

Rule 1 – Scope

- Q. My Well is already in an augmentation plan. Does it still fall within the scope of these Rules?**
- A. *The short answer is yes. Unless your well falls under the exceptions listed in 1.1.1 through 1.1.6, then your well falls within the scope of these Rules. However, pursuant to Rule 1.4 the Rules do not supersede specific terms and conditions of a decree.*
- Q. Regarding Rule 1.4, can you clarify what that means? If my decree requirement differs from a Rule requirement which do I follow?**
- A. *What Rule 1.4 means is that anytime the decree and Rules are in direct conflict with the Division and State Engineer's reporting and measurement device requirements under § 37-92-502(5)(a), the decree wins. However, where a decree is silent or ambiguous, you must comply with the Rules..*
- Q. My decree doesn't say to install a measuring device. Does this mean I do not need to install a TFM in accordance with the Rules?**
- A. *Not necessarily. If the decree specifically provides an alternative method of measurement, then you may not need to install a TFM in accordance with the Rules. However, if your decree is silent on the method of measurement to be used, then you will be required to abide by the Measurement Rules.*
- Q. My augmentation decree specifically says I have to install a meter but does not provide any terms and conditions regarding its accuracy or the need for periodic certifications. If I now have to certify it's accurate to ±5% every 4 years, isn't that adding terms and conditions to my decree?**
- A. *No. The Division and State Engineer currently have the authority to order any owner or user of a water right to install and maintain a measuring device under § 37-92-502(5)(a), C.R.S. In addition, many decrees and permits state that measurement devices have to be to the satisfaction of the Division or State Engineer. Thus, the Division and State Engineer have authority to specify the accuracy and maintenance requirements of the meter required by your decree. These Rules seek to clearly and openly lay out our well measurement requirements to remove uncertainty and provide uniform guidance for all well owners and users.*
- Q. When determining decreed terms and conditions that may supersede these Rules, are you looking at the original water right decree or the augmentation plan decree?**
- A. *Both. All decrees associated with the well or water right will be looked at though more often than not it will be the augmentation plan that lays out the majority of the terms and conditions for how well diversions must be measured.*

Rule 3 – Measurement Devices, Compliance Dates

- Q. Why are there different compliance dates depending on where you are in the Division?**
- A. *As many wells will require first time certification we staggered the compliance dates in an effort to alleviate Qualified Well Tester demand, and to spread out Division Staff work load.*
- Q. Can you please consider extending the compliance dates as there are real cost associated with bringing a well and its meter into compliance?**
- A. *We are currently considering whether pushing the compliance dates back one year reasonably balances the need for the Measurement Rules to aid in the administration of our public resource (i.e., water) and the need to work with the public in how we implement the Measurement Rules.*

Rule 3.1.1 – Measurement Devices, Totalizing Flow Meters (TFM)

Q. How difficult will it be for a TFM to measure $\pm 5\%$? Can this even be met in the field?

A. *The standard propeller meter is manufactured to measure water to an accuracy of $\pm 2\%$ and other meters can be capable of measuring to $\pm 0.2\%$. DWR is allowing $\pm 5\%$ to be considered accurate in recognition that ideal installations are not always feasible in the field. Experience in other Divisions tells us that absent substantial installation or meter defects, $\pm 5\%$ is a practicable target.*

Q. Will any variance be considered for a meter that reads above 5%? It seems reasonable if you know it reads 8% low to simply apply a correction factor to each meter reading.

A. *Variances for meters outside of 5% will be considered by our office. We are looking at developing standard variance terms and conditions similar to other divisions to streamline these types of variance request and will look at developing policies to implement them. However, our Rules will maintain the definition of accurate to be within $\pm 5\%$.*

Rule 3.1.2 – Measurement Devices, Totalizing Flow Meters (TFM) Minimum Requirements

Q. Can you please reconsider the requirement that the totalizer cannot rollover within 3 years? With monthly readings being required, is there a real benefit to requiring this? Can a variance be granted on my existing meter that rolls twice or even three times a year?

A. *The benefit of this requirement is to avoid confusion that constant rollover can produce. That being said, we are currently looking at revising this requirement to allow a shorter time frame, up to as often as 1 year. Variances beyond our minimum by Rule will be considered by our office on a case by case review.*

Q. Can you please clarify the requirement that the totalizer must turn within 20 minutes?

A. *Meter instantaneous flow rate measurements are notorious for inaccurately reading the instantaneous flow rate. In fact Qualified Well Testers are trained to time the totalizer with a stop watch to calculate a precise flow rate as opposed to simply using the instantaneous flow rate reading. For practicality and to limit wasted water, we require the smallest recording digit to turn once within a reasonable time period. Please note we are currently looking at modifying this requirement to 10 minutes instead of 20. This shorter duration would be allowed if we shorten the rollover frequency to a year.*

Q. Will variances be allowed for TFMs whose totalizer does not meet all three requirements (rollover frequency, turn frequency, and annual water use discernment)?

A. *Variances will be considered for existing totalizers. New installations must comply with this standard absent of very good cause. The three requirements have been set such a way as to ensure there are no 'gaps in coverage' for a six digit acre-foot meters capable of reading between 00.0001 AF and 00000.1 AF.*

Q. Does rollover matter if a data-logger that records readings on a daily basis is installed?

A. *A variance will still need to be applied for but will likely be granted in that scenario.*

Q. Can you please define tamper resistant?

A. *This definition may vary from meter to meter. In general, DWR will require a method to determine if a meter has been opened or altered thereby compromising its accuracy. This could include, but is not necessarily limited to, a wire seal that must be broken to access the meter's components.*

Rule 3.1.3 – Measurement Devices, Totalizing Flow Meters (TFM) Installation

Q. What are some of the field variables that will lead to an otherwise perfectly working meter to be inaccurate in the field?

A. *Common installation problems that can lead to inaccurate meters include not having: sufficient straight pipe, unobstructed flow, full pipe, a level pipe, or proper pipe size for the selected meter. Without sufficient straight pipe or unobstructed flow, the water velocity profile within the pipe can change resulting in inaccurate readings.*

Full pipe is necessary as irrigation meters are calibrated based on the full pipe area flowing water. Additionally some meters need to be calibrated differently if the meters will not be installed level. During a field certification the size of pipe will be checked to ensure it matches with the correct meter size.

- Q. Can you please consider a variance to the requirement that a meter be installed at the well head prior to the pipe going underground? This may require thousands of dollars for pipe modifications with no real water administration gain.**
- A. We are currently looking closely at modifying the Rule to allow installations at center pivots or develop a Policy specific to this type of variance request. The administrative gain is providing DWR and all well users verifiable evidence that all discharge from a well is properly measured.*
- Q. I have 5 wells serving a single sprinkler, and nothing else. For cost effectiveness will you allow only one meter to be used instead of 5 separate meters at the wellhead?**
- A. If allowed it would be through a submitted variance request. Some questions that would be considered include, but are not limited to, whether or not the augmentation decree places a different lag time on each well or otherwise specifically requires each individual well to be metered.*

Rule 3.1.4 – Measurement Devices, Totalizing Flow Meters (TFM) Meter Certification

- Q. Can I simply ship my meter to the manufacturer to be recertified instead of having it certified by a Qualified Well Tester as installed and in place?**
- A. No. Because the installation plays a critical role in a meter's performance, the meter is required to be tested in place in its actual plumbing condition.*
- Q. Who are Qualified Well Testers? Are they employed by the State?**
- A. Qualified Well Testers (QWTs) are not state employees. QWTs are those individuals who have successfully completed the well tester classes run by Division of Water Resources (DWR). DWR provides training courses and certification for those looking to become QWTs. A list private companies who employ and offer the services of QWTs to the public is maintained and available on DWR's website.*
- Q. Can a ditch company certify their own meters or do they have to hire an outside Qualified Well Tester?**
- A. A ditch company can have an employee become a Qualified Well Tester and test their own meters.*
- Q. If a PCC and TFM correlate with each other can they be used to certify each other?**
- A. No. A measurement device must be certified by a QWT using an independent measurement device. APCC cannot be used to verify a TFM.*
- Q. On a magnetic meter, can the K factor be adjusted during the certification process?**
- A. Yes. Qualified Well Testers are authorized to adjust the K factor during the certification process. Testing procedures are covered in more detail in the QWT classes.*
- Q. I have a well in an augmentation plan and its meter certification is set to expire. The well has not been used since its last certification – do I still need to recertify the meter?**
- A. Yes. The recertification schedule is time based, not use based.*
- Q. Rule 3.1.4.4 provides that the Well User must submit written proof of the meter certification. Can the Qualified Well Tester submit this on my behalf?**
- A. Yes. We will certainly accept this proof if submitted by the Qualified Well Tester. However, the ultimate responsibility falls to the Well User.*
- Q. Two years after it was certified my meter broke. I had the manufacture repair it and it has since been reinstalled. Does this reset my certification schedule?**
- A. Yes. A repaired, or reconditioned meter, is looked at the same way as a new meter. It must be recertified prior to beneficial use of the well with notification of such provided to our office within 30 days of its certification.*

Rule 3.1.5 – Measurement Devices, Totalizing Flow Meters (TFM) Interim Measurement Method

- Q. Last year it took 40-days to get a meter back from the manufacturer when it was sent in for repairs. What do I do if I need to operate the well within that timeframe?**
- A. *You must notify the Division Engineer for approval of an interim measurement method. Each situation may be different as far as what the interim program will look like. By default, approved interim measurement methods will be valid for up to 14 days. A specific time extension must be requested and granted to allow longer than 14 days.*
- Q. Can I install a temporary meter for my interim measurement method? Will I have to get that certified?**
- A. *If the meter is only temporary then it can likely be a part of the interim measurement method without requiring certification. If the temporary meter becomes the permanent meter it would then have to be certified.*

Rule 3.2 – Measurement Devices, Power Conversion Coefficient (PCC)

- Q. Why is it required to have two PCC tests performed no less than 90 days apart?**
- A. *This requirement is intended to capture seasonal groundwater fluctuations that may be present at the well location. PCCs change with groundwater level changes and thus two tests are required to get a representative sample.*
- Q. My well does not produce a drawdown under normal operating conditions. Will I need a pump rig as a part of the certification process to artificially create the required drawdown?**
- A. *The intent behind this requirement is to replicate real pumping performance as the vast majority of well pumping induces a drawdown which has an effect on the PCC value. For specific cases where drawdown does not occur, this requirement is not applicable.*
- Q. My well's PCC was certified by a QWT. Do I still need a TFM?**
- A. *If the PCC certification was accepted by our office through a variance then that becomes your approved method of measurement for the well and a TFM is not required.*

Rule 4.1 – Notice of Compliance, Existing Certified TFMs

- Q. Can you please clarify what an Existing Certified TFM is?**
- A. *DWR will consider two different classifications for an existing certified meter. The first is a meter that is in an augmentation plan where an employee of the plan checks, verifies, and documents the working condition of the meter on a set 4-year schedule, based on the augmentation plan decreed requirements. The augmentation plan will be able to keep their set 4 year rotation schedule for that meter. The second class will be meters which had been certified by the meter manufacture, license well driller, or professional engineer within 4-years of the Rule 3 compliance date, but prior to the effective date of these Rules. These meters will have to be certified in full compliance with these Rules 4 years after their last documented certification. We will reword Rule 4 to clarify our intent.*
- Q. I am in District 64. In June of 2010 I shipped my meter back to the manufacture for maintenance repairs and it came back certified by the meter manufacture as $\pm 2\%$ accurate. Will I have to get this meter certified by the deadlines provided by the Rules (December 31, 2013) or 4-years after I installed it?**
- A. *Your meter would be classified as an existing certified TFM and is therefore required to be certified in full compliance by June of 2014.*

Rule 5 – Water Not to be Withdrawn

- Q. The Rules state that water must be “immediately returned to the same stream system.” Is that trucking it to the nearest surface stream or soaking through the ground?**
- A. *Soaking through the ground is sufficient. Please note this requirement is for a well not currently in compliance with these Rules and so any water diverted for testing purposes cannot be put to use.*

Rule 6 – Data Submission

- Q. I currently use the accounting forms that were decreed in court with the augmentation plan. Will I be required to change these forms?**
- A. *These Rules require actual meter readings from each measurement device. DWR will provide a standard meter read form to be used alongside any decreed forms. We are investigating practical ways to mine this data when it’s already provided by the accounting agency. DWR is also working on an online mass data uploader for large plans with many member wells. The data uploader will also be available for all well users.*
- Q. Will the data uploader be able to handle multiple meters per well?**
- A. *Yes it will.*
- Q. Are the submitted forms and data public?**
- A. *Yes. Information sent to DWR is public and available to the public through our online filing system.*
- Q. Is the annual reporting requirement in addition to the monthly reporting requirement per my augmentation plan?**
- A. *The annual reporting of monthly meter reads is a minimum requirement of these measurement rules. If your augmentation plan requires monthly accounting, then you must continue to meet your augmentation decree requirements. If your augmentation plan does not already require meter reading data, that information will have to be recorded monthly and reported annually or added to your current accounting submittals.*
- Q. Can the ditch company supply the accounting or does the Well User have to submit it directly?**
- A. *The meter read data is the responsibility of the Well User, but they may designate others to report for them. Providing a designated reporter does not remove the ultimate responsibility from the Well User.*
- Q. I do not pump during the winter. Do I still need to read my meter each month?**
- A. *When uploading meter read information, each line (month) will need to be filled out. It is the Well User’s responsibility to know their meter reading and attest the submitted values are true and accurate.*

Rule 6.3 – Data Submission, In Priority Diversions

- Q. Are wells that are administered as surface diversions able to operate without a flow meter as long as there has been water commissioner approval?**
- A. *No. Nothing in Rule 6 (Data Submission) lessens the requirements of Rule 3 (Measurement Methods). Rule 6.3 simply adds a more stringent accounting and data submission requirement if the Well User will attempt to claim in-priority diversions on Wells administered with instantaneous depletions.*
- Q. Why do I need to record the measurements daily? This is too data intensive.**
- A. *Daily diversions are required only if the Well User is attempting to claim in-priority diversions. For wells administered based on instantaneous depletions, the accounting requirements are the same as a surface water diversion. As the call on the river can and often does change daily, diversion records on a daily basis are necessary to demonstrate if the pumping occurred in or out of priority. Data loggers are allowed by DWR to be used at the Well User’s discretion to automate the data collection process.*

Rule 7 – Well Inactivation

- Q. If I file a well as inactive, will it automatically be abandoned during the next abandonment cycle?**
- A. *The inactivation of a well under the Measurement Rules, in and of itself, is neither proof nor disproof of intent to abandon any water rights associated with the well. It is true that a water right tied to a well which is filed as inactive and has been for ten or more years may be a candidate for the decennial abandonment list because by state statute, any water right that shows non-use for 10 or more years is presumed to be abandoned. However, intent of the water right owner is key to proving abandonment. A water right owner with a well currently filed as inactive will have the same level of proof required by say a surface water right owner who has not diverted for 10 or more years.*
- Q. I have a well that I need on an emergency backup basis, but have not actually used it in years. Is filing inactivation applicable to me?**
- A. *The benefit to filing inactivation is that it removes the requirement to certify the meter every 4 years, and even removes the requirement to have any measurement device. The downside to filing as inactive is that it requires you to operationally disable the well. Thus for a well that is always on 'standby,' inactivation may not be your best option.*
- Q. I have a well that I need on an emergency backup basis, but have not actually used it in 4 years when it was last certified. Do I need to certify the meter again even though it has shown no use?**
- A. *Yes. The only wells exempt from requiring a certified meter installed at all times are wells filed as inactive and are operationally disabled.*
- Q. My well is not used, nor is it planned to be. Thus I do not have it in an augmentation plan and would like to file it as inactive. However, it is operational in that it has a power drop and its irrigation pump. It will be a hardship to either pull the pump or disconnect the power as there are other things running off the electric meter. Can I still file as inactive and submit meter readings to prove no use, or sign an affidavit affirming I will not use it?**
- A. *We are currently considering whether this will be allowed through a variance. If allowed, it would be on a case by case basis, would require an operational flow meter installed, and the same annual reporting of meter readings. The difference being the requirement to have that meter certified every four years. Without a written variance a well must either have a certified measurement device or be operationally disabled.*
- Q. I report my inactive wells with zero's in my augmentation plan. Why do I now have to submit paperwork to again say it's inactive?**
- A. *We need to be clear on our definitions. Under the rules an inactive well means a well that has been operationally disabled. A well that is operational in an augmentation plan, but not used, cannot be classified as an inactive well. Reporting the actual meter reading which shows no use is the proper means to show the well is not used. Please note, that as the well is in an augmentation plan and operational, by default the full scope of these rules still apply.*
- Q. How do you test an inactive well's meter?**
- A. *A well that is filed as inactive does not need its meter tested until such time the Well User chooses to reactivate the well. At that time, Rules 5 and 7.2 allow water to be diverted to test the meters as long as the diverted water is immediately returned to the same stream system and is not put to beneficial use.*

Rule 9 – Effect of Rules on other Wells

- Q. Does Rule 9 allow the Division Engineer to add exempt wells mentioned in Rule 1.1 into the Rules? What is the point of Rule 1.1 then?**
- A. *These Rules provide defined requirements for measurement devices for those specific wells which fall within the scope of the Rules. Rule 1.1 lists the specific groups of wells to which these Rules do not apply. Rule 9 clarifies that the Division and State Engineers are not surrendering any authority already granted to them under the*

Rule 11 – Variance Request

Q. What is the DWR’s definition of unusual hardship?

A. *A blanket definition cannot be provided as every situation will require its own consideration and each request will be evaluated on a case by case basis. Monetary hardship may be one factor that will be considered.*

Q. What is the overriding principal in determining whether or not a variance can be granted?

A. *Though there are many factors that will be considered it can generally be stated that the Division Engineer will not grant a variance where said variance will not provide accurate records of ground water withdrawn.*

Q. Will there be any sort of ‘standard’ variances that the DWR knows will be approved?

A. *Possibly. Should DWR become aware of common variance requests that are typically approved,, it is the intent of DWR to issue Policy’s to help standardize common scenarios and ensure consistency in our review and approval process. At this time the only such policy being contemplated by the Division Engineer is standard variance terms and conditions for meters not meeting the accuracy requirements.*

General Q & A

Q. My decree says nothing of metering because it was adjudicated back in the 1970s. All these Rules do is revise my decree to the standards of today. How is this fair?

A. *The Rules do not revise your decree. The Division and State Engineers have always had the authority to require meters on wells. As augmentation plan decrees have become more and more prevalent it has become necessary to implement Rules that define what “accurate” and “to the satisfaction of the Division Engineer” means to remove uncertainty and provide uniform guidance for all well owners and users.*

Q. Please consider all existing meters separately as many have been installed in good faith but may not necessarily meet these new standards.

A. *In many areas these Rules have considered existing meters separately such as the certification deadlines. For instances where existing meters may not meet exact requirements but water administration is not compromised, variance request will be considered for existing meters. However, on global subjects such as the definition of accurate, it is important that all meters be held to the same standard – a meter discovered to be very inaccurate will not be allowed to continue the error simply because it was installed in good faith. There has always been the expectation that an installed meter is, and should be, accurate.*

Q. Why can’t the state bear the cost for accurately measuring the water? If the state needs this info, let the state get that info, or at least regulate the amount a tester can charge.

A. *DWR needs this information to properly administer a public resource. The benefit is to the individual water users and the public at large and not to the state as Colorado does not directly profit from its use. The cost is therefore the responsibility of the water user with the cost being set by the free market.*

Q. Who is responsible for trying to determine if a well can be used or not? As a real estate broker I have a hard time tracking down permit records within DWR and now with meter certifications this will add yet another layer to determining the status of a well.

A. *The Well User is fully responsible to maintain accurate records of their wells. As a service to the public, DWR is moving more and more documentation into our online filing system and provides an interactive GIS map with current well and other water right locations, which is accessible by the public. As an example, the same permit records and files that DWR has access to can also be accessed by the public via the following link: <http://www.dwr.state.co.us/WellPermitSearch/default.aspx>. Records on meter certifications will be accessible online in the same manner. Please remember that our records are only as current as the records that have been*

submitted to us. Thus if a well was sold without a change of ownership form filed, was originally located incorrectly, or was relocated without the proper permits issued, then inaccurate records will be the result.

Q. Are these Rules only being promulgated because a few water users are stealing water? Why penalize everyone for the acts of a few?

A. The Rules are being promulgated to provide for the accurate measurement of water use and the efficient administration of the priority system, not to catch a few water users stealing water. The accurate measurement of water use has always been, and will always remain, a cornerstone of Colorado's priority system. These Rules will help DWR to administer the priority system by allowing DWR to ensure water use is consistent with current decrees and permits.

Q. How do your policies work as opposed to Rules?

A. Promulgated Rules are set requirements that carry the weight of law. In regards to these Rules, Policies will be used where Division staff find common scenarios that warrant a common response. DWR Policies will be made available to the public and will provide consistency and clarity for issues such as standard variance requests, or other standard operating procedures.