

E. Domestic Wells

Introduction

In Nevada, domestic wells serve approximately 6 percent of the population and withdraw about 18,000 acre-feet per year (less than 0.5 percent of total state water use). Though domestic wells account for a small portion of the State's total water use, some domestic well issues require consideration in the planning process. The purpose of this discussion is to present the main issues associated with domestic wells in Nevada and to provide recommendations addressing these concerns.

Domestic Wells and the Water Law

As in most states, domestic wells are exempt from water right permitting under state law. This exemption applies to domestic wells with uses less than 1,800 gallons per day, which includes most domestic wells (NRS 534.180 (1)). Although domestic wells owners do not need to file water right applications with the State Engineer, drillers are required to file drilling logs with the State Engineer within 30 days after the drilling of any well, including domestic wells (NRS 534.170 (2), added in 1981)). In 1981, the State Engineer was given the authority to the registration of all wells drilled for domestic purposes within any groundwater basin or portion of a basin (NRS 534.180 (2)). For domestic wells drilled in these declared areas, well drillers are required to submit information required by the State Engineer within 10 days after well completion, and a registry of these domestic wells is maintained by the State Engineer.

Domestic Well Owner Protection

Because no permits are required for domestic wells, well owners' legal rights as existing users have been subject to conflicting statutory interpretations. Domestic well owners have the right to protest any water right application. In fact, NRS 533.360 (3) requires that applicants for a proposed groundwater use for municipal, quasi-municipal or industrial purposes with an expected withdrawal rate of 0.5 cubic feet per second (cfs) or more, in all counties except Clark County, notify all domestic well owners within 2,500 feet of the proposed well. To circumvent this requirement, some water right applicants have filed numerous applications for withdrawals, each less than 0.5 cfs, but which total together more than 0.5 cfs. In addition to these protective measures, the State Engineer has recognized that domestic well owners have the right to file complaints if they believe they are being impacted by existing permitted water uses. However, state law does allow for a reasonable lowering of the static water level at the appropriator's point of diversion (NRS 534.110 (4)).

While domestic well owners may have some recourse through the State Engineer if impacted by other junior priority water users, all well owners may have little protection from natural declines in the groundwater level due to drought. The well owner's level of protection depends in part on the depth of his or her domestic well. State drilling regulations indirectly place depth requirements on any wells

through seal requirements, but do not explicitly require a minimum penetration into the aquifer. It becomes the responsibility of the well owner to be aware of potential problems with the private water supply and plan appropriately.

Parceling

For land which is to be developed as a “subdivision” with domestic wells, the State Engineer has the authority to require that water rights sufficient to meet the domestic needs be dedicated for the development. However, the State Engineer has no review authority for land divided under the “parceling map” statutes (NRS 278)¹. Some developers have circumvented the subdivision approval requirements by parceling their property multiple times. In these instances, the State Engineer has not had an opportunity to ensure that adequate water supplies are available for the new development and that other water users are not impacted by the new development. This situation has complicated the State’s ability to provide comprehensive water resource management, particularly in designated basins, and ensure that existing users are protected.

Many counties have addressed this problem by requiring water rights dedications for parcel developments under certain circumstances. When deemed appropriate, the State Engineer notifies county commissions of the need for water rights dedication requirements for designated basins, and encourages them to pass appropriate ordinances. Also NRS 278.462 authorizes the county or other governing body to request the State Engineer’s recommendation on water quantity needs for parcel developments.

Groundwater Management and Planning

Complete domestic well inventories do not exist for some areas of the state. As discussed in the “Water Resources Data Development, Collection and Management” issue in Part 3 of the *State Water Plan*, the State Engineer’s Office maintains a database of well logs submitted since the 1940s. However at this time, the database does not account for those wells drilled in Northern Nevada prior to 1984. All wells drilled in Southern Nevada are included in the database.

Without adequate information for quantifying the number of domestic wells in some areas, it may become difficult to estimate total and domestic well water use and total committed groundwater resources in a basin. As a result, comprehensive groundwater management and planning becomes more difficult. The State Engineer needs to consider all water uses and commitments when reviewing an application for a water right or when considering the implementation of additional administrative measures for a basin. Thus, the lack of data regarding domestic well use impacts the State Engineer’s

¹According to NRS 278.320(1), a subdivision is generally defined as “...any land, vacant or improved, which is divided or proposed to be divided into five or more lots, parcels, sites, units or plots, for the purpose of any transfer, development or any proposed transfer or development...” The State Engineer has the authority to require water rights for subdivisions.. A developer can circumvent the State Engineer’s review process by dividing the property into four or fewer lots (parceling).

decision process and may lead to an inadvertent over allocation of a basin’s groundwater. Effective planning requires accurate knowledge of existing water use as well. Under the existing system, this information is frequently not available.

Domestic Wells and Water Quality

Most single family dwellings using domestic wells also use individual septic tanks for wastewater disposal. State regulations and policies provide spacing requirements between domestic wells and septic tanks, and septic tank concentrations. However, the quality of domestic water supplies have been impaired by septic tank discharges and other contaminants in some areas in Nevada. While the State has funding programs to assist public water systems in complying with state and federal drinking water quality standards, limited funding assistance is available for domestic well owners.

Issues

Following is a summary of the main issues related to domestic wells in Nevada:

1. For developments created through parceling, the counties have the sole responsibility for determining whether or not water rights need to be dedicated. Some counties have passed ordinances which set forth water right dedication requirements. When deemed appropriate, the State Engineer notifies county commissions of the need for water rights dedication requirements for designated basins, and encourages them to pass appropriate ordinances.
2. Under the existing system, domestic well information may be limited in some basins.
3. Domestic well owners may have limited protection from declines in water levels. Further, domestic wells may not be drilled deep enough to provide protection from drought or interference from other groundwater users.
4. The quality of domestic well water supplies have been impaired by septic tank discharges and other contaminants in some areas. Limited funding assistance is available to mitigate these situations.

Recommendations

The following recommendations are offered to address the domestic wells issues in Nevada:

1. The State Engineer should continue, as necessary, to notify counties of the potential impacts on water resources due to multiple parceling activities, and recommend the implementation of water rights dedication requirements for designated basins.
2. The State Engineer, in cooperation with local governments, should establish complete domestic well inventories (location and number).

3. The Department of Conservation and Natural Resources should distribute educational material to existing and prospective domestic well owners regarding factors to consider when having a new well drilled or purchasing an existing well.
4. The State should support the installation or expansion of regional water supply and/or wastewater treatment systems in areas where the quality of domestic wells supplies have been impaired. The Legislature should consider modifying the AB198 Grants to Small Water Systems program or establishing a new program to provide funding for these new installations or expansions.

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