



Guidelines for Determining Water Availability for New Buildings

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GUIDELINES FOR DETERMINING WATER AVAILABILITY FOR NEW BUILDINGS

EXECUTIVE SUMMARY

The following guidelines are intended to assist local governments with the implementation of RCW 19.27.097, the requirement that building permit applicants provide proof of an adequate supply of potable water. The three means of proof specified in the statute are: 1) a water right permit from the Department of Ecology, 2) a letter from an approved purveyor stating the ability and willingness to provide water, and 3) another form (such as the water availability notification suggested here) sufficient to verify the existence of an adequate water supply.

The Departments of Ecology and Health will notify local permitting authorities if they know of potential problems with water sources and supplies. Local governments with concerns about a particular source or type of source may request participation in Ecology's water right permitting process.

Individual water supplies may be considered adequate if they can supply 400 gallons per day of potable water for building use, including limited irrigation. Local authorities are encouraged to adopt aggressive water conservation programs.

Use of water from surface water sources is generally discouraged but, if a surface water source is used, that use must be authorized by a water right permit and the water treated to meet potability criteria. Other conditions may need to be met to ensure the continuing adequacy of the supply for current and future water users.

Ground water from wells provides a more desirable source for individual water supplies. Larger ground water uses must be authorized by a water right permit. New and existing wells should also be tested to ensure that suitable quantities of potable water are available. Based upon test results, treatment and other conditions on use may be merited.

Individuals may obtain water from alternative sources of supply provided that they secure water right permits, when required, and based upon locally developed waivers which provide for the protection of the public health and safety.

Counties may propose areas where individual water systems would be exempted from the provisions of RCW 19.27.097 and the guidelines. Counties interested in pursuing such exemptions should work cooperatively with Ecology and Health to determine if an area qualifies. If agreement cannot be reached, the Department of Community Development may be asked to mediate and, for counties which are not planning under the Growth Management Act (Chapter 36.70A RCW), make a determination.

Public water systems are already regulated by the Department of Health. Local permitting authorities need to verify that expansions of public water systems comply with local comprehensive plans, regulations and ordinances as well as the state water code and the State Board of Health Drinking Water Regulations.

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Section 1. PURPOSE. The purpose of these guidelines is to assist local governments in implementation of the provisions of RCW 19.27.097. Local governments would be best served by developing their own ordinances incorporating those portions of these guidelines which best reflect the circumstances which occur within their jurisdictions.

Section 2. DEFINITIONS. As used in these guidelines:

- (1) "Approved water purveyor" means a water purveyor whose public water system is in compliance with the state surface and ground water codes (Chapters 90.03 and 90.44 RCW) and is in substantial compliance with the State Board of Health Drinking Water Regulations as determined by either the Department of Health or the local health authority.
- (2) "Ground water" means all waters that exist beneath the land surface or beneath the bed of any stream, lake or reservoir, or any other body of surface water within the boundaries of the state, as defined in RCW 90.44.035.
- (3) "Group A public water system" means a system:
 - (a) With fifteen or more service connections, regardless of the number of people; or
 - (b) Serving an average of twenty-five or more people per day for sixty days within a calendar year, regardless of the number of service connections. (NOTE: The State Board of Health regulations, Chapter 246-290 WAC, has a more extensive definition.)
- (4) "Group B public water system" means a public water system which is not a Group A water system. This would include a water system with fewer than fifteen service connections and serving:
 - (a) An average of fewer than twenty-five people for sixty or more days within a calendar year; or
 - (b) Any number of people for fewer than sixty days within a calendar year.
- (5) "Ground water under the direct influence of surface water" means ground water which has:
 - (a) Significant occurrence of insects or other macroorganisms, algae, or large-diameter pathogens such as *Giardia lamblia*, or
 - (b) Significant and relatively rapid shifts in water characteristics such as turbidity, temperature, conductivity, or pH closely correlating to climatological or surface water conditions.
 - (c) For purposes of determining treatment options, the following shall be treated as "ground water under the direct influence of surface water":
 - (i) All water supply wells or sand points where the minimum sealing requirements of the Water Well Construction Standards (Chapter 173-160 WAC) cannot be met.
 - (ii) All water supply wells or sand points which were constructed prior to the adoption of the Water Well Construction Standards (Chapter 173-160 WAC) and exhibit any or all of the characteristics identified in subsections (5)(a) and (5)(b) above.
- (6) "Individual water supply system" means any water supply system which is not subject to the State Board of Health Drinking Water Regulations, Chapter 246-290 WAC. An individual water supply system generally provides water to one single-family residence or, in the case of family farms, four or fewer connections on the same farm.
- (7) "Local permitting authority" means that local agency or department with the responsibility for verifying the adequacy of water supplies prior to the issuance of new building permits.
- (8) "Potable" means suitable for drinking.
- (9) "Public water system" means any system subject to the State Board of Health Drinking Water Regulations, Chapter 246-290 WAC, excluding a system serving only one single-family residence or a system with four or fewer connections all of which serve residences on the same farm, providing piped water for human consumption, including:
 - (a) Any collection, treatment, storage or distribution facilities which are under the control of the purveyor and used primarily in connection with the system, and

- (b) Any collection or pretreatment storage facilities which are not under the control of the purveyor but are primarily used in connection with the system.
- (10) "Registered water right claim" means a statement of the existence of a water right generally vesting prior to 1917 for surface water and 1945 for ground water. The beneficial use of water must have been initiated prior to 1917 for surface water and 1945 for ground water. Evidence must be shown that there has been no relinquishment (cessation of use for five or more years, per RCW 90.14.140).
- (11) "Surface water" means any body of water, whether fresh or marine, flowing or contained in natural or artificial depressions for significant periods of the year, including natural and artificial lakes, ponds, rivers, streams, springs, swamps, marshes and tidal waters.
- (12) "Water purveyor" means any agency or subdivision of the state or any municipal corporation, firm, company, mutual or cooperative association, institution, partnership, or person or any other entity that owns or operates a public water system. It also means the authorized agents of any such entities.

Section 3. GENERAL CRITERIA. An applicant for a building permit for any building necessitating potable water must provide evidence of an adequate water supply for the intended use of the building, *Unless* the proposed building will receive its water from an individual water supply system which is located within an area exempted under Section 5 of these guidelines.

Evidence of an adequate water supply may be in the form of one of the following:

- (1) A water right permit from Ecology. Water right permits are required for all surface water diversions and those ground water withdrawals which are in excess of 5000 gallons per day or where the area of lawn or noncommercial garden to be irrigated is greater than one-half acre. A water right permit establishes the legal availability and right to use water in terms of quantity and priority. Users of 5000 gallons per day or less of ground water are exempted from having to obtain a water right permit by RCW 90.44.050, but are subject to all other pertinent water resources laws and regulations. Applicants alleging rights based upon registered water right claims should be directed to the appropriate regional office of Ecology to verify the existence of the claim and its possible validity. An application for a water right permit is not sufficient proof of an adequate water supply.
- (2) A letter from an approved water purveyor stating the ability and willingness to provide water. The purveyor providing such a letter must be in compliance with the state Surface and Ground Water Codes, Chapters 90.03 and 90.44 RCW, and the state public water supply regulations. For Group A public water systems, adequacy criteria are contained in Chapter 246-294 WAC, Drinking Water Operating Permits. Similar criteria should be used for determining the adequacy of Group B public water systems.
- (3) A water availability notification filed by the applicant verifying that potable water is available in the amount necessary for the purposes of the building. Such a notification must be accompanied by any supporting documentation required by the local permitting authority. The basic documentation which may be required is described in Section 4 of these guidelines.
- (4) Exceptions:
 - (a) Buildings which do not require potable water are not subject to the provisions of RCW 19.27.097 or these guidelines.
 - (b) Replacement structures or improvements or additions to buildings which will not result in an increase in the water usage of the building generally need not be subject to the provisions of these guidelines, except local permitting authorities with concerns about the adequacy of existing systems may choose to review all building permit applications.
- (5) Ecology regional offices will notify local permitting authorities about areas where water is no longer available for appropriation or areas where Ecology is investigating problems concerning water availability. The local permitting authority must consider this information before proceeding with issuance of additional building permits within such an area.
- (6) Regional drinking water operations offices of Health will notify local permitting authorities about areas where the water supplies are of such poor quality that they should not be used for

domestic water supply without treatment. The local permitting authority must consider to this information before proceeding with issuance of additional building permits within such an area.

(7) A local permitting authority with concerns about a water source or type of water source the use of which requires a water right permit may participate in Ecology's water right permitting process. Upon receipt of a written request from the appropriate local legislative body, Ecology will.

(a) Refer applicants for permits proposing to use water from that source or type of source to the appropriate local permitting authority for consultation prior to processing the application.

(b) Provide copies of applications for permits to use water from that source or type of source to the local permitting authority for review and comment prior to making a decision on the application.

Section 4. INDIVIDUAL, WATER SUPPLY SYSTEMS.

(1) A water supply for a building which requires potable water, including some limited irrigation, may be considered to be adequate if it:

(a) Is capable of providing water to a residential dwelling in the amount of 400 gallons per day. If additional uses of the same water source are contemplated, the local permitting authority should determine the amount necessary to satisfy those additional uses at the time of evaluating the adequacy of the supply. Consideration should be given to a program of aggressive water conservation, including effective implementation of the Water Conservation Performance Standards (Uniform Plumbing Code amendments for plumbing fixtures and fittings).

(i) If a source appears to be only marginally adequate, either in terms of quantity yielded or quality of the water, the local permitting authority may wish to attach a note to the property title advising future owners of that fact.

(ii) The local permitting authority may require additional testing at the time of resale of the property to verify the continued adequacy of the water supply.

(b) Meets any and all siting criteria established by state regulations and local ordinances, and is constructed in compliance with state and local regulations.

(c) Does not cause any detrimental interference with existing water rights and is not detrimental to the public interest. Investigation and identification of well interference problems and impairment to senior rights is the responsibility of Ecology. If the possibility of a problem is suspected, the local permitting authority should contact Ecology.

(2) Systems which obtain water from surface water sources.

(a) The use of surface water sources for individual water supplies is generally discouraged due to their potential for contamination. For purposes of determining treatment options, surface water as used in this subsection includes ground water which is under the direct influence of surface water, but does not include springs which have been developed to preclude surface contamination.

(b) Any use of surface water, including water from salt water sources, must be authorized by a water right permit or covered by a valid registered water right claim.

(c) Water from the source should conform to water quality standards contained in the State Board of Health Drinking Water Regulations and, at a minimum, must be tested for bacteriological quality and nitrates.

(d) The water used should be treated using a system designed by a licensed professional, using equipment which meets Department of Health certification for point-of-use/point-of-entry treatment systems and is installed in accordance with the approved design.

(e) An operations and maintenance (O & M) manual for the treatment system may be required by the local health authority for review and approval. A copy of the manual must be provided to the property owner for the treatment system.

(f) A notice should be attached to the property title which states the requirement for a treatment system. This notification should include a recommendation that the water system be inspected and retested any time the property ownership changes. The notice should include

information regarding the potential health risks associated with utilizing surface water as a drinking water source.

(g) The local health authority may require the property owner to contract with a Department of Health-approved Satellite System Management Agency for system operation.

(3) Systems which obtain water from ground water sources.

(a) If the total amount of water to be used from the ground water source is in excess of 5000 gallons per day or the area of lawn or noncommercial garden to be irrigated is greater than one-half acre, the use must be authorized by a water right permit or covered by a pre-1945 water right for which a registered water right claim has been filed.

(b) If the source is a well which does not require a water right permit, i.e. those which use 5000 gallons per day or less or irrigate one-half acre or less of lawn or noncommercial garden, the water availability notification should be accompanied by a water well report (drilling log) and, at a minimum, the results of a one-hour bailer or air lift test indicating the yield of the well.

(i) In many cases, the water well report plus results of a test verifying well yield will provide all the necessary supporting evidence of physical availability of water. However, in areas where other concerns about water availability may exist (e.g. impact on instream flows and senior surface water rights or known well interference), Ecology and/or the local permitting authority may require additional testing to verify the existence of an adequate amount of water.

(ii) The water well report and test indicate *only* the *physical* availability of water. They do not indicate the legal availability of water. Such wells, while exempt from the water right permitting process, are still subject to regulation by the Department of Ecology.

(c) Additional supporting documents which may be required by the local permitting authority include, but are not limited to, the following:

(i) A water quality laboratory analysis report.

(ii) A copy of recorded notification if public disclosure of a problem is required.

(iii) A copy of an operation and maintenance (O & M) manual (if required).

(iv) Copies of any other documents which may be required by the local permitting authority.

(d) The well must be constructed in conformance with the Water Well Construction Standards, Chapter 173-160 WAC.

(e) Water from the source should conform to water quality standards contained in the State Board of Health Drinking Water Regulations and, at a minimum, must be tested for bacteriological quality and nitrates.

(i) A lab certified by Health must perform the analyses.

(ii) If the local health authority suspects that a problem may exist in a specific area, the local health authority may also require testing for trihalomethanes, pesticides, radionuclides, volatile organic chemicals and/or other chemical or physical water quality parameters.

(iii) If the well is newly constructed, prior to sampling it should be properly developed (i.e. flushed for a minimum of one hour or until such time as the water runs clear and all chlorine residuals are undetectable, whichever is longer).

(iv) Water samples should be collected by a "qualified individual" as determined by the local health authority.

(v) Follow-up sampling may be required to provide additional data on the level of a specific contaminant in question. If the local health authority determines that several consecutive follow-up samples indicate that the water supply is in compliance with the maximum contaminant levels, treatment and public notification requirements may be waived.

(f) Continuous effective treatment should be recommended, and may be required, for any water supply which fails to meet bacteriological or primary chemical or physical quality parameters.

(i) Continuous effective treatment may be recommended or required, at local health authority discretion, for any other contaminant found in the water.

- (ii) Treatment should generally be whole house rather than point-of-use. Water used in any portion of the system, such as the irrigation system, laundry, or other non-contact plumbing fixtures, which is isolated from the drinking water system does not have to be treated.
 - (iii) All home treatment equipment should be certified by the Department of Health and must be installed in accordance with the approved design.
 - (iv) In cases where treatment is recommended, a notice recommending treatment should be attached to the property title. This notification should recommend that the water system be inspected and retested any time the property ownership changes. The notice should include information regarding the potential health or aesthetic effects associated with exceeding the maximum contaminant level.
- (4) Alternative sources of supply.
- (a) Individuals may obtain water from alternative sources of supply under the following conditions:
 - (i) Hauling water should be allowed only if the applicant can demonstrate that the proposed system will comply with the water quality and quantity criteria specified in these guidelines.
 - (ii) Rooftop collection systems should be allowed only if the applicant can demonstrate that the proposed system will comply with the water quality and quantity criteria specified in these guidelines.
 - (iii) Desalination systems should be allowed only if the applicant either has or obtains a water right permit and can demonstrate that the proposed system will comply with the water quality and quantity criteria specified in these guidelines.
 - (iv) Other alternative water supply systems should be allowed only if the applicant either has or obtains a water right permit, when required, and can demonstrate that the proposed system will comply with the water quality and quantity criteria specified in these guidelines.
 - (b) A local health authority wishing to permit the use of alternative systems should develop a process to grant waivers from these guidelines which provides for the protection of the public health and safety.
 - (i) Supply systems using alternative sources of supply may need to be accompanied by any necessary plans and specifications verifying that the system is capable of providing water for the purposes of the building equivalent in quantity and quality to the criteria specified in these guidelines.
- (5) Local permitting authorities may require additional information concerning the adequacy of a water supply, including potability information, beyond that listed above.

Section 5. DETERMINATION OF EXEMPT AREAS. A local government may seek to exempt new building construction in an area from complying with the provisions of RCW 19.27.097(1) through the process outlined below. Such an exemption would apply only to individual water systems. (NOTE: The Department of Ecology intends to adopt this section as an administrative rule. The remainder of the guidelines may be adopted as rules at a later date.)

- (1) A local government seeking an exemption should assess the potential of the area for exemption and prepare a proposal to be submitted to the Departments of Ecology and Health for review and comment. The local government should consult informally with both Ecology and Health to minimize the effort needed to prepare such a proposal. The proposal need include no more than the following elements:
 - (a) A map of the area proposed to be exempted. Such an area should probably be either a watershed or a discrete hydrologic unit.
 - (b) An inventory of current water rights in the area.
 - (c) A summary of existing water well report information for the area.
 - (d) A summary of water quality information for the area.
 - (e) An examination and discussion of other water uses, apart from domestic supply, in the area.
 - (f) An assessment of all land uses, including the population and building density, of the area to be proposed.

- (g) An evaluation of the zoning and growth potential of the area.
 - (h) Some form of local review or public hearing process.
 - (i) A plan for tracking and reporting information about future development in the area.
- (2) Ecology and Health will review the proposal and provide copies to other potentially affected parties, such as Indian tribes and fisheries and wildlife agencies. Criteria for review include the following:
- (a) The proposal is consistent with any applicable water resources plans developed by either Ecology or Health.
 - (b) The area has no history of water-related regulatory problems.
 - (c) Water appears to be available to sustain additional development.
 - (d) Additional development and water use in the nominated area would not post a significant threat to existing water rights, including instream flows.
 - (e) Additional development and water use in the nominated area would not significantly harm fish or wildlife habitat.
 - (f) Additional development and water use in the nominated area would not cause degradation of the present quality of water.
 - (g) There is no indication that use of the water in any portion of the designated area would pose a health risk to potential users.
- (3) Ecology and Health will inform the local government that they:
- (a) Agree with the proposal,
 - (b) Suggest specific changes, or
 - (c) Cannot accept the proposal.
- (4) If the proposal cannot be accepted by Ecology or Health, the local government may pursue mediation with the Department of Community Development. If agreement still cannot be reached, local governments which are not planning under RCW 36.70A.040 may request that the Department of Community Development make a final determination.
- (5) Areas will only be exempted for a specified period of time. Such an exemption should not be construed to be verification by Ecology and Health that water is available for any individual applications for water right permits or that the water is of suitable quality for drinking. A growth-related trigger mechanism or a specified period for review should be established for any exempted area.
- (6) Local governments may carry out a program to monitor impacts on water supply and water quality in exempted areas.

Section 6. PUBLIC WATER SYSTEMS. If the operators of a public water system desire to provide water to one or more new buildings, they should ensure that such an expansion of service is:

- (1) Consistent with adopted State Board of Health Drinking Water Regulations.
- (2) Consistent with adopted county land use plans, development regulations and ordinances.
- (3) Within the scope and conditions of the system's water rights, including authorized place of use, limitations on quantity of water allowed for use, and number of connections authorized to be served. If the system is currently exempt from water right permitting requirements, the operators should determine whether the proposed expansion of service will cause water use to exceed 5000 gallons per day or the area of lawn or noncommercial garden irrigated to exceed one-half acre, thereby requiring a water right permit.
- (4) Consistent with Department of Health regulations and procedures, including system design standards.