



SUPPLEMENTAL APPLICATION

HYDROGEOLOGIC REVIEWS

(November - 2010)

APPLICANT INFORMATION

Name _____ Telephone _____

Date _____ E-mail _____

WHAT IS A HYDROGEOLOGIC REVIEW?

A professionally-prepared report providing sufficient analysis regarding the geology and hydrogeology of an area in the immediate vicinity of a proposed development, specified in Subsection 1006.05B of the ZDO, proposing to use an exempt-use well(s) as a water source. The purpose is to determine compliance with Subsections 1006.05B (1-3) of the ZDO:

- 1) That the subject aquifer is capable of sustaining the proposed development with sufficient potable water;
- 2) That the proposed development is not likely to unreasonably interfere with existing wells; and
- 3) That the proposed development is not likely to contribute to the overdraft of the affected aquifer.

WHO PREPARES THE REVIEWS?

Hydrogeologic reviews would typically be prepared by State-licensed geologists with specialized training and experience in hydrology.

AREA OF APPLICATION

The requirements of Subsections 1006.05 (B-E) apply to all subdivisions located outside of the Portland Metropolitan Urban Growth Boundary and all partitions, subdivisions, commercial, industrial and institutional development within a Sensitive Groundwater Area proposing to use an exempt-use well(s). (See Subsection 1006.05B of the ZDO). NOTE: Any proposed subdivision of 11 or more lots shall be served by a single public or community water source in which case a Hydrogeologic Review is not required. (See Subsection 1006.05H).

REVIEW PROCESS:

A Hydrogeologic Review shall be submitted concurrently with an application for partition, subdivision, or new commercial, industrial or institutional development when required pursuant to Subsection 1006.05B of the ZDO. All Hydrogeologic Reviews will be peer-reviewed by a qualified professional contracted by the County to examine the Reviews to ensure that the requirements of Subsection 1006.05C have been satisfied, study procedures and assumptions are generally accepted and that all conclusions and recommendations are supported and reasonable. (see Subsection 1006.05D). The peer-reviewer's findings will be used by staff in the review and decision on the proposed development.

STAFF WILL ATTACH THE FOLLOWING PERTINENT INFORMATION

Section 1006 of ZDO	Hydrogeologic Review Report Preparation Guidance Document

HOW LONG WIL IT TAKE TO RECEIVE A FINAL DECISION ON AN APPLICATION?

Processing time is dependent upon existing workload at the time of application. Decisions on your application may take from 6 to 10 weeks to process. A final County decision must be made, inclusive of any potential appeals to the Hearings Officer, within 120 days if in the UGB and 150 days if outside the UGB.

COMPLETE APPLICATIONS FOR DEVELOPMENTS REQUIRING HYDROGEOLOGIC REVIEWS PURSUANT TO SUBSECTION 1006.05B REQUIRE THE FOLLOWING IN ADDITION TO THE FORMS AND SUBMITTAL REQUIREMENTS FOR THE SPECIFIC APPLICATION TYPE PROPOSED:

1. Supplemental Application – Information requested on this form.
2. Application Fee: \$_____ (*Fee is nonrefundable upon decision or staff report; partial refund if withdrawn after notice; full refund if withdrawn prior to notice.*)
3. Peer Review Deposit: \$_____ (*This is a deposit; additional fees may be required prior to final approval of your application based upon the actual cost of the review; if costs are less, a refund may be due.*)
4. Hydrogeologic Review: See submittal requirements in Subsection 1006.05C of the ZDO (See Attached)

SECTION 1006 – ZDO 222: GROUNDWATER ORDINANCE

GENERAL INFORMATION

Effective Date: August 18, 2010

Area of Applicability: Outside the Portland Metropolitan Urban Growth Boundary (PMUGB) and Mt. Hood Urban Area. See amended Section 1006 of the ZDO.

Applies to the following types of land divisions/development proposing to use an exempt-use (not needing a permit from the state) well or wells for potable water:

- All proposed subdivisions (land divisions resulting in four or more lots); and
- All proposed land divisions (two or more lots) and new commercial, industrial or institutional development located *inside* a Sensitive Groundwater Area (SGA). An SGA is an area that has been identified by the State of Oregon as a groundwater limited area, critical groundwater area or other area where new groundwater appropriations are restricted by the State.

Requirements: See amended Section 1006 of the ZDO. Prior to land use approval from the Planning Department, development meeting the criteria above will be required to provide a hydrogeologic review report demonstrating that:

- The subject aquifer is capable of sustaining the proposed development;
- The proposed development is not likely to unreasonably interfere with existing wells; and
- The proposed development is not likely to contribute to the overdraft of the aquifer.

The hydrogeologic report will be peer-reviewed by a consultant selected by the county. More specific requirements for the report can be found in Section 1006 of the Clackamas County Zoning and Development Ordinance (ZDO). A guidance manual will also be available to the public on the effective date of the ordinance.

Additional Provisions & Information: Additional provisions in ZDO Section 1006 require:

- Proof of proper well abandonment, where applicable;
- A statement in the final plat for any land division within an SGA that acknowledges there is no guarantee of a sustained water supply and the County is not responsible for deepening or replacing wells; and
- All new subdivisions of 11 or more lots are to be served by a public or community water source.

1006.04 DEFINITIONS (8/18/10)

Unless specifically defined in Subsection 1006.04, words or phrases used in Section 1006 shall be interpreted to give them the same meaning as they have in common usage and to give Section 1006 its most reasonable application. (8/18/10)

- A. “Aquifer” means a layer of rock or alluvial deposit which holds water. (8/18/10)
- B. “Development permit” means any county partition or subdivision approval; approval of commercial, institutional or industrial development; or residential building or manufactured dwelling placement permit, including any land-use decision, as defined in ORS 197.015, required by this ordinance to be made prior to issuance of the residential building or manufactured dwelling placement permit. (8/18/10)
- C. “Exempt-use well” means a well from which groundwater is used as defined in ORS 537.545(1) as amended. (8/18/10)
- D. “Groundwater” means any water, except capillary moisture, beneath the land surface or beneath the bed of any stream, lake, reservoir or other body of surface water, whatever may be the geological formation or structure in which such water stands, flows, percolates or otherwise moves. (8/18/10)
- E. “Permitted well” means a well from which the intended use of water requires a registration, certificate of registration, application for a permit, permit, certificate of completion or groundwater right certificate under ORS 537.505 to 537.795 and 537.992. (8/18/10)
- F. “Sensitive Groundwater Area” means any area classified by the State of Oregon as a groundwater limited area, critical groundwater area or other area where new groundwater appropriations are restricted by the State of Oregon. (8/18/10)
- G. “Unreasonably interfere” means a proposed development will result in one or more 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 finding substantial or undue interference, (8/18/10)

1006.05 WATER SUPPLY STANDARDS OUTSIDE THE PORTLAND METROPOLITAN URBAN GROWTH BOUNDARY AND MOUNT HOOD URBAN AREA. (8/18/10)

The provisions of this section apply outside the Portland Metropolitan Urban Growth Boundary and the Mount Hood urban area. (8/18/10)

- A. Applicants for any development permit shall specify a lawful water source for the proposed development, such as a public or community water system, certificated water right or exempt-use well. (8/18/10)

- B. All subdivisions outside of the Portland Metropolitan Urban Growth Boundary proposing to use an exempt-use well or wells and all land divisions, and new industrial, commercial or institutional development located within a Sensitive Groundwater area and proposing to use an exempt-use well or wells must affirmatively demonstrate: (8/18/10)
 - 1. That the subject aquifer is capable of sustaining the proposed development with sufficient potable water. (8/18/10)
 - 2. That the proposed development is not likely to unreasonably interfere with existing wells. (8/18/10)
 - 3. That the proposed development is not likely to contribute to the overdraft of the affected aquifer. (8/18/10)

- C. Unless waived by the Planning Director, an applicant for any proposed development subject to ZDO § 1006.05(B) shall submit a hydrogeologic review with the subject application. The purposes of a hydrogeologic review are to provide information and professional analysis regarding the geology and hydrogeology of the area in the immediate vicinity of the proposed development for the County to determine compliance with ZDO § 1006.05(B) (1) – (3). Study findings, maps, and conclusions shall be presented in a clear and understandable report. (8/18/10)
 - 1. A hydrogeologic review report shall include sufficient evidence and analysis to demonstrate compliance with ZDO 1006.05B, and at a minimum, shall include the following information: (8/18/10)
 - a. A map showing all lots and parcels within at least one-quarter mile of the proposed development; (8/18/10)
 - b. The location, as determined by publicly available information, of all known wells on all lots or parcels within at least one-quarter mile of the proposed development, and the quantity of water permitted to be used; (8/18/10)
 - c. The estimated use of groundwater within at least one-quarter mile of the proposed development, including but not limited to, 400 gallons/day of household use for each lot and parcel, 2,000 gallons/day for lawn and landscape irrigation from June through September, and water use from permitted wells. The estimated use of groundwater shall include any development or tentative land division which has been approved by the county, and shall assume development of a single-family residence on each undeveloped lot or parcel. (8/18/10)
 - d. The quantity of water the proposed land use will utilize. If the proposal is for residential use, water use shall be calculated as

400 gallons/day per household and 2000 gallons/day for lawn and landscape irrigation from June through September. If the proposal is for a land division for residential purposes, all proposed lots or parcels shall be included in the calculation, and the calculation shall assume that the remainder of the tract will be developed at its allowed density. (8/18/10)

- e. Identification of aquifers in the area of the subject property; (8/18/10)
 - f. Compilation and review of available geologic and hydrogeologic studies of the review area; (8/18/10)
 - g. Compilation and evaluation of available well deepening and replacement well information in the review area; (8/18/10)
 - h. Compilation and analysis of existing geologic information, including representative well logs, physical location of representative wells, and an evaluation of the local stratigraphy and geologic structure in the review area; (8/18/10)
 - i. Compilation and analysis of existing and available water level and pump test information including evaluation of long-term stability and sustainability of groundwater levels (heads); and (8/18/10)
 - j. Interpretation of the information gathered for subsections (1)(a) through (i) of this section, including preparation of geologic and hydrogeologic maps and cross sections necessary to support and/or illustrate the interpretation. (8/18/10)
2. A hydrogeologic review shall conclude that there is sufficient information to demonstrate compliance with ZDO §1006.05B, and may need to be based on draw down tests or other physical measurements where necessary. (8/18/10)
3. The Planning Director may, at the Director's discretion, allow an applicant to modify the water use assumptions used in the hydrogeologic review where an applicant proposes enforceable water conservation and/or reuse measures, including but not limited to: (8/18/10)
- a. Gray water use; (8/18/10)
 - b. Water conserving appliances and fixtures; (8/18/10)
 - c. Landscaping with drought resistant plants; or (8/18/10)
 - d. Rainwater harvest and/or the use of cisterns. (8/18/10)
- To be deemed enforceable, any conservation or reuse measure must be approved by County Counsel. (8/18/10)

- D. All reviews and plans required by this Section shall be reviewed by a qualified professional of the County's choice during the development review process. Such review shall include examination to ensure required elements have been

completed, study procedures and assumptions are generally accepted, and all conclusions and recommendations are supported and reasonable. (8/18/10)

- E. Outside of Sensitive Groundwater Areas, the Planning Director may, at the Director's discretion, waive some or all of the requirements for a hydrogeologic review where an applicant demonstrates through well logs or other evidence that the specified information is not necessary to determine compliance with ZDO 1006.05B. (8/18/10)
- F. Water service for partitions and subdivisions shall be provided according to the provisions of ORS 92.090. When no water is to be provided by a public or community water system, there shall be a note on the final plat indicating that no public water service is being provided, in addition to the filing and disclosure requirements of ORS 92.090. (8/18/10)
- G. Approved land divisions at densities requiring public water service shall include a note on the final plat indicating public water service is required for development. (2/10/94)
- H. For any subdivision of 11 lots or more, all lots shall be served by a single public or community water source. (8/18/10)