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The Center for  
**Environmental Law & Policy**

## **METHOW WATERSHED RULE & EXEMPT WELLS CASE STUDY** **May 2008**

### **I. Methow WRIA Rules**

The Methow watershed rule, including instream flows and water reservations, was adopted in 1976.<sup>1</sup> The rule exempts specified quantities of future water use from regulation or curtailment under the newly adopted instream flow levels. This "reservation" of water was to be used for continued future growth of single domestic residences and stockwatering. Meanwhile, the instream flows set by rule are not being met in many years, and Ecology routinely issues curtailment orders to water users holding rights that are junior to the instream flows.

The watershed rules divide the basin into seven sub-basins.<sup>2</sup> Each sub-basin is given a 2 CFS reservation to "grow into."<sup>3</sup> While the rule specifically addresses surface water allocations, it also requires that ground water in hydraulic continuity with surface water be subject to the same conditions and limitations as those for surface water.<sup>4</sup> Single domestic use is often supplied by an exempt well. Exempt wells, of course, do not require a permit from Ecology and therefore are difficult to track in terms of location, total number, or amount of water being withdrawn and used.

These flaws make a proper accounting of water use from the reservation nearly impossible. However, in 1990 Ecology performed an analysis of domestic water use in the basin.

### **II. *Methow River Basin Single Domestic Instantaneous Water Use Estimate***

In 1990, Ecology conducted a study and published a report establishing an estimate of water use from the reserve. The report was quick to note the enormous problem associated with the creation of the reservation. The problem was that "no mechanism for tracking single domestic appropriation of this water reservation was developed, and therefore, the amount of water withdrawn from the 2 CFS since 1976, is unknown." Since basic well information and metering data were nonexistent for exempt wells, the authors relied on well

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<sup>1</sup> The Rule was amended in 1988 and 1991, but the reservation and instream flows established in the 1976 rule were not altered.

<sup>2</sup> The seven sub-basins are the Upper Methow, Middle Methow, Lower Methow, Methow Headwaters, Early Winters Creek, Chewack River, and Twisp River

<sup>3</sup> WAC 173-548-030 (2007)

<sup>4</sup> WAC 173-548-060 (2007)

logs of wells drilled within the basin, and on Okanogan County building permits and assessor tax rolls.

The report found that 352 well logs had been submitted to Ecology for wells that were drilled in the basin between 1976 and 1990. However, the authors note that this number is probably lower than the actual number of wells drilled during this time due to the non-compliance with well log requirements by well drillers. The study found that, between 1976 and 1990, approximately 800 Methow Basin permits were issued by the County for construction of single domestic residences or recreational cabins. Okanogan County Health Department records were analyzed to determine if some of the new construction would be served by existing community water systems, or by private exempt wells. From this process, the authors determined there were 942 single domestic system data entries in areas with hydraulic continuity with the Methow River or its tributaries.

The authors attempted to verify the information found in the records analysis through site visits. The authors found "a significant number of post-1976 wells and buildings" had not been recorded by either a building permit or well log. The range of unaccounted for wells and/or buildings varied anywhere from 4% to 41% depending on the subbasin. This "ground truth" examination led the authors to conclude that the records survey underestimated the number of single domestic users by an average of 22%.

In order to estimate instantaneous and annual water use, the study used numbers typical for single domestic use. These numbers were then reduced to reflect seasonal and temporary vacation use associated with many of the residences. The instantaneous quantity was 0.015 CFS.<sup>5</sup> The authors then applied this instantaneous rate to the number of single domestic residences they found in each subbasin. The result of this analysis found that three of the seven subbasins had likely already exceeded the 2 CFS reservation. Usage from the Lower Methow was estimated at 6 CFS, while the Middle Methow and Chewack were estimated just over 3 CFS. The Twisp River and Upper Methow both were estimated at approximately 1.5 CFS.

The report's assumptions could overestimate or underestimate use associated with single domestic wells. However, the report did not include stockwater use, multiple domestic use, and the Lower Methow was not field inspected due to time constraints.<sup>6</sup> Moreover, the report listed the number of platted lots (both developed and undeveloped) as well as undeveloped parcels by subbasin. The authors noted that the number of single domestic wells was quite small compared to potential future appropriations based on the number of platted lots and undeveloped parcels in the basin.

Ecology has not analyzed Methow use since 1990. The question now is: what has changed in the basin since 1990 and what conclusions can be drawn from them?

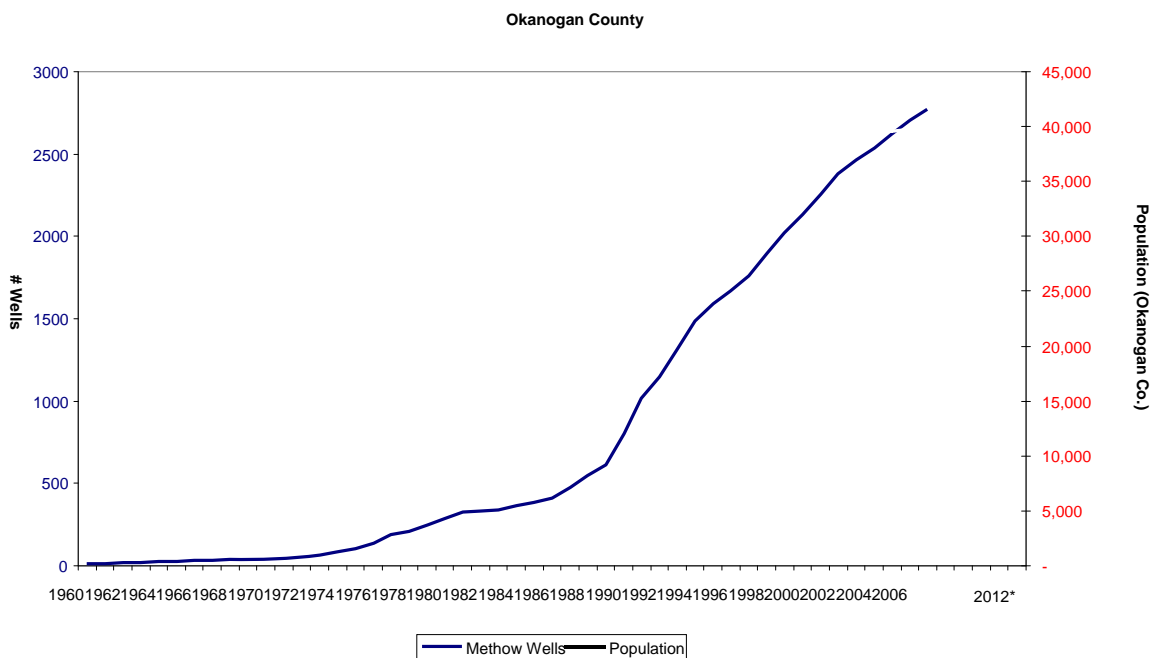
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<sup>5</sup> The study elected to measure ground water withdrawals in CFS rather than GPM.

<sup>6</sup> An estimate for the Lower Methow was included and was based upon the 22% underestimation average found for the other subbasins.

### III. Increase in Population and Wells

Okanogan County has grown in population since 1990. In fact, between 1990 and 2007 the population of Okanogan County increased by 6,450 people.<sup>7</sup> During this same time period 1,964 well logs were submitted to Ecology.



Between 2000 and 2007 the increase in one-unit houses built in unincorporated Okanogan County was 949.<sup>8</sup> However, the subbasins with the highest number of developed platted lots, as found in the 1990 Ecology report, were the Middle Methow with 151, Lower Methow with 102 and Chewack with 77. It is likely that these developed platted lots were developed first. Therefore, the growth in population and wells in Okanogan County since 1990, have likely been concentrated in the Lower and Middle Methow and the Chewack subbasins; all of which were found to have already exceed their 2 CFS reservation.

### IV. Watershed Planning Process

Watershed planning in the Methow basin has been controversial. The basin was selected as a “pilot” watershed under the Water Resources Act’s original watershed planning process. That plan was never adopted. In the late 1990’s, a new Methow Basin Watershed Planning Unit created a new watershed plan. The resulting watershed plan proposes to change how

<sup>7</sup> State of Washington Office of Financial Management: 2007 Population Trends, p. 36, available at [http://www.ofm.wa.gov/pop/poptrends/poptrends\\_07.pdf](http://www.ofm.wa.gov/pop/poptrends/poptrends_07.pdf) (last visited May 27, 2008).

<sup>8</sup> Id.

exempt wells may be used in the basin. The current rule only allows exempt wells for single domestic use. The new Watershed Plan would allow for a greater number of uses including larger commercial developments.

Ecology has balked at amending the Methow rule based on the new watershed plan, for two reasons. First, the plan asserts that water lost during conveyance through leaky irrigation canals is a beneficial use of water. This proposal has been rejected in legal proceedings. Ecology cannot approve the plan as long the plan states that waste of water is a beneficial use. Second, Ecology will not amend the Methow rule until there is a proper accounting of how much water has been used from the reserve and elsewhere in the basin.

## **V. County Codes Relating to Water Availability**

As elsewhere in the state of Washington, Okanogan County has the duty to determine that proposed subdivisions and new construction have adequate water supply.<sup>9</sup> Since the water reservations have been exhausted in at least three Methow subbasins, there is a question as to whether the County has the authority to authorize use of new exempt wells in these subbasins until it is determined that water is available.

The Okanogan County Codes for subdivision approval are based upon RCW 58.17.110, which forbids approval of a subdivision unless the county can make a written finding that “appropriate provisions” are made for potable water supplies. OCC 17.19.060 requires that all planned development applications be submitted with “appropriate certification to show that adequate water exists to support the proposed development, and shall be compatible with water priority uses contained in any applicable river basin studies prepared and adopted by the Washington State Department of Ecology.” Finally, the Okanogan County Health Department must certify that all proposed short plats and subdivisions are served by “adequate water supply.”<sup>10</sup>

The language in the county code does not appear to require much from an applicant in order for the commissioners to determine whether “appropriate provisions” or “appropriate certifications” are made for water supplies for the plat or subdivision. Based on population and well log data, Okanogan County does not appear to be considering the possibility that the water reservations are exhausted for some subbasins and that new water supply is not available.

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<sup>9</sup> Okanogan County Code 16.20.080: “The board shall determine if appropriate provisions are made for, but not limited to, the public health, safety and general welfare, for open spaces, drainageways, streets, alleys, other public ways, water supplies, sanitary wastes...”

<sup>10</sup> OCC 16.12.040 and 16.20.010 (2007).

## **VI. Conclusion**

The outcome of the watershed planning process in the Methow Basin cannot be considered a success. The rules themselves, while commendable for establishing a limit to future impacts to the rivers in the basin, fail to provide any accountability for water use from the reserve. The lack of metering data is compounded by agency failure to determine, or even attempt to determine, whether water is still available in the basin.

In 1990, Ecology determined it was probable that at least three of the seven subbasins in the Methow watershed had already exceeded their reservation. Since that time both population and new wells have increased in Okanogan County. It is likely that there are many newer wells using water that, by law, should be regulated during times when instream flows are not being met and "in-between" water rights, those that are junior to the instream flow but senior to new exempt wells, are curtailed. Until Ecology analyzes the current status of the reservations in WRIA 48 and forbids new well construction, permit-exempt wells will continue to impact instream flows and senior water rights.

For More Information:

Center for Environmental Law & Policy

Spokane: 25 W. Main, Suite 234, Spokane, WA 99201

Seattle: 4000 Aurora Ave. N., Suite 222, Seattle, WA 98103

509.209.2899 (Spokane) 206.547.5047 (Seattle)

[www.celp.org](http://www.celp.org)