

**TOWN OF BROOKFIELD
ZONING REGULATIONS**

**Technical Standards & Design Criteria
Water Supply – § 242-602F**

F. Water supply: [amended 10/25/84, 5/6/04]

(1) **Purpose:**

It is the intention of this section to specify those data which are required to adequately evaluate a site's ability to support its proposed development; to establish criteria upon which the Commission may judge the adequacy of the site to provide a reliable, adequate and healthful source of water; and to eliminate to the maximum extent possible, any adverse impact on the water quality or supply of neighboring properties.

(2) **Hydrogeological report:**

For projects that do not meet the CT Department of Public Health criteria for a public water system and wherein the proposed maximum daily demand is two thousand five hundred (2,500) gallons or more, a hydrogeological report prepared by a professional engineer or groundwater geologist acceptable to the Commission shall be required as part of the application. Such a report shall include, at a minimum:

- (a) A brief description of the hydrogeology of the area including soil and geological characteristics.
 - (b) Identification of a project's water sources and their water capacity estimates.
 - (c) Water supply demands of the project.
 - (d) Water budget analysis, including calculation of consumptive use.
 - (e) Yield data of existing wells in proximity to the project, if available.
 - (f) Yield data on project test wells, if any.
 - (g) Aquifer or other storage capacity.
 - (h) Groundwater supply development rationale and recommended well locations.
 - (i) Analysis of the impact on the water supply of surrounding properties, if any.
- (a) Conclusion as to the site's ability to support the water supply requirements of the proposed development.
 - (b) If a Certificate of Public Convenience and Necessity is filed with the Department of Public Health of Department of Public Utilities Control, a

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copy of such application shall accompany the Design Review application. *[eff. 5/6/04]*

(3) **Standard:**

The following standards apply to all applications for design review per §242-301C:

- (a) Each project must be capable of providing a reliable, adequate and healthful supply of potable water on site, for the intended permitted uses or, if any on-site capability does not exist, such capability must be provided and must comply with municipal and state health requirements. *[amended eff. 5/6/04]*
- (b) In general, the amount of water developed must be in balance with the amount of water available so that long-term progressive depletion of aquifer storage does not occur.
- (c) Each application for design review approval, which includes any proposed public or community water company serving twenty-five or more people, or having fifteen or more service connections, shall be accompanied by correspondence from the State Department of Public Utility Control (DPUC), and the Department of Public Health (DPH), which shall authorize an applicant to proceed with its proposed water development program. Such correspondence shall be acceptable to the Commission as to its form and content. *[amended 9/20/90, 10/31/06]*
- (d) For all projects with a demand in excess of two thousand five hundred (2,500) gallons per day, a standby well(s) must be in place in the event of supply-well malfunction.
- (e) Multi-well water systems that are derived from bedrock wells shall be developed to yield twice (X2) the average daily demand with the best well out of service.
- (f) The maximum daily demand shall not be in excess of the calculated supply available on the site at times of extreme drought conditions, unless it is demonstrated that an adequate storage supply is available for the worst-case drought-period scenario.
- (g) Measures shall be taken to maximize the on-site recharge of the ground-water regime by use of retention devices, septic systems and the like.
- (h) Well yield tests shall be conducted for a minimum of thirty-six (36) hours for all wells exceeding ten (10) gallons per minute to fifty (50) gallons per minute and seventy-two (72) hours for higher yields. The last

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twelve (12) hours of the yield test shall indicate a stabilized drawdown rate. Any interaction with adjacent wells shall be recorded. *[amended eff. 5/6/04]*

- (i) No project shall cause an impact on wells on adjacent properties resulting in long-term reduction of the existing capacity of such wells. Any claims shall be accompanied by a report by a professional engineer or ground-water geologist and shall demonstrate that an applicant is responsible for such impact. If the Commission determines any well is so impacted, the applicant shall correct any such deficiency at his expense. Adjacent wells shall be monitored to determine the impact thereon during yield testing. *[amended eff. 5/6/04]*
- (j) For projects with demands in excess of five thousand (5,000) gallons per day from bedrock wells, a water conservation plan shall be submitted.
- (k) Notwithstanding the citation permitted uses found elsewhere in this section, no use shall be permitted which requires process water in excess of five thousand (5,000) gallons per day drawn from bedrock wells.
- (l) The location of wells shall be situated in such a manner as to preclude contamination from road salts, fertilizers, solvents, chemicals and other potential sources of pollution. The minimum separation distance of wells from any such sources is as follows: *[amended eff. 5/6/04]*

Well Yield Rate	Minimum Separation Distance
0-10 gpm	75 feet
11+-50 gpm	150 feet
51+ gpm	200 feet

- (m) The start of construction shall be deferred until a water supply is in place and found acceptable as to quality and yield by the Health Department, Town of Brookfield and/or State Department of Health Services.

(4) **Water-monitoring program:**

Based on individual project circumstances, the Commission may require an application to provide a water-monitoring program. The purpose of such a program is to document normal water level behavior of wells in close proximity to a proposed project so that the effect, if any, of the project's supply wells on neighboring wells may be determined. If required to conduct a monitoring

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program, the applicant will be required to propose the specific details of the monitoring program to the Commission in writing. The program document shall be in a form acceptable to the Commission and shall contain such commitments of the applicant as the Commission deems necessary to protect the public health, safety and welfare.

The general elements of such a program are:

- (a) Identification of a group of representative monitoring wells.
 - (b) At periodic intervals throughout a year, water level measurements shall be made.
 - (c) An initial base-line water-quality report shall be obtained. Subsequently, annual water-quality reports shall also be obtained and compared with the base line to ensure there is no degradation of water quality resulting from project development.
 - (d) Collected data shall be provided to the Town Sanitarian, the Commission and the owners of the monitored well.
 - (e) The program shall terminate two (2) years after the completion of project development (issuance of certificate of occupancy and/or zoning compliance).
 - (f) A consultant shall be retained by the applicant, at his expense, to investigate complaints, perform analyses and report his findings.
 - (g) If an analysis indicates the project is responsible for any claim, the applicant will be required to correct the problem at his expense.
 - (h) The Commission may require a bond to secure performance for Subsection F(4)(f) and (g) above.
- (5) **Federal, state and municipal laws, ordinances and regulations:**
- (a) Nothing in the above shall relieve an applicant from conforming to the requirements of all applicable federal, state and municipal laws, ordinances and regulations.
 - (b) In relation to matters of water supply, special attention shall be given to the requirements of the Connecticut Water Diversion Policy Act and the regulations of the Department of Environmental Protection, Department of Health Services and Department of Public Utility Control.

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- (c) In the event of a conflict between the requirements of these performance standards and any federal state or municipal laws, ordinances and regulations, the latter shall govern.

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