

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

I HEREBY CERTIFY that the attached copy is a true, full and correct copy of PERMANENT rule(s) adopted on February 10, 1995
(Date)

by the Water Resources Department Field & Technical Services
(Department) (Division)

to become effective July 1, 1995
(Date)

The within matter having come before the Water Resources Commission after
(Department) (Division)

all 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: October 1, 1994

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

Adopted: Monitoring Well Construction Standards 690-240-007, 012, 013, 035 and 137.
(New Total Rules)

Amended: Water Well Construction Standards 690-200-050 and Appendix I
Monitoring Well Construction Standards 690-240-005, 010, 015,
020, 025, 030, 090, 100, 118, 140, 150 and Table II.
(Existing Rules)

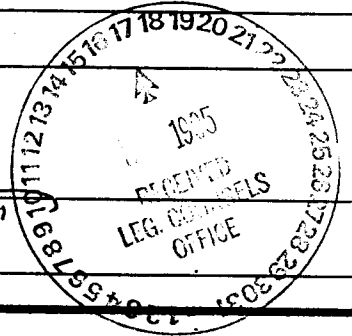
Repealed / (Total Rules Only)

as Administrative Rules of the Water Resources Department
(Department) (Division)

DATED this 17th day of May, 19 95

By: *Martha D. Pugh*
(Authorized Signer)

Title: Director



Statutory Authority: ORS 537.780 or

Chapter(s) _____ or Oregon Laws 19 _____ or

House Bill(s) _____ 19 _____ Legislature; or Senate Bill(s) _____ 19 _____ Legislature

Subject Matter: The Department had identified a need to revise the above administrative rules to further refine the regulation of various types of wells and other holes in order to be consistent with the statutes and to adequately protect the groundwater resource.

For Further Information Contact: Beth Patrino Phone: 378-8455 x 299
(Rule Coordinator)

July 1, 1995

OREGON ADMINISTRATIVE RULES
WATER RESOURCES DEPARTMENT
CHAPTER 690
DIVISION 200
WATER SUPPLY WELL CONSTRUCTION AND MAINTENANCE

Introduction

Basis for Regulatory Authority

690-200-005 (1) The right to reasonable control of the groundwaters of the State of Oregon has been declared to belong to the public. Through the provisions of the Groundwater Act of 1955, ORS 537.505 to 537.795, the Water Resources Commission has been charged with the administration of the rights of appropriation and use of the groundwater resources of the state and the prevention of waste and contamination of groundwater. This is primarily accomplished by the licensing of well constructors and the promulgation of rules governing well construction, alteration, abandonment, maintenance and use. Ultimately the landowner of the property where the well is constructed is responsible for the condition and use of the well.

(2) The following rules apply to all wells which are constructed for the purpose of locating or obtaining water as defined in ORS 537.515(9) with the following exceptions:

(a) Holes which are drilled for elevator shafts, fence posts, power poles, cathode protection, storm water disposal, pits created by removal of rock for construction and sumps, for example, are exempt from these rules. When natural flow of water occurs in holes not regulated under these rules, the Water Resources Commission may regulate under separate rules or statutes to protect the groundwater from contamination or waste;

(b) The construction, maintenance and abandonment of monitoring wells and other holes are regulated under OAR 690-240. Monitoring wells and other holes are subject to the requirements of OAR 690-200 and the following definitions unless otherwise provided under OAR 690-240-010;

(c) Holes constructed under ORS Chapters 517, 520, 522, and rules promulgated from those statutes, are the responsibility of the Oregon Department of Geologic and Mineral Industries and are not subject to these rules. These include, but are not limited to, holes constructed for the purposes of exploring for, or producing, petroleum, minerals, or geothermal resources.

(3) In addition to regulating new well construction, alteration, abandonment and maintenance actions, the Water Resources Commission may impose conditions upon the use of any existing well as may be necessary to prevent waste, undue interference with other wells or contamination. Where necessary, the Commission may order

Note: These rules were filed with the Office of the Secretary of State and took effect on July 1, 1995. The rules are subject to non-substantive modifications such as renumbering and correction of typographical errors pursuant to ORS 183.360 (2)(a) when published by the Secretary of State.

discontinuance of use and proper abandonment of any well to accomplish the same objectives.

(4) Except for the Commission's power to adopt rules, the Commission may delegate to the Water Resources Director the exercise or discharge in the Commission's name of any power, duty or function of whatever character, vested in or imposed by law upon the Commission. The official act of the Director acting in the Commission's name and by the Commission's authority shall be considered to be an official act of the Commission. The Commission delegates to the Director full authority to act in the Commission's name where that delegation is reflected in these rules.

(5) Under the provisions of ORS 537.780, the Commission is authorized to adopt such procedural rules and regulations as deemed necessary to carry out its function in compliance with the Groundwater Law. In fulfillment of these responsibilities and to ensure the preservation of the public welfare, safety, and health, the Commission has established these rules and regulations as the minimum standards for the construction, alteration, abandonment and maintenance of wells in Oregon.

(6) The rules and regulations set forth herein shall become effective January 1, 1994.

NOTE: If a water supply well is to be constructed to supply a public or community water system, refer to **Appendix 1** for information regarding regulations pertaining to municipal, public, community, and public utility water supply systems.

[**ED. NOTE:** The Appendix referenced in this rule is not printed in the OAR Compilation. Copies are available from the Water Resources Department.]

Stat. Auth.: ORS 536.090 & 537.505 - 537.795

Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; Amended & Renumbered from 690-60-005 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert. ef. 1-1-94

General Statement About the Standards

690-200-020 (1) The rules and regulations set forth herein provide the minimum standards for the construction, maintenance, and abandonment of wells. After the effective date of adoption of these rules and regulations, no well shall be constructed, altered, or abandoned contrary to the provisions of these rules and regulations without prior approval from the Water Resources Department. Violation of these standards may result in enforcement under OAR Chapter 690, Division 225, including suspension or revocation of a constructor's license, imposition of civil penalties on the landowner or constructor, action on a bond, or other sanctions authorized by law.

(2) Every well shall be designed and constructed to adapt to the existing local geologic and groundwater conditions at the well site and shall fully utilize every natural protection to the groundwater supply. If prior to or during construction the well constructor becomes aware that specific site conditions will not allow adherence to the following minimum well standards, the constructor shall request and obtain written approval from the Director to use alternative construction methods, materials or standards. The request shall be in writing and submitted to the Director as described in

OAR 690-210-015. Written approval from the Director must be obtained prior to completion of the well.

Stat. Auth.: ORS 536.090 & 537.505 - 537.795

Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; Amended & Renumbered from 690-60-008 and 690-60-040 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert. ef. 1-1-94

Special Area Standards

690-200-025 If at any time, the Commission finds that different or supplemental standards are required for the safe development of groundwater from any aquifer or area, special area standards for the construction and maintenance of wells within such areas may be adopted as rules by the Commission. In the absence of such special area standards, these rules constitute the sole administrative standards of the Water Resources Department governing construction, alteration, and abandonment of wells.

Stat. Auth.: ORS 536.090 & 537.505 - 537.795

Hist.: WRD 9-1978, ef. 12-12-78, f. 1-1-79; Amended & Renumbered from 690-60-045 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert. ef. 1-1-94

Special Area Standards for the Construction and Alteration of Water Supply Wells in the Parrett Mountain Area

690-200-026 [Stat. Auth.: ORS Ch. 536 & 537

Hist.: WRD 5-1992(Temp), f. & cert. ef. 3-19-92; WRD 11-1992, f. & cert. ef. 9-8-92; WRD 8-1993, f. 12-14-93, cert. ef. 1-1-94; WRD 3-1994, f. & cert. ef. 3-10-94, repealed by WRD _ -1994, f. & cert. ef. 10-28-94]

[ED NOTE: The text of Temporary Rules is not printed in the Oregon Administrative Rules Compilation. Copies may be obtained from the adopting agency or the Secretary of State.]

Restrictions on Water Supply Well Construction and Use in Critical Groundwater Areas or Areas Withdrawn by Commission Order

690-200-027 (1) The use of groundwater is restricted in Critical Groundwater Areas or Withdrawal Areas established by Commission Order, under ORS 537.735 and 536.410. Before constructing a water supply well, the constructor shall determine whether the proposed well site is within a Critical Groundwater or Withdrawal Area. (Refer to Map Figure 19.)

(2) If the water supply well is within a Critical Groundwater or Withdrawal Area, the constructor shall contact the watermaster for the county where the water supply well is to be constructed for more information. (Refer to Table VI.)

(3) Construction of water supply wells in violation of a critical groundwater or withdrawal orders are subject to enforcement action as described in OAR Chapter 690, Division 225.

[ED. NOTE: The Table and Figure referenced in this rule is not printed in the OAR Compilation. Copies are available from the Water Resources Department.]

Stat. Auth.: ORS 536.090 & 537.505 - 537.795

Hist.: WRD 7-1988, f. & cert. ef. 6-29-88; WRD 8-1993, f. 12-14-93, cert. ef. 1-1-94

Public Safety

690-200-030 No well shall be constructed, maintained, or abandoned in such a manner as to constitute a health threat, or health hazard or a menace to public safety.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540

Hist.: WRD 3, f. & ef. 2-18-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; Renumbered from 690-60-010 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 21-1990, f. & cert. ef. 12-14-90

Wells Cannot be Used for Disposal of Contaminants

690-200-040 No well shall be used as a disposal pit for sewage, industrial waste, or other materials that could contaminate the groundwater supply.

Stat. Auth.: ORS Ch. 183, 536, 537 & 540

Hist.: WRD 9-1978, f. 12-12-78, ef. 1-1-79; Amended & Renumbered from 690-62-025 by WRD 13-1983, f. 10-7-86, ef. 11-1-86

Definitions

690-200-050 The Water Resources Commission uses the definitions of the words listed below in the administration and enforcement of Oregon's Groundwater Law and the Rules and Regulations for the Construction and Alteration of Wells. No other definitions of these same words apply:

(1) "Abandonment, Permanent" means to remove a well from service by completely filling it in such a manner that vertical movement of water within the well bore and within the annular space surrounding the well casing, is effectively and permanently prevented. If a portion of a well is to be abandoned in order to prevent commingling, waste or loss of artesian pressure, the abandonment shall conform with the requirements of OAR Chapter 690, Division 220.

(2) "Abandonment, Temporary" means to remove a drilling machine from a well site after completing or altering a well provided the well is not immediately put into service, or to remove a well from service with the intent of using it in the future.

(3) "Access Port" means a minimum 1/2-inch tapped hole and plug or a 1/2-inch capped pipe welded onto the casing in the upper portion of a water supply well casing to permit entry of water-level measuring devices into the water supply well.

(4) "Air Gap" means a complete physical break between the outlet end of the discharge pipe or other conduit and the discharged substance. The break shall be at least twice the inside diameter of the pipe or conduit. (Back-siphon prevention)

(5) "Airline" means a water level measuring device consisting of a pressure gauge attached to an airtight line or pipe of known length within the water supply well bore extending from land surface to below the pumping level to allow the water level to be

computed by measuring the stable air pressure remaining in the line after completely purging water from within the line.

(6) "Air/Vacuum Relief Valve" means a device to automatically relieve or break vacuum. (Back-siphon prevention)

(7) "Altering a Well" means the deepening, reaming, hydrofracturing, casing, re-casing, perforating, re-perforating, installation of liner pipe, packers, seals, and any other material change in the design or construction of a well.

(8) "Annular Space" means the space between the drillhole wall and the outer well casing.

(9) "Aquifer" means a geologic formation, group of formations, or part of a formation that contains saturated and permeable material capable of transmitting water in sufficient quantity to supply wells or springs and that contains water that is similar throughout in characteristics such as potentiometric head, chemistry, and temperature (see Figure 21).

(10) "Artesian Aquifer" means an aquifer in which groundwater is under sufficient head to rise above the level at which it was first encountered whether or not the water flows at land surface. If the water level stands above land surface the well is a flowing artesian well (see Figure 21).

(11) "Automatic Low-Pressure Drain" means a self-activating device designed and constructed to intercept incidental leakage and drain that portion of an irrigation pipeline or any other method of conveyance whose contents could potentially enter the water supply when operation of the irrigation system pumping plant fails or is shut down. (Back-siphon prevention)

(12) "Back-Siphon Prevention Device" means a safety device used to prevent water pollution or contamination by preventing flow of a mixture of water and/or chemicals in the opposite direction of that intended. (Back-siphon prevention)

(13) "Bored Well" means a well constructed with the use of earth augers turned either by hand or by power equipment.

(14) "Buried Slab Type Well" means a dug well in which well casing is used to case the upper hole. A slab, sealed with cement grout, is placed between the upper hole and lower drillhole, and the remainder of the annulus is filled with concrete.

(15) "Casing" means the outer tubing, pipe, or conduit, welded or screw coupled, and installed in the borehole during or after drilling to support the sides of the well and prevent caving. Casing can be used, in conjunction with proper seal placement, to shut off water, gas, or contaminated fluids from entering the hole, and to prevent waste of groundwater.

(16) "Casing Seal" means the water tight seal established in the well bore between the well casing and the drillhole wall to prevent the inflow and movement of surface water or shallow groundwater in the well annulus, or to prevent the outflow or movement of water under artesian or hydrostatic pressures.

(17) "Check Valve" means a certified device designed and constructed to close a water supply pipeline, chemical injection line, or other conduit in a chemigation system to prevent reverse flow in that line. (Back-siphon prevention)

(18) "Clay" means a fine-grained, inorganic material having plastic properties and with a predominant grain size of less than 0.005 mm.

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

(20) "Committee" means the Groundwater Advisory Committee created by ORS 536.090.

(21) "Community Well" means a water supply well, whether publicly or privately owned, which serves or is intended to serve more than three connections for residences or other connections for the purpose of supplying water for drinking, culinary, or household uses.

(22) "Confined Animal Feeding or Holding Area" means the concentrated confined feeding or holding of animals or poultry, including but not limited to horse, cattle, sheep, swine feeding, dairy confinement areas, slaughterhouse or shipping terminal holding pens where the animal waste is allowed to build up on the ground and where the concentration of animals has destroyed the vegetative cover. Areas where animals and animal waste is confined in buildings are exempt.

(23) "Confining Formation" means the "impermeable" stratum immediately overlying an artesian (confined) aquifer (see Figure 21).

(24) "Consolidated Formation" means materials that have become firm through natural rock-forming processes. It includes, but is not limited to, such materials as basalt, sandstone, shale, hard claystone, and granite.

(25) "Contamination" means an impairment of water quality by chemicals, radionuclides, biologic organisms or other extraneous matter whether or not it affects the potential or intended beneficial use of water.

(26) "Department" means the Water Resources Department.

(27) "Director" means the Director of the Department or the Director's authorized representatives.

(28) "Domestic Well" means a water supply well used to serve no more than three residences for the purpose of supplying water for drinking, culinary, or household uses, and which is not used as a public water supply.

(29) "Drawdown" means the difference in vertical distance between the pumping level and the static water level in a well.

(30) "Drive Point Well" means a well constructed by driving into the ground a well-point fitted to the end of a pipe section or series of pipe sections.

(31) "Dug Well" means a well in which the excavation is made by the use of picks, shovels, spades or digging equipment such as backhoes, clam shell buckets, or sand buckets.

(32) "Figure", when used herein, refers to an illustration and is made a part of the primary article and section by reference.

(33) "Filter Pack Well" means a well in which the area immediately surrounding the well screen or perforated pipe within the water-producing zone is filled with graded coarser material.

(34) "Geologic Formation" means an igneous, sedimentary or metamorphic material that is relatively homogeneous and is sufficiently recognized as to be distinguished from the adjacent material. The term is synonymous with "formation".

(35) "Geologist" means an individual registered by the state to practice geology.

(36) "Geotechnical hole" means a cased or uncased hole constructed to collect or evaluate subsurface data or information. Geotechnical holes are not monitoring wells as defined in (54) below. Various classes and examples of geotechnical holes are listed in 690-240-035 (5-8).

- (37) "Grout" means either approved cement or bentonite sealing material used to fill an annular space of a well.
- (38) "Grout Pipe" means a pipe which is used to place grout at the bottom of the sealing interval of a well.
- (39) "Hazardous Waste" means a substance as defined by ORS 466.005.
- (40) "Hazardous Waste Disposal Site" means a geographical site in which or upon which hazardous waste is disposed.
- (41) "Hazardous Waste Storage Site" means the geographical site upon which hazardous waste is stored.
- (42) "Hazardous Waste Treatment Site" means the geographical site upon which or a facility in which hazardous waste is treated.
- (43) "Health Hazard" means a condition where there are sufficient concentrations of biological, chemical, or physical, including radiological, contaminants in the water that are likely to cause human illness, disorders, or disability. These include, but are not limited to naturally occurring substances, pathogenic viruses, bacteria, parasites, toxic chemicals, and radioactive isotopes. Sufficient concentrations of a contaminant include but are not limited to contaminant levels set by the Department of Environmental Quality and Oregon Health Division.
- (44) "Health Threat" means a condition where there is an impending health hazard. The threat may be posed by, but not limited to: a conduit for contamination, or a well affecting migration of a contaminant plume, or the use of contaminated water. A well in which the well construction is not verified by a water well report or geophysical techniques may be considered a conduit for contamination in certain circumstances. Those circumstances include, but are not limited to: an unused and neglected well, a well that is permanently out of service, or a well for which no surface seal was required. A well in which the casing seal, sanitary seal, or watertight cap has failed, or was inadequately installed may be considered a conduit for contamination.
- (45) "Horizontal Well" means a well that intentionally deviates more than 20 degrees from true vertical.
- (46) "Hydrofracturing" means the use of high pressure liquid, sand, packers or other material to open or widen fractures in consolidated formations for the purpose of increase well yield.
- (47) "Impermeable Sealing Material" means neat cement, concrete or bentonite which is used to fill the open annulus between the lower and upper sealing intervals.
- (48) "Inspection Port" means an orifice or other viewing device from which the low-pressure drain and check valve may be observed.
- (49) "Jetted Well" means a well in which the drillhole excavation is made by the use of a high velocity jet of water.
- (50) "Leakage" means movement of surface and/ or subsurface water around the well casing or seal.
- (51) "Liner Pipe" means the inner tubing, pipe, or conduit installed inside the well casing or lower well bore, and used to protect against caving formations and is not permanently affixed to the drillhole wall or casing.
- (52) "Lower Drillhole" means that part of the well bore extending below the surface seal interval in a well.

(53) "Mineralized Water" means any naturally occurring groundwater containing an amount of dissolved chemical constituents limiting the beneficial uses to which the water may be applied.

(54) "Monitoring Well" means any cased excavation or cased opening in the ground for determining the physical (including water level), chemical, biological, or radiological properties of ground water. Monitoring wells are regulated under OAR 690-240.

(55) "Municipal or Quasi-Municipal Well" means a water supply well owned by a municipality or nonprofit corporation that may be used as a community or public water supply.

(56) "Order" means any action satisfying the definition given in ORS Chapter 183 or any other action so designated in ORS 537.505 to 537.795.

(57) "Other Hole" means a hole other than a water supply well, a monitoring well, or geotechnical hole, however constructed, in naturally occurring or artificially emplaced earth materials through which groundwater can be contaminated. Holes constructed under ORS Chapters 517, 520, and 522 are not subject to these rules. Other holes are regulated under OAR 690-240. Examples of other holes are listed in 690-240-030.

(58) "Perched Groundwater" means groundwater held above the regional or main water table by a less permeable underlying earth or rock material (see Figure 21).

(59) "Permeability" means the ability of material to transmit fluid, usually described in units of gallons per day per square foot of cross-section area. It is related to the effectiveness with which pore spaces transmit fluids.

(60) "Person" includes individuals, corporations, associations, firms, partnerships, joint stock companies, public and municipal corporations, political subdivisions, the state and any agencies thereof, and the Federal Government and any agencies thereof.

(61) "Petcock Valve" is a valve used to contain pressure and when opened to drain the line or pipe.

(62) "Pitless Adaptor" means a commercially manufactured unit or device designed for attachment to one or more openings through a well casing, which will permit water service pipes to pass through the wall of a well casing or extension thereof and prevent entrance of contaminants into the well or water supply.

(63) "Pitless Unit" means a commercially manufactured unit extending the upper terminal of the well casing to above land surface, constructed and installed so as to prevent the entrance of contaminants into the well and to protect the groundwater supply, conduct water from the well, and provide full access to the well and water system parts therein.

(64) "Porosity" means the ratio of the volume of voids in the geologic formation being drilled to the overall volume of the material without regard to size, shape, interconnection, or arrangement of openings.

(65) "Potable Water" means water which is sufficiently free from biological, chemical, physical, or radiological impurities so that users thereof will not be exposed to or threatened with exposure to disease or harmful physiological effects and which has no taste or odor properties that would make it unpalatable to humans for drinking purposes.

(66) "Potentiometric Surface" means the level to which water will rise in tightly cased wells (see Figure 21).

(67) "Pressure Grouting" means a process by which a grout is confined within the drillhole or casing by the use of retaining plugs in packers and by which sufficient pressure is applied to drive the grout slurry into the annular space or zone to be grouted.

(68) "Professional" means any person licensed or registered by the State of Oregon to construct monitoring wells, water supply wells, or practice geology or civil engineering.

(69) "Public-at-Large" means a person not actively engaged in the well industry.

(70) "Public Water System" means a system for the provision to the public of piped water for human consumption, if such a system has more than three service connections or supplies water to a public or commercial establishment which operates a total of 60 days per year, and which is used by ten or more individuals per day or is a facility licensed by the Oregon Health Division.

(71) "Public Well" means a water supply well, whether publicly or privately owned other than a municipal well, where water is provided for or is available through the single user for public consumption including, but not limited to, a school, a farm labor camp, an industrial establishment, a recreational facility, a restaurant, a motel, or a group care home.

(72) "Pumping Level" means the level of the water surface in a well while it is being pumped or bailed.

(73) "Pump Test" means the procedure involving pumping water for a specified period of time to determine the yield characteristics of an aquifer.

(74) "Refusal to Renew" means a provision in an order that prohibits renewal of a well constructor's license, for a specified term not to exceed one year from the expiration date of the current license.

(75) "Remediation Well" means a well used for extracting contaminants. This term is synonymous with "extraction well".

(76) "Respondent" means the person against whom an enforcement action is taken.

(77) "Responsible Party" means the person or agency that is in charge of construction and is either in violation as specified in a notice of violation or who may benefit from that violation.

(78) "Revoke" means termination of a well constructor's license.

(79) "Rough Drilling Log" means a record kept on the well site of the information needed to complete the well report for the well being constructed.

(80) "Sand" means a material having a prevalent grain size ranging from 2 millimeters to 0.06 millimeters.

(81) "Silt" means an unconsolidated sediment composed predominantly of particles between 0.06 and 0.005 mm in diameter.

(82) "Static Water Level" means the stabilized level or elevation of water surface in a well not being pumped.

(83) "Stratum" means a bed or layer of a formation that consists throughout of approximately the same type of consolidated or unconsolidated material.

(84) "Sump" means a hole dug to a depth of ten feet or less with a diameter greater than ten feet in which water is sought or encountered.

(85) "Suspension" means the temporary removal of the privilege to construct wells under an existing license for a period of time not to exceed one year.

(86) "System Interlock" means an interlocking mechanism used to link irrigation pumps and chemical injection units, other pumps or supply tanks so designed that in the event of irrigation pump malfunction or failure, shutdown of the chemical injection units will occur. (Back-siphon prevention)

(87) "Tremie Pipe": See Grout Pipe.

(88) "Unconsolidated Formation" means naturally occurring, loosely cemented, or poorly indurated materials including clay, sand, silt, and gravel.

(89) "Upper Drillhole" means that part of the well bore extending from land surface to the bottom of the surface seal interval.

(90) "Violation" means an infraction of any statute, rule, standard, order, license, compliance schedule, or any part thereof and includes both acts and omissions.

(91) "Water Level": See Static Water Level.

(92) "Water Table" means the upper surface of an unconfined water body, the surface of which is at atmospheric pressure and fluctuates seasonally. The water table is defined by the levels at which water stands in wells that penetrate the water body (see Figure 21).

(93) "Water Supply Well" means a well as defined in OAR 690-200-050 (96) with the exception of Monitoring Wells as regulated in OAR 690-240. (See Well)

(94) "Water Well Constructor" means any person who has a current, effective water well constructor license issued in accordance with ORS 537.747(3).

(95) "Water Supply Well Drilling Machine" means any power-driven driving, jetting, percussion, rotary, boring, digging, augering machine, or other equipment used in the construction or alteration of water supply wells.

(96) "Well" means any artificial opening or artificially altered natural opening, however made, by which groundwater is sought or through which groundwater flows under natural pressure, or is artificially withdrawn or injected. This definition shall not include a natural spring, or wells drilled for the purpose of exploration or production of oil or gas. Prospecting or exploration for geothermal resources as defined in ORS 522.005 or production of geothermal resources derived from a depth greater than 2,000 feet as defined in ORS 522.055 is regulated by the Department of Geology and Mineral Industries.

[ED. NOTE: The Figure(s) referenced in this rule is not printed in the OAR Compilation. Copies are available from the Water Resources Department.]

Stat. Auth.: ORS 536.090 & 537.505 - 537.795

Hist.: WRD 9, f. & ef. 12-9-77; WRD 9-1978, f. 12-12-78, ef. 1-1-79; WRD 12-1982, f. & ef. 12-14-82; Amended & Renumbered from 690-60-050 & 690-64-000 by WRD 13-1986, f. 10-7-86, ef. 11-1-86; WRD 7-1988, f. & cert. ef. 6-29-88; WRD 21-1990, f. & cert. ef. 12-11-90; WRD 1-1991, f. & cert. ef. 2-8-91; WRD 8-1993, f. 12-14-93, cert. ef. 1-1-94; WRD -1995, f. & cert. ef. 7-1-95

APPENDIX 1

Additional Requirements by Other State Agencies of Oregon In the administration of ORS 537.505 to 537.795, the Director of the Water Resources Department has statutory authority under the provisions of ORS 537.780 "to prescribe and enforce general standards for the construction and maintenance of wells and their casings, fittings, valves, and pumps ..." Other agencies of the state have statutory responsibilities that relate either directly or indirectly to the construction and operation of public water supply systems and their source of water supply. These agencies and their responsibilities are listed as follows:

OREGON HEALTH DIVISION 800 NE Oregon Portland, OR 97232 (serving more than three single residents)	ORS Chapter 448	Municipal water supply systems Public water supply systems. Community water supply systems
BUILDING CODES AGENCY 1535 Edgewater NW Salem, Oregon 97310	ORS Chapter 446	Electrical and Plumbing for all Commercial Enterprises. Mobile home park water supply systems
OREGON PUBLIC UTILITY COMMISSIONER 550 Capitol St NE Salem, OR 97310	ORS Chapter 757	Private owners (water supply systems, 200 homes or more).
DEPARTMENT OF ENVIRONMENTAL QUALITY 811 SW 6th Portland, OR 97204	ORS Chapter 468	Water quality monitoring.
SECRETARY OF STATE CORPORATION DIVISION Business Registry Section Public Service Bldg. 255 Capital St NE Suite 151 Salem, Or. 97310		Business Registry for Water Districts

All wells constructed in Oregon, including those to serve as a source of groundwater to municipal, community, public, or public utility water supply systems, must be constructed in accordance with the rules and regulations prescribing general standards for the construction and maintenance of wells in Oregon (OAR 690 Divisions 205, 210, 215 and 220). Additional construction standards for water supply systems are required by the above listed agencies. Such rules and regulations generally include the source of water supply to the systems and may affect well construction requirements. Copies of the various agency rules may be obtained by contacting the responsible agency. Well constructors planning to construct a well as a source of water supply for any of the above systems are requested to contact the responsible agency prior to the beginning of well construction.

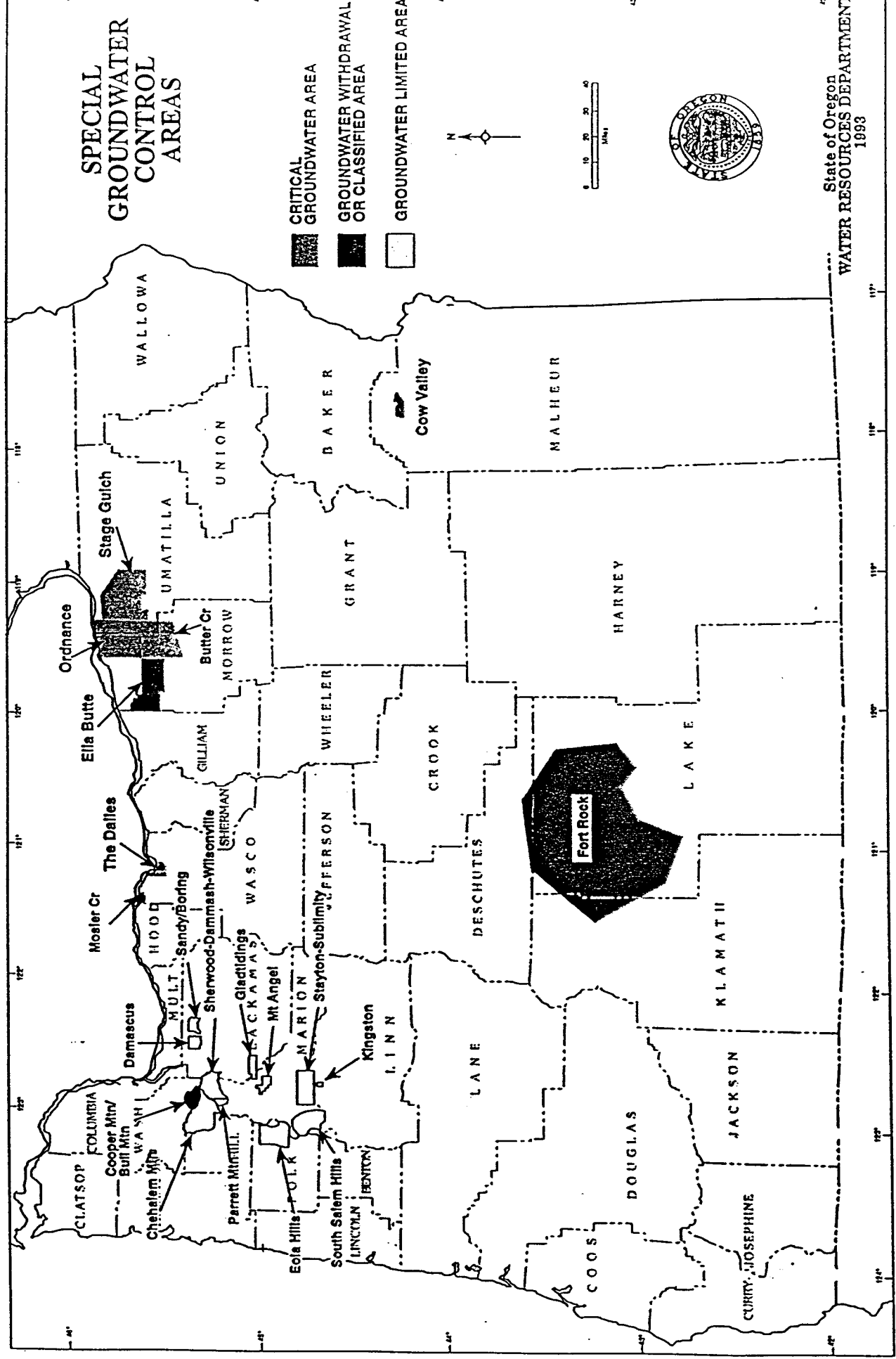
TABLE VI
(OAR 690-200, 205 and 240)

Watermaster Office Fax Numbers

District	Watermaster	Fax Number
01	St. Helens	397-7257
02	Eugene	687-3804
03	The Dalles	298-3574
04	Canyon City	575-2248
05	Pendleton	278-0287
06	La Grande	963-9637
08	Baker City	523-8201
09	Vale	473-5130
10	Burns	573-8311
11	Bend	388-5101
12	Lakeview	947-6015
14	Grants Pass	474-5389
15	Roseburg	440-6264
16	Salem	378-6203
17	Klamath Falls	885-3324
18	Hillsboro	693-4887
19	Coquille	396-6233

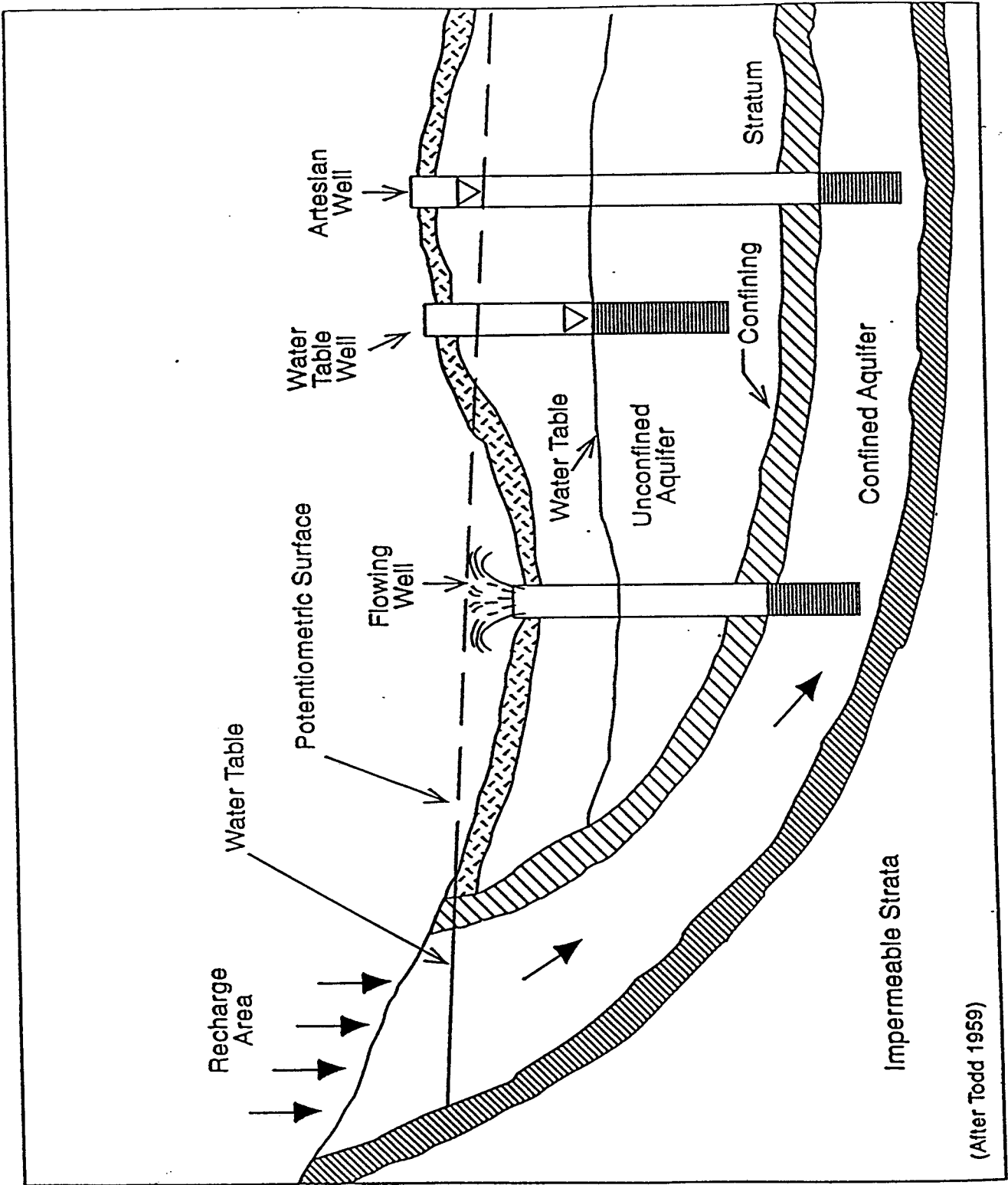
Notes:

1. Watermaster fax numbers are subject to change.
2. A current version of this table is available at the Water Resources Department's Salem office.
3. See Figure 22 for a map of Watermaster Districts.



Note: Due to the scale of this map the boundaries of the special groundwater control areas have been generalized. For more accurate maps of these areas contact the Water Resources Department.

Figure 19



(After Todd 1959)