

BOARD OF COUNTY COMMISSIONERS

LINCOLN COUNTY, WASHINGTON

ORDINANCE NO. 8.30

AN ORDINANCE ESTABLISHING REGULATIONS FOR REGULATING GROUP B PUBLIC WATER SYSTEMS, OPERATION, AND MAINTENANCE; PROHIBITING THE CONSTRUCTION OR MODIFICATION OF GROUP B PUBLIC WATER SYSTEMS WITHOUT APPROVAL, PROVIDING PENALTIES; AND APPROVING AN ORDINANCE SUMMARY HEREOF.

WHEREAS, the Lincoln County Board of Health has determined that it is in the best interests of the residents of Lincoln County to control and regulate Group B Public Water Systems; and

WHEREAS, there exists the potential for adverse public health consequences without the adoption of this Ordinance,

NOW, THEREFORE:

Section 1. The aforestated findings and recitals are hereby found to be true and correct in all respects.

Section 2. The attached regulation for Group B Public Water Systems commencing with Chapter 8.30.001 through 8.30.210 are hereby adopted.

Section 3. This Ordinance shall be effective upon its passage, approval and eight days after its publication.

Section 4. If any section, sentence, clause or phrase of this ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this ordinance.

Section 5. The attached ordinance summary is hereby approved and the Clerk of the Board is directed to publish the same in the County's official newspaper pursuant to RCW 35A.12.160.


Passed this 3rd day of April, 2017.

  
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Rob Coffman, Chair

  
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Scott Hutsell

  
\_\_\_\_\_  
Mark Stedman

ATTEST:

  
\_\_\_\_\_  
Clerk of the Board Deputy

APPROVED AS TO FORM:

  
\_\_\_\_\_  
Jeff Barkdull, Prosecuting Attorney

FILED WITH THE CLERK: \_\_\_\_\_

PUBLISHED: \_\_\_\_\_

EFFECTIVE DATE: \_\_\_\_\_

# **Lincoln County Code Chapter 8.30 –Group B Public Water Systems**

**April 3, 2017**

**Effective Date: April 11, 2017**

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**Chapter 8.30.001: Purpose and scope.**

- (1) The purpose of this chapter is to protect the health of consumers by establishing minimum design, construction, and other standards for Group B public drinking water systems in compliance with Chapter 246-291 WAC and modifications set forth in this regulation.
- (2) A purveyor of a Group B public water system shall comply with this chapter and Chapter 246-291 WAC and rules adopted by a local board of health under RCW 70.05.060 or 70.46.060 as applicable.
- (3) The health officer shall administer this chapter under the authority and requirements of Chapters 70.05, 70.08, 70.46, and 43.70 RCW.
- (4) Other statutes relating to this chapter are:
  - (a) Chapter 43.70 RCW, Department of health;
  - (b) Chapter 43.20 RCW, State Board of Health
  - (c) Chapter 70.116 RCW, Public Water System Coordination Act of 1977; and
  - (d) Chapter 70.119A RCW, Public water systems—Penalties and compliance.
- (5) This regulation shall be effective in all unincorporated and incorporated areas of Lincoln County.

**Chapter 8.30.010: Applicability.**

- (1) The rules of this chapter and Chapter 246-291 WAC apply to a Group B public water system that provides drinking water to fewer than fifteen service connections and:
  - (a) Fewer than twenty-five people per day; or
  - (b) Twenty-five or more people per day for fewer than sixty days per year, provided the system does not serve one thousand or more people for two or more consecutive days.
- (2) The rules of this chapter and Chapter 246-291 WAC do not apply to a Group B system that:
  - (a) Consists only of distribution or storage facilities and does not have any source or treatment facilities;
  - (b) Obtains all water from, but is not owned by, a public water system where the rules of this chapter or Chapter 246-290 WAC apply; and
  - (c) Does not sell water directly to any person.
- (3) The rules of this chapter do not apply to a Group B system that provides water to one or two service connections, except:
  - (a) When the health officer determines that it is necessary to protect public health and safety, such as if the system serves a connection with a use listed under Chapter 8.30.020 (62)(a) through (h) of this chapter.
- (4) A proposed Group B system shall be reviewed by the Department and shall meet planning, engineering, and design requirements under WAC 246-290-100 through 246-290-250 if:
  - (a) The design submitted under WAC 246-291-120 or Chapter 8.30.080 proposes to supply water to another public water system and the combined number of service connections or total population served meets the definition of a Group A public water system; or
  - (b) The proposed system is being designed to serve ten to fourteen residential service connections using average household population standards as required under WAC 246-291-200(2) or Chapter 8.30.130(2).
- (5) Compliance with the rules of this regulation does not confer or guarantee any right to withdraw or divert groundwater. It shall be the purveyor's responsibility to secure, from the appropriate authority, the legal rights to use groundwater.

**Chapter 8.30.020: Definitions, abbreviations, and acronyms.**

The definitions, abbreviations, and acronyms in this section apply throughout this chapter unless the context clearly indicates otherwise.

- (1) "**Acute**" means posing an immediate risk to human health.
- (2) "**ADD (average day demand)**" means the total volume of water produced from all sources of supply over a calendar year divided by three hundred sixty-five.
- (3) "**APWA**" means American Public Works Association.
- (4) "**ASTM**" means American Society for Testing and Materials.
- (5) "**AWWA**" means American Water Works Association.
- (6) "**Board**" means the Washington State Board of Health.

- (7) "**Certified lab**" means an analytical laboratory meeting requirements under Chapters 246-390 and 173-50 WAC for one or more drinking water analytical parameters.
- (8) "**Coliform bacteria**" means a group of rod-shaped bacteria found in the gastrointestinal tract of vertebrate animals. The presence of coliform bacteria in water is an indicator of possible fecal contamination.
- (9) "**Contaminant**" means a substance present in drinking water which may adversely affect the health of the consumer or the aesthetic qualities of the water.
- (10) "**Critical water supply service area**" means a geographical area characterized by a proliferation of small, inadequate water systems, or by water supply problems that threaten the present or future water quality or reliability of service in a manner that efficient and orderly development may best be achieved through coordinated planning by the water utilities in the area.
- (11) "**Cross-connection**" means any actual or potential physical connection between a public water system or a consumer's water system and any source of non-potable liquid, solid, or gas that could contaminate the potable water supply by backflow.
- (12) "**Cross-connection control plan**" means a document that identifies the procedures the purveyor uses to protect the Group B system from contamination from cross connections.
- (13) "**Department**" means the Washington State Department of Health.
- (14) "**Disinfection**" means the use of chlorine or other agent or process the department approves for killing or inactivating microbiological organisms, including pathogenic and indicator organisms.
- (15) "**Distribution system**" means all piping components of a Group B system that serve to convey water from transmission mains linked to source, storage, and treatment facilities to the consumer excluding individual services.
- (16) "**Drilled well**" means a well where the well hole is excavated by mechanical means such as rotary, cable tool, or auger drilling equipment.
- (17) "**Dwelling unit**" means a structure, or unit within a structure, with independent living facilities for one or more persons that includes permanent provisions for living, sleeping, eating, cooking, and sanitation. A dwelling unit includes, but is not limited to:
  - (a) A single-family residence; or
  - (b) Each unit of an apartment building or multifamily building.
- (18) "**Ecology**" means the Washington State Department of Ecology.
- (19) "**Equalizing storage**" means the volume of storage needed to supplement supply to consumers when the peak hourly demand exceeds the total source pumping capacity.
- (20) "**Expanding Group B system**" means a Group B system installing additions, extensions, changes, or alterations to its existing source, transmission, storage, or distribution facilities that will enable the system to increase the size of its existing service area or the number of approved service connections.
- (21) "**Fire flow**" means the maximum rate and duration of water flow needed to suppress a fire under WAC 246-293-640 or as required under local fire protection authority standards.
- (22) "**Fire suppression storage**" means the volume of stored water available during fire suppression activities maintaining a pressure of at least 20 psi (140 kPa) at all points throughout the distribution system, and under the condition where the designed volume of fire suppression and equalizing storage has been depleted.
- (23) "**Generator disconnect switch**" means an electrical device that physically prevents electrical current from flowing back into the main service line.
- (24) "**gpm**" means gallons per minute.
- (25) "**Group A public water system**" is defined and referenced under WAC 246-290-020.
- (26) "**Group B public water system**" or "**Group B system**" means a public water system that is not a Group A public water system, and is defined and referenced under WAC 246-291-005.
- (27) "**Guideline**" means a department or LCHD document assisting a purveyor in meeting a rule or statutory requirement.
- (28) "**GW (groundwater under the direct influence of surface water)**" means any water beneath the surface of the ground, that the health officer determines has the following characteristics:
  - (a) Presence of insects or other macroorganisms, algae, or larger diameter pathogens such as *Giardia lamblia* or *Cryptosporidium*; or

- (b) Significant and relatively rapid shifts in water conditions such as turbidity, temperature, conductivity, or pH closely correlating to weather or surface water conditions, where natural conditions cannot prevent the introduction of surface water pathogens into the source at the systems' point of withdrawal.
- (29) "**Health officer**" means the health officer of Lincoln County, or an authorized representative.
- (30) "**Human consumption**" means the use of water for drinking, bathing, showering, handwashing, cooking, food preparation, dishwashing, ice-making, or oral hygiene.
- (31) "**Hydraulic analysis**" means the study of the Group B system's distribution main and storage network to determine the system's present or future adequacy for providing service to consumers within the established design parameters for the system under peak flow conditions, including fire flow. The analysis establishes the adequacy of design for distribution system components such as piping, elevated storage, booster stations or similar facilities used to pump and convey water to consumers.
- (32) "**Infiltration gallery**" means a water collection system built of perforated pipe or conduit and placed in permeable earth, for collecting shallow groundwater. An infiltration gallery is usually located close to springs, wetlands, streams, or ponds.
- (33) "**Intertie**" means an interconnection between public water systems permitting the exchange or delivery of water between those systems.
- (34) "**JPR (joint plan of responsibility)**" means a written agreement between the department and Lincoln County Health Department that:
- (a) Lists the roles and responsibilities of the department and health officer for reviewing and approving Group B system designs;
  - (b) Provides for a level of supervision necessary to effectively achieve the responsibilities in the JPR;
  - (c) Is signed by an authorized representative from the department and Lincoln County Health Department; and
  - (d) Is reviewed at least once every five years and updated as needed.
- (35) "**kPa**" means kilo pascal (Standard International units of pressure).
- (36) "**Local board of health**" means the governing body of a county health department under chapter 70.05 RCW, or a health district under chapter 70.46 RCW.
- (37) "**Local health jurisdiction**" Lincoln County Health Department (LCHD).
- (38) "**Local permitting authority**" means the local building official, health officer, or authorized representative that makes determinations regarding building permits and development proposals.
- (39) "**MCL (maximum contaminant level)**" means the maximum permissible level of a contaminant in water the purveyor delivers to any Group B system consumer, measured at the source before entry to the distribution system.
- (40) "**MDD (maximum day demand)**" means the highest actual or estimated quantity of water that is, or is expected to be, used over a twenty-four hour period, excluding unusual events or emergencies.
- (41) "**mg/L**" means milligrams per liter (1mg/L = 1 part per million).
- (42) "**ml**" means milliliter.
- (43) "**mm**" means millimeter.
- (44) "**Nonresidential service connection**" means a connection to a public water system that provides potable water including, but not limited to a:
- (a) Commercial property;
  - (b) Industrial property;
  - (c) Civic property;
  - (d) Municipal property;
  - (e) Institutional property;
  - (f) School;
  - (g) Recreational use as defined in this section; or
  - (h) Any other authorized use that provides potable water to a nonresidential population.
- (45) "**PAS**" means pitless adaptor standard.
- (46) "**PHD (peak hourly demand)**" means the maximum rate of water use, excluding fire flow that can occur within a defined service area over a continuous sixty minute time period. PHD is typically expressed in gallons per minute (gpm).
- (47) "**Potable**" means water safe for human consumption.

- (48) "**Potential GWI**" means a source identified by the LCHD as possibly under the direct influence of surface water including, but not limited to a:
- (a) Well that has a screened interval fifty feet or less from the ground surface at the wellhead and is located within two hundred feet of a freshwater surface water body;
  - (b) Ranney well;
  - (c) Infiltration gallery; or
  - (d) Spring.
- (49) "**Primary MCL**" means a standard based on chronic, nonacute, or acute human health effects.
- (50) "**psi**" means pounds per square inch.
- (51) "**Public water system**" means any system providing water for human consumption through pipes or other constructed conveyances, excluding a system serving only one single-family residence and a system with four or fewer service connections all of which serve residences on the same farm. The term includes:
- (a) Collection, treatment, storage, or distribution facilities under the control of a purveyor and used primarily in connection with the system; and
  - (b) Collection, or pretreatment storage facilities not under the control of a purveyor, and primarily used in connection with the system.
- (52) "**Purveyor**" means an agency, subdivision of the state, municipal corporation, firm, company, mutual or cooperative association, institution, partnership, or person or other entity owning or operating a public water system, or applying to create a public water system. Purveyor also means the authorized agents of these entities.
- (53) "**Ranney well**" means a water well or collection system including a central chamber with horizontal perforated pipes extending out into an aquifer. The perforated pipes may extend out under a surface water body such as a lake or river.
- (54) "**Recreational service connection**" means a connection to a public water system that provides potable water to each:
- (a) Campsite; or
  - (b) Recreational vehicle site.
- (55) "**Residential service connection**" means a connection to a public water system that provides potable water to a dwelling unit.
- (56) "**Same farm**" means a parcel of land or series of parcels connected by covenants and devoted to the production of livestock or agricultural commodities for commercial purposes.
- (57) "**Sanitary survey**" means a review, inspection, and assessment of a public water system by the LCHD.
- (58) "**SCA (sanitary control area)**" is defined under WAC 246-291-125(5).
- (59) "**SMA (satellite system management agency)**" means a person or entity approved by the department in accordance with chapter 246-295 WAC to own or operate public water systems on a regional or county wide basis without the necessity for a physical connection between the systems.
- (60) "**Secondary MCL**" means a standard based on factors other than health effects.
- (61) "**Service connection**" means a residential, nonresidential, or recreational service connection as defined in this section.
- (62) "**Single family residence**" means a structure in which one or more persons maintain a common household. A structure is not a single family residence if it is used for an activity requiring a permit or license under one or more of the following rules:
- (a) Food service, chapter 246-215 WAC;
  - (b) Food inspection, chapter 16-165 WAC;
  - (c) Residential treatment facility, chapter 246-337 WAC;
  - (d) Transient accommodations, chapter 246-360 WAC;
  - (e) Boarding homes licensing rules, chapter 388-78A WAC;
  - (f) Minimum licensing requirements for child care centers, chapter 170-295 WAC;
  - (g) School-age child care center minimum licensing requirements, chapter 170-151 WAC; or
  - (h) Adult family home minimum licensing requirements, chapter 388-76 WAC.
- (63) "**Spring**" means a source of water where the aquifer comes in contact with the land surface.
- (64) "**Surface water**" means a body of water open to the atmosphere and subject to surface runoff, including captured rainfall.
- (65) "**WSDOT**" means Washington State Department of Transportation.

- (66) "Water right" means a permit, claim, or other authorization, on record with or accepted by the Department of Ecology, authorizing the beneficial use of water in accordance with all applicable state laws.
- (67) "Well site inspection" means a physical inspection of the area near an existing or proposed well location, and completion of a health officer-approved form that identifies the suitability of the site for a public water supply well.

**Chapter 8.30.030: Bottled water and ice-making facilities.**

- (1) Water sources used by a facility regulated under Chapter 16-165 WAC that produces bottled water or ice for public consumption shall meet the requirements under chapter 246-290 WAC.

**Chapter 8.30.040: General administration.**

- (1) As allowed for in RCW 70.05.06, the local health jurisdiction shall administer the provisions of this Chapter.
- (2) The local health officer of LCHD (or authorized representative) is responsible for the review and approval of Group B water systems. Group B water systems meeting the provisions of Chapter 8.30.010(4) will be reviewed and approved by the department in accordance with Chapter 246-291 WAC.
- (3) Primary responsibility for administration of this Chapter shall be established in a memorandum of agreement with the Department.

**Chapter 8.30.050: Enforcement.**

- (1) When a Group B system is out of compliance with this chapter and Chapter 246-291 WAC, the LCHD may initiate enforcement actions under RCW 70.119A.030 and 70.119A.040.
- (2) The health officer may initiate enforcement actions as authorized under RCW 70.05 and 70.119A.050, and as authorized under LCHD board of health rules.

**Chapter 8.30.060: Waivers.**

- (1) As allowed under Chapter 246-291 WAC, the health officer or LCHD board of health may grant a waiver from the requirements of this chapter, provided that:
  - (a) The health officer or LCHD board of health conditions the approval of a waiver to include, at a minimum:
    - i. Water quality treatment;
    - ii. Monitoring; or
    - iii. Maintenance and oversight; and
    - iv. The health officer or local board of health obtains sufficient evidence from a purveyor that a proposed Group B system will deliver drinking water that does not exceed a primary MCL under Chapter 8.30.120, and will provide an adequate supply of water under Chapter 8.30.090.
- (2) The health officer or LCHD board of health shall not grant a waiver from the residential population requirement for each dwelling unit under Chapter 8.30.130(2).
- (3) A request for a waiver is not considered an adjudicative proceeding as defined under chapter 34.05 RCW.
- (4) A waiver granted under this section shall be valid for up to five years from the date of issuance as specified by the health officer or LCHD board of health if construction of the Group B system is not completed.

**Chapter 8.30.070: Public Water System Coordination Act and satellite management.**

- (1) A purveyor of a new or expanding Group B system shall comply with the applicable coordinated water system plan created under Chapter 246-293 WAC and 70.116 RCW if located within the boundaries of a critical water supply service area.
- (2) The health officer shall approve a new or expanding Group B system consistent with requirements under WAC 246-293-190 and RCW 70.116.060(3).
- (3) A new Group B system must comply with SMA requirements under RCW 70.119A.060.

**Chapter 8.30.080: Design report approval.**

- (1) As delineated in Chapter 8.30.040(3) a purveyor shall receive written health officer approval of a design report prior to:
  - (a) Installing a new Group B system; or
  - (b) Providing service to more than the current approved number of service connections.



- (2) Any party seeking design report approval for a Group B system under this chapter shall provide a copy of the following, at a minimum, to the health officer:
- (a) Documentation that creating a new system or expanding an existing system does not conflict with any applicable coordinated water system plan adopted under Chapter 246-293 WAC;
  - (b) Documentation that creating a new system complies with the SMA requirements under RCW 70.119A.060(2);
  - (c) Source approval under Chapter 8.30.090 or Chapter 8.30.100;
  - (d) Documentation that all requirements under Chapter 8.30.110 are met;
  - (e) A system design that complies with the requirements under Chapter 8.30.130 including, but not limited to:
    - i. Drawings of each project component, including:
      - 1. Location;
      - 2. Orientation;
      - 3. Size; and
      - 4. Easements for:
        - a. Future access and maintenance of distribution system pipelines located on private property, or franchise agreements necessary for distribution system pipelines located within public right of way; and
        - b. Other system components, including access and maintenance of reservoirs, wells, and pumping stations.
    - ii. Material specifications for each project component;
    - iii. Construction specifications and assembly techniques;
    - iv. Testing criteria and procedures; and
    - v. A description of disinfection procedures as required under Chapter 8.30.160.
- (3) The design report shall be prepared, sealed, and signed in accordance with chapter 196-23 WAC by a professional engineer who:
- (a) Is licensed in the state of Washington under chapter 18.43 RCW; and
  - (b) Has specific expertise regarding design, operation, and maintenance of public water systems.
- (4) A LCHD may allow an exception to the professional engineer requirement for Group B systems that:
- (a) Do not use a variable speed pump;
  - (b) Do not provide fire flow;
  - (c) Do not have special hydraulic considerations;
  - (d) Do not have atmospheric storage in which the bottom elevation of the storage reservoir is below the ground surface; and
  - (e) Serve fewer than ten service connections;
  - (f) The proposed system designer has shown evidence of competence and experience in designing water systems.
- (5) A purveyor shall submit a "Construction Completion Report for Public Water System Projects" to the health officer on a form approved by the health officer within sixty days of construction completion, and before use of any approved Group B system. The form must:
- (a) Be signed by a professional engineer, unless the health officer approves the project as meeting the requirements under subsection (4) of this section;
  - (b) Include a statement that the project is constructed and completed according to the design report requirements under this chapter; and
  - (c) Include a statement that the installation, testing, and disinfection of the Group B system is completed in accordance with this chapter.
  - (d) All design changes, except for minor field revisions, must be submitted in writing to, and approved by, the health officer.

**Chapter 8.30.090: Groundwater source approval.**

- (1) Groundwater sources submitted to the health officer for design approval under Chapter 8.30.080 must comply with the following requirements:
- (a) Drinking water shall be obtained from the highest quality source feasible.

- (b) All permanent groundwater sources must:
    - i. Be designed to be physically connected to the distribution system;
    - ii. Be a drilled well-constructed in accordance with Chapter 173-160 WAC; and
    - iii. Meet water quality requirements under WAC Chapter 8.30.120.
  - (c) The health officer shall not approve a design for a new or expanding Group B system using a GWI source.
  - (d) The health officer shall not approve a design for a new or expanding Group B system using a potential GWI source until a hydrogeological evaluation is completed by a licensed hydrogeologist or engineer that determines the source is not GWI. The GWI evaluation and determination must be completed before the health officer will review the Group B design report.
- (2) Before pursuing groundwater source approval under this section, a purveyor shall contact LCHD to identify any additional requirements.
- (3) A purveyor shall provide a copy of the following to the health officer to obtain groundwater source approval:
- (a) The water right permit, if required, for the source, quantity, type, and place of use;
  - (b) The water well report, as required under WAC 173-160-141;
  - (c) The well site inspection report form completed by the LCHD;
  - (d) A map showing:
    - i. The project location;
    - ii. A six hundred foot radius around the well site designating the preliminary short-term groundwater contribution area; and
    - iii. The perimeter of a one hundred foot SCA, meeting the requirements in subsection (5) of this section.
  - (e) A map showing topography, distances to the well from existing property lines, buildings, potential sources of contamination within the six hundred foot radius around the well, and any other natural or man-made features that could affect the quality or quantity of water;
  - (f) The recorded legal documents for the SCA;
  - (g) Results from an initial analysis of raw source water quality from a certified lab, including, at a minimum:
    - i. Coliform bacteria;
    - ii. Inorganic chemical and physical parameters under Chapter 8.30.120, Tables 1, 2, and 3;
    - iii. Other contaminants, as directed by the health officer in areas where it is determined that other contamination may be present.
  - (h) Pump test data establishing groundwater source capacity including, but not limited to:
    - i. Static water level;
    - ii. Sustainable yield;
    - iii. Drawdown;
    - iv. Recovery rate; and
    - v. Duration of pumping.
  - (i) Additional pump testing in locations where water resource limitations or known seasonal groundwater fluctuations may affect future reliability as directed by the health officer.
- (4) Groundwater source capacity.
- (a) In accordance with Table 1, Chapter 246-291, the minimum source capacity and water supply for residential service connections is 1,250 gallons per day per dwelling unit.
  - (b) A groundwater source for a Group B system with residential connections must be pump tested to determine if the well(s) and aquifer are capable of reliably supplying water that meets the minimum requirements under (4)(a) of this section.
  - (c) A groundwater source must be pump tested to determine if the well(s) and aquifer are capable of supplying water at the rate required to provide the water volume as determined under Chapter 8.30.130 for a source supplying a Group B system with:
    - i. Nonresidential service connections; or
    - ii. Both residential and nonresidential service connections.
  - (d) Where a locally adopted watershed plan or ecology watershed rule under Title 173 WAC establishes a higher water supply requirement, the purveyor shall use the higher value to assess the adequacy of the source of supply.

- (e) A purveyor shall design the Group B system to meet the requirements under (4)(a) of this section, even if a locally adopted watershed plan or watershed rule under Title 173 WAC limits water use below the values in (4)(a) of this section.

(5) Sanitary Control Area.

- a. A purveyor shall establish the SCA around each groundwater source to protect it from contamination.
- b. The SCA must have a minimum radius of one hundred feet, unless technical justification submitted by a licensed hydrogeologist or engineer to the health officer supports a smaller area. The justification must address geological and hydrogeological data, well construction details, and other relevant factors necessary to provide adequate sanitary control.
- c. The health officer may require a larger SCA if geological and hydrological data support such a decision.
- d. A purveyor shall own the SCA, or the purveyor shall have the right to exercise complete sanitary control of the land through other legal provisions.
- e. A purveyor shall record a restrictive covenant to the title of each property that is sited partially or completely within the SCA to protect the SCA in perpetuity.

**Chapter 8.30.100: Interties.**

- (1) A purveyor submitting a new or expanding Group B system design for approval using a nonemergency intertie source shall provide the following to the health officer:
  - (a) A copy of the intertie agreement under subsection (2) of this section;
  - (b) Evidence that the supplying water system currently operates in compliance with chapter 246-290 or 246-291 WAC;
  - (c) Location of the proposed intertie;
  - (d) Information on any water quality issues and treatment being used;
  - (e) Demonstration of the source capacity and hydraulic capacity of the supply and receiving systems at the designed flow rate through the intertie;
  - (f) A copy of the water right or water right change issued by Ecology, if required under RCW 90.03.383;
  - (g) Identification of alternative sources that will be used when the intertie agreement expires if the water is not being provided in perpetuity; and
  - (h) Verification that a source meter has been installed to measure water received.
- (2) An intertie agreement between purveyors must identify:
  - (a) Specific time periods in which water will be provided;
  - (b) The volume of water available for use, including any seasonal or other restrictions; and
  - (c) How operations will be coordinated.

**Chapter 8.30.110: Water system planning and disclosure requirements.**

- (1) A purveyor submitting a new or expanding Group B system design for approval shall provide the following information to the health officer:
  - (a) The system's management and ownership;
  - (b) The system's service area and existing and proposed major facilities;
  - (c) The maximum number of service connections the system can safely and reliably supply;
  - (d) The relationship and compatibility with other locally adopted plans;
  - (e) The amount of revenue needed to operate and maintain the system, and a plan to meet revenue needs;
  - (f) A cross-connection control plan if any existing cross-connections are identified;
  - (g) Security measures under the strict control of the purveyor to be provided to protect the water source, water storage reservoir, and the distribution system;
  - (h) For systems that will use sources with a well pump test indicating a yield of 5.0 gpm or less, a contingency plan describing short-term and long-term measures to restore water to consumers in the event the well(s) cannot provide an adequate supply of water;
  - (i) The public notification procedures that the purveyor will use as required under Chapter 8.30.200.

- (2) A purveyor shall record the following information on each customer's property title before providing water from the Group B system to any service connection:
- (a) System name and a department issued public water system identification number;
  - (b) System owner name and contact information;
  - (c) The following statement: "This property is served by a Group B public water system that has a design approval under Chapter 246-291 Washington Administrative Code and Lincoln County Code Chapter 8.30."
  - (d) Parcel numbers to be served by the system;
  - (e) Indicate if the system is designed and constructed to provide fire suppression;
  - (f) A copy of any waiver granted under Chapter 8.30.060 to the purveyor and any required monitoring and reporting;
  - (g) Indicate:
    - i. If service connections are metered or not;
    - ii. If the purveyor is required or intends to monitor the system for contaminants;
    - iii. How often monitoring will occur; and
    - iv. How the consumers of the system will be notified of monitoring results;
  - (h) Contact information for the approving authority (LCHD);
  - (i) The type of source treatment provided for any contaminants that exceed MCLs;
  - (j) Instructions about how to obtain a copy of the agreements for consumers, if one exists; and
  - (k) Other information, as directed by the health officer.

**Chapter 8.30.120: Water quality requirements for groundwater source approval.**

- (1) All water quality samples collected under this section must be:
- (a) Collected without chlorine, ultraviolet light, ozone, or other disinfectant in use to treat the source;
  - (b) Collected after the well has been pumped long enough to allow for collection of a representative sample of the aquifer, as described in the current Group B Water System Design Guidelines; and
  - (c) Analyzed by a certified lab.
- (2) To meet the requirements for design approval under Chapter 8.30.080, a purveyor shall obtain, at a minimum:
- (a) Satisfactory results from two raw source water samples analyzed for coliform bacteria;
  - (b) Results from one raw source water sample that has been analyzed for, any primary MCL in Table 1 of this section; and
  - (c) In areas known or suspected to have contaminants of public health concern, one raw source water sample analyzed for the contaminant(s) as directed by the health officer.
- (3) When analytical results indicate a presence of coliform bacteria, a purveyor shall do the following:
- (a) Disinfect the source using procedures under Chapter 8.30.160; and
  - (b) Collect two repeat samples and analyze for coliform bacteria by a certified lab.
- (4) A purveyor shall collect a confirmation raw source water sample and have the sample analyzed for each parameter that exceeded the MCL in the initial sample, if:
- (a) An analysis exceeds a primary MCL in Table 1 of this section; or
  - (b) A contaminant of public health concern under subsection (2)(c) of this section exceeds the primary MCL under WAC 246-290-310.
- (5) The health officer shall require approved treatment methods of the proposed source, consistent with Chapter 8.30.130, so that drinking water delivered to consumers does not exceed a primary MCL, and shall require that the treatment method be designed by a professional engineer meeting the qualifications of Chapter 8.30.080(3)(a) and (b) or if allowed by law, a qualified water treatment professional, if:
- (a) The average concentration from all samples for each substance taken under this section exceeds a primary MCL in Table 1 of this section;
  - (b) The repeat sample results collected under subsection (3) of this section indicate a presence of coliform bacteria; or
  - (c) A contaminant of public health concern collected under this section exceeds the primary MCL under WAC 246-290-310.

- (6) When an analysis exceeds a secondary MCL in Table 2 or 3 of this section, a purveyor shall include treatment in the Group B system design under Chapter 8.30 130 so that drinking water delivered to consumers does not exceed a secondary MCL. The treatment method must be designed by a professional engineer meeting the qualifications of Chapter 8.30.080(3)(a) and (b) or if allowed by law, a qualified water treatment professional.

**Table 1**  
**Primary Inorganic Chemical Contaminants**

Substance	MCLs (mg/L)
Antimony (Sb)	0.006
Arsenic (As)	0.010*
Barium (Ba)	2.0
Beryllium (Be)	0.004
Cadmium (Cd)	0.005
Chromium (Cr)	0.1
Cyanide (HCN)	0.2
Fluoride (F)	4.0
Mercury (Hg)	0.002
Nitrate (as N)	10.0
Nitrite (as N)	1.0
Selenium (Se)	0.05
Thallium (Tl)	0.002
Uranium (U)	0.03

Note: \*The arsenic MCL in Table 1 applies to new and expanding Group B systems. For Group B systems constructed prior to January 1, 2014, the arsenic MCL is 0.05 mg/L. WAC 246-291-360 (3) and (4) establish public notification requirements for Group B systems constructed prior to January 1, 2014, with an arsenic concentration exceeding 0.010 mg/L.

**Table 2**  
**Secondary Inorganic Chemical Contaminants**

Substance	MCLs (mg/L)
Chloride (Cl)	250.0
Fluoride (F)	2.0
Iron (Fe)	0.3
Manganese (Mn)	0.05
Silver (Ag)	0.1
Sulfate (SO4)	250.0
Zinc (Zn)	5.0

**Table 3**  
**Secondary Physical Characteristics**

Substance	MCLs
Color	15 color units
Specific conductivity	700 umhos/cm
Total dissolved solids (TDS)	500 mg/L

**Chapter 8.30.130: Design standards.**

- (1) A purveyor submitting a new or expanding Group B system design for approval shall use good engineering practices and apply industry standards in the design, such as those in the current:
  - (a) department guideline titled Group B Water System Design Guidelines;
  - (b) Water Systems Council PAS-97(04) Pitless Adapters and Watertight Well Caps;
  - (c) standard specifications of the:
    - i. American Public Works Association;
    - ii. American Society of Civil Engineers;
    - iii. American Water Works Association; and
    - iv. American Society for Testing and Materials.
  - (d) Minimum standards for construction and maintenance of wells, Chapter 173-160 WAC;
  - (e) Recommended Standards for Water Works, A Committee Report of the Great Lakes - Upper Mississippi River Board of State Public Health and Environmental Managers;
  - (f) Standard Specifications for Road, Bridge and Municipal Construction (WSDOT/APWA);
  - (g) USC Manual of Cross-Connection Control;
  - (h) PNWS-AWWA Cross-Connection Control Manual;
  - (i) International Building Code (IBC); and
  - (j) Uniform Plumbing Code (UPC).
- (2) A purveyor submitting a new or expanding Group B system design for approval shall:
  - (a) Calculate residential population by using 2.5 persons per dwelling unit;
  - (b) Use full-time occupancy for each dwelling unit; and
  - (c) Use planning, engineering and design criteria under WAC 246-290-100 through 246-290-250 if the system is being designed to serve ten to fourteen residential service connections.
- (3) A purveyor shall demonstrate that the source(s) of supply, pipes and other constructed conveyances are capable of meeting the minimum residential water supply as required under Chapter 8.30.090(4) of this regulation.
- (4) A new or expanding Group B system must be designed with the capacity to deliver the PHD at 30 psi (210 kPa) measured along property lines adjacent to distribution mains, under the following conditions:
  - (a) When all equalizing storage has been depleted, if the system is designed to supply PHD in part with equalizing storage; and
  - (b) At the "pump-on" pressure setting for the pump directly supplying the distribution system, when the water system is designed to supply PHD without any equalizing storage.
- (5) If the design PHD exceeds the total source pumping capacity, then sufficient equalizing storage must be provided.
- (6) The minimum design flow and duration required for fire flow and fire suppression storage, if provided, shall be determined by:
  - (a) The local fire protection authority; or
  - (b) As required under Chapter 246-293 WAC for Group B systems within the boundaries of a designated critical water supply service area.
- (7) In the design of a new or expanding Group B system that does not have to comply with minimum fire flow standards, a purveyor shall coordinate with the local fire protection authority to assess if any hydrants create adverse pressure problems as a result of expected fire suppression activities, and address any pressure problems in the design.
- (8) If fire flow is provided, the distribution system must be designed to provide the MDD for the entire Group B system and the required fire flow at a pressure of at least 20 psi (140 kPa) at all points throughout the distribution system when the designed volume of fire suppression and equalizing storage has been depleted.
- (9) The Group B system design must contain a water meter that measures the water use of the entire water system (totalizing source meter) and a source sample tap.
- (10) The use of individual service booster pumps to meet the requirements of this section is prohibited.
- (11) A purveyor shall equip a new or expanding Group B system with a generator disconnect switch.
- (12) A purveyor shall use generally accepted industry standards and practices in the elimination or control of all cross-connections, such as the current:
  - (a) USC Manual of Cross-Connection Control; and

(b) PNWS-AWWA Cross-Connection Control Manual,

- (13) A pitless unit, pitless adaptor, and vented sanitary well cap must conform with the product, material, installation, and testing standards under the current version of the Water Systems Council PAS-97(04) Pitless Adapters and Watertight Well Caps.

**Chapter 8.30.140: Drinking water materials and additives.**

- (1) In the design of a new or expanding Group B system, all materials in contact with potable water shall conform to the ANSI/NSF Standard 61.
- (2) Pipes, pipe fittings, fittings, fixtures, solder, or flux used in the design of a new or expanding Group B system shall be lead-free. For the purposes of this section, lead-free means:
- a. Not more than a weighted average of twenty-five one-hundredths of one percent lead for wetted surfaces of pipes and pipe fittings; and
  - b. No more than two-tenths of one percent lead in solder and flux.
- (3) Any chemicals specified for use in the design of treatment for MCLs under Chapter 8.30.120, with the exception of unscented commercial grade hypochlorite compounds, shall comply with ANSI/NSF Standard 60. The design dosage shall not exceed the maximum application dosage recommended for the product as certified by the ANSI/NSF Standard 60.
- (4) The health officer may review and approve the use of materials or additives that are not ANSI/NSF Standard 60 or 61 certified on a case- by-case basis.

**Chapter 8.30.150: Distribution systems.**

- (1) Storage reservoirs shall be designed to:
- (a) Prevent entry by birds, animals, insects, excessive dust, and other potential sources of external contamination;
  - (b) Include:
    - i. A weathertight roof;
    - ii. A lockable access hatch;
    - iii. A screened roof vent;
    - iv. An overflow pipe with atmospheric discharge or other suitable means to prevent a cross-connection;
    - v. A sample tap;
    - vi. A drain to daylight, or an alternative design approved by the health officer that is adequate to protect against cross-connection;
    - vii. Tank isolation in order to perform maintenance procedures; and
    - viii. Other appurtenances appropriate for the protection of stored water from contamination;
  - (c) Be above normal ground surface level. If the bottom elevation of a storage reservoir must be below normal ground surface:
    - i. The storage reservoir must be placed above the groundwater table; and
    - ii. The top of a partially buried storage reservoir must be at least two feet above normal ground surface.
  - (d) A Group B system designed to supply fire hydrants must have a minimum distribution main size of six inches (150 mm) supplying each hydrant.

**Chapter 8.30.160: Group B system disinfection.**

- (1) A purveyor shall disinfect a Group B system before providing service to any consumer.
- (2) The water system disinfection procedures must conform to the following standards:
- (a) AWWA C651-05 or APWA/WSDOT, for water main disinfection;
  - (b) AWWA C652-02, for reservoir disinfection; and
  - (c) AWWA C654-03, for well disinfection.

**Chapter 8.30.170: Continuity of service.**

- (1) A purveyor of a Group B system shall notify all the system's consumers and the health officer in writing before transferring ownership. The notification must include a time schedule for transferring responsibilities, identification of the new owner, and under what type of authority the new ownership will operate.

- (2) At least one year prior to terminating system operation, a purveyor of a Group B system shall notify all consumers in writing and provide a copy of the written notice to the health officer.

**Chapter 8.30.180: Existing Group B systems.**

- (1) A purveyor of a Group B system shall apply for and obtain design approval under Chapter 8.30.080, or approval under subsection (3) of this section before the system:
  - (a) Expands to serve a new service connection needing potable water; or
  - (b) Provides potable water for a new use of an existing service connection if a local permitting authority requires an approved public water supply as a condition of an approval of the new use.
- (2) A local permitting authority may determine a Group B system constructed before January 1, 2014, without design approval under this chapter, to be adequate for existing connections if, at a minimum, the following requirements are met:
  - (a) The system's source(s) must meet well construction standards, under Chapter 173-160 WAC;
  - (b) A well site inspection completed by the LCHD has documented that there are no sources of contamination in the SCA that could create a public health risk;
  - (c) The system meets water quality standards under Chapter 8.30.120, Table 1; and
  - (d) The system is capable of maintaining a minimum 20 psi at all points throughout the distribution system during peak demand.
- (3) A purveyor of a Group B system approved prior to January 1, 2014, may provide potable water to additional service connections provided that:
  - (a) The expanded use is consistent with the existing design approval;
  - (b) The expanded use does not exceed the number of approved service connections; and
  - (c) The purveyor complies with all locally adopted requirements.

**Chapter 8.30.190: General requirements**

- (1) A purveyor of a Group B system shall provide potable water to the system's consumers.
- (2) The health officer may require a purveyor to collect water quality samples, have the samples analyzed by a certified lab, and report results as required under Chapter 8.30.200, when the health officer:
  - (a) Determines a public health risk exists;
  - (b) Receives information documenting contamination;
  - (c) Receives a report of suspected or known waterborne illness from a health care provider as required under chapter 246-101 WAC; or
  - (d) Is aware of, or observes, a situation in which the source may be vulnerable to contamination. For example, a source is vulnerable to contamination from a flood event.
- (3) The purveyor is responsible for submitting ongoing system sampling for:
  - (a) A coliform sample collected from the distribution system at least annually to include presence /absence for coliform and e. Coli with the results submitted to the Lincoln County Health Department;
  - (b) a nitrate sample collected from the distribution system at least every three years; and
  - (c) any other parameters of concern identified by the Health Officer during system approval
- (4) Sampling results that show an exceedance of the maximum contaminant level as defined in table 1, 2, and 3 of this section shall be reported to the Lincoln County Health Department within 24 hours to determine appropriate follow up.
- (5) When coliform bacteria are present in sample, the purveyor shall ensure that:
  - (a) The sample is analyzed for E. coli;
  - (b) A minimum of three follow-up samples are collected and submitted for coliform analysis from the following locations:
    - i. The same location as the routine sample;
    - ii. The system source(s);
    - iii. Storage tank, if applicable; or
    - iv. Other location based on system design



- (c) Provide notification to the health officer and consumers as per Chapter 8.30.200, except that the purveyor is responsible to report to the health officer the presence of coliform bacteria within three day of notification by a laboratory;
  - (d) Other action is taken as directed by the health officer.
- (6) The purveyor of a Group B system utilizing treatment to meet water quality requirements of Chapter 8.30.120 shall be required to:
- (a) demonstrate compliance with water system treatment maintenance and operation, including additional sampling at a frequency based on the treatment technology used or as otherwise established by the health officer;
  - (b) ensure samples taken are collected, transported, and submitted for analysis according to approved methods;
  - (c) ensure samples are analyzed by a certified lab.
- (7) Where continued chlorination is required, the purveyor shall check the free chlorine residual daily, or at a frequency determined by the health officer.
- (8) Group B systems regulated by this Chapter shall be determined compliant based on the following criteria:
- (a) Water system approval;
  - (b) Compliance with monitoring and treatment reporting requirements.

**Chapter 8.30.200: Public notification.**

- (1) A purveyor of a Group B system shall notify the health officer, and all system consumers in writing within twenty-four hours when the purveyor:
- (a) Obtains a water quality sample analysis from a certified lab indicating the presence of E. coli;
  - (b) Obtains a water quality sample analysis from a certified lab indicating the presence of nitrate at a concentration at or above 10.0 mg/L; or
  - (c) Obtains a water quality sample analysis from a certified lab that indicates an exceedance of additional contaminants required for monitoring by the Health Officer during system approval.
  - (d) Is aware of circumstances that pose a threat of acute contamination, such as a flood event.
- (2) A purveyor of a Group B system required to monitor water quality under Chapter 8.30.190 that is not required to notify consumers within twenty-four hours under subsection (1) of this section shall notify the, health officer, and all system consumers, in writing, within thirty days of receiving the results from a certified lab if directed by the health officer.
- (3) If a Group B system constructed prior to January 1, 2014, has an arsenic concentration exceeding 0.010 mg/L, the purveyor shall notify consumers in writing:
- (a) By March 31, 2014, if the sample analysis result from a certified lab was obtained prior to January 1, 2014;
  - (b) Within thirty days of receiving a sample analysis result from a certified lab; or
  - (c) Within thirty days of adding a new service connection under Chapter 8.30.180(3).
- (4) The public notification must include the following information:
- (a) A description of contamination and any known problem(s);
  - (b) What the purveyor is doing to resolve the problem(s);
  - (c) Where to get information about potential health effects;
  - (d) What the consumers should do to protect their health, including the use of another source of water;
  - (e) When the purveyor expects the problem(s) to be resolved; and
  - (f) Group B system contact information, including address, phone number, and if available, an e-mail address.

**Chapter 8.30.210: Severability.**

- (1) If any provision of this chapter or its application to any person or circumstances is held invalid, the remainder of this chapter, or the application of the provision to other persons or circumstances, shall not be affected.