

PUBLIC UTILITY DISTRICT NO. 1 OF WAHAKIYAKUM COUNTY

**ESTABLISHING SERVICE POLICIES REGULATING THE CONDITIONS OF
SERVICE, USE, AND SALE OF WATER SERVICE**

DEFINING OFFENSES AND PRESCRIBING PENALTIES

Effective on or After May 1, 2001
Resolution No. 1031

Modified May 15, 2018 by Resolution No. 1217

PUBLIC UTILITY DISTRICT NO. 1 OF WAHAKIYAKUM COUNTY

**ESTABLISHING SERVICE POLICES REGULATION THE CONDITIONS OF
SERVICE, USE, AN SALE OF WATER SERVICE**

INDEX

<u>Section</u>	<u>General</u>
1.	Introduction
1.1	Goal
1.2	Related Policies
1.3	Scope of Manual
1.4	Application of Terms and Conditions
1.5	Revision
1.6	Conflict
1.7	Saving Clause
1.8	Definitions
2.	General Provision
2.1	Scope
2.2	Initiating & Terminating Service
2.3	Service & Equipment Requirements
2.4	Meter Reading, Billing, Payment & Collections
2.5	Dispute Resolution
2.6	Rated, Fees and Charges
2.7	Violations
2.8	Fire Protection
2.9	Special Arrangements and Short-Term Water Usage
3.	Extension Policies
3.1	Introduction
3.2	Administrative Procedures for System Extension
3.3	Financing and Fees
3.4	Design
3.5	General Construction Procedures
3.6	Interim Connections

- 4. Satellite System Management
- 4.1 Introduction

- A. Standards and Specifications for Design and Construction
- A1 Introduction
- A2 Design Standards
- A3. Material & Construction Specifications

PUBLIC UTILITY DISTRICT NO. 1 OF WAHKIAKUM COUNTY

GENERAL TERMS AND CONDITIONS APPLICABLE TO WATER SERVICE

Section 1 – Introduction

1.1 Goal

Wahkiakum County Public Utility District No. 1 (District) has developed this Policies and Procedures Manual to provide a helpful guide to water services for customers, the building trades, and the employees and representatives of the District. The goal of the District's Water Resources Department is to provide safe and reliable service to all District water customers at the most economical cost possible. In pursuing this goal, the District's guiding principles include the following:

- (a) The District will endeavor to provide potable drinking water at flows and pressures meeting applicable regulations to all customers of the District.
- (b) The priorities of the Wahkiakum County PUD Water Resources Department are established as follows: first, emergencies; second, maintenance and operation; and third, new service installations.
- (c) The District will promote water conservation as an ethic to be incorporated in all practices where it is reasonably practicable and cost-effective. The District may require conservation practices be utilized when necessary to preserve available resources and the environment.
- (d) The District shall endeavor to provide all of its customers with high-quality, courteous service in all of its activities.

1.2 Related Policies

The District's function is not to plan land and uses within its boundaries, but to respond to land uses planned for Wahkiakum County under the applicable land use plan. The District's facilities, their encumbrances and their impact on the community will not be used as tools for implementing changes in the character or timing of planned land uses.

The District has prepared and the Washington Department of Health has approved a Comprehensive Water Plan for the District's Western Wahkiakum Water System and the District's Puget Island Water System. Both of these plans project service area needs over a 20-year time frame. The District's capital improvement program and incremental extensions and improvements to both water systems must be consistent with the Plans (The PIWS & for WWWS), as updated from time to time, whether they are carried out by the District or a third party.

Decisions on system extension, pipeline capacity, looping, etc. will be guided by the Plan. The District General Manager and/or Engineering & Operations Supervisor and the Water Resource Department will determine the extent to which capital improvements are for the purposes of transmission or other general system needs; which are for the purposes of distribution within an area of the District; and which are for the sole benefit of a single subdivision or development. When new developments are proposed, the District may require the Developer to dedicate permanent utility easements for installation of water pipelines and other facilities in order to facilitate construction of the overall District system in accordance with the Plan. The District's share of the cost of new facilities will be determined by this Manual and by the General Manager.

1.3 Scope of Manual

This Manual outlines the terms and conditions to be applied by District staff in providing water service to individual properties served by the District, managing extension and improvement of the District's water distribution facilities, and providing service to satellite water systems owned or operated by the District. Nothing in this Manual shall be interpreted to apply to District actions with regard to provision of electrical or other utility services besides water.

1.4 Application of Terms and Conditions

In specific instances, the General Manager may, at his/her discretion, waive or modify the application of the terms and conditions described herein, including the application of standard fees and charges, provided that such waiver or modification allows for more effective or efficient achievement of District goals, objectives, and overall policies.

In cases where such waiver or modification involves a significant cost, or where its relationship to existing policies is not clear, the General Manager must report any waivers or modifications to the Board of Commissioners within the next two regularly scheduled meetings of the Board.

If authorized by the Board of Commissioners, specific fees and charges may be adjusted for inflation automatically on an annual basis. Other adjustments to the magnitude of standard fees and charges may be made only upon authorization by the Board of Commissioners.

1.5 Revision

These Terms and Conditions cancel and supersede all previous Service Policies. They may be revised, supplemented or otherwise modified only by action of the Wahkiakum County PUD Board of Commissioners; except in an emergency situation the General Manager and/or Engineering & Operations Supervisor and/or the Forman of the Water Resource Department may make such reasonable

modifications as he/she deems necessary; provided, however, such modifications are reported to and ratified by the Commission within the next two regularly scheduled meetings of the Commission.

1.6 Conflict

In case of conflict between this Terms & Conditions Manual and the provisions of any resolution of the Board of Commissioners, rate schedule, or special contract, the provisions of the resolution, rate schedule, or special contract shall apply.

1.7 Saving Clause

If any clause, sentence, paragraph, section, or portion of these Terms and Conditions, for any reason shall be adjudged invalid by court of competent jurisdiction, such judgment shall not affect, impair, or invalidate the remainder.

1.8 Definitions

a) Customer

Any individual person, firm, or organization who purchases water service, or is legally responsible for the purchase or payment for water service, at one or more locations from a Water Utility System under one or more rate classifications, contracts, or schedules.

b) District

Public Utility District No. 1 of Wahkiakum County.

c) Equivalent Residential Unit ("ERU")

The volume of water demand and use deemed by the District to be characteristic of a single family residential unit, which shall equal an average water consumption of 1,000 cubic feet (one cubic foot is equal to 7.48 gallons) per month and 33.0 cubic feet per day. The "ERU" shall be used as the method of comparing anticipated water demand and usage characteristics of multi-family residential users and non-residential water users (such as schools, businesses, parks, manufacturing companies, etc.) to that of the single family residential unit described in this subsection.

d) General Manager

The duly appointed or acting Manager of Public Utility District No. 1 of Wahkiakum County.

e) LUD Water Resource Connection Charge

That charge levied by the District, and payable to the District, by or on behalf of an approved and established local utility district ("LUD"), for the permanent right and license to attach to the District's water source, storage, and transmission system. Such charge shall apply to any water distribution system constructed pursuant to and as a part of the formation of an LUD and attached to the District's water supply system for the purpose of providing retail water services to its assessed properties. Such charge funds transmission, storage, and water source improvements required by the District to serve the LUD.

The LUD Water Resource Connection Charge payable by the LUD to the District shall be based upon anticipated demand to be placed upon the District's water supply system by the LUD water distribution system as a whole. The charge shall be estimated at the time of LUD formation, and ultimately determined at the time of adoption of the final assessment roll by multiplying the number of ERUs within the LUD at full development by the ERU charge established in the applicable Schedule. Such charge shall include and be in lieu of all other fees and charges for attachment of the LUD distribution system to the District's water supply systems; the total LUD Water Supply Connection charge shall be divided among all properties served by and within the LUD boundaries according to the relative benefits to such properties from water system attachment, as determined by the ERU classification of such individual properties. (An apportioned share of such charge is one component of the assessment applicable to each assessed property within an LUD.)

f) Month

An interval of approximately thirty (30) days.

g) New Customer

Any customer attaching to the District's water system where no attachment has previously existed, requesting additional attachments to such system, or adding to the number of "equivalent residential units" served through an existing water service attachment to the District's water system.

h) Billing Period

An interval of one or two months, depending upon the interval between successive meter reading dates, established by the District.

i) Point of Delivery

That point, usually on the customer's premises and adjacent to the District's meter (or other agreed point), where the customer's water pipe is connected to the District's supply.

j) Service (Minimum Installation Fee) Connection Charges

Those charges levied by the District and payable by a new customer to reimburse the District's cost of installing all or a portion of that new customer's water service, including the water meter, from the distribution main to that customer's private service line. This charge may be included as a part of the applicable assessment for New Customers attaching to the District's water system as a part of an LUD formation and construction.)

k) Standard Specifications

Appendix_A_ to this Terms & Conditions Manual, setting forth all of the District's standards and specifications for design and construction of water facilities.

l) System Development Charge

That charge levied by the District per ERU, payable to the District, and representing a new customer's proportionate share of the cost of new water storage, transmission, and supply improvements installed and to be installed by the District or others to accommodate the water service needs of such new customer and other new customers projected by the District to be added to its water systems under the District's current Water System Plan.

m) Temporary Water Service

Metered water service provided on a short-term, temporary basis to a fixed site (i.e. a construction site): includes water service supplied through a District main, or a fire hydrant designated by the District and equipped with a separate valve installed for this purpose; does not include intermittent, un-metered use of fire hydrants to fill mobile water tanks; or short-duration use of fire hydrants at fixed sites.

n) Water Consumption

Water delivered at the point of delivery, measured in cubic feet.

o) Water Main Extension

Any District-owned water main which, at the time of installation, is installed adjacent to, or to serve, properties which were not previously adjacent to, or served by, a District-owned water main.

p) Water Service

The availability of water at the point of delivery for use by the customer, irrespective of whether water is actually used.

GENERAL TERMS AND CONDITIONS APPLICABLE TO WATER SERVICE

Section 2 – General Provisions

2.1 Scope

Section 2 of this General Terms & Conditions Manual provides all the terms, conditions and policies for furnishing and receiving water service. These terms, conditions and policies are a part of all oral or written proposals, offers, agreements, and contracts for furnishing and receiving water service relating to the District. These terms and conditions have been adopted by the Board of Commissioners of Public Utility District No. 1 of Wahkiakum County and a copy of this document shall be available for public inspection during regular District business hours in the District's Headquarters Building at 45 River Street in Cathlamet, WA.

2.2 Initiating and Terminating Service

2.2.1 Service Applications or Contract

- a) Each New Customer desiring water service must make application and may be required to sign an application form or contract prior to service connection.
- b) The District may, in some circumstances, accept application for service from a second party, with the understanding that the first party will sign an application within fifteen (15) days. Such second party shall be responsible for payment of services unless and until an appropriate written and signed service application is made by the first party and accepted by the District for the entire service period.
- c) At the time of application, all New Customers shall be informed of connection fees and of any additional charges for services after regular service hours. Any claimed or actual failure to inform shall not, however, relieve the new customer of any such fees or charges.
- d) Large industrial or commercial contracts may be written on a special form and shall contain such provisions and stipulations as may be necessary or desirable to protect the interests of both the District and customer.

2.2.2 Agreement

Acceptance of service is subject to current District policies, rates, service requirements and regulations, with or without a written application or contract.

2.2.3 Owner/Agent Agreement

A contract may be entered into by any owner of rental property for the provision of uninterrupted service to such property between tenancies. The owner agrees to pay for water service charges during this period and until a tenant assumes responsibility for water service under these policies.

2.2.4 Initiation of Service

- a) Service will be initiated when the customer has met all District requirements and submitted:
- Proper application and a demonstration of credit sufficient for reasonable assurance that service bills and fees will be paid.
 - Valid service and mailing address(es).
 - Payments as required on outstanding accounts.
 - Payment of applicable deposits and other fees.
- b) When new installations, conversions or upgrades of District facilities are required to provide service, requirements will vary as follows:

Newly constructed or upgraded services: in addition to the above, require appropriate evidence of state, town or county plumbing inspection.

The District may, at its option, require the presence of a responsible person in the building at the time the water is turned on. If required, and arrangements are made to have such person present at a predetermined time, and such person is not present, the District, at its option, may charge a fee commensurate with that listed in the District's Schedule of Charges and Fees to arrange a subsequent time to turn on the water. Only assigned District personnel may initiate a water service connection.

2.2.5 Disconnection of Service

- a) Service may be disconnected for good cause, including (but not limited to):
- Violation of service requirements or regulations, rate schedules, contracts or plumbing codes.
 - Failure to pay fees or deposits.

- Theft or illegal diversion of water.
- Customer system leaks of which the District becomes aware and which cause or may result in significant water loss and/or property damage.
- No one assumes responsibility for service.
- Failure to pay water charges when due.

The District may also refuse or disconnect water service used in a manner which is seriously detrimental to the service being rendered to other customers as further described in Sections 2.3.5 and 2.3.16.

- b) When disconnection occurs, the customer will be given a notice concerning such action and the process for reconnection of service. In the customer's absence, the notice will be left in a prominent place on the premises. Notice will also be mailed.

The nature of the notice required and the period of time before disconnection shall be reasonable under the particular circumstances with special consideration for the potential dangers to life and property.

- c) The termination of service for any cause shall not release the customer from the obligation to pay for water received, fees owed, and charges specified in this Manual or in any existing contract.
- d) Service will not be disconnected without a disconnect notice for nonpayment of bills.
- e) Disconnection during Appeals:

At the District's discretion, termination of service may be by locking meter isolation valves or physical disconnection as the District may choose.

2.2.6 Reconnection

When service is disconnected for noncompliance with service requirements or regulations, nonpayment or fraudulent use, the service will not be reconnected until the situation is corrected to the District's satisfaction.

Before reconnection, the customer will be advised of current fees and charges for service restoration.

Only authorized District personnel may initiate and turn-on service to a water service connection. Appropriate charges, as specified or turning on or reconnecting service will be assessed as applicable

2.2.7 Termination of Service by a Customer

Except as may be otherwise provided for by special contract or agreement with the District, when a change of occupancy or of legal responsibility takes place for water service to any premise being served by the District, the customer may terminate service by notification in person, by telephone or in writing to the District within a reasonable time prior to such change. The outgoing customer may be held responsible for all service supplied to the date notification is received by the District. The District reserves the right to read the meter(s) for a final bill within a one-week period from the date of notification to terminate, and such reading(s) may be adjusted for consumption, if any, used by subsequent customer(s). The final reading may be estimated by mutual consent of the customer and the District. Under some circumstances the District may, at its option, require written authorization from the customer paying for water service before discontinuing such water service.

2.3 Service and Equipment Requirements

2.3.1 Customer Facilities

- a) Plumbing and Equipment: The customer shall install, own and maintain all plumbing and equipment beyond the delivery point, excepting meters and special facilities installed or furnished by the District. The customer's plumbing is to conform to:
- District's service requirements and regulations.
 - Town, county and state requirements.
 - Accepted modern standards as set forth in the Uniform Plumbing Code.

2.3.2 Requirement of Adjacency to District Main

In order to be served by the District's water system, the customer's property must lie adjacent to a District water main. If the customer desires water service, and if the customer's property lies remote from a suitable District main, the customer shall be required to extend the main through or past his/her property and pay for all costs associated with the main extension.

The General Manager, or his/her designee, shall have the authority to waive the requirement of adjacency to a District main.

2.3.3 Placement of Service Equipment

- a) It is preferable that water services not be over 300 feet from the meter to the point of use in order to maintain adequate pressure. Services over 300 feet in length are permitted; however, the District will not guarantee adequate pressure for these services.
- b) The customer's service pipe shall be extended eighteen (18) inches beyond the meter. The water service pipe shall be installed at a location mutually agreeable between the District and customer. The District will install the meter, meter box, and tailpiece assembly.

Private service lines shall not cross other parcels, nor shall they be constructed in public right-of-way or in private rights-of-way solely dedicated to another property without the express approval of the General Manager or his/her designee.

Evidence of permission to make such crossings shall be provided to the District at the time of application.

District and all necessary permits, easements or other authorization shall be obtained at customer expense.

2.3.4 Responsibility for Maintenance

The District is responsible for maintaining its facilities and equipment to the point of delivery. The customer owns and maintains equipment beyond the point of delivery. (See Subsection 1.8.(j)).

2.3.5 Safeguard of District Facilities

The customer shall provide space for, and exercise proper care to protect any of the District's facilities on the customer's premises.

This shall include meters and other facilities installed by and remaining the property of the District. Any person knowingly and maliciously damaging or tampering with District meters and other equipment, reconnecting a previously disconnected meter for the purpose of restoring utility service or tampering with any District equipment with the intent of defrauding or illegally diverting utility service shall be prosecuted by the District in accordance with Chapter 9A.56 RCW. In addition, in the event of unauthorized connection, and loss or damage to the District's property, the District may collect from the customer the charge for estimated unmetered water, the cost of facility repairs and replacement, administrative costs, attorneys' fees, and other costs authorized or awarded pursuant to RCW 80.28.240. The District shall also bill the customer for reasonable administrative costs that shall include all time and expense by

District personnel to resolve the situation. This charge will be in addition to the charge for estimated unmetered water.

- a) The District may refuse or disconnect service to customers when conditions are known by the District to be defective or out of compliance with codes, regulations or requirements. The District is not liable for loss or damage to persons or property resulting from defects or negligence:
 - By the customer beyond the point of delivery, or
 - In the customer's installation, facilities, or equipment.
- b) When an individual's action might endanger District property or interrupt water service, prearrangements can be made for a crew or serviceman to standby. Cost for this service may be charged to the responsible party.

Should loss or damage occur to District property, the responsible party may be charged for repair or replacement cost, administrative time and expense and estimated loss of unmetered water. However, if a District employee is at the site and approves the method and work, the charge to the customer may be modified or waived.

2.3.6 Access to Premises

- a) The customer is to provide District representatives with safe, clear access and entry to customer premises for service related work. The District's facilities must remain unobstructed and accessible at all reasonable times so the District may:
 - Install, inspect, maintain or remove equipment or plumbing.
 - Read, connect, disconnect or inspect metering devices.
 - Inspect customer owned cross-connection control devices.
 - Inspect all customer water facilities to ensure there are no cross-connections. At any time a cross-connection is discovered and it is not immediately remedied by the customer, the District reserves the right to terminate water service to the customer until such cross-connection is removed.
- b) For locked District equipment, the customer will provide the District with an access key. When necessary for customer convenience, the District may install an accessible key box, for which a standard fee will be charged the customer.

- c) The customer shall provide space and protection for District facilities on the customer's premises, including meters, and other equipment installed by and belonging to the District.
- d) Although the customer is responsible at all times for maintaining customer-owned equipment, the District may inspect customer equipment before or after service connection.

However, such inspection, or lack of inspection, shall not be construed as placing upon the District any responsibility for the condition, or maintenance of the customer's plumbing; not does it guarantee the absence of cross-connections in the customer's service.

2.3.7 Separate Service for each Lot, Property, or Residence

Each lot, property, or residence will be required to have a separate water service, except as provided for in this subsection. Customers shall not extend a service line to an additional residence without the written consent of the District.

- a) Each multi-family residential structure may be served by either a joint meter or individual meters for each unit, at the option of the property owner.
- b) Commercial, industrial, institutional, or governmental customers with facilities occupying multiple lots or structures under a single ownership, may be served by either joint meters or individual meters for each structure, at the option of the owner.

At no time will a residence structure and a separate commercial structure be served by one meter.

- c) Multi-tenant commercial, industrial, institutional, or governmental properties or structures may be served by either joint or individual meters for each tenant, at the option of the owner.
- d) A single meter may serve multiple residential lots or properties if the District approved such an arrangement in advance and the customer has all necessary authorization to operate a public water system.
- e) One meter may be used to provide water service to separate, non-rented, and primarily non-commercial structures on the same property, if they conform to applicable zoning and applicable Wahkiakum County and/or town regulations.

If joint metering is used, the customer shall be the property owner or another person who agrees to be responsible for the entire billing.

2.3.8 Multiple Meters

When a customer's service requires application of more than one rate schedule, one meter will be installed for each applied schedule. Each meter will be billed separately unless otherwise specified in a special contract.

The customer will be responsible for purchasing and installing any additional meters desired for customer purposes, and for placing such meters on the customer side of the District meter. Such meters shall be as approved in advance by the District, and shall be installed at the customer's sole expense, and in a manner and location as approved by the District.

The builder of a multiple-unit complex is required to permanently and accurately number meters and corresponding building units.

2.3.9 Meter Testing

The District will, at its own expense, inspect and test its meters as required to ensure a high standard of accuracy. Additional tests at the customer's request will be made; and if the meter is found to register within two (2) percent of accuracy, the District may charge a test fee (see Fee Schedule) for all such tests made at intervals more frequent than once in three (3) years. If the meter is found to register in excess of two (2) percent, fast or slow, the District will pay for the testing and will adjust the customer's billing for the known or assumed period of error, not to exceed the previous six (6) months.

2.3.10 Pressure Reducing Valves

Pressure reducing valves (PRVs) serve to protect customers' plumbing and appliances from damage due to high water pressure. A pressure reducing valve shall be installed when the District determines that water pressure at a service location exceeds 80 pounds per square inch (psi). The following conditions shall determine how the installation is performed:

- a) For pressures greater than 80 psi, but not more than 120 psi, the customer may select one of the following options:
 - At the time the meter is installed, the District will install a PRV on the District side of the meter, for a one-time set fee (see Fee Schedule). After the PRV is installed, the District will be responsible for its maintenance, repair, and/or replacement at no additional cost to the customer. However, if the customer does not request the District to install a PRV at the time of meter installation, and later requests the District to install a PRV, the full cost of installation will be charged to the customer, rather than the set fee.

- The customer may install his/her own PRV, or have a plumber install it, on the customer's side of the meter, at the customer's expense. In this case, the property owner will be responsible for maintenance, repair or replacement.
- b) For pressures greater than 120 psi:
- At the time the meter is installed, the District will install a PRV on the District side of the meter, for a one-time set fee (see Fee Schedule). After the PRV is installed, the District will be responsible for its maintenance, repair, and/or replacement at no additional cost to the customer.

2.3.11 Booster Facilities

The District may boost service pressure via a District owned and maintained individual booster pump housed in a suitable location on the customer's property. This method of service shall only be considered in limited circumstances where: 1) a positive pressure of 30 psi cannot be provided during peak hourly design conditions; 2) a multiple customer booster facility is not feasible; and, 3) where the customer is located in close proximity to a storage reservoir that will provide positive pressure to the suction side of the individual booster during peak hourly demand flow and fire flow conditions. If these conditions are met, service shall be Fee Schedule) in addition to other applicable service charges. The BSC shall cover the cost of the District's purchase and installation of an individual booster pump. The property owner shall provide a suitable location, power supply, and suction/discharge piping in accordance with the District's Standards and Specifications. In addition, the customer shall sign a Boosted Service Agreement which outlines the terms and conditions of such service.

This section does not apply to design of water systems for new developments.

2.3.12 Cross Connection Prevention

Cross-connections between the District's water service and any other source of water are prohibited, unless authorized by the District in combination with the use of a backflow-prevention assembly. Service connections and individual customer plumbing systems shall be constructed and maintained so as to prevent backflow of potentially contaminated water into a potable water system. The control or elimination of cross-connections shall be in accordance with the provisions of WAC 246-290-490, as modified from time to time.

The District reserves the right to inspect all customer water facilities to ensure that no cross-connections exist, in accordance with District policies on access to premises (see Section 2.3.6). At any time an unauthorized cross-connection is

discovered and it is not immediately eliminated, that water service will be terminated until the cross-connection is eliminated.

2.3.13 Backflow Prevention Facilities

The District may, at its sole discretion, permit or require a customer to install a backflow-prevention assembly on the customer's plumbing system or service connection. Customers required to install backflow-prevention assemblies include, but are not limited to, those whom:

- a) Operate commercial or residential fire sprinkler systems connected to their plumbing;
- b) Operate an irrigation system connected to their plumbing;
- c) Maintain cross-connections of their water system with air conditioning systems, medical equipment, or other devices or processes where chemicals, microorganisms, or other objectionable substances may be drawn into the water system;
- d) Own or maintain systems that, in the judgment of the District's Water Resource Department, compromise the systems.

The following are examples of such systems or enterprises:

- Agricultural (farms & dairies)
- Beverage bottling plants
- Car washes
- Chemical plants
- Commercial laundries & drycleaners

Premises where both reclaimed water and potable water are provided:

- Film processing facilities
- Food processing plants
- Hospitals, medical centers, nursing homes, veterinary, medical and dental clinics, and blood plasma centers

The entire cost of installation a backflow-prevention assembly shall be borne by the customer, and the assembly shall remain in the customer's ownership and as the customers' responsibility.

Periodic inspections and repairs of backflow-prevention assemblies, as required by WAC 246-290-490, shall be arranged by customers at their own expense, using firms or individuals who are licensed cross-connection control specialists.

A signed copy of the inspector's completed report shall be provided to the District to confirm that assemblies are operating in a satisfactory manner.

Inadequate maintenance of a backflow-prevention assembly shall be grounds for termination of water service.

NOTE: Minimum standards for the installation and maintenance of backflow-prevention assemblies shall be those set forth in Accepted Procedures and Practice in Cross-Connection Control, December 1995, Sixth Edition, as published by the Pacific Northwest Section of the American Waterworks Association (AWWA), as updated from time to time. The District's Water Resources Department is authorized to establish higher standards for installation and maintenance of backflow-prevention assemblies where he/she finds they are supported by good engineering practice, industry standards, or the protection of public health.

2.3.14 Relocation of Delivery Points

- a) A customer's delivery point may be relocated at the customer's request, subject to advance payment of the estimated cost of relocating the District's service pipe, meter and other facilities. The customer shall be responsible for relocation of the service line to the new location. The District will disconnect the old service at the meter and connect the new service.

The District may reduce the costs to be charged to the customer for relocating any of the District's facilities, as requested by a customer, to the extent that such relocations may benefit the District. In determining the amount of such reduction, the District will give consideration to the remaining physical life of facilities or equipment replaced, the improvement to the system operations, and any increased revenue that will accrue to the District as a result of such relocations.

- b) A customer shall be responsible for the relocation of a meter box when property alterations have been made which leave meter access or location unacceptable to the District. The District may disconnect service when the meter box is not satisfactorily relocated.

2.3.15 Resale

Customers may resell water only with written District permission. Rates charged may not exceed rates the District charges for similar service.

2.3.16 System Disturbances

Water service shall not be utilized in such a manner as to cause severe disturbances or pressure fluctuations to other customers of the District. If any customer uses equipment that is detrimental to the service of other customers of the District, the District may require the customer to install, at his/her own expense, equipment to control such disturbances or fluctuations.

2.3.17 Freezing

It shall be the customer's responsibility to protect from freezing all piping, fixtures and appurtenances on the customer's side of the point of delivery.

Any damage resulting from freezing shall be considered the responsibility of the customer.

2.3.18 Interruption of Service

- a) It is the District's intent to provide adequate and continuous service with minimum interruption. However, the District:
 - Does not guarantee against occasional curtailment or failure of water service;
 - Shall not be liable for resulting injury, loss, or damage; and
 - Shall not be considered in breach of contract for temporary interruption of service.
- b) Repairs or improvements to facilities requiring temporary service interruption will be expedited and timed to minimize customer inconvenience. When possible, a preceding notice will be sent to the customer.
- c) If the customer's water service fails, the customer shall endeavor to determine if the cause is on the District's side or the customer's side of the meter.

When the District responds to a customer call after service hours, and the problem is found to be with customer equipment, the customer will be charged a set fee for such response. (See Fee Schedule)

When the District responds to a customer call, and the problem is found to be with customer equipment, the water serviceperson may make repairs at the customers' request following the customer's execution of a Field Work Order agreeing to pay actual time and materials to make the repair. The charges will be included on the customer's next regular billing.

2.3.19 Additional Water Supply

A customer desiring a District change in the capacity of its service connection and meter to supply increased quantities of water shall notify the District sufficiently in advance so that the District may, if determined by it to be economically feasible, provide the facilities required to supply increased quantities of water. The customer shall pay in advance the cost of any such facilities.

2.3.20 District Representative by Employees

Except as specifically authorized in these policies and regulations, no promise, agreement or representation of any employee or agent of the District, with reference to the furnishing of water service by the District shall be binding on the District, and in no event shall the same be binding on the District unless the same shall be in writing signed by the General Manager or his/her designee.

No inspector, agent or employee of the District may ask, demand, receive or accept any personal compensation for any service rendered to a customer in connection with supplying or furnishing water service by the District.

2.4 Meter Reading, Billing, Payment, and Collections

2.4.1 Meter Reading

- a) Meters will be read on a monthly or bimonthly cycles at District option. In the event bimonthly intervals are used, the usage blocks to which the charges apply and the Minimum Charges shall be multiplied by two.

The District may alter or reroute its meter reading and billing cycle dates when such alteration or rerouting is in the best interest of the District.

- b) Opening or closing readings may be prorated.
- c) Special meters may be installed on any account when the nature of the customer's equipment and operation so indicates for correct rate schedule application and/or customer service improvement.

2.4.2 Multiple Delivery Points

The rates of the District are based upon the supply of service to the entire premises through a single delivery and metering point. Separate supply for the same customer at other points will be separately metered and billed. Unless

otherwise specified in a contract, the District will not totalize metering of separate points of supply or services.

2.4.3 Billing

Bills will be sent to the mailing address furnished by the customer. Failure to receive a bill will not release the customer from the obligation to pay for services provided.

Bills will be issued monthly or bimonthly, depending on the reading cycle and assigned payment plan and generally will be based on exact meter reading. Bills may be estimated when:

- Meter is not accessible to meter reader;
- Meter is under snow or water;
- Meter malfunctions;
- Other circumstances beyond District control interfere with meter reading.

In the event that bills are estimated, an adjustment will be made at the time of the next regular billing that is based on an actual meter reading. The District will send bills and notices by first class mail. A customer who does not provide a proper mailing address or a means of receiving mail, may be subject to disconnection.

2.4.4 Payments

The customer's obligation to pay a bill accrues on the date the bill is issued. Payment is due by the due date on the bill. Payments will be considered made when received at the District office. Payments are to be accompanied by a billing remittance slip or account number.

2.4.5 Electronic Auto-Pay

Accountholders requesting auto-payment of their monthly invoices will have their credit or debit card charged the first working day after the invoice is due. If a payment attempt is unsuccessful, an accountholder will be notified by mail that their payment was not received by the PUD. Accountholders experiencing multiple unsuccessful autopay attempts may be removed from the autopay process.

Autopay accounts will follow the same collection process as non-autopay accounts and will receive late notices when delinquent.

2.4.6 Payment Plans

Customers will have an opportunity to keep water service accounts current through optional payment programs arranged through a customer service representative.

2.4.7 Adjustments

To enhance service to our customers and to reduce labor costs associated with handling customer billing disputes and requests for adjustments, the District will implement a "Hassle-Free Customer Service" Program. The program will be effective with adoption of this policy. The purpose of the program is to reduce costs, gather information on the effects this type program has on the service water customers receive from the District, and to demonstrate whether this approach is cost-effective.

In special situations, certain Water Resources staff will have authority for granting adjustments when it is demonstrated that the cost of continuing to deny the customer's request substantially exceeds the amount in dispute and results in reduced customer satisfaction.

Authority Levels:

General Manager:	Up to \$500 each occurrence
Engineering & Ops. Supervisor:	Up to \$100 each occurrence
Auditor/Controller:	Up to \$100 each occurrence
Water Utility Serviceman:	Up to \$ 25 each occurrence
Customer Service Representative:	Up to \$ 20 each occurrence

- a) In the case of incorrect application of rates, stuck meters, or clerical errors, retroactive billings will be made for the previous six billings on monthly-billed accounts, or three billings on bimonthly-billed accounts. In the case of billing to the wrong customer due to meter misidentification, adjustments will be made three years back.

- b) A final balance (debit or credit) of less than one dollar may be routinely written off by the District. When it has been determined that a customer has received unmetered service or when the customer has caused the service furnished to be improperly or inaccurately metered, the District may render bills for such service based upon its reasonable estimate of the service actually furnished for the full period during which the service was unmetered or improperly metered, or as provided in Section 2.3.9. However, in those cases where the premises have been remodeled resulting in a situation whereby more than one customer is served by one meter, no adjustments will be made and the account' customer of the premises shall be required to assume responsibility for the billing effective the last regular reading date unless another person agrees in writing to assume full responsibility for the billing.

- c) A customer may be eligible for an adjustment to their water bill in the event of a loss of water through abnormal conditions when the cause is deemed by the District to have been undetectable and not resulting from a lack of normal maintenance by the customer. No adjustments shall be made in water charges for losses resulting from customer negligence, improper operation of plumbing by the customer, and/or failure of the customer's plumbing system. **The section of service line qualifying for a potential leak adjustment is between the point of delivery at the meter box and the house or facility.** Taps off the service line, and any leaks resulting from such taps (such as, but not limited to, irrigation, swimming pools, outdoor hose bibs), would not be eligible. The date that qualifies as "official notification" of a leak varies depending upon the circumstances.
- 1) If a District employee identifies a potential leak, written notification will be mailed to the customer. A door hanger may also be left in a prominent place at the residence. The date of the letter will serve as the "official notification" date.
 - 2) If the customer contacts the District regarding the possibility of a leak, a visit to the site address will be initiated. Upon verification of a qualifying leak, a letter will be mailed to the customer. The date of the letter will serve as the "official notification" date.

Once a leak has been identified, the customer will be provided with a ten (10) day period to conduct the repairs during which the adjustment period will continue.

The time period during which a customer could expect to receive an adjustment is from the "official notification" date back to the previous billing period and forward to include the ten (10) day period allotted for repair.

The customer's water account will be adjusted by 50 percent for the excess amount of water used during the eligible time frame.

The methodology for determining excess amount of water over normal consumption will be determined by the previous years' history for an existing customer; an average use of 1,000 cubic feet per month will be used as the "normal use" base for new customers or customers without sufficient consumption history.

A customer is eligible for a leak adjustment one time every five years per account/location. An additional adjustment may be provided if, in the

District's opinion, a good faith effort was made by the customer to repair the leak and new circumstances have caused further leaking.

The General Manager and/or Auditor/Controller or his/her designee will be responsible and accountable for authorizing adjustments.

No adjustment shall be made in the water billing by reason of freezing.

2.4.8 Reminder Notices

The District no longer issues reminder notices.

2.4.9 Disconnect Notices

- a) Disconnect Notices for monthly accounts will be mailed approximately 21 to 25 after the statement is issued.
- b) The disconnect notice will include a full explanation of the credit, disconnect policies and customers' rights and remedies.
- c) A fee may be charged when a field collection call is required and no disconnection is made. (See Fee Schedule)
- d) Disconnection will occur following the due date on the notice unless:
 - The delinquent payment has been received at a District office by the due date.
 - A deferred payment agreement has been reached.
 - The customer has appealed the action and a hearing is pending.
- e) Exceptions: In certain instances, where health, safety or essential services would be otherwise jeopardized, or for purposes of economy, the District may withhold disconnect notices.

2.4.10 Collection

While considering individual customer needs, the District is obligated to make prudent collections. Reasonable collection methods will be used, including disconnection of service, collection agency assignment, or legal action.

2.4.11 Extenuating Circumstances

- a) The District will pursue a solution with customers temporarily unable to pay on time due to extenuating circumstances. The availability and terms

of a deferred payment plan will be based on a review of the individual customer's situation, including;

- Amount and age of delinquency.
 - Past payment record.
 - Ability to pay.
 - Demonstration of good faith.
- b) Employees will give customers available information on other resources for assistance, when appropriate.
- c) Service will not be terminated for inability to pay when termination would be especially dangerous to health of a resident, as determined by the District so long as the customer has made application to appropriate agencies for assistance and payment is pending.

2.4.12 Insolvent Accounts

If the District has reasonable cause to believe a customer to be insolvent, in financial difficulty or contemplating bankruptcy, appropriate action may be taken to secure payment of charges due. Requirements may include an adequate security deposit, altered payment schedule, or other actions deemed necessary and reasonable by the District.

2.4.13 Transfer of Unpaid Balances

A water service customer's previous unpaid balance may be transferred into any current water or electric service account of the same customer and same type as part of current obligation and subject to the District's requirements for payment. The customer will be notified of:

- Transferred balance.
- Date and location of service of unpaid account.
- Impact of future service

2.4.14 Credit Notice Suppression Indicator

In the interest of economic operation and general public health and safety, the District may load a credit notice suppressor indicator to various accounts. For economic reasons, the District General Manager may authorize the use of a suppressor indicator on the accounts of governmental agencies. For general public health and safety, customers dependent on medical life support system, hospitals, telephone switch stations, sewer lift stations, etc., the District General Manager may authorize the use of a suppressor indicator on any such account.

2.4.15 District Pay Stations

- a) Pay stations may be established for the purpose of collecting customer payments, throughout the District's service area with the approval of the District's General Manager or his/her designee.
- b) The agent will prepare collection reports in duplicate. The original cash report, remittance slips and receipts will be picked up by District personnel on regular basis (daily, if possible)
- c) The agent will be responsible for all money paid by the customer.
- d) The agent will accept payments only for those accounts that are accompanied with a billing remittance slip or the customer's account number.
- e) The agent will not accept second party checks for payment of an account.
- f) The District will pay the agent a set fee per month or per remittance slip for each collection.
- g) The District will furnish without charge, all necessary stationery, supplies, and prepaid postage envelopes for mailing of the daily collection reports to the District.

2.4.16 Write-Offs

Accounts receivable are eligible for write-off once they have been outstanding for ten years. To be considered for write-off, the District must be able to demonstrate that adequate steps were taken to collect the amount due. All accounts receivable to be written off must be approved by the Board of Commissioners. The Auditor of the District will compile a list of all such accounts receivable for submission to the Commission on an annual basis.

Exceptions to the above include (i) debts that have been discharged in bankruptcy, which will be eligible for write-off immediately upon receipt of an order of discharge issued by a bankruptcy court, and (ii) balances of accounts that have been closed because the account-holder is deceased, which will be eligible for write-off nine months from the date the account is closed.

Accounts that are written off are forever due and payable. A customer whose account has been written off must pay the old balance in full, collection fees, and any deposit and fees required by the District's Schedule 100 Fee Policy before connecting service.

2.4.17 CUSTOMER SERVICE PROGRAMS

A. Budget Pay Plan

The District offers a levelized billing program known as the Budget Payment Plan. The Plan allows customers to make estimated monthly payments based on their prior year's electric and/or water consumption. Monthly billing statements display both the actual account balance and the required budget payment plan amount due (current and past due, if applicable). In periodic review of accounts on the Plan, District staff may find it necessary to increase the monthly budget payment amount if the estimated amount is not sufficient to cover current or expected consumption. If a change is necessary, the customer will be notified in writing and subsequent invoices will reflect the new budget payment plan amount. Customers may discontinue participation in the program at any time.

The Budget Payment Plan is discretionary and could be discontinued by the District at any time.

B. Senior or Disabled Citizen Discount Program

The District offers a discounted rate to qualifying customers as outlined in Schedule 1-A, Senior or Disabled Citizen Discount Program. The program will be periodically reviewed and updated.

The Senior or Disabled Citizen Discount Program is discretionary and could be discontinued by the District at any time.

2.5. Dispute Resolution

2.5.1 Mandatory Hearing

Any customer or other person who believes that he/she has been adversely affected by a decision which the District has made to:

- a) Terminate the delivery of water service (i.e., disconnect the customer); or
- b) Refuse to deliver water service (i.e., not connect the customer); or
- c) Require the customer to pay for water service previously delivered (i.e., transfer an outstanding balance to a new water or electric account); or
- d) Require the customer to make periodic payments in specific amounts to pay for water service previously delivered as a condition of receiving water service (i.e., require a payment plan); or
- e) Require the customer to provide security as a condition of receiving water (i.e., require a security deposit); or

- f) Require the customer to pay a fee or penalty; (i.e., reconnection fee, account service fee, etc.);

Has the right to have that decision reviewed in a hearing to be held by the General Manager of his/her designee.

2.5.2 Discretionary Hearing

The District may, at its discretion, with the approval of the General Manager or his/her designee, provide a hearing to any customer who believes he/she has been adversely affected by any decision of the District on any matter other than the decisions listed in Section 2.5.1.

2.5.3 Binding Decision

The decision of the Hearing Officer shall be final, unless either party elects to challenge the decision in a court of law.

2.5.4 Written Hearing Request

A request for a hearing must be made in writing signed by the customer or by someone with legal authority to act on the customer's behalf. Each hearing request must include a short and plain statement of both the decision to be reviewed and the relief which the customer is requesting. In addition, each hearing request must include an address to which notices, including notice of the hearing date and location, the decision of the Hearing Officer and any other written communications may be mailed to the customer.

2.5.5 Delivering Request for Mandatory Hearing

The customer's written request for a mandatory hearing must be delivered to the District's General Counsel, Customer Service Department, or to the General Manager or Auditor/Controller.

2.5.6 Delivering Request for Discretionary Hearing

If the District has informed the customer that it will provide a discretionary hearing, the customer's written request for a discretionary hearing must be delivered to the District's General Counsel or to the office of the Auditor/Controller.

2.5.7 Hearing Date

The District Hearing Officer will determine the date and time of the hearing, which shall be held at the District's Administrative Office within ten (10) business days after the hearing request is received by the District: PROVIDED, that a hearing date will not be established if the written hearing request does not

include an address to which notices to the customer may be mailed or if the written hearing request is, in the opinion of the Hearing Officer, otherwise materially deficient.

2.5.8 Notice of Hearing

The Hearing Officer will mail notice of the hearing or, under the circumstances described in Section 2.5.7 above, notice that a hearing date will not be established by first class mail, postage prepaid, to the customer at the address set forth on the hearing request within three (3) business days after the hearing request is received by the Hearing Officer.

2.5.9 District's Action Stayed Pending Receipt of Written Request for Hearing

If a customer:

- a) Contacts the District within three (3) business days after receiving notification, whether written or oral, of a decision of the District; and
- b) Is orally informed that the customer may have a hearing to review that decision; and
- c) States, within one (1) business day after being informed that a hearing is available, that the customer intends to request a hearing.

Then, as a result of the statement of intent, all District action which would be taken as a result of the decision shall be stayed until the written request for a hearing is received by the District or for a period of four (4) business days after the date upon which the customer orally stated that a hearing would be requested, whichever is earlier.

2.5.10 District's Action Stayed Pending Hearing

If the District receives a written request for a hearing within the time set forth in Section 2.5.9 above, all District action which would be taken as a result of the decision shall be stayed until Noon five (5) business days after the Hearing Officer's written decision on the matter is received by the Hearing Officer: PROVIDED, that if a hearing date is not established for a reason set forth in Section 2.5.7, District action will not be stayed.

2.5.11 Security Deposit Pending Hearing

If a customer requests a hearing to dispute a debt for water service which exceeds \$1,000 and the customer wishes to receive water service until the hearing is held, the customer must provide security for the water service to be provided by the time the written request for a hearing is delivered to the District. The amount of security will be the amount of money that will reasonably accrue from the usage of water, based upon prior usage at the facility involved, from the date the customer orally informs the District that a hearing will be requested until thirty (30) days thereafter.

2.5.12 Performance Pending Hearing

All obligations which are not the subject of the dispute to be decided by a Hearing Officer shall be performed by the District and/or the customer. This shall include, in the case of a dispute over amounts to be paid, the payment of all non-disputed amounts.

2.5.13 Failure to Appear

If a customer fails to appear for a hearing within fifteen (15) minutes after the time set forth in the notice of hearing, the customer will be in default, and the Hearing Officer shall decide the disputed matter in favor of the District and the customer shall be required to pay a penalty (see Fee Schedule) which may be added to any existing account of the customer. If the customer fails to appear, the customer's request for another hearing will not be granted unless the failure to appear was caused by an emergency or because of the occurrence of an unforeseeable circumstance or event, which shall be determined by the Hearing Officer, and the customer pays the penalty prior to the subsequent hearing. In such case, the subsequent hearing must be held within five (5) business days of the original hearing.

2.5.14 Continuance

Any request for a continuance shall be made to the Hearing Officer who shall grant such a continuance only in the case of an emergency or because of the occurrence of an unforeseeable circumstance or event. Any request for a continuance made by a customer which is not received at least twenty-four (24) hours (i.e., one complete business day) before the scheduled hearing will result in a penalty (see Rate Schedule) which may be added to any existing account of the customer.

2.5.15 Representation

A customer may represent himself/herself or may be represented by an attorney, relative, friend, or any person other than a District employee. The District will not be represented by an attorney unless the customer is so

represented. If the customer is to be represented by an attorney, the customer must inform the District of that fact at the time the written request for a hearing is delivered to the District, or if the services of an attorney are procured later, then as soon as such representation is arranged.

2.5.16 Evidence

The Hearing Officer may consider evidence which will assist the Hearing Officer in reaching a decision and may give effect to the rules of privileged communications (i.e., attorney/client privilege, husband/wife privilege, etc.) under the law. Information that is irrelevant and unduly repetitious may be excluded. Documentary evidence may be received in the form of copies or excerpts. Each party shall have the right to ask questions of persons who make statements at the hearing.

2.5.17 Legal Authority

The Hearing Officer shall apply as the first source of law District Resolutions, Code and Regulations. If none of these govern or decide the issue(s) presented, the Hearing Officer shall resolve the issue(s) on the basis of the best legal authority and reasoning available, including that found in the state and federal constitutions, statutes, and court decisions.

2.5.18 Limitation on Authority

The Hearing Officer shall not have the power to declare a District Resolution, Code provision, regulation or any portion thereof invalid for any reason, but may allow argument to be made for purposes of subsequent review.

2.5.19 Review of District Action

If the dispute involves a question of whether the customer is indebted to the District, the District must establish the customer's obligation by a preponderance of the evidence. If the dispute involves a question of whether a District decision is inconsistent with the regulations of the District, the customer must establish that the District's decision is a willful and unreasonable action made without consideration and in disregard of facts and circumstances.

2.6 Rates, Fees and Charges

2.6.1 Minimum Installation Fee

- a) A Minimum Installation Fee shall be charged to all NEW Customers connecting to District facilities, and to all existing customers requesting

additional service work. The amount of the minimum installation fee is shown in the Fee Schedule.

- b) Additional costs for services may be required if the service will be connected to a main previously constructed, under the District's line extension policy.

2.6.2 System Development Charge (SDC)

A System Development Charge is applied on new service connections to compensate for costs the District and its existing customers have paid for the system's general facilities, (i.e., source, storage, treatment, major transmission facilities and local distribution network and line upgrades); and for new general facilities required to support the addition of the new customers. The amount of the SDC is a predetermined amount (see Fee Schedule).

- a) All New Customers connecting to a water main shall pay a SDC, except as follows:
 - 1) The SDC shall not apply to extensions, new developments, or subdivisions where water facilities are financed under the LUD process.
 - 3) If a New Customer provides documentation, acceptable to the District, that the SDC for their type of connection has already been paid for the property through past payment by a Developer, or other means, the SDC shall not be assessed.
- b) Where construction of a development or subdivision requires obtaining water service from a District water system, the Developer has the option of paying the SDC at the time of the Bill of Sale or deferring payment responsibility to the property owner at the time of service connection.
- c) Where a development or subdivision is constructed within the District's integrated water system, but connection with the District's integrated water system is impracticable at the time of construction, such development or subdivision may construct and utilize a separate, temporary water supply, storage and distribution system, to be owned and operated by the District. Such system shall be attached to the District's integrated water system at District cost at such time that the District deems attachment practicable and appropriate. The Developer of the development or subdivision has the option of paying the SDC at the time of Bill of Sale or deferring payment responsibility to the property owner at the time of service connection.

- d) When the Developer chooses to defer the responsibility for paying the SDC to the property owner at the time of service connection, a higher SDC may be applied in order to permit the District to recover administrative costs and interest cost associated with delayed receipt.
- e) In all cases, the SDC paid shall be based upon the SDC in effect on the date of payment.

2.6.3 Distribution System Charge

The distribution system charge is assessed to compensate for costs the District and its existing customers have paid for the system's local distribution network and for new distribution lines required to support the addition of new customers and it is part of the System Development Charge.

2.6.4 Rate Schedule

The District has rate schedules for particular types of service provided and a particular Water System. A summary of these charges is provided in the Puget Island Water System Rate Schedule and the Western Wahkiakum Water System Rate Schedule. In case of conflict between the provisions of any rate schedule or special contract and this Policies and Procedures Manual, the provisions of the rate schedule or special contract shall apply.

2.6.5 Non-Standard Service Charges

- a) The District shall charge private parties and public entities for services rendered by the District on behalf of such private parties or public entities.
- b) For services not covered by standard fees or charges, the rate charged for services (the "service rate") rendered by District personnel shall be the hourly rate for the position, including benefits, plus overhead.
- b) Equipment shall be billed at reasonable rates consistent with retail rental rates for like equipment in the greater Longview area. Such rates will be established by the General Manager, on a case by case basis, by obtaining three or more estimates from private rental firms in the vicinity.

2.6.6 Account Service Charge

- a) An Account Service Charge (see Fee Schedule) is to be billed during processing of each service application, except for:

- Initial meter installation for service to a premise.
 - Services or meters added to existing premises or account by new service application.
 - Initial temporary meter and service for construction.
 - Name changes when no closing bill is requested or required.
 - Owner/Agent agreement with owner/agent assumption of responsibility for service between tenants.
 - Disconnection of an account for nonpayment and reconnected subject to a reconnection fee.
 - Name changes between husband and wife.
 - Name changes between the deceased customer and estate.
- b) A credit of the account service charge may be given in those cases where a customer has cut-in to an account in error.
- c) The customer is to be advised of the account service charge at the time application is taken.
- d) The account service charge is to be collected at the time of application or billed within ten (10) days from the date the application was taken, depending upon current procedures in place.
- e) The following procedures shall be followed:
- Separate applications for service when billed on different account numbers at the same address -- one charge for each account, unless separate accounts are established for District convenience.
 - Electric and water service on one account -- one account service charge at the time of application.
 - Multi-service account -- one charge for each additional meter reconnection after the initial application.
 - Multi-metered complex (i.e., apartment house) --
 - One charge per account for general use areas.
 - If no general use account, one charge per building to initiate service for one or more non-rented units.

2.6.7 Records Research Charge and Public Information Requests

The District will make information and records available to the public for inspection and copying in accordance with RCW Chapter 42.17, the Washington Public Records Disclosure Act and District Policy.

Information and records concerning water service, including rates, charges, connections, disconnections, construction, installations, engineering, policies and procedures may be obtained from the Customer Service Department located

in the Administrative Building, 45 River Street, Cathlamet, Washington. Requests for public records will be handled in compliance with provisions of the District's policy on Access to Public Information and Records. No fee is charged for inspection of public records on the premises; however, the District imposes a charge for providing copies of public records. Such charges do not exceed the actual cost of copying.

2.6.8 Disconnection/Reconnection Charge

- a) Whenever water service has been disconnected for noncompliance with the Policies and Procedures, for nonpayment, or for fraudulent use, the service will not be reconnected until the situation requiring such action has been corrected to the satisfaction of the District. A reconnection fee (see District Fee Schedule) shall be charged for reconnection during regular business hours. A higher fee shall be charged for reconnection at all other times including weekends and holidays (see District Fee Schedule). As appropriate, the customer will be preadvised of these fees.
- b) When an account requires the physical reconnection of both electric and water, the total charge will include components for each type of service (see District Fee Schedule).

2.6.9 Discounts

The District does not currently offer discounts for water service

2.6.10 After Hours Connection Charge – New Customer of Vacant Account Reconnect

- a) For connection requested to be completed during the hours of 4:30 p.m. to 8 a.m., or during weekends or holidays, customers will be advised at all times that there will be an after hours connection charge (see District Fee Schedule) in addition to the Account Service Charge.
- b) When an account requires the physical reconnection of both electric and water, an additional charge will be imposed for the electrical component of the work (see District Fee Schedule).

2.6.11 After Hours Service Charge – Established Customers

Established customers will be advised at all times of a charge (see District Fee Schedule), plus material cost and tax, if a water serviceperson is dispatched to the customer's premise, at the customer's request, during other than normal business hours (4:30 p.m. to 8:00 a.m. and weekends and holidays) and it is determined that the problem is caused by a failure of the customer's facilities.

2.6.12 Return Check Charge

An accounting service charge (Returned Check Charge - see Fee Schedule) may be made to each water service account for which payment has been received by any check or legal tender which is subsequently returned to the District by the bank for irregularities, lack of sufficient funds in the payer's checking account or the customer having closed the account.

2.6.13 Field Collection Contact Charge

Whenever it becomes necessary for a District representative to make a collection call at the customer's premise(s) to enforce payment of a billing or security deposit, a field collection contact charge (see Fee Schedule) will be made.

2.6.14 Security Deposits

- a) Security deposit may be required of a customer at application or later for any of the following reasons:
 - Incomplete or improper application.
 - Misrepresentation of Identity.
 - Tampering with District equipment.
 - Bankruptcy petition.
 - No established credit.
 - Payment record.
- b) A notice will be mailed to the customer when a security deposit is required, showing the amount, due date and customer rights to appeal.
- c) Payment or acceptable collateral is due as stated in notification unless other arrangements are made within that period.
- d) Amount of deposit will not exceed the actual or estimated maximum billing for two consecutive months within a 12 month period.
- e) Refund or application of deposit may be made, based on evaluation of customer credit history, after 12 months experience with residential customers and 24 months with nonresidential customers.
- f) At termination of service, an existing deposit will be refunded less outstanding amounts due.

- g) Transfers: When a customer relocates and reapplies for service, an existing deposit may be carried over to service at the new location and may be adjusted, depending on the circumstances.
- h) Interest: At this time the District Commission has not authorized the payment of simple interest on deposits.

2.6.15 Charge at Cost for Non-Standard Service

Customer shall pay the cost of any special installation necessary to meet the customer's particular requirements for service at other than standard pressures, or for closer pressure regulation than would normally be provided at the location involved.

2.6.16 Surcharges

By action of the Board of Commissioners, the District may impose surcharges on monthly customer rates, to fund capital improvements or operations and maintenance. Surcharges may be imposed on all District customers, or on customers in selected zones, satellite systems, etc., according to the benefits derived from the capital improvements or the operations and maintenance activities funded.

2.7 Violations

2.7.1 Unauthorized Taking of Water, Tampering with Equipment, and Unauthorized Connection to the District's System

When appropriate, the District will seek prosecution for theft of water, destruction of District property and other violations of law affecting delivery of its services, and may pursue collection under RCW 80.28.240 for its losses, damages, and costs related to such actions to the full extent provided by law. In addition:

- a) There may be levied an investigation or meter tampering and/or commodity charge (see Fee Schedule) against any person, firm or corporation who shall take water or knowingly receive the benefit of water taken from any water line, reservoir, or fire hydrant, or any facility of the District without the District's consent and without first having obtained from the District a permit to take such water. Such sum shall be due and payable immediately upon the taking of such water.

- b) There may be levied an investigation, meter tampering and/or commodity charge (see Fee Schedule) against any person, firm or corporation who shall tamper with any water meter, fire line meter, service line, or any meter related appurtenances of the District except when a homeowner or agent, due to a water leak on the customer's side of the water meter, temporarily uses the shut off valve to make repairs. Such sum shall be payable at the time of discovery by the District of such tampering.
- c) There may be levied an investigation, meter tampering and/or commodity charge (see Fee Schedule) against any person, firm or corporation who shall take water from and angle stop, service lead, angle check valve, or related appurtenances intended for a future meter installation without consent from the District to take such water. A meter will not be installed to serve such property until such charge is paid together with the standard meter installation fees. If a meter service application has been made with the District and, prior to installation of such meter, it is determined by the District that water has been taken in violation of this section then such meter will not be installed and the meter service application will be held until the customer requesting such meter installation pays the charge.
- d) There may be levied an investigation, meter tampering and/or commodity charge (see Fee Schedule) against any person, firm or corporation who shall operate any valve in the District's system without the District's consent. Such sum shall be due and payable at the time of discovery by the District of such unauthorized operation.

2.8 FIRE PROTECTION

2.8.1 - Commercial Fire Protection Service (If Available)

- a) Application for water service for the sole purpose of commercial fire protection must be made by completing and signing a standard application form.
- b) The minimum charge shown on the District's rate schedule includes water for fire protection use only. The monthly rate of water used, except for fire protection, will be double the regular-metered service water rate applicable to that certain customer.
- c) Service charge for new fire protection service connection.
 - The customer must pay the cost, including installation costs, from the customer's premises to an existing main of the District.

- The customer must pay the cost of a detector check meter, plus the cost of installation.
- Services to be used for fire protection exclusively may only be fitted with fixtures that will be used for fire protection and shall not be connected to any fixtures that will be used for other purposes. Customers having such services shall be charged not less than the minimum standby service charge as established from time to time by resolution of the Board of Commissioners. In no case shall any connection be made upon any service line, tank or other fixture installed exclusively for fire protection for any purpose except the fire service or through any pipes, protect against water being drawn from a fire service for any purpose other than the fighting of fires, the District may install a detector meter on such service and charge all costs of such installation to the property and the customer.

2.8.2 Hydrant Installation

The District will install hydrants on existing District water mains, at the request of one or more customers if the mains are of sufficient capacity to provide adequate fire protection with costs borne by the customer(s). The type of hydrant and location shall be as specified by the District, which shall include the requirements established by appropriate jurisdictional agencies, regulations of Wahkiakum County, and the Wahkiakum County Coordinated Water System Plan (if one exists), whichever is stricter.

Upon request, the District will prepare an estimate for the total cost of the installation of a hydrant. Upon payment of this estimated amount, the District will make the installation. On completion of the work, the customer will either be refunded or billed the difference between the estimated amount and the actual cost. At the District's option, this work can be done at a contract price to be paid in advance.

2.8.3 No Guarantee of Adequate Water for Fire Protection

Notwithstanding the provisions contained in these schedules for commercial fire protection service, or for other metered service, including water furnished to any fire hydrant or other equipment used, or which may be used for fire connection service, it is understood that the District cannot guarantee any minimum quantities of water or pressure of the water to be furnished to any of such hydrants or outlets, and the District shall not be liable in any manner for any loss or claim by reason of the quantity of water, or pressure of the same furnished to such hydrant or outlet.

2.9 SPECIAL ARRANGEMENTS FOR SHORT-TERM WATER USAGE

2.9.1 Temporary Water Service

At the District's discretion, temporary water service may be provided to accommodate special needs for water at a fixed site on a short-term basis (i.e. on-site needs for construction activities). Temporary water service may be provided from a District main or from a fire hydrant specifically designated for this purpose by the District (see Section 2.9.2). Only District personnel are authorized to install a connection to a District main or fire hydrant for this purpose.

Temporary service may be authorized for a period not exceeding six months at a time. Upon expiration of the initial six-month period, a customer may request an extension of temporary service for one additional six-month period. No more than one extension will be granted, unless authorized by the General Manager or his/her designee.

A customer obtaining temporary water service will not be required to pay a Water system development charge. However, a customer obtaining temporary water service will be required to pay a deposit for the estimated costs of installation and removal of the equipment required for temporary service, as well as a damage or security deposit. In addition, temporary service will be metered and the customer shall be required to pay both a meter-reading charge and a charge for water usage in accordance with the appropriate rate schedule. Arrangements for metering and billing will be established on a case-by-case basis.

Upon termination of temporary service, the District will disconnect the temporary water service and take possession of the associated District equipment, or, if appropriate, convert the temporary service to permanent water service. Following disconnection or conversion, and payment of all outstanding charges for water usage, the District shall return any surplus of installation and removal charges that exceed the actual costs incurred by the District. In addition, the District shall refund any damage or security deposits, less the amount needed to replace or repair District equipment. However, in the event the customer fails to pay outstanding charges for water usage, the District may retain an amount equal to such outstanding charges.

2.9.2 Hydrant Use

No person shall operate or tamper with a fire hydrant connected to the District's water system, without the express written approval of the District or, in the case of an emergency threatening life or property, the approval of an authorized representative of the appropriate fire department. In addition to the penalty established in Section 2.7.1, any person violating this provision shall pay for the amount of water used, as estimated by the District and based on the applicable rate schedule.

At the District's discretion, authorization may be granted to take water from a fire hydrant connected to the District's water system. Procedures for authorizing use of fire hydrants shall be as follows:

- a) When a customer desires to use a fire hydrant for Temporary Water Service (short-term water service at a fixed site) the procedures in Section 2.9.1 shall be followed. The customer shall utilize only the hydrant specifically designated by the District for this purpose, and will obtain water through a separate valve installed by the District on that hydrant.
- b) When a customer desires to use a fire hydrant for short-duration purposes at a fixed site (i.e. not exceeding three days), or for intermittent use by a mobile water tank (i.e. tanks on hydro seeding or public works maintenance vehicles), the following procedures shall apply:
 - The customer shall obtain a Hydrant Use Permit from the District. A permit will be issued either for a daily (one to three days); monthly; or six-month period. The customer shall pay a fee established by the District for the Permit (see Fee Schedule). However, at the District's discretion, the fee may be adjusted if the quantity of water deviates by more than 50% from the following:

• Daily Permit	2,500 gallons total
• Monthly Permit	10,000 gallons total
• Six-Month Permit	10,000 gallons/month
 - Metering will not be required for this type of use. A charge for water use shall be included in the Permit Fee.
 - The customer shall utilize only those hydrants specifically designated by the Hydrant Use Permit.
 - The customer shall utilize a backflow-prevention device approved by the District. As a condition of obtaining a Hydrant Use Permit, the customer shall permit District inspection of equipment to be used, to ensure backflow-prevention devices are adequate.
 - The customer shall obtain a placard from the District that indicates a Hydrant Use Permit has been obtained. At any time a hydrant is being used, the customer shall display this placard in a prominent position clearly visible from the street. The customer shall not provide this placard to any other person.

EXTENSION POLICIES

SECTION 3.1 INTRODUCTION

3.1.1 General Provisions

The District will provide facilities for the distribution of water within its service areas in accordance with approved land use plans, policies or other regulatory requirements governing service provisions. Extension of a system to serve additional customers, properties, tracts, or subdivisions will normally be paid for by the individuals that are benefited.

An applicant (hereinafter "Applicant" or "Developer") for an extension will normally be responsible for financing the entire cost of an extension. Costs include new facilities, replacement of existing system components when necessary for making the extension or improvement, and upgrades to meet requirements such as fireflow (if required by the Fire Authority) which are associated with the applicant's project. Over-sizing water system components as outlined below, however, will not be charged to the applicant. Reimbursement or credit against District charges is available in some circumstances.

All water facilities must be located on property owned by the District, public rights-of-way, dedicated easements or perpetual easements; must be transferred to the District's ownership for operation, maintenance, and service responsibilities; and will be subject to maintenance bonding requirements.

3.1.2 Application of Policies and Procedures

In specific instances, the General Manager or his designee may, at his/her discretion, waive or modify the application of the policies and procedures described herein, including the application of standard fees and charges, provided that such waiver or modification allows for more effective or efficient achievement of District goals, objectives, and overall policies. Conditions for waiver or modification of the application of these policies and procedures are contained in Section 1.4 of this Policy.

3.1.3 Standards and Specifications

Water system extensions, improvements, or new facilities must be constructed in accordance with the District's Standards and Specifications for Design and Construction (Appendix A). Copies will be furnished by the District upon request. It is the responsibility of the Developer to ensure that the latest version of the Standards and Specifications is used.

The Standards and Specifications have been developed as professional, technical guidelines for guiding system design and installation. The General Manager or designee may modify the Technical Standards and Specifications, to maintain consistency with changing technology and industry standards. In addition, the General Manager or designee may waive strict application of the Standards and Specifications in certain instances, provided that the resulting design or construction is approved by the District, and remains consistent with the goals and objectives expressed in this Policy.

3.2 Administrative Procedures for System Extension

3.2.1 Plan Approval Required

All plans for extensions, improvements, or additions to water facilities must be approved by the District prior to construction.

3.2.2 Application

Requests for extension or improvement of a District water system to serve newly developed and/or existing properties shall be made by applicants or their agents using the District's application format. Each application shall contain a legal description of the property to be served and be accompanied by two (2) copies of preliminary plans, showing the location of all water lines, valves, and appurtenances needed to serve the area.

It is recommended that Applicants schedule a meeting with District Engineering staff to discuss the proposed project, prior to completion of the application.

3.2.3 District Review

The District will review the application and associated plans. A Plan Review Fee will be assessed, if necessary, to compensate for review services.

The applicant will be notified of the feasibility of the service requested, conditions for construction, and any additional facilities (i.e. water source, storage, booster stations, water main upgrades, etc.) that may be required as a result of the proposed extension/development. Additional special assemblies shall also be specified. This process will enable an applicant to estimate more accurately, construction costs and District charges.

If fireflow is required by the local Fire Authority, in some instances, the plan must be approved by the appropriate Fire Marshal. In all cases where a County road right-of-way will be used for mains or other improvements, the County Road Department must review the plan.

At the District's option, engineering design services may be provided by District staff or the District's consulting firm at the application stage. A fee will be charged for such services.

3.2.4 Extension Agreement

If a project is accepted, the applicant shall then execute an Extension Agreement with the District which will specify the terms and conditions of the extension or system improvement in accordance with the District's standards. Extension agreements must be signed by the General Manager or his/her designee.

3.2.5 Submittal of Plans and Specifications

At the time the Extension Agreement is submitted, two (2) sets of detailed plans and specifications shall be submitted by the applicant to the District for review and approval. All drawings and specifications must be stamped by a registered Professional Engineer licensed in the State of Washington.

As the project progresses, any deviations from originally approved plans and specifications shall be approved in advance by the District in writing, and recorded. Updated plans must be provided to the District.

3.2.6 Permits, Easements, and Approvals

At the District's option, the applicant may be required to prepare all necessary documentation for permits, easements, and approvals. These could include, but are not limited to, building, health, and planning permits. However, the District will ordinarily prepare documentation for road permits. The required documents shall be provided to the District, which will submit them to the appropriate agencies for processing. Any fees levied for permit processing shall be paid by the applicant.

The applicant shall obtain and convey all necessary easements to the District.

3.2.7 As-Built Drawings

Upon completion of the project, two (2) sets of revised as-built drawings and specifications shall be provided to the District at the applicant's expense. As-built plans must show all new water facilities and related appurtenances which, at a minimum, shall include the locations of all mains, valves, fittings, and appurtenances giving sizes and types of each. The drawings shall show the exact location of water mains including distances of mains from property lines.

A registered Professional Engineer licensed in the State of Washington must stamp all drawings and specifications, including as-builts.

3.2.8 Final Acceptance

Upon completion of construction, applicants or their contractors shall notify the District and request a final inspection for approval of the project. The District will issue a Letter of Final Acceptance of the main extension, improvement or water facility, provided that:

- a) The water main has been installed according to the approved plans and specifications;
- b) Pressure and bacteriological tests have been passed;
- c) All permit conditions have been satisfied;
- d) All extension policy conditions have been fully satisfied;
- e) All fees required by the District and other entities have been paid;
- f) All easements are recorded at the county or shown on the face of the final plat map;
- g) All necessary bonding is in place;
- h) A new drawing is provided which reflects as-built conditions;
- i) "Bill of Sale" is executed and accepted by the District.

The date of the letter will begin the period of warranty. The final acceptance shall not constitute acceptance of any unpaid for, unauthorized, defective, omitted, or non-conforming work or materials. Final acceptance shall not prevent the District from requiring the applicant to pay for, remove, replace, dispose, or add work or materials or prevent the District from recovering damages for any work or materials or lack thereof.

In the event that a letter of credit or similar financial instrument has been provided as a means of guaranteeing project completion, and at the District's option, a Letter of Final Acceptance may be issued without meeting the conditions listed above. In order for this option to be exercised, the terms and conditions described in Section 3.2.9 must be met.

3.2.9 Letter of Credit

If requested by a Developer for his/her convenience, the District may elect to accept a letter of credit, or equivalent financial instrument, as a guarantee of payment for various purposes. These purposes may include, but are not limited to, payment of System Development Charges or other fees, or completion of an extension project. However, nothing in this provision shall be interpreted as a requirement that the District accept a letter of credit, for any purpose. If a letter of credit is used to guarantee payment, the following conditions must be met:

- Payment of Letter of Credit Processing Fee to the District;
- The Letter of Credit must be issued by a financial institution acceptable to the District;

- The Letter of Credit must name the District as sole beneficiary of the funds described therein;
- Expiration of a Letter of Credit without a District draw upon the funds described therein shall not relieve the Developer from any obligations to the District;
- If the Letter of Credit is used to guarantee payment of fees, the District shall be authorized to redeem the full value of outstanding fees if all fees have not been paid within 90 days.

3.2.10 Indemnify, Defend and Save Harmless

A contractor or owner working for the District shall agree to indemnify and defend and to save the District harmless from any and all claims or liability for damages arising from acts done under the contract. Before commencing work the contractor shall furnish the District certificates of his/her comprehensive general and automobile liability and property damage insurance, in limits acceptable to the District, protecting against all claims for personal injury or property damage, including coverage for underground collapse and explosion damage, arising during the course of the performance of said contract.

3.2.11 Bill of Sale

The applicant shall provide the District with all applicable invoices and other information necessary for preparation of the Bill of Sale.

The District shall prepare the Bill of Sale transferring ownership of all installed water mains and facilities to the District. The Bill of Sale shall be signed by the Applicant. The Bill of Sale shall describe lengths and sizes of water mains, and size and quantities of services and appurtenances (including hydrants), and the location in general terms, including the name of the plat if applicable.

3.3 Financing and Fees

3.3.1 Financing Methods

Line extensions can be paid for in three ways:

- a) The Developer may obtain his/her own contractor to install the main to meet District specifications, and pay the contractor directly. Upon completion of the work, and after approval by the District, the installation will be turned over to the District by means of a Bill of Sale.
- b) A Local Utility District (LUD) may be formed to finance the extension (see Section 3.3.2).

- c) In limited cases, and at the District's option, the District may construct the facilities or may contract for construction. The District will make an estimate of the total costs of the project. On receipt of the payment of that estimated amount by the Developer, the District or its authorized representative will proceed with construction. Upon completion of the project, the customer will be either refunded or billed for the difference between the estimated amount and the actual cost of the installation. The District will comply with Revised Code of Washington provisions in situations that call for public bids and award of contracts.

3.3.2 Formation of Local Utility District (LUD)

Property owners within a defined area may petition the PUD Commissioners to extend water mains to their properties by formation of a LUD, financing the extension by assessing benefited properties within the LUD area. All engineering, construction, administrative and other costs, costs of easements, permits, environmental reports, and Shoreline Permits, are a part of the LUD costs.

The District will prepare a petition at no cost for property owners desiring to initiate the formation of a local utility district.

To the full extent required by and subject to the limitations imposed by applicable law (as amended from time to time), the Board of Commissioners of the District shall determine whether or not to form local utility districts on the basis of the facts and circumstances pertinent to each particular local utility district proposed for formation.

LUD formation must follow District procedures and applicable statutes.

Cost for tapping onto a main constructed under an LUD will be defined in the provisions of the LUD involved.

Under applicable law, certain properties within the boundaries of a local utility district may be exempt from assessment. In such cases, the District will grant an exemption, provided the property owner or his/her representative notifies the District in writing and provides evidence satisfactory to the District that the property qualifies for an exemption.

3.3.3 LUD Assessments

For an LUD, each property included will pay an assessment set by the LUD process and designed to ensure customers pay an equitable share of system costs for supply, transmission, treatment, and local distribution lines.

Assessments shall include cost of system construction together with any applicable Water System Development Charge and, at the option of each

assessed property owner, a New Service Installation Fee. Assessments shall not be in lieu of any other applicable fees or charges payable as the result of customer service changes, water usage, or the formation of any future LUD.

Customers added after deadlines in the LUD process have passed (i.e. time expired, specified number of services added, etc.) will be assessed standard District Charges and Fees in effect at the time of the request for service.

Further information can be found in the District's LUD Procedure Policy.

3.3.4 Plan Review Fee

At the time an application is submitted for an extension or improvement, the applicant shall pay the District Plan Review Fee (see Fee Schedule) to cover the cost up to two District reviews. If more than two (2) reviews are required for the same project prior to execution of an Extension Agreement, or if the scope or complexity of design requires unusually extensive review, an additional fee for non-standard engineering services may be charged.

If the District undertakes to provide engineering design services at the application stage, a fee may be charged for non-standard engineering services.

3.3.5 Extension Agreement Fee

At the time an Extension Agreement is submitted for execution by the District, the applicant shall pay the District an Extension Agreement Fee to compensate the District for resources needed to participate in the project (see District Fee Schedule).

3.3.6 Summary of Extension Fees

In addition to fees charged for processing applications, Extension Agreements, and other District services, the Applicant will be charged the following Extension Fees, where applicable:

- a) Water System Development Charge
- b) New Service Installation Fee

However, fees for properties located within LUDs are handled through the assessment process discussed above.

3.3.7 Water System Development Charge

A Water System Development Charge (WSDC) is applied on new service connections to compensate for costs the District and its existing customers have paid for the system's general facilities, (i.e., source, storage, treatment and

major transmission facilities); and for new general facilities required to support the addition of the new customers. The amount of the WSDC is based on the demand a service will place on the water system. The District currently uses a flat fee charge for all new service connections and may use a \$'s per ERU calculation in the future. Equivalent Residential Units (ERU) may be used to determine the demand a given service will place on the system and consequently that service's share in paying for the system's general facilities. The following procedures apply to payment of the System Development Charge.

- a) All New Customers connecting to a water main or expanding their service connection shall pay a WSDC, except as follows:
 - (1) The WSDC shall not apply to extensions, new developments, or subdivisions where water facilities are financed under the LUD process (see Section 3.3.2).
 - (2) If a New Customer provides documentation, acceptable to the District, that the WSDC for their type of connection has already been paid for the property through past payment by a Developer, or other means, the WSDC shall not be applied.
- b) Where construction of a development or subdivision requires obtaining water service from a District water system, the Developer has the option of paying the WSDC at the time of the Bill of Sale or deferring payment responsibility to the property owner at the time of service connection.
- c) When the Developer chooses to defer the responsibility for paying the WSDC to the property owner at the time of service connection, a higher WSDC (plus 5%) shall be applied in order to permit the District to recover administrative costs and interest costs associated with delayed receipt.
- d) The System Development Charge shall not apply to an LUD or to the identified and assessed individual properties contained therein at the time of formation. Properties within an LUD are subject to the applicable LUD Water Resource Connection Charge (see Fee Schedule) instead of the WSDC. However, once an LUD has been established and the final assessment roll confirmed, any additional individual water service customer within an established LUD requesting a new water service connection or adding to the number of ERUs to be served by that customers existing water service connection shall be deemed a "New Customer", subject to the WSDC.
- e) In all cases, the WSDC paid shall be based upon the charge in effect on the date of payment.

3.3.8 Water Resource Connection Charge

The water Resource Connection Charge (WRCC) applies to all water local utility districts (LUDs) which include source, storage, and transmission facilities that have been, or will be, constructed jointly with another system's source, storage, and transmission projects. The WRCC is assessed to compensate for costs the District and its existing customers have paid for the system's general facilities, (i.e. source, storage, treatment and major transmission facilities); and for new general facilities required to support the addition of the new customers. The WRCC is based on the demand a service will place on the water system.

Payment of the Water Resource Connection Charge shall be included in the assessment associated with formation of an LUD.

3.3.9 Over-Sizing and Replacement

In order to provide capacity for future customers or improve existing service on an economical basis, the District may require over-sizing or replacement of existing facilities in conjunction with construction of an extension or improvement. Such requirements may apply on, or adjacent to, a development or subdivision, or to facilities that are "off-site". The sizing required for project needs alone will be based upon the District's Standards and Specifications, or hydraulic analysis acceptable to the District that has been conducted specifically for a proposed project. Sizing above and beyond that determined necessary for project needs alone shall be considered over-sizing subject to the provisions of this section.

If the District requires over-sizing or replacement to accommodate needs not associated with the applicant's project, the District will normally participate in the associated costs or find alternate financing. The District may not be in a position financially to support over-sizing or replacing facilities at the time an applicant desires to initiate a construction project. If the District determines that it cannot provide for over-sizing or replacement until a future date, an applicant for an extension or improvement may elect itself to install the required over-sizing and/or replacement and enter an agreement with the District for future reimbursement (i.e. when future customers are added).

The following guidelines will normally apply when over-sizing or replacement is involved with an extension or improvement:

- a) Upon receiving an application for an extension or an improvement, the District will determine if over-sizing of proposed facilities or replacement of existing facilities, though not required for the new services, is best accomplished in conjunction with construction of the extension. The District's Water System Plan, the applicable land use plan, and existing

system deficiencies will be the primary factors in making this determination.

- b) If over-sizing or replacement is required, an engineer's estimate will be made of the additional cost associated with the over-sizing and/or replacement. Depending on the circumstances, public bidding may be required to permit District participation. If over-sizing or replacement is required, compensation arrangements will be included in the Extension agreement.
- c) The amount of reimbursement for replacement will depend upon the benefit received by the District, as determined by the District in its sole discretion, and will be determined on a pro-rated basis, based on the remaining useful life of the facilities to be replaced. The District will reimburse a fraction of the cost equal to the fraction of the useful life that has been expended since original installation. The useful life will be determined by the District, at its sole discretion. The District may make a site-specific estimate of the useful life of piping or equipment, taking into account its current condition.

If a site-specific estimate is not warranted, the following guidelines shall be used:

- Piping: 50-year useful life.
- Other facilities: 25-year useful life.

- d) The amount of reimbursement for over-sizing will be based generally on the following:
 - (1) Mains: For pipes up to 4 inches larger in diameter than the District's design standard for the applicant's development/lot-reimbursable costs will consist of material cost differences for pipe, valves, and fittings.

For pipes greater than 4 inches larger in diameter than the District's design standard required to serve the applicant's development/lot - reimbursable cost will include increased material and construction costs (i.e. cost differentials for larger components, increased excavation, special bedding, testing, cleaning, etc.)
 - (2) Other Facilities: Cost differential evaluations for providing larger, or replacement facilities will be conducted on a case by case basis and subject to negotiations between the District and the applicant.
 - (3) Excluded Costs: Examples of costs that are specifically excluded from consideration include but are not limited to:

- The cost of public bidding and preparation of documents for public bidding.
 - The engineering costs associated with new facilities, over-sizing or replacement.
 - Costs incurred in financing, bonding, or providing insurance for construction of oversized or replaced facilities.
- e) The amount and general timing of reimbursement will be mutually agreed upon between the District and the applicant and included in the Extension Agreement. The methodology of payment will be selected by the District at its sole discretion, and included in the Extension Agreement. Payment methodology will normally be chosen from one of the following options:
- (1) Payment to the applicant upon acceptance of the extension or improvement.
 - (2) Credit against funds otherwise owed by the applicant to the District.
 - (3) Deferred to the future for payment in lump sum or by installment.
 - (4) A combination of the above.
- f) Material invoices must be submitted to the District prior to acceptance of the project.

3.4 DESIGN

3.4. Standards and Specifications

All water line extensions shall be designed and installed in accordance with the District's Standards and Specifications. However, strict application of the Standards and Specifications may be waived in certain instances, in accordance with Section 1.4 of this Policy.

3.4.2 Extension of Mains Along Property Frontages

In order to provide for continued extension of the District's system beyond properties currently developed or under development, Developers will be required to extend water mains along frontages associated with parcels, subdivisions, or developments. In individual cases, the requirements for length and location of mains along such frontages shall be guided by the District's Comprehensive Water Plan. Depending on the circumstances, reimbursement may be available following main installation under the District's policies.

Applicants will normally be required to install a main along the entire length of any and all roads or developed public rights-of-way abutting the property being developed, if the District's Comprehensive Water Plan or policies therein call for a main along said road or right-of-way. In some cases, a Developer will be required to extend a main across the property being developed to facilitate looping of the system, in addition to extension along frontages.

In the case of development of an individual parcel of land which cannot be subdivided under the terms of applicable zoning or land use regulations, and where the parcel abuts more than one established road or developed right-of-way, the applicant will be required to extend a main only along one side of the parcel. This shall be the longest side of the parcel that abuts a road or public right-of-way.

At the District's option, the requirement for extension along frontages may be modified or waived, provided that achievement of general policy goals and objectives of the District are not thereby impaired.

The District normally installs water mains on the north and east sides of a road or street. In some circumstances, therefore, the applicant will be required to install a water main across the street or road from their property.

3.4.3 Looping

Looping of water mains may be required in order to satisfy pressure, flow, and system hydraulic requirements. In addition, looping may be desirable to promote system reliability. The determination of looping requirements shall be at the sole discretion of the District and will not exceed 200' of main per looping situation. In determining whether looping is required, the following factors shall be considered:

- The length of main that will be needed solely for looping purposes;
- Topographical constraints;
- Effects of looping on system hydraulics;
- The need for easements solely to support looping;
- Expected future development in the area, based on the applicable land use plan, as updated from time to time, municipal comprehensive plans if applicable, the District's Comprehensive Water Plan, and other available information.

If a looping requirement is imposed solely to benefit other properties or the District's system generally, then the District will reimburse the Developer for any required looping over 200 feet per looping situation. However, if the looping requirement also provides a direct benefit to the property in question (i.e. to

meet required fire flows), then this limitation will not apply, and the Developer's responsibility will be determined by the District on a case-by-case basis.

3.4.4 Fireflow Not Altered by Sprinkler Systems

The District encourages residential fire protection sprinkling systems. However, such systems will not be a basis for altering the District's design standards.

3.5 GENERAL CONSTRUCTION PROCEDURES

3.5.1 Technical Standards and Specifications

Construction practices shall be in accordance with the District's latest Technical Standards and Specifications. However, strict application of the Standards and Specifications may be waived in certain instances, in accordance with Section 3.1.2.

3.5.2 Approved Contractor

All line extensions shall be installed by a licensed contractor approved by the District. Taps to a District main may be performed only by a licensed contractor approved by the District.

"Approval" of a contractor by the District means that the contractor has met certain minimum criteria relating to past performance, experience, or apparent ability to successfully perform the work required; it shall not be deemed to create or impose any warranty upon the District as to the said contractor or its workmanship, nor shall such approval relieve the customer or the contractor of their responsibility to comply in all respects with District policies and specifications.

3.5.3 Pre-Construction Conference

The Developer shall schedule a pre-construction conference with the District and contractor after the Extension Agreement has been executed. The Contractor shall submit a materials list and a safety and traffic control plan, if needed, for District approval before or during this meeting.

3.5.4 Deviations

The approved Extension Agreement construction plans shall be followed. No deviations will be allowed without request for change and approval in writing by the General Manager or his/her designee. The District reserves the right to order changes. The applicant shall be notified in writing of any changes.

3.5.5 Taps to Existing Main

All taps of a line to the existing main must be made by District crews or under direct supervision of the District personnel, with material supplied by the owner, contractor or the District. Payment must be made in advance for this work, and for any material required, if done by the District. Tapping an existing main without adhering to District requirements for advance notification shall result in a penalty being assessed against the applicant (see Fee Schedule).

3.5.6 Service Equipment

If the owner is also constructing houses and will construct and complete houses at a rapid rate, the District, at its option, may require the owner to install the meters and service equipment coincidental with the installation of the main, or install the service with a meter yoke for later installation of the meter by the District. The service connection charge will be adjusted accordingly.

3.5.7 District Access

During the period of construction, applicants and their contractors will provide access to District personnel (including personnel on contract to the District) as necessary, to ensure compliance with District requirements.

3.6 INTERIM CONNECTIONS

3.6.1 Introduction

In general, interim connections to the District's system shall be avoided. However, under certain circumstances overall District goals and objectives may be advanced by permitting connection to a District main or a non-District water system on an interim basis. Such an arrangement shall be permitted only when the District determines that the property in question will be served in the future by a District main abutting the property. The General Manager or his/her designee shall have the authority to allow an interim connection and administer an Interim Connection Agreement. The customer shall pay all of the costs and expenses associated with obtaining interim water service.

3.6.2 Interim Connection Agreement

Any interim connection will require an Interim Connection Agreement to be executed between the customer and the District. The ICA will specify the terms and conditions for the interim connection. These may include, but are not limited to, provisions designed to facilitate financing and connection to a main, at the time a main abutting the property is subsequently installed.

3.6.3 Fees and Charges

The applicant shall pay all applicable fees to the District prior to execution of the Interim Connection Agreement by the District.

3.6.4 Easements, Property Rights and Permits

The customer shall obtain and maintain all easements, property rights and/or permits which are necessary or appropriate for interim water service. The customer must provide documentation of the same as part of the ICA.

3.6.5 Termination of Interim Service

Interim service shall be terminated whenever the public water system has been extended so that permanent public service is available to the property.

Whenever a property temporarily served pursuant to an ICA can receive permanent service by connection to the District's system abutting the property constructed by a capital construction project, without extending the District's system, then the ICA will be terminated. The customer shall pay the cost of disconnecting the interim connection and reconnecting to the main, plus any other applicable charges.

SATELLITE SYSTEM MANAGEMENT

Section 4.1 Introduction

4.1.1 Background

The District functions as a Satellite Management Agency (SMA) to assist water systems accomplish technical and administrative tasks, maximize water availability, and maintain satisfactory water quality. The satellite system program, through either ownership or contracting for a variety of services, provides for operation and maintenance of small and large water systems by the District. By operating multiple water systems, economies of scale make it possible to: (1) employ qualified personnel, (2) provide good system management and operation, and (3) meet stringent standards required by the federal Safe Drinking Water Act (SDWA) and the State of Washington.

The Satellite System Management Program enables either a private or public system to select a level of District service that will best accommodate their particular needs. In addition, the District's eligibility for State and federal funding assistance and its ability to issue bonds helps to assure reliable and high quality service at minimum cost for District owned systems.

The District's Comprehensive Water Plan identifies an Integrated Service Area, Remote Service Area and Satellite System Area. The District's Satellite System Management Program may be applied, as appropriate, within any of these three areas.

This outline of the District's Satellite System Management Program provides customers with the philosophy, objectives, and procedures associated with available service.

4.1.2 Types of Service

The Satellite System Management Program provides three primary options of operation and assistance services for water systems:

- (a) Direct Service - ownership and operation by the District.
- (b) Contract Services – routine operation and maintenance, water quality monitoring, utility billings, and other periodic tasks for systems not owned by the District. Contract services are available to private and public systems at a rate commensurate with the service.
- (c) Support Assistance – one time or long-term support to systems requiring technical, professional, or special assistance on a more limited scale. Charges for support assistance are determined in advance, generally on a time and materials basis.

These three service options are designed to respond to differing water systems and to support a comprehensive program of water system management throughout Wahkiakum County (County). Decisions on establishing a level of service will depend on individual system needs, plans for improvement, and growth pressures, as well as the ability of the District to provide desired services in a cost effective manner. Each situation will be carefully examined by the District and discussed with the applicant interested in satellite system service or support.

The District will perform Direct or Contract Satellite management only for systems that comply with its minimum health, safety, and water quality standards. Systems failing to meet minimum standards must be brought up to standards in accordance with District Satellite System Management policies.

Exhibit 4-1 presents a diagram of service application and review procedures, described below, which the District uses in evaluating requests for implementing any of the three service options. Some steps involved in the process are required regardless of which service is being requested. First is the initial contact between the applicant and the District. During initial contact, applicants can discuss needs with the District and receive a copy of specific policies and

procedures which pertain to their requests. The applicant's written letter of request will initiate the District's formal evaluation of system needs, capabilities, and deficiencies. The District will then request specific data or background information needed to survey the water system and evaluate the District's ability to implement one of the three service options.

4.2 Policies and Procedures for Direct Service

Direct Service requires the transfer of system ownership and operational responsibilities from either an existing or new system to the District. The Direct Service option enables the District to assume complete responsibility for water systems at any location throughout the County. Water systems adjacent to or within a water district or municipality's service area will be directed to approach that water district or municipality for direct service before submitting a request to the District. Under the Direct Service option, the applicant and system customers are will be imposed as applicable. Depending on the amount of system upgrade work and other expenses associated with system transfer to the District, an additional assessment may be levied.

The District may be required to assume specific financial or regulatory liabilities for systems that transfer ownership. The interests of all County citizens, therefore, must be considered for any proposed action.

Systems that will be transferred to District ownership (Direct Service) must also meet minimum construction and reliability standards. Different criteria will be applied for Group A and B systems as appropriate.

4.2.1 Conditions

The District's Water Utility shall establish (as a part of such utility) Satellite Water Systems, which are separate and apart and remote from each other, under the following conditions:

- a) Consideration by the District of a proposed Satellite Water System shall be instituted by the application of a group of water users or a water purveyor within the service area of the proposed Satellite Water System.
- b) If a proposed Satellite Water System is in such proximity to an existing District water system or satellite system that it could reasonably qualify under District policy as an extension of or merger with such existing system, it shall not qualify for consideration as a Satellite Water System under this Section.
- c) Satellite Water Systems may consist of new construction by the District, or the acquisition of existing or new systems, or the acquisition and improvement of existing systems, or any combination thereof. In any

case, however, the system shall be required to meet the District's standards for water systems and shall be operated, insofar as reasonably possible pursuant to the general policies and procedures of the District's Water Utility, except as otherwise provided herein.

- d) Each Satellite Water System shall be self-supporting and the financial condition of any existing District water system shall not be adversely affected as a result of the establishment or operation of the Satellite Water System.
- e) The applicant must possess water rights adequate to supply the project, and these water rights must be transferred to the District.

4.2.2 General Policies and Procedures

The general policy and procedures for implementing the Direct Service option are as follows:

- a) Direct service can be provided for both Group A and B Systems.
- b) Purchase of private water systems is at the District's discretion and will require a financial feasibility analysis and must be based on an assessed value of the system.
- c) Systems that are certified to meet District, Wahkiakum Health District, and Washington Department of Health (DOH) standards during construction will not be subjected to the survey and upgrade process. Systems that may desire Direct Service from the District at some point in the future should meet the following requirements during design and construction:
 - The system should be designed and constructed in accordance with the Standards and Specifications of the District (Appendix A).
 - The design and monitoring of construction for all new systems should be coordinated with the District.
 - Prior to transfer of ownership of a new system to the District, the designer of the system must certify that it has been built in accordance with the approved design.
- d) For systems that have not been certified as being constructed in accordance with District standards, a survey and engineering evaluation will be conducted and a schedule will be developed to accomplish system upgrades which are required to meet applicable District, Local, State, and federal standards. Certain improvements, especially deficiencies related to water quality, safety and system reliability, will be required to be completed prior to or in conjunction with system transfer to the District.

- e) Capital improvements and purchase costs will be financed by the system's owner(s) customers through rate surcharges, assessments, GFCs, and/or District arranged financing. District financing options may include State and federal grants, cash contributions, Local Utility District (LUD) bonds, or similar financing arrangements.
- f) Major system improvements may require the formation of an LUD or similar financing arrangement.
- g) An estimate of the cost of required capital improvements will be provided to and agreed upon by the satellite system's owners before the District assumes ownership or operational responsibilities. All systems not installed under the certification process outlined above will be handled on a case-by-case basis to determine charges for the preliminary survey and engineering evaluation.
- h) The District's attorney will establish the appropriate authorization and legal instruments required for the transfer of system ownership to the District.

4.2.3 Review and Approval Procedures

- a) The applicant for a proposed Satellite Water System shall advance to the District the estimated costs for all preliminary and full studies undertaken to determine the feasibility of such a proposed system.
- b) A preliminary feasibility study shall be performed to establish the system's capabilities, deficiencies, and compliance with appropriate regulatory and operational criteria. The study also will be used to determine the estimated costs of needed system improvements, and anticipated operation and maintenance expenses. The intent of this preliminary feasibility study is to attempt to identify at an early stage any major factor which renders the proposal not feasible. If the Manager finds from the preliminary study that the proposal is not feasible, the proposal shall be rejected.
- c) A meeting or other appropriate method will be used to review the preliminary feasibility study results and preliminary cost estimates with the satellite system's existing owner(s)/customers. The owner(s)/customers may either withdraw the request for Direct Service or continue the process by authorizing the District to prepare a full feasibility study to more accurately determine the work and costs required to bring the system up to required standards.

- d) If the preliminary feasibility study does not cause a rejection of the proposal, and upon the advancement of costs, the District shall undertake a full feasibility study to investigate in detail all issues which may affect the feasibility of the proposal. The intent of the full feasibility study is to add to the information developed in the preliminary feasibility study sufficiently to allow for a final determination as to the feasibility of the proposed Satellite Water System.

The District feasibility study will include a detailed analysis of the system's operation, required capital improvements, and projected cost of operation and maintenance. It will also contain a preliminary financing plan for improvements and proposed rate structure based on:

- Minimum improvements required to meet quality, safety, and reliability standards.
 - Improvements required to upgrade the system to the Standards and Specifications of the District.
 - Source, storage, metering, fire flow, and other desired improvements.
- e) For existing systems, after a review of the full feasibility study is conducted with the owner(s)/customers, they may withdraw the request for service or with the assistance of the District, initiate proceedings to transfer ownership.
- f) Improvements required to upgrade the system to District standards (particularly those associated with quality, safety, and reliability), will be completed prior to or in conjunction with system transfer. Some improvements may be deferred until normal repair or replacement occurs.
- g) If capital costs for necessary improvements can be financed reasonably by the owner(s)/customers, then the transfer of ownership may be contractually established. A list of items necessary to accomplish a transfer of ownership may include but is not limited to:
- Bill of Sale
 - Title Report and Property Deeds
 - Assignment of Easement and Franchises
 - New Easements, if required
 - Assignment of Water Rights
 - Authorization to Collect Rates and Fees
 - Hold Harmless Clause
 - List of Owners, Customers, and Addresses
 - Maps, Records, Equipment Manuals and Data, and Other Information

- h) If necessary and found to be economically feasible, the District Commissioners may create an LUD in accordance with Title 54 RCW. Once an LUD is formed, ownership of specified facilities, equipment, and data will be transferred to District ownership.
- i) New systems, whose initial design, construction, and approval have been conducted in accordance with the District's design standards and inspection requirements, will not require a preliminary survey or engineering evaluation. The transfer of ownership can occur either contractually or by LUD formation as described above. The system must be certified in accordance with Chapter 246-290 WAC to verify that it was built and approved in accordance with the requirements of the DOH, Wahkiakum Health District, and the District prior to transfer of ownership.

4.2.4 Submittal to Commission

A complete full feasibility study, together with the recommendations of the staff, shall be submitted to the Commission for its consideration and determination as to the establishment of the proposed Satellite Water System and any conditions thereof.

4.2.5 Refund of Advances for Feasibility Studies

In the event acquisition of an existing Satellite Water System is approved by the Commission and funds to finance its acquisition and/or construction (including the cost of the feasibility studies) are received by the District, then the advances for its feasibility studies shall be returned to the applicant.

4.2.6 Agreements and Conveyances

Satellite management when approved by the Commission shall be implemented by agreements and conveyances in form acceptable to the District and prepared by District staff at the expense of the applicant.

4.2.7 Rates, Fees and Charges

Rates and other charges pertaining to the establishment and/or operation of a Satellite Water System shall be such as to reflect the need that such system be self-supporting.

Engineering fees for non-standard engineering services shall be established in the manner described in Section 2.6.5 of this Policies and Procedures Manual, for non-standard services.

4.3 Policies and Procedures for Contract Services

A service contract is utilized to establish the frequency, duration, cost, and specific responsibilities of the District in performing services. Services can be contracted on a continuous basis to provide routine system operation and maintenance, periodic well performance monitoring, required water quality monitoring, periodic equipment maintenance, scheduled repair activities, on-call emergency assistance, utility billing services, and/or other tasks.

4.3.1 Conditions

Listed below are the major policy and procedural considerations for contract services:

- a) System improvements may be required to eliminate deficiencies associated with system reliability, safety, and water quality. Improvements required by the District will be completed prior to the District initiating service unless the District agrees to accomplish improvements as a part of the contract.
- b) Contract services will be limited to systems where such services are cost-effective for the District.
- c) Financing for system improvements is the applicant's responsibility.
- d) The District will only provide services to systems where facilities are located on property owned by the system, public rights-of-way, utility easements, or where authorization for unrestricted access to all facilities that may require servicing, maintenance, repair or replacement, can be obtained.
- e) If the applicant intends to expand the system's service area, the District must approve of the expansion and/or be given the option to discontinue contract services.
- f) The applicant must designate a reasonably available individual to be an official contact with the District.
- g) The District must receive, as appropriate, the legal authority from the applicant to contract, assess costs, and be held harmless from service activities during the normal course of operations.

4.3.2 Review and Approval Procedures

- a) Once applicants have requested Contract Service assistance, they will be required to pay a fee to the District for the cost of conducting a preliminary feasibility study. The District must receive this survey fee and all requested system data before the District will conduct a preliminary feasibility study of the system. The study is designed to identify all existing material defects, public health deficiencies and operational problems.
- b) The District will provide the applicant a list of all required improvements with an estimate of the costs associated with those improvements.
- c) After reviewing the preliminary feasibility study results and evaluating the cost estimates, the applicant may either withdraw the request for Contract Service or authorize the District to establish firm costs for the particular details of requested service. When determined firm costs will be reviewed with the applicant.
- d) If the costs are acceptable, the applicant will complete specified system improvements and enter into a contract with the District which specifies the details, frequency, duration, and costs of the service program.
- e) If the applicant withdraws the request for service at any time in the process, the District will retain the preliminary feasibility study fee.
- f) The General Manager shall have the authority to execute a service contract on behalf of the District.

4.4 Policies and Procedures for Support Assistance

The Support Assistance Program provides general assistance for improving water utility service within the County. Primarily, the program is designed to support and assist smaller water utilities. Services may be provided either on a one time or a continuous basis.

Support assistance includes such items as operator training, information system support, and purchase of equipment and supplies on a cooperative basis. Volume buying can reduce many of the costs of operating a small water utility.

There are several categories of services that the District can provide on a one-time basis. Cost associated with providing these services can be established on a time and materials basis or through a lump-sum contract. Examples of services include:

- Loan equipment or supplies to a system to handle a special circumstance.

- Provide engineering and/or technical expertise to a system that lacks necessary staff for certain tasks.

In addition, there are several categories of continuous service that the District *can* provide including, but not limited to:

- Leadership and support to smaller utilities to ensure that its views are considered in formulating local and state regulatory actions.
- Administration of programs for joint purchasing of equipment and supplies to achieve economies of scale for smaller utilities.
- Provide technical support programs for operator training.

4.4.1 Conditions

The support assistance program relationship is one that will not impact on a utility's wish to remain autonomous and operate at existing expenditure levels. The District is willing to evaluate any form of assistance to help utilities improve their level of service.

4.4.2 Review and Approval Procedures

- a) The District and the applicant will execute either a formal contract or written agreement which will specify the exact responsibilities, staff, equipment, and other details required of the District in providing assistance.
- b) The contract or agreement will establish the charges associated with providing service.
- c) The General Manager and/or his/her designee shall have the authority to execute a contract or agreement for support assistance, on behalf of the District.

STANDARDS AND SPECIFICATIONS FOR DESIGN AND CONSTRUCTION

APPENDIX A

A1 INTRODUCTION

This Section outlines the general and specific construction requirements for water systems operated and maintained by or for the District.

A2 DESIGN STANDARDS

A2.1 Water Source Construction

New water sources must be designed to meet the Department of Ecology (Ecology) and DOH regulations and design guidelines. Reference documents include RCW 18.104, Water Well Construction, administered by DOH; WAC 173-160, Minimum Standards for Construction and Maintenance of Water Wells, administered by Ecology; and WAC 246-290 or 246-291, regulations regarding the health aspects of public water system, as administered by DOH.

All test and production wells must be drilled in accordance with detailed drilling and testing specifications, which have either been prepared by, or approved by the District.

All new groundwater sources shall be provided with an access port for insertion of devices to measure depth to water and a meter to measure total production.

A2.1.2 Water Rights

Water rights must be obtained in accordance with Ecology regulations and procedures. Water rights documents, correspondence, and other associated records will be maintained by the District.

A2.1.3 Water Quality

Water quality must be proven to conform with the Federal Safe Drinking Water Act (as amended); DOH criteria specified in WAC 246-290 for Group A systems; DOH criteria specified in WAC 246-291, for Group B systems; and/or any additional requirements of the Wahkiakum Health District.

The District reserves the right to reject any source whose water quality does not meet these criteria, or sources having excessive costs associated with treatment requirements.

A2.2 TRANSMISSION, STORAGE, AND DISTRIBUTION

A2.2.1 Pipe Materials

The District's standard material for water mains is AWWA C-900 Pressure Class 200 PVC with ductile iron fittings or AWWA C151 ductile iron thickness class 52, meeting the criteria specified in these Standards and Specifications. Should soil testing determine that the surrounding soils are corrosive, or should a ground survey indicate stray electrical current is present, the District may require that the ductile iron pipe be encased in 8 mil thick polyethylene per ANSI/AWWA C105/A2.1.5 prior to backfill. PVC pipe shall use gasketed joints. Pipe used above grade or in vaults shall be ductile iron or brass whenever practical. PVC pipe shall not be used above grade for any pressure applications. Copper tracer wire shall be installed over all nonmetallic pipes.

PVC or polyethylene pipe shall not be used in soils with existence of or potential for hydrocarbon contamination. Ductile iron pipe used in such soils shall use gaskets of Viton or Fluorel, or other FPM gaskets acceptable to the District's Manager.

A2.2.2 Pipe Sizing

Unless a minimum size is established hereafter, all water pipe shall be sized based on hydraulic (pressure and velocity) requirements of the water system using domestic and fire demands which may be reasonable expected over the life of the pipe. Final approval of water pipe sizing shall rest solely with the Water Resource Department Manager. In all cases, pipe size shall conform to DOH requirements.

Extensions and replacements to and within the District's system shall be sized whichever is the more stringent of:

1. To provide at least 30 psi, during peak hourly design flow conditions, at every service connection (meter) in the projected pressure zone; or
2. To flow water no faster than 8 fps under the conditions stated in condition (a) and (b) above.

Water mains shall be a minimum of 4 inches in diameter.

A2.2.3 Pipe Layout

All water pipe shall be designed to lie in public road right-of-way, or if not available, on a dedicated, recorded utility easement. Permanent easements shall be a minimum of 20 feet in width. Pipe shall be designed for maximum trench depth of 48 inches and an average depth to top of pipe of 40 inches. All

pipe shall maintain a positive or negative slope between respective high and low points in the waterline; high points shall be fitted with air-vacuum release assemblies and low points shall be fitted with flushing assemblies as determined necessary by the District. All plans shall show conformance with these and other requirements prior to issuance of final construction documents.

A2.2.4 Storage Facilities

Minimum storage requirements are based upon adding the three components listed below, less any credit for the operation of reliable multiple wells, with the largest producing well assumed to be out of service:

- a) Standby storage (two days of average day demand) required meet demands in the event of a system failure.
- b) Equalizing storage (as defined by the Department of Health) required to supplement production from water sources during high demand periods.
- c) Operations storage as required to provide minimum operating range between “pump on” and “pump off” levels.

A2.2.5 Pressure Requirements

Water systems shall be designed to maintain a minimum residual pressure of 30 psi at meter outlets under peak hourly design flow conditions, excluding fire demand. Furthermore, water systems shall be hydraulically designed to provide to service connections a maximum pressure range of 30-100 psi, with a desired range of 40-90 psi.

A2.2.6 Pressure Reducing Stations

Pressure reducing valve installations will utilize the District's standard for all sizes of installations. The typical installation consists of a main line PRV, with smaller diameter bypass PRV with flow and test ports; a pressure relief valve; and a complete PRV bypass contained in a concrete or steel vault with a traffic lid. Contact the District Water Resources Department for standards detail.

A2.2.7 Isolation Valves

At the discretion of the District, valves may be installed at any crosses or tees. The number of valves at each intersection shall equal the number of connecting lines. In addition, unvalved lengths of pipe shall not exceed 500 feet in school, commercial, or multi-family areas, and 800 feet in other residential service areas. Dead end mains, having the potential for future extension, shall have a

valve installed on the end of the main that shall be the same size as the existing main.

A2.2.8 Water and Sewer Line Separation

Transmission and distribution water piping shall be separated at least 10 feet horizontally from waste disposal piping, drain fields, and/or waste water gravity or forced mains. The bottom of the water main shall be 18 inches above the top of the sewer component. All parallel and crossing installations of water and sewer lines shall be in accordance with provisions of WAC 248-96 (septic systems) and Section 1 - 9 . 1 of the Ecology Criteria for Sewage Works Design.

A2.2.9 Pump Stations

Main supply and booster pump stations will be designed consistent with the site conditions; i.e., above ground, masonry or wood frame structure with metal roof. Where appropriate, previous pump station designs will be duplicated with appropriate changes, thus minimizing design time and overall construction costs.

Pump systems serving an area with reservoir storage shall be sized to refill the reservoir(s) in 72 hours while meeting maximum day demands. Pump systems serving an area without storage shall be sized to provide at least peak hour demands. Maximum day demands and peak hour demands shall be based on the build-out of the area to be served, as determined by the District in coordination with the local land use authority. All District pump stations shall include the following items, as a minimum:

1. Minimum 6-inch reinforced concrete floor (2,500 psi minimum 28-day strength).
2. Floor drain properly plumbed away from the building to daylight or an approved storm sewer system. Floor drain shall be a minimum of 6-inch diameter.
3. Interior and exterior paint, color per District selection.
4. Lockable steel door (BEST cylinder, core and keyway to match existing District key system).
5. Composition shingle, tile, shake, metal, or other roofing material approved by District.
6. Proper pump house venting (eaves, wall dampers, doors, etc.).
7. Wiring installed per National Electric Code (NFPA 70).
8. Thermostat-controlled wall heater (no heat lamps).
9. Suitable interior and exterior lighting.
10. Manual electrical power transfer switch and emergency power inlet receptacle, or auxiliary suction and discharge connections for a portable pump.
11. All interior and under slab piping shall be sized for potential build out of the area to be served.

12. Interior piping of Schedule 40 brass, Type L copper or ductile iron. Manifold(s) shall be secured. Flexible connections required for pump(s).
13. Pipe penetrations through the floor (or wall) shall be sleeved or wrapped with a bond breaker (i.e. roofing felt). Pipe and fittings under the floor slab shall be restrained with Grip- Rings or Mega-Lugs.
14. Pump(s) installed and secured. Duplex/replacement pump if required by District. Motor(s) shall meet NEMA 12.6C. Booster pumps shall be ANSI end-suction type; Goulds or approved equal.
15. Flanges and valves at pressure tank(s), booster pump(s), etc. to allow removal of equipment.
16. Controls and telemetry to be compatible with the District's future SCADA System.
17. Pump low suction shutoff switch.
18. Pump control pressure switch/telemetry interface.
19. ASME pressure relief valve, properly rated based on flow/ system pressures.
20. Master (source) meter installed within the pump house.
21. Bladder tank(s), if required.
22. On well systems (well casing shall be located outside well house or booster pump station).
23. System documentation (restrictive covenant, water right, geologic report, wellhead protection plan, pump tests, etc.).
24. Raw water tap installed minimum 6 inches above floor.
25. Disinfection/treatment system, as required.
26. Static water surface level determination system.
27. Alarm and auto dialer system.

Motor control(s) shall conform to District Standards and specific requirements will vary depending on motor size and voltage requirements. For pumps serving a pressure zone with a storage reservoir, a PRV shall be plumbed to allow water to return to the suction pressure zone for fire demands; the valve may be normally closed, at the District's discretion. There shall also be a valved bypass between pressure zones; the valve shall be normally closed.

Permanent pump station structures shall be constructed according to one of the following two standards, to be selected by the District. The selection of which standard shall be followed will be based on the expected lifetime of the structure, compatibility with surrounding land uses, and potential exposure to vandalism or other damage:

- a) Permanent pump station structures shall be of fully grouted reinforced concrete masonry unit (CMU) construction. Unless otherwise dictated by the building department of the local government having jurisdiction, the exterior of the building shall be split-face CMU, roof shall be wood framed with standing seam metal roofing with matching gutters and downspouts, and doors and frames shall be hollow metal; color selection

shall be by the District. There shall be exterior access to two separate rooms for electrical generator and pumping control equipment. Skid-mounted pump/pressure tank units may be allowed for temporary service to a small portion of a service area (pressure zone) that will expand within the life of the pump station.

- b) Permanent pump station structures shall be of insulated 2x6 wood framed construction meeting UBC. Floor plates shall be pressure treated. Exterior sheathing shall be at least shop grade T-1-11 plywood, minimum 1/2-inch thickness. Interior sheathing shall be 1/2-inch ACX plywood. Roof shall be composition shingle, minimum 35-year warranty. Gutters and downspouts in of front fascia only. All color selection(s) shall be made by the District.

A2.3 Water Services

A2.3.1 Domestic Water Services

Water mains constructed in platted areas shall include the installation of water service lines to common or individual lot corners. New services in non-platted areas may be located by the customer. All meter boxes shall be placed in non-traffic areas where possible. Water service installation shall include all materials indicated on the appropriate standard detail. Service lines that are part of a water main extension shall be installed concurrent with the water main installation. Services shall be connected to the water mains and extended to the customer's lot line, with a tailpiece extended above the ground, prior to pressure and bacteriological testing of the water main, if applicable.

A2.3.2 Irrigation Water Services

Designers of each new large irrigation system shall submit Water Balance calculations and other data required to justify demands to the District for review before the new irrigation service is approved and installed. The new irrigation customer shall complete an Irrigation Agreement with the District as a condition of service.

A2.3.3 Water Service Lines

Service lines for 1-inch water services will normally be one-inch diameter polyethylene pipe, rated for 200 psi service, with a copper tracer wire.

Service lines for 1-1/2 and 2-inch water services will normally use 2-inch diameter polyethylene pipe, rated for 00 psi service, with a copper tracer wire. Three-inch and larger water services shall use ductile iron pipe of at least Thickness Class 52, sized for velocity and flow requirements.

In areas where static pressures are low, demands through the water service will be near the meter's limit, or the service line will be unusually long, the District/customer should consider upsizing the service line to minimize frictional pressure losses and water velocity.

All water services shall be metered. Meter size shall be based on Uniform Plumbing Code fixture count criteria.

The customers are responsible for installation of their own supply line from the water service to the point of use. Customer supply lines should generally not exceed 300 feet from the meter to the point of use, in order to maintain adequate pressure. Customer supply lines over 300 feet are not prohibited; however, the District cannot assure adequate pressure for these services.

A2.3.4 Backflow Prevention

Minimum standards for the installation and maintenance of backflow prevention assemblies shall be those set forth in Accepted Procedures and Practice in Cross-Connection Control, December 1995, Sixth Edition, as published by the Pacific Northwest Section of the American Waterworks Association (AWWA), as updated from time to time. The Water Resource Department is authorized to establish higher standards for installation and maintenance of backflow prevention assemblies where he or she finds they are supported by good engineering practice, industry standards, or the protection of public health.

A3 MATERIAL AND CONSTRUCTION SPECIFICATIONS

A3.1 - General

A3.1.1 Standard Specifications

All work shall be performed in accordance with those sections referenced in this specification; the latest edition of the "Standard Specifications for Road, Bridge and Municipal Construction" prepared by the Washington State Chapter, American Public Works Association (herein referred to as the "Standard Specifications"), and in accordance with the requirements of the District and laws of the State of Washington as they may be amended and modified.

A3.1.2 Reference Specifications

The latest publications of the following organizations are used as reference and abbreviated as follows:

- AWWA- American Water Works Association
- ANSI - American National Standards Institute
- ASA - American Standards Association
- ASTM - American Society for Testing and Materials
- APWA- American Public Works Association
- PSAPCA - Puget Sound Air Pollution Control Agency
- OAPCA - Olympic Air Pollution Control Agency
- L&I- Washington State Department of Labor and Industries
- DOH - Washington State Department of Health
- DOT- Washington State Department of Transportation
- DOE - Washington State Department of Ecology

A3.1.3 Permits

At the District's option, the District will secure construction permits required for installation of water mains and appurtenances at the Developer's expense. The contractor shall secure all permits and authorizations required from local and State agencies and disposal sites related to asbestos work, removal and disposal, including but not limited to submittal of a written "Application to Perform an Asbestos Project" to Southwest Clean Air Agency (SWCAA). No work on asbestos-cement pipe shall proceed without proper permits, certifications, worker protective clothing and breathing apparatus, and approved asbestos disposal bags. Prior to commencing work on asbestos-cement pipe, the contractor shall provide the District with a copy of any "Application to Perform an Asbestos Project" which has to be filed by the contractor with SWCAA relating to work under this specification. The contractor shall comply with all provisions of any applicable permits. The cost of asbestos related permits shall be paid by the contractor. A copy of any required permit(s) shall be available at the project site at all time.

A3.1.4 Notification

The contractor shall schedule a pre-construction conference and notify the District at least five (5) working days prior to commencing work. All work shall be inspected by the District. Contact the District water shop at (360) 795-3264 to schedule all tie-ins at least three days in advance.

A3.1.5 Project Acceptance

A copy of the appropriate plans and specifications shall be maintained on the project site at all times.

The project proposed under the appropriate plans will be accepted as complete only after satisfactory installation, pressure testing, bacteriological

testing, and restoration as determined by the governing body or bodies with jurisdiction over the work.

A3.1.6 Inspection and Flushing

The District will provide inspection service for all water system construction. Inspection is required for workmanship, location of waterline appurtenances, pressure tests, bacteriological tests, final cleanup and restoration. The contractor shall inform the District 72 hours in advance of scheduled operations.

The District will direct all flushing duties using equipment and materials supplied and set up by the contractor. It is the responsibility of the contractor to provide a means of disposal for all water used in flushing. See Section A3.4.4.

A3.1.7 Administrative

All District facilities shall be installed within the City/ County right of way or in a District approved easement. The Developer shall supply the District with the legal description of the easement (as-built) and shall pay the costs incurred by the District to do all title work, to prepare easement, and to file and record the legal easement prior to District final acceptance.

The Contractor/ Developer shall revise the original District drawing, showing the as-built conditions of the plat at the completion of the project prior to District acceptance. The drawing shall be dated and clearly marked "Record Drawing."

The Developer/ Contractor shall furnish to the District an itemized list of expenses incurred in the installation of the water mains, hydrants and services for the purposes of the District bill of sale to accept the water system.

A3.1.8 Existing Utilities or Obstructions in the Public Right-of-Way

The contractor shall notify the underground utilities locating center at 1-800-424-5555 24 hours prior to construction.

If, in the execution of the work, it becomes necessary to interrupt existing surface drainage, sewers, under-drains, conduit, utilities, or similar underground structures or parts thereof, the contractor shall be responsible for, and shall take all necessary precautions, to protect and provide temporary services for same. The contractor shall, at his/her own expense, repair all damage to such facilities or structures due to his construction operations. Such work shall be done to the satisfaction of the District or to the governing body or bodies with jurisdiction over the work.

A3.1.9 Salvage of Material

Unless otherwise indicated on the plans or in the specifications, all non-asbestos containing fittings, pipe and other related items shall be and remain the property of the District, and shall be carefully removed, salvaged and stockpiled by the contractor within the construction area. Such materials will be disposed of by the District.

Important: Materials containing asbestos or contaminated with asbestos in any manner whatsoever, less than one (1) foot in length, including but not limited to asbestos cement water pipe, asbestos containing waste materials, including but limited to pipe fittings, protective coveralls, hepa filters and any other protective devices shall be bagged, sealed, labeled, and removed from the trench and properly disposed of in strict accordance with asbestos control standards issued by SWCAA, with Washington Department of Labor and Industries worker safety regulations, and all other applicable laws and regulations. Asbestos-cement water pipe greater than one (1) foot in length shall be disposed of according to the applicable laws and regulations regarding in-place disposal of asbestos cement water piping. See Section A3.1.3 for permits.

Special note: The contractor's attention is directed to changes in regulations, issued by the Southwest Clean Air Agency regarding permit applications, labeling and other matters affecting asbestos work and disposal.

A3.1.10 Laws and Safety Regulations

All work performed under this specification shall be in compliance with applicable regulations issued by Washington Department of Labor and Industries, the United States Environmental Protection Agency, Washington Department of Ecology, Washington Department of Fish and Wildlife, the Southwest Clean Air Agency, and any other governing body or bodies with jurisdiction over the work described in this specification. All vehicles utilized for disposal of asbestos contaminated waste shall be equipped and marked in accordance with the rules and regulations of the Washington State Department of Transportation, and all contractor personnel shall be trained and qualified as may be required by applicable law. The contractor shall provide and install trench safety security measures in accordance with the requirements of the Washington Industrial Safety and Health Act, Chapter 49.17 RCW, and as necessary to protect workers, the work area, and existing utilities, structures, and other affected properties.

A3.1.11 Approved Equal

The term "approved equal" shall mean that the quality and characteristics of equipment or materials intended for use must be equal to that named and

must receive the approval of the District. The District shall be the sole arbiter in the determination of equality.

A3.1.12 Surface Restoration

Roads, driveways, shoulders, landscaping and all other areas, removed, broken, caved-in, settled or otherwise damaged due to the installation of the improvements, shall be repaired and/or resurfaced to match the existing surface or landscaped areas as directed by the governing body or bodies with jurisdiction over the work.

Asphalt surfaces shall be saw cut, wheel cut, or spade cut (with jackhammer). The ends and edges of the patched and resurfaced areas shall meet and match the existing surface and grade, and shall terminate in neat even lines parallel and at right angles to the roadway. No piecemeal patching or repair will be allowed. Damaged, disturbed or otherwise affected areas, shall have the edges of existing pavement trimmed back to provide clean, solid, vertical faces, free from loose material.

- 1) Existing asphalt concrete surfaces shall be patched with 4- inch asphalt concrete Class "B".
- 2) Existing shoulders and gravel surfaces shall be repaired with two (2) inches of crushed rock surfacing on shoulders and four and one half (4 1/2) inches on road surfaces. Crushed surfacing shall conform to Section 9-03.9 (3), Standard Specifications.
- 3) Existing lawns shall be re-turfed with sod after proper backfilling and settling.
- 4) Existing landscaping, fences, mailboxes, ornamentation, etc. shall be restored to original or better than original condition.
- 5) Private driveways, walks, and other surfaced areas shall be repaired, patched or resurfaced as required for the type of surfacing encountered.

All asphalt concrete overlays, which are required by the governing body or bodies with jurisdiction over the work, due to inadequate patching or patch failure shall be done at the contractor's expense. The governing body or bodies with jurisdiction over the work shall be the sole judge of whether a patch has failed or is inadequate.

Temporary MC Cold Mix Asphalt

MC Cold premixed asphaltic concrete shall be required in all pavement areas for temporary patching. Said temporary patches shall be placed

immediately after backfilling and compacting and shall be maintained at all times until final patching.

Asphalt Concrete Pavement

The finished patch shall have a minimum thickness of four (4) inches of asphalt concrete Class "B". Before placement of the asphaltic concrete patch, the base course material shall be shaped to the same section and slope as the finished grade and compacted to 95 percent maximum dry density at optimum moisture content as determined by standard proctor compaction test, ASTM designation D698, Method D. The asphalt concrete shall be rolled and cress-rolled to obtain thorough compaction. The edges of the patch shall be sealed with asphalt grade AR 4000. Asphalt concrete shall be hot plant-mix, conforming to Section 5-04, Standard Specifications. Paving asphalt shall be grade AR 4000W and meet the requirements of Section 5-04.

Crushed Rock Surfacing

Existing shoulders and gravel surfaces shall be resurfaced with crushed rock surfacing (5/8-inch minus) so that a minimum finished thickness of two (2) inches on the shoulders and four and one half (4-1/2) inches on road surfaces is obtained. The finished surface shall match the slope, crown, and grade of the existing surface. Materials and placing shall be in accordance with the applicable provisions of Section 9-03.9(3), Standard Specifications. The crushed rock may be spread in one (1) layer and shall be adequately bladed and mixed to obtain even distribution of the rock. Alternate blading and rolling shall continue until the required finish surface and density is obtained.

The crushed rock shall be compacted to at least 95 percent maximum dry density at optimum moisture content. Water shall be added as necessary during blading and rolling operations to obtain the required compaction.

A3.1.13 Dust Control

The contractor shall provide a 1,500 gallon minimum capacity water truck with a pressure spray system designed for street cleaning. The streets shall be cleaned of dust, mud, and debris at the end of each working day or as directed by the District. In addition, the contractor shall provide sprinkling, as necessary, to alleviate dust nuisance as directed by the District.

A3.2 MATERIAL SPECIFICATIONS

A3.2.1 Pipe and Pipe Fittings

All pipe sizes, as shown on the plans, and as specified herein, are in reference to "nominal" diameter, unless otherwise indicated.

All pipe shall be fabricated to fit the District plans. One type of pipe shall be used throughout the entire project except as necessary to match existing piping or as otherwise specified by the District. Where relocation or replacement of existing piping is necessary during construction, materials used shall match the existing, subject to the approval of the District.

All pipe, valves, fittings, and specials shall be for use in potable water and the working pressure described in the following specifications and plans and shall conform to the requirements of the applicable sections of the Standard Specifications, as modified herein. All materials shall be new and undamaged.

A3.2.2 Ductile Iron Pipe

Materials: Ductile iron pipe shall conform to ANSI Specifications A21.51-96 (AWWA C151-96). Ductile iron pipe shall be thickness Class 52. Ductile iron pipe shall be cement lined and sealed in accordance with ANSI Specification A21.4-95 (AWWA C104-95). Cement lining thickness shall be 1/16-inch.

The pipe joints shall conform to ANSI Specifications A21.11-95 (AWWA C111-95). Pipe joints shall be rubber gasket push-on type, Tyton, or approved equal. Use thrust-restraint gaskets where noted on the District plans.

A3.2.3 PVC Pipe

All PVC pipe shall conform to the latest revision of the following specifications:

- No solvent weld joint pipe will be allowed within the District's system.
- Two-inch through ten-inch pipe shall meet AWWA C900 (DR 15) with Ductile Iron fittings.

All fittings for PVC pipe shall be ductile iron compact fittings conforming to AWWA C 153 or AWWA C 110 and C 111. All shall be cement mortar lined conforming to AWWA C 104. Plain end fittings shall be ductile iron if mechanical joint retainer glands are installed on the plain ends. All fittings shall be connected by flanges or mechanical joints. Where required, mega-lug retainer glands shall be used.

All pipe and services shall be installed with continuous tracer tape installed 12 to 18 inches under the final ground surface. The marker shall be plastic non-

biodegradable, metal core or backing which can be detected by standard metal detector. Tape shall be Terra Tape "D" or approved equal. In addition to tracer tape, install 14 gauge coated copper wire, taped to the top of pipe, brought up and tied off at valve body.

A3.2.4 Resilient Seated Gate Valves

Valves shall be cast or ductile iron body, coated inside and outside with fusion bonded epoxy coating, non-rising stem and "O" ring packing conforming to AWWA C509-94. Valves shall be American flow control series 2500, Clow series 6100, M&H style 4067, waterous series 500 or Mueller A-2360.

A3.2.5 Tapping Tee and Valve

The tapping tee shall be of the size shown listed and shall be either fabricated epoxy coated steel; JCM or Romac SST or approved equal or as called out for on the plans. The tapping valve shall be of the size listed and joint configuration shown. The tapping valve shall conform to the general requirements for resilient seated gate valves, of these specifications.

A3.2.6 Butterfly Valves

Butterfly valves shall be of the rubber seat type, Class 150B, and meet the full requirements of AWWA standard C504-94. Butterfly valves shall be American-Darling class 150 resilient seated, Dresser 450, Mueller Class 150 lineseal, Pratt groundhog or as specified on the plans.

A3.2.7 Combination Air-Vacuum Release Valve Assembly

The 1-inch combination air and vacuum release valves shall be Val-Matic 201C or APCO 143C. See detail for installation. The vent piping and meter box lid shall be hand brushed painted "safety" yellow with oil based enamel paints.

A3.2.8 Valve Boxes, Marker Posts and Asphalt Protection Pad

Valve boxes shall be cast iron, two-piece, 18 inch x 30 inch, with cast iron cover and shall be style 940 or approved equal. Valve box extensions shall be provided.

The valve marker post shall be Carsonite Cum-375 yellow with 2 anchors (anchor barb kit) at the bottom of marker. See drawing for details.

3 feet square x 6 inches thick asphalt pads shall be provided for all installations in graveled shoulders or non-landscaped areas.

A3.2.9 Fire Hydrant Assemblies

Fire hydrant assemblies shall only be installed on water mains capable of providing fire flow. The fire hydrant assembly shall conform to the standard detail which is attached to this specification. Fire hydrants shall be center stem compression, traffic style conforming to AWWA specification C502-94 with a 6 inch mechanical joint inlet, minimum valve opening of 5-1/4 inches, two (2) 2-1/2 inch hose connections with national standard thread, and one (1) 4-1/2 inch pumper connection with national standard thread. Hydrants shall be constructed with mechanical joint connections. Fire hydrants shall be standard four (4) foot (or deeper) bury as required, of such length to allow for connection to the main with the break flange two (2) inches above the ground surface. Deeper bury hydrants shall be installed by the contractor if requested by the District after consideration of field conditions at the time of construction. The depth of bury may be adjusted at hydrant tees to allow for four (4) foot bury hydrants as directed by the District. The contractor shall install a corrugated metal pipe, size/style as directed by the governing body or bodies with jurisdiction over the work, in the ditch area adjacent to the hydrant assembly, if requested by the District, or specified on the District plans.

The hydrant valve seat shall be bronze and fitted in the hydrant with a bronze-to-bronze screwed connection. The fire hydrants shall be Mueller Centurion a-423 or M & H style 929T or equivalent. The fire hydrant resilient seated valve shall comply with the general requirements for resilient seated gate valves, of these specifications. Valves shall be six (6) inch with flange x mechanical joint connections. Valve boxes shall also be provided with asphalt protection pad as described above. Hydrants and valve box lid, 2-1/2-inch hose caps shall be hand brush painted "safety" yellow; pumper cap shall be hand brush painted white and bonnet shall be hand brush painted "safety" green with oil based enamel paints.

The fire hydrant gate valve shall be connected to the water main using a mechanical joint x flanged tee, or other connection as shown on the District plans. Pipe connections to the hydrant shall be 6-inch ductile iron, Class 52 length as required. Piping and fittings shall conform to the applicable sections of this specification. Six (6) inch Mega-Lugs shall be used for thrust restraint on hydrant and hydrant valve.

A3.2.10 Blow-Off Assemblies

Two-inch blow-off assemblies shall be provided by the contractor for all temporary and permanent locations as shown on the District plans. Larger diameter blow-off assemblies shall be as noted on District plans. Blow-offs shall be hand brush painted "safety" yellow.

Temporary blow-off assemblies shall be comprised of a "size" x "size" tapped 2-inch IP/MJ tee, MJ solid plug (size as required, 6" x 2" brass nipples each side of a 2-inch AWWA threaded resilient seated gate valve (see above) and standard 2-inch galvanized iron blow-off piping extended 30-inch above grade with a 2-inch 90 degree elbow and 2-inch IP plug. The 2-inch-90 degree galvanized elbow after the 2-inch valve shall not be drilled.

Permanent flush style blow-off assemblies shall be constructed as shown on the detail drawings.

A3.2.11 Concrete Thrust Blocking

Concrete used for thrust blocking shall be class 5 (1-1/2-inch). See District drawing for sizing of concrete thrust block.

A3.2.12 Water, Irrigation, and Fire Services

Materials comprising these service connections shall conform to the standard detail drawings or as shown on the District plans.

Domestic water service materials shall be required as shown on the attached specifications.

Irrigation services shall be as shown on the plans. The degree of hazard shall determine the backflow preventer required. The District shall be the authority on determination of degree of hazard. Backflow devices shall be listed on the current Washington State DOH approved list of backflow preventers. Each backflow device and installation shall be tested and approved prior to activation of service. Refer to District detail for 1-1/2-inch - 2-inch services.

Fire services shall meet all applicable rules and regulations of the Washington State DOH. The degree of hazard shall determine the backflow prevention assembly required. The District shall be the authority on determination of degree of hazard. All backflow assemblies shall be listed on the current Washington State DOH approved list of backflow prevention assemblies. Each backflow prevention assembly and installation shall be tested and approved prior to activation of service.

A3.3 CONSTRUCTION STANDARDS

A3.3.1 Installation of Pipe

Pipe and specials shall be handled in such a manner as to ensure delivery to the site and final installation in a sound, undamaged condition. Particular care shall be taken to keep the pipe clean.

These items shall be loaded and unloaded using hoists in a manner so as to avoid shock or damage. Unloading shall be at locations approved by the District and inspected by a District representative. Repair of coating or lining damage shall be made by the contractor at his/her expense and in a manner satisfactory to the District. Damaged pipe shall be rejected and the contractor shall immediately place all damaged pipe apart from the undamaged pipe and shall remove such damaged pipe from the site within 24 hours. All pipe installation shall be accomplished in accordance with AWWA Specification C600-87. All pipe shall be laid to the required lines with a minimum cover of 40 inches unless otherwise stipulated on the District plans or directed by the District with all fittings and valves at the required locations and all valve stems plumb. Pipe shall be inspected before it is placed in the trench for structural defects and defects in the interior lining and outside coating. The inside of the pipe barrel shall be clean. Pipe shall be laid in accordance with the manufacturer's recommendations. Pipe shall be subject to hydrostatic tests and sterilization as specified hereinafter.

Joining shall conform to the manufacturer's recommendations. Pipe shall be cut with approved pipe saws only and pipe-plugs shall be used except during actual pipe laying.

A3.3.2 Fitting Installation and Concrete Blocking

All fitting installation shall be accomplished in accordance with AWWA specification C600-93.

Provide concrete blocking at all fittings and horizontal or vertical angle points. Conform to the standard detail for general blocking herein and the APWA standard details for vertical blocks. All fittings to be blocked shall be wrapped with 6 mil polyethylene. Concrete blocking shall be properly formed with plywood or other acceptable forming materials and shall not be poured around joints. The forms shall be stripped prior to backfilling. Where required, thrust restraint shall be installed with the use of Mega- Lugs or Romac "grip rings."

A3.3.3 Connection to Existing System

The contractor shall make, at the contractor's expense, all connections to existing piping unless otherwise indicated on District plans. Field conditions may require a change in design due to location of existing utilities. The District will redesign affected portions and the contractor shall install the facilities at the contractor's expense.

A plan for construction of the connection must be submitted to the District at least 10 working days prior to commencing construction. The contractor shall not commence construction of the connection until this plan has been approved by the District. The plan shall describe the type of connection; pipe

sizing; existing and new valves in the vicinity; expected service interruptions and the means of notifying customers in advance of service interruptions; contingency plans for unexpected prolongation of service interruption; plans for maintaining sanitary conditions in the main line; and plans for disposal of water drained from main lines during construction. Once approved, including any modifications, the plan shall be followed by the contractor.

It is understood that any information concerning existing utilities or obstructions shown on the plans is made available to the contractor for informational purposes only, and it is not guaranteed accurate by the District. Incompleteness or error in this information shall not be caused for claim against the District. It shall be the responsibility of the contractor to determine the actual location and numbers of existing utilities and obstructions.

The contractor shall protect all existing utilities, structures, and plants from damage of any kind; any such damage shall be repaired by the contractor at no expense to the District.

If a connection is to be made to an existing asbestos-cement water main, the contractor shall obtain all permits or authorization, provide all necessary worker certifications, and have on-site required protective clothing and disposal bags. No asbestos related work shall begin without proper permits, certifications, protective clothing, and disposal bags, as provided in Section 3.1.3.

Valve Operation

Only District personnel are permitted to operate valves on the certified, potable water side of a line, including emergencies unless personnel safety is threatened. Exposing a potable water line during construction without the District's concurrence can result in a penalty being imposed.

Cut-ins/Hot Taps

Connections to existing mains may be made with either a cut-in or a hot tap. The District reserves the right to require a hot tap if disruption of service through use of cut-in installation is judged to be unduly detrimental. The District must be notified of the construction schedule at least five working days prior to commencing construction of the connection. The contractor must take reasonable precautions to ensure that sanitary conditions are maintained in the main line. The contractor shall be responsible for ensuring that reasonable efforts are made to inform customers of any service connections. If a cut-in is used, a valve must be added to the main line, unless existing valves provide a valve spacing of 1000 feet or less in the vicinity of the new connection.

A3.3.4 Alignment

The location of water mains will generally be on the north and east sides of streets. The main, valves, fittings, and services will be staked by the contractor. The contractor shall also provide centerline and property corners if required to adequately locate the new facilities. The main shall be installed as indicated on the District plans.

A3.3.5 Depth

Trench depth shall be 48 inches, unless otherwise indicated on the District plans or directed by District. Water main shall be raised/lowered in grade at hydrant tees to allow for 4 feet bury hydrants.

A3.3.6 Size

Size of main(s) to be installed shall be as noted on the District plans.

A3.3.7 Earthwork

Clearing, Grubbing, and Excavation

Specifications covering clearing, grubbing and excavation apply to all work in which the District has obtained a permit(s) and agreements or easements to do such work. If, in the course of the project, damage is occurring or may occur to the public right-of-way and/or private property, the contractor shall adjust his/her mode of operation to alleviate such damage. The District may stop work if proper work procedures are not instituted to eliminate or reduce damage. All damage to public and private property shall be restored to the satisfaction of the District and the appropriate governing body or bodies with jurisdiction over the work.

Clearing and grubbing of the access areas and work site shall be accomplished in advance of excavation and move-in of equipment and materials. Clearing and grubbing shall conform to Section 2-01 of the Standard Specifications. The contractor shall remove and dispose of all debris at a site which meets State and Wahkiakum County standards. No on-site burning will be permitted without County approval. Contractor shall clear and grub areas only as necessary for access, excavation and storage of excavated material, and for storage of equipment and materials required for accomplishing the work. Contractor shall grub as necessary to keep organic matter out of the backfill material.

Excavation of every description, classification and of whatever substances encountered within the limits of project shall be performed to the lines

and grades necessary for embankment, pipe bedding and structures as indicated on the District plans. Temporary drains and drainage ditches shall be installed to intercept or direct surface water which may affect the condition of the work.

Trench Material

Trench excavation for the waterline and appurtenances shall be in accordance with the applicable provisions of Section 7-10 of the Standard Specifications, except as modified herein.

Foundation Preparation and Bedding

Foundation preparation and bedding shall be in accordance with the applicable provisions of Section 7-10 of the Standard Specifications.

In case unstable or unsuitable existing material is encountered at the trench bottom, the District may direct the use of suitable bedding material that shall be placed in accordance with the Standard Specifications. Wet trench conditions will not necessarily be considered an indication of unstable conditions. The trench shall be de-watered and an inspection made by the District to determine the suitability of the trench material.

Trench Backfill and Compaction

Trench backfill and compaction shall be in accordance with Section 7-10 of the Standard Specifications. Excavated materials that are free from mud, muck, organic matter, broken bituminous surfacing, stones larger than four (4) inches in dimension and other debris shall be used for backfill except where otherwise required.

When working in the State, Wahkiakum County and/or within the applicable city limit right of ways, their specifications for compaction shall be followed by the contractor.

The District shall be the sole judge over the suitability of material to be used as bedding and backfill.

Initial Backfill

Initial backfill shall be placed around the pipe in layers not exceeding four (4) inches in depth each layer shall be thoroughly compacted by mechanical tampers to at least 95 percent of maximum dry density at optimum moisture content as determined by standard proctor compaction test, ASTM designation D698-58T, Method D. All work related to the

testing of the compaction, if required, including proctor tests and compaction tests shall be taken in the pipe trench areas, at the contractor's expense. The locations of the tests shall be selected by the District. Should the test fail to meet the specifications, additional tests will be taken as requested by the District at the contractor's expense.

Subsequent Backfill

All subsequent backfill under the street and shoulder areas shall be placed in lifts not exceeding eight (8) inches in loose depth, and each lift shall be compacted to at least 95 percent of maximum density at optimum moisture content as determined by ASTM designation D698-58T, Method D. In place density determination shall be made in accordance with ASTM designation D1556-58T, except as otherwise approved by the District. Testing for compaction in the improved areas shall be in accordance with the testing for Initial Backfill, as stated above.

Select Backfill

Select trench backfill for the pipe shall consist of crushed or naturally occurring granular material from sources selected by the contractor. The source and quality of the material shall be subject to approval by the District. Select trench backfill shall meet requirements for bank run gravel Class "B" as outlined in Section 9.03.12(1)8 of the Standard Specifications.

A3.3.8 Installation of Valves, Valve Boxes and Asphalt Protection Pad

Valves shall have interiors cleaned of all foreign matter and shall be inspected both in open and closed positions prior to installation. The valves and valve boxes shall be set plumb and the valve boxes shall be centered and placed directly over the valves in such a manner that the valve boxes do not transmit shock or stress to the valves. Earth fill shall be carefully tamped around the valve boxes to a distance of three feet on all sides or to the undisturbed face of the trench if it is closer. A 36-inch square by 6-inch thick asphalt protection pad shall be placed around the completed valve box installation for those installations in graveled shoulder or non-landscaped areas.

A3.3.9 Installation of Valve Marker Posts

All valves shall have valve marker posts installed in close proximity to the location of the valves.

A3.3.10 Installation of Services

Services as specified in the standard details and shown on District plans shall be installed by the contractor unless otherwise directed by the District. An individual service shall be installed to each lot; size and location as indicated on District plans. Services shall be installed at the lot corner unless otherwise directed by the District. A single run of service piping, unless otherwise directed, shall be used for all service installations.

Standard domestic water services: as shown on the plans and according to District standard details.

1-1/2-inch and larger services: as shown on the plans and according to District standard details.

Note: meter stop shall be preliminarily installed a minimum of 24-inch above construction grade. The copper service line shall be cut, angle meter stop moved to proper depth and re-installed after final grade is established. The final pressure test shall be performed after the services have been set to final grade.

The Contractor/Developer shall furnish to the District one (1) 3/4-inch angle meter check valve (Mueller double check or Ford single check), one (1) 5-foot x 3/4-inch copper tailpiece and one (1) 3/4-inch to 1-inch adapter, (5/8-inch x 3/4-inch to 1-inch) for each service to be installed.

A3.3.11 Installation of Water Main Casing

The work includes the jacking and/or augering of steel casing pipes at the locations(s) shown on the District plan(s).

Materials

The casing pipe to be jacked or augered under the roadway shall be smooth steel, bare pipe, size and length as noted on District plans, 0.250 inch wall thickness and comply with American Water Works Association (AWWA) Specification C200-91, with a minimum steel yield strength of 36,000 psi. All joints shall be continuously welded around the circumference of the pipe joint in compliance with Installation, below.

Installation

The casing pipe shall be installed by jacking, augering or boring with suitable equipment. The casing pipe shall be installed such that no voids or spaces exist along the outside diameter of the pipe over its full length.

Field welding of steel casing joints shall be accomplished in accordance with AWWA Specification C206. Joints shall be butt-welded. The completed casing shall be clean, free of debris, rocks or earth, and ready for installation of potable water mains. If the water main is not installed immediately, each end of the casing pipe shall be capped with a steel plate and tack welded to hold it in place.

Pipe Casing Supports

Pipe casing supports shall be as noted on the District plans.

Pipe Installation

The pipe shall be installed as noted on the District plans. The ends of the casing shall be plugged with concrete after installation of ductile iron water main.

A3.4 TESTING and STERILIZATION

Hydrostatic pressure and leakage tests on the new pipeline, pipeline appurtenances, fire hydrants and services shall be made in accordance with applicable provisions of AWWA C600-93, Section 4, except as modified herein.

All equipment necessary to make the tests shall be furnished by the contractor, who shall conduct all tests under the supervision of the District. Any temporary blow-off assemblies which may be required for testing shall be supplied by the contractor.

A3.4.1 Hydrostatic Pressure Test

Prior to final acceptance of the system, the entire system shall be subject to hydrostatic pressure testing for 2 hours at 250 pounds per square inch (psi) at the lowest point of main being tested (or as directed by the District). Test shall be conducted with hydrants open against port caps. After all utilities are installed and angle stops reset to final grade, any leaks or imperfections developed under said pressure shall be remedied by the contractor before final acceptance of the system. The contractor shall provide all necessary equipment and shall perform all work connected with the tests and conduct said tests in the presence of a District inspector. Insofar as practical, tests shall be made with pipe joints, fittings and valves exposed for inspection. Preliminary pressure tests are recommended for water mains after services are installed.

A3.4.2 Leakage Tests

Leakage tests shall be made after the pressure test has been satisfactorily completed on the new pipeline or concurrently with the pressure test. The hydrostatic pressure for the leakage tests shall be equal to 250 pounds per square inch (psi) at the lowest point of main being tested.

A3.4.3 Sterilization

Disinfection of the new water system shall be required prior to completion of the project and shall be in accordance with AWWA Standard Specification C651-86, APWA Standard Specifications, Section 7-11.3(12) and the drinking water standards of the State of Washington Department of Health. The initial concentration of chlorine in the water shall be 50 parts per million and this solution shall be held for a period of 24 hours. Disinfection of the entire water system installed or disturbed under this contract, including pipe, pipe fittings, valves and appurtenances, is required to conform to the specifications stated herein.

A satisfactory bacteriological report must be obtained and provided to the District before the main is placed in service.

A3.4.4 Disposal of Chlorinated Water

Water containing chlorine residuals shall not be disposed of into any storm drainage system, creek, stream, river, or lake.

Water with high chlorine residuals (above drinking water levels) shall be flushed into a tanker truck and disposed of in an appropriate manner. The contractor may contact the City of Cathlamet industrial pre-treatment for disposal of chlorinated water into the cities sanitary sewer system.

Other methods of flushing and disposal of chlorinated water must be approved by the District.

A.3.5 TRAFFIC MAINTENANCE

Contractors shall conduct work so as to interfere as little as possible with public travel. Access for fire fighting equipment shall be provided at all times, and contractors shall keep the local fire protection authorities informed of the location of construction operations and fire lanes. Contractors shall also notify the authorities in charge of any municipal, private, or school transportation system at least 48 hours in advance of road closures that will force a change in the regular routing of the transportation system. Contractors shall also provide and maintain suitable detour routes for the system. Road closures will not be allowed without written permission from the appropriate jurisdiction, except verbal permission may

be used in an emergency. Work which involves State or County road rights of way shall be restricted to the hours between 8:00 a.m. and 5:00 p.m. and no work shall be allowed in such rights of way on Saturdays, Sundays or Holidays unless authorized by the District.

A.3.6 SAFETY

Contractors will be solely and completely responsible for conditions at job sites, including safety of all persons and property during the performance of work. This requirement will apply continuously and not be limited to normal working hours.

The Contractor shall comply with safety and health standards identified in the 1996 Standard Specifications for the Road, Bridge and Municipal Construction published by DOT and the APWA (Washington State Chapter), including, without limitations, Section 1-07.1 and 1-07.23 of these specifications.

The Contractor shall prepare a Traffic Control Plan, in accordance with DOT requirements and the Manual on Uniform Traffic Control Devices (MUTCD).