

# Chapter 173-154 WAC

## PROTECTION OF UPPER AQUIFER ZONES

### WAC

173-154-010	Background.
173-154-020	Purpose.
173-154-030	Authority.
173-154-040	Definitions.
173-154-050	Protection of upper aquifer zones.
173-154-060	Inspections and tests.
173-154-070	Rehabilitation of withdrawal facilities.
173-154-080	Deepening of withdrawal facilities.
173-154-090	Applicability.
173-154-095	Enforcement.
173-154-100	Appeals.
173-154-105	Regulation review.
173-154-110	Existing laws and regulations not affected.

**WAC 173-154-010 Background.** In many parts of the state groundwater aquifers exist at various depths below land surface. Such aquifers or groups of such aquifers may demonstrate a natural hydraulic separation to a significant degree over local or regional areas as evidenced, in part, by differing hydraulic heads and variable responses to pumping stress. The upper aquifer or upper aquifer zone often will not yield water in sufficient or sustainable quantities for uses which require a large volume of water. Therefore, they have often been traditionally used for domestic water supplies, stockwatering and other uses that require only minimal water supplies and for which it is not cost effective to tap deeper aquifers. Further, the uppermost aquifers also commonly contribute to spring and stream flows. In some cases, the withdrawal of water from the lower aquifers causes the depletion of the upper aquifers through cascading waters or simultaneous withdrawals from both upper and lower aquifers, and in such cases, poor quality waters from one zone can also contaminate a different aquifer zone.

[Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-010, filed 5/29/85.]

**WAC 173-154-020 Purpose.** The purpose of this chapter is to establish and set forth the policies and procedures of the department of ecology in regard to the protection of the occurrence and availability of groundwater within the upper aquifers or upper aquifer zones where there are multiple aquifer systems. Consistent therewith, the department shall manage the state's groundwater resources in a manner that protects, to the extent practicable, the upper aquifers of multiple aquifer systems from depletions, excessive water level declines or reductions in water quality, and which recognizes that the highest and best use of the waters of limited capacity aquifers may be for domestic, stockwater and other similar uses and for the preservation of spring and stream flows.

[Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-020, filed 5/29/85.]

**WAC 173-154-030 Authority.** This chapter is promulgated by the department of ecology pursuant to chapters 18.104, 43.21A, 90.44 and 90.54 RCW.

(6/9/88)

[Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-030, filed 5/29/85.]

**WAC 173-154-040 Definitions.** For the purposes of this chapter the following definitions shall apply:

(1) "Department" means the Washington state department of ecology.

(2) "Groundwater right" means an authorization to use groundwater established pursuant to chapter 90.44 RCW, state common or statutory law existing prior to the enactment of chapter 90.44 RCW, or federal law.

(3) "Withdrawal facilities" means and includes any well, infiltration trench or other excavation that is drilled, cored, bored, washed, driven, dug, jetted or otherwise constructed, together with the casing, screen, pump, pump column, motor and related equipment which is used for the withdrawal of groundwater.

(4) "Aquifer" means any geologic formation that will yield water to a well or other withdrawal facilities in sufficient quantity for beneficial use.

(5) "Groundwater" means all waters that exist beneath the land surface or beneath the bed of any stream, lake or reservoir, or other body of surface water, whatever may be the geological formation or structure in which such water stands or flows, percolates or otherwise moves.

(6) "Multiple aquifer system" means any geologic formation(s) which contains distinct aquifers at different depths that exhibit a significant degree of local or regional hydraulic separation.

(7) "Upper aquifer zone" means all aquifers within a multiple aquifer system lying between the land surface and a depth or geologic formation, as determined by the department consistent with the purposes of this chapter, or as set forth in the groundwater subarea management program for the area, if one exists.

(8) "Lower aquifer zone" means any aquifers occurring at a depth below the upper aquifer zone, as determined by the department, or as set forth in the groundwater subarea management program for the area, if one exists.

(9) "Cascading waters" means any groundwaters which fall or flow through a well or other withdrawal facilities, from one groundwater aquifer to another.

(10) "Rehabilitation of withdrawal facilities" means the work necessary to reconstruct or modify existing withdrawal facilities in order to bring them into conformance with applicable laws, regulations, permit or certificate provisions and orders of the department.

[Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-040, filed 5/29/85.]

**WAC 173-154-050 Protection of upper aquifer zones.** In any multiple aquifer system, where the department determines that the uppermost aquifers or upper aquifer zone will

[Ch. 173-154 WAC—p. 1]

not sustain large volume groundwater withdrawals without exceeding the safe sustaining yield or causing (1) adverse effects to existing water rights, (2) an unreasonable drop in the water table, (3) permanent damage to the aquifer through depletion of the aquifer or zone, (4) an impairment of the beneficial use of the groundwaters arising from a modification of the water quality, or (5) depletions of spring or stream flows, the department shall require new or additional large volume withdrawals to be restricted to a lower aquifer zone. Permits for withdrawals of water from such lower aquifer zones may specify an approved manner of construction of the withdrawal facilities, including but not limited to, a minimum and maximum well depth, specific casing and sealing requirements, and the construction of monitoring wells for the purpose of periodic measurements in areas where the aquifers cannot be readily monitored through the use of existing wells.

[Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-050, filed 5/29/85.]

**WAC 173-154-060 Inspections and tests.** The department may require inspections and/or tests of withdrawal facilities prior to their use in order to ensure compliance with any construction requirements imposed by the department pursuant to this chapter. Such inspections and tests shall be performed at the expense of the holder of the permit, except that there shall be no charge for any portions of such tests or inspections which are performed by department employees. If it is the determination of the department that the facilities are not properly constructed or that the facilities may adversely affect the upper aquifers or upper aquifer zone, the department may (1) require further construction and/or testing of the facilities, or (2) require abandonment of the facilities in accordance with chapter 173-160 WAC, or (3) revoke the permit.

[Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-060, filed 5/29/85.]

**WAC 173-154-070 Rehabilitation of withdrawal facilities.** The department may require the rehabilitation of existing withdrawal facilities if it finds that the facilities were not constructed or are presently not in accordance with the permit provisions, if any, or the applicable laws and regulations of the department which were in effect at the time of construction of the facilities, and that the withdrawal of waters from such facilities will adversely affect the upper aquifers or upper aquifer zone. The department shall allow a reasonable period for completion of such rehabilitation.

[Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-070, filed 5/29/85.]

**WAC 173-154-080 Deepening of withdrawal facilities.** At any time that the holder of a valid groundwater right proposes to deepen a withdrawal facility, the modification of the facility shall be made in such a manner as to preclude the occurrence of cascading waters. Such a facility shall not be deepened to tap a different body of public groundwater, or a different aquifer zone where such zones have been determined by the department, without further appropriate authorization from the department.

[Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-080, filed 5/29/85.]

[Ch. 173-154 WAC—p. 2]

**WAC 173-154-090 Applicability.** The provisions of this chapter shall apply to all groundwater rights under state jurisdiction, except that WAC 173-154-050 and 173-154-060 shall apply only to permits issued or other groundwater rights established subsequent to the effective date of this chapter and to withdrawal facilities which are the subject of an application for change of water right filed pursuant to RCW 90.44.100 subsequent to the effective date of this chapter.

[Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-090, filed 5/29/85.]

**WAC 173-154-095 Enforcement.** In enforcement of this chapter, the department of ecology may impose such sanctions as are appropriate under authorities vested in it, including but not limited to the issuance of regulatory orders under RCW 43.27A.190 and civil penalties under RCW 90.03.600.

[Statutory Authority: Chapters 43.21A, 43.27A, 90.03 and 90.44 RCW. 88-13-037 (Order 88-11), § 173-154-095, filed 6/9/88.]

**WAC 173-154-100 Appeals.** All final written decisions of the department of ecology pertaining to permits, regulatory orders, and related decisions made pursuant to this chapter shall be subject to review by the pollution control hearings board in accordance with chapter 43.21B RCW.

[Statutory Authority: Chapters 43.21A, 43.27A, 90.03 and 90.44 RCW. 88-13-037 (Order 88-11), § 173-154-100, filed 6/9/88. Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-100, filed 5/29/85.]

**WAC 173-154-105 Regulation review.** The department of ecology shall initiate a review of the rules established in this chapter whenever new information, changing conditions, or statutory modifications make it necessary to consider revisions.

[Statutory Authority: Chapters 43.21A, 43.27A, 90.03 and 90.44 RCW. 88-13-037 (Order 88-11), § 173-154-105, filed 6/9/88.]

**WAC 173-154-110 Existing laws and regulations not affected.** Nothing in this chapter shall be construed to limit in any manner the authority of the department to administer and enforce the existing water resources laws of the state, including but not limited to chapters 18.104, 90.03, 90.36, 90.44, 90.48 and 90.54 RCW, and regulations promulgated thereunder.

[Statutory Authority: Chapters 90.44 and 90.54 RCW. 85-12-018 (Order 84-45), § 173-154-110, filed 5/29/85.]