## MONTEREY COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH BUREAU



## GUIDELINES FOR WATER SYSTEM PLANS Revised 9/08; 3/12

Any chemical, material, lubricant, or product used in the production, treatment, or distribution of drinking water shall have been tested and certified as meeting the specifications of American National Standard Institute/NSF International (ANSI/NSF) 61-2005/Addendum1.0-2006 (Drinking Water System Components – Health Effects) or a more recent version of ANSI/NSF 61.

All water system components must comply with California Water Works Standards, approved March 9, 2008, and Chapter 15.04 of the Monterey County Code. Some specific requirements are listed below.

- 1. The plans must be submitted to Monterey County Health Department, Environmental Health Bureau (EHB) for review and approval prior to installation of any system component.
- 2. The plans must be prepared, signed, and stamped by a California-licensed engineer who is familiar with design of water systems or by another individual approved by the EHB. A partial listing of engineers with whom the EHB has worked is available upon request.
- 3. The plans must include the following components, at a minimum:
  - a. They must be to scale. Minimum acceptable scale is 1 inch = 40 feet
  - b. They must show all parts of the system, labeled as either "proposed" or "existing".
  - c. Well(s): show proposed well lot(s) (minimum 100x100 feet for water systems), or easement(s); show well detail (must include check valve and sample tap upstream of check valve, well slab, and meter).
  - d. Describe the activation mechanism for the well pump.
  - e. Storage tank(s): location and detail (inlet, outlet, vents, overflow, valving, sample tap, etc.) Proposed tank lot or easement required. Provide documentation that the tank and any linings or coatings (if applicable) are ANSI/NSF 61- approved for use with potable water. Tanks must be equipped with at least one separate inlet and outlet designed to minimize stagnation of water in the tank(s). Tanks must be equipped with isolation valves, and designed and operated to allow continued distribution of water when the reservoir is removed from service. The isolation valves shall be located within 100 feet of the reservoir. (Note: Additional requirements apply to reservoirs used to meet the disinfectant contact time requirements of Surface Water Treatment.)
  - f. Well and tank lots and easements must be recorded with the final map.
  - g. Distribution system: water main layout, size and material (must conform to Monterey County Code 15.04; Residential Subdivision Water Supply Standards must be met if applicable); trench details; valve locations and types; air and vacuum relief and air release valves; fire hydrants; flushing valves; blowoffs; and location of all service connections. Show pressure tank detail, if applicable. Show type and size of main material on plan.
  - h. On water mains of 12 inch and smaller diameter, valves shall be located so that water main lengths of not more than 1,320 feet can be isolated by valve closures.

- i. Treatment system, if applicable: type of treatment, manufacturer's specifications, details of waste stream disposal, documentation of ANSI/NSF-approval of the system, detailed schematic of system. Any additive must meet certified under the ANSI/NSF 60 standard. The system must be approved by the EHB prior to installation.
- j. If a booster system is required for more than one lot, it shall be a centralized system and shall be installed as part of the water system.
- k. Show thrust block detail and locations.
- 1. Provide calculation of water pressure delivered to all service connections.
- m. In the case of systems which are allowed to be bonded, provide an estimate prepared by your engineer of the cost of materials and installation for all proposed components of the system. Bonds are held by the Monterey County Public Works Department.
- 4. Include the following notes on the plans:
  - a. Notify the Monterey County Health Department, Environmental Health Bureau (EHB), for inspection at least 24 hours before covering any excavation.
  - b. All components shall be ANSI/NSF 61-approved for use with potable water.
  - c. All construction, components, and materials shall conform to Monterey County Code 15.04, American Water Works Association (AWWA) standards, and California Waterworks Standards (CWWS), as appropriate. (In case of conflict, the strictest standards shall apply.)
  - d. Prior to domestic use, all new water system construction shall be disinfected according to CWWS. Water from new components shall be tested for bacteriological quality, per CWWS, and results submitted to the EHB for review. The chlorine residual of the test sample must be non-detect and must be reported with the bacteriological result. Approval by the EHB must be granted before use of the water for domestic purposes.

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