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DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
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May 26, 2011

Vahid Behmaram
Water Rights Manager
Washoe County Department of Water Resources
4930 Energy Way
Reno, Nevada 89502

Re: Possible waivers of the minimum water well decommissioning procedures and materials, South Truckee Meadows/Mount Rose Fan Area domestic well impact mitigation process.

Dear Mr. Behmaram:

In response to your request dated May 13, 2011 in the above-referenced matter, this office has normally taken the case-by-case approach when designing specific plugging or decommissioning orders for various wells throughout the state. It is in the best interest of all to keep the cost of well plugging to a minimum to insure greater compliance whilst protecting the groundwater from waste and contamination. The intent of the regulation is to put back in place what was there before we drilled a hole. The regulation itself must and does address the worst-case scenario since the decommissioning may be done anywhere in Nevada with little to no other information about the well or the aquifers encountered. Therefore this office will consider less than by-the-book plugging methods and/or materials only if we can be confident of what it is we are sealing. In the Mount Rose Fan Area, the hydrogeology is fairly well understood and well logs are available for nearly all of the wells.

Generally, if the present and pre-existing static water level can be determined, and that aquifer is the only aquifer encountered, we can isolate that aquifer by installing high solids bentonite chips or cement slurry from the approximate total depth to fifty feet above the aquifer, and then place a cement plug from twenty feet to surface. Bentonite grout is currently allowed in the regulation but there is evidence it is ineffective both in making it stand above the aquifer and its failure across the dry formation. Waivers on perforating casing are handled readily depending on the circumstances. On the down side, if there is evidence of failure of the original 50 foot annular grout seal, then that portion of the casing will have to be perforated and grouted with Portland cement slurry from that depth to surface. If you have any questions please call me at 775-684-2847 or send a fax to 775-684-2810.

Best regards,

A handwritten signature in black ink, appearing to read "Thomas K. Gallagher".

Thomas K. Gallagher, P.E.
Manager II, Section Chief
Adjudications and Drilling Regulation

tkg/llb