Water Company. For added protection, the treatment system is also equipped with a nitrate monitoring system that will alert FNF operators when the nitrate levels approach the MCL as a trigger for replacement of the six exchange tanks. The estimated schedule for replacement of the exchange tanks is monthly; to be confirmed after startup of the system. After a replacement event, a flush of the six exchange tanks with well water will be performed. The flush will continue until the nitrate levels indicated by the in-line analyzer have stabilized below the MCL. The volume of flushed water is expected to be less than five gallons per month. Flushed water will be stored on-Site in a container/tank and disposed off-site at the treatment facility in Newman, California if nitrate concentrations exceed the MCL of 10 mg/L for nitrate. The flush water storage container/tank will be maintained at the same location as the treatment system.