

Chapter 13.03A - Water System and Fire Flow Standards

13.03A.010 - Standards included by reference.

Unless superseded by more stringent provisions herein, all water system design, construction, and operation shall be in accordance with applicable federal, state, and local regulation. These include, but are not limited to:

- A. **Minimum design specifications:** WAC 246-290, "~~Drinking Water Regulations~~ [Group A Public Water Supplies](#)," and the current edition of "Sizing Guidelines for Public Water Systems," prepared by the Department of Health (DOH);
- B. **General material specifications and construction standards:** except as provided in these minimum standards, approved plans and specifications, or by waiver granted in writing by the county or DOH, selection of materials and construction of water system facilities in Island County shall conform to good engineering practices such as those set out in the following:
 - 1. Applicable municipal ordinance;
 - 2. "Standard Specifications for Road, Bridge, and Municipal Construction";
 - 3. Washington State Department of Transportation/American Public Works Association (DOT/APWA), latest edition;
 - 4. Standards of the American Water Works Association (AWWA);
 - 5. "Recommended Standards for Water Works," Great Lakes-Upper Mississippi River, Board of Sanitary Engineers, ~~1972 (ten state standards)~~, or the latest edition; and,
 - 6. Recommendations of the individual manufacturer of materials or equipment.
- C. **Well construction and maintenance:** WAC 173-160, "Minimum Standards for Construction and Maintenance of Water Wells"; and, WAC 246-290, "~~Drinking Water Regulations~~ [Group A Public Water Supplies](#)."

13.03A.020 - Applicability.

- A. These standards apply to design and construction of new and expanding public water systems, as defined in section 13.03A.030.
- B. As of the effective date of these standards, existing water systems are not required to utilize these minimum standards for repair or replacement of facilities, or addition of services within approved plans and specifications, so long as no expansion of service area is involved. If existing facilities must be repaired or replaced to serve an expanded service area, the new construction shall meet these minimum standards. However, adherence to these standards for repair and replacement is encouraged to provide better public water service throughout the county.
- C. If municipalities extend new water service to customers outside of the city limits, the design standards adopted by the municipality for outside city service must at least meet the minimum design standards described in this chapter.
- D. Per WAC 246-293-602, fire flow regulations apply to the following new and expanding public water systems:
 - 1. Those having more than 1,000 services (see WAC 246-290-100);
 - 2. Those with less than 1,000 services located within the boundaries of a critical water supply service area and subject to the requirement for a coordinated water system plan (see WAC 246-293-220).
- E. Fire flow regulations apply to those land development actions or permits listed in sections 11.01.030.A.—J., L.

Note: Public water systems in existence prior to September 21, 1977, which are owner-operated and serve less than ten (10) single-family residences, serving no more than one (1) industrial plant, or are non-municipally owned with no plans for water service area expansion are exempt from the planning requirement.

13.03A.030 - Definitions.

In addition to those definitions contained within chapter 17.02, when used in this chapter, the following meanings are hereby adopted:

Categories of public water systems are as follows (see WAC 246-290-010):

1. A Group A water system is a system:
 - a. With fifteen (15) or more service connections, regardless of the number of people; or
 - b. Serving an average of twenty-five (25) or more people per day for sixty (60) or more days within a calendar year, regardless of the number of service connections; and
 - c. Group A water systems are further defined as community and non-community water systems. (See WAC 246-290(b)(c)).
2. A Group B water system means a public water system which is not a Group A water system. This would include a water system with less than fifteen (15) service connections, and serving:
 - a. An average of less than twenty-five (25) people for sixty (60) or more days within a calendar year; or
 - b. Any number of people for less than sixty (60) days within a calendar year. (See WAC 246-290-020(3)(d)).

Development classifications (WAC 246-293-610) means specific geographical areas within the existing and future service area of a public water system, identified for the purpose of determining the appropriate level of fire protection.

Existing service area (WAC 246-293) means a specific area within which direct service or retail service connections to customers of a public water system are currently available.

Expanding public water systems. Island County hereby adopts the definition contained in WAC 246-293-610 as it now exists or is hereafter amended.

Fire flow means the rate of water delivery needed for the purpose of fighting fires in addition to requirements for normal domestic maximum instantaneous demand as referenced in guidelines published by the department entitled, "Design Standards for Public Water Supply."

Franchise means a non-exclusive grant by the Board of County Commissioners, pursuant to Chapter 36.55 RCW, to purveyors, persons, or private or municipal corporations to use the right-of-way of the county roads for utility purposes.

Future service area (WAC 246-293-110) means a specific area for which water service is planned by a public water system, as determined by written agreement between purveyors provided for in WAC 246-293-250.

Industrial use means for the purposes of applying fire flow standards herein, an industrial structure or building shall be one (1) in which a product is manufactured or fabricated, and where the use has an occupancy hazard classification number (OHCN) of 3, 4, or 5 as listed in the National Fire Protection Association (NFPA) Manual 1231.

Permanent population means that population served by a public water system for three (3) or more consecutive months.

Permanent service means a drinking water connection which serves a permanent population.

Planned residential development (PRD) (section 17.02.030) means a cluster residential project approved by the board pursuant to chapter 16.17. A PRD may include any type of dwelling allowed in the zone.

Planning jurisdiction (WAC 246-293-610) means the city, town, county, or other entity acting as the responsible agency for preparation and adoption of land use plans, policies, or standards affecting development.

Public water systems means as defined in WAC 246-290-020, ". . . any water supply system intended or used for human consumption or other domestic uses, including source, treatment, storage, transmission, and distribution facilities, where water is being furnished to any community, collection, or number of individuals, but excluding a water supply system serving one (1) single-family residence."

Purveyor (WAC 246-290-010) means the federal agency, state agency, county agency, city, town, municipal corporation, firm, company, mutual, cooperative, association, corporation, partnership, district, institution, person or persons owning or operating a public water system or his authorized agent.

Service (WAC 246-290-010) means public water system designed to serve a single-family residence, dwelling unit, or equivalent use. If the facility has group home or barracks-type accommodations allowing three (3) or more persons to occupy the same room, three (3) persons will be considered equivalent to one (1) service.

Service area means an area determined by the boundaries of parcels of land either provided with service connections or identified for service in approved plans and specifications of the water system.

Water main means any transmission or distribution pipe which carries water supplied to a service connection.

13.03A.040 - Approval and certifications required.

- A. Upon water system development, and/or franchise application, the following certifications shall be submitted to the Island County Health Department:
1. Water system plan if required (WAC 246-290-100).
 2. Water rights. A water rights certificate or a registered water rights claim is required for all systems withdrawing or using more than 5,000 gallons per day. Copies documenting existing or pending water rights shall be submitted.
 3. Engineering report. If required by WAC 246-290, a copy of any engineering reports, with letters of approval, from the appropriate authority.
 4. Construction documents. A copy of specifications, maps, and drawings for the water system which shall contain the following information as a minimum:
 - a. Location and size of all mains and service lines;
 - b. Location of all valves, fire hydrants, blow-offs, air release valves, check valves, and other equipment; and,
 - c. Well site location, pollution control area and associated auditor's file number, buildings, culverts, ditches, streams, ponds, and other physical features within or affecting the control area must be shown.
 5. Well site approval(s) and recorded declaration of covenant.
 6. Pump test results, inorganic chemical analysis results, and bacteriological test results for all wells to be used by public water systems before said wells may be put on-line to the system. This applies to wells for new systems and/or new wells hooking on-line to existing systems. Requirements of the adopted sea water intrusion policy shall be included.
 7. Operating maintenance and management agreement in accordance with WAC 246-290-410, small water system management program.

8. Engineering report, plans, and specifications, or registered engineer's approval and seal, if required by WAC 246-290.
 9. All water storage tanks or reservoirs shall be shown and capacities given. Pressure tanks shall comply with the ASME code for pressure vessels.
 10. Elevations shall be shown for the well, tank inlet, water full level, and water normal operating level. Elevations for the area served by the distribution system will be indicated by contour lines and/or spot elevations to enable evaluation of the system.
 11. Pumping specifications, including the horsepower of the pump motor, normal operating head pressure, and the delivery capacity to the pump in gallons per minute at normal operating head.
 12. A copy of the hydraulic analysis which determined the design of the system shall be furnished to the County Health Department and DOH.
 13. When no new subdivision is involved, but a franchise is needed, the information must be delivered and/or waiver approved by the county engineer prior to publication of the legal notice for the hearing for the granting of the franchise.
 14. In other cases, all the applicable information and approvals are necessary prior to public use of the water system.
- B. Fire flow planning (per WAC 246-293-630 application):
1. Water system plans, as defined in WAC 246-293, prepared by those public water systems identified in WAC 246-293-602 shall include a section in their plans addressing fire flow, hydrant, and system reliability standards in accordance with this chapter, WAC 246-293-640, 246-293-650, and 246-293-660. The section shall include a map entitled "Development Classifications," which shall delineate the existing and future service area of the water system into the following categories:
 - a. **Rural:** Lot sizes greater than one (1) acre (including parks, open space, agricultural lands, etc.)
 - b. **Residential:** Lot sizes one (1) acre or less (including all single- and multi- family structures less than 4,000 square feet, and mobile homes and recreational vehicle parks)
 - c. **Commercial and multi-family residential:** Structures with a floor area 4,000 square feet or greater
 - d. **Industrial.**
 2. Assignment of the above categories shall be based upon:
 - a. Existing development; and
 - b. Future development potentials for a minimum of ten (10) years as identified in proposed or adopted land use plans and policies applicable within the existing and future service area.
 3. The water system plan shall identify and schedule improvements needed in order for the water system to be capable of supplying required fire flow for new and expanding public water systems consistent with these regulations.

13.03A.050 - Franchise requirement.

- A. All owners/operators of water systems which propose to have lines in county road rights-of-way in excess of 500 lineal feet must comply with state statutory franchise requirements and as outlined in ordinances passed by the County Board of Commissioners authorizing such use of the roads and rights-of-way. Minimally, all work performed in a county right-of-way shall require a permit from the county engineer. Construction within incorporated areas remains subject to municipal permitting requirements. If requirements of the franchise are more stringent than the adopted minimum standards, the franchise shall have precedence.

- B. Applications for franchises should be made on the form available from the county engineer's office. A non-refundable fee is to be submitted with application. All information required by this standard must be submitted to the county engineer's office prior to scheduling a public hearing before the Board of County Commissioners (required by law) for granting the franchise.
- C. Publication of legal notice of the hearing is required for two (2) weeks. The franchise applicant will be billed for any expenses incurred over and above initial non-refundable application fee after the franchise is granted or denied.

13.03A.060 - Inspection requirement.

A copy of the construction report for public water system projects as required in WAC 246-290-040 must be submitted to the Island County Health Department within sixty (60) days of completion and prior to the use of any project.

13.03A.070 - Well sites.

- A. New wells shall be located so that the pollution control area does not infringe upon existing or proposed county road rights-of-way. A variance to this requirement may be granted by DOH, as per WAC 246-290-060. For existing county roads, the right-of-way shall be considered to be sixty (60) feet as a minimum, and as shown by deed, where the deeded right-of-way is greater. Public wells must also conform to WAC 246-290-135, source protection.
- B. All new public water system wells shall be inspected and approved by the Island County Health Department or in accordance with WAC 246-290-130.
- C. A copy of the recorded easement and/or covenants establishing the appropriate pollution control zone shall be furnished to the Island County Health Department (per WAC 246-290-135).

13.03A.080 - Minimum design requirements.

- A. **Pressure.** Water systems shall meet minimum pressure requirements of WAC 246-290. Water systems supplying fire flow shall do so with a minimum residual head pressure of twenty (20) psi during normal maximum instantaneous demand conditions.
- B. **Pipe sizing.** All piping sizes shall conform to WAC 246-290. However, in no case shall water mains be less than six (6) inches diameter, except in the following cases:
 - 1. Branch lines into culs-de-sac or other such locations where further expansion of the system is very improbable. Such lines shall be of the size designated in approved plans and specifications by the certifying engineer, but shall not be less than two (2) inches in diameter. If two (2) inch diameter line is used, it is limited to a maximum length of 300 feet. Greater lengths are permissible if such is certified by a professional engineer.
 - 2. Service lines which run from the main directly to either right-of-way edge.
- C. **Lead-free materials.** All pipe material for new water systems shall be constructed with "lead-free" materials. The lead content for joint compound materials (solder and flux) used for installation of pipe and fittings shall be less than two (2) percent in order to be considered "lead free." The lead content for all installed pipe and fittings shall be less than eight (8) percent in order to be considered "lead free" (per WAC 246-290-220).
- D. **Flow measurement.**
 - 1. All water mains installed for new or expanding water systems shall be provided with individually metered service lines if:
 - a. The mains are installed as part of a new water system;
 - b. The mains are added to expand an existing water system which is individually metered;
 - c. The mains are added to expand an existing water system which is unmetered and does not have master meters installed on all sources of supply, including new sources;

- d. Minimally, all expanding water systems shall include in their planning a feasibility and benefit analysis of individual metering of all services.
- 2. New water mains need not be provided with metered service lines if:
 - a. The installation is for replacement only and not for expansion of service area;
 - b. The mains are added to serve residential customers by expansion of an existing un-metered system, provided master meters are installed on all sources of supply, including new sources.
- 3. Commercial or industrial users connecting to new water mains will not be exempt from the metering requirement. Commercial, industrial, and residential water consumption may be measured by a master meter for service to a multi-unit complex under single ownership.

It is recommended that all utilities consider the use of meters as a means of water conservation.

- E. **Measurement of groundwater sources.** All new groundwater sources developed to service public water systems shall be provided with a device for measurement of depth to water and a meter for flow measurement and consumption records. Installation of these devices is also recommended for existing groundwater sources. Air tube installations, if used, shall be of one-half-inch diameter rigid tubing and of copper, high density, polyethylene, or other material which will not impart taste, odor, or toxic substances to the water.
- F. **Isolation valving.** Valves shall be installed in a manner which permits isolation of lines. In all fire flow systems such valves shall minimally be installed at every hydrant location.
- G. **Air and air-vacuum relief valves.** In order to minimize problems associated with air entrainment, the purveyor shall wherever possible provide for installation of air or combined air-vacuum relief valves at appropriate points of high elevation in the system. All piping shall be wherever possible sloped to permit escape of any entrained air.

Combination air release/air vacuum valves shall have a maximum operating pressure of at least 300 psi.

- H. **Blow-off assembly.** A blow-off assembly shall be installed on all dead-end runs and at designated points of low elevation within the distribution system. The blow-off assembly shall be installed in the utility right-of-way except where an access and construction easement is provided for in writing to the water utility. In no case shall the location be such that there is a possibility of back-siphonage into the distribution system. The following table of minimum blow-off assembly sizes shall be utilized in accordance with the following distribution main sizes:

Distribution Main Size	Minimum Blow-Off Assembly Size Required
6-inch or less	2-inch
Above 6-inch and up to 12-inch	4-inch
Greater than 12-inch	Determined upon review by state DOH on a case-by-case basis

- I. **Storage.** Sizing of storage facilities shall be adequate to provide for equalizing storage, plus the larger of standby or fire storage requirements. Equalizing and standby storage volumes shall be determined using "Sizing Guidelines for Public Water Supplies," DOH. Minimum fire storage volumes shall be determined by the required fire flow and duration in the utility's service area, and by the use classification of structures or buildings served by the system. Installation of storage facilities may be

phased in certain cases as provided in section 13.03A.100.K. Siting of storage facilities should consider locations which provide gravity flow.

In areas where the existence of salt water intrusion or numerous low-yield wells has been documented, the oversizing of storage facilities may be required in order to reduce peak demand impacts upon the aquifer.

J. Facility placement.

1. In unincorporated areas, utilities placed within the county right-of-way on new roads or in roadways, where existing topography, utilities, or storm drains are not in conflict, shall be located as follows:

The preferred location for water lines parallel to the road is six (6) feet within the county right-of-way line. Water lines are to be located on the north and east side of streets. Otherwise, when it is demonstrated to the satisfaction of the county engineer that it is not reasonable to follow this location, the alternative is:

- a. Along county arterial and collector roads, seventeen (17) feet from the centerline of the road;
- b. Along county local access roads, no closer than four (4) feet from the edge of the pavement; and
- c. When conditions require, as approved by county engineer.

Water mains over six (6) inches in diameter shall not be located in the shoulder without specific written approval of the county engineer.

Where existing utilities or storm drains are in place, new utilities shall conform to these standards as nearly as practical and still be compatible with the existing installations. For incorporated areas, city ordinances and utility placement standards shall apply.

2. New utility easements must be a minimum of fifteen (15) feet in width, unless subject easement is contiguous to an access easement or public right-of-way. In such case, the minimum easement width shall be seven and one-half (7.5) feet. Access shall be provided to all public water system lines, their appurtenances, and public fire hydrants that are maintained by public agencies or utilities.
3. All water lines of nonmagnetic material shall have a magnetic sensitive detector tape and/or suitable plastic indicator tape located twelve (12) inches continuously above the water line for its entire length.

K. Pipe cover.

1. The depth of trenching, installation of pipes, and back fill shall be such as to give a minimum cover of thirty-~~six~~ (306) inches over the top of the pipe from finished grade. This standard shall apply to transmission, distribution, and service piping to the meter. Remaining depth of trench to be filled in accordance with applicable construction standards identified in the general materials specifications section 13.03A.010. Compaction on county road rights-of-way shall adhere to appropriate Island County Road Department requirements. Materials capable of damaging the pipe or its coating shall be removed from the backfill material.
2. All water lines crossing the roadway shall be laid perpendicular to the centerline of the road, unless an alternative is approved by the county engineer. The top of pipe for such water lines shall be three (3) feet minimum below the pavement surface. Conduits may be required by the county engineer where materials used for the water lines are susceptible to damage by traffic loads, vibrations, etc., or a combination of these factors. Pipe encasements may be installed under the roadbed for future utility pipe installations.

L. Separation distances.

1. Transmission and distribution water piping shall be laid at least ten (10) feet horizontally from any existing or proposed on-site waste disposal piping, drain fields, and/or waste water gravity or force mains. The distance shall be measured edge to edge. In cases where it is not practical to maintain a ten-foot separation, the Health Department may allow deviation on a case-by-case basis, if supported by data from the design engineer.

Closer spacing may be permissible for water mains near gravity sewer piping which is constructed to water main standards and which has been pressure tested to ensure water tightness prior to back-filling.

2. Other utilities, such as telephone or electrical, may be installed to within three (3) feet horizontal separation.

13.03A.090 - Fire hydrants.

- A. **Fire hydrants.** Hydrants, where required, shall be provided as specified in WAC 246-293-650.
- B. **Marking of hydrants.** Hydrants, where required, shall be marked as specified in NFPA 291 chapter 2.
- C. **Spacing.**
 1. All hydrants in fire flow system shall be spaced so as to ensure that all commercial, industrial, or multifamily structures or building sites served by the system shall be reached by unobstructed hose lays of no greater than 500 feet to all parts of any structure.
 2. Fire hydrants shall be located at roadway intersections wherever possible, and the distance between them shall be no further than 900 feet, or as necessary to meet the hose lay requirements for commercial, industrial, or multifamily structures or building sites.
 3. All water mains and transmission lines shall be equipped with at least capped tees to facilitate future hydrant installation. Said tees are to be installed at the following maximum spacing intervals measured along improved roadways:
 - a. **Residential uses:** 900 feet maximum
 - b. **Commercial/industrial/multi-family:** Intervals as necessary to meet the above 500-foot hose lay standard for commercial, industrial, or multifamily structures or building sites.
 4. Where geographically or otherwise possible, spacing intervals for hydrants or tees shall commence at street intersections.

13.03A.100 - Fire flow requirements.

- A. New water systems and expansion of existing water systems shall be designed and constructed to provide for fire flows in a manner consistent with the standards outlined in this chapter.
- B. Nothing herein shall preclude the building official's authority to establish, with cause, fire protection requirements for any building or structure on improved property, utilizing ~~Uniform~~ [International](#) Fire Code, NFPA Standards, ISO Standards, or Island County Building Standards, as appropriate.
- C. Minimum fire flows to be provided by new or expanding public water systems shall be determined as follows:

Nine (9) or less lots and/or dwelling

1. units, where all lots are greater than No fire flow required
one (1) acre in size

Planned residential developments of nine (9) or less lots and/or
2. dwelling units, where the density, including open space, is greater than one (1) dwelling unit per acre

500 gallons per minute for thirty (30) minutes. Fire protection may be provided by other means, such as sprinkler systems, fire control setbacks, or building standards, provided that such alternate methods are fully documented in the water system plan, and are approved by the local fire protection district, the Building Official, and the appropriate health agency.

Nine (9) or less dwelling units
3. and/or lots, where any lot is one (1) acre or less in size

500 gallons per minute for thirty (30) minutes. Fire protection may be provided by other means, such as sprinkler systems, fire control setbacks, or building standards, provided that such alternate methods are fully documented in the water system plan, and are approved by the local fire protection district, the Building Officials, and the appropriate health agency.

Over nine (9) lots and/or dwelling
4. units, where any lot is less than two and one-half (2½) acres

500 gallons per minute for thirty (30) minutes

5. Non-residential and multifamily residential:

a. Lots

Any division of land in the non-residential zone shall require fire flow based on the structures proposed, as specified in this chapter. However, alternate methods of fire protection, such as approved sprinkler systems, fire control setbacks, or building standards may be provided in lieu of fire flow, if the location, size, and use of future structures is specified through the site plan approval process, and provided that such alternate methods are fully documented in the water system plan, and are approved by the local fire protection district, the Building Official, and the appropriate health agency.

b. Structures

(i) Commercial and multifamily residential:

(1) Structures with a floor area of 4,000 square feet or greater

750 gallons per minute for sixty (60) minutes

(2) Multiple structures with an aggregate area of 4,000 square feet or greater, comprised of individual structures with a floor area of less than 4,000 square feet

The Island County Building Official may apply the following:

(a) Where individual structures have a fifty-foot or greater separation between exposures and from existing and potential structures on adjacent lots, they may be considered separate structures with no fire flow requirement.

(b) Where individual structures have a separation between exposures and from existing and potential structures on adjacent lots of fifty (50) feet or less, but more than ten (10) feet, NFPA ~~4234~~ [1142](#) may be used to determine fire flows.

(c) Where individual structures have separations between exposures of ten (10) feet or less, they will be considered as one (1) structure for fire flow purposes, provided that structures separated by a four-hour fire resistive area separation wall with no openings, and in

compliance with the provisions of the Uniform Building Code, may be considered as separate structures, and may provide fire flows as in NFPA 1231; and further provided that structures protected by an approved sprinkler system and separated by a fire-resistive area separation wall, in compliance with the provisions of the Uniform Building Code, may be considered as separate structures and may provide fire flows as in NFPA ~~1231~~ [1142](#).

(ii) Industrial structures:

1,000 gallons per minute for sixty (60) minutes. Fire protection may be provided by other means, such as approved sprinkler systems, provided that such alternate methods are fully documented in the water system plan, and are approved by the local fire protection district, the Building Official, and the appropriate health agency.

Fire flows for industrial structures may be subject to higher fire flow requirements, and shall be determined by the Building Official based on occupancy hazard classification in NFPA ~~1231~~ [1142](#).

(iii) Institutional uses:

Fire flow shall be provided as determined by the Building Official, who, in consideration of nationally recognized standards, shall assign structures associated with institutional uses to the categories listed in this subsection.

(iv) Mixed uses:

Fire flow shall be provided for all uses based on the most stringent fire flow requirement for associated commercial, industrial, or institutional uses.

(v) Agriculture uses:

(1) Structures with a floor area of 4,000 square feet or greater 750 gallons per minute for sixty (60) minutes

(2) Livestock storage and hay storage barns within the rural agriculture and commercial agriculture zones (this does not include barns for recreation, commercial or event uses) 750 gallons per minute for sixty (60) minutes. The Island County Building Official, the local fire protection district and appropriate health agency may approve fire flow alternatives for unusual or hardship cases.

For the following livestock storage and/or hay storage barns within the rural agriculture and commercial agriculture zones, no fire flow is required.

(a) Livestock storage buildings greater than 4,000 square feet, which are one (1) story in height, built with an approved building permit, and that do not contain other occupancies that require fire separation and adhere to all of the following requirements:

(I) Minimum sixty-foot separation on all sides between exposures and from existing and potential structures on adjacent lots; and

(II) Barns may contain hay or combustible fiber storage areas provided that the storage area(s) are not greater than 2,500 cubic feet in any one (1) stack and that multiple stacks are not closer than sixty (60) feet to each other at the stacks' closest edge; and

(III) Setbacks are to be at least sixty (60) feet on all sides to property lines, including property lines as defined in the Uniform Building Code.

(b) Hay storage buildings of 12,000 square feet or smaller, which are one (1) story in height using unlimited area analysis as permitted in the Uniform Building Code and adhere to the following:

(I) Hay storage areas or buildings are located at least sixty (60) feet from all other buildings, structures and property lines, including implied property lines and other hay storage areas; or

(II) When unlimited area analysis is used to determine area, hay storage areas or buildings are located at least 120 feet from other buildings.

(c) For those buildings that qualify to be permitted without fire flow under subsections (a) or (b) above, the following requirements also must be met:

(I) A covenant that runs with the parcel shall be executed by the current owner and recorded with the Island County Auditor. The covenant shall identify the current use of the building and shall acknowledge that the current owner understands and notice to all future owners that any changes in use of the building

as determined under the Uniform Building Code will require a building permit and support upgrading of all aspects of the building to the new use or occupancy. The covenant document will be prepared by the Planning and Community Development Department.

(II) Two (2) fire extinguishers are to be provided adjacent to the main doors of each building and are to be serviced and certified annually by a licensed contractor arranged and paid for by the owner/user of the buildings that are exempted from the fire flow requirements.

- D. In the event that fire protection is provided by alternative means, the requirement shall, as a condition of approval, be recorded by the applicant/owner as a covenant running with the title of the land served or to be served by the water system and be disclosed by the owner in writing prior to the sale, lease, or offer to sell or lease any property subject to the covenant.
- E. Where fire flow is required, fire flows will be provided at twenty (20) psi minimum residual pressure. However, water supplies provided on-site for fire protection purposes only may supply fire flow at less than twenty (20) psi residual if arranged as required by ~~N.F.P.A. 1231~~ [NFPA 1142](#), chapter 6, and in consideration of recommendation by the local fire protection district.
- F. Minimum fire flows are in addition to requirements for normal domestic use.
- G. Commercial and industrial buildings may be subject to higher flow requirements when evaluated on an individual basis by the local fire protection district and the Building Official.
- H. Additional fire flow requirements above these minimums may be established by the Building Official for the properties served by the water system. The "Insurance Service Office Guide for Determining Fire Flow" may be used in establishing additional fire flow. The obligation of the water purveyor to provide fire flow service shall then be established by a written agreement between the purveyor and property owner, prior to approval.
- I. All plans for new or expanding water systems shall identify and schedule improvements needed in order for the water system to be capable of supplying required fire flow consistent with these regulations.
- J. Construction schedule requirements. Prior to final plat or development permit approval, all required fire protection facilities must be either:
 - 1. Constructed in accordance with approved plans and specifications and certified "as-built" as provided in these standards; or
 - 2. Bonded for completion subject to release of bond after certification of inspection; or
 - 3. Identified in a phased construction plan approved by the Health Department and Engineering Department in accordance with section 13.03A.100.K.
- K. Phased construction.
 - 1. Provision of fire flow service may be approved by the Health Department and Engineering Department based on a phased construction plan submitted in writing by the applicant.

The construction schedule shall include plans and specifications for all facilities. The plans and specifications shall be approved by the county and DOH. A financing plan shall also be provided showing improvements required, estimated cost, cost to each benefited property, and a provision for escrow account, or other means approved by the county, to accumulate funds required for completion. The approved phased construction plan shall be recorded with the deed in the county auditor's office and made a provision of the plat, subdivision, or land use permit.

The phased construction plan shall identify initial facilities to be constructed, including source, storage, pumping, hydrant location(s), and mains, and shall contain a certification by a registered engineer of initial fire flow service level in gallons per minute at each hydrant. A schedule of completion of all remaining facilities shall be provided which is consistent with the

schedule of site improvements. The schedule shall also indicate fire flows provided by each phase of construction.

2. When subdivisions/development/buildings served by existing water systems or an extension of said existing systems are proposed, and fire flow is required by these regulations, incremental improvement toward complete compliance may be stipulated, reflecting concurrence of the Health Department and the Engineering Department.

13.03A.110 - Waiver.

When a waiver is requested by the applicant for a proposed system, which would not vary substantially from this chapter, 13.03A, and which meets the minimum Washington Administrative Code Public Water System Standards, it will be processed administratively by the Island County Engineer. When waivers are requested by the applicant for proposed systems, or changes to, or expansion to an existing system, and do not meet the minimum requirements set forth in the Washington Administrative Code Public Water System Standards, they must be reviewed and approved by the Washington State Department of Health and the Island County Engineer, Island County Health Department, and the Island County Building Official.

13.03A.120 - Severability.

If one (1) of these sections is found to be invalid it does not invalidate the entire document.

13.03A.130 - Repealer.

Island County Code [chapter] 13.03, as adopted by Ordinance PW I-79 on September 10, 1979, and revised by Ordinance PW 1-80 on June 5, 1980, is hereby repealed.

13.03A.140 - Effective date.

Effective date of these standards shall be July 9, 1990.