Legislative Environmental Policy Office

Drilling Down

A primer on exempt wells in Montana and the West

Prepared for
THE WATER POLICY INTERIM COMMITTEE
By
Joe Kolman, Research Analyst

January 2010

Published By
Montana Legislative Services Division
P.O. Box 201706
Helena, MT 59620-1706
www.leg.state.mt.gov
(406) 444-3064 FAX: (406) 444-3036

Legislative Services Division

Introduction

In its work plan, the Water Policy Interim Committee identified the use of water from wells that are exempt from the permitting process as a study issue. In addition, the WPIC wanted to examine the use of septic systems, which are often used in conjunction with domestic exempt wells.

This paper provides background information on policy issues related to those two topics. Much more information will be presented by various speakers at the January WPIC meeting.

Evolution of Exemption

In 1973, the Montana Legislature passed a piece of sweeping legislation that would radically alter the way the way water rights were allocated. The Water Use Act established a formal system of permitting for water use.

It also included an exemption to the new permit system. Section 16 of the act provided that:

"Outside the boundaries of a controlled ground water area, a permit is not required before appropriating ground water for domestic, agricultural, or livestock purposes by means of a well with a maximum yield of less than 100 gallons a minute."

Exempt wells do not undergo an adverse effect test or public notice.

Montana is like most western states in providing that small wells are not subject to the same requirements as other appropriations of water. The exemption means that a limited use of ground water is not subject to the criteria needed for a permit, including providing evidence that the water rights of a prior appropriator will not be adversely effected. The exemption also means that other water users may not object to a proposed exempt well.

The legislative history from 1973 in Montana provides little insight into the reasons for the exemption or the flow rate selected. Reasons for such a provision may include the belief that

access to water is a fundamental human right, that evaluating small wells could clog up the permitting process, and that in rural areas a small well may be the only source of potable water.[1]

Over the last three decades, there have been two significant changes to Montana's exempt well statute and one change to the rule implementing the law.

In 1987, several amendments were made to permitting laws. Appropriations of less than 100 gallons per minute (gpm) were still exempt, "except that a combined appropriation *from the same source* from two or more wells or developed springs exceeding this limitation requires a permit."

The original language of House Bill 642 did not contain the words "from the same source." It appears that language was added at the request of Ted Doney, an attorney representing the Water Development Association.[2]

According to the minutes of a hearing on the bill, "Mr. Doney disliked the word 'combined' because he didn't know what the word meant in the bill. He thought it meant that two wells that were irrigating the same tract but not physically connected. Mr. Doney would rather the bill read, 'wells from the same source.'"[3]

The rule adopted in 1987 to implement the statute defines a combined appropriation as "an appropriation of water from the same source aquifer by two or more ground water developments, the purpose of which, in the department's judgement, could have been accomplished by a single appropriation. Ground water developments need not be physically connected nor have a common distribution system to be considered a 'combined appropriation.' They can be separate developed springs or wells to separate parts of a project or development. Such wells and springs need not be developed simultaneously. They can be developed gradually

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[1] Water Laws and Policies for a Sustainable Future: A Western States' Perspective, Western States Water Council, 2008. http://www.westgov.org/wswc/publicat.html

[2] Minutes of Senate Natural Resources hearing on HB642. March 23, 1987.

[3] Ibid.

or in increments. The amount of water appropriated for the entire project or development from these ground water developments in the same source aquifer is the 'combined appropriation.'"[4]

In 1993, the DNRC amended the definition to its current form, which states that a combined appropriation is "an appropriation of water from the same source aquifer by two or more ground water developments, that are physically manifold into the same system.[5]

The department said the change was made "to more concisely define what is considered a combined appropriation. The past definition was too ambiguous and therefore difficult to administer ... fairly and consistently throughout the state. It required the department to make assumptions when determining whether developments were considered combined appropriations. The amended rule clearly defines what is a combined appropriation without any supposition."[6]

The second significant legislative change, passed in 1991, reduced the flow rate and 10 acre foot a year limit. The changes were part of a bill requested by the DNRC, the main purpose of which was to clarify the definition of ground water. Apparently, there was concern at the time that the 100 gpm exemption was being abused to irrigate large parcels as well as to provide water to subdivisions and trailer parks.[7]

The exemption changed in 1991 from 100 gpm to 35 gpm, not to exceed 10 acre feet a year.

According to the minutes of the House hearing, the sponsor of the bill said the Senate committee talked about lowering the limit and 35 gallons per minute was the most common figure cited. But he added that the DNRC considered 100 gpm to be reasonable and lowering the limit would increase the number of permit applications.

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[4] Montana Administrative Register Notice No. 36-12-6, June 25, 1987.

[5] 36.12.101 ARM.

[6] Montana Administrative Register, June 24, 1993. Two petitions to the DNRC argue that this interpretation of the law does not reflect legislative intent. One was denied in 2006 while the other is under consideration.

[7] WPIC presentation. "Wells Exempt from the Permitting Process. Curt Martin, Water Resources Div., DNRC. Sept. 13, 2007.

In response to a question about protecting a surface water right if an upstream user drills an irrigation well, a representative of the DNRC said that if the well were less than 100 gpm, "any adverse impact would have to be addressed in the courts."[8]

The statute now says, in part:

"Outside the boundaries of a controlled ground water area, a permit is not required before appropriating ground water by means of a well or developed spring with a maximum appropriation of 35 gallons a minute or less, not to exceed 10 acre-feet a year, except that a combined appropriation from the same source from two or more wells or developed springs exceeding this limitation requires a permit."[9]

To appropriate water under the statue, a person must drill the well, submit a notice of completion form to the DNRC and pay $125. The form asks for the flow rate, the type of use, and the location of use. If the requirements are met, the user is issued a certificate of water right with a priority date recorded as the day the notice of completion was filed. [10]

Since 1991, the exempt well law has changed little, but the use of the exemption has become more controversial.

The Issues

The use of small wells for domestic purposes is a much-discussed policy issue across the West. The Western States Water Council, an organization consisting of representatives appointed by the governors of 18 western states, declared in a 2008 report that, "while the impact of an individual exempt well on water resources may be negligible, the aggregate impact of many exempt wells

[8] Gary Fritz, DNRC Water Resources Administrator, House Natural Resources Committee, March 14, 1991.

[9] 85-2-306, MCA.

[10] DNRC Form 602. http://www.dnrc.mt.gov/wrd/water_rts/wr_general_info/wrforms/602.pdf

can be significant." Council members said exempt wells have the potential to affect ground water and surface flows and raise water quality concerns. [11]

The report notes that compared to irrigation, municipal, and industrial uses, domestic wells have the least effect on supplies. However, an increase in new subdivision residents who rely on such wells, combined with drought, may add stress to water supplies.[12]

"Incorporating domestic wells into existing water regulatory schemes may prove necessary before land and water management can be comprehensively integrated," the report said.

There are more than 109,000 exempt wells in Montana on file with the DNRC.[13] It is estimated nearly a quarter of those exempt wells are located in one of the five major river basins closed to further appropriation.[14]

One-third of Montanans drink from a non-public water source. Most of that comes from ground water wells.

According to a report from the United States Geological Survey, Montana has the fourth highest percentage of residents in the country who depend on what is called "self-supplied domestic water" meaning a water supply not provided by a public system.[15]

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[11] Water Laws and Policies for a Sustainable Future: A Western States' Perspective, Western States Water Council, 2008. http://www.westgov.org/wswc/publicat.html

[12] Ibid.

[13] This includes 109,147 certificates of water rights issued between 1973 and Nov. 30, 2009. However, it is widely acknowledged that not all owners of wells drilled under the exemption filed the required notice of completion.

[14] Through Nov. 30, 2009, there were 25,663 exempt wells in the Bitterroot, Jefferson-Madison, Upper Missouri, Teton, and Upper Clark Fork river basins.

[15] USGS Estimated Use of Water in the United States, 2005. The report did not count domestic wells in the states. The self supplied numbers were calculated using an estimate of the population not served by public supply and a coefficient for daily per capita use. http://pubs.usgs.gov/circ/1344/pdf/c1344.pdf

The drinking water of nearly one of every three Montanans comes from a self-supplied source. Most of that comes from ground water wells. See Figures 1 and 2 for more information.

The 2007-08 WPIC discussed domestic wells throughout the interim. The committee agreed on some findings, including:[16]

* The use of individual water wells exempt from permitting and individual septic systems is appropriate in many parts of Montana and the use of public water and sewer systems is not always feasible, practical, or affordable.

* Statewide, the DNRC estimates that exempt wells, including stock and domestic wells, represent less than 5 percent of total consumption.

* In some areas, particularly those in closed basins that are experiencing population growth, there are concerns about the effect of exempt wells on water quantity and the effect of individual septic systems on water quality.

* Not all exempt wells are filed with the DNRC. For those that are filed, the DNRC does not meter whether or not the wells are exceeding the allowed rate or volume.

* DNRC records show that there are thousands of purposes listed for wells. Some of the most common include domestic (75%), stock watering (32%), lawn and garden (24%), irrigation (6.5%), commercial (2.6%), multiple domestic (1.9%), and fish, waterfowl wildlife, recreation-related purposes (1.7%).[17]

* Domestic and multiple domestic purposes automatically include one-quarter acre of lawn irrigation per household. Therefore, when the purpose "lawn and garden or irrigation" appears on the certificate, it is for more than one-quarter acre of irrigated area.

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[16] Water - Montana's Treasure, WPIC, 2008. http://leg.mt.gov/css/Committees/interim/2007_2008/water_policy/default.asp

[17] Certificates can be issued listing more than one purpose.

* For DEQ subdivision review, the average in-house diversion is about .22 acre-feet per year and much of that is nonconsumptive. Based on an 18-week irrigation season, a quarter-acre lawn takes .55 acre-feet annually.

* According to the DNRC, the limiting factor to irrigation from an exempt well would probably be the annual volume, not the rate. It may be possible to irrigate 4 acres with an exempt well; enough to feed three horses.

* The water right permitting process for a public system may take longer and be more expensive for a subdivision than using exempt wells.

* There is a need to address public health issues in areas where there is an increasing density of single wells and septic systems.

* In some areas of Montana, public water systems and public sewer systems are preferable to individual water wells and septic systems. But installing public water and sewer systems at the time of development may represent a significant cost to the developer, which is passed on to the homeowner.

* While individual water wells may cost less per lot initially, over time a public water system may result in less cost to the homeowner.

* Incentives are needed to encourage public water and sewer systems.

* Subject to certain provisions, a county has the power to adopt subdivision regulations that require public water systems, sewer systems, or both.

The committee also discussed how ground water appropriations, including exempt wells, figure into the prior appropriation system.

Unlike some states, the domestic use of water does not have a higher priority in Montana than other uses.

In a legal memorandum to the WPIC, the committee's attorney wrote that unlike some other states, Montana does not prioritize water rights by the type of use. However, it is much easier to close a headgate on a ditch during a call by a senior appropriator than it is to shut off wells. An additional complicating factor is the legal ability to continue to develop ground water through the

use of exempt wells, even in closed basins in which it is recognized that water is over appropriated. During a call for water by a senior appropriator, all junior water right uses are supposed to be curtailed according to their priority, but the public health crisis that may result from curtailing domestic or municipal water use may create a de facto priority for those uses even if they are junior to other uses. [18]

Another issue associated with exempt wells is the additional water used when a piece of land is sold for development, but the water rights are severed from the property. Instead of changing the water use associated with the land to domestic, the new development appropriates its water supply with exempt wells and the existing right is used elsewhere.

Montana Legislation

Several attempts failed over the last few years to amend the exempt well statute or otherwise limit the use of exempt wells.

On a split vote, the 2007-08 WPIC endorsed Senate Bill No. 17. The measure would have required public water and sewer systems in subdivisions of at least 30 lots with an average lot size of 3 acres or less. A developer could propose an alternative water or sewer system, but the alternative would need county approval.

Other proposed legislation in recent years includes:

* 2009 -- SB437 -- Prohibit the issuance of a fish pond license for a body of water supplied by an exempt appropriation of ground water.

* 2007 -- HB104 -- Would have kept the 35 gpm and 10 acre-feet a year exemption for stock water on parcels of land 40 acres or larger. For domestic or commercial use, the flow rate remained the same but the volume could not exceed 1 acre-foot a year. Lawn and garden uses associated with a domestic use or a commercial could not exceed one-quarter acre of land.

* 2007 -- HB138 -- Remove exemption for domestic use in closed basins.

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[18] Enforcement of Senior Rights in Relation to Ground Water Rights, Greg Petesch. 2007 http://leg.mt.gov/content/Committees/Interim/2007_2008/water_policy/staffmemos/watenforcement.pdf

* 2005 -- HB403 -- Require a water use permit for subdivisions. Retain current exemption for 35 gpm wells of less than 10 acre feet, but required a permit for a combined appropriation, defined as any ground water development consisting of two or more wells or developed springs, regardless of whether their diversion works are physically connected or not, that are developed in connection with a major or minor subdivision.

A bill that passed in the 2009 session may provide more insight into exempt wells and their effects. House Bill 52 established the Ground Water Investigations Program at the Montana Bureau of Mines and Geology. Among other things, ground water studies will examine stream depletion from ground water development by subdivisions or changes in irrigation projects.[19]

Rule Challenges

Two challenges have been made to administrative rule that defines a combined appropriation. In 2006, Gallatin County argued that the current definition of statute does not reflect the legislature's intent and the rule as written encouraged a proliferation of exempt wells that has a cumulative effect on senior water right holders and water resources.[20]

Gallatin County requested that the definition of "combined appropriation" be changed so that a permit is required if a second or subsequent well is drilled from the same source on a tract of land after the effective date of the rule if the additional well would exceed the 35 gpm or 10 acre-feet limits. A permit also would be required for any well on a tract of land smaller than 20 acres created after the date of the rule.

The DNRC denied the petition, saying it was too complex and could require the hiring of up to 50 new employees to process new permits. The department also said the rule change would halt development in closed basins where the department could not process applications for new ground water permits.[21]

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[19] http://www.mbmg.mtech.edu/gwip/gwip.asp

[20] Gallatin County Petition for Rulemaking for Exempt Wells, Oct. 23, 2006.

[21] The denial followed the Trout Unlimited decision in 2006. The passage of HB831 in 2007 allowed for the processing and granting of new permits in closed basins, with certain requirements.

However, in response to comments, the department wrote that "with increasing use of the exemption, and a greater understanding of the impact of exempt water rights on other ground water and surface water resources, the Department acknowledges that ground water use under the exemption statute and the definition of 'combined appropriation' must continue to be scrutinized to be consistent with the purposes of the prior appropriation doctrine, its many codifications in the Water Use Act, and the intent of the Legislature.[22]

In December 2009, five water right holders filed a petition with the DNRC asking the agency to declare the current combined appropriation rule invalid. The petition asserts the rule does not meet the legislative intent. The petition also asks for a new rule that would define a combined appropriation as "an appropriation of water from the same source aquifer by two or more wells or developed springs that are part of the same project, development, or subdivision. Two or more wells or developed springs that are part of the same project, development, or subdivision are presumed to appropriate water from the same source aquifer."[23]

Other States

Most western states allow some kind of exemption for small wells. Montana requires a notice of completion and then the well is issued a priority date. Figure 3 shows how western states compare for regulation of domestic wells.

Three states are addressing domestic wells in differing manners.

Utah regulates domestic wells in the same way as other uses of ground water. All wells must be approved by the state engineer. In areas open to appropriation, a person applies to appropriate new water. But in areas closed to new appropriations, a person must acquire at least part of an existing water right and go through the change process to cover the new use of water. Both the application for water right and the change application require public notice.[24]

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[22] Order of Denial, Gallatin County Petition for Rulemaking, Dec. 22, 2006.

[23] Petition for Declaratory Ruling and Request to Amend Rule 36.12.101(13), December 2009.

[24] http://www.waterrights.utah.gov/wrinfo/faq.asp#q2

In Washington and New Mexico, the proliferation of exempt wells in basins otherwise closed to new appropriations of water have been the subject of administrative and judicial action.

Washington has had an administrative moratorium in effect for years in the headwaters area of the Yakima River Basin. No new ground water permits have been issued since 1993.

However, the moratorium did not apply to exempt wells - including those used to irrigate a half acre or those that supply up to 5,000 gallons per day for domestic use. Since 1998, nearly 3,000 exempt wells were drilled in Kittitas County, prompting concerns that ground water pumping threatens senior water users and stream flows in the Yakima Basin.[25]

In 2008, the Department of Ecology started adopting temporary emergency rules that limited the amount of the exempt appropriation, but did not prohibit the exempt use of water. In July 2009, the latest emergency rule prohibited all new ground water appropriations except those that are "water budget neutral projects." The state established a trust water right program to help proposed new users of water find existing rights to offset the consumptive use of the new project.[26]

Washington established a water trust to help offset the consumptive use of new uses, including domestic wells.

The Washington Attorney General said that while the department lacked authority to limit the amount of the exemption, the agency's latest rule is within its statutory authority.[27]

In New Mexico, the exempt well provision directs the state engineer to issue a permit for irrigation of less than an acre or for domestic use. As with other states, the issuance of a permit is not contingent upon any other factors, such as adversely affecting existing water right holders.

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[25] Department of Ecology News Release - August 3, 2009.
http://www.ecy.wa.gov/news/2009news/2009-192.html

[26] Attorney General Opinion, AGO 2009 No. 6.
http://www.ecy.wa.gov/programs/wr/cro/images/pdfs/2009_no6_ago_ZempleManningOpinion.pdf

[27] Ibid.

Several attempts have been made to change the law, but in 2006, the state engineer implemented an administrative rule limiting the exemption to one acre-foot annually per household. Further limitations may be imposed in domestic well management areas, defined as places bounded by an overlying stream-connected aquifer that requires special water resource protection. The state engineer relied upon the statutory authority that allows the adoption of regulations to enforce any provision of law administered by the office.[28]

The state engineer said the limits were necessary. "The regulations were developed in response to current conditions – rapid growth along our major interstate rivers, continuing drought, the need to conserve water wherever and whenever possible, and the need to protect senior water rights."[29]

However, a district court decision last year cast doubt upon the entire exempt well provision in New Mexico. A farmer with senior water rights who lives in a basin closed to new appropriations since 1972 objected to the domestic wells.

The judge declared the exempt well statute unconstitutional because it created an impermissible exemption to the priority administration system created by the state's constitution. He added that the exempt well statute lacked due process safeguards in that senior water right holders were not notified of new wells, there was no opportunity for a hearing, and no determination if the new well would impair existing water rights. [30]

A New Mexico judge said the exempt well statute is at odds with the priority administration system.

"It is not logical, let alone consistent with constitutional protections, to require (the state engineer) to issue domestic well permits without any consideration of the availability of unappropriated water or the priority of appropriated water," wrote District Judge J.C. Robinson. Robinson wrote that the farmer did not need to suffer actual damage to challenge the law.

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[28] Domestic Well Regulations, New Mexico.
http://www.ose.state.nm.us/PDF/RulesRegsGuidelines/DomesticWells/72-12-1-Rules-2006-08-15.pdf

[29] Regulations on Domestic Wells - Response to Common Issues and Concerns.
http://www.ose.state.nm.us/PDF/RulesRegsGuidelines/DomesticWells/DomWells-Issues-2006-0919.pdf

[30] Bounds v. State of New Mexico. No. CV-2006-166.

"When the water is gone, it will be too late," the judge wrote.[31]

The New Mexico state engineer is appealing the decision.

Additional Reading

Throughout this paper are several footnotes that contain links to documents cited that provide more information. Following are two with brief descriptions of the contents.

* Water Laws and Policies for a Sustainable Future: A Western States' Perspective, Western States Water Council, 2008. Part of the report refers to domestic well exemptions, but this is a large document that examines several aspects of water policy in the West.

http://www.westgov.org/wswc/publicat.html

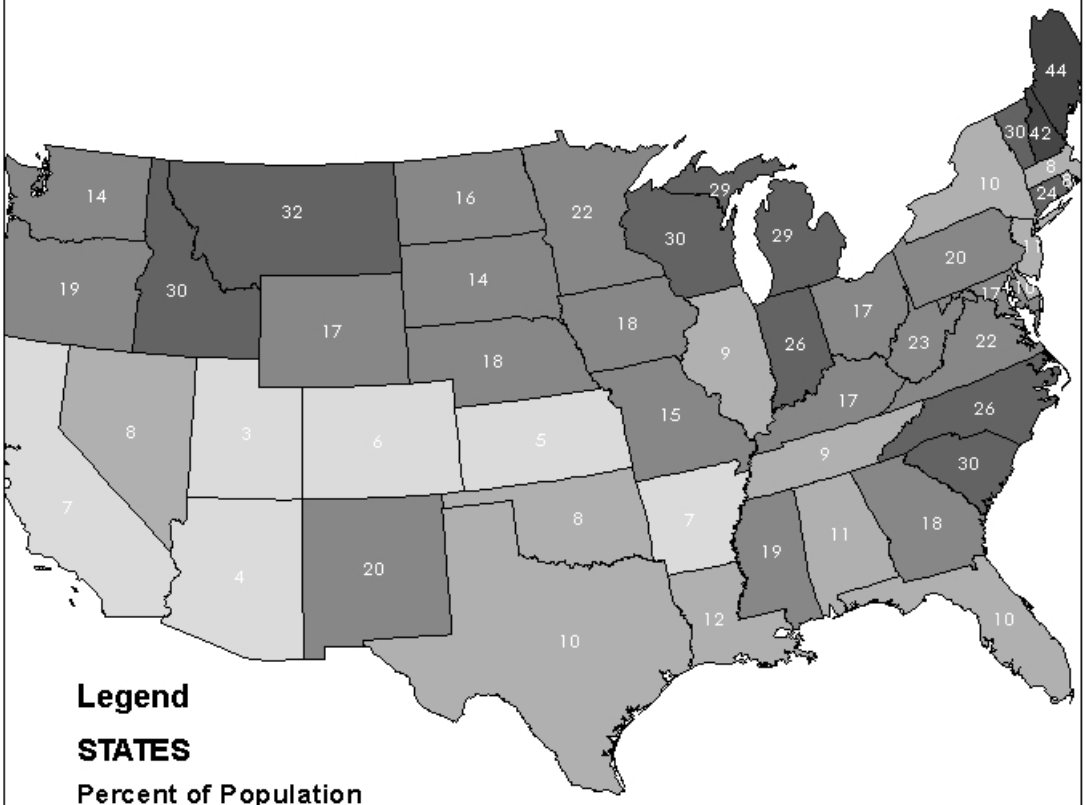
* Estimated use of water in the United States in 2005 is the twelfth in a series of reports that has been compiled and published by the U.S. Geological Survey (USGS) every 5 years since 1950. It includes estimates of water withdrawals by state, source of water, and category of use.

http://pubs.usgs.gov/circ/1344/pdf/c1344.pdf

[31] Ibid. Robinson also wrote that the state engineer's assertion that the state can regulate domestic wells is "questionable."

Figure 1

Self-Supplied Domestic Water



Legend

STATES

Percent of Population

- 3 - 7
- 8 - 12
- 13 - 23
- 24 - 35
- 36 - 44

Source: USGS, Estimated Use of Water in the United States, 2005. Domestic self-supplied water use was calculated using an estimate of the population that was not served by public supply and a coefficient for daily per capita use.

Figure 2

Table 6. Domestic water withdrawals and deliveries, 2005.

[Values may not sum to totals because of independent rounding; Mgal/d, million gallons per day; gal/d, gallons per day; n/a, not applicable]

State	Self-supplied						Public supply			Total use		
	Self-supplied population (in thousands)	Percent of total population	Withdrawals (in Mgal/d)			Self-supplied per capita use (in gal/d)	Population served (in thousands)	Water deliveries (in Mgal/d)	Public-supply per capita use (in gal/d)	Total population (in thousands)	Water use (withdrawals and deliveries, in Mgal/d)	Total domestic per capita use (in gal/d)
			By source									
			Ground-water	Surface water	Total							
Alabama	521	11	39.1	0	39.1	75	4,040	326	81	4,560	365	80
Alaska	235	35	13.4	.68	14.1	60	429	46.8	109	664	60.9	92
Arizona	218	4	27.2	0	27.2	125	5,720	802	140	5,940	830	140
Arkansas	200	7	17.8	0	17.8	89	2,580	254	99	2,780	272	98
California	2,710	7	429	57.2	486	179	33,400	3,980	119	36,100	4,470	124
Colorado	299	6	34.4	0	34.4	115	4,370	530	121	4,670	564	121
Connecticut	841	24	63.1	0	63.1	75	2,670	200	75	3,510	263	75
Delaware	80.4	10	6.43	0	6.43	80	763	44.6	58	844	51.1	61
District of Columbia	0	0	0	0	0	n/a	582	82.7	142	582	82.7	142
Florida	1,790	10	190	0	190	106	16,100	1,530	95	17,900	1,720	96
Georgia	1,600	18	120	0	120	75	7,470	727	97	9,070	847	93
Hawaii	74.0	6	12.2	0	12.2	165	1,200	198	165	1,280	210	165
Idaho	424	30	86.6	0	86.6	204	1,010	181	180	1,430	267	187
Illinois	1,130	9	101	0	101	90	11,600	1,050	90	12,800	1,150	90
Indiana	1,630	26	124	0	124	76	4,650	353	76	6,270	477	76
Iowa	531	18	34.6	0	34.6	65	2,440	158	65	2,970	193	65
Kansas	149	5	14.9	0	14.9	100	2,600	209	80	2,740	223	81
Kentucky	696	17	22.2	12.6	34.8	50	3,480	243	70	4,170	278	67
Louisiana	551	12	44.0	0	44.0	80	3,970	485	122	4,520	529	117
Maine	575	44	34.1	0	34.1	59	746	37.8	51	1,320	71.9	54
Maryland	929	17	74.3	0	74.3	80	4,670	536	115	5,600	610	109
Massachusetts	527	8	40.5	0	40.5	77	5,870	487	83	6,400	528	82
Michigan	2,910	29	251	0	251	86	7,210	559	77	10,100	810	80
Minnesota	1,110	22	77.8	0	77.8	70	4,020	273	68	5,130	351	68
Mississippi	555	19	56.4	0	56.4	102	2,370	284	120	2,920	340	116
Missouri	850	15	59.5	0	59.5	70	4,950	452	91	5,800	512	88
Montana	301	32	22.4	1.06	23.5	78	635	81.0	128	936	104	112
Nebraska	313	18	52.1	0	52.1	167	1,450	185	128	1,760	237	135
Nevada	182	8	37.4	0	37.4	206	2,230	421	189	2,410	459	190
New Hampshire	555	42	41.6	.09	41.6	75	755	56.6	75	1,310	98.2	75
New Jersey	961	11	79.5	0	79.5	83	7,760	525	68	8,720	605	69
New Mexico	377	20	32.0	0	32.0	85	1,550	175	113	1,930	207	107
New York	1,870	10	140	0	140	75	17,400	1,720	99	19,300	1,860	97
North Carolina	2,300	26	161	0	161	70	6,390	444	69	8,680	604	70
North Dakota	105	16	8.90	0	8.90	85	532	48.8	92	637	57.7	91
Ohio	1,990	17	146	3.00	149	75	9,470	643	68	11,500	792	69
Oklahoma	295	8	25.1	0	25.1	85	3,250	276	85	3,540	301	85
Oregon	707	19	69.5	8.22	77.7	110	2,930	363	124	3,640	441	121
Pennsylvania	2,540	20	152	0	152	60	9,890	552	56	12,400	704	57
Rhode Island	85.9	8	6.10	0	6.10	71	990	79.3	80	1,080	85.4	79
South Carolina	1,270	30	127	0	127	100	2,980	298	100	4,260	426	100
South Dakota	110	14	7.67	0	7.67	70	666	65.6	99	776	73.3	94
Tennessee	509	9	36.7	0	36.7	72	5,450	443	81	5,960	479	80
Texas	2,230	10	257	0	257	115	20,600	2,870	139	22,900	3,130	137
Utah	68.5	3	11.8	2.11	13.9	203	2,480	460	186	2,550	474	186
Vermont	185	30	13.7	.17	13.9	75	438	25.8	59	623	39.8	64
Virginia	1,680	22	126	0	126	75	5,890	442	75	7,570	568	75
Washington	904	14	86.0	.02	86.0	95	5,380	562	104	6,290	648	103
West Virginia	420	23	32.8	.66	33.5	80	1,400	149	107	1,820	183	101
Wisconsin	1,670	30	87.3	0	87.3	52	3,870	229	59	5,540	316	57
Wyoming	84.4	17	6.32	0	6.32	75	425	71.0	167	509	77.4	152
Puerto Rico	307	1	2.11	0	2.11	69	3,880	347	89	3,910	349	89
U.S. Virgin Islands	35.7	33	0	1.95	1.95	55	73.0	5.33	73	109	7.28	67
TOTAL	42,900	14	3,740	87.7	3,830	89	258,000	25,600	99	301,000	29,400	98

Figure 3

Cl2255 9356jkea.

Domestic Well Provisions in the West

State	Capacity Limit AFY	Irrigation Limit (acres)	Water Right Permit Exemptions
Alaska	0.56		Permit required for water use exceeding 500 gallons-per-day, no annual reporting
Arizona[1]	56	2	Notice of intent to drill and completion report
California			Varies by local control
Colorado[2]	5	1	Well construction permit required, other exceptions exclude subdivisions <35 acres/owner
Idaho	14	0.5	No permit required
Kansas		2	No permit required
Montana	10		File notice of completion
Nebraska	80		Registration required
Nevada	2		Permits required in designated basins
New Mexico[3]	1	1	No permit, but must have approved well application
North Dakota	12.5	1	File notice of completion
Oklahoma		3	No permit required
Oregon	16.8	0.5	No permit required
South Dakota	29.1	1	No permit required
Texas	28		No permit for >10 acre tracts, excludes subdivisions
Utah			Permit required
Washington	5.6	0.5	No permit required
Wyoming[4]	40.4	1	Permit required

[1] 10 AFY in AMAs post 1983

[2] AFY may be expanded to 80 AFY

[3] AFY limit in effect post 2006

[4] Domestic wells may serve up to three dwellings.

SOURCE: Water Laws and Policies for a Sustainable Future: A Western States' Perspective, Western States Water Council, 2008. http://www.westgov.org/wswc/publicat.html