DRAFT

TUCSON AMA SAFE-YIELD TASK FORCE
ISSUE OUTLINE
2/1/2000

ISSUE: EXEMPT WELLS

Although the volume of groundwater withdrawn from exempt wells is estimated to be negligible, not enough data are available to calculate the actual impact of exempt wells. In some sub-areas, high densities of exempt wells may exacerbate the physical and environmental problems associated with groundwater withdrawals and exempt wells may adversely impact nearby wells. Finally, because exempt well owners pump groundwater without a replenishment obligation, they do not contribute to achieving safe-yield.

BACKGROUND

Withdrawals of water from exempt wells do not require groundwater rights; additionally, exempt wells are exempt from many provisions of the Arizona Groundwater Code. Exempt well owners are not required to meter groundwater withdrawals, file annual water use reports, or pay groundwater withdrawal fees. Within an Active Management Area (AMA), groundwater withdrawals from an exempt well must not exceed 35 gallons per minute (gpm) when used for domestic or stockwater purposes. New exempt wells drilled after 1980 used for non-irrigation purposes other than domestic and stock watering purposes (such as a small commercial enterprise) must not exceed 10 acre-feet per year (in addition to the 35 gpm limit).

Because exempt well owners do not report water use, groundwater withdrawals are estimated from average gallons per capita per day and the number of exempt wells registered. Approximately 5,500 exempt wells were registered in the Tucson AMA in 1997. This number is expected to increase to approximately 8,700 by 2025. Based on ADWR estimates, groundwater withdrawals from exempt wells accounted for less than 1% of the Tucson AMA's residual groundwater pumping in 1997 (approximately 2,590 acre-feet). Groundwater withdrawals from exempt wells are expected to account for approximately 2% of the Tucson AMA's residual groundwater pumping in 2025 (approximately 3,760 acre-feet). However, if all of the exempt wells were pumped at the legal maximum capacity, approximately 495,060 acre-feet could be pumped from exempt wells in 2025.

Another exempt well issue concerns well spacing requirements for non-exempt wells. When a new non-exempt well (including a replacement well in a new location) is proposed to be drilled, a hydrologic impact analysis must be completed to ensure that the new well will not impact existing wells, including existing exempt wells. This means that the driller of a replacement well in a new location must consider exempt wells that did not exist at the time the original well was drilled. Conversely, when a new exempt well is proposed to be drilled, impacts on other wells are not considered. Likewise, the impact of multiple exempt wells in a particular location is never considered.

SOLUTIONS CONSIDERED

The following ideas have been considered. Additional ideas may be added to this list.

- Do statistical sampling to collect additional data on groundwater withdrawals from exempt wells.
- Develop well spacing and impact rules for all wells (including exempt wells).
- Place a moratorium on construction of exempt wells within the service area of municipal providers.
- Modify AWS Rules to include exempt wells and dry lot subdivisions.
- Restrict/limit construction of exempt wells in some sub-areas ("critical area management").
- Coordinate with the Arizona Department of Real Estate to identify illegal subdivisions and require an AWS certificate (join the GRD).
- The impact on exempt wells drilled after a certain date would not be considered in permitting new non-exempt wells or replacement wells in new locations (well spacing and impact rules).
- Create new fees based on cost recovery for processing exempt well permit applications.
- Create an impact fee for new exempt wells to be used for replenishment.
- Require a landowner to obtain water from a municipal provider if the property is within a reasonable distance of the provider's distribution system.

PRELIMINARY RECOMMENDATIONS

A statistical survey of exempt wells should be conducted to determine the number operating and the volume of groundwater withdrawn. The sampling should be used to determine the impact of pre-1980 and post-1980 exempt wells on 1) achievement of safe-yield; 2) areas of special concern within the AMA such as riparian and subsidence-prone areas; and 3) whether additional regulations should be recommended for exempt wells.

A moratorium should be placed on construction of new exempt wells within the service areas of municipal providers with designations of assured water supply within safe-yield AMAs if service can be provided to the site by the provider at a reasonable cost.

New exempt wells (those drilled after adoption of new legislation) should be excluded from the protection offered by ADWR's well spacing and impact rules if they are in or near a service area and a water provider is willing to provide service to the site at a reasonable cost to the well owner. If the provider has offered to extend lines to the property as needed and provide service under the customary rate structure, and the exempt well owner has refused to become a customer of the provider, the exempt well owner could not impact the provider's ability to locate a new or replacement production well.

The application fees should be increased to reflect the real cost (including staff time) of reviewing the applications for exempt wells.

ADWR should coordinate with the Arizona Department of Real Estate, ADEQ, ACC, and local land use jurisdictions to improve monitoring and enforcement of illegal subdivisions, with the

intent of preventing them in the future and encouraging all subdivisions to comply with the AWS rules.

OBSERVATIONS

It should be noted that the Department currently does not require owners of grandfathered irrigation rights under 10 acres to measure and report groundwater withdrawals; additionally, owners of small Type II non-irrigation grandfathered rights (10 acre-feet or less annually) are only required to estimate groundwater withdrawals (not required to measure groundwater use). Ideally, new regulations should address both new and existing exempt wells. However, it may be easier to implement restrictions on new exempt wells.