

**Water Resources Department
Chapter 690
Division 8**

STATUTORY GROUND WATER TERMS

690-008-0001

Definition and Policy Statements

A number of terms are used in the statutes, ORS 537.505–537.795, prescribing the management of ground water in Oregon. These rules define terms to qualify and clarify the statutes. In all statutes and rules employed in the management of ground water by the Water Resources Department and Commission, the following definitions shall apply, unless the context requires otherwise:

(1) “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~~a water-bearing body of naturally occurring earth materials that is sufficiently permeable to yield useable quantities of water to wells and/or springs.~~

(2) “Critical Ground Water Area Boundary” means a line established in a critical ground water area order on a map that surrounds an area in which one or more of the statutory criteria for critical area declaration are met and which is located either:

(a) Physically by coincidence with natural features such as ground water reservoir boundaries, hydrologic barriers, or recharge or discharge boundaries; or

(b) Administratively by surrounding an affected area when that area does not coincide with an area bounded by natural features.

(3) “Customary Quantity” means the rate or annual amount of appropriation or diversion of water ordinarily used by an appropriator within the terms of that appropriator’s water right.

(4) “Declined Excessively” means any cumulative lowering of the water levels in a ground water reservoir or a part thereof which:

(a) Precludes, or could preclude, the perpetual use of the reservoir; or

(b) Exceeds the economic pumping level; or

(c) Constitutes a decline determined to be interfering with:

(A) A surface water diversion having a priority date senior to the priority dates of the causative ground water appropriations; or

(B) A surface water body that has been administratively withdrawn with an effective date senior to the priority dates of the causative ground water appropriations unless the causative ground water appropriations are for uses that are exceptions to the withdrawals; or

(C) An adopted minimum stream flow or instream water right, or closure having an effective date senior to the priority dates of the causative ground water appropriations; or

(D) A surface water body which has a classification that is senior to the priority date of the causative ground water appropriation(s) and the use or uses to which the ground water is being put are not included in the classification.

(d) Constitutes a lowering of the annual high water level within a ground water reservoir, or part thereof, greater than 50 feet below the highest known water level; or

(e) Results in ground water pollution; or

(f) Constitutes a lowering of the annual high water level greater than 15% of the greatest known saturated thickness of the ground water reservoir. the saturated thickness shall be calculated using pre-development water levels and the bottom of the ground water reservoir, or the economic pumping level, whichever is shallower.

(5) “Declining Groundwater Levels” means that water levels do not meet the definition of “reasonably stable” as defined in OAR 690-008-0001.

(56) “Economic Pumping Level” means the level below land surface at which the per-acre cost of pumping equals 70 percent of the net increase in annual per-acre value derived by irrigating. (The value is to be calculated on a five year running average of the per-acre value of the three, if there are that many, prevalent irrigated crops in the region minus the five year running average of the per-acre value of the three, if there are that many, prevalent regional non-irrigated crops.)

(67) “Excessively Declining Water Levels” (Note: “Excessively” as used in ORS 537.730(1)(a) is taken to modify both “are declining” and “have declined”) means any ongoing lowering of the water level in a ground water reservoir or part thereof which:

(a) Precludes, or could preclude, the perpetual use of the reservoir; or

(b) Represents an average downward trend of three or more feet per year for at least 10 years; or

(c) Represents, over a five year period, an average annual lowering of the water level by 1% or more of the initial saturated thickness as determined by observation or investigation in the affected area; or

(d) Results in water quality deterioration.

(8) “Impairment”, “impair”, “substantial interference”, “substantially interfere”, “undue interference”, or “unduly interfere” means the spreading of the cone of depression of a well to intersect a surface water source or another well, or the reduction of the ground water gradient and flow as a result of pumping, which contributes to:

(a) Depletion of a surface water source that:

(A) ~~(A)~~ is already over-appropriated during any month of the year;

(B) is administratively or statutorily withdrawn;

(C) is the source for one or more existing surface water rights that have been regulated off due to insufficient supply to satisfy senior surface water rights or is subject to a rotation agreement to address limited surface water supplies;

(D) has a minimum perennial streamflow or instream water right that is not met during any time of the year.

(b) The ground water level being drawn down to the economic level of the senior appropriator(s); or

(c) One or more of the senior ground water appropriators being unable to obtain either the permitted or the customary quantity of ground water, whichever is less, from a reasonably efficient well that fully penetrates the aquifer where the aquifer is relatively uniformly permeable. However, in aquifers where flow is predominantly through fractures, full penetration may not be required as a condition of substantial or undue interference.

(79) “Overdraw” means to means to pump or otherwise extract groundwater from an aquifer or groundwater reservoir when artificially produce water, in any one-year period, from a ground water reservoir, or part thereof, at an annual rate that:

(a) Groundwater levels are not reasonably stableExceeds the average annual recharge to that ground water supply over the period of record; or,

(b) The use of groundwater by existing water rights already contributes to the further depletion of surface waters that are Reduces surface water availability resulting in:

(A) One or more senior appropriators being unable to use either their permitted or customary quantity of surface water, whichever is less; or

(B) Failure to satisfy an adopted minimum streamflow or instream water right with an effective date senior to the causative ground water appropriation(s).

(c) Reduces the availability of surface waters that have been:

(A) Over-appropriated during any month of the year; or

(B) Administratively or statutorily withdrawnWithdrawn with an effective date senior to the priority dates of the causative ground water appropriations; or

(CB) Restrictively classified with an effective date senior to the priority date(s) of the causative ground water appropriations.

(10) “Reasonably Stable Water Levels” means an annual spring static water level decline of less than one foot, and the water level change averaged over ten consecutive years displays no decline, except as otherwise defined in a basin program rule adopted pursuant to the Commission’s authority in ORS

536.300 and 536.310, which definition may be no less stringent than the definition of declining excessively or excessively declined in OAR 690-008-0001.

~~(8) “Substantial or Undue Interference” means the spreading of the cone of depression of a well to intersect a surface water body or another well, or the reduction of the ground water gradient and flow as a result of pumping, which contributes to:~~

~~(a) A reduction in surface water availability to an extent that:~~

~~(A) One or more senior surface water appropriators are unable to use either their permitted or customary quantity of water, whichever is less; or~~

~~(B) An adopted minimum streamflow or instream water right with an effective date senior to the causative ground water appropriation(s) cannot be satisfied.~~

~~(b) The ground water level being drawn down to the economic level of the senior appropriator(s); or~~

~~(c) One or more of the senior ground water appropriators being unable to obtain either the permitted or the customary quantity of ground water, whichever is less, from a reasonably efficient well that fully penetrates the aquifer where the aquifer is relatively uniformly permeable. However, in aquifers where flow is predominantly through fractures, full penetration may not be required as a condition of substantial or undue interference.~~

~~(911)~~ “Substantial Thermal Alteration” means any change in water temperature of a groundwater reservoir, or a part thereof, which:

(a) Precludes, or could preclude, the perpetual heating or cooling use of the groundwater reservoir; or

(b) Constitutes a change in the mean annual temperature within a groundwater reservoir, or part thereof, greater than 25 percent of the highest recorded naturally occurring Celsius (C) temperature.

~~(1012)~~ “Substantial Thermal Interference” means the spreading of the radius of thermal impact of a low-temperature geothermal production well or low-temperature geothermal injection well to intersect a surface water body or another well, or the reduction of temperature or heat flow as a result of pumping or injection, which contributes to change in groundwater or surface water temperature to an extent that one or more senior appropriators of the low-temperature resource are unable to use water for the purpose(s) designated in the associated water right.

~~(1113)~~ “Wasteful Use (of ground water)” means any artificial discharge or withdrawal of ground water from an aquifer that is not put to a beneficial use described in a permit or water right, including leakage from one aquifer to another aquifer within a well bore.

Statutory/Other Authority: ORS 537

History:

WRD 18-1990, f. & cert. ef. 12-14-90

WRD 21-1988, f. & cert. ef. 12-14-88