

Colorado

# Stream Lines

QUARTERLY NEWSLETTER OF THE OFFICE OF THE STATE ENGINEER  
COLORADO DIVISION OF WATER RESOURCES

1313 Sherman St. Room 818, Denver, CO 80203 - (303) 866-3581

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## Water Court Approves Metering Rules in Arkansas Basin

As was stated in the last *Streamlines*, the State Engineer proposed rules and regulations for the measurement of tributary ground water in the Arkansas basin. Since that time, a hearing was held before the Honorable John Tracey, Water Judge, Water Division 2, on July 1, 1994. On July 5, the judge approved those rules with minor modifications. The new rules require the installation of totalizing flow meters on tributary wells or use of power coefficient data to determine the amount of water pumped on wells tributary to the Arkansas River.

The changes made by the Court and other changes agreed to by the State Engineer and the parties to the rules will ultimately make it easier for well owners to comply with the rules. Well testing can now be performed by any individual or entity annually approved by the State Engineer as opposed to limiting the testing solely to professional registered engineers. For example, this will allow licensed pump installers and others to take a training course and/or a test which will allow them to conduct the required installation and testing of wells. This should effectively increase the pool of qualified persons available to the public to utilize in complying with the rules. A three day workshop will be conducted for those interested in early August at a location and date to be announced soon.

For inactive wells, the proposed rule required a well to be disconnected from the power source to be claimed as inactive. The rule now allows applications for a variance from that requirement to disconnect and such applications may be approved if unusual hardship is shown (e.g. amount of money required to reconnect deemed excessive).

Other requirements of the rules are unchanged or modified slightly. People who choose to install totalizing flow meters must do so by July 15, 1994, to be in compliance with the rules. If the power coefficient method is chosen the well owner has until October 1 to be rated to determine the power coefficient. Monthly water use data must be submitted for all wells affected by the rules by January 31, 1995. Wells which have totalizing flow meters installed prior to June 15, 1994 for which a Notice of Totalizing Flow Meter Installation has not been submitted are required to submit Form 3.1 to report a field verification of the accuracy of the meter by June 15, 1995.

Further information and forms for compliance can be obtained through the Water Division 2 office in Pueblo. The address is P.O. Box 5728, Pueblo, CO 81003. Phone (719) 542-3368.

Since there were changes to the rules as published, *Streamlines* reprints those rules below in their entirety.

**RULES GOVERNING THE MEASUREMENT OF  
TRIBUTARY GROUND WATER DIVERSIONS  
LOCATED IN THE ARKANSAS RIVER BASIN**

**AUTHORIZATION**

In order for the State Engineer and Division Engineer for Water Division No. 2 to properly administer the waters of the Arkansas River basin and to comply with the Arkansas River Compact, it has become necessary to require the metering of tributary wells within the basin. The State Engineer's authority to promulgate these rules is based on section 37-80-104, C.R.S., which requires the State Engineer to make and enforce such regulations with respect to deliveries of water as will enable the state of Colorado to meet its compact commitments; section 37-92-501, C.R.S., which authorizes the State Engineer to adopt rules and regulations to assist in the performance of the administration, distribution and regulation of the waters of the state in accordance with the constitution of the state of Colorado, the provisions of Article 92 (The Water Rights Determination and Administration Act of 1969) and other applicable laws; and section 37-92-502(5), C.R.S., which authorizes the State Engineer to order any owner or user of a water right to install and maintain at such owner's or user's expense necessary meters, gauges, or other measuring devices and to report at reasonable times to the appropriate Division Engineer the readings of such meters, gauges or other measuring devices.

**ORDER OF THE STATE ENGINEER**

**IT IS ORDERED** that the following rules are adopted and approved by the State Engineer.

**Rule 1. Scope.** These rules are applicable to all wells located in the Arkansas River basin **except** decreed and/or permitted wells as described in section 37-92-602, C.R.S.; wells located within a designated ground water basin; decreed and/or permitted nontributary wells; permitted wells subject to section 37-90-137(4), C.R.S.; and wells permitted and decreed for not more than 50 gallons

per minute that are part of a judicially-approved plan for augmentation.

**Rule 2. Definitions:**

A. The following definitions are applicable to these rules governing the measurement of tributary ground water diversions located in the Arkansas River basin:

1. **"Compound or complex system"** means any well for which the method of delivery varies during the irrigation season between open discharge, sprinkler system or gated pipe that are used in a single irrigation season or where more than one electrical device is operated from the same electric power meter.

2. **"Inactive well"** means any well that is not in use and is disconnected from a power source.

3. **"Power coefficient"** means the amount of electrical energy expressed as kilowatt hours (KWH) consumed in pumping one acre-foot of water.

4. **"Tributary well(s)"** are those wells that produce underground water and ground water as defined in section 37-92-103(11), C.R.S.

B. Any other term used in these rules that is defined in Article 90 or 92 is used with the meaning given therein.

**Rule 3.** All wells within the scope of these rules shall either, **by July 15, 1994**, be equipped with a totalizing flow meter that is installed and maintained according to manufacturer's specifications and recommendations or, **by October 1, 1994**, be rated to determine a power coefficient.

3.1 When a totalizing flow meter is used, it shall

be the owner's responsibility to keep the meter in acceptable operating condition. Any meter designed and manufactured for the purpose of measuring the flow of water, and which has a totalizing feature, shall be considered to be acceptable for purposes of these rules. The State Engineer may adopt standards and specifications for the installation, repair, and maintenance of meters. As a minimum, totalizing flow meters shall be: properly verified in the field to be in accurate working condition under the supervision of an individual or entity approved annually by the State Engineer to do such tests when installed; contain sufficient recording digits to assure that "roll over" to zero does not occur within three years; and shall be maintained by the well owner so as to provide a continuous, accurate record of withdrawals. If the meter is not operational, the well shall not be pumped unless a working meter is installed or unless a specific backup water measurement program approved by the State Engineer is put into effect. Totalizing flow meters are required to be re-verified in the field to be in accurate working condition under the supervision of an individual or entity annually approved by the State Engineer every four years after the date of original installation and flow meters in existence as of the effective date of these rules shall be certified to be in accurate working condition under the supervision of an individual or entity annually approved by the State Engineer by June 15, 1995, and re-verified to be in accurate working condition every four years thereafter. The Division Engineer shall be notified in writing of the date and person performing the re-verification.

3.2 The State Engineer may adopt standards and specifications for power coefficient testing. As a minimum, power coefficients shall: be determined utilizing rating procedures approved by the State Engineer and conducted under the supervision of an individual or entity annually approved by the State Engineer to do such tests; be conducted when the pumping system has stabilized, i.e., both operating pressure and pumping drawdown has not changed more than 10% in the last hour; have been determined on or after April 1, 1992; and be updated through re-rating at least every four years. The Division

Engineer shall be notified in writing of the date and person performing the re-rating.

3.3 If the well(s) are part of a complex or compound system, or if the pump is driven by internal combustion means, the owner or user of the well must utilize the totalizing flow meter method and the provisions of Rule 3.1 apply.

3.4 All flow measuring equipment utilized in verification of accuracy and working condition in the field and/or rating of wells must provide an accuracy within plus or minus 5%.

Rule 4. All owners of wells within the scope of these rules who choose to install totalizing flow meters shall provide notice in writing to the Division Engineer for Water Division No. 2 by **July 15, 1994**, stating: the name and address of the owner of the well(s); the name and address of the user of the well(s) (if different than the owner); the well permit number(s); the decree or case number(s); the legal description of the location of the well(s); the meter manufacturer; the meter model number; the meter size; the meter serial number(s); the volumetric units (gallons or acre-feet); the name of power utility company and power company account number (if applicable); the kilowatt hour meter reading on the date of installation (if applicable); the beginning totalizing flow meter reading; and the date of installation. Notification to the Division Engineer shall be on a form prescribed by the State Engineer.

Rule 5. All owners of wells within the scope of these rules who choose to utilize the power coefficient method shall provide notice in writing to the Division Engineer for Water Division No. 2 by **October 1, 1994**, stating: the name and address of the owner of the well(s); the name and address of the user of the well(s), if different than the owner; the well permit number(s); the decree or case number(s); the legal description of the location of the well(s); the power meter serial number(s); the utility company name; the power company account number; the power coefficient; the date of power coefficient rating; the kilowatt hour meter reading on the date of the power

coefficient rating; the name and address of the State Engineer approved individual or entity supervising the power coefficient rating; the current transformer (C.T.) factor, if applicable; and the potential transformer (P.T.) factor, if applicable. Notification to the Division Engineer shall be on a form prescribed by the State Engineer.

**Rule 6. Data Submittal.**

**Rule 6.1** Data as to the monthly amounts of water pumped from wells within the scope of these rules shall be for the period of November 1 to October 31 (coinciding with the Arkansas River compact year) and shall be filed with the Division Engineer no later than **January 31, 1995 and every year consecutive year thereafter.**

**Rule 6.2** For the year 1994, owners utilizing the power coefficient method shall calculate the amount of water pumped using monthly power records for the period of November 1, 1993 through October 31, 1994.

**Rule 6.3** Data shall be submitted on forms prescribed by the State Engineer. Such forms shall also include a consent to release power company data to the Division Engineer.

**Rule 7.** Inactive wells are excluded from these rules provided a sworn affidavit is filed with the Division Engineer by **July 15, 1994, and March 1, every consecutive year thereafter,** stating the status of the well as inactive. Such sworn statement shall include: the name and address of the owner of the well(s); the name and address of the user of the well(s), if different than the owner; the well permit number(s); the decree or case number(s); the legal description of the location of the well(s); and a statement that the well(s) are disconnected from any power source. If the well owner desires to have the power to the well remain connected for any reason, approval of such must be first obtained from the State Engineer pursuant to Rule 11. Should the well(s) become active at any time, all aspects of these rules are immediately in effect. Notification to the Division

Engineer shall be on a form prescribed by the State Engineer.

**Rule 8.** No water shall be withdrawn from any well not in compliance with these rules except to determine a power coefficient or to install a totalizing flow meter.

**Rule 9.** Failure to comply with any of these rules will subject the well owner and/or user to court proceedings and the state's costs, including reasonable attorneys fees, associated with enforcement of these rules pursuant to section 37-92-503, C.R.S. Prior to filing any court action, the Division Engineer shall notify the well owner of the violation in writing and shall advise the well owner of the date by which the violation must be corrected to avoid court proceedings, which date shall be at least ten days following the mailing of the notice to the well owner or personal service on the well owner.

**Rule 10.** If any portion of these rules is found to be invalid, the remaining portion of the rules shall remain in force and unaffected.

**Rule 11.** When the strict application of any provisions of these rules would cause unusual hardship, the State Engineer may grant a variance for a specific instance provided a written request for the variance is made to the State Engineer and the State Engineer finds the request justifiable.

**IT IS FURTHER ORDERED** that these rules shall become effective on the **15th day of July, 1994,** and shall remain in effect until amended as provided by law. Any person desiring to protest these rules may do so in the manner provided in section 37-92-501, C.R.S. Any such protest to these rules must be filed by the end of the month following the month in which these rules are published.

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