

## INDIVIDUAL WATER SYSTEMS

### PERMIT REQUIRED

County Ordinance regulates development of properties dependent on individual water supplies. An individual water supply source may be a well, spring, horizontal well, or surface stream. The term individual water supply also includes a shared private water system which serves or will ultimately serve not more than four connections. Four connections means a maximum of four dwelling units or other permitted land uses on one to four parcels of land. All parcels served must be either contiguous with one another or be contiguous with the parcel on which the water source is located, and the water source is located on one of the parcels served.

Before you may proceed with development of a property dependent on an individual water supply, you must apply for and obtain an Individual Water System Permit or appropriately update the existing Individual Water System permit, if it is a shared water system. You must present data to show that the water source will provide at least the minimum acceptable quantity and that the water meets bacteriological and chemical drinking water standards. (see attached requirements)

### WATER SOURCES

If the source is a well, a pumping test must be performed by a licensed well driller, pumping contractor maintaining a C-61 license with a D-21 classification, registered engineer, registered geologist or registered environmental health specialist. If the source is from a spring or horizontal well a water yield determination can be made only during the months of August through October. Yield calculations for springs and horizontal wells must be made by a registered engineer, registered geologist, registered environmental health specialist, or licensed well driller. Water yield reports shall be reported and certified on forms approved by the Environmental Health Service.

Stream sources are allowed provided it is determined that you have a right to the water and the stream has adequate year round flow during drought periods. An automatic chlorination device will be required to assure proper disinfection of the water at all times. The Health Officer may also require installation of water filtration equipment for streams subject to turbidity levels that could interfere with the treatment process or otherwise make the water unsuitable for consumption.

### WATER STORAGE

There are no requirements for storage of drinking water, but the County 1980 General Plan (Section 3.5.4, pg. 3-14) has water storage standards for fire protection. Fire Protection storage is in addition to storage for domestic needs. For details contact the County Fire Marshal's Office.\*

See the County Planning Department\*\* for tank site location requirements. Storage tanks will need Planning Department's Zoning and Building approval.

### SHARED WATER SYSTEMS

When an individual water system is to be shared, the minimum source requirement is multiplied by the number of shared connections. For example, when the minimum required source yield is 3 gallons per minute for a single connection, 4 connections will need a source (or combination of sources) yield of 12 gallons per minute.

When an individual water system is to be shared, the applicant must submit a copy of a recorded deed showing not less than 1/4 individual interest in the water source and transmission facilities and sufficient legal interest to guarantee access thereto and right to use thereof. In addition, the applicant must identify the holders of the remaining interest in the water system. With shared systems one property must contain the water source and the remaining properties must be either contiguous to one another or to the property having the water source.

Riparian stream water cannot be shared.

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\*County Fire Marshal, 6059 Highway 9, Felton, CA 95018 (831) 335-5353

\*\*County Planning Department, 701 Ocean St., Santa Cruz CA 95060 (831) 454-2260

## Step-By-Step Procedure for Developing a Property Utilizing an Individual Water System

1. Apply for Sewage Disposal Permit In most cases a property utilizing an individual water system is also dependent on an individual sewage disposal system. Therefore, before expense is incurred in drilling a well, improving a spring or testing the water supply, you may wish to apply for a sewage disposal permit to assure that individual sewage disposal will be allowed. One or more soil borings and percolation tests are normally required, at applicant's expense, as part of the application process. A Finding of Compliance (approval) for sewage disposal cannot be made until your individual water system permit has been approved.
2. New Water Source If a new well is to be drilled, a well construction permit must be obtained. Application for the well permit requires submission of technical specifications for the well plus two copies of a plot plan showing the proposed location of the well. When the well is completed you can proceed to the next step.
3. Obtain Water Source Tests
  - a. Wells (except horizontal wells) Obtain source quantity data from a qualified person and have the water analyzed for bacteria and chemical content at a certified laboratory. Submit the water quantity and quality data in application for an Individual Water System Permit.
  - b. Springs and Horizontal Wells Source quantity may be determined only in the months of August through October. A Finding of Compliance for sewage disposal must be held in abeyance until acceptable water quantity data is submitted and approved. Water quality data may be obtained at any time.
  - c. Stream Sources A stream source must have an adequate year round flow during drought periods and must have a minimum flow of at least 5 gallons per minutes for each connection measured during the months of August through October. The users must have a legal right to use water from the stream source on each property where the water will be used.

**Water samples for bacteriological and chemical analysis must be collected and submitted by an approved third party, such as: personnel of the certified laboratory; registered environmental health specialist; well driller or pump contractor; registered geologist or engineer; soils engineer, to an approved certified laboratory.**

4. Shared Water System Provide a copy of the recorded property deed demonstrating that you have not less than a 1/4 interest in the water system. Also identify the remaining water system interest holders. If it has been 2 or more years since the source yield for the system was tested, a new yield test and bacteriologic test is required. Properties sharing a water system must be contiguous to one another or the property where the water source is located and the water source must be on one of the properties served. Riparian water sources cannot be shared.
5. Permit Issuance When satisfactory water quantity and bacteriological and chemical quality data (and proof of recorded interest, in the case of a shared individual water system) are submitted an Individual Water System Permit will be issued. Water yield reports shall be reported and certified on forms approved by EHS. A Finding of Compliance for sewage disposal will also be made at this time if a sewage disposal permit has been applied for and it has been demonstrated that technical standards for an individual sewage disposal system can be met.
6. Starting Construction Individual sewage disposal permits are issued by the Permit Issuance Division of the Planning Department at the time building permits are issued. No construction including installation of the individual sewage disposal system may begin until all permits applicable to the development have been issued.
7. Occupancy Approval Before you will be allowed to occupy your dwelling a final inspection may be required to determine that special conditions, if any, (e.g. chlorination for stream source) have been met. You may not occupy your dwelling unit until final approval by the Environmental Health Service has been given.

## INDIVIDUAL WATER SYSTEM REQUIREMENTS

### Minimum Source Yield - Wells

1. **November through July:** for each connection a sustained yield of 3 gallons per minute for 24 hours of continuous pumping or, until 4,320 gallons have been achieved during a time period of 24 hours or less of continuous pumping. Yield and bacteriologic re-testing will be required for connection to a previously permitted individual water system if 2 or more years has elapsed since the last certified test.
2. **August through October:** for each connection a sustained yield of 2 gallons per minute for 24 hours of continuous pumping or until 2,880 gallons have been achieved during a time period of 24 hours or less of continuous pumping. Yield and bacteriologic re-testing will be required for connection to a previously permitted individual water system if 2 or more years has elapsed since the last certified test.

### Minimum Source Yield - Springs and Horizontal Wells

1. 1 gallon per minute per connection. Yield re-testing will be required for connection to a previously permitted individual water system if 2 or more years has elapsed since the last certified test. Testing to be performed only during the months of August through October.

### Minimum Source Yield - Streams

1. 5 gallons per minute for each connection measured during the months of August through October. (Environmental Health staff may recognize adequate year round flow for some streams.)

### Bacteriological Quality

The coliform bacteria (a water quality index) content must be less than 2 organisms per 100 milliliters of water sample. This will be reported as less than (<) 2.2 MPN/100 ml. MPN means "most probable number" which is derived from a statistical table.

### Chemical Quality

The water source must not contain the following chemicals in excess of the noted concentrations:

Chloride	500	milligrams per liter
Nitrate	45	" " "
Total Dissolved Solids	1,000	" " "
Iron*	0.3	" " "
Manganese*	0.05	" " "

\*Water treatment may reduce excessive concentrations to acceptable limits

A listing of local laboratories approved for chemical testing is available from the Environmental Health Service.

**FLOW CHART FOR DEVELOPMENT UTILIZING INDIVIDUAL WATER SYSTEMS**

