

TITLE 12. NATURAL RESOURCES

CHAPTER 15. DEPARTMENT OF WATER RESOURCES

ARTICLE 9. WATER MEASUREMENT

Article 9, consisting of Sections R12-15-901 through R12-15-905, adopted effective December 27, 1982.

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R12-15-851. Notification of Well Drilling Commencement

A well owner who has been issued a drilling card for a notice of intent to drill authorizing the drilling of a well located within a site listed on the registry established under A.R.S. § 49-287.01, shall provide written notice to the Director indicating the date drilling will commence. The well owner shall coordinate with the contracted well driller to ensure that the Department receives proper notification under this Section. This notification shall consist of a letter or facsimile transmission received by the Department at least 2 business days before drilling commences at the well site. The Department shall use notification letters required by R12-15-850(A) to inform well owners whether they are subject to the requirements of this Section.

Historical Note

New Section adopted by final rulemaking at 6 A.A.R. 469, effective January 3, 2000 (Supp. 00-1).

R12-15-852. Notice of Well Inspection; Opportunity to Comment

- A.** At least 30 days before the beginning of a well inspection under A.R.S. § 45-605(A), the Director shall notify in writing all potentially affected well owners of record within a community involvement area established under A.R.S. § 49-289.02 or within other areas that the Director has selected for inspection of wells that may be contributing to vertical cross-contamination. The notices shall include a map of the community involvement area, remedial site, or a subsection of either, that the Department intends to inspect, indicating the location of affected wells of record. The notice shall indicate the approximate date the inspection will start, the approximate duration of the inspection, an access agreement defining what specific activities will occur during a well inspection, and the name, address, and telephone number of a Department contact person.
- B.** Once the Director has given notice of a well inspection under A.R.S. § 45-605(A), potentially affected well owners have 30 days from the date the letter is postmarked to comment on the proposed inspection. The Director, upon receiving a written request, may extend the comment period for a maximum of 30 additional days.

Historical Note

New Section adopted by final rulemaking at 6 A.A.R. 469, effective January 3, 2000 (Supp. 00-1).

ARTICLE 9. WATER MEASUREMENT**R12-15-901. Definitions**

In addition to the definitions set forth in A.R.S. §§ 45-101 and 45-402, the following words and phrases shall have the following meanings, unless the context otherwise requires:

1. "Approved measuring device" means an instrument, approved by the Director pursuant to R12-15-903 or R12-15-909(A) which measures the volume or flow rate of water withdrawn, delivered, received, transported, recharged, stored, recovered, or used, and which measurements, when used with an approved measuring method, allow for accurate computation of a volume of water.
2. "Approved measuring method" means a procedure, approved by the Director in R12-15-903 or R12-15-909(A), which, when used with an approved measuring device, will accurately calculate a volume of water.
3. "Flow rate" or "discharge" means the volume of water, including any sediment or other solids that may be dissolved or mixed with it, which passes through a particular reference section in a unit of time.
4. "Measured system" means a system through which water passes for the purpose of withdrawal, delivery, receipt, transportation, recharge, storage, replenishment, recovery or use.
5. "Responsible party" means an irrigation district or a person required by A.R.S. Title 45 or by a permit, rule, or order issued pursuant to A.R.S. Title 45, to use a measuring device or method approved by the Director.

Historical Note

Adopted effective December 27, 1982 (Supp. 82-6). Amended effective June 15, 1995 (Supp. 95-2). Amended to correct typographical error under A.A.C. R1-1-109 (Supp. 01-2).

R12-15-902. Installation of Approved Measuring Devices

- A.** A responsible party shall install an approved measuring device to monitor the volume of water withdrawn, delivered, transported, recharged, stored, replenished, recovered, and used.
- B.** A responsible party shall install and use a sufficient number of approved measuring devices to allow for the separate monitoring and reporting of the volume of water passing through the measured system pursuant to the following categories of rights:
1. Irrigation grandfathered rights,
 2. Non-irrigation grandfathered rights,
 3. Service area rights,
 4. Groundwater withdrawal permits, and
 5. Recovery well permits or water storage permits.
- This subsection does not require separate measuring devices for rights within each category unless otherwise required by A.R.S. Title 45, a permit, rule, or order pursuant to that Title.
- C.** An approved measuring device which measures groundwater withdrawals shall be installed as close to the wellhead as is practical, consistent with the manufacturer's instructions. An approved measuring device which measures another point in the measured system

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shall be installed as close as is practical to the point of delivery, receipt, transportation, recharge, storage, replenishment, recovery, or use which the device is intended to measure, consistent with the manufacturer's instructions.

Historical Note

Adopted effective December 27, 1982 (Supp. 82-6). Amended effective June 15, 1995 (Supp. 95-2). Amended to correct typographical error under A.A.C. R1-1-109 (Supp. 01-2).

R12-15-903. Approved Water Measuring Devices and Methods

- A. Any measuring device is approved by the Director if it is installed, maintained, and used in accordance with the manufacturer's recommendations, and if it meets the accuracy requirements set forth in R12-15-905(A).
- B. An approved measuring device shall be used with an approved measuring method set forth in R12-15-903(C) or an alternative measuring method approved by the Director as provided in R12-15-909(A).
- C. The following water measuring methods are approved by the Director:
 - 1. Totalizing measuring method: This method requires an approved measuring device which continuously records the volume of water passing through the measured system;
 - 2. Electrical consumption measuring method: This method requires measurements of either pipeflow rates or open-channel flow rates used in combination with electrical energy records;
 - 3. Natural gas consumption measuring method: This method requires measurements of either pipe flow rates or open channel flow rates used in combination with natural gas energy records;
 - 4. Hour meter measuring method: This method requires measurements of either pipe flow rates or open-channel flow rates used in combination with hour meter readings;
 - 5. Elapsed time of flow method: This method requires measurements of flow rates used in combination with elapsed time of the flow. This method may be used only by a responsible party who receives water from an open channel or by a person or entity who delivers water in an open channel to one or more grandfathered rightholders or permit holders, if it is not possible to use the electrical or gas consumption measurement methods or hour meter measuring method.

Historical Note

Adopted effective December 27, 1982 (Supp. 82-6). Amended effective June 15, 1995 (Supp. 95-2).

R12-15-904. Water Measuring Method Reporting Requirements

- A. A responsible party using one of the water measuring methods described in R12-15-903 shall file, with the annual report required by A.R.S. Title 45 and on a form prescribed by the Director, the following information, unless that information has not changed from that submitted in the annual report filed in the previous calendar year.
 - 1. The approved measuring method used;
 - 2. The type of approved measuring device used;
 - 3. The make, model, and size of the approved measuring device used.
- B. Except as provided in R12-15-904(B)(5) and R12-15-909(B) and (D), a responsible party shall file with the annual report the information required in subsection (A) of this Section and the following information on a form prescribed by the Director:
 - 1. Totalizing measuring method:
 - a. The initial totalizing meter reading for the reporting year taken prior to the first use of the measured system during the reporting year;
 - b. The end totalizing meter reading for the year taken subsequently to the last use of the measured system during the reporting year;
 - c. The units in which the water is measured;
 - d. Whether the power meter serves uses other than the pump motor or engine;
 - e. An estimate of the amount of any water passing through the measured system during measuring device malfunctions;
 - f. If the well is in operation for more than a 30-day period, the results of a minimum of two flow-rate measurements per reporting year taken under normal system operating conditions. The responsible party shall not submit the results of the flow-rate measurements with the annual report unless a meter malfunction continues longer than 72 hours during the reporting year;
 - g. The installation or overhaul date of the totalizing meter; and
 - h. The name of the energy company supplying energy to the responsible party's measured system, its power account number, meter number, total energy consumption for the year, and the type of energy unit.
 - 2. Electrical consumption measuring method:
 - a. The results of a minimum of two flow-rate measurements per reporting year taken at least 30 days apart and under normal system operating conditions or, if the measured system is used during a single period of 30 days or less during the year, the result of one flow-rate measurement taken during that single period in that year under normal system operating conditions;
 - b. The dates of the measurements;
 - c. The discharges in gallons per minute;

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- d. The time, in seconds, of ten cycles of the electric meter disk, power indicator pulse, or an alternative measurement, provided that the alternative means of measurement is approved in advance by the Director;
 - e. The inside diameter of the discharge pipe;
 - f. The multiplier (K_r) and disk constant (K_h) of the electric meter; and
 - g. The name of the energy company supplying energy to the responsible party's measured system, its power account number, meter number, total energy consumption for the year, and the type of energy unit.
3. Natural gas consumption measuring method:
 - a. The results of a minimum of two flow-rate measurements per reporting year taken at least 30 days apart and under normal system operating conditions or, if the measured system is used during a single period of 30 days or less during the year, the result of one flow-rate measurement taken during that single period in that year under normal system operating conditions;
 - b. The dates of the measurements;
 - c. The discharges in gallons per minute;
 - d. The amounts of gas per second in cubic feet indicated by the gas meter;
 - e. The billing factors (F);
 - f. The inside diameter of the discharge pipe; and
 - g. The name of the energy company supplying energy to the responsible party's measured system, its power account number, meter number, total energy consumption for the year, and the type of energy unit.
 4. Hour meter measuring method:
 - a. The results of a minimum of two flow-rate measurements per reporting year taken at least 30 days apart and under normal system operating conditions or, if the measured system is used during a single period of 30 days or less during the year, the result of one flow-rate measurement taken during that single period in that year under normal system operating conditions;
 - b. The dates of the measurements;
 - c. The discharges in gallons per minute;
 - d. The initial hour meter reading for the reporting year taken prior to the first use of the measured system during the reporting year;
 - e. The end hour meter reading taken subsequently to the last use of the measured system during the reporting year;
 - f. Whether the energy meter serves uses other than the pump motor or engine;
 - g. The installation or overhaul date of the hour meter; and
 - h. The name of the energy company supplying energy to the responsible party's measured system, its power account number, meter number, total energy consumption for the year, and the type of energy unit.
 5. Elapsed time of flow measuring method: A responsible party using this measuring method shall not be required to submit the following information with the annual report but instead shall record and retain it for three years after the reporting year.
 - a. The responsible party or agent shall measure and record an initial flow rate taken at the start of flow for each delivery of water;
 - b. If the flow rate continues for more than eight hours, a subsequent measured flow-rate measurement shall be taken. If any subsequently measured flow-rate differs by more than 10% from the initial flow rate, and the delivery is not adjusted to conform with the initial flow rate, the responsible party or agent shall record the subsequent flow rate;
 - c. The time the flow begins and the time the flow ends for each delivery of water; and
 - d. The dates of the measurements.
- C. A responsible party or person or entity who uses an approved measuring method or an approved alternative water measurement method shall save the records required by subsections (A) and (B) of this Section for three years after the reporting year.

Historical Note

Adopted effective December 27, 1982 (Supp. 82-6). Former Section R12-15-904 renumbered to R12-15-905, new Section adopted effective June 15, 1995 (Supp. 95-2). Amended by final rulemaking at 11 A.A.R. 5395, effective February 4, 2006 (Supp. 05-4).

R12-15-905. Accuracy of Approved Measuring Devices

- A. A responsible party shall install, maintain, and use an approved measuring device and method in a manner which will ensure that its measurement error does not exceed 10% of the actual flow rate.
- B. All measured systems shall be installed or constructed and thereafter maintained so as to allow the Director, using another measuring device, to check readily the accuracy of the measuring device utilized by the responsible party.

Historical Note

Adopted effective December 27, 1982 (Supp. 82-6). Former Section R12-15-905 renumbered to R15-15-906, new Section R12-15-905 renumbered from R12-15-904 and amended effective June 15, 1995 (Supp. 95-2).

R12-15-906. Repair and Replacement of Approved Measuring Devices

If an approved measuring device fails to perform its designated function for more than 72 hours, the responsible party shall notify the Director of the failure, in writing, within seven calendar days after the discovery of the failure of the device. The reason for such failure shall be stated, as well as the estimated date of return to service of the device. If the malfunction is discovered by the Director and the malfunction does not appear to be the result of an attempt to render the device inaccurate, the Director shall notify the responsible party of the mal-

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function. The responsible party shall return the measuring device to full service within 30 days of either original notice by the responsible party to the Director or by the Director to the responsible party, unless repair or replacement service or parts are not available. In such case, the responsible party shall notify the Director of the delay within seven days and the reasons for it. The responsible party shall take corrective action in such cases as soon as practical. In all cases, the responsible party shall notify the Director within seven days when the measuring device is returned to full service and shall submit on a form prescribed by the Director estimates of the volume of water, if any, passing through the measured system during the period the measuring device was out of service and a description of the method used to calculate the estimates.

Historical Note

Section R12-15-906 renumbered from R12-15-905 and amended effective June 15, 1995 (Supp. 95-2).

R12-15-907. Calculation of Irrigation Water Deliveries

If one or more irrigation grandfathered rights receive water by a common distribution system where water is measured with an approved device or method at the point of delivery to the common distribution system, but not at a point of delivery to each irrigation grandfathered right, each irrigation grandfathered rightholder or agent shall report the water used by either of the following methods:

1. Estimate the amount of water used based on a pro rata share of the acres irrigated, or
2. Estimate the amount of water used based on a combination of the pro rata share of the acres irrigated and the consumptive use of each crop grown.

Historical Note

Adopted effective June 15, 1995 (Supp. 95-2).

R12-15-908. Measurement of Water by One Person on Behalf of Another

A responsible party shall be liable for any fines, penalties, or other sanctions resulting from the installation, monitoring, use, or accuracy of any measuring device, method, or recordkeeping, notwithstanding that the installation, monitoring, use, or recordkeeping may have been done by an agent of the responsible party.

Historical Note

Adopted effective June 15, 1995 (Supp. 95-2).

R12-15-909. Alternative Water Measuring Devices, Methods, and Reporting

- A. A responsible party may use an alternative water measuring device or method that differs from those described in R12-15-903 provided the device or method is approved in advance by the Director. The Director shall approve an alternative water measuring device or method if the device meets the requirements of R12-15-905. The Director may require from the responsible party such information as may be necessary to demonstrate that the alternative device or method meets the requirements of R12-15-905.
- B. Responsible parties may substitute equivalent information for the information required on the annual report form or use reporting formats that differ from that required in R12-15-904, provided the substituted information or format is approved in advance by the Director.
- C. Responsible parties may use estimation methods that differ from those described in R12-15-907 provided they are approved in advance by the Director.
- D. A municipal provider is exempted from the reporting requirements under R12-15-904 and the provisions under R12-15-906 pertaining to notification to the Director of measuring device malfunctions regarding metered service connections, unless required to report by A.R.S. Title 45 or by a permit, rule, or order issued pursuant to A.R.S. Title 45.
- E. Municipal providers and irrigation districts may notify the Director of measuring device malfunctions at the time of filing the annual report and in a manner that differs from the requirements of R12-15-906, provided the municipal provider or irrigation district implements a schedule of regular maintenance of measuring devices, repairs or replaces malfunctioning measuring devices within seven days of discovery of the malfunction, and the alternative notification is approved in advance by the Director.

Historical Note

Adopted effective June 15, 1995 (Supp. 95-2).

ARTICLE 10. REPORTING REQUIREMENTS FOR ANNUAL REPORTS, ANNUAL ACCOUNTS, OPERATING FLEXIBILITY ACCOUNTS, AND CONVEYANCES OF GROUNDWATER RIGHTS**R12-15-1001. Definitions**

In addition to the definitions in A.R.S. §§ 45-101 and 45-402, the following words and phrases in this Article have the following meanings, unless the context otherwise requires:

1. "Annual account" means an accounting of water required to be filed pursuant to A.R.S. § 45-468.
2. "Annual report" means an annual report of water withdrawn, delivered, received, transported, recharged, stored, recovered, replenished or used as required by A.R.S. §§ 45-437, 45-467, 45-632, 45-875.01, 45-876.01, 45-877.01, 45-878.01 or 45-1004.