

### **333-061-0060**

#### **Plan Submission and Review Requirements**

- (1) Plan Submission:
  - (a) Construction and installation plans shall be submitted to and approved by the Department before construction begins on new systems or major additions or modifications, as determined by the Department, are made to existing systems. Plans shall be drawn to scale;
  - (b) Preliminary plans, pilot studies, master plans and construction plans shall be prepared by a Professional Engineer registered in Oregon, and submitted to the Department unless exempted by the Department (See OAR 333-061-0060(4));
  - (c) Plans shall set forth the following:
    - (A) Sufficient detail, including specifications, to completely and clearly illustrate what is to be constructed and how those facilities will meet the construction standards set forth in these regulations. Elevation or section views shall be provided where required for clarity;
    - (B) Supporting information attesting to the quality of the proposed source of water;
    - (C) Vicinity map of the proposed project relative to the existing system or established landmarks of the area;
    - (D) Name of the owner of the water system facilities during construction and the name of the owner and operator of the facilities after completion of the project;
    - (E) Procedures for cleaning and disinfecting those facilities which will be in contact with the potable water.
  - (d) Prior to drilling a well, a site plan shall be submitted which shows the site location, topography, drainage, surface water sources, specifications for well drilling, location of the well relative to sanitary hazards, dimensions of the area reserved to be kept free of potential sources of contamination, evidence of ownership or control of the reserve area and the anticipated depth of the aquifer from which the water is to be derived. The Department will review well reports from the area and in consultation with the local watermaster and the well constructor as appropriate will recommend the depth of placement of the casing seal. After the well is drilled, the following documents shall be submitted to the Department for review and approval: Well driller's report, report of the pump test which indicates that the well has been pumped for a sufficient length of time to establish the reliable yield of the well on a sustained basis, including data on the static water level, the pumping rate(s), the changes in drawdown over the duration of the test, the rate of recovery after the pump was turned off, reports on physical, chemical and microbiological quality of the well water, performance data on the well pump, a plan of the structure for

protecting above-ground controls and appurtenances, and a plan showing how the well will be connected to the water system. (See OAR 333-061-0050(2)).

- (e) Any community, non-transient non-community, or transient non-community water system that treats surface water or groundwater under the influence of surface water and that desires to make a significant change to its disinfection treatment process as defined by paragraphs (1)(e)(A) through (1)(e)(D) of this rule, is required to develop a disinfection profile according to OAR 333-061-0036(4)(g). The water system must consult with and provide any additional information requested by the Department prior to making such a change. The water system must develop a disinfection profile for *Giardia lamblia* and viruses, calculate a disinfection benchmark, describe the proposed change in the disinfection process, and analyze the effect(s) of the proposed change on current levels of disinfection according to the USEPA Disinfection Profiling and Benchmarking Guidance Manual and/or the USEPA LT1-ESWTR Disinfection Profiling and Benchmarking Technical Guidance Manual and submit the information to the Department for review and approval. Significant changes to the disinfection treatment process include:
  - (A) Changes to the point of application;
  - (B) Changes to the disinfectants used in the treatment process;
  - (C) Changes to the disinfection process;
  - (D) Any other modification identified by the Department.
- (f) A water system subject to paragraph (1)(e) of this rule must calculate a disinfection benchmark using the following procedure:
  - (A) From data collected to develop the disinfection profile, determine the average *Giardia lamblia* inactivation for each calendar month by dividing the sum of all *Giardia lamblia* inactivations for that month by the number of values calculated for that month.
  - (B) Determine the lowest monthly average value out of the twelve values. This value becomes the disinfection benchmark.
  - (C) Water systems required to develop disinfection profiles as prescribed by subsection (1)(e) of this rule must meet the requirements of this paragraph:
    - (i) Water systems must monitor at least weekly for a period of 12 consecutive months to determine the total log inactivation for *Giardia lamblia* and viruses. If water systems monitor more frequently, the monitoring frequency must be evenly spaced. Water systems that operate for fewer than 12 months per year must monitor weekly during the period of operation;

- (ii) Water systems must determine log inactivation for *Giardia lamblia* through the entire plant, based on CT99.9 values in Tables 27 through 34 in OAR 333-061-0036(5) as applicable; and
    - (iii) Water systems must determine log inactivation for viruses through the entire treatment plant based on a protocol approved by the Department.
  - (g) A water system that uses either chloramines, chlorine dioxide or ozone for primary disinfection must also calculate the disinfection benchmark for viruses using a method approved by the Department in addition to the disinfection profile for *Giardia lamblia*. This viral benchmark must be calculated in the same manner as is used for the *Giardia lamblia* disinfection benchmark described in subsection (1)(f) of this rule.
- (2) Plan review.
  - (a) Upon receipt of plans, the Department shall review the plans and either approve them or advise that correction or clarification is required. When the correction or clarification is received, and the item(s) in question are resolved, the Department shall then approve the plans;
  - (b) Upon completion of a project, a professional engineer registered in Oregon shall submit to the Department a statement certifying that the project has been constructed in compliance with the approved plans and specifications. When substantial deviations from the approved plans are made, as-built plans showing compliance with these rules shall be submitted to the Department;
  - (c) Plans shall not be required for emergency repair of existing facilities. In lieu of plans, written notice shall be submitted to the Department immediately after the emergency work is completed stating the nature of the emergency, the extent of the work and whether or not any threats to the water quality exists or existed during the emergency.
- (3) Plan review fees: Plans submitted to the Department shall be accompanied by a fee as indicated in Table 48. Those plans not accompanied by a fee will not be reviewed.

Table 48		
Nature of Plan	Community Water System	Non-Community Water System
Water source	\$600	\$150
Water Treatment	\$600	\$150
Water Treatment (full)	\$600	\$150
Disinfection only	\$150	\$45
Corrosion Control only	\$150	\$45
Distribution & Storage	\$600	\$150
Distribution only	\$600	\$150

Storage only	\$600	\$150
Combination two or more	\$750	\$150
Master Plan	\$750	\$150
Corrosion Control study	\$750	\$150
As-built plans & certification statement	No fee if original plans reviewed	

(4) Plan review exemptions:

- (a) Water suppliers may be exempted from submitting plans of main extensions, providing they:
  - (A) Have provided the Department with a current master plan; and
  - (B) Certify that the work will be carried out in conformance with the construction standards of these rules; and
  - (C) Submit to the Department an annual summary of the projects completed; and
  - (D) Certify that they have staff qualified to effectively supervise the projects.
- (b) Those water suppliers certifying that they have staff qualified to effectively plan, design and supervise their projects, may request the Department for further exemption from this rule. Such requests must be accompanied by a listing of staff proposed to accomplish the work and a current master plan. To maintain the exemption, the foregoing must be annually updated;
- (c) At the discretion of the Department, Community, Transient and Non-Transient Non-Community and State Regulated water systems may be exempted from submitting engineered plans. They shall, however, submit adequate plans indicating that the project meets the minimum construction standards of these rules.

(5) Master plans.

- (a) Community water systems with 300 or more service connections shall maintain a current master plan. Master plans shall be prepared by a professional engineer registered in Oregon and submitted to the Department for review and approval.
- (b) Each master plan shall evaluate the needs of the water system for at least a twenty year period and shall include but is not limited to the following elements:
  - (A) A summary of the overall plan that includes the water quality and service goals, identified present and future water system deficiencies, the engineer's recommended alternative for achieving the goals and correcting the deficiencies, and the recommended implementation schedule and financing program for constructing improvements.
  - (B) A description of the existing water system which includes the service area, source(s) of supply, status of water rights, current status of drinking water quality and compliance with regulatory

standards, maps or schematics of the water system showing size and location of facilities, estimates of water use, and operation and maintenance requirements.

- (C) A description of water quality and level of service goals for the water system, considering, as appropriate, existing and future regulatory requirements, nonregulatory water quality needs of water users, flow and pressure requirements, and capacity needs related to water use and fire flow needs.
- (D) An estimate of the projected growth of the water system during the master plan period and the impacts on the service area boundaries, water supply source(s) and availability, and customer water use.
- (E) An engineering evaluation of the ability of the existing water system facilities to meet the water quality and level of service goals, identification of any existing water system deficiencies, and deficiencies likely to develop within the master plan period. The evaluation shall include the water supply source, water treatment, storage, distribution facilities, and operation and maintenance requirements. The evaluation shall also include a description of the water rights with a determination of additional water availability, and the impacts of present and probable future drinking water quality regulations.
- (F) Identification of alternative engineering solutions, environmental impacts, and associated capital and operation and maintenance costs, to correct water system deficiencies and achieve system expansion to meet anticipated growth, including identification of available options for cooperative or coordinated water system improvements with other local water suppliers.
- (G) A description of alternatives to finance water system improvements including local financing (such as user rates and system development charges) and financing assistance programs.
- (H) A recommended water system improvement program including the recommended engineering alternative and associated costs, maps or schematics showing size and location of proposed facilities, the recommended financing alternative, and a recommended schedule for water system design and construction.
- (I) If required as a condition of a water use permit issued by the Water Resources Department, the Master Plan shall address the requirements of OAR 690-086-0120 (Water Management and Conservation Plans).

- (c) The implementation of any portion of a water system master plan must be consistent with OAR 333-061 (Public Drinking Water Systems, DHS), OAR 660-011 (Public Facilities Planning, Department of Land Conservation and Development ) and OAR 690-086 (Water Management and Conservation Plans, Water Resources Department).