Contents of a proposed On-site Wastewater Treatment System – Engineers Report

In 2005, pursuant to provisions of the Clean Water Act, the Regional Water Quality Control Board (Regional Board) adopted a list of water quality issues that require special regulatory attention/follow up to ensure compliance with the water quality standards of the Water Quality Control Plan (Basin Plan) for the Colorado River Basin Region. One of the listed issues is the impact that on-site wastewater treatment and disposal systems pose to groundwaters designated for drinking purposes.

In light of the aforementioned, the Colorado River Basin Region, Regional Water Quality Control Board is evaluating the individual and cumulative effects to ground water from on-site wastewater treatment systems (septic tank – disposal systems), especially the areas where aquifers have a designated beneficial use of municipal (MUN) and/or the systems are in the proximity of surface waters.

The principal pollutants of concern from the septic systems are Nitrate (NO_3^-), pathogens (both bacteria and viruses), Total Dissolved Solids (TDS), and volatile organic constituents (VOCs). To prevent and mitigate water quality impacts, and pursuant to Section 13260 of the California Water Code, project proponents must submit a Report of Waste Discharge (ROWD, a.k.a. Form 200), and an Engineering Report in support of the ROWD, detailing the proposed discharge of wastes and method of treatment and disposal for a particular project, at a particular site.

In general, the Engineering Report should make clear how an existing or proposed system, will be adequately protective of areal ground and surface water quality.

The report must be prepared by either a California registered civil engineer or geologist (as the circumstances warrant) experienced in the design of wastewater treatment and disposal systems and hydrological investigations.

The Engineering Report must, at a minimum, address the following:

1. The hydrogeologic setting including:
    a. Type(s) of soil present;
    b. Depth to first-encountered ground water;
    c. Direction of groundwater flow;
    d. Existing groundwater quality;
    e. Distances from existing or proposed wells in the vicinity;
    f. Distances to surface waters
2. Wastewater treatment and disposal system
    a. Design flow of treatment and disposal system;
    b. Description of the proposed unit treatment process's, including brand names if any;
    c. Projected effluent quality from treatment system in terms of BOD_5, Total Suspended Solids (TSS), NO_3^-, Total N, TDS, and Fecal Coliforms;
    d. Proposed disposal system (e.g., use of recycled water, evapotranspiration system, evaporation/percolation ponds; leach-field system, etc.)

e. Design criteria for and location of disposal system[1]

Form 200 can be downloaded from our web site at:

http://www.waterboards.ca.gov/coloradoriver/documents/forms/form200m.pdf.

Upon receipt of a complete ROWD, Regional Board staff will evaluate the proposal's threat to water quality and will inform the applicant accordingly and whether the proposed discharge either (a) qualifies for coverage under existing general Waste Discharge Requirements; (b) should be regulated with individual WDRs adopted by the Regional Board; or (c) the discharge as proposed should be prohibited by the Regional Board. .

[1] Depending on the proposed method of treatment and disposal, additional information may be required to complete the ROWD (e.g., a representative number of percolation tests for leachfields, or a monthly water balance for ponds, etc.).