

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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## State Engineer Meets in San Luis Valley

In a continuing series of meetings that the State Engineer has been holding across the state, a meeting with water lawyers, water users and water engineers was held in Alamosa, Colorado, on June 28. The meeting was seen as a means to improve communications between the State Engineer and the water community and to seek out new innovative ways of approaching water issues affecting the state.

Topics discussed included the Rio Grande Compact, computations of historic consumptive use, spring versus well issues, and means for alternative dispute resolution in water matters. Judge Robert Ogburn, Water Judge, Water Division 3, provided the opening remarks to the group. The meeting was considered a success by all of the participants and future meetings will be held throughout the state.

## New Law Requires Reporting of Well Ownership Changes

A law passed this last legislative session now requires that owners of water wells in Colorado report changes in name or address to the State Engineer to update their well permit file(s). The law allows until January 1, 1995 to update any changes. Subsequent changes must be filed within 60 days after the effective date of the change.

No fee is required, but you must know the well permit number and information on the location of the well.

Forms for the recording of a change can be obtained by writing to the Colorado Division of Water Resources, 1313 Sherman St., Room 818, Denver CO 80203 or by calling (303) 866-3581. Please request Form GWS-11.

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## AGREEMENT ON PLATTE RIVER REACHED

The governors of Colorado, Nebraska, and Wyoming and Secretary of the Interior Bruce Babbitt reached agreement on a process to provide certainty in water supplies, protection of wildlife habitat and to assist in the prevention of listing additional endangered species on the Platte River Basin. The agreement was signed on June 10.

A Memorandum of Agreement (MOA) will serve as a framework for negotiations on a basin-wide endangered species recovery plan. The states and the Interior Department will conduct ongoing consultations dealing with streamflow and possible development of future water projects within the basin. All involved parties will reach a consensus on the habitat and flow objectives needed to protect endangered species and the operation of existing water projects.

Water users in Colorado were being affected by federal government determinations that renewal of special use permits for water facilities in Colorado may have an adverse effect on endangered species that rely on Platte River habitat in Nebraska. Many of these reservoirs are the primary source of water supply for northern Colorado communities. The implementation of this MOU will allow a basin wide recovery plan to be developed that will provide reasonable alternatives to avoid jeopardy opinions being issued in the area and as Governor Romer stated the "agreement will provide the basis for an innovative and forward looking effort that will be important to the residents of Colorado, Wyoming and Nebraska. It is designed to protect the interests and needs of water users along the Platte River while also finding creative solutions that will protect wildlife and preserve wildlife habitat."

## LEGISLATIVE UPDATE

Bills that passed related to water issues during the last legislative session are as follows:

### **Senate Bill 29** (Senator Bishop, Representative Reeser)

This is the annual Colorado Water Conservation Board (CWCB) bill which provides for the expenditure of funds from the Construction Fund for water projects. The following expenditures were authorized:

- ◆ \$12.2 million for new loans for 19 projects
- ◆ \$410,000 for a flood control project in Alamosa
- ◆ \$1.8 million for the Colorado River Decision Support System
- ◆ \$157,000 to study water rights management along the South Platte (South Platte Water Rights Management System)
- ◆ \$113,000 for the state's satellite monitoring system
- ◆ \$50,000 for small dam reconnaissance study
- ◆ \$100,000 for extreme precipitation investigation
- ◆ \$100,000 for aquatic habitat study

### **House Bill 1289** (Representative Eisenach, Senator Ament)

This bill makes the statutes concerning well permits consistent between the Designated Ground Water Basins and the rest of the state. It also further clarifies the powers of the Ground Water Commission and the State Engineer while increasing the spending authority of the State Engineer's Ground Water Management Cash Fund by \$160,000 to allow for hiring four full time employees to assist in well permit application review which has seen a marked increase over the past few years. Finally, the bill requires well owners to file a change of ownership or change of address with the State Engineer upon the sale or transfer of well ownership.

### **Senate Bill 97** (Senator Blickensderfer, Representative Adkins)

This bill directs the State Engineer to promulgate rules and regulations regarding the permitting and use of waters artificially recharged into aquifers outside designated basins.

#### **NEW DIVISION ENGINEER IN DIVISION 4**

*Mr. Ken Knox has been appointed Division Engineer in Water Division 4 by Hal Simpson, State Engineer. Mr. Simpson stated that this was one of his most difficult decisions he has had to make as State Engineer due to the quality of the top three candidates. Mr. Knox was previously the Assistant Division Engineer in Division 4 over the past three years and has gained considerable knowledge of the Gunnison River basin that will be important to the proper management and administration of water rights in the basin.*



**Senate Bill 138** (Senator Bishop, Representative Taylor)

This bill was a result of the Bench Bar Committee meeting in June of 1993 where the State Engineer and the water community met to discuss means to handle differing interpretations of the Supreme Court decision in Good v. Bell. The bill states that a conditional underground water right can not be abandoned solely because the applicant does not have a valid well permit from the State Engineer. This at a minimum clarifies that the absence of a well permit alone will not be the sole means for a determination of abandonment of an underground water right.

**House Bill 1242** (Representative Jerke, Senator Ament)

This bill requires the State Engineer to presume, absent a showing by a preponderance of the evidence, that the relocation of a well will not change substantially the usage of water under certain circumstances for purposes of issuing a permit to relocate the well. It defines the circumstances as: existing well was constructed pursuant to a permit issued by the State Engineer and the location for the new well is within 2000 feet of the existing well, from the same aquifer with the same historical use and the same or less annual volume of water used and the same or less gallons per minute of flow.

**Senate Joint Resolution 32** (Senator Cassidy and Representative Foster)

This resolution calls for a joint report to be prepared by the State Engineer and the Water Conservation Board of readily available information on water supplies, drought periods, and anticipated future water needs of the state. The report also must include an assessment of information needed in the future to enable the state to make informed decisions on water resources and a plan with cost/time estimates for gathering the information. The report is due to the General Assembly and the Governor by July 1, 1995.

**NEW WATER JUDGE  
APPOINTED**

*Judge Richard P. Doucette has been named Chief Judge of the 14th Judicial District and Water Judge for Water Division 6, effective July 1, 1994. He replaces Judge Rebecca Love Kourlis. The Division of Water Resources would like to take this opportunity to welcome him into the "water world" and looks forward to working with him in the future.*

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**State Engineer Adopts Two New Policies**

Two new policies were recently adopted by the State Engineer. One policy (Policy Memorandum 94-2) concerns the recording of hearings (before the State Engineer, Ground Water Commission or the Board of Examiners) and the other policy (Policy Memorandum 94-3) is in relation to the permitting of not-nontributary wells prior to court approval of plans for augmentation.

Hearings conducted by the Division of Water Resources must be recorded and the State Engineer has been complying with this law. However, there has never been a definite fee policy for when a party requested a transcript of the hearing. In order to make the fee structure clear to both the public and the staff, the State Engineer adopted the following policy which states:

- a. All hearings before the State Engineer, the Ground Water Commission or the Board of Examiners shall be recorded by electronic means.
- b. Hearings will not be transcribed automatically, but only as requested by the parties.
- c. Fees charged for transcripts prepared will be paid to the State Engineer at the rate of \$3.00 per page. The hearing reporter shall furnish a copy of any such transcript to the State Engineer at no charge. Copies of such transcripts may be purchased at a cost of \$.50 per page.
- d. Upon request, the record can be copied onto audio cassettes and made available at the cost of reproduction and mailing.

The new policy regarding the issuance of permits to construct wells into not-nontributary aquifers prior to court approval of a plan for augmentation clears up possible confusion that arose from the Division of Water Resources issuing permits to construct wells in not-nontributary aquifers. The permits, when issued, contained a condition of approval which stated that the well or wells could not be pumped unless included in a court approved plan for augmentation. This created the potential for abuse of the well permitting process and added an unnecessary administrative burden on the Division Engineer and Water Commissioner. Further, there is no statutory basis supporting the approval of requests for permit to construct these types of wells without a court approved plan for augmentation and the Attorney General's office advised the State Engineer that wells of this type cannot be pumped under the authority of a Substitute Supply Plan.

Therefore, to clarify that these types of wells can only be allowed to pump when the applicant has a court approved plan for augmentation, the State Engineer approved the following policy:

Applications for permits to construct wells which would withdraw not-nontributary ground water from the Dawson, Denver, Arapahoe, or Laramie-Fox Hills aquifers under the provisions of C.R.S. 37-90-137(4), which are received in this office prior to court approval of a plan for augmentation replacing depletions caused by the proposed diversion of not-nontributary ground water shall be denied. The basis for denial shall be that, lacking a court approved plan for augmentation, the proposed use will cause injury to existing water rights.

Copies of these policies can be obtained from the Records Section of the Denver office of the State Engineer at 1313 Sherman Street, Rm 818, Denver, CO 80203, during the hours of 10 a.m. to 3 p.m.



## **Endangered Species Update: Yampa River**

The Yampa River was selected as a recovery area for four species of fish designated as endangered by the United States Fish and Wildlife Service (USFWS). Large numbers of squawfish, razorback sucker, humpback and bonytail chubs are historically found in the Yampa and Green Rivers in northwest Colorado. Because their numbers have declined, they are now considered endangered.

The USFWS designated the Yampa River from Ranney Street Bridge, south of Craig, Colorado, to the confluence of the Green River in Dinosaur National Monument, as the recovery area. The 100-year plain for that reach of the Yampa River is designated as critical habitat for these endangered fish. This designation requires that no further development be allowed that will decrease the river flow during four runoff months. Also, projects that would decrease river flows below the 50% recurrence level during non-runoff months will be in jeopardy.

The Army Corps of Engineers evaluates all 404 permit required for new projects located along these designated reaches of the Yampa, which includes all tributaries up one-quarter of a mile from the town of Hayden to its confluence with the Green River. Projects within this area must meet the requirements of the USFWS prior to approval of a 404 permit.

Flows, along with diversion structures that span the length of the river, are also a concern for the endangered fish. Therefore, new structures must be built in a manner as to allow fish migration upstream or downstream at all normal stream flow levels.

An example of cooperation in meeting the USFWS requirements was recently completed by the town of Craig, Colorado, when they desired a permanent diversion structure for their municipal intake. Historically, Craig used earth moving equipment to construct temporary sand and gravel dams to allow diversions during low flow periods. The City, in cooperation with the Corps and the USFWS, designed a permanent structure that allows for migration to occur. The structure is in place and functions as anticipated.

Future flow recommendations have been submitted by the USFWS for the recovery effort on the Lower Yampa. Assistance has been requested of the Colorado Water Conservation Board (CWCB) in obtaining the need water rights. Currently, the CWCB and the State Engineer are working in cooperation to determine what requirements will be acceptable to the USFWS to allow instream flow applications to proceed.



## Calendar of Events

- August 9 Board of Examiners of Water Well Construction and Pump Installation Contractors meeting, Room 719, 1313 Sherman Street, Denver, CO. Contact Marta Ahrens at (303) 866-3581.
- August 17-18 Colorado Rural Water Association is doing a presentation on Water Related Equipment in Sterling on August 17th, Pueblo on August 18th. Contact CRWA for more information at (719) 545-6748.
- August 19 Colorado Rural Water Association is doing Certification Training at the University of Southern Colorado. Contact CRWA at (719) 545-6748.
- August 24-25 Colorado Water Congress 1994 Summer Convention, Westin Resort, Vail, CO. Contact CWC at (303) 837-0812.
- August 25-26 Colorado Ground Water Commission, Sheridan Hotel, Colorado Springs, CO. Contact Marta Ahrens at (303) 866-3581.
- Sept. 13-14 Colorado Water Conservation Board, Denver, CO. Contact the CWCB at (303) 866-3441.
- Sept. 29-30 Colorado Water Law Seminar, Holiday Inn, Northglenn, CO. Contact the CWC at (303) 837-0812.
- October 11 Board of Examiners of Water Well Construction and Pump Installation Contractors, Room 719, 1313 Sherman Street, Denver, CO. Contact Marta Ahrens at (303) 866-3581.
- October 13 Legal Ethics in Water & Environmental Law, Holiday Inn, Northglenn, CO. Contact the CWC at (303) 837-0812.
- October 26 State & Federal Water Quality Developments, Holiday Inn, Northglenn, CO. Contact the CWC at (303) 837-0812.
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