



Title Requirements for Water Service	Number WTR-440	Rev. no. 1
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Chief of Staff, on behalf of General Manager/CEO <u>Andrew Greenhill</u> <small>Andrew Greenhill (Mar 19, 2024 15:57 PDT)</small>	Approval date Mar 19, 2024	Effective date April 1, 2024

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I. PURPOSE

This Director's Rule establishes Seattle Public Utilities' (SPU) requirements to receive water service. The requirements are documented in Water Availability Certificates (WACs) in response to certain applications for building or land use permits within SPU Water's direct service area; changes to existing water services; new retail water service requests; requests for water service to serve properties outside SPU's direct service area; and customer requests for information about SPU's infrastructure and capacity requirements.

II. DISCRETION

In limited or exceptional circumstances, and when it is in the best interests of the utility, SPU's General Manager/CEO or authorized designee, may modify or waive the water system improvements under this rule.

III. ORGANIZATIONS INVOLVED

The following agencies collaborate with SPU on WAC requirements or are jurisdictions where an SPU-issued WAC may be required:

- City of Seattle, Seattle Public Utilities
- City of Seattle Department of Construction and Inspections
- City of Seattle, Department of Transportation
- City of Seattle, Fire Department
- King County Fire District #2
- North Highline Fire District
- Shoreline Fire District
- King County Fire District #20
- King County Department of Permitting and Environmental Review
- City of Shoreline, Planning and Community Development
- City of Burien
- City of Renton
- City of Lake Forest Park
- Skyway Water and Sewer District

IV. DEFINITIONS

Active Water Service. A water service, which includes a meter, tail run, and union, that connects to a parcel's private water line and has water running to the union.

Applicant. A parcel owner or owner's designee who is developing a parcel to be supplied with water service or is seeking a land use permit. Applicant manages the project and communicates with the City.

Connection. A newly constructed water main, water service, or other water system appurtenance tying into an existing water main by modifying the existing water main at the point of connection. An existing water main is commonly cut and modified with new fittings to accommodate connection of the newly constructed water line.

Combination Service. A water service that measures all water conveyed through the service regardless of whether the use is domestic or fire suppression.

Cross-connection. Any actual or potential physical connection between a public water system or a parcel's private water system and any source of non-potable liquid, solid, or gas that could contaminate the potable water supply by backflow (see Washington Administrative Code 246-290-490).

Distribution system. A network of feeder and distribution water mains and appurtenances.

Direct service area. The retail service area served by SPU's water distribution system as defined by the current SPU Water System Plan.

Distribution Water Main. Any water main that is not a feeder main or a transmission pipeline and is defined in this section as a standard distribution water main, suitable water main, or an obsolete distribution water main.

Divided Roadway. A street consisting of two or more roadways divided by a permanent barrier, landscaped median, pedestrian/bike trail, rail line, greenbelt or structure. It also includes designated state highways or high-volume arterial streets.

Domestic Service. A water service intended to supply the domestic consumption needs of a parcel.

Feeder Mains. Mains that convey treated water between water storage/supply facilities and distribution water mains. Most feeder mains are a minimum of 12 inches in diameter and supply water to distribution water mains, which in turn supply water to water services and fire hydrants. Feeder mains are not available for directly supplying new water services.

Feeder/Distributor Mains. Feeder mains, or specific feeder main segments, designated by SPU to also serve as a distribution water main, directly supplying water services to properties.

Fire Hydrant. An assembly intended to convey water from the distribution system to firefighters, also used for system maintenance.

Fire Service. A meter-monitored water service intended to only supply a private parcel fire suppression system, which may include private fire hydrants.

Grid Junction. The location where distribution, feeder, and/or feeder/distributor mains intersect at a tee or a cross.

Inactive Water Service. A water service with no meter which may or may not have a meter box or setter and has no active billing service agreement. Viability requires an inspection by SPU.

Irrigation Service. A domestic water service dedicated to landscape irrigation needs for a parcel and to which no sewer bill is attached. Irrigation services are only authorized for parcels billed commercial water rates. Non-irrigation domestic or fire use is prohibited. The irrigation water service must have backflow prevention installed commensurate with the hazard (see Washington Administrative Code 246-290).

Landlocked. A parcel that does not abut any street right-of-way and is separated from the nearest street right-of-way by at least 10 feet of the parcel, which cannot serve as access to the parcel from the street right-of-way.

Latecomer Agreement. A contract between SPU and an applicant, pursuant to Revised Code of Washington (RCW) 35.91 and Seattle Municipal Code (SMC) 21.80, which may allow an applicant to recover a portion of the costs of installing new utility system improvements from other benefiting parcels at the time they connect to the new system improvements.

Master Meter. A metered water service from an SPU-owned water main, serving more than one legal parcel when a homeowner's association exists.

No-Taps Water Main. Pipes not designated for directly supplying metered water services to a parcel, which include (1) transmission pipelines; (2) feeder mains that are not designated as feeder/distributor mains; (3) supply feeders; (4) portions of any water main passing through a street intersection; (5) portions of any water main located interior to the valves controlling a water main grid junction, such as a "tee" or "cross"; and (6) any water main designated with a

“No Tap” restriction by SPU.

Obsolete Distribution Water Main. A water main having characteristics such as, but not limited to, inadequate diameter, excessive corrosion, inadequate materials, or compromised structural properties. Includes water mains constructed of galvanized steel, kalamein, non-C900 PVC, or other substandard materials; all 2-inch water mains, and all unlined water mains with 6-inch diameter and smaller.

Parcel. A tract or plot of land, including unit lot subdivisions under SMC Title 23, Land Use Code. For the purposes of this rule, individual unit lots are considered separate parcels.

Pressure Zone. A geographic sub-area within the Direct Service Area intended to be supplied with water from one or more sources having a common effective elevation.

Private Fire Hydrant. A privately owned and maintained fire hydrant.

Private Water Line. The customer-owned water pipe that extends from the public water service union onto the parcel and connects to the parcel’s water plumbing system. Private water lines will not cross any other water line.

Private Water Main. A customer-owned water pipe extending from the water service union point on a master metered SPU water service to more than one structure occupying more than one parcel or to supply a private fire hydrant and any combination of other water uses.

Setter. A prefabricated riser assembly that conveys water from the inlet portion of a water service, through a removable water meter, to the outlet (tail run) portion of the water service.

Standard Distribution Water Main. A distribution water main conforming to SPU’s current design standards, including material, diameter, valve spacing, fire hydrant spacing, corrosion protection, joint restraint, and other requirements applicable to the water main type and its location.

Suitable Water Main. A nonstandard distribution water main or feeder/distributor main that is not classified as an obsolete distribution water main or a no-taps water main.

Supply Feeder. A feeder main that conveys water from one pressure zone through areas served by other pressure zones. Supply feeders may carry water at an inappropriate pressure for the area they transect and may have no active connections with the distribution water mains they may cross.

Tap. Adding an outlet and outlet shutoff valve to supply a newly constructed water main, water service or other water system appurtenance.

Transmission Pipeline. A large-diameter pipe used to provide SPU’s and its wholesale customers’ distribution systems from primary water treatment plants and regional storage facilities.

Water Availability Certificate (WAC). The document SPU provides to applicants confirming if SPU water infrastructure exists to supply the parcel(s). The document identifies requirements, system improvements, and conditions necessary to provide water service to the parcel. A WAC is required for most development projects in Seattle and in other jurisdictions within SPU’s direct

service area. WACs are issued based on the code requirements in effect upon application. A new application is required once an existing WAC has expired as stated on the certificate.

Water Service. The portion of the SPU water distribution system dedicated to providing metered water to a specific account and parcel. The water service begins at the water main, continues through the setter and meter, and ends at the water service union. New water services shall extend in perpendicular alignment from a standard distribution or suitable water main abutting the parcel to be served by that water service and conform to City of Seattle (COS) Standard Plans for Municipal Construction and SPU Design Standards and Guidelines.

Water Service Manifold: A 2-inch diameter, SPU-owned water service conveyance that serves up to seven ¾-inch diameter, or four 1-inch diameter water services, or a combination of ¾-inch and 1-inch diameter services supplied from an adjacent water main tap according to SPU standard water service plans. A manifold assembly consists of a 2-inch diameter supply line perpendicular to the supplying water main and a distribution arm installed parallel to the water main and immediately adjacent to water service meter assemblies which extend as perpendicular lateral lines off the manifold distribution arm.

Water Service Union. A coupling or flanged connection at the end of SPU's water service, connecting the water service to the privately-owned water line.

V. BACKGROUND

The Revised Code of Washington (RCW) 19.27.097, requires that building permit applicants provide proof that water infrastructure exists to supply a new development for the intended use of the building. Evidence may be in the form of a letter from an approved water purveyor stating the ability to provide water, or another form sufficient to verify the existence of an adequate water supply. For Seattle, the evidence of adequate water supply is documented in the WAC. SPU also requires a WAC for new water services or changes to existing water services.

VI. WATER AVAILABILITY CERTIFICATE

- A. The WAC outlines provisional basic water service requirements and system improvements (water main extension, fire hydrants, valves, etc.) that are necessary for a proposed development project or a new service to receive water from SPU's distribution system. If the water main to which a parcel is required to connect to requires payment of a Latecomer Agreement (or other) fee at the time of WAC issuance, then the WAC also provides the reimbursement payment amount that may be due prior to connection to the water main.
- B. There are two ways to apply for a WAC:
 - 1. If your project is within the City of Seattle and you require a building permit or a master use permit for a platting action from Seattle Department of Construction and Inspections (SDCI), SDCI will request a WAC for you as part of their process.
 - 2. Apply directly to SPU for a WAC if your project is:
 - a. In an SPU direct water service area outside of the City of Seattle, or
 - b. Within the City of Seattle but does not require a building permit or a master use permit for a platting action from SDCI.
- C. An approved WAC is required for approval of building construction or land use permits

within SPU's direct service area. There are four WAC statuses that may be issued depending on the following conditions:

1. Approved
 - a. The number and size(s) of the water services requested, if known, for the project can be accommodated by the existing water system with no changes to the system.
 - b. If a parcel is reconfigured or subdivided, a WAC will be issued assigning the existing water service to the parcel closest to the existing water meter and abutting the originating water main.
 2. Approved for Existing Service
 - a. An existing water service shall be retained with no change; or
 - b. The proposed project does not require water service; or
 - c. The reuse of an existing inactive water service with verification that the water service meets SPU standards for reactivation.
 3. Not Approved
 - a. A water main extension or other water system improvement is required. In order to receive an Approved WAC, an Approved with Contract WAC will be issued when the applicant signs a contract provided by SPU to install the water main extension or other required system improvement; or
 - b. SPU may allow other system improvements in lieu of the standard water main extension requirement, in order to serve the parcel. These improvements may include but are not limited to new fire hydrants and valves. These alternative improvements may not always be located adjacent to the parcel. If changes to the distribution system are required to provide water to the parcel, SPU shall describe the required changes to allow new service connections. See section IX.
 - c. Any division, redivision, or lot boundary adjustment of land that has the effect of avoiding water main installation or other appurtenance requirements shall not change the installation requirements under this rule that would apply before the division, redivision, or lot boundary adjustment.
 4. Approved with Contract

The parcel owner has signed a contract provided by SPU initiating a water main extension or other required water system improvements within SPU's distribution system and has paid the associated charges.
- D. The WAC provides information to allow for planning of the water infrastructure improvements that may be necessary for the proposed project. If the proposed project has changes which impact the water service requirements, the existing WAC shall no longer apply. The applicant must apply for a new WAC to allow SPU to evaluate the proposed changes.
- E. Upon WAC expiration, a new WAC application is required. Changes to the project impacting the water service requirements, existing infrastructure, or SPU requirements may result in different or additional requirements to receive water service.
- F. Conditions not specifically described in this Rule, shall be evaluated on a case-by-case basis.

- G. Regular changes to existing water main classifications may occur as SPU makes changes to its infrastructure or identifies incorrect designations.
- H. An applicant may request a review of the requirements made on the WAC by applying for a Determination Review Request. Refer to Director's Rule ENG-430 for more information.

VII. NEW WATER SERVICES

A. General Requirements

The following conditions are required to allow new water service to existing water main(s) or changes to the existing water service. If the following conditions are not met, system improvements specified by SPU according to this rule will be required, and the WAC shall not be approved until such requirements are met.

1. In addition to other requirements outlined in Chapter 17 of SPU's Design Standards and Guidelines, all new SPU water services shall be supplied from an existing distribution water main when the following conditions exist, as applicable:
 - a. The water main is designated as a distribution water main or a feeder/distributor main, is free of any "no-tap" restrictions, and is not an obsolete distribution water main; and
 - b. The standard distribution water main extends across the full frontage of one side of the parcel boundary; and
 - c. The diameter of the proposed domestic or combination service is one nominal size less than the diameter of the distribution water main to be connected to; and
 - d. The diameter of the proposed fire service is one nominal size less than the distribution water main diameter to be connected to for mains supplied from only one direction; and
 - e. The diameter of the proposed fire service is no larger than the diameter of the distribution water main diameter to be connected to for mains with a looped supply.
2. SPU shall select the main to be connected to when more than one standard distribution or suitable water main abuts the parcel to be served.
3. Water services larger than 1-inch diameter shall be tapped on water mains, separated by a minimum of 2 feet in concentrations of no more than two taps per trench.
4. Each legal parcel shall be served by one domestic water service, with the following exceptions:
 - a. SPU may allow parcels not abutting a water main to be served by private water lines from a master meter. In such cases, owners of each legal parcel or living unit within the boundary of the parcel must sign and record a covenant that prohibits them from requesting individual service directly from SPU's distribution system. The use of a private water main or master meter does not preclude any otherwise required system improvements; or
 - b. For the purpose of providing multiple alternative water supply paths, certain parcels may be served by more than one domestic service due to the critical nature of the occupancy's water needs, such as hospitals, hotels, nursing homes, large businesses, or similar facilities; or

- c. A community or campus containing more than one landlocked legal parcel may be supplied with one water service at the perimeter of that collection of separate landlocked parcels. However, if the community of legal parcels extends more than 300 feet from its access to a street right-of-way or from another parcel occupied by an SPU water main, SPU may require extension of an SPU standard distribution water main within a minimum 15-foot easement on the private parcel to serve individual landlocked parcels in that community or campus.
5. SPU will not approve multiple domestic services for a single legal parcel of land to facilitate separately billing multiple building owners or tenants.
6. Water service shall comply with SPU's current cross-connection control policy.
7. Customers shall be responsible for the cost of installing new water services or changing an existing water service.
8. When three or more water services are requested on a cast-iron water main within a distance of 5 feet or less, SPU may require a segment of the impacted pipe to be replaced with ductile iron pipe.
9. Manifolds:
 - a. If a parcel abuts a standard distribution or suitable water main, water service to the parcel via a manifold is allowed for up to four adjacent parcels. The manifold shall be located to facilitate the shortest feasible perpendicular connection to each parcel served as determined by SPU.
 - b. Landlocked parcels (backlots) not abutting a standard distribution or suitable water main may be allowed to use manifolds, under the following conditions:
 - i. No more than seven $\frac{3}{4}$ -inch diameter or four 1-inch diameter individual services are allowed; and
 - ii. No more than two water main taps and no more than 14 total services are needed to supply all parcels; and
 - iii. Water services greater than 1-inch diameter shall require individual taps, with associated valves and fittings.
 - c. A front parcel immediately adjacent to the manifold may be allowed to connect to the manifold when the above requirements are met.

B. Private Water Lines and Easements

1. When authorized by SPU, a private water line between the SPU water service union and the structure served may occupy a portion of one or more parcels not served by that private water line when:
 - a. The parcel served is landlocked; and
 - b. The parcel served has been granted easement rights for the private water line by the parcel crossed by the private water line; and
 - c. Additional utilities may be allowed within the water utility easement when required clearances and setbacks with other utilities are met.
2. Private water lines shall be on a private parcel and not in the public right-of-way unless approved by SPU and the agency having jurisdiction over the public right-of-way.

3. Private water lines shall follow the shortest path from the water service union to the parcel or unit being served. Private water lines are not allowed under buildings.
4. Private water lines up to 1 inch in diameter may be bundled in a casing. The easement for one private water line or for a casing pipe containing bundled private water lines must be no less than the permitting agency's required setbacks with a maximum requirement of 5-feet. If water lines are not bundled in a casing, a minimum of one additional foot of easement width must be allowed for each additional private water line. The easement must be continuous from the water meter to the parcel served by that meter. The following conditions must be met:
 - a. Bundled private water lines shall be installed in a casing pipe from SPU unions to landlocked parcels; and
 - b. Each private water line in the bundle shall be separately identified on both ends; and
 - c. A casing shall be occupied by no more than seven water lines and shall be of sufficient diameter to accommodate a compressed bundle of lines within 50 percent of its cross-section area.
5. Private water lines shall be impermeable to petroleum products.
6. At the time of construction, SPU reserves the right to inspect private water lines for location, setbacks, easements, and other specifications outlined in this rule. It is the parcel owner's responsibility to ensure the private water lines are connected to the appropriate meter according to the water service utility site plan submitted to SPU. If the water line is not connected to the appropriate meter, it is the parcel owner's responsibility to install the water lines according to the utility site plan to ensure each parcel is billed appropriately for their water use. Any costs associated with necessary changes to align with the site plan are the full responsibility of the property owner.
7. A private easement across an adjacent parcel shall not preclude the requirement of a water main extension, water main modification, and/or water service installation perpendicular to an abutting standard distribution or suitable water main if otherwise required by this rule.
8. All required easements shall be obtained by the applicant and recorded; a copy must be provided to SPU when applying for the water service.

C. Metering Requirements

1. All water service connections to SPU's water distribution system shall be metered (see Washington Administrative Code 246-290-496).
2. Parcels that are served by a master meter or a privately owned water-distribution system, or share a common fire or irrigation service must provide the following when applying for water service for the parcel: documentation of the creation of a homeowners' association which shall be responsible for the operating, maintaining, repairing, and replacing the privately- owned water mains, water line, and shared water lines and for paying all SPU utility charges.

3. Customer-owned meters used for measuring water consumed by individual occupants within a facility served by a single SPU water meter shall not be read or billed by SPU. Refer to "Third Party Billing Regulation," Seattle Ordinance 121320.

D. Service Area Exceptions

1. Parcels within SPU's direct service area may obtain water service from an adjacent water utility only when mutually agreed to in writing by SPU and the other water utility.
2. SPU shall only consider an application for direct water service to a parcel not located within SPU's current direct service area when the water utility whose retail service area includes the parcel has requested in writing that SPU serve the parcel and all other applicable requirements by SPU have been satisfied.
3. New or changed water services in the Skyway Critical Water Supply Service Area, currently served by SPU, shall be transferred to the appropriate adjacent water utility if mutually agreed to by the respective utilities.

E. Fire Services

1. All parcels are eligible for separate or combination fire services to provide adequate fire protection.
2. Local Fire Department regulations govern fire-protection service sizing and requirements for the parcel, subject to SPU's service-diameter limitations for the available water-main diameter.

VIII. DISTRIBUTION WATER MAIN EXTENSIONS

Water main extensions are required when an existing standard distribution or suitable water main designated to serve the parcel does not extend across the full parcel boundary. SPU may also require installation of a water main due to system needs, such as system redundancy, health and safety, or adequate fire flow as determined by the local fire jurisdiction. The cost of the water main extension is borne by the applicant. Some cost may be recovered by a Latecomer Agreement.

A. General Requirements

1. If the full extent of the parcel boundary does not abut an existing standard distribution or suitable water main, then a standard distribution water main shall be extended to cross the extent of the parcel boundary, connecting to an existing standard distribution, suitable, or feeder water main and a second existing standard distribution, suitable, or feeder water main, except when a new main extension will cross another parcel's street frontage in order to reach its second point of connection.
2. When there is only one standard distribution, suitable, or feeder water main, new distribution water mains shall extend from a standard distribution, suitable, or feeder water main to cross the full frontage of the parcel. If the parcel is

immediately adjacent to an alley or street right-of-way, the water main shall extend beyond the parcel to the centerline of the alley or street right-of-way.

3. A water main extension is not required when the following conditions are met:
 - a. The project consists of no more than one existing legal parcel; and
 - b. The parcel shares a boundary with more than one street right-of-way; and
 - c. One boundary contains a standard distribution or suitable water main along the full extent of the boundary; and
 - d. A single water service is required.
4. New standard distribution water main installation shall follow current City of Seattle Plans and Specifications and SPU Design Standards and Guidelines.
5. In some circumstances, including but not limited to state highways, divided streets, the presence of railroad or streetcar tracks, or other obstructions in the right-of-way, installing a standard distribution water main to serve each side of the road shall be required. In such circumstances, the water main extension shall be located on the same side of the street as the parcel to be served.
6. When the properties abutting a street to be occupied by a distribution water main extension share a combination of residential and any form of commercial, industrial, or institutional zoning, SPU may require the extension be the diameter suitable for the highest use classification, as defined in the SPU Design Standards and Guidelines.
7. SPU may require a standard distribution water main extension to be installed with a pipe larger than required in this rule.
 - a. When a larger diameter pipe is required for the project, the cost of the larger pipe shall be borne by the applicant.
 - b. In special circumstances, the system may be best served by installation of a water main larger than required by this rule or other system improvements. In such cases, SPU shall pay the difference in materials cost between the required standard distribution water main and the desired size.
8. If a standard distribution water main extension results in placement of a new water main adjacent to a street intersection or within 100 feet of the midpoint between two intersections, SPU shall require inclusion of a fire hydrant to conform with the existing fire hydrant spacing requirements.
9. Modification of an existing feeder main with valve(s), hydrant, gridding, or other appurtenances, as deemed appropriate by SPU, may allow the feeder main to provide a level of service equivalent to a distribution water main. Such improvements will be required in lieu of requiring installation of a parallel standard distribution water main, when determined by SPU to benefit the water system. When so modified, that portion of the feeder main proposed for providing new service will be reclassified as a feeder-distributor main. (See Section IX).

B. Unit Lot Subdivisions

A water main extension is not required for a unit lot subdivision when the following conditions are met:

1. The unit lots share a boundary with more than one street; and
2. One street boundary contains a standard distribution or suitable water main along the full extent of the boundary; and
3. The maximum number of parcels not abutting a standard distribution or suitable water main does not exceed 14; and
4. The installation is feasible when considering site constraints and other construction conflicts.

C. Last Developable Lot Exemption

SPU shall waive the requirement to install a standard water main when:

1. The water main extension requirement is applicable to a parcel within a single-family zone for the entire block; and
2. The parcel is the last developable lot, as determined by SPU; and
3. There are no identifiable plans for future upzoning per the governing jurisdiction; and
4. There is no potential for future gridding, such as a natural barrier, ravine, or an open body of water.

D. Water Main Extensions on a Private Parcel

1. If one or more parcels requiring water service is landlocked and more than 300 feet deep, SPU may require that the applicant install a standard distribution water main on a private parcel.
2. An SPU-owned standard distribution water main may be required if the parent lot of a subdivision is more than 300 feet deep as measured from the parcel line at the public right-of-way to the point farthest away from it. Natural barriers preventing future gridding, such as ravines or open bodies of water, may be excluded from the total parcel depth, as determined by SPU.
3. If an SPU-owned standard distribution water main is required, a fire hydrant and other water system appurtenances may be required.
4. An SPU-owned standard distribution water main may be required when the diameter of any of the water services needed for landlocked parcels is greater than 1-inch, or when more than 14 water services are needed for landlocked parcels.
5. The easement for an SPU-owned standard distribution water main on a private parcel shall be the width of the roadway and at least 15-feet wide and subject to COS Standard Plans for Municipal Construction, Standard Plan No. 030 and COS Standard Specifications for Municipal Construction Section 1-07.17(2). If other utilities are installed within the granted easement, horizontal and vertical clearances between the utilities and the SPU pipe shall follow City Specifications, Standard Plans and Design and Guidelines. Structures are not allowed within the easement.

IX. RECLASSIFICATION OF FEEDER WATER MAINS

- A. SPU may allow new water service connections on a segment of feeder main after installation of improvements allowing reclassification of all or part of that segment to a feeder/distributor main. Reclassification of a segment of feeder main is determined by SPU.

In order to be considered for reclassification, the existing feeder main must meet, at a minimum, the following criteria:

1. The feeder main supplies the same water pressure zone as the parcel(s) to be served.
 2. The feeder main material is ductile iron or cast iron. Feeder mains constructed of other materials, such as steel, concrete cylinder, or Kalamein are not eligible for reclassification.
 3. The reclassified feeder/distributor main has the same functionality as a distribution main, including independent isolation, filling, and dewatering.
 4. The feeder main is not the sole supply to an area of the distribution system.
 5. The feeder main is located on the side of the roadway nearest to the subject parcel if the street is a divided roadway.
 6. There are no obstructions that prevent SPU from accessing the segment of feeder main for new water service connections.
 7. The reclassification must benefit the overall water system, as determined by SPU.
- B. SPU specifies the valve location(s), creates the schematic with all required appurtenances, and performs the installation to allow reclassification of a feeder main to feeder/distributor main. The cost of the improvements, including necessary permits and street restoration in accordance with the permitting agency's requirements, are borne by the applicant. Some cost may be recovered by a Latecomer Agreement. This reclassification requires system improvements such as valves, hydrants and/or other appurtenances.
- C. Valving improvements generally fall into two categories:
1. Feeder main segments with diameters less than 16 inches:
 - a. Add valving to the existing feeder segment that abuts the subject parcel, in conformance with SPU's Design Standards and Guidelines Chapter 5, including all-way valving at grid junctions. The two existing grid junctions, closest to the subject parcel, must include valves on each of the watermains that converge at those point(s). Reclassification requires adding any missing valve(s) to the grid junctions currently contained within the feeder segment being reclassified.
 - b. In some cases, the portion of an existing feeder segment running from one grid junction to the next, and in front of the subject parcel, exceeds the maximum design length for distribution main segments running between two consecutive grid

junctions, 800 feet in residential zones and 500 feet in commercial zones. In this case, the grid junction valving requirement described directly above applies only to the grid junction closest to the subject parcel. SPU will designate a single intermediate valve at a location between the subject parcel and the more distant of the two grid junctions.

- c. An existing feeder main segment is defined by the existing line valves available to isolate that segment of main. When an existing line valve on a feeder is positioned between the subject parcel and a grid junction lying beyond that valve, that grid junction is not part of the feeder segment being reclassified. Any valving improvements needed at such a grid junction apply to the adjacent feeder segment, not to the segment on the parcel's side of the existing feeder line valve.
2. Feeder main segments with diameters of 16 inch and larger:
 - a. Larger diameter line valves are specified by SPU based on site conditions, potential outage impacts, and system hydraulics. All-way valving of grid junctions is required for:
 - i. Junctions involving two or more converging feeder mains, and
 - ii. Feeder/distribution grid junctions when the lateral distribution main(s) dead end, and their length, added to the reclassified feeder length exceeds the maximum shutdown segment length of:
 - 500 feet in commercial zones.
 - 800 feet in residential zones.
 - b. Where all-way valving is required for a three-way feeder-distribution grid junction, the distribution lateral main must be served from connections to the feeder, positioned on both sides of a new or existing feeder line valve.
 - c. Where all-way valving is required for an existing four-way grid junction, looping the distribution grid main to bypass the feeder main is required with one feeder valve and all-way distribution main valving required on the bypass line's connection to the feeder.
 - d. Where multiple grid junctions along a feeder are less than 300 feet, SPU may reduce the otherwise required all-way valving at each grid junction to avoid an unnecessary series of larger-diameter valves.
- D. Hydrants are required in conformance with SPU's Design Standards and Guidelines Chapter 5.
1. The following spacing criteria are required:
 - a. No more than 300 feet apart, as a fire hose lies along the street grid, in commercial/industrial zones.
 - b. No more than 400 feet apart, as a fire hose lies along the street grid, in residential zones.
 2. If the feeder main is located on a divided roadway, state highway, or high-volume arterial street, hydrants must be installed on the same side as the feeder main.
- E. Appurtenances required for filling and dewatering the reclassified segment include:
1. Air/vacuum release valve(s), flushing hydrant, or standard hydrant(s) at the high point(s), and
 2. Blowoff valve(s), flushing hydrant, or standard hydrant(s) at the low point(s).

X. AUTHORITY/REFERENCES

- SMC 21.04, Water rates and regulations
- RCW 19.27.097, Building permit application—Evidence of adequate water supply—Applicability—Exemption
- RCW 35.91, Municipal Water and Sewer Facilities Act
- RCW 35.92, Municipal Utilities
- Most current SPU Water System Plan
- Skyway Coordinated Water System Plan 1999 Update
- Washington Administrative Code 246-290-200 Design Standards