

EXECUTIVE OFFICER SUMMARY REPORT
October 12, 2011

- ITEM: 6
- SUBJECT: Information Item: Status of the Temecula Valley Wine Country Expansion and Potential Impacts to Groundwater Quality. (*Fisayo Osibodu*)
- PURPOSE: To provide an update and overview of potential groundwater quality issues related to the proposed Temecula Valley Wine Country expansion, including the need for salt and nutrient management planning and oversight, and options for regulating discharges of waste from new and expanding wineries in Temecula Valley.
- PUBLIC NOTICE: This item was publicly noticed in the Meeting Notice and Agenda for the October 12, 2011 Board Meeting. Notice was also posted on the San Diego Water Board website.
- DISCUSSION: The County of Riverside is in the process of amending its General Land Use Plan (General Plan) to incorporate the expansion of the Temecula Valley Wine Country. The San Diego Water Board is coordinating with the County, water supply and sewerage agencies, winery owners, and other stakeholders to ensure that potential water quality impacts from the proposed General Plan amendment are adequately addressed.
- The Wine Country area is located east of the City of Temecula, and north of Highway 79 South, and incorporates both equestrian and winery land uses. There are currently 32 wineries (Supporting Document No. 2) in Temecula Valley Wine Country. The General Land Use Plan amendment proposes a total of 88 wineries for this area by the year 2035. Along with the winery expansion, the General Plan amendment anticipates hotels, gift shops, bed and breakfast establishments, and restaurants to transform the Temecula Valley Wine Country into a destination resort area.

The Temecula Valley Wine Country is underlain by the Temecula aquifer (Supporting Document No. 1). This important aquifer is the largest in the San Diego Region and provides one third of the water supply for southern Riverside County. The majority of the wineries are located in portions of the Temecula aquifer where the water quality objective for total dissolved solids (TDS) is 500 milligrams per liter (mg/L) as specified in the *Water Quality Control Plan for the San Diego Basin*. The water quality objective for nitrate-nitrogen in all portions of the Temecula aquifer is 10 mg/L.

Rancho California Water District (RCWD), the water supply agency for the area has conducted a hydrologic study of the Temecula aquifer to assess potential impacts as a result of Total Dissolved Solids (TDS) and nitrogen loading from waste discharges from new and existing projects in the Wine country portion of the aquifer. The results of the hydrologic study indicate that there is no gross assimilative capacity for TDS remaining in the Wine Country area of the aquifer. Assimilative capacity for TDS is the ability of the aquifer to absorb salts into groundwater without causing adverse impacts to water quality.

Wastes generated by new and existing wineries which may contribute to salt loading in the aquifer include: storm water runoff, composting wastes, domestic wastewater from restaurants, tasting rooms (existing), and hotels (proposed); irrigation run-off from vineyards; and winery wash water produced during the crushing of grapes. The options for treatment and/or disposal include connection to an extension of the sewer system; formation of a new community system run by a public agency; conventional onsite septic systems or advanced treatment systems with or without reverse osmosis; or lined evaporation ponds and other treatment systems for winery wastes.

Some project proponents have proposed utilizing conventional onsite septic systems or advanced treatment systems for disposal of waste generated from their winery projects. Three of these projects have submitted applications for waste discharge requirements, while two others have expressed interest in applying for waste discharge requirements. As a result of preliminary findings of RCWD's hydrologic study, the San Diego Water Board has outlined the following options to project proponents applying for waste discharge requirements:

1. The project proponent must submit technical information that demonstrates that discharges from the project will not cause exceedances of water quality objectives in the groundwater. Such information may include utilization of additional treatment systems that provide for nitrogen and TDS removal.
2. Submittal of a time schedule for completing connection to the sewer system when it becomes available. For projects that submit a signed agreement with the sewer agency for connection to the sewer system, the San Diego Water Board may prescribe interim waste discharge requirements or issue a time schedule order allowing discharge for a limited period.
3. Revision of the proposed project so the entire project generates less than 1,200 gallons per day or less of wastewater. In this case, the San Diego Water Board would defer the authority to regulate the discharge of wastes to the County of Riverside Department of Environmental Health per the Basin Plan provisions.

Eastern MWD has proposed the implementation of sewer service as a long term solution for wastewater disposal; however, this system, if approved, will not be available for another two to three years. Extension of the sewer system into the Temecula Wine Country area is a viable long term solution for disposal of wastewater produced from new and expanding winery projects. Extension of the sewer system, will significantly reduce nitrogen loading into the aquifer. According to the RCWD, the sewer system will not, however, substantially reduce salinity loading into the aquifer because irrigation of vineyards and other agricultural operations with imported water contribute the majority of the salt loading to the basin.

Eastern MWD would provide the sewer backbone, but a portion of the costs to construct the sewer infrastructure and extend lines to individual wineries would be the burden of the project proponents. Eastern MWD has outlined a phased approach in its feasibility study for expansion of the sewer system with estimated total costs ranging from \$26 to

\$27.3 million. Connection costs for each project would vary based on volume of waste generated and size of the project.

The proposed expansion of the Temecula Valley Wine Country highlights the need for an overall salt and nutrient management plan for this part of the San Diego Region. The San Diego Water Board is looking to the RCWD to lead the salt and nutrient management planning effort for the Temecula aquifer. Salt and nutrient management planning is a requirement of the State Recycled Water Policy and is envisioned to be a stakeholder led process.

LEGAL CONCERNS: None.

- KEY ISSUES:
1. The groundwater aquifer underlying the Temecula Valley Wine Country is the largest in the San Diego Region and is an important source of drinking water for Riverside County. The protection of this aquifer is critical.
 2. The aquifer underlying Temecula Valley Wine Country has limited or no assimilative capacity for total dissolved solids. Thus, the San Diego Water Board's options to permit the treatment and disposal of wastewater to land are limited.
 3. Prescribing interim waste discharge requirements or a time schedule order for connection to the sewer system may be an option for regulating discharges from projects that make a firm commitment to connect to the sewer system when it becomes available. Interim discharge specifications and short term adverse impacts would need to be addressed.
 4. Extension of the sewer system into this part of Riverside County is a viable long-term solution for the disposal of onsite wastewater produced at some, but not all of the Temecula Valley wineries. This option, however, will not be available for at least two or three years and may not solve the disposal issues for the entire Wine Country area.
 5. The San Diego Water Board is looking to RCWD to lead the salt and nutrient management planning efforts for the Temecula aquifer, as required by the Statewide Recycled Water Policy.

**SUPPORTING
DOCUMENTS:**

1. Map Showing Location of Temecula Groundwater Basin
2. Map Showing Location of Temecula Valley Wine Country.

RECOMMENDATION:

There is no recommendation as this is an information item and the Board will take no action.