

CERTIFICATE AND ORDER FOR FILING PERMANENT ADMINISTRATIVE RULES WITH THE SECRETARY OF STATE

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I HEREBY CERTIFY that the attached copy is a true, full and correct copy of PERMANENT rule(s) adopted on July 19, 1991

the Water Resource Commission Central Services Division

become effective upon filing

The within matter having come before the Water Resources Commission after

procedures having been in the required form and conducted in accordance with applicable statutes and rules and being fully advised in the premises:

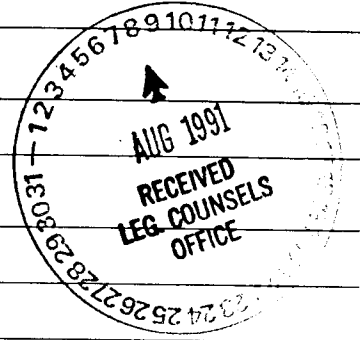
Notice of Intended Action published in Secretary of State's Bulletin: NO YES Date Published: April 1, 1991

NOW THEREFORE, IT IS HEREBY ORDERED THAT the following action be taken: (List Rule Number(s) or Rule Title(s) on Appropriate Lines Below)

Numbered: Total Rules) 690-85-008 690-85-015

Numbered: Pending Rules) 690-85-010

Numbered: Final Only)



Administrative Rules of the Water Resources Department

DATED this day of 19 91

By: John E. Borden, Deputy (Authorized Signer)

Title: Director

Statutory Authority: ORS Chapters 537 and 540

Numbered: Bill(s) Oregon Laws 19

Numbered: Bill(s) 19 Legislature; or Senate Bill(s) 19 Legislature

Subject Matter: Procedures for measuring and recording water use, reporting water use to OWRD.

Further Information Contact: William Ferber (Rule Coordinator) Phone: 378-8455 x289

OREGON ADMINISTRATIVE RULES
WATER RESOURCES DEPARTMENT
CHAPTER 690

ANNUAL REPORTS AND SERIOUS WATER MANAGEMENT PROBLEM AREAS

690-85-005 Purpose

These rules establish procedures and requirements for the annual reporting of water use by governmental entities pursuant to ORS 537.099. These rules also establish procedures for designation of serious water management problem areas pursuant to ORS 540.435.

690-85-008 Definitions

As used in OAR 690-85-010 and 690-85-015:

(1) "Change in channel conditions" includes but is not limited to scour, siltation, accumulation of debris, accumulation of aquatic growth, and the removal of aquatic growth.

(2) "Commission" means the Water Resources Commission.

(3) "Control" means a natural constriction of the channel, a long reach of the channel, a stretch of rapids, or an artificial structure downstream from the gage that determines the stage-discharge relation at the gage.

(4) "Continuous stage recorder" means any device that accurately and continuously records the rise and fall of a water surface with respect to time.

(5) "Department" means the Oregon Water Resources Department.

(6) "Director" means the Director of the Water Resources Department.

(7) "Economic hardship" means a financial burden of an extraordinary nature. Examples of situations causing such a burden include, but are not limited to, the following: the entity is required to report on an unusually large number of diversions or locations, the costs of measuring and reporting for a diversion or location greatly exceed the normal costs associated with a similar volume of water, or the costs of measuring and reporting threaten the entity's fiscal ability to continue operating.

(8) "Flume" means a specially shaped open channel flow section which may be installed in a canal, lateral, or ditch to form a control.

(9) "Governmental entity" includes any state or federal agency, local government as defined in ORS 294.004, irrigation district formed under ORS Chapter 545, water control district formed under ORS Chapter 553, and any other special purpose district organized under state law.

(10) "Open channel flow measurement" means a series of velocity, depth, and width measurements taken across an open channel using a velocity meter and a calibrated tape measure as described in references listed in 690-85-015(4)(f).

(11) "Point of diversion" means the point at which water is appropriated from its source.

(12) "Shift" means a correction that is derived from a flow measurement and applied to the gage height to obtain a true flow or discharge throughout a specific time sequence.

(13) "Staff gage" means a device constructed for the measurement of water depth. It shall allow accurate reading to 1/100th of a foot.

(14) "Velocity meter" means a device designed and constructed to the specifications cited in the reference listed in paragraph 690-85-015 (4)(f)(C) for measuring stream velocity in open channels.

(15) "Water use" means water diverted or pumped from the source, or in the case of non-diverted water, the water available to satisfy the right.

(16) "Weir" means an overflow structure built across an open channel to form a control.

690-85-010 Governmental Entities to Submit Annual Water-use Reports

(1) By December 31 of each year, any governmental entity holding water rights shall submit to the Department a report detailing monthly water use under the rights for each point of diversion. Reporting shall be for the previous water year (October 1 to September 30). A governmental entity shall not be required to submit a report under this rule for water rights held because of default in repayment of loans or other debts owed to the state.

(2) The report shall be submitted on forms supplied by, or in a format acceptable to, the Department. It shall include:

- (a) The name and address of the reporting entity;
- (b) The monthly volume of water diverted or pumped from natural flow and/or stored water for each major category of use at each point of diversion listed on the water rights, except as noted in 690-85-010(2)(c), (2)(d), and (2)(e). The volume of water diverted or pumped shall be determined as prescribed in OAR 690-85-015.
- (c) For in-reservoir uses, the volume of water impounded on approximately the same day each month;
- (d) For instream water rights, the monthly volume of water flowing through the channel for at least one point covered by the water right;
- (e) For instream uses supplied from storage, the volume of stored water released every month.

(3) Except as provided in 690-85-010(4), the reported monthly volumes of water shall be accurate within plus or minus 15 percent by October 1992.

(4) The governmental entity may assume the volume of water used each month, if any, is the maximum quantity allowed under the right and report that volume if:

- (a) The water right is for storage of less than 9.2 acre-feet of water for in-reservoir use or specifies a rate less than 0.1 cfs; or
- (b) The Director has approved a time extension for compliance with OAR 690-85-010(3) or the Commission has waived compliance with any of the requirements of OAR 690-85-015.

(5) The Director may grant a time extension for compliance with OAR 690-85-010(3).

- (a) To qualify for an extension, the governmental entity shall:
 - (A) Show that compliance with OAR 690-85-010(3) would cause an economic hardship;
 - (B) Show that an allowance of additional time would enable it to meet the accuracy standards prescribed in OAR 690-85-010(3); and
 - (C) Submit a compliance schedule detailing the steps, including the implementation time of those steps, it will take to meet OAR 690-85-010(3).

(b) Once the time extension is approved, the governmental entity shall submit a progress report on

the compliance schedule in conjunction with each annual water use report.

(c) The Director may rescind his approval if the governmental entity fails to comply with the compliance schedule.

(d) The Director may modify the terms of any compliance schedule under this rule at the request of the governmental entity.

(6) The Commission may waive compliance with OAR 690-85-010(3) and/or any of the requirements of OAR 690-85-015. To qualify for a waiver, the governmental entity shall show that:

(a) Complying with the rule(s) would cause an economic hardship on the governmental entity; and

(b) The information to be collected would not materially aid water management because:

(A) The regulation for or of the use is unlikely due to the absence of other water rights; or

(B) Use of water is unlikely to materially affect water availability from the source since the quantity of water allowed by the right in relation to the quantity of water available from the source is de minimis; or

(C) Another similar situation exists.

690-85-015 **Methods for Measuring and Computing Water Use**

(1) Beginning October 1992, methods shall be approved in advance by the Department except those prescribed in sections (4) and (5) which are approved by the Department. The methods prescribed in sections (4) and (5) of this rule are designed to meet 690-85-010(3). Alternate methods will be accepted by the Department if the conditions specified in 690-85-015(6) are met. Any method is subject to review by the Department.

(2) In Critical Groundwater and Serious Water Management Areas measuring requirements may be different. In such cases the more stringent measuring requirements will take precedence.

(3) Where practical, water use shall be measured at each point of diversion. However, measurements may be taken at a reasonable distance from the point of diversion if the following conditions are met:

(a) The measured flow shall be corrected to reflect the flow at the point of diversion. The

correction will be based on periodic flow measurements at the point of diversion taken in conjunction with flow measurements at the usual measuring point.

(b) If the measured flow includes flow contributions from more than one point of diversion, the measured flow shall be proportioned to reflect the flow at each point of diversion using the method prescribed in paragraph (a) above.

(c) A description of the correction method shall be submitted with the annual report the first time it is used and any time it is changed, or once every five years, whichever is shorter.

(4) Approved methods for measurements made in open channels are as follows:

(a) The following requirements apply for all approved methods of measurement in open channels:

(A) Copies of all measurement notes, rating curves, and calculations shall be retained for three years and made available to the Department upon request. For each method of measurement, installation and measurement procedures shall be as described in the references listed in 690-85-015(4) (f).

(B) Channels shall be equipped with a staff gage and/or a continuous stage recorder which shall be installed in a location that provides an accurate reading of the control crest depth at all elevations and as described in the references listed in 690-85-015(4) (f). If only a staff gage is installed, an observer shall read the staff gage and record the reading at uniform intervals, and as close as practical before and after the time regulation of the diversion flow rate occurs. At no time shall the periodic interval be greater than three days. A continuous stage recorder may be used in lieu of periodic staff gage readings.

(C) The method of measurement shall conform with the U.S. Geological Survey method for velocity-area measurements as described in the references listed in 690-85-015(4) (f).

(D) Where practical, the rate of flow may be determined by measuring the amount of time needed to fill a container of known capacity.

(E) For very low flows that cannot be measured by any of the above methods, the rate of flow may be determined by setting a portable weir or flume in the channel. The weir or flume shall be installed as described in the references listed in 690-85-015(4) (f).

(F) Once a rating curve has been established, computation of reported monthly volume shall be as described by references listed in 690-85-015(4)(f) with additional information available from the Department.

(b) The Velocity-area Method

(A) A rating curve for the control shall be established and maintained as described in references listed in 690-85-015(4)(f). The distribution of open channel flow measurements shall be sufficient to establish a full range of values for the entire stage-discharge relation. Close attention shall be given to the upper end (high flows) and the lower end (low flows) of the curve.

(B) Open channel flow measurements shall be taken at least once every six weeks, and at any time there is a change in channel conditions which may alter flow conditions across the control.

(C) Readings taken from a staff gage shall be consistent with 690-85-015(4)(a)(B).

(c) The Weir Method

(A) A weir shall be installed and maintained as described in the references listed in 690-85-015(4)(f). Upstream from the weir a staff gage and/or continuous stage recorder shall be installed in a location that measures static head above the weir crest at all elevations and in accordance with the references listed in 690-85-015(4)(f).

(B) When only a staff gage is installed, reading of the staff gage shall be consistent with 690-85-015(4)(a)(B).

(C) A rating curve shall be established for the weir as prescribed for the Velocity-area Method in 690-85-015(4)(b)(A).

(D) Open channel flow measurements shall be taken at least once every eight weeks, and at any time there is a change in channel conditions which may alter flow conditions across the weir.

(d) The Flume Method

(A) A flume shall be installed and maintained as described in the references listed in 690-85-015(4)(f). A staff gage and/or continuous stage recorder shall be installed upstream from the flume in a location that measures static head and in accordance with the references listed in 690-85-015(4)(f).

(B) When only a staff gage is installed reading of the staff gage shall be consistent with 690-85-015(4) (a) (B).

(C) A rating curve shall be established for the flume as prescribed for the Velocity-area Method in 690-85-015(b) (A).

(D) Open channel flow measurements shall be taken at least once every eight weeks, and at any time there is a change in channel conditions which may alter flow conditions through the flume.

(e) For a diversion monitored by the Department or a U.S. Geological Survey gaging station, it is sufficient to report:

(A) The gaging station number if the station is at the point of diversion, or

(B) The gaging station number and the appropriate correction, per 690-85-015(3), for adjustment back to the point of diversion, if the station is a reasonable distance from the point of diversion.

(C) The current operation of any station by the Department or U.S. Geological Survey does not guarantee the continued operation or usage of the station for water use reporting purposes.

(f) The following references provide guidance and requirements for the methods and installations prescribed in 690-85-015:

(A) "Measurement and Computation of Streamflow," Volumes 1 and 2, 1982, USGS WSP 2175.

(B) "Techniques of Water-Resources Investigations of the United States Geological Survey," Book 3, Chapters A6-A8, A10, A13, A14.

(C) "Water Measurement Manual," US Department of the Interior, Bureau of Reclamation.

(5) Approved methods for measurements made in pipes are as follows:

(a) The Flow Meter Method

(A) The flow meter shall be capable of recording cumulative volume.

(B) The flow meter shall be capable of measuring the full range of discharge from the source of water for which it is to be used.

(C) The flow meter shall be installed and maintained according to the manufacturer's specifications and in such a manner that there shall be a full pipe of water at all times during which water is being pumped.

(D) There shall be no diversions of water between the source of water and the flow meter installation.

(E) The manner in which the flow meter has been installed is subject to inspection and approval by the Director.

(F) In the case of flowing artesian wells with pumps, the flow meter shall be installed in a manner which will allow measurement of both pumped and flowing discharge.

(b) The Power Consumption Method

(A) This method shall not be used for flowing artesian wells.

(B) A power meter shall be dedicated to one pump only.

(C) The ratio of electric power consumption per quantity of water pumped shall be determined annually by physically measuring the volume of water pumped during a two-hour test. The test shall be conducted under normal operating conditions.

(D) A record of the method and equipment used to determine the ratio of power consumption to volume of water pumped, and the monthly power readings for each well shall be retained for three years. The record shall be made available to the Department upon request.

(c) The Time of Operation Method

(A) This method shall not be used for flowing artesian wells.

(B) A meter that accumulates operating time of the pump shall be installed and dedicated to one pump only.

(C) The volume of water pumped per unit time shall be determined annually by physically measuring the flow during a two-hour test. This test shall be conducted under normal operating conditions.

(D) A record of the method and equipment used to determine the volume of water pumped per unit time and the monthly accumulated operating times shall be retained for three years. The record shall be made available to the Department upon request.

(6) Alternate methods for reporting water use.

(a) An alternate method may be used if a registered professional engineer certifies to the Department that the method will report water use within

an accuracy of plus or minus 15 percent. The governmental entity shall submit a description of the method and the certification by the registered professional engineer to the Department.

(b) The Department may review any alternate method at any time and may require modification to the method if the Department determines that the method does not accurately report water use as required in OAR 690-85-010(3).

690-85-020 Serious Water Management Problem Areas

(1) The Commission may adopt a rule to designate an area as having serious water management problems and may order any affected water right holders to submit annual water use reports if it finds that:

(a) Ground water decline in the area is of such magnitude that the aquifer does not recover annually; or

(b) There are frequent water management disputes between water users in the area that cannot be privately resolved; or

(c) Substantial interference exists between wells; or

(d) The exercise of ground water rights interferes with flow of water in a nearby stream, to the detriment of senior surface water rights; or

(e) The diversion of water from streams is in such quantities that interference with nearby wells occurs; or

(f) There are frequent occurrences of surface or ground water shortages caused by use of water from streams or wells. Shortages may be evidenced by complaints from water right holders, requests to regulate water use, degraded water quality, or failure to meet administrative restrictions or minimum streamflows.

(2) The Commission may direct that a hearing be held to determine if an area has serious water management problems upon receipt of a complete petition with sufficient evidence of a serious management problem from a water right holder in the area, or from the director of a state or federal agency. The Commission also may hold a hearing to determine if an area has serious water management problems on its own motion.

(3) A petition for hearing shall include recommended boundaries of the area proposed for designation, a description of the water management problems in the area, a

summary of data on water availability and use for the area, and a proposed water management and annual water use reporting program. This proposed program should include a description of any measuring devices to be required, information which would be submitted on any annual water use reports and proposed procedures for regulation of water use.

The Commission shall review the data and recommendations in the petition and determine if a hearing shall be held.

(4) The hearing shall be held in the area proposed for designation as having serious water management problems. Notice of the hearing shall be published in a local newspaper at least two weeks before the hearing. Additionally, the Department shall mail notice of the hearings to water rights holders in the area when feasible.

(5) Alternative proposals for measuring devices, methods of obtaining data, or formats for reporting data may be presented to the Department within 30 days after the hearing date.

(6) If the Commission determines there is a serious water management problem, it shall adopt a rule which specifies the nature of the problem, the boundaries of the area involved, who is required to install measuring devices, specifications for the types of measuring devices and annual reports, and timelines for implementation.

(7) The Commission may consider amendment of a rule designating a serious water management problem area upon receipt of a petition to initiate rulemaking or on the Commission's own motion.

690-85-030 Failure to Report

(1) The Director may order regulation or termination of deliveries of water to and use of water by any water right holder who fails to satisfactorily install or maintain a measuring device or to submit a report required by 690-85-020. Notice of intended regulation shall be served on the person by certified mail, return receipt requested. Regulation shall become effective not earlier than 30 days after the date of mailing of the notice. Regulation shall not become effective if the person satisfactorily complies within 30 days from the date of mailing of the notice or if the person is granted an extension of time under section (2) of this section.

(2) A water right holder required under OAR 690-85-010 or 690-85-020 to submit an annual water use report may request in writing a 60-day extension of time to submit the report. The Director may grant the extension upon finding that the additional time is needed by the person or government entity to compile and submit accurate and complete information.

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[8/5/88 original adopted]

[7/19/91 revisions adopted]