

## **COASTSIDE COUNTY WATER DISTRICT**

### **REGULATIONS REGARDING WATER UTILITY SYSTEM IMPROVEMENTS, INCLUDING NEW AND MODIFIED WATER SERVICE CONNECTIONS TO EXISTING WATER MAINLINES**

**Recodified through Resolution No. 2026-01**

**February 10, 2026**

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## A. Definitions

Agent: The term "agent" means an applicant's engineer, legal counsel, or other consultant authorized to make decisions on behalf of the Applicant.

Applicant: Owner of property applying for water service

Approved Contractor's List: List of contractors approved by the District to construct Water Utility System Improvements, including water mainline extensions, water services, and fire services connecting to the District's water system.

"As-Built" or Record Drawing: A document that shows the final conditions of a completed Development, including all deviations, changes, and modifications made during construction that differ from the original design plans.

Assessor Parcel Number (APN): The San Mateo County Assessor's identification number for a specific property. The APN is used by the District to assign water connections to a property within the District's jurisdictional boundaries. Water connections are installed for a unique APN and cannot be shared.

Cross Connection Control Program and Plan (CCCPP): The plan and program prepared and implemented by the District in accordance with the requirements of the California Cross-Connection Control Policy Handbook to prevent backflow of water and/or other liquids, gases, or other substances into the public water system via a cross-connection, or interconnection between a potable water system and a non-potable source.

California Plumbing Code (CPC): This is part 5 of thirteen parts of compilation and publication of the California Code of Regulations, Title 24.

Development: The transformation of land or structures that involves water or fire service – from Coastsid County Water District - for residential, commercial, industrial, agricultural, or public purposes. It is generally managed through a cycle of planning, design, engineering, and regulatory approvals in cooperation with other local agencies

District: The Coastsid County Water District.

District Engineer: A qualified and licensed civil engineer retained by the District,

as deemed appropriate by the District in its sole discretion, acting either directly or through the District, acting within the scope of the particular duties delegated to them.

District Manager: The General Manager or Manager of the District or their assigned representative.

Mainline: A water pipeline owned and maintained by the District that is an artery of the District's distribution system and delivers water to smaller service lines that connect to individual customer connections. Also referred to as mains.

Maintenance Bond: A surety bond that guarantees a contractor will fix any defects in materials, workmanship, or design that appear during a specific maintenance or warranty period after a construction Development is completed.

Offsite: Located outside of the Development.

Onsite: Located within the Development.

Payment Bond: A surety bond that guarantees a contractor will pay its subcontractors, laborers, and material suppliers for their work on a Development.

Performance Bond: A surety bond that guarantees a contractor will complete the Development according to the terms of the Water Service Agreement.

Planning Authority: The determining authority for a given Development.

Proposal for Construction: A cost proposal for a licensed, qualified contractor to construct the Utility System Improvements.

Service Line: Smaller pipelines that connect from a water mainline to serve individual customers.

Site Utility Plans: Development's civil drawings that delineate the location and detail of all existing and proposed utilities.

SOPQ: Statement of Pre-Qualifications; required to be prepared according to the District's current "Request for SOPQ for Approved Contractors List" and submitted to the District by contractors requesting to be added to the District's Approved Contractors List.

Standard Specifications and Standard Drawings: The latest version of the Coastside Water District's Standard Specifications and Standard Drawings.

Tentative Development Map: A map or maps that show the design,

improvements, and existing conditions of a proposed Development that meets the requirements of the Planning Authority.

Transmission and Storage Fee: The cost to establish water service is determined by the number of water connections required to provide water service to a Development. The number of water connections required is correlated with the size of the service. Water connections are assigned a designation of non-priority or priority, in conformance with the local planning authorities Local Coastal Program. Refer to the District's Rate and Fee Schedule for fees and charges.

Water Service Agreement: An agreement between the District and the Applicant that governs the terms and conditions for the District to provide water service.

Water Utility System Improvement: The modification of the District's water utility system (transmission, distribution, storage, and treatment) to provide water and fire service.

Water Utility System: The onsite and offsite water mainlines, service lines, fittings, valves and housing thereof, fire hydrants, manholes, storage facilities, pumping facilities, and all appurtenances thereto, as required for the District to provide water service for Developments. The Water Utility System does not include the water pipelines on the Applicant's side of the meter or the backflow prevention assemblies, all of which will be owned and maintained by the Applicant. Water Utility System is also referred to as "water system".

## **B. Water Utility System Improvements**

### **1. *Applicant's Responsibility***

It is the District policy to require that improvements to its Water Utility System be done in accordance with the following procedures at the expense of those requesting an extension of service (i.e., Applicant).

## **2. *Initial Submittal - Tentative Development Maps, Drawings, and Data***

**2.1** The Applicant shall submit to the District electronic Development maps, drawings, and other data sufficient in detail for the District to evaluate the Development with regard to water service. Maps and drawings shall be in PDF format and approximately 22" x 34". Based upon this submittal, the District will determine whether the proposed Development can be served and in what manner this may best be accomplished. This determination will be based upon an analysis of existing water supply, treatment plant storage, and transmission and distribution facilities capacity. The analysis shall be at the Applicant's expense and shall either be performed by the District Engineer or by a qualified and licensed civil engineer retained by the District, as deemed appropriate by the District in its sole discretion. The Applicant will be furnished with the design criteria to be utilized and a preliminary cost estimate for required Water Utility System Improvements prepared by the District Engineer. Any offsite water supply development, treatment, storage, or transmission and distribution facilities that may be required will be designed, at the Applicant's expense, by a licensed and qualified engineer selected by the Applicant and approved by the District. Proposed location and size of water lines need not be shown on the initial submittal. In addition, the District shall have received a planning or coastal development referral for the Development from the Planning Authority.

The initial submittal for Developments shall include the initial fee and contain the following minimum information relevant for the type of Development, such as:

- Tentative Development map showing the property lines, streets, and other dedicated rights of way; and
- Description of proposed Development that includes all relevant information relevant to water demand and Water Utility System Improvements; such as, number and location of single-family residences to be constructed, number and location of dwelling units for multi-family residences, number of students, number of employees, and irrigation requirements; and
- Development maps must show topographic contours and elevation of the highest

and lowest unit served and top floor elevation on multi-story buildings; and

- All available Site Utility Plans.

**2.2** After the District has reviewed the initial submittal, the District will notify, in writing, the Planning Authority, if requested by the Applicant, that the Development is or is not within the service area of the District, and whether it can be feasibly served by the District. Copies will be sent to the Applicant and the District Engineer. This notification that the Development can be served does not constitute a commitment to serve water to the Development.

### **3. *Interim Submittal - Construction Plans, Specifications, and Other Documents***

**3.1** After the District has informed the Applicant of required water service facilities, the Applicant may commence work on the detailed plans, specifications, and cost estimate for all required onsite and offsite Water Utility System Improvements. The Applicant shall acquaint themselves with District requirements as specified in these Regulations, the current version of the District's Standard Specifications and Standard Drawings, and all applicable County of San Mateo and City of Half Moon Bay standards. A copy of the current version of the District's Standard Specifications and Standard Drawings for installation of piping appurtenances is available free of charge at the District website and for a fee at the District office. All facilities shall be designed for low-cost maintenance and operation. The District Engineer will be available to the Applicant or Agent for the purpose of answering questions and confirming design details. Location of fire hydrants must be approved by the Coastside Fire Protection District.

**3.2** This interim submittal shall consist of electronic copies of each of the following documents:

- (a)** Draft plans and specifications for onsite and offsite Water Utility System Improvements.
- (b)** Draft plans for building permits with water demand for each developable

lot, including fire sprinklers and irrigation systems.

**(c)** A draft utility site plan with the engineering drawings showing for each lot the service line and box locations of (1) Pacific Gas & Electric Co., (2) communications, (3) Coastside County Water District, (4) United States Postal Service, (4) sanitary sewer and septic, (5) storm sewer and retention, and (6) cable/internet.

**(d)** Tentative Development Map, if modified from that included in Initial Submittal (new Development only).

The above documents will be reviewed by the District. The District will provide documentation to the Applicant indicating required modifications, if any, and whether any permits or waivers are needed from the California State Water Resources Control Board Division of Drinking Water (DDW) or other regulatory agencies. A minimum of 30 calendar days shall be allowed for this review. All documents that require modifications shall then be submitted for final review by the District as part of the final submittal.

**3.3** Adequate water connections must be assigned to the developable lot(s) before the District will present the Water Service Agreement to the District Board for approval. The District and District Engineer will confirm the required water capacity as part of the interim submittal. The District shall also determine the nature, size, and location of all service connections and associated facilities (i.e., service lines, meters, backflow prevention assemblies, pressure reducing valves, etc.) based on the current submittals to the District.

#### **4. *Final Submittal - Construction Plans, Specifications, and Other Documents***

**4.1** After the District has reviewed the interim submittal, the Applicant may commence work on the final plans, specifications, and cost estimate for the required onsite and offsite Water Utility System Improvements. The District Engineer will be available to the Applicant's engineer for the purpose of answering questions and confirming design details. Location of fire hydrants must be approved by the Coastside Fire Protection District.

**4.2** This final submittal shall consist of electronic copies of each of the following documents:

- (a)** Final plans and specifications for onsite and offsite Water Utility System Improvements.
- (b)** Final plans for building permits with water demand for each developable lot, including fire sprinklers and irrigation systems.
- (c)** Final utility site plan with the engineering drawings showing for each lot the service line and box locations of (1) Pacific Gas & Electric Co., (2) communications, (3) Coastside County Water District, (4) United States Postal Service, (4) sanitary sewer and septic, (5) storm sewer and retention, and (6) cable/internet.
- (d)** A completed Water Service Agreement with all required information populated and all required attachments.
- (e)** All required easements and deeds.
- (f)** All required waivers and permits related to the Water Utility System Improvements. A separate and unique encroachment permit from the local public works authority is required for Water Utility System Improvements for work in the public right-of-way. The encroachment permit cannot be shared with other utilities or other work in the public rights-of-way.
- (g)** Tentative Development Map, if modified from that included in Initial Submittal (new Developments only).

The above documents will be reviewed by the District. The District will provide documentation to the Applicant indicating required modifications, if any. A minimum of 30 calendar days shall be allowed for this review. All documents that require modifications shall then be submitted for final review by the District.

**4.3** When all final documents are acceptable to the District, the Water Service Agreement, including the Development plans and specifications, will be presented to the District Board for approval. Board meetings are normally scheduled for the second

Tuesday of each month. This approval and execution of the Water Service Agreement by the District and Applicant constitutes a commitment by the District to serve water to the development, provided that the Applicant fully complies with all the requirements of the Water Service Agreement.

**4.4** Following approval of the Water Service Agreement, the Applicant shall pay all fees and charges referenced to in the Water Service Agreement, which may include adequate Transmission and Storage Fees, plan check and inspection fees, and any applicable special fees and deposits as provided for by these Regulations.

**4.5** A Water Service Agreement will be signed between the Applicant and the District within 45 days after board approval, provided that the Applicant has satisfied all the requirements.

## **5. *Water Supply, Storage, Treatment, Transmission and Distribution Facilities***

The District will provide water in the quantity and at the quality and pressure as is available. For Water Utility System Improvements requiring the Development of additional water supply, or construction of treatment plant capacity, distribution and transmission pipeline, and storage facilities, the total cost of these facilities shall be borne by the Applicant.

Design of all such facilities, including wells, treatment plants, dams, pumping stations, storage tanks, reservoirs, and transmission and distribution pipelines, must be accomplished by a qualified and licensed civil engineer selected by the Applicant and approved by the District. All costs, including environmental impact report preparation, engineering design, construction inspection, construction, land acquisition, and legal and administrative costs incurred by the District shall be borne by the Applicant.

## **6. *Processing Fees and Deposits***

**6.1** The Applicant must pay the fees described below, and the amount of these fees are established in the current District Rate and Fee Schedule, which is available on the District's website.

**6.2** Initial Filing Fee. Prior to processing of the initial submittal, the Applicant shall submit a filing fee with the District. This filing fee is not a deposit, and it is not subject to return if the Development is abandoned.

**6.3** The Applicant shall pay to the District a Transmission and Storage Fee. The amount of this fee is based on meter size and peak demand in gallons per minute through the water service (see D. 2.8 (b) (6)), as described in the current District Rate and Fee Schedule.

**6.4** All costs associated with environmental review and environmental document preparation shall be borne by the Applicant. The Applicant shall reimburse the District for all costs related to this environmental review, covering all legal, engineering, administrative, and other costs incurred by the District in the review of an environmental impact or similar report required by the proposed water service extension or water system improvement pursuant to applicable State or Federal law.

**6.5** At least 10 (ten) days prior to the commencement of construction, the Applicant shall furnish to the District the following bonds:

**(a)** A Payment Bond in the amount of 100 (one hundred) percent of the Proposal for Construction amount, to guarantee payment of obligations referred to in Section 9550 et seq. of the Civil Code;

**(b)** A Performance Bond in the amount of 100 (one hundred) percent of the Proposal for Construction amount, to guarantee faithful performance of the terms of the Water Service Agreement; and

**(c)** A Maintenance Bond in the amount of 10 (ten) percent of the Proposal for Construction or the minimum bond purchase amount, whichever is greater, to guarantee against defective materials and faulty workmanship for a period of two (2) years from and after the acceptance of the work by the District.

The bonds shall be in a form satisfactory to the District. The surety and sureties must be qualified to do business in California.

## **7. Construction**

**7.1** Applicant shall commence installation of the Water Utility System Improvements no later than as specified in the Water Service Agreement (up to three months after the date of the Water Service Agreement), subject to extension for force majeure events not the fault of the Applicant. The Applicant shall complete its installation of the Water Utility System Improvements within 12 months after the date of the Water Service Agreement. If installation has not commenced or has not been completed by such dates, the District may terminate the Water Service Agreement, unless the delay is solely attributable to force majeure events, such as fire, flood, or earthquake, which are beyond the control of, and not the fault of, the Applicant.

**7.2** A minimum of twenty (20) days prior to the start of construction, the following requirements shall be met:

- (a)** The Applicant shall file a tentative construction schedule with the District.
- (b)** The Applicant shall provide the District with the bonds as described in the Water Service Agreement.
- (c)** The Applicant shall file with the District the insurance certificates as described in the Water Service Agreement.
- (d)** The Applicant shall file with the District the Proposal for Construction by a licensed qualified contractor for all Water Utility System Improvements.
- (e)** The Applicant shall submit the name and license number of the general contractor for the Development, names and license numbers of subcontractors, if any, who will construct Water Utility System Improvements. All contractors constructing Water Utility System Improvements including water mainline extensions, water services, or fire services connecting to the District's water system shall only be on the District's Approved Contractors List. Names of approved contractors are available from the District. To be added to the District's Approved Contractors List, a contractor must submit a fully complete Statement of Pre-Qualifications (SOPQ) based on the requirements of the District's current "Request for SOPQ for Approved Contractors List"

and be pre-qualified by the District. A copy of the current “Request for SOPQ for Approved Contractors” List is available by request from the District. The District will notify Contractors within 21 (twenty-one) calendar days after receipt date of the SOPQ if the Contractor meets the District’s pre-qualification standards.

**(f)** The Applicant shall invite the District to a pre-construction meeting that shall take place at least 10 (ten) days prior to commencing construction.

**(g)** The Applicant shall submit all shop drawings and other construction submittals required by the District’s Standard Specifications and Standard Drawings to the District. All shop drawings and construction submittals for Water Utility System Improvements shall be approved by the District Engineer prior to commencing construction.

**7.3** Prior to water line construction, all road and easement areas where water lines are to be installed shall be staked and rough graded. All meter and valve box locations and finished grades shall be staked prior to water line construction to confirm that the boxes are set in accordance with the District’s Standard Specifications and Standard Drawings relative to the finished grade for paved or non-paved areas.

**7.4** The District shall observe and inspect facilities solely to protect the interest of the District and to determine if completed work is acceptable to the District and can be incorporated into the District system. No responsibility is assumed for the Contractor’s operations or their safety practices. The Applicant is responsible for the correct location of facilities and for measurements and payments.

**7.5** It will be the responsibility of the Applicant or their representative to notify the District at least ten (10) working days in advance of the proposed starting date, and to ascertain that the District Inspector is at the site of the work when Water Utility System construction begins. The Applicant shall not commence construction of Water Utility System Improvements unless the District Engineer or other authorized District inspector is at the site of the work when construction begins. If construction is not continuous, the District shall be notified at least 48 (forty-eight) hours in advance as to when construction will resume. Any work performed without knowledge or consent of

the District Inspector is subject to rejection by the District.

**7.6** It will be the responsibility of the Applicant to file and obtain the necessary permits for the work. The Applicant is required to obtain permits specifically for the Water Utility System Improvement portion of the Development, independent from other aspects of the Development. The Applicant shall be responsible for completing all Water Utility System improvements within the valid permit periods.

## **8. *Changes During Construction***

**8.1** Changes to the Water Utility System Improvements that are necessary to the work during construction shall be submitted to the District for review and approval prior to the incorporation in the work.

Changes to the site development plans that increase water fixtures or peak water demand shall be submitted to the District for review and approval.

**8.2** The District may, at its discretion, waive all or portions of the submittal requirements, depending upon the complexity of the change.

## **9. *Easements and Property Rights***

Prior to acceptance of the final submittal, the Applicant will grant to the District all necessary easements and property rights deemed required by the District for pump stations, pipelines, treatment plants, wells, storage tanks, meters, hydrants, valves, and other sites of water facilities for the proposed Development. Pipeline easements shall be in accordance with Part D.2.4(g) of these Regulations. Recording of maps with public utility easements will not be sufficient. A separate deed for such easements shall be granted directly to the Coastsides County Water District or the Coastsides County Water District shall be named on the recorded tract map.

## **10. *“As-Built” Drawings***

The Applicant shall transmit the recorded Development Map in electronic PDF and AutoCAD formats of the completed improvements showing “As Built” conditions. “As-Built” drawings shall be submitted even if the improvements were constructed

without any deviations from the approved plans and specifications. Each drawing shall be signed by the Applicant's Engineer, who shall be a Registered Civil Engineer in the State of California, certifying that the drawings correctly indicate "As-Built" conditions.

The certificate shall be in the following form:

"Date \_\_\_\_\_

This is to certify that this Drawing has been corrected to show the water system and related facilities as constructed.

\_\_\_\_\_  
RCE No. \_\_\_\_\_  
Name

**10.1** The "As-Built" drawings shall show the location of all valves and bends with dimensioning in feet from two fixed points or coordinates provided in California State Plane, Zone 3, NAD83. Locations of all water lines shall be dimensioned in feet from front face of nearest curb. Valve and pipeline marker posts shall be installed in unpaved areas and shall be located in the field by the District.

**10.2** After District approval of the As-Built drawings, the District will transfer all pertinent information on the As-Built Drawings to the District's official maps at the Applicant's expense. The Applicant will be responsible for the cost of updating the relevant maps with the information from the As-Built Drawings.

## **11. *Final Acceptance***

When the District is satisfied that all Water Utility System Improvements are in accordance with these regulations and the District's Standard Specifications and Standard Drawings, the Water Service Agreement, the approved plans and permits; the District shall certify in writing upon final acceptance by the District Board.

## **C. Procedure for New and Modified Water Service**

### **Connections to Existing Water Mains**

Certain applications for water service involving construction of new service connections to existing water mains to serve property located in previously subdivided locations may be processed under the provisions contained in this Part C as reasonably determined by the District, whereupon the District shall determine the nature, size, and location of the facilities necessary to render service to the property. Provisions contained in this Part C are intended for water service connections and facilities that do not require a water mainline extension and can rely on the District's Standard Specifications and Standard Drawings without the need for additional technical plans and specifications. Example facilities include domestic services, irrigation services, fire services, and hydrants that are installed on an existing water main. (The District receives additional requirements from the Coastside Fire Protection District for fire services and fire hydrants). The most current edition of the California Plumbing Code shall be referenced for sizing and other miscellaneous requirements. The Applicant must comply with requirements of District Ordinances, including requirements related to water use efficiency and water conservation.

The Applicant shall agree in writing to pay for the entire cost of all such facilities required to provide water service to their property, which shall be in addition to the Transmission and Storage Fee and other applicable charges and deposits imposed by the District. An estimate of the design and construction costs associated with the Water Utility System Improvements needed shall be prepared by the District and submitted to the Applicant, and prior to the commencement of said design and construction work, the Applicant shall pay said estimated cost to the District upon receipt of invoice. The application must be approved by the District.

Upon completion of the work, any remaining portion of the sum previously submitted by the Applicant shall be returned; any shortage or additional funds required to fully reimburse the District for costs expended in completing the work shall be paid by the Applicant prior to the issuance of meter(s).

## **D. Engineering and Construction Standards**

### **1. General**

**1.1** All Developments within the District shall meet the requirements of the current version of the District's Standard Specifications and Standard Drawings. It is the intent of the District's Standard Specifications and Standard Drawings to give a degree of uniformity to design of onsite facilities, construction procedures, materials and equipment used within the District. The District's Standard Specifications and Standard Drawings are to be used as a guide for those preparing plans and specifications for Developments within the District. These Standard Specifications and Standard Drawings may not cover all Development elements. Where additional engineering design is necessary, the District's Standard Specifications and Standard Drawings shall be supplemented with additional technical specifications and details.

**1.2** Good, sound engineering practice precludes the use of a rigid set of standard specifications for every conceivable condition that may be encountered throughout the District. For all Developments except those determined by the District to be processed under Part C, herein, it is required that the Applicant's Engineer prepare a set of plans and specifications based upon the District's Standard Specifications and Standard Drawings. Plans shall be complete, showing all necessary dimensions and location of all fittings, fire hydrants, air releases, services and blowoffs. The drawings shall indicate the type of joint (mechanical or flanged) for each fitting; this will require providing a detail for each piping intersection.

**1.3** The District's Standard Specifications and Standard Drawings shall not be adopted by reference unless a copy of the District's Standard Specification(s) and Standard Drawing(s) is appended to the Development plans and specifications. Where this is done, the inapplicable portions of the District's Standard Specifications and Standard Drawings shall be deleted.

**1.4** The District's Standard Specifications and Standard Drawings are subject to revisions and additions at any time without notice. Latest revision dates are shown on

the title sheet of the District's Standard Specifications and Standard Drawings and each standard detail sheet; it shall be the duty of those using the District's Standard Specifications and Standard Drawings to see that the latest revision is used. A copy of the District's Standard Specifications and Standard Drawings may be reviewed at the District Office or on the District Website:

Coastside County Water District  
766 Main Street  
Half Moon Bay, CA 94019  
Telephone: (650) 726-4405  
Website: <https://coastsidewater.org/engineering-department/>

**1.5** In addition, the Development specifications shall contain the following:

**(a)** The Applicant shall designate in writing the name, address, telephone number and emergency telephone number of the individual who will have responsible charge of the Development and to whom District orders shall be directed.

**(b)** The Applicant shall give the District written notice not less than ten (10) working days in advance of the actual date on which the work will be started. Where work has been halted because of inclement weather or any other reason, it shall be the duty of the Applicant to notify the District at least forty-eight (48) hours before resumption of work. Any extra expense of the District due to failure to notify shall be charged against the Applicant. The Applicant shall immediately notify the District if work is to be halted for any reason.

**(c)** Any materials or equipment deemed salvageable by the District shall remain the property of the District and shall be delivered to the District, as directed by the District Representative.

**(d)** Connections to or modifications to the existing system shall only be made by a Contractor previously approved by the District. Names of approved Contractors are

available from the District.

## **2. Basic Design Criteria**

### **2.1 General**

The following basic design factors have been prepared as a guide for use in sizing water lines and storage facilities. Flows shall be increased to meet the actual demands of the user where required.

### **2.2 Storage**

District water storage tanks shall be sized to meet domestic, irrigation, and fire flows as estimated by the District Engineer simultaneously. Tank elevations and service zones will be determined by the District. Generally, initial construction of storage volume sufficient to meet the full development of the projected service area will be required. Where construction of an incremental portion of the future requirements (fully developed service area) is permitted, sufficient property shall be provided and the site grading completed to meet the future requirements. Cathodic protection may be required.

Minimum volume of storage for a service area shall be determined as the sum of the following values:

**(a) Operational Storage Volume:** 25 (twenty-five) percent of max day demand (MDD) or four-hour storage of the peak hour demand (PHD), whichever is greater.

**(b) Fire Storage Volume:** The maximum required fire flow volume (flow times duration) within a service area as determined by the Coastside Fire Protection District.

**(c) Emergency storage Volume:** Three-day storage of the average day demand (ADD).

### **2.3 Transmission Pipelines**

**(a) Transmission pipelines:** Transmission pipelines are defined as pipelines that are 10 inches in diameter and larger. All transmission pipelines shall be initially sized to meet the future requirements of the fully developed service area (peak daily demands plus fire

demands) with the lowest practical pressure loss.

**(b)** Maximum head losses: design head losses shall not exceed:

- (1) 3 feet per 1,000 feet of mainline at peak hour demand conditions.
- (2) 10 feet per 1,000 feet of mainline under maximum day demand plus fire flow conditions.

**(c)** Maximum Velocities: Design velocities shall not exceed:

- (1) 6 feet per second during peak hour demand conditions.
- (2) 10 feet per second under maximum day demand plus fire flow conditions.

#### **2.4** Distribution Mainlines, Other Pipelines, and Appurtenances

**(a)** All materials and installation procedures for piping and appurtenances shall conform to the latest edition of the District's Standard Specifications and Standard Drawings.

**(b)** The two following conditions shall be considered by the District for the design of all water mains:

- (1) At maximum day peak hour demand, the operating or "residual" pressure at all water service connections shall be at least 35 pounds per square inch.
- (2) At average maximum day demand plus fire flow, the operating or "residual" pressure in the area of the fire shall not be less than 20 pounds per square inch.

**(c)** Pipelines shall be sized by the District to serve the general water service vicinity; oversizing above the needs of a specific Development may be required.

Generally, the following minimum pipeline sizes will be applicable for residential areas without multiple dwelling units:

- (1) For pipelines with fire hydrants, minimum diameter shall be 8 inches;
- (2) For pipelines without fire hydrants, minimum diameter shall be 6 inches with a maximum length of 500 feet with no future extensions;

(3) For pipelines between 500 feet and 1,500 feet the minimum diameter shall be 8 inches;

(4) For pipelines more than 1,500 feet in length criteria will be developed on a case-by-case basis with the District;

**(d)** Maximum Velocities: For all pipelines, design velocities shall not exceed:

(1) 6 feet per second during peak hour demand conditions.

(2) 10 feet per second under maximum day demand plus fire flow conditions.

**(e)** Pipelines shall be installed with a minimum of 36-inches cover over the top of the pipe.

**(f)** Pipelines shall be looped to form a grid network. Dead-end water mainlines or distribution systems with single tie-in connections are to be avoided. Where dead ends are unavoidable, as determined by the District, provision shall be made for blowing off the mainline by means of a blow-off valve or hydrant.

**(g)** Pipelines shall be installed within the public right-of-way, whenever possible, and shall extend the entire length of the property line facing the public right-of-way. The District requires a 20-foot-wide permanent easement for water mainlines within private property from the center of the pipe 10' (ten feet) on either side of the water mainline. Additional easements will be required for laterals, meters, hydrants, valves, and other appurtenances as determined by the District.

**(h)** Water mainlines and non-potable pipelines shall be placed to conform to the California Code of Regulations Title 22, Division 4, Chapter 6, Section 64572. If the Applicant and the District agree that the requirements of the California Code of Regulations cannot be met, the Applicant must prepare and submit a waiver request to the State Water Resources Control Board. The waiver request shall be submitted to and approved by the District prior to submission to the State Water Resources Control Board.

**(i)** Each service zone (pressure zone) will normally have pressures in

pipelines from 35-150 pounds per square inch (psi). Where pressures are at or above 80 psi in the distribution system, pressure regulating valves shall be installed on the private water supply line before the water enters the structure. In areas with lower service zone pressures, the District may require Applicants to acknowledge the pressure conditions in the Water Service Agreement, record a notice of low water pressure, and consider the lower pressures in the design of the Development's interior plumbing.

(j) Each domestic water service shall have a primary control valve installed on the private water supply line before the water supply enters the structure.

(k) Each domestic water service shall have a hose bib connection in the front or the side of each structure where the water enters the structure so that the private water supply line can be flushed without water entering the structure.

(l) Valves shall be installed at maximum intervals of 500 feet in pipelines and on all branched pipelines connected to the mainlines. Valves will be located at street intersections or where operationally necessary.

(m) Fire hydrants. Locations of fire hydrants are subject to the approval of the Coastside Fire Protection District. Hydrants shall be located at a maximum 500-foot spacing unless otherwise directed by the Coastside Fire Protection District. Hydrants shall be installed on the mainline with the largest available fire flow as determined by the District Engineer. Fire hydrants shall be located where flow can be provided from two directions, unless otherwise approved by the District.

(n) Air release valves shall be installed according to the District's Standard Specifications and Standard Drawings.

(o) Blow off connectors shall be installed according to the District's Standard Specifications and Standard Drawings.

(p) Pumps shall not be permitted to be directly connected to the District pipeline. Where a water user requires greater pressure than is available at the water

meter, an air gap system shall be constructed by the user between the water meter and the booster pump in accordance with the District's Standard Specifications and Standard Drawings and the District's current Cross Connection Control Program and Plan (CCCPP). District shall not be responsible for operating or maintaining pumps.

After completion, the District shall have the right to inspect the pumping system installation for conformance with District requirements upon 24 (twenty-four) hours notice. Pumping systems, while installed in conjunction with the District-owned service connection, shall be owned and maintained by the Applicant. District meters and service connections shall not be installed after a private pumping system.

**(m)** Backflow prevention assemblies shall be installed on water service connections in accordance with the District's Standard Specifications and Standard Drawings, the Coastside County Water District CCCPP, and all State and local regulations.

## **2.5** Backfilling Trenches and Repaving

Trench materials, compaction requirements, repaving and guarantees shall comply with appropriate requirements of the Caltrans, City of Half Moon Bay, County of San Mateo, and the District's Standard Specifications and Standard Drawings.

## **2.6** Testing

The Water Utility System shall be tested in accordance with the District's Standard Specifications and Standard Drawings.

## **2.7** Disinfection

The water system shall be disinfected in accordance with the District's Standard Specifications and Standard Drawings.

## **2.8** Service Connection Requirements (Other Than Fire Protection Service)

### **(a)** Sizing of Water Service Connections

(1) Each service connection shall be sized by the District to provide adequate water supply service based on peak flow and fixture unit

counts (in conformance with the requirements for “adequate flow”, “maximum velocity” and “minimum water pressure”). Water meters will not be installed and water service will not be provided at a new location until the Applicant has demonstrated to the District that the total peak flow demand installed is within the capacity of the service connection previously purchased for that location. After a meter has been installed and water service initially provided, the Applicant shall not install additional water-using devices which will result in a total peak flow demand in excess of the peak flow capacity of the water service connection purchased.

- (2) High Peak Velocity and District Water Mainline Low Pressure.  
Maximum velocity in the water service connection pipeline (other than fire protection services) shall not exceed eight (8) feet per second. Where the velocities in the water service connection pipeline would exceed eight (8) feet per second based on the meter size table below and at locations of service connections with lower service zone pressures (as acknowledged in the Water Service Agreement), the District will allow for the size of the water service connection pipeline and/or meter as practicable to minimize pipeline velocities and friction losses without an additional Transmission and Storage Fee.

**(b) Other Metering Considerations**

- (1) The total estimated peak water supply demand on the service connection shall be calculated as the sum of (a) the peak flow based on the plumbing fixture count as determined by the method in Appendix A of the most current California Plumbing Code and (b) the peak flow of other devices such as irrigation systems and equipment. The demand weight of plumbing fixtures not shown in the California Plumbing Code will be assigned by the District based on other recognized industry publications where applicable and based on

engineering experience of the District in all other cases.

- (2) Service connections and meters are assigned to a parcel by assessor parcel number (APN) and shall provide water to that single parcel.
- (3) The location of the meter shall be determined by the District and consider the advanced metering infrastructure requirements for remote reading. Meters shall remain visible and accessible from the public right of way and shall not be placed behind fencing or vegetation/landscaping.
- (4) A dedicated irrigation meter is required for parcels with irrigated landscaped areas greater than or equal to 5,000 square feet.
- (5) Mixed-use developments on a parcel (residential with nonresidential) shall be required to meter each separate type of class of use based on the Rate and Fee Schedule.
- (6) Meter Size

<b>Meter Size (inches)</b>	<b>Peak Flow Capacity (gallons per minute)</b>	<b>Equivalent Water Connections</b>
5/8	20	1
3/4	30	1.5
1	50	2.5
1-1/2	100	5.0
2	160	8.0
3	350	17.5
4	600	30
6	1000	50

*This table was established with the Crystal Springs Project and is used to determine the minimum meter size and the associated Transmission and Storage Fee and number of connections assigned to the water service. The service line will be sized according to best engineering practices and with a maximum velocity of 8 feet per second. Service lines and meters with peak flows over 50 gallons per minute require review and approval of the District Engineer.*

## **2.9 Service Connection Requirements for Dedicated Fire Service Connections**

**(a)** Fire services are sized based on criteria (flow measured in gallons per minute at a corresponding pressure measured in pounds per square inch) provided by the Applicant and approved by Coastsid Fire Protection District.

- (1) Dedicated fire services shall not be installed on water distribution pipes less than four (4) inches in size. Fire services two (2) inches or larger may require a connection to a distribution pipe greater than four (4) inches, as determined by the District.
- (2) Maximum velocity in the fire service connection based on the flow criteria (gallons per minute) approved by Coastsid Fire Protection District shall not exceed 10 feet per second.
- (3) Dedicated fire services shall be designed to accommodate the pressure losses from the backflow prevention assembly.
- (4) The minimum fire service size for a single-family residence shall be one (1) inch.
- (5) The minimum fire service size for a non-single-family residence shall be two (2) inches.

**(b)** A Transmission and Storage Fee is not required for dedicated fire service connections.

## **E. Appeals**

If the Applicant wishes to pursue an appeal of a District determination pertaining to these Regulations, the Applicant shall provide a detailed written basis for its appeal and address the appeal to the District's General Manager.