



Appendices



**East Wenatchee Water District
2014 Comprehensive
Water System Plan**





East Wenatchee Water District

2014 Comprehensive Water System Plan

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Appendix A

Department of Health Correspondence and Approvals



STATE OF WASHINGTON
DEPARTMENT OF HEALTH
EASTERN DRINKING WATER REGIONAL OPERATIONS
16201 E Indiana Avenue, Suite 1500, Spokane Valley, Washington 99216-2830
TDD Relay 1-800-833-6388

December 10, 2014

Greg Brizendine, P.E.
East Wenatchee Water District
692 Eastmont Ave
East Wenatchee, WA 98802

Subject: East Wenatchee Water District; PWS ID #21800; Douglas County
Water System Plan; DOH Project #14-0606; **DOH Approval**

Dear Mr. Brizendine:

The East Wenatchee Water District Water System Plan (WSP) received in this office on June 12, 2014, with revisions submitted on September 22, 2014, has been reviewed and in accordance with the provisions of WAC 246-290-100, is hereby **APPROVED**.

An approved update of this WSP is required **on or before December 10, 2020**, unless the Department of Health (DOH) requests an update or plan amendment pursuant to WAC 246-290-100(9). Approval of this WSP is valid as it relates to current standards outlined in Washington Administrative Code (WAC) 246-290, revised November 2010, and is subject to the qualifications herein. Future revisions in the rules and statutes may be more stringent and require facility modification or corrective action.

Standard Construction Specifications for distribution main extensions in this WSP are approved. Consistent with WAC 246-290-125(2), this system may proceed with the installation of distribution main extensions provided this system completes and keeps on file the enclosed construction completion report form in accordance with WAC 246-290-125(2) and WAC 246-290-120(5) and makes it available for review upon request by DOH.

The department's approval of your Water System Plan does not confer or guarantee any right to a specific quantity of water. The approved number of service connections is based on your representation of available water quantity. If the Washington Department of Ecology, a local planning agency, or other authority responsible for determining water rights and water system adequacy determines that you have use of less water than you represented, the number of approved connections may be reduced commensurate with the actual amount of water and your legal right to use it. Copies of the Department of Ecology's correspondence dated August 5, October 23, and December 1, 2014, regarding your water rights are enclosed.

The WSP includes capacity information that demonstrates the physical and legal ability of this water system to provide water during the six-year period for which the approval of the WSP is valid. Based on the analysis presented in the WSP, the limiting factor in determining the approved number of connections is **standby and equalizing storage**. Given the information supplied in the WSP, your water system has sufficient capacity to meet growth projections for

Greg Brizendine, P.E.
December 8, 2014
Page 2

the identified plan approval period. Accordingly, the approved number of connections that will be reflected on the WFI form and in DOH records is **Unspecified**.

The East Wenatchee Water District is responsible for permitting new service connections in a manner consistent with the water system plan so that the physical capacity and water right limitations are not exceeded. As new water services are requested, the East Wenatchee Water District must evaluate each connection for the expected water demands and adjust the remaining connection allowance. The water system should keep an updated list that compares the overall ERUs expended against the overall number of connections placed into service. This will allow a better estimate of the system's adequacy.

The East Wenatchee Water District has a duty to provide new water service within its retail service area. This WSP includes service policies to describe how your system plans to provide new service within your retail service area.

Submittal of the WSP included local government consistency determinations from the City of East Wenatchee and Douglas County. This WSP meets local government consistency requirements for WSP approval pursuant to RCW 43.20 for these entities.

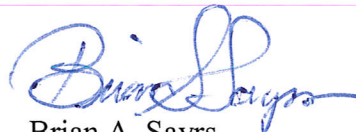
The East Wenatchee Water District is located within Moses Coulee WRIA #44. Ecology has determined that the WSP is not inconsistent with the WRIA 44/50 Watershed Management Plan adopted under 90.82 RCW. DOH encourages the water system to contact Ecology regarding this matter.

Thank you for your cooperation. DOH recognizes the significant effort and resource commitment involved in the preparation of this WSP. If you have any comments or questions concerning our review please contact either of us at (509) 329-2117 or (509) 329-2137, respectively.

Sincerely,



Michael Wilson, P.E.
Regional Engineer
Office of Drinking Water
Division of Environmental Public Health



Brian A. Sayrs
Regional Planner
Office of Drinking Water
Division of Environmental Public Health

Enclosures: Department of Ecology correspondence (3)
Construction Completion Form

cc: Chelan-Douglas Health District
Douglas County Land Services Division
Ryan Peterson, PE, RH2 Engineering
Dave Holland, Department of Ecology, Central Regional Office
George Simon, DOH Regional Compliance Program Director
Alyssa Gersdorf, DOH WFI Coordinator

CONSTRUCTION COMPLETION REPORT FORM FOR DISTRIBUTION MAIN PROJECTS

In accordance with WAC 246-290-120(5), a *Construction Completion Report* is required for all construction projects. Under the submittal exception process for distribution main projects, designed by a professional engineer but not submitted to the Department of Health (DOH) for approval, the report does not need to be submitted. **However, the purveyor must keep the Construction Completion Report on file and make it available for review upon request by DOH in accordance with WAC 246-290-125 (2)(b).** Furthermore:

- (1) The report form **must** bear the seal, date and signature of a professional engineer (PE) licensed in the state of Washington; and
- (2) Per WAC 246-290-120(5)(c), the amount of change in the physical capacity of a system must be documented, if the project results in a change in physical capacity.

| | |
|--|--|
| Name of Water System | DOH System ID No.: _____ |
| Name of Purveyor (Owner or System Contact) | Date Water System Plan that includes Standard Construction Specifications |
| Mailing Address | Date Standard Specifications Approved by DOH: _____ |
| City State Zip | |

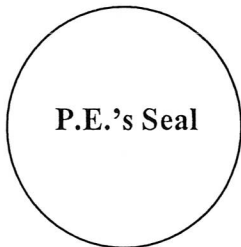
PROJECT NAME AND DESCRIPTIVE TITLE:

(Include the name of any development project and number of services.) _____ Date Project or Portions Thereof Completed _____

PROFESSIONAL ENGINEER'S ACKNOWLEDGMENT

The undersigned professional engineer (PE), or his/her authorized agent, has inspected the above-described project that, as to layout, size and type of pipe, valves and materials, and other designed physical facilities, has been constructed and is substantially completed in accordance with construction documents reviewed by the purveyor's engineer. In the opinion of the undersigned engineer, the installation, physical testing procedures, water quality tests, and disinfection practices were carried out in accordance with state regulations and principles of standard engineering practice.

I have reviewed the disinfection procedures, pressure test results, and results of the bacteriological test(s) for this project and certify that they comply with the requirements of the construction standards/specifications approved by DOH.



| |
|--|
| Date Signed |
| Name of Engineering Firm |
| Name of PE Acknowledging Construction |
| Mailing Address |
| City State Zip |
| Engineer's Signature |
| State/Federal Funding Type (if any) _____ |

Please keep a completed, signed, and stamped copy on file.

Northwest Drinking Water
 Department of Health
 20425 72nd Ave S, Suite 310
 Kent, WA 98032-2358
 Phone: (253) 395-6750
 Fax: (253) 395-6760

Southwest Drinking Water
 Department of Health
 PO Box 47823
 Olympia, WA 98504-7823
 Phone: (360) 236-3030
 Fax: (360) 664-8058

Eastern Drinking Water
 Department of Health
 16201 E Indiana Ave, Suite 1500
 Spokane Valley, WA 99216
 Phone: (509) 329-2100
 Fax: (509) 329-2104

Ryan Peterson

From: Sayrs, Brian A (DOH) <Brian.Sayrs@DOH.WA.GOV>
Sent: Friday, November 07, 2014 2:22 PM
To: Greg Brizendine
Cc: Ryan Peterson; Vince Johnston; Wilson, Michael /EH (DOH); Serr, Ben A (DOH)
Subject: East Wenatchee Water District (PWS ID#21800, Douglas County) - ready for approval

Greg,

The Department of Health has completed its review of the East Wenatchee Water District Water System Plan. At this time, please have the governing body officially approve the Water System Plan and send DOH documentation of the plan approval, such as a copy of the signed meeting minutes or a copy of the signed resolution. When the documentation is received we will send a letter documenting DOH approval.

If you have any questions, please let us know.

Brian

Brian A. Sayrs, Regional Planner
Department of Health ~ Office of Drinking Water
16201 E. Indiana Ave., Suite 1500
Spokane Valley, WA 99216
Phone: 509.329.2137 ~ Fax: 509.329.2104

Healthy Places – Healthy People



September 19, 2014

RH2 ENGINEERING, INC.
www.rh2.com
mailbox@rh2.com
1.800.720.8052

WASHINGTON
LOCATIONS

BOTHELL
MAIN OFFICE
22722 29th Drive SE, Suite 210
Bothell, WA 98021

BELLINGHAM

EAST WENATCHEE

ISSAQUAH

RICHLAND

TACOMA

OREGON
LOCATIONS

NORTHERN OREGON
MAIN OFFICE
6500 SW Macadam Avenue, Suite 125
Portland, OR 97239

SOUTHERN OREGON
Central Point

COASTAL OREGON
North Bend

Mr. Mike Wilson, P.E.
Washington State Department of Health
Office of Drinking
16201 E. Indiana Avenue, Suite 1500
Spokane Valley, Washington 99216-2830

Sent via: US Mail

Subject: Response to Department of Health Letter regarding East Wenatchee Water District's 2014 Comprehensive Water System Plan. System ID 21800

Dear Mr. Wilson:

This letter is in response to the Washington State Department of Health (DOH) August 12, 2014 review letter for the East Wenatchee Water District's (District) *2014 Comprehensive Water System Plan (WSP)*. DOH's comments are shown in italics with RH2 Engineering, Inc.'s (RH2) responses below.

Consistency checklists from the City of Wenatchee, Chelan County PUD No. 1, City of East Wenatchee, and Douglas County Planning have been received and are attached as **Appendix A**.

Chapter 1

*1) Provide a larger map for **Figures 1.1 and 1.2** (such as 24 inch x 36 inch) that will allow us to easily identify the service area boundaries and pressure zones.*

Figures have been increased to 17-inch by 22-inch size. PDF versions of the maps will be available that can be zoomed in at the discretion of the viewer.

*2) With regard to **Figure 1.1***

Please explain the inclusion of a portion of Rock Island's service area within the District's Future Service Area. Rock Island's latest plan (approved January 8, 2014) does not include areas that far north.

When the Wenatchee Regional service area was originally defined in 1998, there had been discussions that the City of Rock Island (Rock Island) may need to be supplied by the Regional system due to their issues with high nitrates. The future Regional service area was drawn to include Rock Island (see **Appendix F, Exhibit A**). Since Rock Island is in Douglas County and adjacent to the District, it was assumed that water would be supplied to Rock Island by the District. Rock Island has since made modifications that allow them to serve their own customers without need for a separate intertie. The District's future



service area boundary was subsequently pulled back to run along the Urban Growth Boundary of Rock Island.

The water service area previously shown for the City of Rock Island was incorrect. It has been revised based on a current map received from the City of Rock Island. There is no overlap of District and City service areas.

Please include a single Retail Service Area (RSA), the area for which the District has a duty to serve. The RSA must include the entirety of the Existing Service Area and any areas to which retail service will be extended within the six year approval period of the Water System Plan.

The RSA is shown on **Figure 1.1** and **Figure 1.6**. The word “existing” has been removed from the legend description, and the future retail service area has also been removed to hopefully clarify the RSA.

Please identify more of the roads and streets.

Additional street names have been added.

Chapter 4

3) With regard to the Water Use Efficiency measures in the Measures to be Evaluated or Implemented subsection.

Please update the first paragraph to acknowledge that, according to Line 28 of its Water Facilities Inventory (WFI), the District has between 10,000 and 49,999 services and therefore requires a total of nine additional measures.

The District does not have more than 9,999 service connections. The following paragraph is added on Page 4-6.

The WFI in Appendix C shows over 11,000 service connections, but this is incorrect. The number entered by DOH is a tally of dwelling units, not service connections. Most multi-family dwelling units are clustered so that multiple units are served by a single connection. See **Chapter 2, Table 2.2** for a count of actual service connections. However, to account for future growth in the District, which will eventually exceed 9,999 connections, at least nine conservation measures are discussed herein.

There are a number of deficiencies in the listed measures. While there appears to be one implemented measure that is not listed, five measures cannot be considered additional demand-side water use efficiency measures.

i. The Public Education section on Page 4-1 indicates that public education is occurring more than once per year. This additional public education counts as a single additional implemented measure.

Additional public education on this page was presented only to describe the District’s current program. It was not intended to be an additional measure.

ii. Measure 2 (Excess Water Rates) is not a valid measure because only implemented summer rates and inclining block rates may be considered conservation rates.

The District disagrees with this position. The style of rate structure does not define it as a conservation rate, the rate itself does. An inclining block rate of \$0.01/1,000 gallons; \$0.02/2,000 gallons, etc. would have no conservation effect while a uniform block rate of \$2.00/1,000 gallons would. The drop in water use per equivalent residential unit (ERU) (Chart 4-1) clearly shows that the District’s conservation measures, which include the uniform block rate, are effective. However, the District has enough other measures that this one is not required.



iii. Measure 3 (Irrigation Water Use – New Construction) would be considered additional education, part of (i) above.

The District disagrees with this position. Irrigation is a substantial component of water use, often exceeding all other uses combined for many customers. The District does not have enforcement jurisdiction on irrigation use; proactive advisement of property owners is the most they can currently perform. However, it has now been noted as a component of public education in the WSP.

iv. Measure 6 (Shared Billing) is not a water use efficiency measure because it does not address demand-side water use.

Shared Billing was not presented as a demand side conservation measure, it was intended to address the requirement that shared costs be evaluated. It has been deleted.

v. Measure 9 (Install Real-time Customer Meter Monitoring) has not been implemented or evaluated, so cannot be considered a measure.

As described on Page 4-8, the District is evaluating this technology. They are in contact with their meter supplier to review available technologies. We are unclear as to why DOH is stating the District is not evaluating it. See additional text under bullet “ii” on page 3 of this letter.

vi. Measure 11 (Landscape Management) is additional education, part of (i) above.

Agreed.

There are multiple ways to add the two additional methods. Examples include.

i. Add two new methods to the list already provided.

ii. Complete evaluation of Measure 9 (Install Real-time Customer Meter Monitoring) for one additional measure.

The following text has been added to Page 4-9 under the measure “Install Real-time Customer Meter Monitoring.”

A study is currently underway to determine the number and cost of antennae sites required for data collection.

Status: Being evaluated. Expected to be complete this winter.

Cost: It is still too early to know the cost of a real-time reading system until the number of antennae sites has been determined. Once the District has completed its initial evaluation of the equipment, a cost estimate will be prepared.

Cost sharing: The technology is not expected to be more cost efficient with multiple agencies due to the limited coverage of antennae. Other agencies would require a proportional quantity of equivalent antennae sites and recording equipment to integrate with their unique billing systems.

iii. Because implemented measures that impact multiple customer classes (single family, commercial, multi-family) count as additional measures, provide additional information to the listed measures to show that they have an impact on multiple customer classes. For example, does the bill showing consumption history apply to more than one customer class?

Consumption History Billing has been identified for three customer categories: Single Family Residential, Multi-family Residential, and Commercial/Industrial.

Review Bills for Abnormal Use has been identified for three customer categories: Single Family Residential, Multi-family Residential, and Commercial/Industrial.

For water systems with 1,000 or more connections, measures that are not implemented must be evaluated using the criteria



contained in WAC 246-290-810 (4)(d)(iv).

Costs have been provided where they are practical to estimate. The following paragraph regarding societal costs has been added on page 4-7.

The societal cost benefits of water use efficiency would be the same for any measure that reduces water use, and as such are not repeated in each section below. The efficient use of water can reduce electrical needs for pumping, improve instream flows (though for the capacious Regional Aquifer and Columbia River, this would not be measurable), and support both the perception and the reality that our resources are being used wisely.

The following paragraph regarding shared costs was in the draft submittal and is found on page 4-7.

Except where specifically noted otherwise, cost sharing with other entities is considered ineffective. Educational efforts typically have very low costs, and other measures are so geographically localized that coordinating with other entities would not increase efficiency or reduce costs. The District stays in constant contact with the City of Wenatchee and Chelan County PUD to discuss how each purveyors' approach to water use efficiency has fared.

4) Please document that a WUE goal has been adopted for the time period 2014 through 2020 as required by WAC 246-290-830. State the goal clearly and provide a copy of the meeting notice and a copy of the meeting minutes in the second draft.

The goals are shown on page 4-3 and 4-4 under the heading "Conservation Goals and Public Process." The WUE program was adopted on September 4, 2014.

Documentation is provided in **Appendix M**.

5) The Washington State Department of Ecology (Ecology) has issued a comment letter regarding this submittal. A copy of the review letter dated August 5, 2014, from Ecology is enclosed. Please address the issues, if any, contained in the letter in the second draft submittal.

The Ecology letter does not include any issues that need to be addressed.

Chapter 5

6) The Wellhead Protection Program must be updated every two years. The maps, potential contaminant source inventory, and letters in the City of Wenatchee's May 2012 WSP Volume 2 Regional facilities are dated from December 2010. Please provide the updated maps, potential contaminant source inventory, and letters in the second draft.

The District does not manage the Regional Water source nor the wellhead protection program. It obtains water through an intertie with the Regional Water system. The City of Wenatchee updated the Regional Water system wellhead protection program in October of 2012 (noted now on page 5-1). The City of Wenatchee will be producing an update in the fall of 2014. The reader is directed to the City of Wenatchee public works department for the Wellhead Protection Program.

Chapter 6

7) The second paragraph under "Violation Procedures" on Page 6-12, which discusses MCLs and MTTP, can be deleted. Monitoring for MTTP (maximum total trihalomethanes potential) is no longer conducted. This monitoring was replaced by Stage 1 and Stage 2 Disinfection Byproduct Monitoring.

The paragraph has been deleted.



Other

8) *The SEPA process will need to be finalized prior to WSP approval and a signed DNS must be included in the second draft.*

This is been included in **Appendix D**.

9) *The water system must meet the consumer input process outlined in WAC 246-290-100(8). Please include documentation of a consumer meeting discussing the WSP prior to its approval.*

This is been included in **Appendix M**.

10) *When DOH is ready to approve the document we will notify you. At that time the governing body will need to officially approve the WSP and send DOH documentation of plan approval by the governing body, such as a copy of the signed meeting minutes or a copy of the signed resolution. When the information is received we will send a letter documenting DOH approval.*

Understood.

11) *There are two tables in **Chapter 2** which are labeled as "Table 2.4". The table on page 2-7 should be labeled "Table 2.5" and the subsequent tables in **Chapter 2** renamed.*

Tables have been renumbered.

Also, the District PWS ID was mistyped as #218005 in Chapter 1 page 1-1. The corrected ID is #21800.

An additional phone number for a local dialysis center has been added to Page 6-16. A letter from the dialysis center is included in Appendix S.

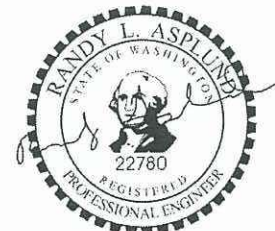
Sincerely,

RH2 ENGINEERING, INC.

Ryan Peterson, P.E.



9/19/14



RCP/sp/cc

cc: Mr. Greg Brizendine, P.E., East Wenatchee Water District

Enclosures:

- Figures 1.1, 1.2 and 1.6
- Chapter 1, page 1-1
- Chapter 2, with updated table numbers
- Chapter 4
- Chapter 5, page 5-1
- Chapter 6, page 6-12, 6-16
- Appendix B – Agency Reviews
- Appendix D – SEPA and DNS
- Appendix F – Exhibit A (may have been printed improperly in the original)
- Appendix M – Water Use Efficiency Forum
- Appendix S – DaVita dialysis center letter



STATE OF WASHINGTON
DEPARTMENT OF HEALTH
EASTERN DRINKING WATER REGIONAL OPERATIONS
16201 E Indiana Avenue, Suite 1500, Spokane Valley, Washington 99216-2830
TDD Relay 1-800-833-6388

August 12, 2014

Greg Brizendine
East Wenatchee Water District
692 Eastmont Ave
East Wenatchee, WA 98802

Subject: East Wenatchee Water District; PWS ID #21800; Douglas County
Water System Plan; Submittal #14-0606; DOH Comments

Dear Mr. Brizendine:

Thank you for providing the draft Water System Plan (WSP) for the East Wenatchee Water District (District) received in this office on June 12, 2014. The following comments will need to be addressed before the Department of Health (DOH) can approve the document:

Chapter 1

- 1) Provide a larger map for Figures 1.1 and 1.2 (such as 24 inches x 36 inches) that will allow us to easily identify the service area boundaries and pressure zones.
- 2) With regard to Figure 1-1:
 - Please explain the inclusion of a portion of Rock Island's service area within the District's Future Service Area. Rock Island's latest plan (approved January 8, 2014) does not include areas that far north.
 - Please include a single Retail Service Area (RSA), the area for which the District has a duty to serve. The RSA must include the entirety of the Existing Service Area and any areas to which retail service will be extended within the six-year approval period of the Water System Plan.
 - Please identify more of the roads and streets.

Chapter 4

- 3) With regard to the Water Use Efficiency measures in the Measures to be Evaluated or Implemented subsection:
 - Please update the first paragraph to acknowledge that, according to Line 28 of its Water Facilities Inventory (WFI), the District has between 10,000 and 49,999 services and therefore requires a total of nine additional measures.

- There are a number of deficiencies in the listed measures. While there appears to be one implemented measure that is not listed, five measures cannot be considered additional demand-side water use efficiency measures:
 - i. The Public Education section on Page 4-1 indicates that public education is occurring more than once per year. This additional public education counts as a single additional implemented measure.
 - ii. Measure 2 (Excess Water Rates) is not a valid measure because only implemented summer rates and inclining block rates may be considered conservation rates.
 - iii. Measure 3 (Irrigation Water Use – New Construction) would be considered additional education, part of (i) above.
 - iv. Measure 6 (Shared Billing) is not a water use efficiency measure because it does not address demand-side water use.
 - v. Measure 9 (Install Real-time Customer Meter Monitoring) has not been implemented nor evaluated, so cannot be considered a measure.
 - vi. Measure 11 (Landscape Management) is additional education, part of (i) above.
 - There are multiple ways to add the two additional methods. Examples include:
 - i. Add two new methods to the list already provided.
 - ii. Complete evaluation of Measure 9 (Install Real-time Customer Meter Monitoring) for one additional measure.
 - iii. Because implemented measures that impact multiple customer classes (single family, commercial, multi-family) count as additional measures, provide additional information to the listed measures to show that they have an impact on multiple customer classes. For example, does the bill showing consumption history apply to more than one customer class?
 - For water systems with 1,000 or more connections, measures that are not implemented must be evaluated using the criteria contained in WAC 246-290-810(4)(d)(iv).
- 4) Please document that a WUE goal has been adopted for the time period 2014 through 2020, as required by WAC 246-290-830. State the goal clearly and provide a copy of the meeting notice and a copy of the meeting minutes in the second draft.
- 5) The Department of Ecology has issued a comment letter regarding this submittal. A copy of the review letter dated August 5, 2014, from the Department of Ecology is enclosed. Please address the issues, if any, contained in the letter in the second draft submittal.

Chapter 5

- 6) The Wellhead Protection Program must be updated every two years. The maps, potential contaminant source inventory, and letters in the City of Wenatchee's May 2012 *Comprehensive Water System Plan, Volume 2 – Regional Facilities* document are dated from December 2010. Please provide the updated maps, potential contaminant source inventory, and letters in the second draft.

Chapter 6

- 7) The second paragraph under "Violation Procedures" on Page 6-12, which discusses MCLs for MTTP, can be deleted. Monitoring for MTTP (maximum total trihalomethane potential) is no longer conducted. This monitoring was replaced by Stage 1 and Stage 2 Disinfection Byproduct Monitoring.

Other

- 8) The SEPA process will need to be finalized prior to WSP approval and a signed determination must be included in the second draft.
- 9) The water system must meet the consumer input process outlined in WAC 246-290-100(8). Please include documentation of a consumer meeting discussing the Water System Plan prior to its approval.
- 10) When DOH is ready to approve the document we will notify you. At that time the governing body will need to officially approve the Water System Plan and send DOH documentation of plan approval by the governing body, such as a copy of the signed meeting minutes or a copy of the signed resolution. When the information is received we will send a letter documenting DOH approval.

Recommendations

The following recommendation does not affect whether the Water System Plan can be approved. It is provided to help improve the content of the plan, eliminate minor inconsistencies, or provide an opportunity to clarify some non-typical content or circumstances.

- 11) There are two tables in Chapter 2 which are labeled as "Table 2.4". The table on page 2-7 should be labeled "Table 2.5" and the subsequent tables in Chapter 2 renamed.

END OF COMMENTS

We hope that you have found these comments to be clear, constructive, and helpful in the development of your final WSP. We ask that you submit **two copies** of the revised WSP **on or before November 12, 2014**. In order to expedite the review of your revised submittal, please complete the enclosed DOH Comment Response Form summarizing how each of the above comments was addressed in the revised WSP and where each response is located (i.e., page numbers, Appendices, etc.)

Regulations establishing a schedule for fees for review of planning, engineering, and construction documents have been adopted (WAC 246-290-990). Please note that we have included an invoice for **\$5,484.00** for the review of the Water System Plan. This fee covers our cost for review of the initial submittal, plus the review of one revised document. Please remit your complete payment in the form of a check or money order within thirty days of the date of

Greg Brizendine
August 12, 2014
Page 4

this letter to: DOH, Revenue Section, P.O. Box 1099, Olympia, WA 98507-1099.

Thank you again for submitting your draft Water System Plan for our review. If you have any comments or questions concerning our review please contact either of us at (509) 329-2117 or (509) 329-2137, respectively.

Sincerely,



Michael Wilson, P.E.
Regional Engineer
Office of Drinking Water
Division of Environmental Public Health



Brian A. Sayrs
Regional Planner
Office of Drinking Water
Division of Environmental Public Health

Enclosures: Invoice
Comment Response Form
Department of Ecology correspondence

cc: Chelan-Douglas Health District
Douglas County Land Services Division
City of East Wenatchee Planning Division
Ryan Peterson, PE, RH2 Engineering
Dave Holland, Department of Ecology, Central Regional Office
George Simon, DOH Regional Compliance Program Director
Alyssa Gersdorf, DOH WFI Coordinator



Water System Plan Submittal Form

This form must be completed and submitted along with the Water System Plan (WSP). It will expedite review and approval of your WSP. **All water systems should contact their regional planner before developing any planning document for submittal.**

| | | |
|--|---|---|
| <u>East Wenatchee Water District</u> 1. Water System Name | <u>218005</u> PWS ID# or Owner ID# | <u>Same</u> System Owner Name |
| <u>Greg Brizendine, P.E.</u> Contact Name for Utility | <u>(509) 884-3569</u> Phone Number | <u>Manager</u> Title |
| <u>692 Eastmont Ave</u> Contact Address | <u>East Wenatchee</u> City | <u>WA</u> <u>98802</u> State Zip |
| <u>RH2 Engineering, Ryan Peterson, P.E.</u> 2. Project Engineer | <u>(509) 886-2900</u> Phone Number | <u>Project Manager</u> Title |
| <u>300 Simon St SE, Suite 5</u> Project Engineer Address | <u>East Wenatchee</u> City | <u>WA</u> <u>98802</u> State Zip |
| <u>East Wenatchee Water District</u> 3. Billing Contact Name (required if not the same as #4) | <u>(509) 884-3569</u> Billing Phone Number | <u>(509) 886-0550</u> Billing Fax Number |
| <u>692 Eastmont Ave</u> Billing Address | <u>East Wenatchee</u> City | <u>WA</u> <u>98802</u> State Zip |

4. How many services are presently connected to the system? 9,400
5. Is the system expanding? (seeking to extend service area or increase number of approved connections) Yes No
6. If number of services is expected to increase, how many new connections are proposed in the next six years? 700
7. If the system is private-for-profit, is it regulated by the State Utilities and Transportation Commission? n/a Yes No
8. Is the system located in a Critical Water Supply Service Area (i.e., have a Coordinated Water System Plan)? Yes No
9. Is the system a customer of a wholesale water purveyor? Yes No
10. Will the system be pursuing additional water rights from the State Department of Ecology in the next twenty years? Yes No
11. Is the system proposing a new intertie? Yes No
12. Do you have projects currently under review by the Department of Health? Yes No
13. Are you requesting distribution main project report and construction document submittal exception, and if so, does the WSP contain standard construction specifications for distribution mains? Yes No
14. Are you requesting distribution related project report and construction document submittal exception, and if so, does the WSP contain distribution facilities design and construction standards, including internal engineering review procedures? Yes No
15. The purveyor is responsible for sending a copy of the WSP to adjacent utilities for review or a letter notifying them that a copy of the WSP is available for their review and where the review copy is located. Has this been completed? Yes No
16. The purveyor is responsible for sending a copy of the WSP to all local governments within the service area. (County and City Planning Departments, etc). Has this been completed? Yes No
17. Are you proposing a change in the place of use of your water right? Yes No

If answer to questions 7,8, 11, 15and/or 16 is "yes," list who you sent the WSP to: This will be done in June.
City of East Wenatchee; Douglas County; City of Wenatchee; Chelan Co. PUD

Is this plan: an Initial Submittal a Revised Submittal

Please enclose the following number of copies of the WSP:

3 copies for Northwest and Southwest Regional Offices **OR 2** copies for Eastern Regional Office (We will send one copy to Ecology)
1 additional copy if you answered "yes" to question 7. 2 Total copies attached

Please return completed form to the Office of Drinking Water regional office checked below.

Northwest Drinking Water Operations
Department of Health
20425 72nd Avenue South, Suite 310
Kent, WA 98032-2358
(253) 395-6750

Southwest Drinking Water Operations
Department of Health
PO Box 47823
Olympia, WA 98504-7823
(360) 236-3030

Eastern Drinking Water Operations
Department of Health
16201 East Indiana Avenue Suite 1500
Spokane Valley, WA 99216
(509) 329-2100

If you need this publication in an alternate format, call (800) 525-0127. For TTY/TDD, call (800) 833-6388.

**Department of Health, Office of Drinking Water
Eastern Regional Office
Pre-Plan Agreement**

Pre-Plan Date: June 11, 2013
Water System Name: East Wenatchee Water District
PWS #: 218005
Existing WSP expiration date: June 7, 2012
Operating Permit Color: Yellow
WSP Submittal Due Date: June 11, 2014

WAC 246-290-100 requires purveyors of any new water systems, a system in a water coordination act area, a system serving 1,000 or more service connections, or a system that is expanding or experiencing problems to submit a Water System Plan (WSP) and update their WSP every six (6) years. The purpose of this preplan meeting is to determine the scope and level of detail of the WSP or update and establish a schedule for submittal of the document. This agreement is valid until the WSP submittal due date above. After this date, the agreement will need to be renegotiated. The operating permit color will change to yellow if the WSP is not received by the WSP submittal due date noted above.

Pre-Plan Attendees: _____

Water System Plan (WSP) Checklist for Municipal Systems (DRAFT)

| <input checked="" type="checkbox"/> Required | Content Description | WSP Page # |
|---|--|--------------|
| Chapter 1 Water System Plan Submittal Form | | |
| Description of Water System | | |
| <input checked="" type="checkbox"/> | Ownership and management (updated/current WFI) | <u>1-1</u> |
| <input checked="" type="checkbox"/> | System history and background | <u>1-1</u> |
| <input checked="" type="checkbox"/> | Brief inventory of existing facilities | <u>1-4</u> |
| <input checked="" type="checkbox"/> | Description of and discussion about related plans: CWSP, ground water management, basin and City/County land use plans & zoning. Include land use maps for 6 & 20-years | <u>1-11</u> |
| <input checked="" type="checkbox"/> | Service area characteristics, agreements, & policies including conditions of service and how new service will be provided in the retail service area. Include maps for water rights service area & for existing, future & retail service areas | <u>1-18</u> |
| <input checked="" type="checkbox"/> | Duty to serve statement for the retail service area | <u>1-21</u> |
| <input type="checkbox"/> | Satellite Management Agency information | <u> </u> |
| <input checked="" type="checkbox"/> | Local Government Consistency from planning agencies | <u>App B</u> |
| <input checked="" type="checkbox"/> | ODW will obtain a "not-inconsistent" statement from Ecology for Water Resource Inventory Area # _____. | <u> </u> |

Chapter 2

Basic Planning Data

- (√) **Current data:** population, service connections & ERUs 2-3
- (√) **Data Collection:** 2-5
- Monthly and annual production totals per source including purchased water
- Annual usage by customer class
- Annual usage for water supplied to other systems
- ≥ 1000 connections – description of seasonal variations in use by customer class
- (√) **6 & 20 year service area projections for:** 2-12
- Land use
- Zoning
- Population, service connections & ERUs
- Water demand - use WAC 246-290-221 and include demands with and without expected efficiency savings
- (√) DSL percentage and volume (provide discussion in Chapter 4) 2-8
- () ≥ 1000 connections - include demand forecast if all measures deemed cost-effective were implemented 2-15

Chapter 3

System Analysis

- (√) System design standards (fire flow, system pressures, etc.) 3-1
- (√) System inventory, description and analysis 3-7
- (√) Source 3-7
- (√) Storage 3-15
- (√) Distribution system/hydraulics (with equalization & FFS depleted) 3-22
- (√) Add pressure zones Fig 1.2
- () Treatment 3-15
- (√) Written legal & physical system capacity analysis & DOH Capacity & ERU Determinations (WSDM 6-1) forms 3-27
- (√) Water quality analysis 3-6
- (√) Summary of system deficiencies 3-38
- (√) Analysis of possible improvement projects 3-38

Chapter 4

Water Resource Analysis & Water Use Efficiency (WUE)

Metering Program

- (√) 4-3
- Description of all source meters (existing and new sources)
 - Description of service meter program included how all meters are operated and maintained, if not fully metered submit installation schedule & include in the budget
 - Description of permanent & seasonal intertie meter program, if not fully metered submit meter installation schedule & include in the budget
 - Describe activities to minimize leakage if not fully service & intertie metered

*All maps should be a minimum of 11"x17"

*If requesting source approval with WSP include all source documents in a separate section

| | | |
|--|---|---|
| (√) | Water Use Efficiency Program (WUE) A WUE program should be designed to achieve the WUE goal by implementing cost effective measures per WAC 246-290-810 | 4-1 |
| | <ul style="list-style-type: none"> • Describe the current conservation (WUE) program • Describe WUE goal & document public adoption process • Describe measures that will be implemented to achieve the goal & include schedule & costs in the budget • Describe process used to evaluate the WUE measures you did not implement • Describe yearly consumer education • Estimate projected water savings from selected measures • Describe process that will be used to determine effectiveness of the program | |
| () | ≥ 1000 Connections | 4-4 |
| | <ul style="list-style-type: none"> • Estimate water saved from efficiency measures over the past 6 years • Quantitative evaluation of measures to determine if they are cost-effective, include marginal costs of water production • Evaluate measures for cost-effectiveness if shared with other systems • Quantitative or qualitative evaluation of measures to determine if they are cost-effective from the societal perspective | |
| (√) | Distribution System Leakage (DSL) Evaluate and report DSL - WAC 246-290-820(2) | 2-8 |
| () | Water loss control action plan (WLCAP) Submit the WLCAP as required by WAC 246-290-820(4) | n/a |
| (√) | Source of supply analysis: <ul style="list-style-type: none"> • Evaluate water supply alternatives if additional water rights will be pursued within 20 years • Describe water supply characteristics & discuss any foreseeable impact (quantity & quality) to the resource (WAC 246-290-100 (4)(f) (ii) (B)) | <i>Described in 2012 City of Wenatchee Regional Facility Plan</i> |
| (√) | Water rights self-assessment: Consult with Ecology regarding water rights prior to plan submittal. Put all water right information together in Chapter 4. <ol style="list-style-type: none"> 1) Water right self-assessment forms: existing, 6 & 20 year 2) Description of water right status 3) Legal description from water right 4) Copies of water right certificate(s) 5) Well log & USGS map with point of withdrawal/diversion & place of use | <i>Described in 2012 City of Wenatchee Regional Facility Plan</i> |
| (√) | Water supply reliability analysis | 6-16 |
| () | Interties – descriptions and agreements | 4-11 |
| () | ≥ 1000 connections - explore reclaimed water opportunities | 4-12 |
| Chapter 5 Source Water Protection (Check One or Both) | | |
| () | Wellhead protection program or 2 year update (updated inventory, letters, and map) per WAC 246-290-135 | 5-1 |
| () | Watershed control program (surface water systems) | |
| Chapter 6 Operation and Maintenance Program | | |
| (√) | Water system management and personnel | 6-1 |

- (√) Operator certification 6-3
- (√) Routine operating procedures and preventive maintenance 6-5
- (√) Water quality sampling procedures & program 6-10
- (√) Coliform monitoring plan and map 6-11
- (√) Emergency program, service reliability requirements & water shortage plan per WAC 246-290-420 6-12
- () Address sanitary survey findings
- (√) Cross-connection control program (> 1000 connections provide copies of annual summary report form) 6-18
- (√) Recordkeeping, reporting, and customer complaint program 6-27
- (√) Summary of O&M deficiencies, include cost in budget 3-47

Chapter 7

Distribution Facilities Design and Construction Standards

- () Standard construction specifications for distribution mains App I, J
- () Design and construction standards for distribution-related projects 7-3, 7-6

Chapter 8

Improvement Program

- (√) Capital improvement program including 6-year CIP schedule 8-8

Chapter 9

Financial Program (See Financial Viability Manual)

- A financial program to demonstrate financial viability:
- (√) Summary of past income and expenses 9-1
- () ≥ 1000 connections – Balanced 1-year operational budget
- () < 1000 connections – Balanced 6-year operational budget including a financial viability test 9-8
- (√) Plan for collecting the revenue necessary to maintain cash flow stability and to fund capital and emergency improvements 9-3
- (√) Rate structure evaluation that considers: 4-3
 - Affordability of water rates
 - Feasibility of implementing rate structure that encourages water demand efficiency

Chapter 10

Miscellaneous Documents

- (√) Informational meeting for the consumers, include notification and minutes App M
- (√) Attach notice to adjacent utilities that WSP is available for review & comment. Attach comments received. App B
- () >1000 connections - completed SEPA process with signed Determination App D
- () Agreements: franchise, wheeling, mutual aid, inter-local and other agreements
- () Satellite Management Contract and Water User Agreement App F
- (√) When DOH is ready to approve the final WSP, the plan must be adopted by the governing body; include meeting minutes App B

Douglas ~~County~~ Co

- the dist main extent. sub. exception expired only
- added Kirby Billingby Hydro
- WSP update 12-24-12
- WSP update 12-24-12

Department of Health, Office of Drinking Water
Eastern Regional Office
Pre-Plan Agreement

11,005 connects
"U" - airport annex.
- annexation
of Baker Flats project

Pre-Plan Date: June 11, 2013
Water System Name: East Watachee WD
PWS #: 218005
Existing WSP expiration date: June 7, 2012
Operating Permit Color: yellow
WSP Submittal Due Date: June 11, 2014

UPDATE > 1000 connections

- Large city
- If previous plan did not include Muni Water Law provisions, the update needs to

If an item is shaded grey, then it should be included if it has changed from last plan

WAC 246-290-100 requires purveyors of any new water systems, a system in a water coordination act area, a system serving 1,000 or more service connections, or a system that is expanding or experiencing problems to submit a Water System Plan (WSP) and update their WSP every six (6) years. The purpose of this preplan meeting is to determine the scope and level of detail of the WSP or update and establish a schedule for submittal of the document. This agreement is valid until the WSP submittal due date above. After this date, the agreement will need to be renegotiated. The operating permit-color will change to yellow if the WSP is not received by the WSP submittal due date noted above. #C

Pre-Plan Attendees:
Heather Cannon DOH
Michael Wilson PE DOH
Shea Buzendine EWD
Kathy Append PHZ
Ryan Peterson PHZ
Vince Johnston EWD

Water System Plan (WSP) Checklist for Municipal Systems (DRAFT)

WSP Page #

Include in plan (V)

Water System Plan Submittal Form

Chapter 1 Description of Water System

- (V) Ownership and management (updated/current WFI)
- () System history and background
- () Brief inventory of existing facilities
- (V) Description of and discussion about related plans: CWSP, ground water management area, basin and City/County comprehensive plans & zoning. Include comprehensive & zoning maps - for SA change / MWL
- (V) Service area characteristics, agreements, & policies including conditions of service and how new service will be provided in the retail service area. Include maps for existing water rights: place of use, existing, future, retail, and expanded water rights: place of use, existing, future, retail, and
- (V) Duty to serve statement for the retail service area - for service area change / MWL DOH PUB# 331-432
- () Satellite Management Agency information DOH PUB# 331-366
- (V) Local Government Consistency from planning agencies City of County Douglas
- () ODW will obtain a "not-inconsistent" statement from Ecology for Water Resource Inventory Area # _____

WSP expansion on table for discussion can put this in future in future and to City will sign consistency form.

Chapter 2

Basic Planning Data

Current data: population, service connections & ERUs

Data Collection:

- Monthly and annual production totals per source including purchased water
- Annual usage by customer class
- Annual usage for water supplied to other systems
- A description of seasonal variations in use by customer class

6 & 20 year service area projections for:

- Comprehensive Plan
- Zoning

Population, service connections & ERUs

Water demand - use WAC 246-290-221 and include demands with **and** without expected efficiency savings - use the program from
 DSL percentage and volume (provide discussion in Chapter 4) = what does this represent at ERUs
 Include demand forecast if all measures deemed cost-effective were implemented

Chapter 3

System Analysis

- System design standards (fire flow, system pressures, etc.) - carry forward if no change
- System inventory, description and analysis
 - Source
 - Storage
 - Distribution system/hydraulics (with equalization & FFS depleted) what of the large CIP are complete
 - Add pressure zones what will be in the large CIP
 - Treatment
- Written legal & physical system capacity analysis & Worksheet 6-1: ERU Determinations (DOH PUB 331-123)
- Water quality analysis
- Summary of system deficiencies
- Analysis of possible improvement projects

Chapter 4

Water Resource Analysis & Water Use Efficiency (WUE)

Metering Program

- Description of all source meters (existing and new sources)
- Description of service meter program include how all meters are operated, calibrated, & maintained, and, if not fully metered submit installation schedule & include in the budget
- Description of permanent & seasonal intertie meter program, if not fully metered submit meter installation schedule & include in the budget emergency intertie only
- Describe activities to minimize leakage if not fully service & intertie metered

in previous plan



no production from

altern street the component meter to check project to check project to check

Water Use Efficiency Program (WUE)

A WUE program should be designed to achieve the WUE goal by implementing cost effective measures per WAC 246-290-810

- 1. Describe the current conservation (WUE) program
- 2. Describe WUE goal & document public adoption process (include signed minutes)
- 3. Describe measures that will be implemented to achieve the goal & include schedule & costs in the budget
- 4. Describe process used to evaluate the WUE measures you did not implement
- 5. Describe yearly consumer education
- 6. Estimate projected water savings from selected measures
- 7. Describe process that will be used to determine effectiveness of the program

over 10,000 conns
= 9 measures to implement and/or evaluate

- Estimate water saved from efficiency measures over the past 6 years
- Quantitative evaluation of measures to determine if they are cost-effective, include marginal costs of water production
- Evaluate measures for cost-effectiveness if shared with other systems
- Quantitative or qualitative evaluation of measures to determine if they are cost-effective from the societal perspective

Distribution System Leakage (DSL)

Evaluate and report DSL - WAC 246-290-820(2)

~~Water-loss control action plan (WLCAP) - if DSL is > 10%~~
Submit the WLCAP as required by WAC 246-290-820(4)

7.9%

Source of supply analysis:

- Evaluate water supply alternatives if additional water rights will be pursued within 20 years
- Describe water supply characteristics & discuss any foreseeable impact (quantity & quality) to the resource (WAC 246-290-100 (4)(f) (ii) (B)) *Regional plan?*
- Water rights self-assessment: Consult with Ecology regarding water rights prior to plan submittal.**
- Put all water right information together in Chapter 4, include water right self-assessment forms for existing, 6 & 20 years and copies of water right certificate(s) *reference regional plan*
- ~~Water supply reliability analysis - depth to water over time (and other studies or reports) if available~~
- Interfery - descriptions and agreements - *may be a regional agreement / this agreement need to be in place*
- Explore reclaimed water opportunities *update as necessary*

Source Water Protection (Check One or Both)

- () Wellhead protection program or 2 year update (updated inventory, letters, and map) per WAC 246-290-135
- () ~~Watershed control program (surface water systems)~~

Operation and Maintenance Program

- () Water system management and personnel
- () Operator certification
- () Routine operating procedures and preventive maintenance
- () Water quality sampling procedures & program
- () Coliform monitoring plan and map *update for ground water rule - city*

System has no source mont.
SD no WAMR but does have distribution samples / test.

would sample regional source

For WUE, provide a program update. Provide complete program if not in previous plan.

#4 & these bullets required if measures are not implemented

Chapter 5

regional reference

Chapter 6

update as necessary

() Emergency program, service reliability requirements & water shortage plan per WAC 246-290-420

() Address sanitary survey findings

() Cross-connection control program (provide copies of annual summary report form)

-provide a status report, or provide complete program if not in previous plan.

() Recordkeeping, reporting, and customer complaint program

() Summary of O&M deficiencies, include cost in budget

Chapter 7

Distribution Facilities Design and Construction Standards

() Standard construction specifications for distribution mains

() Design and construction standards for distribution-related projects

make sure you check boxes on submitted sheet.
Optional, if water system wants this

Chapter 8

Improvement Program

() Capital improvement program including 6-year CIP schedule → System updates yearly & can

Financial Program *Send to DOH as informational or as amendment.*

A financial program to demonstrate financial viability: *an amendment would cost for review (yearly) can't*

Summary of past income and expenses *System updates CIP (yearly) can't*

Balanced 1-year operational budget *Send CIP & budget for amendment*

Plan for collecting the revenue necessary to maintain cash flow stability and to fund capital and emergency

improvements *→ System has large depreciation budget*

Rate structure evaluation that considers the feasibility of implementing rate structure that encourages water

demand efficiency *So it looks like they are always running with red. Explain the budget in such a way as to make it understandable that the budget is balanced*

Chapter 10

Miscellaneous Documents

() Informational meeting for the consumers, include notification and signed minutes - regarding the WSP

() Attach notice to adjacent utilities that WSP is available for review & comment. Attach comments received.

() Completed SEPA process with signed Determination

() Agreements: franchise, wheeling, mutual aid, inter-local and other agreements

() Satellite Management Contract and Water User Agreement

() When DOH is ready to approve the final WSP, the plan must be adopted by the governing body; include meeting minutes

Wait to have board action until DOH has said we are ready to approve.

*All maps should be a minimum of 11"x17"

*If requesting source approval with WSP include all source documents in a separate section

*2 copies of each draft DOH will forward one copy to
Cost for review of 1st & 2nd draft is \$484.00*

Appendix B

Local Agency Reviews



Local Government Consistency Review Checklist

Water System Name: East Wenatchee Water District PWS ID: 218005

Comprehensive Water
Planning/Engineering Document Title: System Plan Plan Date: June 2014

Local Government with Jurisdiction: Douglas County

WAC 246-290-108 Consistency with local plans and regulations:

Consistency with local plans and regulations applies to planning and engineering documents under WAC 246-290-106, 246-290-107, and 246-290-110(4)(b) (ii).

1) Municipal water suppliers must include a consistency review and supporting documentation in its planning or engineering document describing how it has addressed consistency with **local plans and regulations**. This review must include specific elements of local plans and regulations, as they reasonably relate to water service as determined by Department of Health (DOH). Complete the table below and see instructions on back.

| Local Government Consistency Statement | Page(s) in Planning Document | Yes - No - Not Applicable |
|--|---------------------------------------|---------------------------|
| a) The water system service area is consistent with the adopted <u>land use and zoning</u> within the applicable service area. | 2-1 to 2-3 Fig 1.4, 1.6 | YES |
| b) The <u>six-year growth projection</u> used to forecast water demand is consistent with the adopted city/county's population growth projections. If a different growth projection is used, provide an explanation of the alternative growth projection and methodology. | 2-12 to 2-13 | YES |
| c) Applies to <u>cities and towns that provide water service</u> : All water service area policies of the city or town are consistent with the <u>utility service extension ordinances</u> of the city or town. | n/a, not a city or town owned utility | YES |
| d) <u>Service area policies</u> for new service connections are consistent with the adopted local plans and adopted development regulations of all jurisdictions with authority over the service area [City(ies), County(ies)]. | 1-20 to 1-23 Appendix H | YES |
| e) <u>Other relevant elements</u> related to water supply are addressed in the water system plan, if applicable; Coordinated Water System plans, Regional Wastewater plans, Reclaimed Water plans, Groundwater Area Management plans, and Capital Facilities Element of Comprehensive plans. | 1-10 to 1-16 5-1 to 5-4 | YES |

I certify that the above statements are true to the best of my knowledge and that these specific elements are consistent with adopted local plans and development regulations.

Signature

Date

8-26-14

Suzanne Austin, Associate Planner, Douglas County TWS
Printed Name, Title, & Jurisdiction



CITY OF EAST WENATCHEE

COMMUNITY DEVELOPMENT DEPARTMENT

271 9th Street NE * East Wenatchee, WA 98802

Phone 509.884.5396 * Fax 509.886.6113

LBarnett@east-wenatchee.com

September 30, 2014

Sent Via E-Mail

Greg Brizendine, District Manager
East Wenatchee Water District
P. O. Box 7192
East Wenatchee, WA 98802

Re: Verification of consistency for East Wenatchee Water District Water System Plan
– Draft Date June 2014

Dear Greg:

This letter and the attached *Local Government Consistency Review Checklist* are intended to verify that the land use assumptions, population projections, service area policies, and planned water system improvements within the District's Water System Plan are consistent with the *Greater East Wenatchee Area Comprehensive Plan*.

As you know, the City and Douglas County are working on an expansion of the East Wenatchee Urban Growth Area Boundary. According to Figure 1.6 all of the proposed expansion areas are located within the District's Existing or Future Service Area boundaries. It is anticipated that the proposed amendments to the *Greater East Wenatchee Area Comprehensive Plan* will be completed in March of 2015.

The City appreciates this opportunity to review the draft plan. If you have any questions regarding this letter, please feel free to call me.

Sincerely:
City of East Wenatchee

Lorraine C. Barnett
Community Development Director

Enclosure: 1



Local Government Consistency Review Checklist

Water System Name: East Wenatchee Water District PWS ID: 218005

Comprehensive Water

Planning/Engineering Document Title: System Plan Plan Date: June 2014

Local Government with Jurisdiction: City of East Wenatchee

WAC 246-290-108 Consistency with local plans and regulations:

Consistency with local plans and regulations applies to planning and engineering documents under WAC 246-290-106, 246-290-107, and 246-290-110(4)(b) (ii).

1) Municipal water suppliers must include a consistency review and supporting documentation in its planning or engineering document describing how it has addressed consistency with **local plans and regulations**. This review must include specific elements of local plans and regulations, as they reasonably relate to water service as determined by Department of Health (DOH). Complete the table below and see instructions on back.

| Local Government Consistency Statement | Page(s) in Planning Document | Yes – No – Not Applicable |
|--|---------------------------------------|---------------------------|
| a) The water system service area is consistent with the adopted <u>land use and zoning</u> within the applicable service area. | 2-1 to 2-3 Fig 1.4, 1.6 | yes |
| b) The <u>six-year growth projection</u> used to forecast water demand is consistent with the adopted city/county's population growth projections. If a different growth projection is used, provide an explanation of the alternative growth projection and methodology. | 2-12 to 2-13 | yes |
| c) Applies to <u>cities and towns that provide water service</u> : All water service area policies of the city or town are consistent with the <u>utility service extension ordinances</u> of the city or town. | n/a, not a city or town owned utility | n/a |
| d) <u>Service area policies</u> for new service connections are consistent with the adopted local plans and adopted development regulations of all jurisdictions with authority over the service area [City(ies), County(ies)]. | 1-20 to 1-23 Appendix H | yes |
| e) <u>Other relevant elements</u> related to water supply are addressed in the water system plan, if applicable; Coordinated Water System plans, Regional Wastewater plans, Reclaimed Water plans, Groundwater Area Management plans, and Capital Facilities Element of Comprehensive plans. | 1-10 to 1-16 5-1 to 5-4 | yes |

I certify that the above statements are true to the best of my knowledge and that these specific elements are consistent with adopted local plans and development regulations.

Lorraine C Barnett
Signature

9-30-2014
Date

Lorraine C Barnett, Community Development Director, City of East Wenatchee
Printed Name, Title, & Jurisdiction



Local Government Consistency Review Checklist

Water System Name: East Wenatchee Water District PWS ID: 218005

Comprehensive Water
 Planning/Engineering Document Title: System Plan Plan Date: June 2014

Local Government with Jurisdiction: City of Wenatchee

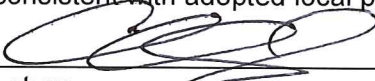
WAC 246-290-108 Consistency with local plans and regulations:

Consistency with local plans and regulations applies to planning and engineering documents under WAC 246-290-106, 246-290-107, and 246-290-110(4)(b (ii)).

1) Municipal water suppliers must include a consistency review and supporting documentation in its planning or engineering document describing how it has addressed consistency with **local plans and regulations**. This review must include specific elements of local plans and regulations, as they reasonably relate to water service as determined by Department of Health (DOH). Complete the table below and see instructions on back.

| Local Government Consistency Statement | Page(s) in Planning Document | Yes - No - Not Applicable |
|--|---------------------------------------|---------------------------|
| a) The water system service area is consistent with the adopted <u>land use and zoning</u> within the applicable service area. | 2-1 to 2-3 Fig 1.4, 1.6 | NA |
| b) The <u>six-year growth projection</u> used to forecast water demand is consistent with the adopted city/county's population growth projections. If a different growth projection is used, provide an explanation of the alternative growth projection and methodology. | 2-12 to 2-13 | Yes. |
| c) Applies to <u>cities and towns that provide water service</u> : All water service area policies of the city or town are consistent with the <u>utility service extension ordinances</u> of the city or town. | n/a, not a city or town owned utility | NA |
| d) <u>Service area policies</u> for new service connections are consistent with the adopted local plans and adopted development regulations of all jurisdictions with authority over the service area [City(ies), County(ies)]. | 1-20 to 1-23 Appendix H | NA |
| e) <u>Other relevant elements</u> related to water supply are addressed in the water system plan, if applicable; Coordinated Water System plans, Regional Wastewater plans, Reclaimed Water plans, Groundwater Area Management plans, and Capital Facilities Element of Comprehensive plans. | 1-10 to 1-16 5-1 to 5-4 | Yes |

I certify that the above statements are true to the best of my knowledge and that these specific elements are consistent with adopted local plans and development regulations.


 Signature _____ Date 7/8/14
Chuck Mayhew, City of Wenatchee
 Printed Name, Title, & Jurisdiction _____



Local Government Consistency Review Checklist

Water System Name: East Wenatchee Water District PWS ID: 218005

Comprehensive Water
Planning/Engineering Document Title: System Plan Plan Date: June 2014

Local Government with Jurisdiction: Chelan County PUD No. 1

WAC 246-290-108 Consistency with local plans and regulations:

Consistency with local plans and regulations applies to planning and engineering documents under WAC 246-290-106, 246-290-107, and 246-290-110(4)(b) (ii).

1) Municipal water suppliers must include a consistency review and supporting documentation in its planning or engineering document describing how it has addressed consistency with local plans and regulations. This review must include specific elements of local plans and regulations, as they reasonably relate to water service as determined by Department of Health (DOH). Complete the table below and see instructions on back.

| Local Government Consistency Statement | Page(s) in Planning Document | Yes - No - Not Applicable |
|--|---------------------------------------|----------------------------------|
| a) The water system service area is consistent with the adopted <u>land use and zoning</u> within the applicable service area. | 2-1 to 2-3 Fig 1.4, 1.6 | |
| b) The <u>six-year growth projection</u> used to forecast water demand is consistent with the adopted city/county's population growth projections. If a different growth projection is used, provide an explanation of the alternative growth projection and methodology. | 2-12 to 2-13 | |
| c) Applies to <u>cities and towns that provide water service</u> ; All water service area policies of the city or town are consistent with the <u>utility service extension ordinances</u> of the city or town. | n/a, not a city or town owned utility | |
| d) <u>Service area policies</u> for new service connections are consistent with the adopted local plans and adopted development regulations of all jurisdictions with authority over the service area [City(ies), County(ies)]. | 1-20 to 1-23 Appendix H | |
| e) <u>Other relevant elements</u> related to water supply are addressed in the water system plan, if applicable; Coordinated Water System plans, Regional Wastewater plans, Reclaimed Water plans, Groundwater Area Management plans, and Capital Facilities Element of Comprehensive plans. | 1-10 to 1-16 5-1 to 5-4 | YES SEE NOTE 1 ATTACHED |

I certify that the above statements are true to the best of my knowledge and that these specific elements are consistent with adopted local plans and development regulations.

Ron Slabaugh
Signature

8/13/14
Date

RON SLABAUGH, WWWW MANAGER, CHELAN CO. PUD
Printed Name, Title, & Jurisdiction

Local Government Consistency Review Checklist

East Wenatchee Water District June 2014 Comprehensive Water System Plan

Review by PUD No. 1 of Chelan County, August 2014

Note 1: The East Wenatchee Water District (EWWD), as a member of the Regional Water System, is subject to the terms and conditions of the Regional Water Contract and that any future extension of service outside the future service area designated in the Contract is subject to and may be restricted by the terms of the Contract.



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

15 W Yakima Ave, Ste 200 • Yakima, WA 98902-3452 • (509) 575-2490

December 1, 2014

Greg Brizendine
East Wenatchee Water District
692 Eastmont Avenue
East Wenatchee WA 98802-7608

Bryan Sayers
Department of Health
16201 East Indiana Avenue, Suite 1500
Spokane Valley WA 99216-2836

Subject: East Wenatchee Water District, Second Draft Comprehensive Water System Plan

Thank you for sending the revision sheets for the second draft Comprehensive Water System Plan (WSP) for East Wenatchee Water District. I found nothing in the second draft that affected the water rights for the district and have no further comments.

Comments made on the first draft review still apply. However, no response was requested or is expected. The East Wenatchee Water District is part of a regional water system which holds the district's water rights in common between the City of Wenatchee, the Chelan PUD and the district. There does appear to be adequate water rights for the East Wenatchee Water District.

Please contact me if you have any questions at (509) 457-7112.

Sincerely,

David Holland
Environmental Planner
Department of Ecology
Central Regional Office

DH:HD
141201





STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

15 W Yakima Ave, Ste 200 • Yakima, WA 98902-3452 • (509) 575-2490

August 5, 2014

Greg Brizendine
East Wenatchee Water District
692 Eastmont Avenue
East Wenatchee WA 98802-7608

Bryan Sayers
Department of Health
16201 East Indiana Avenue, Suite 1500
Spokane Valley WA 99216-2836

Subject: East Wenatchee Water District Water System Plan (June 2014) Review

Thank you for the opportunity to review the draft Water System Plan (WSP) for East Wenatchee Water District. Based on my review:

- The WSP is “not inconsistent” with the WRIA 44/50 Watershed Management Plan adopted under 90.82 RCW.
- The WSP does not provide a self-assessment of its water rights in the body of the plan. The East Wenatchee Water District is part of a regional water system which holds the district’s water rights in common between the City of Wenatchee and the Chelan Public Utility District (PUD) and the district. Appendix E does provide a copy of the City of Wenatchee’s assessment of the water rights for the regional water facilities. The water rights listed in the City of Wenatchee assessment does include East Wenatchee Water District water rights and the assessment does accurately reflect the water rights listed in the Department of Ecology’s data base.

There does appear to be adequate water for the East Wenatchee Water District. However, without more information concerning the regional agreement, regional water use as it relates to the individual certificates and the requirements to provide water for all members of the regional system, a clear determination of compliance would be difficult to ascertain.

Please contact me if you have any questions at (509) 457-7112.

Sincerely,

David Holland, Environmental Planner
Department of Ecology, Central Regional Office

DH:HD
140713



Appendix C

Water Facilities Inventory (WFI)



WATER FACILITIES INVENTORY (WFI) FORM

Quarter: 1
Updated: 01/03/2013
Printed: 10/07/2013
WFI Printed For: Annual
Submission Reason: Pop/Connect Update

ONE FORM PER SYSTEM

RETURN TO: Eastern Regional Office, 16201 E Indiana, Suite 1500, Spokane Valley, WA, 99216

| | | | | |
|------------------------------------|--|-----------------------------|----------------------|------------------------|
| 1. SYSTEM ID NO. 21800 5 | 2. SYSTEM NAME EAST WENATCHEE WATER DISTRICT | 3. COUNTY DOUGLAS | 4. GROUP A | 5. TYPE Comm |
|------------------------------------|--|-----------------------------|----------------------|------------------------|

| | | |
|---|--|-------------------------------|
| 6. PRIMARY CONTACT NAME & MAILING ADDRESS GREG BRIZENDINE [MANAGER] 692 EASTMONT AVE EAST WENATCHEE, WA 98802 | 7. OWNER NAME & MAILING ADDRESS EAST WENATCHEE WATER DISTRICT GREG BRIZENDINE 692 EASTMONT AVE EAST WENATCHEE, WA 98802 TITLE: MANAGER | 8. Owner Number 001653 |
| STREET ADDRESS IF DIFFERENT FROM ABOVE ATTN ADDRESS CITY STATE ZIP | STREET ADDRESS IF DIFFERENT FROM ABOVE ATTN ADDRESS CITY STATE ZIP | |

| | |
|---|--------------------------------------|
| 9. 24 HOUR PRIMARY CONTACT INFORMATION | 10. OWNER CONTACT INFORMATION |
| Primary Contact Daytime Phone: (509) 884-3569 | Owner Daytime Phone: (509) 884-3569 |
| Primary Contact Mobile/Cell Phone: | Owner Mobile/Cell Phone: |
| Primary Contact Evening Phone: (509) 884-3569 | Owner Evening Phone: (509) 884-3569 |
| Fax: E-mail: briz@ewwd.org | Fax: E-mail: briz@ewwd.org |

WAC 246-290-420(9) requires that water systems provide 24-hour contact information for emergencies.

11. SATELLITE MANAGEMENT AGENCY - SMA (check only one)

Not applicable (Skip to #12)
 Owned and Managed SMA NAME: _____ SMA Number: _____
 Managed Only
 Owned Only

12. WATER SYSTEM CHARACTERISTICS (mark ALL that apply)

| | | |
|--|---|---|
| <input checked="" type="checkbox"/> Agricultural | <input checked="" type="checkbox"/> Hospital/Clinic | <input checked="" type="checkbox"/> Residential |
| <input checked="" type="checkbox"/> Commercial / Business | <input checked="" type="checkbox"/> Industrial | <input checked="" type="checkbox"/> School |
| <input checked="" type="checkbox"/> Day Care | <input checked="" type="checkbox"/> Licensed Residential Facility | <input checked="" type="checkbox"/> Temporary Farm Worker |
| <input checked="" type="checkbox"/> Food Service/Food Permit | <input checked="" type="checkbox"/> Lodging | <input checked="" type="checkbox"/> Other (church, fire station, etc.): _____ |
| <input checked="" type="checkbox"/> 1,000 or more person event for 2 or more days per year | <input checked="" type="checkbox"/> Recreational / RV Park | |

| | |
|--|---------------------------------------|
| 13. WATER SYSTEM OWNERSHIP (mark only one) | 14. STORAGE CAPACITY (gallons) |
| <input type="checkbox"/> Association <input type="checkbox"/> City / Town <input type="checkbox"/> County <input type="checkbox"/> Federal <input type="checkbox"/> Investor <input type="checkbox"/> Private <input checked="" type="checkbox"/> Special District <input type="checkbox"/> State | 7,900,000 |

--- SEE NEXT PAGE FOR A COMPLETE LIST OF SOURCES ---

WATER FACILITIES INVENTORY (WFI) FORM - Continued

| 1. SYSTEM ID NO. | 2. SYSTEM NAME | 3. COUNTY | | | | | | | | | | 4. GROUP | 5. TYPE | | | | | | | | | | | | | | | | |
|------------------|--|---------------------------|-----------------|------------|----------------------|--------|--------------|-----------------------|-----------|---------------|-----------------------|----------|-----------|----------|-----------|----------------|------|--------------|------------|-----------------|------------------|-------|--------------------------------------|-------------------------------|------------------|----------------|----------|-------|-----|
| 21800 5 | EAST WENATCHEE WATER DISTRICT | DOUGLAS | | | | | | | | | | A | Comm | | | | | | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | | | | | | | | | | 19 | 20 | 21 | | | 22 | 23 | 24 | | | | | | | | | |
| | SOURCE NAME | INTERTIE | SOURCE CATEGORY | | | | | | | | | | USE | | TREATMENT | | | DEPTH | | SOURCE LOCATION | | | | | | | | | |
| Source Number | LIST UTILITY'S NAME FOR SOURCE AND WELL TAG ID NUMBER. Example: WELL #1 XYZ456 IF SOURCE IS PURCHASED OR INTERTIED, LIST SELLER'S NAME Example: SEATTLE | INTERTIE SYSTEM ID NUMBER | WELL | WELL FIELD | WELL IN A WELL FIELD | SPRING | SPRING FIELD | SPRING IN SPRINGFIELD | SEA WATER | SURFACE WATER | RANNEY / INF. GALLERY | OTHER | PERMANENT | SEASONAL | EMERGENCY | SOURCE METERED | NONE | CHLORINATION | FILTRATION | FLUORIDATION | IRRADIATION (UV) | OTHER | DEPTH TO FIRST OPEN INTERVAL IN FEET | CAPACITY (GALLONS PER MINUTE) | 1/4, 1/4 SECTION | SECTION NUMBER | TOWNSHIP | RANGE | |
| S01 | InAct 12/04/2001 Well #2 A,B,C | | | | X | | | | | | | | X | | | Y | X | | | | | | 50 | 1100 | SE SE | 34 | 23N | 20E | |
| S03 | InAct 12/04/2001 Well #2C | | | X | | | | | | | | | X | | | Y | X | | | | | | 60 | 950 | SE SE | 34 | 23N | 20E | |
| S04 | InAct 12/04/2001 Well #6 | | X | | | | | | | | | | | | X | Y | X | | | | | | 50 | 350 | NE SE | 34 | 23N | 20E | |
| S05 | InAct 01/01/1970 EWWD Well#4 | | | | X | | | | | | | | | | X | Y | X | | | | | | | 625 | NW NW | 19 | 22N | 21E | |
| S06 | InAct 01/01/1970 EWWD Well #5 | | | | X | | | | | | | | | | X | Y | X | | | | | | | 850 | NW NW | 19 | 22N | 21E | |
| S07 | InAct 12/04/2001 Well #3 | | X | | | | | | | | | | | | X | Y | X | | | | | | 80 | 165 | SE NE | 22 | 23N | 20E | |
| S08 | InAct 11/02/1993 EWWD Well #7 | | X | | | | | | | | | | | | X | Y | X | | | | | | | 1100 | SE SE | 34 | 23N | 20E | |
| S09 | InAct 12/04/2001 WF/S01,S03 | | | X | | | | | | | | | X | | | Y | X | | | | | | 50 | 2050 | SE SE | 34 | 23N | 20E | |
| S10 | InAct 09/01/1995 EWWD WF/S05,S06 (we | | | X | | | | | | | | | | | X | Y | X | | | | | | | 1475 | NW NW | 19 | 22N | 21E | |
| S11 | Wen Regional / 943507 | 94350 7 | | | | | | | | | | | X | | | Y | X | | | | | | | 0 | | NW SE | 35 | 24N | 20E |

WATER FACILITIES INVENTORY (WFI) FORM - Continued

| | | | | | |
|---|---|----------------------|----------------------------|--|---------------------------|
| 1. SYSTEM ID NO. 21800 5 | 2. SYSTEM NAME EAST WENATCHEE WATER DISTRICT | 3. COUNTY DOUGLAS | 4. GROUP A | 5. TYPE Comm | |
| | | | ACTIVE SERVICE CONNECTIONS | DOH USE ONLY! CALCULATED ACTIVE CONNECTIONS | DOH USE ONLY! APPROVED |
| 25. SINGLE FAMILY RESIDENCES (How many of the following do you have?) | | | 0 | 10712 | Unspecified |
| A. Full Time Single Family Residences (Occupied 180 days or more per year) | | | 777 7778 | | |
| B. Part Time Single Family Residences (Occupied less than 180 days per year) | | | 0 | | |
| 26. MULTI-FAMILY RESIDENTIAL BUILDINGS (How many of the following do you have?) | | | | | |
| A. Apartment Buildings, condos, duplexes, barracks, dorms | | | 560 560 | | |
| B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year | | | 2995 | | |
| C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year | | | 0 | | |
| 27. NON-RESIDENTIAL CONNECTIONS (How many of the following do you have?) | | | | | |
| A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units) | | | 0 | 0 | |
| B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc. | | | 293 298 | 293 | |
| 28. TOTAL SERVICE CONNECTIONS | | | | 11005 | |

29. FULL-TIME RESIDENTIAL POPULATION

A. How many residents are served by this system 180 or more days per year? 26495

| 30. PART-TIME RESIDENTIAL POPULATION | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A. How many part-time residents are present each month? | | | | | | | | | | | | |
| B. How many days per month are they present? | | | | | | | | | | | | |

| 31. TEMPORARY & TRANSIENT USERS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A. How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month? | | | | | | | | | | | | |
| B. How many days per month is water accessible to the public? | | | | | | | | | | | | |

| 32. REGULAR NON-RESIDENTIAL USERS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A. If you have schools, daycares, or businesses connected to your water system, how many students daycare children and/or employees are present each month? | | | | | | | | | | | | |
| B. How many days per month are they present? | | | | | | | | | | | | |

| 33. ROUTINE COLIFORM SCHEDULE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|-------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |

35. Reason for Submitting WFI:

- Update - Change
 Update - No Change
 Inactivate
 Re-Activate
 Name Change
 New System
 Other _____

36. I certify that the information stated on this WFI form is correct to the best of my knowledge.

SIGNATURE: *Shawn Wilkinson* DATE: 11-11-13

PRINT NAME: Shawn Wilkinson TITLE: Water Quality

Appendix D

SEPA and DNS

WAC 197-11-970 Determination of nonsignificance (DNS).

DETERMINATION OF NONSIGNIFICANCE

Description of proposal: Adoption of the East Wenatchee Water District's 2014 Comprehensive Water System Plan

Proponent: East Wenatchee Water District

Location of proposal, including street address, if any: Service area of the East Wenatchee Water District including the City of East Wenatchee / Douglas County and the Greater East Wenatchee urban area.

Lead agency: East Wenatchee Water District

The lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030 (2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request.

- There is no comment period for this DNS.
- This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS.
- This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date below. Comments must be submitted by July 17, 2014.

Responsible official: Greg Brizendine

Position/title: Manager

Phone: 509-884-3569

Address: 692 Eastmont Avenue

Date: July 2, 2014

Signature



(OPTIONAL)

- You may appeal this determination to: East Wenatchee Water District, at 692 Eastmont Ave., no later than July 17, 2014, by written submission.

You should be prepared to make specific factual objections.

Contact Greg Brizendine to read or ask about the procedures for SEPA appeals.

- There is no agency appeal.

SEPA ENVIRONMENTAL CHECKLIST

UPDATED 2014

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants: [\[help\]](#)

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals: [\[help\]](#)

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. background

1. Name of proposed project, if applicable: East Wenatchee Water District Water System Plan
2. Name of applicant: East Wenatchee Water District
3. Address and phone number of applicant and contact person:
Greg Brizendine, Manager

692 Eastmont Ave.
East Wenatchee, WA 98802
509-884-3569

4. Date checklist prepared: July 2014
5. Agency requesting checklist: East Wenatchee Water District
6. Proposed timing or schedule (including phasing, if applicable): Plan adoption Summer 2014
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

The Comprehensive Plan systematically analyzes the water system and identifies improvements that are needed over the next 6 years. Other improvements are identified for the next 20 years. The plan also outlines maintenance activities related to the operation of a public water system.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Except for those projects that are categorically exempt, each project listed in the Comprehensive Water System Plan is subject to SEPA review and individual SEPA determinations.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

The proposal is not site specific; therefore, this question does not apply.

10. List any government approvals or permits that will be needed for your proposal, if known.

Approval by both the District Commissioners and the Washington State Department of Health (DOH) is required. The Washington State Department of Ecology needs to approve the plan with regards to water rights.

Review by Douglas County Planning and the City of East Wenatchee for consistency with current land use plans is required.

In addition, implementation of the various physical and programmatic changes included in the 2014 Comprehensive Water System Plan may require approvals from one or more of the following agencies:

Washington State Department of Health (Plan approvals)
Washington State Department of Transportation (Right of Way Franchises)
Chelan County PUD No. 1 and City of Wenatchee (Regional Water Agreements)
Douglas County (Building Permits and Right of Way Construction Permits)
City of East Wenatchee (Building Permits and Right of Way Construction Permits)

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The 2014 Comprehensive Water System Plan addresses water supply, transmission, and storage needs for the planning areas of the District. The major purpose of the plan is to identify transmission, storage and distribution systems necessary to serve the estimated population at 6 and 20 year growth projections. The plan addresses fire protection, storage, transmission and distribution, water quality, financing issues, and operation and maintenance.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The area covered by the 2014 Comprehensive Water System Plan covers the existing and future retail water service area for the District. The Retail Service Area is bounded roughly by the City of Rock Island on the southeast, the Columbia River on the South and West, Rocky Reach Dam on the North, and the Columbia Breaks, Fancher And Airport Plateaus on the East.

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other _____ ...

The service area topography generally slopes upward from the Columbia River at an average of 5 to 6 percent. Fancher Heights sits on a bluff above the majority of the District area. The District serves elevations ranging from 600 feet at the river to 1,680 feet in the Fancher Heights area.

- b. What is the steepest slope on the site (approximate percent slope)?

Within the planning area there are some areas with slopes of greater than 40 percent.

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Sandy loams, as found in most river valleys, are the primary type of soils found in the District. Some areas closer to the river contain a large quantity of cobbles mixed with the loams. There are some productive orchards interspersed in the Urban area, while most of the land outside the Urban area, primarily to the east, is commercially farmed.

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

Est Wenatchee has a limited number of geologically hazardous areas as identified by a geological survey (1976). The potential landslide hazards are located at the perimeter of the Urban Growth Boundary in the southeast corner of the study area.

- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Implementation of portions of the 2014 Comprehensive Water System Plan capital improvement projects may require minor importing of fill. Fill would be used for two primary purposes: structural fill or aesthetics. In certain areas, the native soils may not be adequate for foundations or loading. In such cases, a limited amount of structural backfill may be imported from local sources. Fill may also be required in some cases to construct berms or visual buffers around certain facilities. This fill would also be locally obtained. As part of the design for each project, approximate quantities of filling and grading would be estimated and discussed in separate environmental documents, if necessary.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

The majority of the projects included in the Comprehensive Plan would be constructed in road corridors. However, erosion could occur whenever soils are exposed to rainfall. All construction projects would be supervised by the District, County and/or the City to assure compliance with State erosion control requirements. Separate construction stormwater permits will be obtained from the Department of Ecology for all relevant projects.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Implementation of the plan would not change the amount of impervious surfaces in the area to any measurable degree.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Any construction would comply with the State, City's or County's drainage and erosion control requirements. Individual projects would generate specific environmental documents to address earth impacts.

2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Implementation of the plan should not result in any significant emissions or dust. Minor amounts of dust may be produced during construction of some of the proposed facilities.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None known.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

If necessary, watering exposed soils to control dust would occur. Individual projects would generate specific environmental documents to address air impacts, if any.

3. Water

a. Surface Water:

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

Yes. The Columbia River running north and south creates the District's western limit. There are a multitude of small ephemeral streams and creeks that run through the service area, which ultimately feed into the Columbia River on their way to the Pacific Ocean.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No improvements are currently proposed which will encroach on the water body boundary.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

No filling or dredging of water bodies or wetlands is anticipated.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No surface water withdrawals or diversions are planned.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

Some of the proposed improvements may occur within the limits of the 100-year floodplain. No change in floodplain capacity is expected.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No waste discharges are proposed in the Plan.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

The Regional Supply Facility, and therefore the Water District, is totally dependent on groundwater for its water supply. As demands of the Regional Supply Facility grow, additional groundwater sources would be developed as described in the Wenatchee Regional Water Comprehensive Plan.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No discharges are proposed in the plan.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

In some cases, implementation of the plan would create additional impervious surfaces that would create stormwater runoff. In those cases, the water would be retained and detained consistent with the County and/or City stormwater control requirements.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

No.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Minimum amounts of new impervious surfaces may be created. Any stormwater would be controlled consistent with City and/or County Code.

4. Plants

a. Check the types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- Orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

The specific types and amounts of vegetation that may be disturbed cannot be predicted. Since most projects would be within right-of-ways and under streets, minimum amounts of disturbance are expected.

c. List threatened and endangered species known to be on or near the site.

Ute ladies' tresses are known to be located within the District's service area.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Above ground structures or facilities would be landscaped to be compatible with the surrounding character and within planning department requirements.

e. List all noxious weeds and invasive species known to be on or near the site.

Douglas County Noxious Weed Board lists the following Class A and Class B noxious weeds for eradication in Douglas County:

Class A - Buffalobur/*Solanum rostratum*

Class B

Dalmatian toadflax/*Linaria dalmatica* ssp. *Dalmatica*

Houndstongue/*Cynoglossum officinale*

Knapweed, diffuse and spotted /*Centaurea diffusa*, *C. stoebe*

Loosestrife, purple/*Lythrum salicaria*

Puncturevine/*Tribulus terrestris*

Rush skeletonweed/*Chondrilla juncea*

Spurge, leafy/*Euphorbia esula*

Thistle, musk and plumbless /*Carduus nutans*, /*C. acanthoides*

Thistle, scotch/*Onopordum acanthium*
Yellow starthistle/*Centaurea solstitialis*

5. Animals

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site. Examples include:

birds: hawk, heron, eagle, songbirds, other: duck, Canadian goose, quail, dove
mammals: deer, bear, elk, beaver, other: raccoon, groundhog, coyote
fish: bass, salmon, trout, herring, shellfish, other:

- b. List any threatened and endangered species known to be on or near the site.

Spring run Chinook – Endangered
Steelhead – Endangered
Bull Trout – Threatened

- c. Is the site part of a migration route? If so, explain.

Yes. The entire state of Washington is within the Pacific flyway. The Columbia and Wenatchee Rivers are also a spawning route for salmon and steelhead trout.

- d. Proposed measures to preserve or enhance wildlife, if any:

No specific wildlife enhancement measures are proposed, since the plan should not have any measurable impact on wildlife.

- e. List any invasive animal species known to be on or near the site.

None.

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electricity is used by the District to operate the pumps that move the water around the water system.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

The Emergency Response Plan and the Conservation Plan are specifically designed to conserve water resources and reduce usage during an emergency.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

None expected.

- 1) Describe any known or possible contamination at the site from present or past uses.

No special emergency services would be required as a part of this plan.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

Within the District's service area there are some locations that have small diameter natural gas lines. Any work done in these locations are always coordinated with the controlling agency/company.

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Non known, of but each project will be reviewed prior to construction to identify any hazards in the project work area.

- 4) Describe special emergency services that might be required.

No special emergency services would be required as a part of this plan.

- 5) Proposed measures to reduce or control environmental health hazards, if any:

As part of the District's safety program and in compliance with OSHA regulations, elaborate procedures and controls are in place to prevent any exposure to potentially hazardous chemicals or environments.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Operation of water pumps creates noise, however pump houses generally constrain noise to the site.

3) Proposed measures to reduce or control noise impacts, if any:

Well pump houses and system pump stations are sited and constructed to reduce the impact of noise from affecting people or activities. Individual projects would generate specific environmental documents to address noise impacts, if any.

8. Land and shoreline use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The predominant land use in the District is residential. Commercial and industrial uses are also present. A significant portion of the District service area is agricultural or vacant land.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Historically, farming has been a large part of the economic base of the Columbia Basin. Our service area has seen a slow and logical conversion of orchards to residential use. This only occurs when it has been approved by the City of East Wenatchee and Douglas County Planning agencies. We have also seen some dry land ag areas converted to several hundred acres of new orchard.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No

c. Describe any structures on the site.

Not applicable

d. Will any structures be demolished? If so, what?

No

e. What is the current zoning classification of the site?

A variety of zones exist throughout the District.

f. What is the current comprehensive plan designation of the site?

Please refer to the Douglas County and City of East Wenatchee Land Use plans.

g. If applicable, what is the current shoreline master program designation of the site?

No specific sites under shoreline jurisdiction are yet identified.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Portions of the District have been classified as environmentally sensitive steep slopes, stream corridors, or wetlands. A good summary map of these areas may be found in the Douglas County Sensitive Areas Map Folio.

i. Approximately how many people would reside or work in the completed project?

Not Applicable.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

None proposed.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Not Applicable.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

Not Applicable.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

None required.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The plan does include proposed reservoirs which are the only type of facility that would be of any significant height. Typical reservoir height is approximately 30 feet. Reservoirs would be either concrete or painted steel. Pump stations are typically CMU block with metal roofing.

- b. What views in the immediate vicinity would be altered or obstructed?

Until specific designs are prepared, effects on views cannot be determined. Subsequent environmental documents would address aesthetic impacts, if any.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

In the past, the District has worked with neighboring property owners to minimize visual affects.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Reservoir or pump station facilities will include night site security lighting.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

- c. What existing off-site sources of light or glare may affect your proposal?

None.

- d. Proposed measures to reduce or control light and glare impacts, if any:

Any exterior facility lighting may include screening to minimize impact to adjoining properties.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Walking, hiking, biking, kayaking, water sports, golf.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

No

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

None known.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

Not Applicable.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Not really applicable to this plan, but any future projects would involve consultation with Washington State Department of Archeology and Historic Preservation and generate specific environmental documents (such as a Cultural Resource Survey) to identify any potential impacts to cultural and historic resources.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

None

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

State Routes 28 and 97 are the primary highways through the District. Other principal streets are depicted in the District service area figure.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

Yes. Numerous LINK bus routes serve the District service area.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

Not Applicable.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

No

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

None

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

During harvest seasons that coincide with construction work there may be some interferences.

- h. Proposed measures to reduce or control transportation impacts, if any:

Any interference, if any, will be coordinated with local agencies and crop producers.

15. Public services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No

- b. Proposed measures to reduce or control direct impacts on public services, if any.

None proposed.

16. Utilities

- a. Circle utilities currently available at the site:

electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system,
other: storm water, cable tv, fibre cable.

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Not applicable, but any future project will identify affected utilities within the project.

C. Signature

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____

Greg Brizendine

Name of signee _____

Greg Brizendine

Position and Agency/Organization _____

Manager East Wenatchee Water

Date Submitted: _____

7/3/14

D. supplemental sheet for nonproject actions

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

The proposal is a Comprehensive Plan designed to provide reliable and safe water to the East Wenatchee Water District service area. Therefore, it would not directly result in any discharge to water, or in the production, storage, or release of toxic or hazardous substances or noise.

Proposed measures to avoid or reduce such increases are:

Does not apply.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

The plan does not affect plants, animals, fish or marine life.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

Does not apply.

3. How would the proposal be likely to deplete energy or natural resources?

The intent of the proposal is to provide better energy and natural resources use by rationally projecting the District's needs and how those need will be met.

Proposed measures to protect or conserve energy and natural resources are:

See above.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

The Plan specifically considers environmentally sensitive areas to mitigate any impact. The Plan identifies these areas and species and is taken into account in the development of the water system.

Proposed measures to protect such resources or to avoid or reduce impacts are:

The Plan considers land use and zoning restrictions as part of the planning process to evaluate impacts on the environmentally sensitive areas.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

The Plan does not affect the shoreline.

Proposed measures to avoid or reduce shoreline and land use impacts are:

Does not apply.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

The Plan does not affect public transportation and is a Plan for the growth of the water utility.

Proposed measures to reduce or respond to such demand(s) are:

Does not apply.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The Plan is in accordance with all local, state, and Federal laws.

Appendix E

Water Rights



From 2012 City of Wenatchee Comprehensive Water System Plan - Volume 2 Regional Facilities

Water System Plan Submittal Form

This form must be completed and submitted along with the Water System Plan (WSP). It will expedite review and approval of your WSP. All water systems should contact their regional planner before developing any planning document for submittal.

| | | |
|--|----------------------|--------------------------------|
| <u>City of Wenatchee (Regional Water)</u> | <u>ID#943507</u> | <u>City of Wenatchee</u> |
| 1. Water System Name | PWS ID# or Owner ID# | System Owner Name |
| <u>Terry O'Keefe</u> | <u>509-888-3230</u> | <u>Distribution Supervisor</u> |
| Contact Name for Utility | Phone Number | Title |
| <u>PO Box 519</u> | <u>Wenatchee</u> | <u>WA 98807</u> |
| Contact Address | City | State Zip |
| <u>Chuck Mayhew</u> | <u>509-888-3206</u> | <u>Utilities Manager</u> |
| 2. Project Engineer | Phone Number | Title |
| <u>1350 McKittrick Street</u> | <u>Wenatchee</u> | <u>WA 98801</u> |
| Project Engineer Address | City | State Zip |
| <u>Jessica Shaw</u> | <u>509-888-3225</u> | |
| 3. Billing Contact Name (required if not the same as #4) | Billing Phone Number | Billing Fax Number |
| <u>1350 McKittrick Street</u> | <u>Wenatchee</u> | <u>WA 98801</u> |
| Billing Address | City | State Zip |

4. How many services are presently connected to the system? **SEE NOTES ON NEXT PAGE**
5. Is the system expanding? (seeking to extend service area or increase number of approved connections) Yes No
6. If number of services is expected to increase, how many new connections are proposed in the next six years? _____
7. If the system is private-for-profit, is it regulated by the State Utilities and Transportation Commission? Yes No
8. Is the system located in a Critical Water Supply Service Area (i.e., have a Coordinated Water System Plan)? Yes No
9. Is the system a customer of a wholesale water purveyor? Yes No
10. Will the system be pursuing additional water rights from the State Department of Ecology in the next twenty years? Yes No
11. Is the system proposing a new intertie? Yes No
12. Do you have projects currently under review by the Department of Health? Yes No
13. Are you requesting distribution main project report and construction document submittal exception, and if so, does the WSP contain standard construction specifications for distribution mains? Yes No
14. Are you requesting distribution related project report and construction document submittal exception, and if so, does the WSP contain distribution facilities design and construction standards, including internal engineering review procedures? Yes No
15. The purveyor is responsible for sending a copy of the WSP to adjacent utilities for review or a letter notifying them that a copy of the WSP is available for their review and where the review copy is located. Has this been completed? Yes No
16. The purveyor is responsible for sending a copy of the WSP to all local governments within the service area. (County and City Planning Departments, etc). Has this been completed? Yes No
17. Are you proposing a change in the place of use of your water right? Yes No

If answer to questions 7,8, 11, 15and/or 16 is "yes," list who you sent the WSP to: _____

Is this plan: an Initial Submittal a Revised Submittal

Please enclose the following number of copies of the WSP:

3 copies for Northwest and Southwest Regional Offices OR 2 copies for Eastern Regional Office (We will send one copy to Ecology)
 1 additional copy if you answered "yes" to question 7. 2 Total copies attached

Please return completed form to the Office of Drinking Water regional office checked below.

- | | | |
|---|--|---|
| <input type="checkbox"/> Northwest Drinking Water Operations Department of Health 20425 72 nd Avenue South, Suite 310 Kent, WA 98032-2358 (253) 395-6750 | <input type="checkbox"/> Southwest Drinking Water Operations Department of Health PO Box 47823 Olympia, WA 98504-7823 (360) 236-3030 | <input checked="" type="checkbox"/> Eastern Drinking Water Operations Department of Health 16201 East Indiana Avenue Suite 1500 Spokane Valley, WA 99216 (509) 329-2100 |
|---|--|---|

If you need this publication in an alternate format, call (800) 525-0127. For TTY/TDD, call (800) 833-6388.

Department of Health – Michael Wilson:

Questions 4-17 were not answered since they are not relevant to this request and no information has changed since our approved Water System Plan update dated May 22, 2012.

Per our email, the City of Wenatchee is submitting a revised "Water Rights Self-Assessment" form to reflect the recent water rights purchase which are now held in common between the City of Wenatchee, The Chelan PUD and East Wenatchee Water District.

I have attached:

1. Our email chain
2. The updated tables to forward on to Ecology
3. A copy of the Report of Examination
4. Ecology's Change Application letter

This should speed things along since Ecology was involved in the transaction and this won't be news to them.

Please call if there are any questions.

Chuck Mayhew
509-888-3206

**Table 5-5
City of Wenatchee Regional Water Facilities
Current Water Right(s) Status**

| Permit Certificate or Claim # | Name of Rightholder or Claimant | Priority Date | Source Number | Primary or Supplemental | Existing Water Rights | | Current Consumption (see note 5) | | Current Water Right Status Excess/(Deficiency) | |
|----------------------------------|---------------------------------|---------------|---------------|-------------------------|---------------------------------------|----------------------------|---------------------------------------|----------------------------|--|----------------------------|
| | | | | | Maximum Instantaneous Flow Rate (Qi) | Maximum Annual Volume (Qa) | Maximum Instantaneous Flow Rate (Qi) | Maximum Annual Volume (Qa) | Maximum Instantaneous Flow Rate (Qi) | Maximum Annual Volume (Qa) |
| 1 Claim 4969 | City of Wenatchee | 1907 | surface | Primary (4) | 8,000 | 6,000 | | | | |
| 2 S3-00938C | City of Wenatchee | 8/13/1971 | See Note 1 | Primary | 7,965 | 7,393 | | | | |
| 3 485-D | Chelan PUD | 8/1/1921 | See Note 1 | Primary | 150 | 146 | | | | |
| 4 8475C | Chelan PUD | 4/2/1962 | See Note 1 | Primary | 14 | 22 | | | | |
| 5 G3-01133C | Chelan PUD | 8/22/1961 | See Note 1 | Primary | 2,000 | 1,400 | | | | |
| 6 G3-20366C | Chelan PUD | 10/10/1972 | See Note 1 | Primary | 400 | 480 | | | | |
| 7 1529C | East Wen. Water District | 1/7/1953 | See Note 1 | Primary | 300 | 485 | | | | |
| 8 2015C | East Wen. Water District | 5/17/1949 | See Note 1 | Primary | 500 | 237 | | | | |
| 9 4899C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 200 | 320 | | | | |
| 10 4900C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 650 | 1,040 | | | | |
| 11 4901C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 820 | 1,312 | | | | |
| 12 4902C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 265 | 424 | | | | |
| 13 G3-00918C | East Wen. Water District | 5/27/1971 | See Note 1 | Primary | 1,500 | 1,200 | | | | |
| 14 G4-24310C | East Wen. Water District | 6/156/76 | See Note 1 | Primary | 900 | 800 | | | | |
| 15 G4-27802P | East Wen. Water District | 1/7/1982 | See Note 1 | Primary | 2,100 | 620 | | | | |
| 16 G4-25575P | See Note 2 | 11/5/1977 | See Note 3 | Supplemental | 30,000 | 13,277 | 15,999 gpm | 11,281 af | | |
| 17 CS4-022119CL | See Note 2 | 3/31/1886 | See Note 6 | Primary | 16,001 | 6,186 | | | | |
| TOTAL | ***** | ***** | ***** | ***** | 45,001 gpm | 22,065 af | 15,999 gpm | 11,281 af | 30,002 gpm | 10,784 af |
| Intertie Name/Identifier | | | | | Existing Limits on Intertie Water Use | | Existing Consumption Through Intertie | | Current Intertie Supply Status | |
| 1 None | ***** | ***** | ***** | ***** | 0 gpm | 0.0 af | 0 gpm | 0.0 af | 0 gpm | 0.0 af |
| TOTAL | ***** | ***** | ***** | ***** | 0 gpm | 0.0 af | 0 gpm | 0.0 af | 0 gpm | 0.0 af |
| Pending Water Right Applications | | | | | Name on Permit | | Date Submitted | | Primary or Supplemental | |
| 1 None | | | | | | | | | | |

See Notes description on following page

Table 5-5
City of Wenatchee Regional Water Facilities
Existing Water Right(s) Status

Notes:

- 1 Permit G4-25575 is an alternate source for each of these water rights up to the maximum authority in the permit of 13,277 acre-feet. Any volume in excess of the 13,277 acre-feet associated with the Regional's water rights must be withdrawn from other locations.
- 2 Issued in the names of the City of Wenatchee, Chelan PUD and East Wenatchee Water District
- 3 East Bank Wellfield
- 4 Claim registered by City on July 14, 1971. The water use represented by vested claims within Regional's service area have not been included in the totals in Table 5-5. For purposes of this and previous Water System Plans, the issue of whether vested claims exceed the authority set forth herein is hereby expressly reserved by Regional.
- 5 The Maximum Qa Volume listed in the "Existing Consumption" column is based on historical meter records for the Regional Wellfield and Standby Wells for the year 2009. The Qi is based on pumping records from the Eastbank Aquifer (pumps 2 & 4) for July 27, 2006.
- 6 Currently placed in trust through August of 2022 (with ability to withdraw from trust sooner upon 60 days notice). Upon development of additional sources, the non-consumptive component of this right will be available as the systems becomes more efficient (consumptive use of 60% in 2012 is set forth in the change application decisions for this water right).

**Table 5-6
City of Wenatchee Regional Water Facilities
6-Year Forecasted Water Right(s) Status**

| Permit Certificate or Claim # | Name of Rightholder or Claimant | Priority Date | Source Number | Primary or Supplemental | Existing Water Rights | | Forecasted Water Use From Sources (6 Year Demand) | | Forecasted Water Right Status Excess/(Deficiency) 6 Yr Demand in Water Right (see note 7) | |
|----------------------------------|---------------------------------|---------------|---------------|-------------------------|---------------------------------------|----------------------------|---|----------------------------|---|----------------------------|
| | | | | | Maximum Instantaneous Flow Rate (Qi) | Maximum Annual Volume (Qa) | Maximum Instantaneous Flow Rate (Qi) | Maximum Annual Volume (Qa) | Maximum Instantaneous Flow Rate (Qi) | Maximum Annual Volume (Qa) |
| 1 Claim 4969 | City of Wenatchee | 1907 | surface | Primary (4) | 8,000 | 6,000 | | | | |
| 2 S3-00938C | City of Wenatchee | 8/13/1971 | See Note 1 | Primary | 7,965 | 7,393 | | | | |
| 3 485-D | Chelan PUD | 8/1/1921 | See Note 1 | Primary | 150 | 146 | | | | |
| 4 8475C | Chelan PUD | 4/2/1962 | See Note 1 | Primary | 14 | 22 | | | | |
| 5 G3-01133C | Chelan PUD | 8/22/1961 | See Note 1 | Primary | 2,000 | 1,400 | | | | |
| 6 G3-20369C | Chelan PUD | 10/10/1972 | See Note 1 | Primary | 400 | 480 | | | | |
| 7 1529C | East Wen. Water District | 1/7/1953 | See Note 1 | Primary | 300 | 485 | | | | |
| 8 2015C | East Wen. Water District | 5/17/1949 | See Note 1 | Primary | 500 | 237 | | | | |
| 9 4899C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 200 | 320 | | | | |
| 10 4900C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 650 | 1,040 | | | | |
| 11 4901C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 820 | 1,312 | | | | |
| 12 4902C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 265 | 424 | | | | |
| 13 G3-00918C | East Wen. Water District | 5/27/1971 | See Note 1 | Primary | 1,500 | 1,200 | | | | |
| 14 G4-24310C | East Wen. Water District | 6/156/76 | See Note 1 | Primary | 900 | 800 | | | | |
| 15 G4-27802P | East Wen. Water District | 1/7/1982 | See Note 1 | Primary | 2,100 | 620 | | | | |
| 16 G4-25575P | See Note 2 | 11/5/1977 | See Note 3 | Supplemental | 30,000 | 13,277 | 15,999 gpm | 12,937 af | 14,001 gpm | 340 af |
| 17 CS4-022119CL | See Note 2 | 3/31/1886 | See Note 5 | Primary | 16,001 | 6,186 | 15,999 gpm | 12,937 af | 30,002 gpm | 9,128 af |
| TOTAL | | | | ***** | 46,001 gpm | 22,065 af | | | | |
| Intertie Name/Identifier | | | | | Existing Limits on Intertie Water Use | | Existing Consumption Through Intertie | | Current Intertie Supply Status | |
| 1 None | | | | ***** | 0 gpm | 0 af | 0 gpm | 0 af | 0 gpm | 0 af |
| TOTAL | | | | ***** | 0 gpm | 0 af | 0 gpm | 0 af | 0 gpm | 0 af |
| Pending Water Right Applications | | | | | Name on Permit | | Date Submitted | | Primary or Supplemental | |
| 1 None | | | | | | | | | | |
| | | | | | Maximum Instantaneous Flow Rate (Qi) | | Maximum Annual Volume (Qa) | | | |

See Notes description on following page

Table 5-6
City of Wenatchee Regional Water Facilities
Forecasted Water Right(s) Status

Notes:

- 1 Permit G4-25575 is an alternate source for each of these water rights up to the maximum authority in the permit of 13,277 acre-feet. Any volume in excess of the 13,277 acre-feet associated with the Regional's water rights must be withdrawn from other locations.
- 2 Issued in the names of the City of Wenatchee, Chelan PUD and East Wenatchee Water District
- 3 East Bank Wellfield
- 4 Claim registered by City on July 14, 1971. The water use represented by vested claims within Regional's service area have not been included in the totals in Table 5-5. For purposes of this and previous Water System Plans, the issue of whether vested claims exceed the authority set forth herein is hereby expressly reserved by Regional.
- 5 Currently placed in trust through August of 2022 (with ability to withdraw from trust sooner upon 60 days notice). Upon development of additional sources, the non-consumptive component of this right will be available as the systems becomes more efficient (consumptive use of 60% in 2012 is set forth in the change application decisions for this water right).
- 6 The Maximum Qa Volume listed in the "Forecasted Water Use" column are based on projected water demand to meet the service area requirements for the three Parties from the Regional Wellfield and Standby Wells for the year 2016. The forecasted Qa for each water system is based on forecasted growth within each parties service area. The Qi is based on pumping records from the Eastbank Aquifer for July 27, 2006.
- 7 Permit G4-25575 authorizes the withdrawal of 30,000 gpm from Eastbank; however, only 13,277 acre-feet of water may be pumped from the Eastbank Aquifer on an annual basis. Any volume in excess of the 13,277 acre-feet associated with the Regional's water rights must be withdrawn from other locations.

**Table 5-7
City of Wenatchee Regional Water Facilities
20-Year Forecasted Water Right(s) Status**

| Permit Certificate or Claim # | Name of Rightholder or Claimant | Priority Date | Source Number | Primary or Supplemental | Existing Water Rights | | | Forecasted Water Use From Sources (see note 6) | | | Forecasted Water Right Status Excess/(Deficiency) 20 Yr Demand in Water Right (see note 7) | |
|----------------------------------|---------------------------------|---------------|---------------|-------------------------|---------------------------------------|----------------------------|--------------------------------------|--|--------------------------------------|----------------------------|--|----------------------------|
| | | | | | Maximum Instantaneous Flow Rate (Qi) | Maximum Annual Volume (Qa) | Maximum Instantaneous Flow Rate (Qi) | Maximum Annual Volume (Qa) | Maximum Instantaneous Flow Rate (Qi) | Maximum Annual Volume (Qa) | Maximum Instantaneous Flow Rate (Qi) | Maximum Annual Volume (Qa) |
| 1 Claim 4969 | City of Wenatchee | 1907 | surface | Primary (4) | 8,000 | 6,000 | | | | | | |
| 2 S3-00938C | City of Wenatchee | 8/13/1971 | See Note 1 | Primary | 7,965 | 7,393 | | | | | | |
| 3 485-D | Chelan PUD | 8/1/1921 | See Note 1 | Primary | 150 | 146 | | | | | | |
| 4 8475C | Chelan PUD | 4/2/1962 | See Note 1 | Primary | 14 | 22 | | | | | | |
| 5 G3-01133C | Chelan PUD | 8/22/1961 | See Note 1 | Primary | 2,000 | 1,400 | | | | | | |
| 6 G3-20369C | Chelan PUD | 10/10/1972 | See Note 1 | Primary | 400 | 480 | | | | | | |
| 7 1529C | East Wen. Water District | 1/7/1953 | See Note 1 | Primary | 300 | 485 | | | | | | |
| 8 2015C | East Wen. Water District | 5/17/1949 | See Note 1 | Primary | 500 | 237 | | | | | | |
| 9 4899C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 200 | 320 | | | | | | |
| 10 4900C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 650 | 1,040 | | | | | | |
| 11 4901C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 820 | 1,312 | | | | | | |
| 12 4902C | East Wen. Water District | 3/31/1964 | See Note 1 | Primary | 265 | 424 | | | | | | |
| 13 G3-00918C | East Wen. Water District | 5/27/1971 | See Note 1 | Primary | 1,500 | 1,200 | | | | | | |
| 14 G4-24310C | East Wen. Water District | 6/156/76 | See Note 1 | Primary | 900 | 800 | | | | | | |
| 15 G4-27802P | East Wen. Water District | 1/7/1982 | See Note 1 | Primary | 2,100 | 620 | | | | | | |
| 16 G4-25575P | See Note 2 | 11/5/1977 | See Note 3 | Supplemental | 30,000 | 13,277 | 15,999 gpm | 13,277 af | 14,001 gpm | 0 af | | |
| 17 CS4-022119CL | See Note 2 | 3/31/1886 | See Note 5 | Primary | 16,001 | 6,186 | 539 gpm | 1,890 af | 29,463 gpm | 6,898 af | | |
| TOTAL | | ***** | ***** | ***** | 46,001 gpm | 22,065 af | 16,538 gpm | 15,167 af | | | | |
| Intertie Name/Identifier | | | | | Existing Limits on Intertie Water Use | | | Existing Consumption Through Intertie | | | Current Intertie Supply Status | |
| 1 None | | ***** | ***** | ***** | 0 gpm | 0 af | 0 gpm | 0 af | 0 gpm | 0 af | | |
| TOTAL | | ***** | ***** | ***** | 0 gpm | 0 af | 0 gpm | 0 af | 0 gpm | 0 af | | |
| Pending Water Right Applications | | | | | Pending Water Rights | | | Maximum Annual Volume (Qa) | | | | |
| 1 None | | | | | | | | | | | | |

See Notes description on following page

Table 5-7
City of Wenatchee Regional Water Facilities
Forecasted Water Right(s) Status

Notes:

- 1 Permit G4-25575 is an alternate source for each of these water rights up to the maximum authority in the permit of 13,277 acre-feet. Any volume in excess of the 13,277 acre-feet associated with the Regional's water rights must be withdrawn from other locations.
- 2 Issued in the names of the City of Wenatchee, Chelan PUD and East Wenatchee Water District
- 3 East Bank Wellfield
- 4 Claim registered by City on July 14, 1971. The water use represented by vested claims within Regional's service area have not been included in the totals in Table 5-5. For purposes of this and previous Water System Plans, the issue of whether vested claims exceed the authority set forth herein is hereby expressly reserved by Regional.
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- 7 Permit G4-25575 authorizes the withdrawal of 30,000 gpm from Eastbank; however, only 13,277 acre-feet of water may be pumped from the Eastbank Aquifer on an annual basis. Any volume in excess of the 13,277 acre-feet associated with the Regional's water rights must be withdrawn from other locations.

Chuck Mayhew

From: Wilson, Michael / EH (DOH) <Michael.Wilson@DOH.WA.GOV>
Sent: Tuesday, February 11, 2014 2:23 PM
To: Chuck Mayhew
Cc: Cannon, Heather (DOH)
Subject: RE: Regional Water Rights Update

Chuck,

Heather brought me up to speed regarding your conversation with her and what you are proposing to do. You are correct regarding the form you need to include with your submittal. The form is available on our website at: <http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/PublicationsandForms/Forms.aspx#engineering>.

Michael D. Wilson, PE
Regional Engineer
Office of Drinking Water
Washington State Department of Health
16201 E. Indiana Avenue, Suite 1500
Spokane Valley, WA 99216
phone: (509) 329-2117 ~ fax: (509) 329-2104
michael.wilson@doh.wa.gov

Public Health - Always Working for a Safer and Healthier Washington

Visit our web site at www.doh.wa.gov/ehp/dw

[Click here to receive Water Tap, Washington's newsletter for the water industry.](#)

From: Chuck Mayhew [<mailto:CMayhew@WenatcheeWA.Gov>]
Sent: Tuesday, February 11, 2014 8:59 AM
To: Wilson, Michael / EH (DOH)
Subject: Regional Water Rights Update

Michael,

I talked with Heather this morning and understand she is leaving DOH today. I wanted to get you up to speed on our conversation.

In the Wenatchee Valley, the "Regional Water" system includes the City of Wenatchee, East Wenatchee Water District (EWWD) and the Chelan County PUD (PUD). The system is operated and managed by the City. You may recall the approval of our City Water Plan (Vol. I) and the Regional Water Plan (VOL. II) in 2012.

Since then, we have purchased additional water rights and Ecology was a player in that transaction. The EWWD is currently preparing to submit their updated water system plan. The PUD will be doing so next year. Both of them will reference the Regional Water Plan for their source of supply and water rights. I would like to amend the Regional Plan right now to include the additional water rights. Nothing else has changed as far as number of connections, etc. Simply an update to the tables in Chapter 5. We all thought that course of action would be the most efficient and clear way to cite all three plans to a central location for water rights. We thought it would also be less confusing for Health and Ecology this way too.



Chelan County
WATER CONSERVANCY BOARD
Application for Change/Transfer
 OF A RIGHT TO THE BENEFICIAL USE OF THE PUBLIC WATERS OF
 THE STATE OF WASHINGTON
Report of Examination

| | | | |
|---|--|--|--|
| <input checked="" type="checkbox"/> Surface Water | <input checked="" type="checkbox"/> Ground Water | | |
| DATE APPLICATION RECEIVED 4/18/2012 | WATER RIGHT DOCUMENT NUMBER Claim #022119 | WATER RIGHT PRIORITY DATE 3/31/1896 | BOARD-ASSIGNED CHANGE APPLICATION NUMBER CHEL 12-03 |

| | | | |
|--|---------------------|---------------|---------------------|
| NAME Pioneer Water Users Association | | | |
| ADDRESS (STREET) c/o Mark Peterson; 1227 First Street | (CITY) Wenatchee | (STATE) WA | (ZIP CODE) 98801 |

Changes Proposed: Change purpose Add purpose Add irrigated acres Change point of diversion/withdrawal
 Add point of diversion/withdrawal Change place of use Other (Temporary, Trust, Interties, etc.) Trust

SEPA
 The board has reviewed the provisions of the State Environmental Policy Act of 1971, Chapter 43.21C RCW and the SEPA rules, chapter 197-11 WAC and has determined the application is: Exempt Not exempt

BACKGROUND AND DECISION SUMMARY

Existing Right (Tentative Determination)

| | | | | | | | |
|--|---------------------------------|--------------------------------|--|----------------------------------|-------------------------------|------------|-------------------|
| MAXIMUM CUB FT/ SECOND 43.63cfs | MAXIMUM GAL/MINUTE 19,581.14 | MAXIMUM ACRE-FT/YR 7823.5af | TYPE OF USE, PERIOD OF USE 780 acres irrigation April 1 to October 15 & Continuous Domestic | | | | |
| SOURCE Wenatchee River | | | TRIBUTARY OF (IF SURFACE WATER) Columbia River | | | | |
| AT A POINT LOCATED: PARCEL NO. | ¼ NE | ¼ NW | SECTION 14 | TOWNSHIP N. 23N | RANGE 19E | WRIA 45 | COUNTY. Chelan |
| LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED Sections 12, 13, and 14 T23N, R19E; Sections 19 through 22, 28, 33 and 34, T23N, R20E; and Section 3, T22N, R20E all in Chelan County, WA. | | | | | | | |
| PARCEL NO. | ¼ | ¼ | SECTION 12,13,14 19-22,28,33, and 34 3 | TOWNSHIP N. 23N 23N 22N | RANGE R19E R20E R20E | | |

Proposed Use

| | | | | | | | |
|---|--|--|---|---|--|--|---|
| MAXIMUM CUB FT/ SECOND A) 7.7 cfs 0.276 cfs B)35.65 cfs C)38.27 cfs | MAXIMUM GAL/MINUTE 3,455.76 123.87 16,001.18 N/A | MAXIMUM ACRE-FT/YR A)1580.79 af 56 af B)6186.71 af C)7823.5 af | TYPE OF USE, PERIOD OF USE A) 385 acres irrigation April 1 to October 15 (Pioneer), and Municipal Water Supply from April 1 to October 15 (Pioneer) B) Continuous Municipal, Instream Flow (Temporary) (Regional) C) Instream flows (Permanent) Continuous (Ecology OCR) | | | | |
| SOURCE Columbia River Wenatchee River and Wells | | | TRIBUTARY OF (IF SURFACE WATER) Pacific Ocean | | | | |
| AT A POINT LOCATED: PARCEL NO. PODs: 222003861001 232028240500 Wells: 232033111100 232034857037 212205000050 Regional 4+5 Field Hydro pk Regional Supply Regional Northbank Rock Island Field Rock Island Field | ¼ NE SW SE NE NW NW NE NE SW | ¼ NW NE NW NE SW NW SE NE NE | SECTION 14 3 28 33 34 5 19 19 20 28 6 31 | TOWNSHIP N. 23N 22N 23N 23N 21N 22N 22N 23N 21N 22N | RANGE 19E 20E 20E 20E 22E 21E 21E 21E 20E 22E 22E | WRIA 45 45 45 45 45 44 44 44 45 45 45 | COUNTY. (AKA location) Chelan (existing) Chelan (5 th St.) Chelan (North End) Chelan (Hawley St.) Chelan (Walla Walla St.) Chelan (Rock Island Field) Douglas County Douglas County Douglas County Chelan County Chelan County Chelan County |
| LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED | | | | | | | |

- B) Sections 12, 13, and 14 T23N, R19E; Sections 19 through 22, 28, 33 and 34, T23N, R20E; and Section 3, T22N, R20E all in Chelan County, WA. RCW 90.03.386 may have the effect of expanding the place of use of this water right. If the criteria in RCW 90.03.386(2) are not met and a Water System Plan / Small Water System Management Program was approved after September 9, 2003, then the place of use of this water right reverts to the service area described in that document.
- C)
- D) The place of use is expected to conform to the Regional Water System service area set forth in Volume 2 of the 2012 City of Wenatchee Water System Plan RCW 90.03.386 may have the effect of expanding the place of use of this water right. If the criteria in RCW 90.03.386(2) are not met and a Water System Plan / Small Water System Management Program was approved after September 9, 2003, then the place of use of this water right reverts to the service area described in that document.
 (Temporary Trust) Primary Reach: Columbia River from RM 453.4 (Rock Island Dam) to RM 468.3 (confluence with Wenatchee River). Secondary Reach from Columbia River RM 453.4 to the Pacific Ocean.
- E) Instream flow in the Wenatchee River.

| PARCEL NO. | ¼ | ¼ | SECTION | TOWNSHIP N. | RANGE, |
|------------|---|---|---------|-------------|--------|
| | | | | | |

Board's Decision on the Application

| MAXIMUM CUB FT/ SECOND A) 7.7 cfs 0.276 cfs B) 35.65 cfs C) 38.27 cfs | MAXIMUM GAL/MINUTE 3,455.76 123.87 16,001.18 N/A | MAXIMUM ACRE-FT/YR A) 1580.79 af 56 af B) 6186.71 af C) 7823.5 af | TYPE OF USE, PERIOD OF USE A) 385 acres irrigation April 1 to October 15 (Pioneer), and Municipal Water Supply from April 1 to October 15 (Pioneer) B) Continuous Municipal, Instream Flow (Temporary) (Regional) C) Instream flows (Permanent) Continuous (Ecology OCR) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|--------|--------|---------|---------|---------|---------|--------|--------|--------|---------|-----|-----|-----|-------|--------------|------|------|------|------|-------|-------|-------|-------|-------|------|------|------|-------|----------------|--------|--------|--------|--------|--------|---------|---------|---------|---------|--------|--------|--------|---------|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|---------|
| ANNUAL CONSUMPTIVE QUANTITY (ACQ) A) Consumptive use under this portion of the right shall not exceed 1,312.23 acre-feet. B) Consumptive use under this portion of the right shall not exceed 1,769.63 acre-feet. C) Non-consumptive use (primary reach only). | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRUST WATER QUANTITY (Permanent, Primary (P) Reach in Wenatchee River for OCR. No Secondary (S) Reach.) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Jan</th> <th>Feb</th> <th>Mar</th> <th>Apr</th> <th>May</th> <th>Jun</th> <th>Jul</th> <th>Aug</th> <th>Sep</th> <th>Oct</th> <th>Nov</th> <th>Dec</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Qi (cfs)</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>12.22</td> <td>30.85</td> <td>38.27</td> <td>27.28</td> <td>18.74</td> <td>3.52</td> <td>0.00</td> <td>0.00</td> <td>38.27</td> </tr> <tr> <td>Qa (ac-ft)</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>0.00</td> <td>750.29</td> <td>1832.31</td> <td>2348.83</td> <td>1674.24</td> <td>1113.19</td> <td>104.64</td> <td>0.00</td> <td>0.00</td> <td>7823.50</td> </tr> </tbody> </table> | | | | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total | Qi (cfs) | 0.00 | 0.00 | 0.00 | 0.00 | 12.22 | 30.85 | 38.27 | 27.28 | 18.74 | 3.52 | 0.00 | 0.00 | 38.27 | Qa (ac-ft) | 0.00 | 0.00 | 0.00 | 0.00 | 750.29 | 1832.31 | 2348.83 | 1674.24 | 1113.19 | 104.64 | 0.00 | 0.00 | 7823.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Qi (cfs) | 0.00 | 0.00 | 0.00 | 0.00 | 12.22 | 30.85 | 38.27 | 27.28 | 18.74 | 3.52 | 0.00 | 0.00 | 38.27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Qa (ac-ft) | 0.00 | 0.00 | 0.00 | 0.00 | 750.29 | 1832.31 | 2348.83 | 1674.24 | 1113.19 | 104.64 | 0.00 | 0.00 | 7823.50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Temporary Trust, Primary Reach, Columbia River from RM 453.4 to RM 468.3., Secondary Reach in Columbia River to Pacific Ocean) (Regional) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Qi (cfs) (P) | 5.67 | 5.37 | 6.34 | 7.36 | 10.08 | 11.60 | 13.46 | 12.73 | 10.23 | 7.24 | 5.67 | 5.73 | 13.46 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Qa (ac-ft) (P) | 348.23 | 329.71 | 388.98 | 451.96 | 618.67 | 689.06 | 826.13 | 781.67 | 607.56 | 444.55 | 348.23 | 351.94 | 6186.71 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Qi (cfs) (S) | 1.62 | 1.54 | 1.81 | 2.11 | 2.88 | 3.32 | 3.85 | 3.64 | 2.93 | 2.07 | 1.62 | 1.64 | 3.85 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Qa (ac-ft) (S) | 99.61 | 94.31 | 111.26 | 129.28 | 176.96 | 197.10 | 236.30 | 223.59 | 173.78 | 127.16 | 99.61 | 100.67 | 1769.63 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SOURCE Columbia River Wenatchee River and Wells | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TRIBUTARY OF (IF SURFACE WATER) Pacific Ocean | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AT A POINT LOCATED: PARCEL NO. PODs: 222003861001 232028240500 Wells: 232033111100 232034857037 212205000050 Regional 4+5 Field Hydro pk Regional Supply Regional Northbank Rock Island Field Rock Island Field | ¼ NE SW SE NE NW NW NE SW SW NEW1/2 | ¼ NW NE NW NE SW NW SE NE NEW1/2 | SECTION 14 3 28 33 34 5 19 19 20 28 6 31 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOWNSHIP N. 23N 22N 23N 23N 23N 21N 22N 22N 22N 23N 21N 22N | RANGE 19E 20E 20E 20E 20E 21E 21E 21E 21E 20E 22E 22E | WRIA 45 45 45 45 45 45 44 44 44 45 45 45 | COUNTY. (AKA location) Chelan (existing) Chelan (5 th St.) Chelan (North End) Chelan (Hawley St.) Chelan (Walla Walla St.) Chelan (Rock Island Field) Douglas County Douglas County Douglas County Chelan County Chelan County Chelan County | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED AS APPROVED BY THE BOARD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A) Sections 12, 13, and 14 T23N, R19E; Sections 19 through 22, 28, 33 and 34, T23N, R20E; and Section 3, T22N, R20E all in Chelan County, WA. RCW 90.03.386 may have the effect of expanding the place of use of this water right. If the criteria in RCW 90.03.386(2) are not met and a Water System Plan / Small Water System Management Program was approved after September 9, 2003, then the place of use of this water right reverts to the service area described in that document. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A) (B) The place of use is expected to conform to the Regional Water System service area set forth in Volume 2 of the 2012 City of Wenatchee Water System Plan. RCW 90.03.386 may have the effect of expanding the place of use of this water right. If the criteria in RCW 90.03.386(2) are not met and a Water System Plan / Small Water System Management Program was approved after September 9, 2003, then the place of use of this water right reverts to the service area described in that document. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (Temporary Trust) Primary Reach: Columbia River from RM 453.4 (Rock Island Dam) to RM 468.3 (confluence with Wenatchee River). Secondary Reach from Columbia River RM 453.4 to the Pacific Ocean. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| (C) (Permanent Trust) Primary Reach: Wenatchee River from River Mile (RM) 6.6 to RM 0 at the confluence of the Wenatchee and Columbia Rivers. No secondary reach. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PARCEL NO. | ¼ | ¼ | SECTION TOWNSHIP N. RANGE, | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

DESCRIPTION OF PROPOSED WORKS

The applicant proposes to replace its existing system that is north of the Wenatchee River with a pressurized pipeline sourced from the mouth of the Wenatchee River. Also proposed is a new pressurized system for a portion of its southern service area sourced from a well. The balance of the proposal is to source the remaining portions of its service area from the Regional municipal water system. These changes will move the sources of the water downstream such that the lower Wenatchee River instream flows will be substantially enhanced.

The Chelan County PUD is undergoing an analysis of the Eastbank Aquifer near Rocky Reach Dam that is the location of well fields providing Regional's main source of municipal water and water for the PUD's hatchery. The Eastbank Aquifer is not included as a source of withdrawal for the water right subject to this change application.

Continued

As part of its ongoing planning efforts, reflected in its recent water system plan, Regional has identified the need for an alternate source of municipal water, which will be a significant undertaking (i.e. planning, design, construction, and financing). It is anticipated that the planning effort will take a number of years, and depending on costs of construction, available funds and financing, the plan will likely not be designed and constructed for up to 20 years. Future growth and demand projections (beyond the current 20 year projections) are difficult to make. The attributes of the water right made available pursuant to this change application will address the identified deficiencies in the current 20 year projections. It is anticipated that with the water system planning efforts associated with the to-be-identified alternate source, the water right authorized for municipal purposes may address the demands for the 20-40 year period following the development of the alternate source.

| DEVELOPMENT SCHEDULE (A) | | |
|-----------------------------------|--|---|
| BEGIN PROJECT BY THIS DATE: NA | COMPLETE PROJECT BY THIS DATE: 12/31/2015 | COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE: 12/31/2018 |
| DEVELOPMENT SCHEDULE (B) | | |
| BEGIN PROJECT BY THIS DATE: NA | COMPLETE PROJECT BY THIS DATE: 12/31/2032 | COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE: 12/31/2072 |
| DEVELOPMENT SCHEDULE (C) | | |
| BEGIN PROJECT BY THIS DATE: NA | COMPLETE PROJECT BY THIS DATE: 12/31/2015 | COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE: 12/31/2016 |

REPORT

BACKGROUND

(i) A description of the water right proposed for transfer, including the board-assigned water right change application number, and the board's tentative determination as to the validity and quantification of the right, as well as the historical water use information that was considered by the board;

In 2008, Pioneer Water Users Association began working with the Washington Water Project of Trout Unlimited (TU) to evaluate funding options to relocate its historic diversion downstream and make efficiency improvements to its irrigation system. The project would improve reliability for existing Pioneer customers and would improve instream flows in the lower Wenatchee River. At the same time, Pioneer wished to address historic changes in source as shareholders formerly served by Pioneer had begun receiving water from the Regional Water System (The City of Wenatchee, East Wenatchee Water District and the Chelan County PUD are collectively referred to as the "Regional Water System" or "Regional"). Pioneer and TU began developing funding applications, and from 2009 to 2011 they were successful in obtaining funding for the project from the Office of Columbia River (OCR) and others.

As a result of this project and change application, Pioneer, Regional Water System, and OCR will accomplish the following:

- Pioneer will move its point of diversion downstream to wells, pipe its system, and pump water for both irrigation purposes (the bulk of its service area) and municipal purpose (Walla Walla Avenue residential development).
- Regional will move to existing and proposed wells and diversion locations, acquire the water associated with the defacto changes in source, and acquire additional water savings associated with reduced consumptive use and operational spill/losses from Pioneer that it will use for new growth. Water will be put temporarily in trust
- OCR will receive a permanent transfer of water right savings in the lower Wenatchee River.

On 4/18/2012 an application was filed with the Chelan County Water Conservancy Board and assigned the file number CHEL 12-03. The application was published in the Wenatchee World on 4/29/2012 and 5/6/2012. The application was amended to include additional source points and such amendments are reflected in the public notice published in the Wenatchee World on 5/13/2012 and 5/20/2012. Protest period ended on 6/19/2012. See attached Notice of Application for Changes to a Water Right together with its affidavit of publication. In addition to publication this notice was sent to the Department of Fish and Wildlife, the Department of Archeology and Historical Preservation (DAHP), the Eastern Washington Council of Governments, and the Colville Confederated Tribes. The "super notice" required under RCW 90.42.040 was also completed on 5/31/2012 as required for creation of trust water rights. On 7/12/2012 the application was amended again to include Regional as a signatory as a co-applicant based on the execution of a purchase and sale agreement with Pioneer.

Table 1: Attributes of Water Right as Currently Documented

| |
|---|
| Name on Certificate, Claim, Permit: Pioneer Water Users Association |
| Water right Document Number: CL022119 |
| Priority Date, First Use: 3/31/1896 |
| Instantaneous Quantity: 200 cfs |
| Annual Quantity: 23,200 afy |
| Source: Wenatchee River |
| Point of Diversion: NENW Sec. 14, T23N, R19E |

| |
|---|
| Purpose of Use: 5800 acres irrigation and domestic |
| Period of Use: April 1 st to October 15 th and continuous |
| Place of Use: Sections 12, 13, and 14 T23N, R19E, Sections 19 through 22, 28, 33 and 34, T23N, R20E and Section 3, T22N, R20E all in Chelan County, WA. |

A figure showing the historic place of use and point of diversion from Ecology's webmap is provided on Figure 1. Proposed diversion and well locations are shown in the hydrogeologic report attached in Appendix 5.

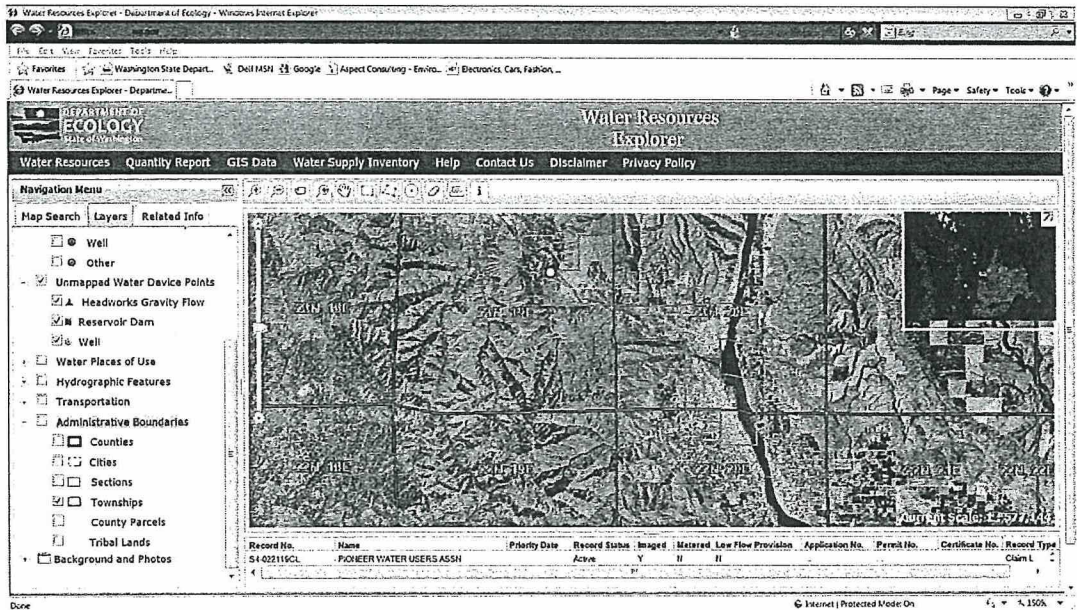


Table 2: Proposed Changes to the Water Right as Recited in the Notice

| | |
|-------------------------|---|
| Proposed owner: | Pioneer Water Users Association / Regional Members / Ecology OCR |
| Instantaneous Quantity: | 43.63 cfs |
| Annual Quantity: | 7823.5afy |
| Source: | Columbia River, Wenatchee River, and Wells |
| Points of Diversion: | Wenatchee River NENW Sec. 14, T23N, R19E, Chelan County Columbia River (5 th St) SWNE Sec. 3, T22N, R20E Parcel #222003861024 Wenatchee River SENW Sec. 28, T23N, 20E Parcel #23202824040 |
| Points of Withdrawal | Sections 28, 33 and 34, T23N, R20E, Sections 5 and 6, T21N, R22E, Section 31, T22N, R22E and Sections 19 and 20, T22N, R21E |
| Purposes of Use: | Irrigation of 385 acres, Continuous Municipal and In-stream flows |
| Periods of Use: | April 1 st to October 15 th for Irrigation and continuous for in-stream flows and municipal |
| Places of Use: | <p>B) Sections 12, 13, and 14 T23N, R19E; Sections 19 through 22, 28, 33 and 34, T23N, R20E; and Section 3, T22N, R20E all in Chelan County, WA. RCW 90.03.386 may have the effect of expanding the place of use of this water right. If the criteria in RCW 90.03.386(2) are not met and a Water System Plan / Small Water System Management Program was approved after September 9, 2003, then the place of use of this water right reverts to the service area described in that document.</p> <p>A)</p> <p>B) The place of use is expected to conform to the Regional Water System service area set forth in Volume 2 of the 2012 City of Wenatchee Water System Plan. RCW 90.03.386 may have the effect of expanding the place of use of this water right. If the criteria in RCW 90.03.386(2) are not met and a Water System Plan / Small Water System Management Program was approved after September 9, 2003, then the place of use of this water right reverts to the service area described in that document. (Temporary Trust) Primary Reach: Columbia River from RM 453.4 (Rock Island Dam) to RM 468.3 (confluence with Wenatchee River). Secondary Reach from Columbia River RM 453.4 to the Pacific Ocean.</p> <p>C) (Permanent Trust) Primary Reach: Wenatchee River from River Mile (RM) 6.6 to RM 0 at the confluence of the Wenatchee and Columbia Rivers. No secondary reach.</p> |

History of Water Use:

The applicant submitted a memorandum discussing the history, extent and validity of the right that was accompanied by extensive documentation of the facts and conclusions. This memorandum was the result of pre-application collaboration with multiple agencies and stakeholders as is evidenced by the attached documentation. This memorandum is adopted as part of this decision and its factual findings are incorporated by this reference as if fully set forth herein.

A summary of the rights history is as follows: The earthen canal utilized by Pioneer Water User's Association has been in operation for more than 114 years for the purpose of providing irrigation and domestic supply to lands generally located between Wenatchee and Monitor. Over this extended period of time numerous de facto changes have occurred including purveyance of water attributable to the right via overlapping municipal systems which are jointly administered through a Regional Water System created by Interlocal Agreement.

The Pioneer water rights include claims #117629 and #022119. The attributes of claim #117629 appear to be included within all relevant attributes of claim #022119 such that they are not additive. These rights include both domestic and irrigation quantities. However, as a result of extensive urbanization and the availability of municipal water service, little, if any, domestic water is presently conveyed by the canal.

Tentative Determination:

The source of water, location of diversion, place of use, and extent of beneficial use are as tentatively described on the front page of this report. Formatted a little differently they are as follows:

| | |
|----------------------|---|
| Name: | Pioneer Water Users Association |
| Priority Date: | 3/31/1896 |
| Instant Demand Rate: | 43.63 cubic feet per second ¹ |
| Season of Use: | April 1 through October 15 for irrigation and continuously for domestic supply |
| Point of Diversion: | 250 feet South and 200 feet west of the NW corner of the NENW of Section 14, T 23N, R 19EWM. Chelan County |
| Place of Use: | Sections 12, 13, and 14 T23N, R19E, Sections 19 through 22, 28, 33 and 34, T23N, R20E and Section 3, T22N, R20E all in Chelan County, WA. |
| Type of Use: | 780 acres of irrigation and domestic |
| Annual Demand Rate: | 7823.5 acre feet |

There have been no prior changes to the subject water right. Hearings were held in Chelan County by the Chelan County Conservancy Board on May 10, 2012, June 14, 2012, and July 12, 2012, which tentatively determined the extent and validity of the right as referenced above following the investigation into the historical water use as described below.

SEPA:

This transfer is not exempt from the provisions of the State Environmental Policy Act. The provisions of the Act were satisfied by the issuance of a Determination of Non-Significance by Chelan County. (See attached).

Proposed Use:

The proposed change is as described on the front page of this report. This change application is intended to provide authority that allows for the applicant to redevelop its canal into a pressurized pipeline. This pressurized pipeline would divert from the mouth of the Wenatchee River to serve the applicant's customers north of the Wenatchee River so that in the future no quantities will be diverted from the current Wenatchee River diversion pursuant to the subject right. This will allow the proposed instream portions of the right in the Wenatchee River to be permanently placed in the State Trust Program from the original diversion to the next downstream proposed diversion. Funding for this project is justified substantially by the expected benefits to Wenatchee River instream flows. The other proposed points of withdrawal and diversion are in hydraulic continuity with the Rock Island pool on the Columbia River (see RH2 report, Appendix 5). The proposed points of diversion and withdrawal serve two purposes: (a) as alternative sources for Pioneer's customers south of the Wenatchee River that are not served from the proposed pressurized pipeline, and (b) to authorize multiple sources of supply for the Regional Water System to deliver water through Regional's delivery system within the service area approved by the Department of Health. This authorization will bring defacto changes to the subject right into compliance.

¹ Note that the tentative determination of 43.63 cfs derived by the Board and supported in the Extent and Validity Memo (Appendix 4) is based on historic peak instantaneous diversions. However, the peak trust water quantity of 38.27 cfs is based on Ecology's methodology of peak month diversions proportionate to the Washington Irrigation Guide crop irrigation requirement.

As noted below, Regional may identify alternative withdrawal sites within the Rock Island Pool that are in hydraulic continuity with the Columbia River.

The project also creates water savings beyond the Wenatchee by virtue of reducing consumptive use associated with the formerly open ditch, now replaced by a pipeline. That portion is proposed to be placed temporarily in the State Trust Program, but authorized for long-term municipal use. Pioneer and the Regional Water System entered into an agreement that transfers a significant portion of the water right to the Regional water system to be withdrawn and diverted from present and future sources along the Columbia River for year round municipal purposes. The place of use is modified to include the present and future service area for the Regional Water System approved by the Department of Health. A detailed explanation of the proposal is included in the extent and validity determination set forth below.

COMMENT AND PROTESTS

There were no protests received during the 30 day protest period. In addition, no oral and written comments were received at an open public meeting of the board or other means as designated by the board during the time the application was before the board.

The information or conclusions in this section were authored and/or developed by Don Phelps, Karin Whitehall, Aaron Penrose, Peter Fraley, Dan Haller, Marc Marquis, Marc Schuppe, Dan Jaspers and Mark Peterson.

INVESTIGATION

A description of the project proposed by the applicant, including any issues related to development, such as the applicant's proposed development schedule and an analysis of the effect of the proposed transfer on other water rights, pending applications for changes or transfers, and instream flows established under state law;

Development Schedule

A description of the proposed project is set forth above. The pipeline construction and other infrastructure designed to replace the non-potable system are expected to be substantially complete by the end of 2015. Much of the beneficial use attributable to those systems will continue throughout construction.

The potable municipal system's points of diversion and withdrawal will likely be constructed only as additional demands manifest or as planned water system configurations come to fruition, but any new diversion or withdrawal points outside of those described in the public notice will be authorized in subsequent changes if necessary. See discussion set forth in the description of proposed works above.

The Board anticipates three certificates of change will issue as a result of this transfer and has identified an appropriate development schedule for each. Irrigation and municipal use for Pioneer Water Association for the "A" portion is expected to continue throughout construction. Since irrigation varies by water year, the Board selected 3 years after construction was complete for a proof of appropriation (assuming a dry year requiring full use of the irrigation quantities in the tentative determination will occur during that period). The "B" portion transferred to municipal use consists of existing defacto changes and water savings associated with the portion transferred to Regional. The "B" portion will be temporarily transferred to trust until Regional's sources are finalized and full demand realized. Municipal planning is required to accommodate long horizons so this authorization adopts lengthily schedules. The "C" portion for instream flow in the Wenatchee River will be perfected immediately following construction, so the Board selected a 2016 date for proof of appropriation for that portion of the right.

Impairment and Effect on Other Water Rights

Other water rights are not expected to be impaired by the proposed changes. The applicant's memorandum contains an extensive discussion of the inter relationships of all water rights within the related area. One of the major purposes of the project is to enhance in-stream flows in the Wenatchee River. The key impairment findings are:

- The points of diversion and points of withdrawal being added are all downstream of the historic diversion.
- Consumptive use will not increase.
- Trust water rights will be created in a manner to avoid impairment to the adopted instream flow in Chapter 173-545 WAC and interruptible water rights subject to curtailment when the instream flow is not met. Because this water right is a claim, until it is adjudicated, Ecology will not enforce its trust water right against interruptible water right holders on the lower Wenatchee River in observance of the *Rettkowski* Supreme Court decision, and as clarified in the *Anderson-Parker* PCHB case. Ecology OCR considered this issue when determining whether to fund the project. Of the total water savings generated in the Wenatchee (38.27 cfs) only about 2 cfs overlaps with interruptibles curtailed when flows are low on the Wenatchee River at Monitor. In other words, approximately 2 cfs of the 38.27

cfs will only be available when instream flows are met and junior water users are not curtailed, and the remaining trust quantity will always be available.

- No well owner will be interfered with as a result of adding new wells to this water right.
- No other water right holder's or applicant's ability to exercise their water right will be diminished as a result of the transfer.

One key water right interrelationship described in the memorandum but worth illuminating further here is the agreement with Regional.

Regional currently supplies 929.5 acre-feet of water authorized in this transfer for municipal purpose by virtue of well-documented defacto changes in source that have occurred. Pioneer still holds title to this water right, even though the source of water supplying the beneficial use changed (and is now explicitly authorized herein). This defacto change quantity consists of 160 acre-feet in shares held by the PUD for the Walla Walla Park (plus 16 acre-feet in system leaks delivering it to the park) and 753.5 acre-feet in residential water use (including 10% leakage). Regional and Pioneer entered into an agreement for transfer of title of this 929.5 acre-feet of the water right, but its uses are expected to remain the same after transfer of title. Regional is transferring this quantity to temporary trust as it evaluates how this new acquisition will best be incorporated into its portfolio of water rights via routine water system planning .

The balance of the right will be partly conformed to existing uses for the new piped system with the balance being changed to municipal uses and titled over to Regional. The quantities conformed for existing uses include Pioneer's North End System and Pioneer's Walla Walla Avenue System. The remainder is associated with conveyance loss and consumptive use formerly associated with evapotranspiration from the open ditch, and determined future development to be served by Regional for the Chelan County Port District, to be changed to municipal purpose of use and sold to Regional for new growth in the Regional water system.

The total Regional municipal quantities described above, inclusive of the defacto changes, the ET savings and the DFD, is the 6,186.71 acre-feet described for municipal water supply use on the face sheet of this transfer. The trust and consumptive use quantities are described in more detail later in this ROE.

The subject right will be additive to the Regional portfolio of rights which are summarized as follows:

| Right # | Instant Quantity | Annual Quantity |
|---|--------------------|---|
| | Gallons Per Minute | Acre Feet |
| G4-25575P | 30,000 | 13,277 (annual quantities are not additive for this right) |
| S3-00938C | 7,965 | 7,393 |
| 485-D | 150 | 146 |
| 8475C | 13.5 | 22 |
| G3-01133C | 2000 | 1400 |
| G3-20369C | 400 | 480 |
| 1529C | 2700 | 485 |
| 2015C | 500 | 237 |
| 4899C | 200 | 320 |
| 4900C | 650 | 1040 |
| 4901C | 820 | 1312 |
| 4902C | 265 | 424 |
| G3-00918C | 1500 | 1200 |
| G4-24310C | 900 | 800 |
| G4-27802P | 2100 | 620 |
| Subtotal of existing Regional annual quantities: 15,879 | | |
| Total with Pioneer annual quantities: | | 22,065.71 (3288 a/f of this is conditioned non-consumptive) |

Annual Consumptive Quantity, Enlargement, and Consumptive Use

The applicant memorandum provides an ACQ and enlargement analysis based on consumptive use calculations. The consumptive use and return flow for each portion of the water right is shown in the table below. The table outlines consumptive use by source (Pioneer Canal or defacto Regional diversions), and location of use (e.g. parks, residential use, on-farm, conveyance loss).

Table 3: Quantity Summary by Source

| Use | CU (ac-ft) | RF (ac-ft) | Total (ac-ft) | Qi (cfs) |
|--------------------------------|------------|------------|---------------|----------|
| Total Pioneer / Regional Use | 3081.86 | 4741.64 | 7823.5 | 43.63 |
| Defacto Regional Municipal Use | 588.1 | 341.4 | 929.5 | 21.88 |
| Walla Walla Park | 136 | 40 | 176 | 1.05 |
| Park and Residential Use | 452.1 | 301.4 | 753.5 | 20.83 |
| Pioneer Canal Diversions | 2493.76 | 4400.24 | 6894 | 21.75 |

Continued

| | | | | |
|-----------------|---------|--------|--------|-------|
| On-Farm Use | 2343.96 | 413.64 | 2757.6 | 7.7 |
| Conveyence Loss | 149.8 | 3986.6 | 4136.4 | 14.05 |

These quantities can also be evaluated by purpose of use (irrigation, municipal, instream flow) and owner who will be issued the certificate of change. Note that Pioneer is expected to receive a certificate of change for both irrigation supply and municipal supply (see municipal water supplier compliance section).

Table 4: Quantity Summary by Purpose and Entity

| Purpose | Total (ac-ft) | ACQ (ac-ft) | Qi (cfs) |
|-------------------------------------|---------------|-------------|----------|
| Irrigation (Pioneer) | 1580.79 | 1264.63 | 7.7 |
| Municipal Water Supply (Pioneer) | 56.00 | 47.60 | 0.276 |
| Municipal Water Supply (Regional) | 6186.71 | 1769.63 | 35.65 |
| Instream Flow, Permanent (OCR) | 7823.5 | 0 | 38.27 |
| Instream Flow, Temporary (Regional) | 1769.63 | 1769.63 | 3.95 |

Under RCW 90.03.380, consumptive use following the transfer cannot exceed the ACQ. The quantities purveyed through non-potable systems are likely to retain or diminish the consumptive quantities attributed to them for purposes of this change. Municipal quantities purveyed through potable systems shall be provisioned to demonstrate return flows that sustain the return flows historically associated with the right to avoid enlargement of the right. The following table summarizes the consumptive quantities for each owner and area of use to ensure consumptive does not exceed ACQ.

Table 5: ACQ Summary

| Use | CU (ac-ft) | RF (ac-ft) | Total (ac-ft) | Qi (cfs) |
|--|----------------|----------------|----------------|--------------|
| Pioneer North End System Demand | 1264.63 | 316.16 | 1580.79 | 7.7 |
| Pioneer Walla Walla Ave Demand | 47.6 | 8.4 | 56 | 0.276 |
| Regional Walla Walla Park Demand | 136 | 40 | 176 | 1.05 |
| Subtotal | 1448.23 | 364.56 | 1812.79 | 9.03 |
| Remaining Available From Total | 1633.63 | 4377.08 | 6010.71 | 34.60 |
| Regional Municipal Use (60% CU assumption) | 1633.63 | 1089.08 | 2722.71 | 15.67 |
| Regional Nonconsumptive Use | 0 | 3288.00 | 3288.00 | 18.93 |
| Total | 3081.86 | 4741.64 | 7823.50 | 43.63 |

Under PRO 1210, the Board has discretion to add a reasonable return flow for the new use, provided that the quantity does not exceed the authorized amount of the water right. Based on this discretion and the lack of any impairment found by the Board, the total return flow of 4,741.64 acre-feet remains available for use by Pioneer and Regional at the end of the primary trust reach (e.g. Rock Island Pool) and shall be preserved from relinquishment until such time as it is removed from temporary trust.

Trust Water

Trust water under this transfer is allocated for both permanent (OCR) and temporary (Regional) purposes. Under RCW 90.80.055, “a board may act upon applications for the same kinds of transfers that the department itself is authorized to act upon, including an application to establish a trust water right under chapter 90.38 or 90.42 RCW”. This includes both permanent and temporary transfers to trust under RCW 90.42.080(3), “Trust water rights may be acquired by the state on a temporary or permanent basis”. Board statute RCW 90.80.010 also cites to the temporary transfer authority for boards in RCW 90.03.390. The statutory standard for quantifying the permanent and temporary transfers is the same as the tentative determination of the extent and validity of the right under RCW 90.42.030 and RCW 90.90.010.

The following table summarizes the permanent transfer to OCR to trust in the Wenatchee River (primary reach benefit only, Wenatchee RM 6.6 to RM 0), using the Wenatchee station for apples with cover. Although the water right season of use is April 1 to October 15, the WIG doesn't list a consumptive use for April, so the Board started the trust season in May.

Table 6: Permanent Trust Water Quantity (OCR)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|------------|------|------|------|------|--------|---------|---------|---------|---------|--------|------|------|---------|
| CIR (in) | 0.00 | 0.00 | 0.00 | 0.00 | 3.37 | 8.23 | 10.55 | 7.52 | 5.00 | 0.47 | 0.00 | 0.00 | 35.14 |
| Qi (cfs) | 0.00 | 0.00 | 0.00 | 0.00 | 12.22 | 30.85 | 38.27 | 27.28 | 18.74 | 3.52 | 0.00 | 0.00 | 38.27 |
| Qa (ac-ft) | 0.00 | 0.00 | 0.00 | 0.00 | 750.29 | 1832.31 | 2348.83 | 1674.24 | 1113.19 | 104.64 | 0.00 | 0.00 | 7823.50 |

Note that there is a difference in how the peak trust water quantity (38.27 cfs) is calculated versus the peak quantity for extent and validity (43.63 cfs). This is because Ecology policy averages the peak monthly flows for trust (July) whereas extent and validity is peak instantaneous demand.

Until Regional requires the full use of the transferred quantity, it desires the municipal portion to be temporarily transferred to trust. The following table summarizes the temporary transfer to trust based on an average municipal monthly distribution of use from Volume Two of the 2012 City of Wenatchee Water System Plan.

Table 7: Temporary Trust Water Quantity (Regional)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| Avg Use (MG) | 94 | 89 | 105 | 122 | 167 | 186 | 223 | 211 | 164 | 120 | 94 | 95 | 1670 |
| Qi (cfs) (P) | 5.67 | 5.37 | 6.34 | 7.36 | 10.08 | 11.60 | 13.46 | 12.73 | 10.23 | 7.24 | 5.67 | 5.73 | 13.46 |
| Qa (ac-ft) (P) | 348.23 | 329.71 | 388.98 | 451.96 | 618.67 | 689.06 | 826.13 | 781.67 | 607.56 | 444.55 | 348.23 | 351.94 | 6186.71 |
| Qi (cfs) (S) | 1.62 | 1.54 | 1.81 | 2.11 | 2.88 | 3.32 | 3.85 | 3.64 | 2.93 | 2.07 | 1.62 | 1.64 | 3.85 |
| Qa (ac-ft)(S) | 99.61 | 94.31 | 111.26 | 129.28 | 176.96 | 197.10 | 236.30 | 223.59 | 173.78 | 127.16 | 99.61 | 100.67 | 1769.63 |

This quantity represents both the total use in the primary reach (P) and the consumptive use in the secondary reach (S). The primary reach occurs in Rock Island Pool from the confluence of the rivers to the dam (RM 468.3 to RM 453.4) and the secondary reach extends from the Columbia to the Pacific Ocean.

This temporary transfer is specified for a discretionary term of 10 years (see provisions section). Note that the difference in the peak temporary trust quantity is in part due to the method of calculation discussed earlier for permanent trust and also because Pioneer does not need as high a peaking rate for its new system so a proportionately greater amount of "Qi" is transferred to Regional.

Municipal Water Supplier Compliance

The Board considered whether the proposed change in purpose of use would meet one or more of the definitions of a municipal water supplier. The Board's analysis generally comports with Ecology's revised POL 2030 and is as follows.

RCW 90.03.015(4) defines municipal water supply purposes as: "*Municipal water supply purposes means a beneficial use of water: (a) For residential purposes through fifteen or more residential service connections or for providing residential use of water for a nonresidential population that is, on average, at least twenty-five people for at least sixty days a year; (b) for governmental or governmental proprietary purposes by a city, town, public utility district, county, sewer district, or water district; or (c) indirectly for the purposes in (a) or (b) of this subsection through the delivery of treated or raw water to a public water system for such use. If water is beneficially used under a water right for the purposes listed in (a), (b), or (c) of this subsection, any other beneficial use of water under the right generally associated with the use of water within a municipality is also for "municipal water supply purposes," including, but not limited to, beneficial use for commercial, industrial, irrigation of parks and open spaces, institutional, landscaping, fire flow, water system maintenance and repair, or related purposes.*"

There are two quantities of water being transferred to municipal use: 56 acre-feet (0.276 cfs, 124 gpm) associated with Pioneer's Walla Walla Avenue service area and 6,186.71 acre-feet associated with the transfer to Regional (6,242.71 acre-feet total).

The current plans for Pioneer's Walla Walla Avenue beneficial use are non-agricultural activities, such as lawn watering, landscaping, car washing, recreation and beautification, and other outdoor activities for at least 15 full-time residential connections. Whether the extent of these uses as perfected will represent "residential purposes" is unclear given Ecology guidance and case law. To that end, the authorized purpose in this change will be municipal water supply purpose subject to a provision necessitating a compliance check at the proof of appropriation stage. Otherwise, it will be authorized for irrigation use.

The portion being transferred to Regional will fit multiple municipal water supply definitions, including residential purposes for at least 15 connections, as well as governmental and governmental proprietary use by Regional.

If the proposed transfer is authorized under RCW 90.44.100, an analysis of the transfer as to whether it is detrimental to the public interest, including impacts on any watershed planning activity. Public interest shall not be considered if the proposed transfer is authorized pursuant to RCW 90.03.380 exclusively;

The proposed transfer is subject to RCW 90.44.100 and therefore, cannot be detrimental to the public interest, including impacts on any watershed planning activities. Additionally, trust water rights are subject to a public interest standard under RCW 90.42.040. The public interest is served by this transfer of ground water because:

- It facilitates land use in a manner consistent with the relevant planning policies including the Wenatchee River Watershed Plan.
- Consistent with the 1971 Water Resources Act, RCW 90.54, it balances conservation of natural resources through creation of instream flow trust quantities in the Wenatchee River with improved economic benefit to Pioneer via a more reliable water system and Regional via new quantities of water for growth.
- The project is funded by the Office of Columbia River, and consistent with the legislative mission to fund water supply projects that benefit both instream and out-of-stream uses.
- The project has broad local stakeholders support and funding, including from entities such as the Washington Water Project of Trout Unlimited, the Washington State Department of Fish & Wildlife, the Columbia River Policy Advisory Group, Yakama Nation and Chelan County.

Any information indicating that an existing water right or portion of a water right has been relinquished or abandoned due to nonuse and the basis for the determination;

The quantities proposed for change are significantly smaller than what was likely perfected by 1917. This recognizes a relinquishment that was brought about gradually by the urbanization of the place of use. The applicant's memorandum provides an extensive discussion of the information used to support this finding. There is no indication that any portion of the right was abandoned.

The Memorandum notes that portions of the right are preserved by two determined future developments (DFD). The first is associated with property belonging to the Chelan County Port District, and served by Regional. While this decision incorporates those findings and conclusions, they can be further explained. The Port's enabling legislation requires it to hold assets for economic development purposes. The Port's existence and planning documents and the determined future development that they evidence predate the Port's acquisition of the land to which the subject right is appurtenant. This means that the portions of the right that are preserved by the determined future development are only preserved as of the date that the land is acquired by the Port. Prior to Port acquisition these parcels were planted in orchard as they had been since the perfection of the right. The Port removed the trees after acquiring the property and has pursued redevelopment ever since. The chain of title documents and county assessor records relative to these parcels confirm these facts as do historic aerial photos. In these documents valuations and photos show the continuing shift from commercial agriculture to millions of dollars in industrial park infrastructure and improvements that corresponds with Port acquisition and planning. The Board concluded that this meets the DFD standard outlined by Ecology and the Courts.

The second DFD is for contiguous lots owned by 9th Street Development LLC and served by Pioneer. The project consisted of residential development and riparian rehabilitation (see Page 12 of the Memo). The plan fixed concurrent with the property acquisitions in 2005, and full beneficial use on that property occurred within the 2001 to 2005 period before fixing the DFD. The Memo describes actions towards accomplishing the plan, the scope of the plan, and Pioneer and Regional's concurrence with the DFD. The Board concluded that this meets the DFD standard outlined by Ecology and the Courts. Full use of the water in establishing riparian plantings during 2011 and 2012 has successfully concluded the DFD prior to this transfer such that all quantities that were subject to the DFD are available for transfer.

A description of the results of any geologic, hydro-geologic, or other scientific investigations that were considered by the board and how this information contributed to the board's conclusions;

The applicant supplied a hydro-geologic study of potential new well sites to determine sufficient hydraulic continuity with the existing source to find that the proposed sources draw from the same body of water and that proposed withdrawal sites would not impair the wells of other existing rights. This study is adopted and incorporated by this reference as if fully set forth herein (Appendix 5). The purpose of the proposed changes is to allow for future diversions and withdrawals from the Columbia River and its adjacent hydraulically continuous aquifers. This decision finds that upon such findings of continuity and lack of impairment such future withdrawals shall be allowed.

CONCLUSIONS

(i) Whether, and to what extent, a valid water right exists;

The water right proposed for change exists to the extent set forth above on page 1.

(ii) Any relinquishment or abandonment of the water right associated with the water right transfer application as discussed in subsection (6)(d)(i) of this section;

The water right authorized for change is in a valid exercisable status with regard to the amounts proposed for change, the statutory forfeiture provisions of Chapter 90.14 RCW are not met relative to the amounts requested for change. At no time was there intent by the water right holder(s) to abandon the rights authorized for change.

Continued

(iii) The result, as adopted by the board, of any hydraulic analysis done related to the proposed water right transfer;

The proposed changes will withdraw or divert water from the same body of water and will not impair any existing water rights.

(iv) The board's conclusions of issues raised by any comments and protests received;

There were no comments or protests.

(v) Whether the transfer proposal will impair existing rights of others;

The proposed changes can be made without injury or detriment to existing water rights.

(vi) If the proposed transfer is authorized pursuant to RCW 90.44.100, whether it is detrimental to the public interest. Public interest shall not be considered if the proposed transfer is authorized pursuant to RCW 90.03.380 exclusively;

The public interest is served by this transfer of ground water as it facilitates land use in a manner consistent with the relevant planning policies, improves instream flows, and benefits out-of-stream uses. There are no detriments to the public interest resulting from the proposed changes.

Approval of this change will not enlarge the right.

DECISION

(e) Within a section entitled "decision": A complete description of the board's decision, fully and comprehensively addressing the entire application proposal;

Board's Decision on the Application

| MAXIMUM CUB FT/ SECOND | MAXIMUM GAL/MINUTE | MAXIMUM ACRE-FT/YR | TYPE OF USE, PERIOD OF USE | | | | | | | | | | |
|--|--------------------|------------------------|--|--------|--------|---|---------|---------|------------------------------|--------|--------|--------|---------|
| A) 7.7 cfs 0.276 cfs | 3,455.76 123.87 | A) 1580.79 af 56 af | A) 385 acres irrigation April 1 to October 15 (Pioneer) Municipal Water Supply from April 1 to October 15 (Pioneer) | | | | | | | | | | |
| B) 35.65 cfs | 46,001.18 | B) 6186.71 af | B) Continuous Municipal, Instream Flow (Temporary) (Regional) | | | | | | | | | | |
| C) 38.27 cfs | N/A | C) 7823.5 af | C) Instream flows (Permanent) Continuous (Ecology OCR) | | | | | | | | | | |
| ANNUAL CONSUMPTIVE QUANTITY (ACQ) | | | | | | | | | | | | | |
| A) Consumptive use under this portion of the right shall not exceed 1,312.23 acre-feet. | | | | | | | | | | | | | |
| B) Consumptive use under this portion of the right shall not exceed 1,769.63 acre-feet. | | | | | | | | | | | | | |
| C) Non-consumptive use (primary reach only). | | | | | | | | | | | | | |
| TRUST WATER QUANTITY (Permanent, Primary Reach in Wenatchee River for OCR.) | | | | | | | | | | | | | |
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
| CIR (in) | 0.00 | 0.00 | 0.00 | 0.00 | 3.37 | 8.23 | 10.55 | 7.52 | 5.00 | 0.47 | 0.00 | 0.00 | 35.14 |
| Qi (cfs) | 0.00 | 0.00 | 0.00 | 0.00 | 12.22 | 30.85 | 38.27 | 27.28 | 18.74 | 3.52 | 0.00 | 0.00 | 38.27 |
| Qa (ac-ft) | 0.00 | 0.00 | 0.00 | 0.00 | 750.29 | 1832.31 | 2348.83 | 1674.24 | 1113.19 | 104.64 | 0.00 | 0.00 | 7823.50 |
| (Temporary Trust, Primary Reach, Columbia River from RM 453.4 to RM 468.3., Secondary Reach in Columbia River to Pacific Ocean) (Regional) | | | | | | | | | | | | | |
| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
| Qi (cfs) (P) | 5.67 | 5.37 | 6.34 | 7.36 | 10.08 | 11.60 | 13.46 | 12.73 | 10.23 | 7.24 | 5.67 | 5.73 | 13.46 |
| Qa (ac-ft) (P) | 348.23 | 329.71 | 388.98 | 451.96 | 618.67 | 689.06 | 826.13 | 781.67 | 607.56 | 444.55 | 348.23 | 351.94 | 6186.71 |
| Qi (cfs) (S) | 1.62 | 1.54 | 1.81 | 2.11 | 2.88 | 3.32 | 3.85 | 3.64 | 2.93 | 2.07 | 1.62 | 1.64 | 3.85 |
| Qa (ac-ft) (S) | 99.61 | 94.31 | 111.26 | 129.28 | 176.96 | 197.10 | 236.30 | 223.59 | 173.78 | 127.16 | 99.61 | 100.67 | 1769.63 |
| SOURCE Columbia River Wenatchee River and Wells | | | | | | TRIBUTARY OF (IF SURFACE WATER) Pacific Ocean | | | | | | | |
| AT A POINT LOCATED: PARCEL NO. PODS: | ¼ | ¼ | SECTION | | | TOWNSHIP N. | RANGE | WRIA | COUNTY. (AKA location) | | | | |
| 222003861001 | NE | NW | 14 | | | 23N | 19E | 45 | Chelan (existing) | | | | |
| 232028240500 | SW | NE | 3 | | | 22N | 20E | 45 | Chelan (5 th St.) | | | | |
| 232028240500 | SE | NW | 28 | | | 23N | 20E | 45 | Chelan (North End) | | | | |
| Wells: 232033111100 | NE | NE | 33 | | | 23N | 20E | 45 | Chelan (Hawley St.) | | | | |
| 232034857037 | NW | SW | 34 | | | 23N | 20E | 45 | Chelan (Walla Walla St.) | | | | |
| 212205000050 | | | 5 | | | 21N | 22E | 45 | Chelan (Rock Island Field) | | | | |
| Regional 4+5 Field | NW | NW | 19 | | | 22N | 21E | 44 | Douglas County | | | | |
| Hydro pk | NE | SE | 19 | | | 22N | 21E | 44 | Douglas County | | | | |
| Regional Supply | | | 20 | | | 22N | 21E | 44 | Douglas County | | | | |
| Regional Northbank | SW | NE | 28 | | | 23N | 20E | 45 | Chelan County | | | | |
| Rock Island Field | | | 6 | | | 21N | 22E | 45 | Chelan County | | | | |
| Rock Island Field | | W1/2 | 31 | | | 22N | 22E | 45 | Chelan County | | | | |
| LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED AS APPROVED BY THE BOARD | | | | | | | | | | | | | |

| | | | | | |
|--|---|---|---------|-------------|--------|
| <p>C) Sections 12, 13, and 14 T23N, R19E; Sections 19 through 22, 28, 33 and 34, T23N, R20E; and Section 3, T22N, R20E all in Chelan County, WA. RCW 90.03.386 may have the effect of expanding the place of use of this water right. If the criteria in RCW 90.03.386(2) are not met and a Water System Plan / Small Water System Management Program was approved after September 9, 2003, then the place of use of this water right reverts to the service area described in that document.</p> <p>A)</p> <p>B) The place of use is expected to conform to the Regional Water System service area set forth in Volume 2 of the 2012 City of Wenatchee Water System Plan. RCW 90.03.386 may have the effect of expanding the place of use of this water right. If the criteria in RCW 90.03.386(2) are not met and a Water System Plan / Small Water System Management Program was approved after September 9, 2003, then the place of use of this water right reverts to the service area described in that document.</p> <p>(Temporary Trust) Primary Reach: Columbia River from RM 453.4 (Rock Island Dam) to RM 468.3 (confluence with Wenatchee River). Secondary Reach from Columbia River RM 453.4 to the Pacific Ocean.</p> <p>C) (Permanent Trust) Primary Reach: Wenatchee River from River Mile (RM) 6.6 to RM 0 at the confluence of the Wenatchee and Columbia Rivers. No secondary reach.</p> | | | | | |
| PARCEL NO. | ¼ | ¼ | SECTION | TOWNSHIP N. | RANGE, |

PROVISIONS

(i) Any conditions and limitations recommended as part of an approved transfer, and/or any other corrective action necessary to maintain the water use in compliance with state laws and regulations;

The following provisions are to be included as a part of the application approval decision referred to in the preceding section:

The amount of water granted is a maximum limit that shall not be exceeded and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required. This authorization shall in no way excuse the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including those administered by other programs of the Department of Ecology.

An approved measuring device shall be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", Chapter 173-173 WAC.

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.

For water purveyed from potable municipal systems water use data shall be recorded daily. For non-potable water systems water use data shall be recorded weekly. The maximum monthly rate of diversion/withdrawal and the monthly total volume shall be submitted to Ecology by January 31st of each calendar year. Ecology is requiring submittal of daily meter readings to collect seasonal information for water resource planning, management and compliance.

Reported water use data shall be submitted via the Internet or by using forms available at the Central Regional Office of the Department of Ecology in Yakima. To set up an Internet reporting account, access <https://fortress.wa.gov/ecy/wrx/wrx/Meteringx/>. If you have questions or need forms, contact the Central Regional office.

This authorization is subject to Washington Department of Fish and Wildlife juvenile salmon and gamefish screening criteria (pursuant to RCW 77.55.040).

A proof inspection will be conducted prior to final certificate issuance. The certificate will reflect the extent of the project perfected within the limitations of the permit. Aspects will include as appropriate the source(s), system instantaneous capacity, beneficial use(s), annual quantity, acreage, place of use, and satisfaction of provisions.

Multiple diversion and withdrawal points are authorized pursuant to this change. All source points of the right shall be administrated such that the quantities purveyed as authorized herein shall not exceed the total quantities of the right. Holders of the right shall provide evidence of sufficient capacity or telemetry controls at the time of proof of appropriation to ensure this result.

Quantities purveyed through water systems other than those for the non-potable systems identified in this decision shall be required to demonstrate return flows consistent with those historically attributed to the right to prevent the enlargement of the right that would result from greater consumptive use than was historically attributed to the right. The following consumptive use limits shall be observed:

| Use | CU (ac-ft) | RF (ac-ft) | Total (ac-ft) | Qi (cfs) |
|--|----------------|----------------|----------------|--------------|
| Pioneer North End System Demand (ac-ft) | 1264.63 | 316.16 | 1580.79 | 7.7 |
| Pioneer Walla Walla Ave Demand (ac-ft) | 47.6 | 8.4 | 56 | 0.276 |
| Regional Walla Walla Park Demand (ac-ft) | 136 | 40 | 176 | 1.05 |
| Subtotal | 1448.23 | 364.56 | 1812.79 | 9.03 |
| Remaining Available From Total (ac-ft) | 1633.63 | 4377.08 | 6010.71 | 34.60 |
| Regional Residential Use (60% CU assumption) (ac-ft) | 1633.63 | 1089.08 | 2722.71 | 15.67 |
| Regional Nonconsumptive Use (ac-ft) | 0 | 3288.00 | 3288.00 | 18.93 |
| Total (ac-ft) | 3081.86 | 4741.64 | 7823.50 | 43.63 |

Within 60 days of completion of construction of the project, Pioneer Water Association will by Quit Claim Deed convey the trust water quantities to Ecology's Office of Columbia River as described in the Permanent Trust Water Table on the face sheet of this authorization.

The term of the temporary trust is 10 years, except that Pioneer Water Association or Regional may provide 60 days written notice to Ecology and remove all or a portion of said temporary quantities for use in compliance with this or subsequent change authorizations.

Issuance of three (3) Certificates of Change are contemplated for this transfer consistent with the quantities identified herein, and subject to closing of the title transfer between Pioneer and Regional. These are generally summarized as follows:

| Certificate | Entity | Purpose | Qi | Qa (ac-ft) | Season |
|-------------|-------------|---------------|---------------|------------|--------------|
| A | Pioneer | Irrigation | 3,455.76 gpm | 1,580.79 | 4/1 to 10/15 |
| A | Pioneer | Municipal | 123.87 gpm | 56.00 | 4/1 to 10/15 |
| B | Regional | Municipal | 16,001.18 gpm | 6,186.71 | Continuous |
| C | Ecology OCR | Instream Flow | 38.27 cfs | 7,823.50 | 5/1 to 10/15 |

The undersigned board commissioner certifies that he/she understands the board is responsible "to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." [WAC 173-153-130(5)] The undersigned therefore, certifies that he/she, having reviewed the report of examination, knows and understands the content of this report and concurs with the report's conclusions.

Signed at Wenatchee, Washington.
June 14, 2012

Don Phelps, Chair
Chelan County Water Conservancy Board

Appendix:

1. Application
2. Application Map
3. Copy of the Existing Water Right Document
4. Extent and Validity Memorandum with all attachments and exhibits
5. Hydrogeologic Report
6. SEPA DNS
7. Notice of Application declaration of publication
8. Letter of Transmittal of Notice of Application to Department of Fish and Wildlife and other parties
9. Super Notice for Trust Water



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

15 W Yakima Ave. Ste 200 • Yakima, WA 98902-3452 • (509) 575-2490

August 27, 2012

Pioneer Water Users Association
Attn: Dan Jaspers
205 Chatham Hill Road
Wenatchee WA 98801-5929

RE: Water Right Change Application No. CS4-022119CL (CHEL-12-03)

In accordance with RCW 90.80.080 the Department of Ecology (Ecology) has reviewed the Record of Decision (ROD), Report of Examination (ROE), and all comments, protests, objections and other relevant information submitted by the Chelan County Water Conservancy Board (the Board) for the above referenced application for change.

Ecology has modified the decision of the Board and the proposed change/transfer of water right is approved under the following conditions:

Summary of Ecology's Final Order

| MAXIMUM CUB FT/ SECOND | | MAXIMUM GAL/MINUTE | | MAXIMUM ACRE-FT/YR | | TYPE OF USE, PERIOD OF USE | |
|---|------|--------------------|-------------|--------------------|------|---|--|
| A) 7.7 0.276 | | 3,455.76 123.87 | | A) 1,580.79 56 | | A) 385 acres irrigation April 1 to October 15 Municipal Water Supply April 1 to October 15 | |
| B) 35.65 | | 16,001.18 | | B) 6,186.71 | | Continuous Municipal, Instream Flow (Temp) | |
| C) 38.27 | | N/A | | C) 7,823.5 | | Instream flow (Permanent) Continuous | |
| SOURCE | | | | | | TRIBUTARY OF (IF SURFACE WATER) | |
| Columbia River, Wenatchee River and Wells | | | | | | Pacific Ocean | |
| ¼ | ¼ | SECTION | TOWNSHIP N. | RANGE | WRIA | COUNTY. | |
| NE | NW | 14 | 23 N | 19 EWM | 45 | Chelan | |
| SW | NE | 3 | 22 N | 20 EWM | 45 | Chelan | |
| SE | NW | 28 | 23 N | 20 EWM | 45 | Chelan | |
| NE | NE | 33 | 23 N | 20 EWM | 45 | Chelan | |
| NW | SW | 34 | 23 N | 20 EWM | 45 | Chelan | |
| | | 5 | 21 N | 22 EWM | 45 | Chelan | |
| NW | NW | 19 | 22 N | 21 EWM | 44 | Douglas | |
| NE | SE | 19 | 22 N | 21 EWM | 44 | Douglas | |
| | | 20 | 22 N | 21 EWM | 44 | Douglas | |
| SW | NE | 28 | 23 N | 20 EWM | 45 | Chelan | |
| | | 6 | 21 N | 22 EWM | 45 | Chelan | |
| | W1/2 | 31 | 22 N | 22 EWM | 45 | Chelan | |
| AT A POINT LOCATED: PARCEL NO. | | | | | | | |

| LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED AS APPROVED BY THE BOARD | | | | | |
|--|---|--------------------------------|---------|--|-------|
| <p>A) Sections 12, 13 and 14, T. 23 N., R. 19 E.W.M.; Sections 19 through 22, 28, 33 and 34, T. 23 N., R. 20 E.W.M.; and Section 3, T. 22 N., R. 20 E.W.M. all in Chelan County, WA. RCW 90.03.386 may have the effect of expanding the place of use of this water right. If the criteria in RCW 90.03.386(2) are not met and a Water System Plan/Small Water System Management Program was approved after September 9, 2003, then the place of use of this water right reverts to the service area described in that document.</p> | | | | | |
| <p>B) The place of use is expected to conform to the Regional Water System service area set forth in Volume 2 of the 2012 City of Wenatchee Water System Plan. RCW 90.03.386 may have the effect of expanding the place of use of this water right. If the criteria in RCW 90.03.386(2) are not met and a Water System Plan/Small Water System Management Program was approved after September 9, 2003, then the place of use of this water right reverts to the service area described in that document. (Temporary Trust) Primary Reach: Columbia River from RM 453.4 (Rock Island Dam) to RM 468.3 (confluence with Wenatchee River). Secondary Reach: Columbia River RM 453.4 to the Pacific Ocean.</p> | | | | | |
| <p>C) Instream flow in the Wenatchee River from RM 6.6 to RM 0.0 at the confluence of the Wenatchee and Columbia Rivers.</p> | | | | | |
| PARCEL NO. | ¼ | ¼ | SECTION | TOWNSHIP N. | RANGE |
| DEVELOPMENT SCHEDULE | | | | | |
| BEGIN PROJECT BY THIS DATE: | | COMPLETE PROJECT BY THIS DATE: | | WATER TO PUT TO FULL USE BY THIS DATE: | |
| A) N/A | | 12/31/2015 | | 12/31/2018 | |
| B) N/A | | 12/31/2032 | | 12/31/2052 | |
| C) N/A | | 12/31/2015 | | 12/31/2016 | |

Ecology has **MODIFIED** the decision of the Board as follows:

1. The date for putting water to full beneficial use stated in the Development Schedule for the "B" portion is changed from December 31, 2072 to ~~December 31, 2052~~.
2. A provision is added that states:

So long as Regional is proceeding with the development of the water right with due diligence, the Department of Ecology will consider extensions of Regional's development schedule consistent with future water system planning through the Department of Health.

YOUR RIGHT TO APPEAL

You have a right to appeal this decision to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this decision. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of this decision:

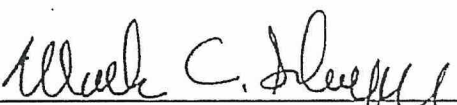
- File your appeal and a copy of this decision with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this decision on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

| Street Addresses | Mailing Addresses |
|---|--|
| Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey WA 98503 | Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia WA 98504-7608 |
| Pollution Control Hearings Board 1111 Israel Road SW Ste 301 Tumwater WA 98501 | Pollution Control Hearings Board PO Box 40903 Olympia WA 98504-0903 |

For additional information visit the Environmental Hearings Office Website: <http://www.eho.wa.gov>
To find laws and agency rules visit the Washington State Legislature Website: <http://www.leg.wa.gov/CodeReviser>


Mark C. Schuppe, Operations Manager
Office of Columbia River
Central Region Office

MCS:JK:hd/120802

Enclosures: *Your Right to Be Heard*

Certified Mail: 7010 0290 0000 7131 1651

cc: Lisa de Vera, Chelan County Water Conservancy Board
Mark Peterson, Peterson Law Offices
Lois Trevino, Administrator, Environmental Trust, Colville Confederated Tribes
Philip Rigdon, Director, Natural Resources Division, Yakama Nation

Appendix F

Regional Water System Contract

ORIGINAL

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November 13, 1998

WATER CONTRACT - REGIONAL WATER SYSTEM

Amended Contract — November 1998

THIS CONTRACT is made to be effective as of the _____ day of _____, 19____, by and between the CITY OF WENATCHEE, WASHINGTON (herein called "City"), and PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, WASHINGTON (herein called "PUD"), and EAST WENATCHEE WATER DISTRICT OF DOUGLAS COUNTY, WASHINGTON (herein called "Water District"). Collectively, the three municipal corporations organized under the laws of the State of Washington are referred to as "parties" to this contract.

WITNESSETH:

WHEREAS, there is a need to establish a safe and wholesome water supply that will meet the present and future requirements of the Wenatchee urban area in Chelan and Douglas Counties and the parties are water purveyors operating water systems within the urban and rural areas; and

WHEREAS, the parties are empowered individually and collectively by state law to construct and operate water supply, transmission, storage, and distribution facilities; and

WHEREAS, the PUD owns land adjacent to Rocky Reach Dam in Douglas County, Washington, which is underlain by an aquifer capable of meeting present and future water supply requirements of the Wenatchee urban area, and the parties are desirous of developing and maintaining the aquifer and transmission facilities of a water supply system to serve the distribution system of the City, PUD, and the Water District; and

WHEREAS, the City and PUD in cooperation with each other have undertaken engineering feasibility studies and have determined that development of the aquifer where it underlies land owned by the PUD as a source of municipal water supply to serve the entire Wenatchee urban area is mutually beneficial; and

WHEREAS, this Contract supersedes and replaces that "Water Contract - Regional Water System," dated February 13, 1979, by and between the City and PUD; Provided, however, all other contractual agreements of the parties relating to the provision of water and water service

shall remain in full force and effect including, without limitation, that Water Service Area Contract dated January 23, 1979, by and between the City and the PUD, and;

WHEREAS, the Water District has requested, and the City and PUD have agreed to extend the Regional Facilities and water service to the area shown on Exhibit A in Douglas County.

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL COVENANTS AND AGREEMENT CONTAINED HEREIN, IT IS HEREBY AGREED BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. **Purpose and Definitions**

The purpose of this contract is to provide a source of water supply for the City, the PUD, and the Water District, to provide for the acquisitions, construction, operation, and maintenance by the City of regional facilities needed to develop the water supply, to assure that the parties will receive and pay for their respective shares of the water supply.

The following words and phrases used in this contract shall have the following meanings:

- a. **1977 Bond Ordinance** shall mean the ordinance which was adopted by the City authorizing the issuance and sale of the Original Regional Facilities Bonds.
- b. **City** shall mean the City of Wenatchee, Washington, acting by and through its City Commission, unless such authority shall be lawfully delegated to other persons.
- c. **Coordinating Committee** shall mean the Regional Facilities Coordinating Committee provided for in this contract.
- d. **PUD** shall mean the Public Utility District No. 1 of Chelan County, Washington, a municipal corporation of the State of Washington, acting by and through its Board of Commissioners, unless such authority shall be lawfully delegated to other persons.
- e. **Water District** shall mean the East Wenatchee Water District in Douglas County, Washington, a municipal corporation of the State of Washington, acting by and

through its Board of Commissioners, unless such authority shall be lawfully delegated to other persons.

- f. **Water District Regional Intertie** shall mean the pipeline connection between the Water District distribution system and the Regional Facilities as identified on Exhibit A.
- g. **Future Regional Facilities** shall mean all future additions and betterments to and replacements of Original Regional Facilities.
- h. **Replacement Cost** shall mean the cost to repair or replace Original Regional Facilities.
- i. **Maximum Day Demand** shall mean the highest demand for water from Regional Facilities for a twenty-four-hour period expressed in million gallons per day (mgd).
- j. **Original Regional Facilities** shall mean all facilities, lands, water rights, and rights-of-way required to be constructed to develop the Rocky Reach aquifer as a source of water supply to meet the projected Maximum Day Demand of parties as set forth in Section 12, to transport such water to the local distribution systems of the parties, and to store and regulate the flow of such water to such distribution points, all as more specifically described on Exhibit A.
- k. **Original Regional Facilities Bonds** shall mean the Regional Facilities Bonds issued to pay the Original Regional Facilities Costs remaining after the receipt or commitment of federal and state grants, and shall include any future bonds hereafter issued and sold to refund such bonds.
- l. **Original Regional Facilities Costs** shall mean the Regional Facilities Costs attributed to the construction and installation of the Original Regional Facilities.
- m. **Peak Hour Demand** shall mean the highest demand for water from Regional Facilities for a single hour period expressed in million gallons per day (mgd).

- n. **Regional Facilities** shall mean the Original Regional Facilities and Future Regional Facilities, including individual wells identified by the parties as being integral to the Regional Water System.

- o. **Regional Water System Supply Area** shall mean the geographical area shown on Exhibit A intended by this Contract to assist in meeting the projected public water supply needs defined by the parties to this Water Contract. The Supply Area is intended to be the same as the "Place of Use" as referenced by the Water Right Permit No. G4-25575. The Supply Area includes both urban growth areas and rural service areas as defined by the County and State approved Growth Management Plan for the areas incorporated in Exhibit A.

- p. **Regional Facilities Bonds** shall mean water and sewer revenue bonds issued by the City to pay costs of the Original Regional Facilities or Future Regional Facilities, and any future bonds hereafter issued and sold to refund such bonds. If only a portion of any issue or series of bonds is devoted to Regional Facilities Costs or the refunding of Regional Facilities Bonds then the particular bonds devoted to such purposes shall be separately identified in the authorizing ordinances and shall be Regional Facilities Bonds.

- q. **Regional Facilities Costs** shall include all parties' costs and expenses attributable to the planning, design, construction, and installation of Regional Facilities and financing thereof, including, but not limited to, the actual costs of design and construction, acquisition of land and rights-of-way, whether incurred at the time of acquisition or subsequent thereto, compliance with any applicable environmental policy act or procedures, engineering fees, legal fees, financial consultant fees, interest during construction, Regional Facilities Bond discount, capitalized reserves, taxes, publication costs, contract administration costs, costs in negotiating (excluding future individual parties attorney and engineering costs), preparing, executing, and effecting this contract and amendments hereof and interest on any advances made to pay any of the foregoing costs from the date such advance is made at a rate equal to the average net effective interest rate on

the original Regional Facilities Bonds, but shall not include any tax or other charge for the benefit of the public art program of the City. Eligible Regional Facility costs shall hereafter be incurred only by the written consent of the City, PUD, and Water District.

- r. **Regional Facilities Maintenance and Operation Expenses** shall mean all costs and expenses relating to the operation and maintenance of Regional Facilities, including, but not limited to, direct labor, fringe benefits of the employees performing such labor. The cost shall also include power, light, heat, chemicals, equipment (including repair and replacement thereof), tools, materials, supplies, insurance premiums, contract services, legal services, inspections, taxes and "in lieu of tax payments" (other than those imposed by the City which shall not be included). City administrative, overhead, and direct expenses chargeable to the Regional Facilities is permissible at the rate which the City charges its other activities for such expenses as well as payments required to be made out of revenue into any repair and replacement reserve for Regional Facilities and into any debt service reserve for Regional Facilities Bonds and interest on any advances made from other revenues of the combined water and sewer system of the City to pay any of the foregoing costs at the average net effective interest rate to the City on the Regional Facilities Bonds from time to time outstanding.
- s. **Regional Facilities Reserve Fund** shall mean the funds set aside for bond reserves and/or renewal and replacement of the Regional Facilities as shown on Exhibit F. The funds in the unrestricted Reserve Fund on the effective date of this amended agreement will be dispersed to the City and the PUD, proportionate to the gross revenues paid by each to the Fund, for their sole use and distribution. Following the effective date of this agreement, the unrestricted Reserve Fund will be funded by the three parties in accordance with the annual budget.
- t. **Water Rights** shall mean the water rights documented in Permit No. G4-25575P for use by the parties to this Agreement and for the purposes identified herein and the water rights listed in Appendix E and held by the City, the PUD, and the Water

District that are relied upon to meet the projected demands defined in this Water Contract and Exhibit D.

2. **Term of Contract**

This contract shall become effective upon the date of signature. The term of this contract shall be for fifty (50) years from the date of Original Regional Facilities Bonds and for such longer period as any Regional Facilities Bonds shall remain outstanding or the payment thereof is not fully provided for, secured, and funded. This contract shall automatically renew for successive terms of 15 years each upon the expiration of any preceding term, including any renewal hereunder, unless all parties to the contract unanimously agree in writing to terminate the same in which event the contract shall terminate upon the expiration of the then current term.

3. **Design, Construction, Financing, and Maintenance of Regional Facilities**

The City agrees, to design, acquire, construct, improve, repair, replace, maintain, and operate the Regional Facilities, utilizing the aquifer adjacent to the Rocky Reach Dam in Douglas County, Washington, as a source of supply, subject to the terms of this agreement.

The City will use its best efforts to finance, on a reasonable and timely basis, all Original Regional Facilities Costs, less the proceeds of such grants as may be received. The revenues of the combined water and sewer system of the City, including revenues derived from the Regional Facilities, shall be pledged to the payment of such bonds.

The Water District will reimburse the City and the PUD for one third of the cost of developing and constructing all supply facilities considered to be existing Regional Facilities at the Rocky Reach Aquifer site. The reimbursement value will be determined by calculating the replacement cost of the installed facilities and site development, less depreciation at the time payment is made (see Exhibit C). The first payment shall be January 1, 2000. The repayment shall be shared proportionately by the City and the PUD based on their current allocation of total gross payment for water use prior to January 1, 2000.

The Water District will transfer ownership rights of the land and installed facilities associated with Water District Well Nos. 4, 5, and 7 to the Regional Facilities account, along with all water rights held by the Water District on the effective date of this Contract. In exchange, the City and the PUD will credit the Water District for the value of the land and facilities, as outlined on Exhibit C, as an offset for the Water District's cost to purchase their share of the Regional Supply Facilities beginning January 1, 2000; provided if any of the three wells fail to function at the rated capacity or meet DOH water quality requirements for primary drinking water standards through the year 2003 after addition of chlorination, the Water District will refund the credit for the well or wells to the City and PUD unless other adjustments are agreed to by the Coordinating Committee. The Water District's other wells will be abandoned.

Upon the signing of this Contract and in consideration for payment over time by the Water District, the Rocky Reach Aquifer capacity, identified wells and related facilities, and water rights listed on Exhibits C and E shall be considered to be owned and shared, on an individual one-third tenant in common basis by each party, for the purpose of supplying the Regional Supply needs.

The Water District will obtain water supply from its original wells until they construct the intertie to the Regional System. The Water District shall pay for the operation and maintenance of their wells until the intertie is completed. Thereafter, the Regional System shall be responsible for operation and maintenance, except in cases of original Water District well failure as noted above, and the Water District shall pay the Regional Facilities' cost of water. The water supplies and associated water rights listed in Exhibits D and E shall be made available to all parties through Regional Facilities on an as needed basis as defined by the Coordinating Committee and their approval of the Regional Facilities annual budget.

The Water District shall design the Water District Regional Intertie, meter, and vault at the Odabashian Bridge connection to the Water District point of use. The cost of the Water District Regional Intertie and related pump station and pipeline shall be the responsibility of the Water District.

When the Regional Water demand from the parties requires pipeline capacity expansion of the Regional Facilities from the Aquifer site to the Water District Odabashian Regional Connection, each party will identify the additional capacity beyond the existing allocation (City equals 15.5 mgd, PUD equals 4.0 mgd, and Water District equals 0.0 mgd) required to meet their service areas' projected need for at least 20 years. If the City indicates in writing that it will require less than the currently allocated 15.5 mgd capacity in Pipeline No. 1, the excess City capacity rights will be transferred to the PUD. Each party will be responsible for guaranteeing the financing of the cost of the second pipeline proportionate to their identified need. It is anticipated that a joint financing plan will be used.

The City will prepare, or cause to be prepared, and submit to the parties reports of progress during the period of construction of any new Regional Facilities and quarterly reports, including data as to the date of expected completion of such facilities and a comparison of then estimated construction time and cost with estimates made prior to commencing construction, and shall promptly advise the parties of and consult with the parties on any substantial engineering and construction problems as they arise.

At its option and expense, the parties may maintain observers at the construction site who will be given full access, at reasonable times, to the Regional Facilities and to all plans, records, and other documents under control of the City relating to such construction. All work completed at the Aquifer site shall be accomplished in a manner acceptable to the PUD and consistent with the objectives of this Contract.

4. **Permit**

The PUD hereby grants to the City, its authorized representatives, and/or agents, the right to go upon and use the PUD's property at the site of the Rocky Reach aquifer in Douglas County, Washington, as more particularly described on Exhibit B, in order to design, construct, improve, repair, replace, maintain, and operate the Regional Facilities and in doing so, withdraw water from said aquifer. This authority is granted irrevocably except as modified by conditions associated with the Federal Energy Regulatory Commission permit for the Rocky Reach Hydro-Electric project.

The PUD, in addition, hereby grants to the City, and its authorized representatives, and/or agents, the right to maintain, construct, and operate the Regional pipeline and appurtenant facilities of the water system within the project boundaries of the Rocky Reach and Rocky Reach Hydro-Electric projects as provided in the Federal Regulatory Commission Permit to the PUD. To effectuate the intent of the parties, the PUD agrees to execute instruments of conveyance to the City necessary to construct and operate the pipeline and appurtenances provided in this contract. It is understood between the parties that the granting of this permit is subject to the approval of the Federal Energy Regulatory Commission since the Regional Facilities will be constructed within the boundaries of the Rocky Reach Hydro-Electric Project. The parties agree to cooperate one with the other and to use their best efforts in order to obtain the approval of this permit from the Federal Regulatory Commission.

It is further understood between the parties that the permit granted by the PUD to the City herein is subject to the PUD relicensing its Rocky Reach Hydro-Electric Project before the Federal Regulatory Commission. The present license expires July 1, 2006. The PUD agrees to make diligent effort to obtain a new license for this project which would carry with it the authority to continue the permit rights granted to the City herein. The relicensing by the PUD shall be at the PUD's sole cost and expense, and shall not be a Regional Facilities Cost.

This permit expressly reserves the PUD all rights necessary for the proper operation of the Rocky Reach Hydro-Electric Project and all other rights which do not interfere with the essential construction, improvement, repair, replacement, maintenance, and operation of the Regional Facilities to be located upon the premises of the Rocky Reach Hydro-Electric Project.

These permits shall expire upon termination of this contract.

5. **Books of Account, Auditing; Cost and Delivery of Water**

The City, the PUD, and Water District each acknowledge that the City is a municipal corporation regulated by the laws of the State of Washington and its agencies. The City

agrees, pursuant to such regulation, to cause proper books of account for the Regional Facilities to be kept as a separate utility, together with such other books and records as may be necessary to comply with this contract. The City has established and shall maintain a separate fund known as the "Regional Water Fund" into which proceeds of loans, grants, insurance, and bonds received by the City for the payment of Regional Facilities Costs have been, and shall continue to be deposited and from which such costs shall be paid. The City shall also establish a separate fund in one of its existing funds (herein referred to as the "Regional Facilities Operating Account") to which shall be charged all Regional Facilities Maintenance and Operation Expenses, and to which fund or account shall be credited all payments received from the City, PUD, and the Water District for the delivery of water from the Regional Facilities.

All such records are acknowledged to be public records and are available at City offices for examination by the PUD, Water District, and the public.

The City shall deliver to the PUD and Water District water from the Regional Facilities in the maximum volumes authorized by Sections 12 hereof at a unit cost equal to that charged for water delivered from Regional Facilities to the City distribution system and the PUD and the City shall take their supply of water exclusively from the Regional Facilities after completion of the Original Regional Facilities subject to the terms of this agreement. The Water District shall take its base supply from the Regional Facilities and shall utilize the designated wells to meet demand as approved by the Coordinating Committee through approval of the annual operation, maintenance, and capital budget. The Regional Facilities' budget shall include the cost associated with the PUD and Water District wells being maintained and used as an element of the Regional Facilities. Provided the Coordinating Committee may authorize the PUD or Water District to utilize designated wells for non-Regional use in exchange for reimbursement of direct operating costs.

Costs for the purpose of computing the cost of such water shall include Regional Facilities Maintenance and Operating Expenses, the debt service on the reserve requirements for Regional Facilities Bonds and the coverage requirement for Regional Facilities Bonds and

Regional Facilities Costs not paid from the Regional Facilities Bonds or from moneys in the repair and replacement reserve.

The funds in the unrestricted Regional Facilities Reserve Fund on the effective date of this agreement will be dispersed to the City and the PUD. (See Exhibit F.) Following the effective date of this agreement, the unrestricted Reserve Fund will be funded by the parties in accordance with the annual budget and 1977 Bond Covenant.

The cost of water from Regional Facilities shall be allocated annually to the City, the PUD, and the Water District in direct proportion to the amount of water actually delivered in any given calendar year to each party, respectively, at those points of delivery indicated on Exhibit A. Meters and vaults shall be installed at such points by the City as part of the Regional Facilities as provided in Section 19 to measure such amount.

The amounts to be paid for all such water delivered shall be determined in the manner provided by this Section 5 and such payments shall be made at the times and in the manner specified in Section 6.

By September 1 of each year, the City shall notify the PUD and the Water District of the City's proposed budget of estimated expenditures during the ensuing calendar year for the Regional Facilities showing the City's estimate of the debt service on Regional Facilities Bonds and the payments required to be made out of revenues into any repair and replacement reserve for Regional Facilities and into any debt service reserve for Regional Facilities Bonds, the coverage requirement for the Regional Facilities Bonds, and the Regional Facilities Maintenance and Operation Expenses, which collectively shall be known as "Regional Facilities budget." The budget shall also show the estimate of the total amount of water which will be supplied during such year through the Regional Facilities to the PUD, the Water District, and the City.

The Coordinating Committee shall consider and make recommendations for approval or changes in such budget by September 15 of that year. The proposed capital improvements shall be identified in the annual budget and the budget shall be approved individually by the parties by October 15 for inclusion in the City budget. The final Regional Facilities

budget adopted by the City may not include expenditures greater than those set forth in the proposed budget submitted to the PUD and the Water District unless, prior to final adoption, the City submits a written statement to the PUD and the Water District of the reasons for such greater expenditures.

Subject to the final adjustment hereafter provided for in this Section 5, the rate which shall be paid by the PUD, the Water District, and the City for each mg of water delivered to it through the Regional Facilities shall equal the quotient obtained by dividing the total Regional Facilities' budget by the total estimated quantity of water to be supplied to the Water District, PUD, and City through the Regional Facilities during the year to which such budget applies. The budget referred to in this Section 5 is not the regular budget for the City, but instead a budget for the Regional Facilities for the purposes of this contract.

By March 1 (or as soon as practicable thereafter) of each year following the year in which the estimates apply, the City shall determine and notify the PUD and the Water District of the actual debt service and reserve and coverage requirements for the then outstanding Regional Facilities Bonds, Regional Facilities Costs not paid from the Regional Facilities Bonds or from moneys in the repair and replacement reserve, and the actual Regional Facilities Maintenance and Operation Expenses (which may be greater or less than the amount budgeted and are collectively referred to as "actual expenditures"), and the actual water consumption by the City, the PUD, and the Water District for the immediately preceding calendar year or part thereof covered by this contract. If the total charges paid to the City by the PUD and the Water District are less than the charges payable based on the actual expenditures and actual quantity of water so delivered to the PUD and Water District pursuant to this paragraph for that preceding calendar year, then the PUD and the Water District, within thirty (30) days after such notification, shall pay their proportionate share to the City for the amount of that deficit. If the total charges paid to the City by the PUD and the Water District are greater than the charges payable based on the actual expenditures and actual quantity of water so delivered to the PUD pursuant to this paragraph for that preceding calendar year, then the City shall retain those excess payments and credit the excess payments against the next payments due from the PUD and the Water District beginning March 1 (or as soon as the data is reasonably available).

During any year the City shall use its best efforts to operate within the Regional Facilities budget. In the event that estimated debt service, reserve, or coverage requirements for the Regional Facilities Bonds or estimated Regional Facilities Maintenance and Operation Expenses, are projected to increase above budget estimates, the City shall submit a revised Regional Facilities budget to the PUD and Water District at least ninety (90) days before such increase shall take effect. If the PUD or Water District disagrees with the revised Regional Facilities budget, the issue shall be resolved as outlined in Section 16.

If there are any excess proceeds from Regional Facilities Bonds and earnings from the investment thereof after payment of all costs relating to the purpose of such bonds, the City shall deposit such excess proceeds and earnings into the repair and replacement reserve for Regional Facilities or into the bond redemption fund or the reserve account for Regional Facilities Bonds.

Money paid by the PUD and the Water District pursuant to this contract, and actual proceeds (including investment income thereof), attributable to any repair or replacement reserve for Regional Facilities, or attributable to any debt service reserve for Regional Facilities Bonds, or coverage therefore, shall be used as the City may direct consistent with the approved annual budget; but in the event such use is not for the benefit of Regional Facilities as defined herein, the amount not spent for the benefit of the Regional Facilities shall, for purposes of determining the cost of water furnished by the City to the PUD and the Water District, be treated as a credit to the PUD and the Water District against cost of water furnished in the next succeeding year.

The charges by the City to the PUD and the Water District for the wholesale supply of water to the PUD and the Water District from the Regional Facilities shall be charges made for the sale of water by the City to the PUD and Water District and shall never include or reflect any tax, surcharge, or charge in lieu of taxes imposed by the City.

6. **Billings and Payments**

The City shall bill the PUD and the Water District on the first day of each calendar month for the monthly water consumption at the rate determined and adjusted pursuant to

Section 5, except the first billing shall include charges for all water consumed up to the end of the first billing period. The PUD and the Water District shall pay out of the gross revenues of its water system the amount so billed within twenty-five (25) days of the date of such billing, after which time the billing, or the unpaid portion thereof, shall be delinquent. The City, in the same manner, shall pay monthly for deposit into the separate fund or account referred to in Sections 5 and 7 the charges for all water it receives from Regional Facilities. Such City payments may be made from any revenues of the combined water and sewer system of the City other than funds paid by the PUD and the Water District under this contract. Charges omitted in one billing may be billed in the following month. Delinquent charges shall accrue interest on the unpaid balance at the rate of eight percent (8%) per annum from date of delinquency until paid.

7. **Establishment and Use of Funds; Bond Ordinance**

The City agrees to establish all such funds as by law or regulation and the terms of this contract are required, and to utilize those funds only as by law or regulation is allowed. The City agrees that the PUD and the Water District shall have a reasonable opportunity to review future Bond Ordinance and to comment thereon prior to its passage.

8. **Operation, Maintenance, Engineering, and Planning**

- a. **Operation.** The parties hereto agree to cooperate on matters relating to operations, maintenance, and repair of the Regional Facilities except that the City shall pay the cost of such operation, maintenance, and repair hereafter as a Regional Facilities Maintenance and Operation Expense.

The City shall supply to the PUD and the Water District through the Regional Facilities, and the PUD and the Water District shall purchase and have the enforceable right to receive therefrom, water in the quantities specified in Section 12, subject to (i) the capability of the Regional Facilities to furnish that water at any one time, (ii) acts of God, force of majeure, or other cause beyond the reasonable control of the City, and (iii) change in the quantities specified in Section 12 made pursuant to Sections 12 and 21. In the event of a drought or other cause

reducing quantities of water, the parties agree that available water shall be prorated between the parties in accordance with their previous years' total annual water use from the Regional Facilities.

The City shall operate the Regional Facilities in accordance with the then current standards and requirements established by applicable state and federal law and agencies having jurisdiction over such operation.

- b. **Maintenance.** The City will use its best efforts to maintain the Regional Facilities in good operating condition at all times and to operate same in an efficient, economical, and workable manner. Renewals and replacements thereof as needed shall be made in accordance with this contract. The City, in order to prevent injury to persons or to avoid damage to property or equipment, may, in an emergency, without consultation with the PUD or the Water District, temporarily interrupt or reduce deliveries of water hereunder, but only for as long as such emergency shall exist. In the event of any failure or damage whatsoever to the Regional Facilities, of any reduction in the delivery of water, the City agrees that it will, with due diligence and in accordance with this contract, expedite repair or replacement of such facilities or remedy the condition causing such reduction, to the end that delivery of water will be re-established as soon as reasonably possible.

- c. **Engineering and Planning.** The City shall advise and consult with the Coordinating Committee, the PUD, and the Water District from time to time on matters relating to engineering studies, planning, operations of the Regional Facilities, and maintenance and repair thereof. Such matters shall include engineering studies as required to maintain or increase water supply, exchange of operating information and data, cooperation with respect to unresolved problems, contractual arrangements with other utilities for water requirements, operating studies, and other related problems.

9. **Notices**

Any notice, recommendation, or demand by the PUD or the Water District under this contract shall be deemed properly given if deposited in the United States mail system by certified mail, postage prepaid, addressed to the City of Wenatchee, P. O. Box 519, Wenatchee, Washington, 98801, and any notice, recommendation, or demand by the City under this contract shall be deemed properly given if deposited in the United States mail system by certified mail, postage prepaid, addressed to Public Utility District No. 1 of Chelan County, 327 N. Wenatchee Avenue, Wenatchee, Washington, 98801 and East Wenatchee Water District, 692 Eastmont Avenue, P. O. Box 7190, East Wenatchee, Washington, 98802-7190. The designation of the name and address to which such notice, recommendation, or demand is to be directed may be changed at any time from time to time by any party by similar notice.

10. **Benefited Parties**

This contract shall be binding upon and inure to the parties hereto, their successors, and assigns, and is not intended to and shall not confer upon any third party any rights or benefits hereunder. Nothing herein contained is intended to adversely affect any rights or benefits inuring from time to time of the holders of Regional Facilities Bonds or the revenue bonds heretofore issued by the City and revenue bonds hereafter issued on a parity with such outstanding bonds, or bonds issued to refund the same.

11. **Other Water Sources**

It is understood and agreed that the PUD and the Water District will not permit water from any other source of supply or any part thereof to be mixed or mingled with water from the Regional Facilities without prior approval of the other parties, except in cases of emergency, and then only such water shall be used as shall meet the requirements of the Washington State Department of Health and in such quantities as shall be necessary to relieve the emergency.

The PUD and Water District agrees to utilize water from designated wells in accordance with the operating protocol established by the Coordinating Committee.

The Coordinating Committee will establish the operating protocol for the use of the Water District and PUD wells to minimize capital and operating costs. The annual plan to utilize the wells will be approved by the Coordinating Committee, and when used as a Regional Supply, the Cost of maintaining and operating them as a regional supply will be incorporated in the Regional Facilities annual budget.

12. **Rate of Water Delivered; Original Regional Facilities and Future Regional Facilities**

It is acknowledged by the parties to this contract that the Original Regional Facilities were intended at full capacity to deliver water to the City and the PUD, and that each shall be entitled to draw or receive water at an allocated flow rate not to exceed the following amounts: City - 15.5 mgd; PUD - 4.0 mgd.

However, the Water District supply capacity is limited by the availability of transmission capacity from the well site to the Water District Regional Intertie near the Odabashian Bridge. The current capacity is available to the Water District as an excess capacity from the City and the PUD. When the available transmission capacity is projected to be exceeded by the combined demands of the parties, the parties will establish the design capacity of a second transmission line as provided for in Section 3. See Exhibit F for the allocation method.

The flow amounts, in Exhibit D, represented the best estimates of the City, the PUD and the Water District in 1998. It is recognized that should the growth rates or service area responsibilities of the respective parties change significantly, it is possible that one of the parties requirements could exceed the allocated pipeline flow limits set forth herein. In such an instance, to the extent other parties to this contract do not require the allocated Average or Maximum Day Demand, it is agreed that the excess capacity will be made available to one of the other parties with the additional demand requirements.

The parties to this contract acknowledge that the Regional Facilities are intended to ultimately supply the total estimated Maximum Day Demand requirements of the parties. The Regional Facilities will be designed for Maximum Day Demand, but shall not provide capacity to meet the Peak Hour Demands of any party to this agreement. Those Peak

Hour Demands shall be met by water stored within each party's system. To ensure compliance with the above, it may be necessary to install control devices at service connections between the Regional Facilities and the local water system of a party to this contract.

It is the intent of this contract that at such time as the Maximum Day Demand approaches the design pipeline capacity of such facilities, the parties shall use their best efforts to reach an agreement upon the construction and financing of Future Regional Facilities.

Any Future Regional Facilities to be constructed which will substantially increase the design capacity of the Regional Facilities shall be agreed upon by the parties prior to construction. The parties shall confer and agree upon a method for financing Future Facilities which substantially increase the capacity of Future Regional Facilities, including the issuance of any Regional Facilities Bonds therefor and payment of the cost thereof. Exhibit F presents the intent of this Agreement in allocating the financing cost of future Regional Facilities. Future improvements to the Regional Supply sources will be a Regional Facilities Cost.

If regulatory agencies with jurisdiction over the Regional Facilities shall during the term of this agreement lawfully direct and require the upgrading of the Regional Facilities by making of qualitative improvements to such facilities, the City shall make such improvements.

13. **Amendment of Contract**

It is agreed between the parties that this contract may be amended, modified, altered, or otherwise clarified by written agreement of the parties by unanimous agreement, but such amendment, modification, alteration, or clarification shall not be made in any manner which will impair or adversely affect the rights of the holders from time to time of Regional Facilities Bonds.

14. **Hold Harmless; Liabilities**

- a. **Hold Harmless.** It is acknowledged that the City will not have exclusive occupancy of the aquifer site. The City agrees to indemnify, defend, and hold harmless the PUD and the Water District from any and all claims for loss or damage arising out of the construction, operation, maintenance, reconstruction, or repairs of the Regional Facilities, or the delivery of water therefrom, and the City's occupancy of the PUD's real property during the term of this contract as to all damage for which the City is responsible and liable. The PUD agrees to indemnify, defend, and hold harmless the City and the Water District from any and all claims for loss or damage arising out of acts of the PUD for which the PUD is liable. The Water District agrees to indemnify, defend, and hold harmless the City and the PUD from any and all claims for loss or damage arising out of acts of the Water District for which the Water District is liable.

- b. **Charges.** Any loss, cost, liability, damage, and expense to the City, PUD, or the Water District resulting from the construction, operation, maintenance, reconstruction, or repair of the Regional Facilities, or the delivery of water therefrom to the points of delivery to the local systems, including injury to or death of persons, or damage to or loss of property, to the extent not covered by collectible insurance, shall be charged to Regional Facilities Maintenance and Operations Expenses or Regional Facilities Costs, whichever may be appropriate. Provided, however, no such charge shall be made to Regional Facilities Maintenance and Operations Expenses or Regional Facilities Costs for loss or damage for which a party is otherwise obligated to indemnify, defend and hold harmless the other parties hereto as provided in Section 14(a).

- c. **Waiver.** The City, PUD, and the Water District shall cause their insurers to waive any right of subrogation against each other, their agents and employees for losses, costs, damages, or expenses arising out of the construction, operation, maintenance, reconstruction, or repair of and delivery of water from the Regional Facilities to the local systems.

- d. **No General Obligation.** No provision or covenant of the City, PUD, or the Water District contained in this agreement shall impose a general obligation upon the City, PUD, or the Water District making such covenants. Any liability or cost incurred by the City in constructing, operating, maintaining, repairing, or replacing Regional Facilities, delivering of water therefrom to the points of delivery to the local systems, or performing its duties pursuant to this Regional Water System Contract other than the duty to pay for water received by the City from the Regional Facilities shall be deemed to be either a Regional Facilities Cost or a Regional Facilities Maintenance and Operation Expense. Any liability or cost incurred by the PUD or the Water District pursuant to this contract shall be an obligation only of the gross revenues of the water system of the PUD or the Water District; it being the intent of this agreement that the existing covenants of the PUD's and the Water District's revenue bonds will in no manner be impaired by this contract. Provided, however, no such charge shall be made to Regional Facilities Maintenance and Operations Expenses or Regional Facilities Costs for loss or damage for which a party is otherwise obligated to indemnify, defend, and hold harmless the other parties here to as provided for in Section 14(a).

15. **Insurance**

The City, PUD, and Water District each agree that it will keep the Regional Facilities and the operation thereof insured, in an amount not less than each party's interest in the Regional Facilities, or as agreed to by the Coordinating Committee, against risk of direct physical loss, damage to, or destruction of the Regional Facilities for the duration of the Contract.

The City, PUD, and Water District each agree that it will maintain commercial general liability insurance (or self-insurance) in an amount of not less than \$2,000,000 per occurrence.

The City, PUD, and Water District each agree that it will maintain workers compensation insurance for its employees who come within the protection of workers compensation

laws of the State of Washington. The City, PUD, and Water District each agree to waive subrogation under the workers compensation insurance program.

The City, PUD, and Water District each agree to provide a certificate of insurance, or other acceptable documents, to the other two parties to the Contract, and each party's liability policy shall include a provision that the other two parties are additional insureds under their insurance as respect the Contract.

In the event of any loss or damage to the Regional Facilities, any insurance proceeds received by the City, PUD, and Water District shall be applied to the cost of replacing or repairing such damage. Any replacement or repair costs in excess of available insurance shall be paid by the City, PUD, and Water District in accordance with each party's proportionate share of the Regional Facilities.

The City, PUD, and Water District each agree that the insurance required in this Contract shall not be deemed to limit each party's liability to the other parties to the Contract or to any third parties.

16. **Coordinating Committee**

There is created the Regional Facilities Coordinating Committee which shall consist of one (1) official representative designated by each party's legislative body, for a total of three (3) members. Members of the Committee shall be persons employed regularly by the parties appointing them and have knowledge and/or responsibilities that qualify them to evaluate and make decisions on matters considered by the Committee.

The Coordinating Committee shall select its chairperson, shall fix a time and place for its meetings, and establish such rules and procedures as it deems appropriate, and keep a record of its proceedings. The Coordinating Committee shall meet quarterly, with additional meetings subject to call by any member. The City shall serve as the lead agency for scheduling the meetings and coordinating the agendas. Each party may invite additional representatives to the meetings.

The Coordinating Committee shall be advisory to the legislative bodies of the respective parties and shall be vested with responsibility for reviewing and issuing recommendations on all major issues arising out of the Contract including, without limitation, the following: (1) Maintenance and operation of the Regional Facilities; (2) Plans for Future Regional Facilities; (3) Auditing the expenses charged to the Regional Facilities Maintenance and Operations Expenses and Regional Facilities Costs; (4) Proposed and final budgets; (5) Adjustments of water allocations under Section 12; and (6) All other controversies arising between any parties hereto out of or in relation to this Contract. The Coordinating Committee, by majority vote, shall be responsible for directing the operation of Regional Facilities within the approved budget and operating protocols established by the parties and this Agreement.

Any party having any disagreement or dispute involving the interpretation of this Contract or the rights and obligations of the parties thereunder shall first be required to submit such dispute in writing to the Coordinating Committee which shall be required to issue a written recommendation within ninety (90) days of receipt of said dispute. The procedures stated herein shall be the sole and exclusive remedy of the parties for resolution of all disputes arising out of this Contract.

The City shall submit to the Coordinating Committee all proposed and final budgets, audits of the City's combined water and sewer system, and the Regional Facilities accounts and records, grants, grant applications, water supply and consumption data, and other matters it deems appropriate or the Coordinating Committee requests relating to the Regional Facilities. All parties shall submit to the Coordinating Committee annually, and at other times when requested, all data pertaining to water demands, consumption, supply, storage and transmission, and other information relating to the Regional Facilities.

In the event no audit has been performed for a period of three (3) years, the Coordinating Committee by a majority vote may cause an audit to be performed of the Regional Facilities accounts, and the maintenance and operations activities of the City with respect to the Regional Facilities. Legal and authorized expenses incurred by the Coordinating Committee, PUD, or the Water District for such audit shall be paid by the City and

charged as Regional Facilities Maintenance and Operation Expenses. Expenses incurred by individual representatives on the Coordinating Committee shall be borne by that representative or by the party which that person represents.

In furtherance of any recommendation to be made hereunder, any member of the Coordinating Committee may request that an analysis be conducted by a technical committee made up of one person from each of the parties to this agreement, which committee shall report back to the Coordinating Committee within thirty (30) days of formation unless a greater period is specified. Following review of the technical committee's findings, the Coordinating Committee shall issue its recommendation for a unanimous finding, after consultation with their legislative bodies.

For all matters requiring approval by the individual parties, the final action recommendation of the Coordinating Committee shall be deemed to be adopted and approved by the legislative bodies of the parties hereto unless within thirty (30) days of the issuance of the written recommendation one or more parties files a written protest with the Chairperson of the Coordinating Committee. Upon receipt of a timely filed protest, the Coordinating Committee shall convene and issue a recommendation for resolution within thirty (30) days of receipt of the protest either affirming, reversing or remanding for further consideration the recommendation at issue.

The decision of the Coordinating Committee upon review of a written protest and after consultation with their legislative bodies, shall be binding and conclusive upon all parties hereto unless within thirty (30) days of the issuance of said decision a party serves upon all other parties hereto a "Notice of Intent to Arbitrate," in accordance with RCW 7.04.060. The parties hereby stipulate and agree to settle by arbitration, in conformity with the provisions of RCW Chapter 7.04 (or any amendment thereof), all controversies arising between the parties out of or in relation to this Contract; Provided, however, no controversy may be submitted to arbitration unless the same has previously been submitted to the Coordinating Committee for review and recommendation in accordance with the procedures set forth above; Provided further, that any controversy the resolution of which involves the determination of the rights or obligations of the parties under any State or

Federal permits or licenses affecting the Rocky Reach aquifer and/or the Regional Water System (including the underlying water rights of the parties), shall be referred by the Arbitrator(s) to such State or Federal agencies for resolution, including any right of appeal which a party may have relating to said determination.

All cost and expense of the arbitrator(s) shall be charged as a Regional Facilities Cost with each party responsible for their own attorney's fees. In the event any party hereto fails to proceed with arbitration, unsuccessfully challenges the Arbitrator(s)' award, or fails to comply with the Arbitrator(s)' award, the other parties hereto shall be entitled to costs of suit including reasonable attorney's fees for having to compel arbitration or defend or enforce the arbitrator(s)' award.

17. **Assignment of Contract**

This contract shall inure to the benefit of, and shall be binding upon, the respective successors and assigns of all parties to this contract. No assignment or transfer of this contract shall relieve the parties hereto of any obligations incurred hereunder, and no assignment shall be made of any entitlements or responsibilities of a party hereunder without the prior written consent of the other party.

18. **Force Majeure**

The parties shall not be required to perform any obligations under this contract, other than its obligations to make when due all payments required hereunder, if such nonperformance shall be due to forces beyond its control. If the parties are rendered unable to fulfill any obligations by reason of such uncontrollable forces, it shall exercise due diligence to remove such inability with all reasonable dispatch, acting at all times in conformity with this contract.

19. **Metering**

Unless otherwise agreed by the parties hereto, metering of Regional Facilities shall be maintained by the City as follows:

- a. **Pumping Station.** The City shall provide and maintain suitable recording water meters at the Rocky Reach pumping station.
- b. **Other Metering.** The City shall provide and maintain suitable water meters at all points of delivery to local systems and at other points as may be necessary to carry of the terms of this contract.
- c. **Reading Meters.** The City shall read its meters mentioned in this contract at appropriate intervals so as to maintain a record of all water transactions under this contract.
- d. **Costs of Maintaining and Testing.** The costs of maintaining and testing of the water meters as provided for herein shall be deemed Regional Facilities Maintenance and Operation Expense.
- e. **Testing.** The City shall test its metering equipment mentioned in this contract at least once every two (2) years and, if requested to do so by the PUD or the Water District, shall make additional tests or inspections of such metering equipment, the expense of which shall be paid by the PUD or the Water District unless such additional tests or inspections show such metering equipment to be inaccurate as specified below. The City shall give reasonable notice to the PUD and the Water District of the time when any such test or inspection is to be made. If any meter mentioned in this contract fails to register, or if the measurements made by such meter for (1) the actual period during which such inaccurate measurement was made, if such period can be determined, or (2) if not determinable, the period immediately preceding the test of such meter which is equal to one-half the time from the date of the last preceding test of such water; provided, however, that the period during which such correction is to be made shall not exceed six (6) months. All tests shall be performed and certified by an independent meter testing service approved by the City if requested by any party to this contract. The liability for the cost of this testing service shall be determined according to the procedure set forth above.

20. **Standby Facilities**

The parties recognize the need for standby facilities to meet system demands and emergency supply needs associated with the Regional Water System. Accordingly, it is agreed between the parties that the PUD will maintain its Hawley Street and North Bank wells as a source of water for the Regional Facilities.

The Water District will maintain its Wells No. 4, 5, and 7 as a source of water for the Regional Facilities. The use of the designated PUD and Water District wells will be defined by the Coordinating Committee. The cost of maintenance and testing of the standby facilities shall be deemed a Regional Facilities Maintenance and Operating Expense subject to approval of the parties. If the wells are approved for local use only by the Coordinating Committee, the direct operating cost will be paid for by the user.

In the event of emergency whereby the Regional Facilities fail, the City, PUD, and the Water District shall share proportionately in the use of the standby water sources on the basis of the previous years' average annual water use, and all resulting reasonable maintenance and operation costs shall be Regional Facilities Maintenance and Operation Expenses.

21. **Storage Facilities**

Each party shall, at its own expense, acquire, maintain, and operate adequate water storage capacity for its own local distribution system pursuant to current Washington State Department of Health standards and sufficient to relieve the Regional Facilities of Peak Hour Demands that, if met for the convenience of one party, might deprive the other party of water which it otherwise would be entitled to draw and have an existing demand for.

22. **Additional Bonds**

In the event of major loss or damage to the Regional Facilities, such facilities may be renewed or replaced by Future Regional Facilities to be financed by Regional Facilities Bonds unless the parties agree upon a different method of financing.

23. **Previous Contracts**

The contract previously entered into between the City and PUD, dated the 13th day of February, 1979, as amended, it is the intent of the parties that this agreement supersede in all respects the foregoing described agreement as modified.

It is also the intent of the parties that the water supply agreement for service to the Baker Flats area be integrated into this Water Contract.

DATED this _____ day of _____, 19__.

CITY OF WENATCHEE, WASHINGTON

by: Earl Kelly
_____, Mayor

Attest:

_____, City Clerk

CHELAN COUNTY PUBLIC UTILITY
DISTRICT NO. 1 OF CHELAN COUNTY,
WASHINGTON

by: Don E. Kay

PRESIDENT

by: Dale R. Boyd

VICE-PRESIDENT

by: Robert B. Tilly

COMMISSIONER

by: David Pflugrath

COMMISSIONER

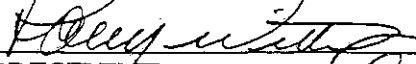
by: James R. Wall

COMMISSIONER

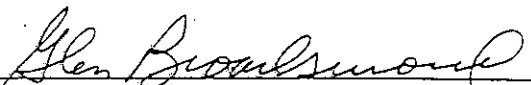
Attest:

SECRETARY

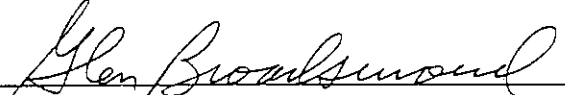
EAST WENATCHEE WATER DISTRICT OF
DOUGLAS COUNTY, WASHINGTON

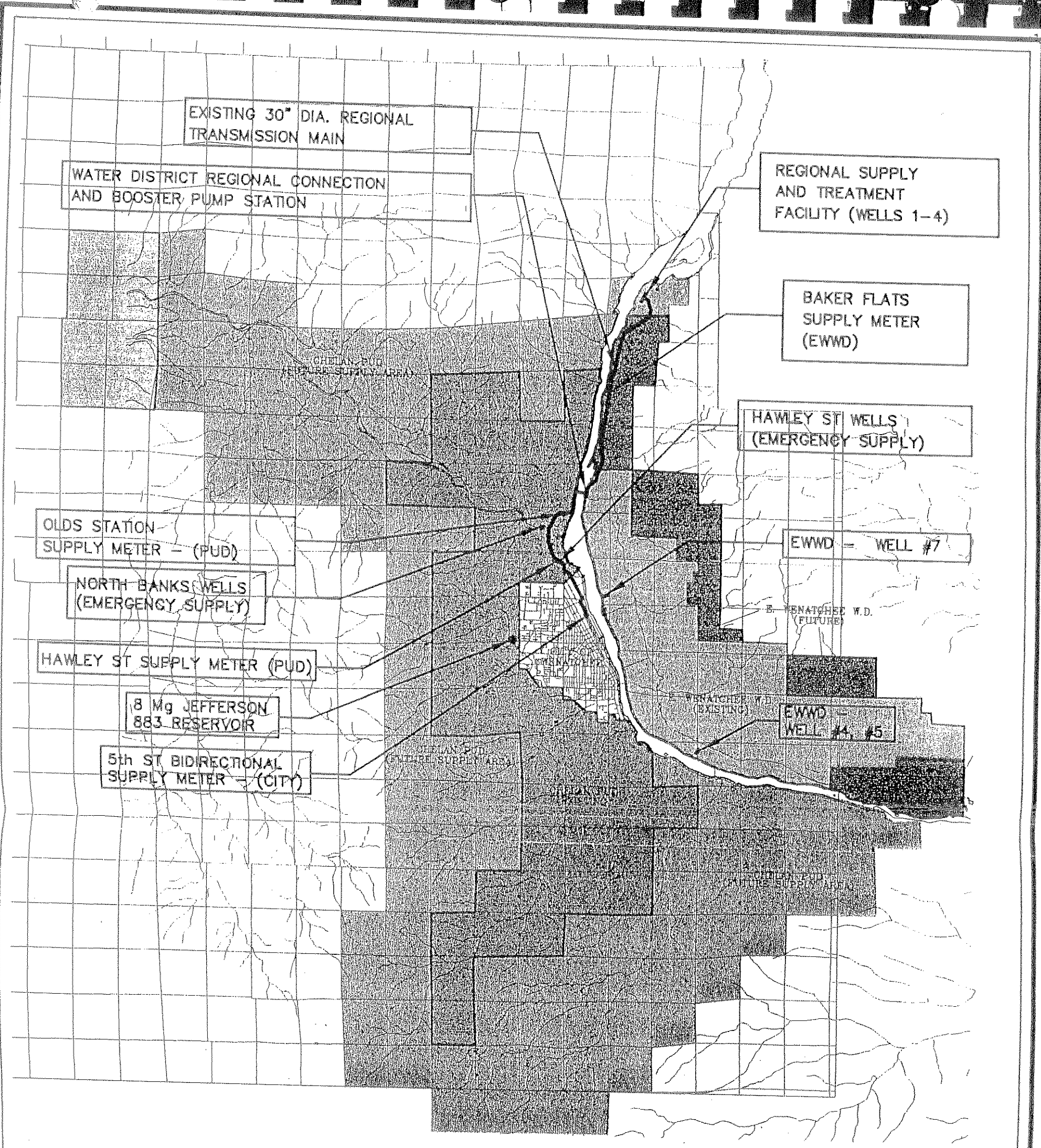
by: 
PRESIDENT

by: 
COMMISSIONER



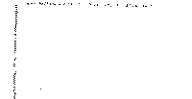



by: 
COMMISSIONER

Attest:


SECRETARY



LEGEND

-  PUD Existing Water Service Area
-  PUD Planned Water Service Area
-  Wenatchee Water Service Area
-  East Wenatchee Existing Water Service Area
-  East Wenatchee Planned Water Service Area
-  PUD / Cashmere Water Service Area

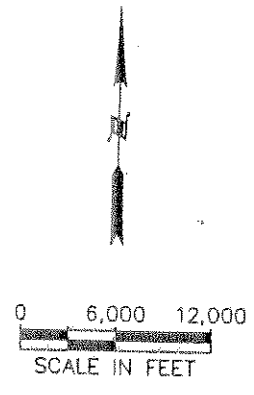


EXHIBIT A
Area Served By
Wenatchee Regional
Water Supply System

February 1979
 Updated October 1998

 ECONOMIC AND ENGINEERING SERVICES, INC.

Regional Water System - Exhibit A-1

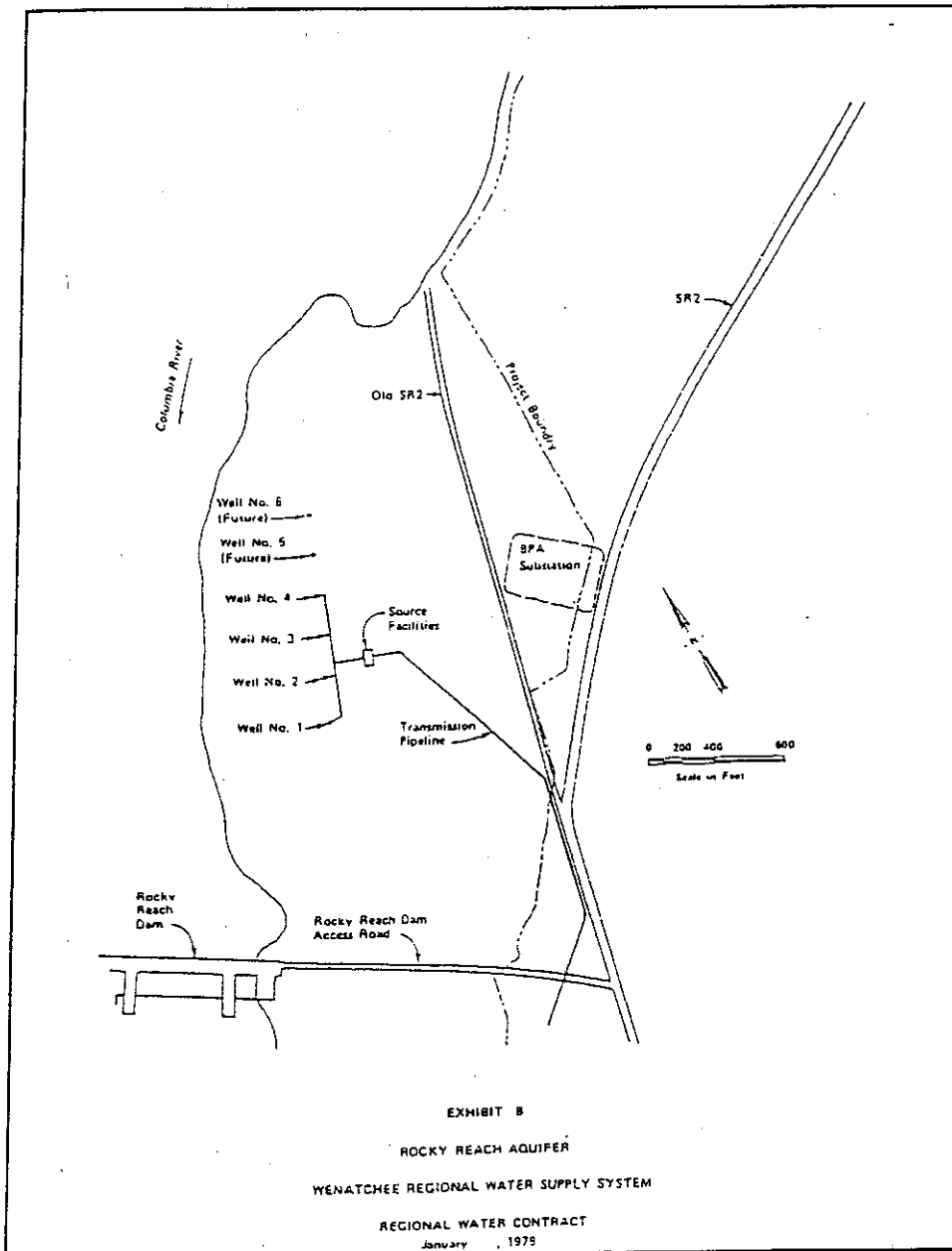
Regional Water System Supply Location

November 1998

The Regional Water System Supply and Facilities are described not by way of limitation but by general reference to include a source of water consisting of a sub-surface gravel bar along the Douglas County bank of the Columbia River immediately upstream from Rocky Reach Dam on land owned by the PUD, commonly referred to as an "aquifer;" together with several wells capable of meeting the present and projected water demand of the Wenatchee Regional Water System Supply Area until beyond the year 2000; together with pumping facilities sufficient to lift the water and transmit the water in a transmission line or lines from its source southerly on the east boundary of the Columbia River to the Olds Bridge crossing from the east boundary to the west boundary of the Columbia River at such bridge; thence southerly to the foot of Fifth Street in the City of Wenatchee; together with and including metering devices so as to measure the amount of water delivered to each user. The route of the transmission facilities and the general location of the aquifer source is designated on Exhibit A, Area Served by Wenatchee Regional Water Supply System, attached and incorporated herein by reference.

Regional Water System - Exhibit B Rocky Reach Aquifer and Facilities November 1998

Rocky Reach Aquifer Diagram for Wenatchee Regional Water System.



Regional Water System - Exhibit C Supply System Cost Allocation November 1998

The Regional Water System Contract provides for the City of Wenatchee, Public Utility District No. 1 of Chelan County, and the East Wenatchee Water District to own in common the supply system that includes the Rocky Reach Aquifer wells and certain designated wells at other locations. The following establishes the assignment of costs to complete the associated transactions effective on the date of the 1998 Contract Amendment.

Rocky Reach Aquifer

| Description | Year Const. | Original Cost | | Replacement Cost | | Depreciation Cost ⁽²⁾ | |
|--|-------------|------------------------|---------------------|---------------------|-------------------|----------------------------------|--|
| | | ENR CCI ⁽¹⁾ | Cost | 1998 ⁽³⁾ | Original | Replacement | |
| Land ⁽⁵⁾ | 1984 | 4,550 | \$ 132,290 | \$ 196,080 | N/A | N/A | |
| Source Wells ^{(4) (6)} | 1984 | 4,550 | \$ 1,940,942 | \$ 2,876,860 | \$ 679,330 | \$ 1,006,901 | |
| Machinery, Equip. & Misc. ⁽⁴⁾ | 1984 | 4,550 | \$ 202,671 | \$ 300,399 | \$ 113,496 | \$ 168,223 | |
| New Telemetry ⁽⁴⁾ | 1998 | 6,744 | \$ 277,122 | \$ 277,122 | \$ - | \$ - | |
| Total | | | \$ 2,553,025 | \$ 3,650,461 | \$ 792,826 | \$ 1,175,124 | |

East Wenatchee Wells

| Description | Year | ENR CCI ⁽¹⁾ | Cost | Replacement Cost | Original | Replacement |
|---|------|------------------------|-------------------|-------------------|------------------|------------------|
| Land - Well 7 ^{(4) (6)} | 1992 | 5,138 | \$ 125,120 | \$ 164,229 | N/A | N/A |
| Well 7 Improvements ⁽⁴⁾ | 1993 | 5,517 | \$ 345,334 | \$ 422,137 | \$ 43,167 | \$ 52,767 |
| Land - Wells 4&5 ^{(4) (6)} | 1952 | 569 | \$ 500 | \$ 5,926 | N/A | N/A |
| Wells 4 & 5 Improvements ⁽⁴⁾ | 1995 | 5,778 | \$ 202,671 | \$ 236,555 | \$ 15,200 | \$ 17,742 |
| Chlorination System Improv ⁽⁴⁾ | 1996 | 5,967 | \$ 105,405 | \$ 119,130 | \$ 8,432 | \$ 9,530 |
| Total | | | \$ 779,030 | \$ 947,977 | \$ 66,799 | \$ 80,039 |

- (1) Engineering News Record Construction Cost Index for Seattle June 1984. Value for 1952 is 20-City.
- (2) Assumes straight line depreciation. Pipeline 50 years, Wells 40 years, and Mechanical Equipment 25 years
- (3) June 1998 ENR CCI 6744
- (4) Facilities and land owned in common. See Section 3 of Contract.
- (5) Land owned by PUD but contracted to Regional Water System per this contract.
- (6) Water Rights owned in common. See Section 3.

Rocky Reach Aquifer Supply - EWWD Buy-in

| | |
|---------------------------------------|-------------|
| Replacement Cost less Depreciation | \$2,475,337 |
| 1/3 EWWD Share to City and PUD | 825,112 |
| 15 Annual Payments beginning 1/1/2000 | 55,007 |

East Wenatchee Well Supply - Regional System Purchase

| | |
|--|-----------|
| Replacement Cost less Depreciation | \$867,938 |
| 2/3 Credit to EWWD from Regional Account | 578,626 |
| 15 Annual Payments beginning 1/1/2000 | 38,575 |

Note: The 15 annual payments will be with 0 interest. The transfer of the offsetting funds (\$55,007 less \$38,575/year) will be credited to the City and PUD on the basis of their gross water use from the Regional system from 1983 to October 1998. The funds will be considered a reimbursement and not a Regional Water System income.

Regional Water System - Exhibit D Demand Projections November 1998

Water Contract - Regional Water System Demand Projections ^{(1) (2)}

| Average Day/Maximum Day (MGD) ⁽³⁾ | | | | |
|--|------------|-----------|----------------|-------------|
| Year | City | PUD | Water District | Total (MGD) |
| 1995 | 4.22/10.06 | 2.01/3.45 | 3.20/5.58 | 9.43/19.09 |
| 2000 | 4.82/10.54 | 2.42/4.05 | 3.66/6.45 | 10.90/21.04 |
| 2005 | 5.04/11.02 | 2.66/4.46 | 4.10/7.10 | 11.80/22.58 |
| 2010 | 5.26/11.50 | 2.84/4.76 | 4.55/8.03 | 12.65/24.58 |
| 2015 | 5.48/11.98 | 2.95/4.94 | 5.05/8.91 | 13.48/25.29 |
| 2020 | 5.69/12.44 | 3.06/5.13 | 5.61/9.87 | 14.36/24.44 |
| 2025 | 5.91/12.92 | 3.18/5.33 | 6.22/10.95 | 15.31/29.20 |

- (1) This demand forecast will be updated annually by the Coordinating Committee.
- (2) The Regional Water System incorporates, by this Contract, the water rights held by the three parties and the designated wells retained as emergency, peaking, and supplemental supplies.
- (3) This is maximum day, not instantaneous Q1.

Regional Water System - Exhibit E

Water Rights Summary

November 1998

Water Contract — Regional Water System Table of Existing Water Rights

| | Number | Priority Date | GPM/mgd | AF/ year | Subtotal |
|--------|--|--------------------|-------------|-----------------------|-----------|
| I. | Regional Water Supply | | | | |
| | G4-25575P | November 5, 1977 | 30,000/43.2 | 13,277 ⁽¹⁾ | 13,277 |
| | | | | | 11.85 mgd |
| II. A. | City of Wenatchee | | | | |
| | S3-00938C | August 13, 1971 | 7965/11.48 | 7393 | |
| B. | Chelan County PUD No. 1 | | | | |
| | 485-D | August 1, 1921 | 150/0.22 | 146 | |
| | 8475C | April 2, 1962 | 13.5/0.02 | 22 | |
| | G3-01133C | August 22, 1961 | 2000/2.88 | 1400 | |
| | G3-20369C | October 10, 1972 | 400/0.58 | 480 | |
| | | SUBTOTAL | 2563.5/3.7 | 2048 | |
| C. | East Wenatchee Water District (not including new wells after March 1978) | | | | |
| | 1429C ⁽³⁾ | September 10, 1926 | 2700/3.89 | 4355 | |
| | 1529C | January 7, 1953 | 300/0.43 | 485 | |
| | 2015C | May 17, 1949 | 500/0.72 | 237 | |
| | 4899C | March 31, 1964 | 200/0.29 | 320 | |
| | 4900C | March 31, 1964 | 650/0.94 | 1040 ⁽²⁾ | |
| | 4901C | March 31, 1964 | 820/1.18 | 1312 ⁽²⁾ | |
| | 4902C | March 31, 1964 | 265/0.38 | 424 | |
| | G3-00918C | May 27, 1971 | 1500/2.16 | 1200 ⁽²⁾ | |
| | G4-24310C | June 16, 1976 | 900/1.30 | 800 | |
| | G4-24602 ⁽⁴⁾ | January 28, 1977 | 500/0.72 | 645 | |
| | | SUBTOTAL | 5135/7.4 | 5818 | 15,259 |
| | | | | | 13.62 mgd |
| III. | East Wenatchee Water District (including new wells after March 1978) | | | | |
| | G4-27802P | January 7, 1982 | 2100/3.0 | 620 | |
| | East Wenatchee Water District Total | | 7235/10.4 | 6438 | 15,879 |
| | Total Annual Water Rights Associated with Three Utilities | | | | 14.17 mgd |

(1) Supplemental to primary rights in II. A., B., and C.

(2) With relinquishment of SW Certificate No. 1429, these certificates (although originally supplemental) are now functioning as primary rights, so quantities are included in totals.

(3) SW Certificate 1429 was relinquished on January 24, 1983, so quantities are not included in totals.

(4) Ground Water Permit G4-24602P was canceled on June 22, 1981, so quantities are not included in totals.

Regional Water System - Exhibit F Cost, Capacity, and Reserve Account Allocation November 1998

I. Pipeline Capacity Allocation

| | Pipeline No. 1 (mgd) | | | |
|----------------|----------------------|------|--------|-----------------|
| | 1995 | 2010 | Future | Second Pipeline |
| City | 15.5 | 15.5 | (1) | (1) |
| PUD | 4.5 | 4.5 | (1) | (1) |
| Water District | 0.0 | 0.0 | (1) | (1) |

(1) If City's future demand does not require full 15.5 mgd capacity, the excess capacity will be transferred to the PUD. The Water District will utilize excess capacity until the second pipeline is required. The parties will jointly decide the size of the second pipeline and will be responsible for the cost of the capacity assigned to their respective service area.

II. Second Pipeline Allocation Method

| Example of Second Pipeline Allocation Method | | | |
|--|---------------------|----------------|----------------|
| | Future Demand (mgd) | Allocation | |
| | | Pipeline No. 1 | Pipeline No. 2 |
| City | 13.0 | 13.0 | 0.0 |
| PUD (1) | 10.0 | 7.0 | 3.0 |
| Water District | 11.0 | 0.0 | 11.0 |

(1) Includes Cashmere

Based on this example, the City would not be responsible for the capital cost of Pipeline No. 2. The PUD and Water District would share proportionately, based on capacity required. Some general regional benefit could occur (i.e., redundancy) and be a regional cost.

III. Reserve Accounts

The Regional Water System Reserves Accounts include:

- 1) Bond Redemption Account = Current Annual Debt Service
- 2) Bond Reserve Account = Highest One Year Debt Service
- 3) Renewal and Replacement Reserve Account = \$250,000
- 4) Unrestricted Reserve Account (as of September 30, 1997) = \$1,172,326

As of the effective date of this Water Contract amendment, the funds in the unrestricted Reserve Account will be dispersed to the City and the PUD for their use. The Account will be refinanced by the parties through the annual budget process.

Appendix G

Developer Extension Agreement and Bill of Sale

EAST WENATCHEE WATER DISTRICT

DOUGLAS COUNTY, WASHINGTON

Commissioners

| | |
|---------------|----------------|
| Terry Barnes | President |
| Mike McCourt | Vice President |
| G. Brian Egan | Secretary |

District Office

692 Eastmont Avenue
East Wenatchee, Washington 98802
Telephone (509) 884-3569

Greg Brizendine, General Manager

Attorneys

Dale Foreman, Foreman Law Offices

Engineers

RH2 ENGINEERING, INC.
300 Simon Street SE; Suite 5
East Wenatchee, Washington 98802
Telephone: (509) 886-2900; (800) 720-8052

EAST WENATCHEE WATER DISTRICT

DOUGLAS COUNTY, WASHINGTON

WATER SYSTEM
EXTENSION DOCUMENTS*

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1. GENERAL.....1
2. PRE-DESIGN CONFERENCE1

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| 3. | DESIGN STANDARDS..... | 1 |
| 4. | EASEMENTS/RIGHT-OF-WAYS | 2 |
| 5. | CONSTRUCTION DRAWING FORMATS..... | 2 |
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| 1. | SCOPE | 1 |
| 2. | DEFINITIONS..... | 1 |
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| 4. | STATUS OF ENGINEER | 3 |
| 5. | SURVEYS, PERMITS, LAWS, AND REGULATIONS..... | 3 |
| 6. | CONSTRUCTION STAKING..... | 3 |
| 7. | INSPECTION AND TESTS..... | 4 |
| 8. | PLANS AND SPECIFICATIONS ACCESSIBLE | 5 |
| 9. | OWNERSHIP OF DRAWINGS | 5 |
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| 13. | CUTTING AND FITTING | 6 |
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| 16. | DETERMINATION OF "OR EQUAL"..... | 6 |
| 17. | ROYALTIES AND PATENTS..... | 6 |
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Exhibit A - Preliminary Water Extension Plan

Exhibit B - Approved Water Extension Construction Plans and Specifications

The following documents on file at the DISTRICT office and the Office of the DISTRICT's Engineer are incorporated herein by this reference:

Standards and Details for Constructing Extensions to the Water System.

* The term "EXTENSION DOCUMENTS" as used in this booklet refers to the documents referenced above.

EAST WENATCHEE WATER DISTRICT
DOUGLAS COUNTY, WASHINGTON

CHECK LIST
FOR CONSTRUCTING EXTENSIONS
TO THE WATER SYSTEM

| | |
|-------------------|-----------|
| Name of Extension | Developer |
| | |
| | |
| Contact Person | Telephone |
| Email | Fax |

Completed

A. Preliminary

- | | |
|---|-------|
| 1. Request Extension Application (DEVELOPER) | _____ |
| 2. Administrative Fee Paid (DEVELOPER) | _____ |
| 3. Description of Property (DEVELOPER) | _____ |
| 4. Title Report on Property (DEVELOPER) | _____ |
| 5. Preliminary Plat/Site Development Plan with Contours (DEVELOPER) | _____ |
| 6. Determination of System Improvements Required (DISTRICT/Engineer) | _____ |
| 7. Preparation of Extension Application and Extension Documents (DISTRICT/Engineer) | _____ |

B. Approval of Application

- | | |
|---|-------|
| 1. Signed Application Submitted (DEVELOPER) | _____ |
| 2. Administrative, Legal and Engineering Fee and Deposits Paid (DEVELOPER) | _____ |
| 3. Environmental Review and Determination of Environmental Significance (DISTRICT/Engineer) | _____ |
| 4. Extension Application Approved and Plans Ordered (DISTRICT) | _____ |
| 5. Resolution Accepting and Authorizing (DISTRICT) | _____ |
| 6. Signature of Extension Application (DISTRICT) | _____ |
| 7. Signed Memorandum of Agreement (DEVELOPER) | _____ |

C. Required Before Plans are Prepared or Approved

- | | |
|--|-------|
| 1. Final Plat Map, Site Plan, and survey of extension alignment (scale 1" = 50') (DEVELOPER) | _____ |
| 2. Contour map with 5' or less contour interval, County Datum (scale 1" = 100') (DEVELOPER) | _____ |
| 3. Final Road and Storm Drainage Plans Approved by Douglas County (DEVELOPER) | _____ |
| 4. Three sets of Extension Construction Plans and Specifications, if prepared by DEVELOPER's Engineer (DEVELOPER) | _____ |

D. Required before Construction Staking

1. Preparation of Construction Plans and Specifications or Approval of DEVELOPER's prepared Plans and Specifications (Engineer) _____
2. DISTRICT Approval and Signing of Construction Plans and Specifications (DISTRICT) _____
3. Construction Cost Estimate and Bill of Sale forms (Engineer) _____
4. Plans and Specifications sent to Douglas County Fire Marshall for Approval (Engineer) _____
5. Application for Douglas County or City of East Wenatchee and/or State Highway Right-of-Way Construction Permit (Engineer) _____
6. Approval of Contractor (DISTRICT) _____
7. Performance Bond (DEVELOPER) _____
8. Certificate of Insurance (DEVELOPER) _____
9. All Required Easements Obtained (DEVELOPER) _____
10. Cash Deposit (Contractor) _____
11. County or City and/or State Highway Right-of-Way Construction Permits Received (DISTRICT) _____
12. Douglas County Fire Marshall Approval Received (DISTRICT) _____

E. Required before Construction Begins

1. Submittal of Material and Equipment List (Contractor/DEVELOPER) _____
2. Pre-construction Conference _____
3. Approval of Material and Equipment List (Engineer/DISTRICT) _____
4. 48-hours Notice of Start of Construction to DISTRICT/Engineer/County (Contractor/DEVELOPER) _____
5. Construction Stakes in Place and Surveying Instructions/cut sheets/documentation submitted to DISTRICT (DEVELOPER) _____

F. Required before any Service is Connected

1. All Extension Fees and Charges Paid (DEVELOPER) _____
2. Other Charges established by DISTRICT Resolution Paid (DEVELOPER) _____
3. Approval of Completion of Construction (Engineer/DISTRICT) _____
 - a. Acceptance of Hydrostatic Pressure Test (Engineer/DISTRICT) _____
 - b. Completion of Punch List Items (DEVELOPER) _____
 - c. Satisfactory Final Inspection (Engineer/DISTRICT/DEVELOPER) _____
 - d. Submittal of "As-Constructed" Drawings for Extension (DEVELOPER) _____
 - e. Dept. of Health Approval of Purity Testing (DISTRICT) _____
4. Executed Bill of Sale Delivered to DISTRICT (DEVELOPER) _____
5. Acceptance of Title (DISTRICT) _____
6. Resolution Accepting Facilities (DISTRICT) _____
7. Substitution of Maintenance Bond for Performance Bond (DEVELOPER, Optional) _____
8. Special Water Service Agreement (DEVELOPER) _____
9. Recorded Memorandum of Agreement (DISTRICT) _____

G. To Be Done Prior to Warranty Expiration

1. At 23 months after Acceptance, re-inspect all facilities and notify DEVELOPER of Deficiencies, if any (DISTRICT) _____
2. Follow up to Correct Deficiencies (DEVELOPER/DISTRICT) _____
3. Expiration of 24 month warranty _____

**WATER SERVICE REGULATORY NOTICE
EAST WENATCHEE WATER DISTRICT
DEVELOPER EXTENSION AGREEMENT**

Date: _____

Name of Extension: _____

Owner: _____

The East Wenatchee Water District's water rights and ability to serve water are subject to subsequent regulatory or court order which may affect the availability of water to your property and the District expresses no opinion or assurance to you in connection with any impacts with any such order.

**APPLICATION FOR PERMISSION TO CONSTRUCT
EXTENSION TO WATER SYSTEMS**

The undersigned, hereafter referred to as "DEVELOPER", hereby makes application to the East Wenatchee Water District; Douglas County, Washington; hereafter referred to as "DISTRICT", for permission to construct and install water extensions in the public right-of-way and/or on easements, and to connect the same to the DISTRICT's water distribution system hereafter referred to as "DISTRICT's System," and makes the following representations and covenants:

1. GENERAL

Upon approval of the Board of Commissioners, extensions to the DISTRICT's water system may be made under written agreement with the DISTRICT by any landowner (also referred to as a DEVELOPER), subject to compliance with applicable state laws and county ordinances or resolutions, and subject to compliance with the rules and regulations of the DISTRICT as set forth in resolutions of the Board of Commissioners. Such extensions must be constructed and installed in accordance with the DISTRICT's conditions, specifications, and construction details hereinafter set forth.

2. LOCATION OF EXTENSION

The proposed water extension will be installed in roads and/or easements and/or on other approved rights-of-way and shall be for the use and benefit of the property hereafter described ("DEVELOPER's property"), which property is owned by the DEVELOPER and/or other persons who are contributing to the costs of said extensions; that said other owners join in this application and are referred to as "Additional Owners". Said property is described as follows:

Located at

3. DESCRIPTION OF EXTENSION

The proposed extension will consist of approximately _____ lineal feet of ____ inch water main and appurtenances located within the DEVELOPER's property as shown on the preliminary plat or site plan attached hereto as Exhibit A. In addition to the above extension within the DEVELOPER's property, the following described general facilities and water mains located outside the DEVELOPER's property are included in this water extension agreement. Additional water system facilities:

Off-site improvements include _____ lineal feet of _____-inch water main and appurtenances.

The above described extension including general facilities or other special facilities may be modified by the DISTRICT during the preparation of construction plans and specifications as deemed necessary by the DISTRICT to meet the requirements for service to the DEVELOPER's property consistent with the DISTRICT's Water Comprehensive Plan and Conditions and Standards. The construction plans and specifications when approved by the DISTRICT shall be attached to this agreement as Exhibit B and shall become the documents describing the water system extension to be constructed by the DEVELOPER under this agreement. The foregoing improvements may be hereafter collectively described as "the extension".

4. EXTENSION FEES, DEPOSITS, AND CHARGES

Extension fees shall be paid by the DEVELOPER to the DISTRICT for providing the following services, or to reimburse the DISTRICT for services it obtains in conjunction with this application and/or administration of this extension. Fees shown are estimates based on past experience with similar projects, and may not reflect the actual level of effort necessary for this project. The DEVELOPER shall reimburse the DISTRICT based on the actual cost of services provided as necessary to complete the project, which may be greater or less than the fee estimates presented herein. If the actual incurred costs are less than the estimate, the excess funds will be returned to the DEVELOPER.

A Administrative Services

- 1) General consultation with the DEVELOPER regarding the requirements of the DISTRICT, the procedures for the DEVELOPER to make a water system extension, and the administration of the DEVELOPER Extension Agreement.
- 2) Preliminary review of the proposed development and preliminary determination of the water system facilities required to extend service to the DEVELOPER's property in accordance with the DISTRICT's approved water system comprehensive plan.
- 3) Recording of documents that apply to the land (e.g. Memorandum of Agreement).

B Basic Engineering

- 1) Preparation of construction plans and specifications or review and approval of contract plans and specifications prepared by the DEVELOPER's engineer.
- 2) Preparation of the construction cost estimate, and bill of sale forms.
- 3) Submittal of comprehensive plan amendments and contract plans and specifications to the regulatory agencies for approval.
- 4) Application for State and County permits, where applicable.
- 5) Consultation with the DEVELOPER during the period of the extension agreement regarding the extension design, the DISTRICT's specifications, and other DISTRICT requirements.
- 6) Preparation of environmental check list, as necessary.

C Construction Engineering Services

- 1) Schedule and conduct pre-construction conference.
- 2) Review of construction stakes provided by DEVELOPER's engineer and surveyor as described in Paragraph 6 of the General Conditions.
- 3) Daily inspection of the construction in progress as required to assure that the construction of the extension is in accordance with the approved construction plans and specifications.
- 4) Inspection of the pressure test required by the specifications and inspection of any re-testing which may be necessary. Sampling of completed water main for bacteriological examination.
- 5) Final inspection of the completed extension and preparation of the inspection report setting forth any deficiencies that may exist.
- 6) Re-inspection of deficient work.
- 7) Final review of the completed extension and examination of the required documents to assure that the DISTRICT has legal title to the necessary easements and/or rights-of-way, review and approval of the DEVELOPER's warranty and bill of sale, and preparation of a final recommendation of acceptance of the completed water extension by the DISTRICT.
- 8) Revision of plans to conform to construction records.
- 9) Update the DISTRICT's system base map.

D Reimbursement for DISTRICT's Legal Services

- 1) Review and revisions, if necessary, to the DEVELOPER Extension Application and preparation of resolutions accepting application and amending the comprehensive plan (if required).

- 2) Services required to obtain required comprehensive plan approvals and environmental review compliance under SEPA or NEPA regulations.
- 3) Resolution confirming environmental compliance.
- 4) Preparation of easements as required.
- 5) Preparation and/or review of the DEVELOPER Performance and Guarantee Bond, Insurance Certificates, and other performance guarantees and security.
- 6) Resolution for accepting use and operation.
- 7) Resolution accepting title and review of the bill of sale and maintenance bonds.
- 8) Preparation of reimbursement agreement, if required.
- 9) Any other legal services required by DISTRICT in conjunction with this application and administration of this extension.

E Additional Legal, Engineering, and Other Professional Services

- 1) Revision of the contract plans and specifications and work occasioned by the need, request, or act of the DEVELOPER related thereto or review and approval of revisions prepared by DEVELOPER's engineer.
- 2) Re-inspection of deficient work.
- 3) Preparation of contract plans, specifications, and cost estimates for water general facilities including but not limited to transmission mains, pressure reducing stations, booster pump station and reservoirs.
- 4) Additional legal and/or engineering fees may be charged on a time-and-expense basis where a special contract is required and/or special problems arise with such third parties as Douglas County, the Boundary Review Board, the State of Washington, the State Highway Commission, and others in order for the DISTRICT to enter into the DEVELOPER extension and/or comply with SEPA or NEPA which requires the representation of the DISTRICT's legal counsel and/or Engineering Consultant.
- 5) Any other work reasonably required by the DISTRICT in conjunction with this application and/or administration of this extension.

F Other Costs

- 1) All fees and additional charges as required by governmental agencies such as Douglas County Engineer's Construction Permit, charges in lieu of assessments, general facilities connection charges, publication notifications, and other such additional costs or charges.

G Connection Charges, Charges in Lieu of Assessment

- 1) Connection Charges

The DISTRICT by resolution has established a connection charge for connection to the water system which charge represents the proportionate share of the actual cost of facilities previously constructed and the estimated cost of facilities required to be constructed which are necessary to provide water service to each new customer connecting to the DISTRICT's systems.

The water system facilities include the acquisition of water supply, pumping equipment to transmit water supply, oversize transmission mains, water storage reservoirs, pressure control and regulating facilities, and equipment required to supervise and control the operation of these facilities. These facilities benefit all existing and new customers of the DISTRICT, providing the means of bringing water supply to the local distribution mains and service connections.

The amount of the connection charges is established by resolution and is subject to amendment based on adjustments in the cost of providing new facilities, the actual cost of facilities previously

constructed and changes in the DISTRICT's comprehensive plan which alters the nature, extent and cost of these facilities.

2) Charges in Lieu of Assessment

Where the property being served through an extension of the DISTRICT's water system is served in whole or in part by an existing facility constructed by the DISTRICT or constructed by others and transferred to the DISTRICT, the DEVELOPER shall pay a charge in lieu of assessment representing his fair and equitable share of the existing facility to which all or a portion of his property may be connected.

The charge in lieu of assessment for existing facilities is established by resolution of the DISTRICT based on the actual cost of construction of the facility and a proration of the cost of that facility to the properties which are benefited and may connect to the facility. The charge in lieu of assessment will vary for each existing facility based on its cost and the property benefiting.

5. CALCULATION OF FEES, DEPOSITS AND CHARGES

A. Administrative Services

The fee for administrative services shall be as follows: \$##0.00

B. Other Services

Fees and charges for all other services and reimbursements described in paragraphs 4.B.1. through 6., 4.C.1. through 9., 4.D.a. through 9., and 4.E.1. through 5. will be invoiced by the DISTRICT on an actual time and expense basis. The term "time and expense basis" shall mean the DISTRICT's actual cost for services rendered by its consultants or subcontracts plus an overhead charge of 20% of such cost. The DEVELOPER shall deposit with the agreement the amount of the DISTRICT's estimate of the cost of these services. Should the cost of these services exceed the amount deposited, the DISTRICT will, at the end of the month in which the cost exceeds the deposit, prepare a new estimate of the cost to complete these services including costs incurred to date and the DEVELOPER shall deposit an amount equal to the difference between the DISTRICT's new estimate and the original amount deposited by the DEVELOPER with the agreement. Unpaid deposits shall bear interest at 1% per month until paid. No extension shall be connected to the DISTRICT's system until all fees, charges, and connection costs, are paid in full.

C. Other Costs and Charges

Fees and charges for all other costs described in Section 4.F. and 4.G. shall be based on actual invoice amounts or in such amount plus an overhead charge of 20% as established by DISTRICT Resolution of each such fee or charge.

D. Security

DEVELOPER hereby grants to the DISTRICT an interest in DEVELOPER'S property to secure performance by DEVELOPER of each agreement of DEVELOPER herein contained including (without limitation) paragraphs 4 and 5 (inclusive). DEVELOPER agrees to make, execute, and deliver to the DISTRICT at its request all documents the DISTRICT deems necessary to perfect its security interest herein in DEVELOPER'S property.

6. PAYMENT OF FEES AND CHARGES

The DISTRICT estimates the fees, deposits, and charges in conjunction with this extension as follows:

| | | | |
|----|---|----|-------|
| 1. | Administrative Fee | \$ | _____ |
| 2. | Engineering and Plan Review Deposit | \$ | _____ |
| 3. | Hydraulic Analysis | \$ | _____ |
| 4. | Construction Engineering Deposit - Inspection | \$ | _____ |
| 5. | Legal Services Deposit | \$ | _____ |
| 6. | Additional Services Deposit | \$ | _____ |
| 7. | Other Costs | \$ | _____ |
| 8. | a. _____ | \$ | _____ |
| 9. | b. _____ | \$ | _____ |
| | TOTAL FEES AND DEPOSITS | \$ | _____ |

The following estimated charges referred to in paragraph 4.G. and as established by Resolution of the DISTRICT shall be paid by the DEVELOPER to the DISTRICT prior to the acceptance of the completed water extensions by the DISTRICT and prior to DISTRICT providing water service to the DEVELOPER's property:

| | | | |
|----|---|----|-------|
| 1. | Connection Charge – to be determined. | \$ | _____ |
| 2. | Charge in lieu of assessment for _____ | | |
| | | \$ | _____ |
| 3. | Reimbursement agreement for _____ | | |
| | | \$ | _____ |
| 4. | Other _____ | | |
| | | \$ | _____ |

7. PRELIMINARY ENGINEERING

The DEVELOPER shall furnish two (2) copies of the final plat map, contour map, and proposed roads profile sheets prior to the DISTRICT's ordering of the engineering plans from its Engineer, or if DEVELOPER uses its own engineer prior to submission of plans to the DISTRICT for approval. The contour elevation and road profile elevations shall be referenced to Douglas County Survey data. In the event the DEVELOPER's engineer prepares the construction plans and specifications, the above plans shall accompany the extension construction plan to be reviewed and approved by the DISTRICT's Engineer.

The final plat map shall be to the scale of 1-inch = 100 feet. The contour map shall have a scale of 1-inch = 100 feet and contour intervals of five (5) feet or less. The road profile sheets may be to any suitable scale as selected by the DEVELOPER.

The DEVELOPER shall provide a minimum of one bench mark, on the project site; and the elevation and location of the bench mark shall be indicated on the maps furnished by the DEVELOPER.

8. EVIDENCE OF INSURANCE

The DEVELOPER shall provide the DISTRICT with written evidence of insurance covering public liability and property damage to third parties, in which the DISTRICT and its Engineer shall be named insureds, to the extent provided in Paragraph 10 of the General Conditions. The DEVELOPER agrees to indemnify and hold the DISTRICT harmless from any and all claims, demands, actions, and/or liabilities of every kind and nature as may be made against the DISTRICT by reason of or arising out of

the acts and/or omissions of the DEVELOPER, its agents, and/or contractors, subcontractors, and suppliers in conjunction with this extension, including costs and attorneys' fees incurred by the DISTRICT in investigating and defending against any such claim.

9. CASH DEPOSIT

The DEVELOPER agrees to have the contractor installing an extension pursuant to this application provide the DISTRICT with a cash deposit of not more than \$2,000.00 prior to beginning construction of said extension. No construction shall be commenced until said cash deposit is furnished. This cash deposit shall be conditioned upon the contractor's strict compliance with the DISTRICT's conditions and standards for this extension and shall insure the DISTRICT against any damage to its existing system as a result of the contractor's failure to comply.

Said deposit will be refunded to the contractor upon satisfactory completion of the extension and connection of the extension to the existing system. The Contractor shall be responsible for and pay the costs of repair of any damage it may cause to DISTRICT systems. In the event of the contractor's failure to comply, the DISTRICT may, in addition to any other rights it may have, retain the total amount of the cash deposit as liquidated damages or such portion of said deposit as may be necessary to defray such costs.

10. CONTRACTORS, SUBCONTRACTORS, LABORERS, AND MATERIALMEN

The DISTRICT has a substantial interest in insuring the extension is to be constructed and connected to the existing system of the DISTRICT in a good workmanlike manner, and, therefore, the DEVELOPER and/or additional owners agree to submit the names and statement of qualifications for all contractors, subcontractors, material men, and suppliers; or in the event that the DEVELOPER or additional owners are contractors, a statement saying that said DEVELOPER or additional owner will perform said improvement, and the DISTRICT reserves the right to approve or disapprove of the same, which approval the DISTRICT will not unreasonably withhold. In determining whether said DEVELOPER, additional owner, contractor, subcontractor, material men, or laborer is or is not satisfactory, the DISTRICT will take into consideration the contractor's prior experience in constructing similar improvements, available manpower and equipment, financial ability, prior work performed by said party for or on behalf of the DISTRICT, and the recommendation of the DISTRICT's Engineer. Said names shall be submitted prior to any construction being performed, and, if said party is not acceptable to the DISTRICT, the DISTRICT will notify the DEVELOPER within 15 days after notification is given to the DISTRICT of the name of said party, whereupon the DEVELOPER and/or additional owner shall re-submit alternates and said alternates shall likewise be subject to the same approval, upon the same criteria as the original party submitted, and notification will be given by the DISTRICT within the same period of time specified.

11. PERFORMANCE BOND

The DEVELOPER shall furnish to the DISTRICT a Performance Bond between the DEVELOPER and the DISTRICT upon the form approved by the DISTRICT and in an amount equal to the Engineer's estimated cost of the project, prior to the staking of the extension for construction.

The performance bond shall assure and guarantee the payment of all persons furnishing labor and materials and completion of the water extension including payment of all fees required herein in accordance with the terms of these extension documents and shall hold the DISTRICT harmless from any claims, therefore, and shall be in the form(s) contained in these extension documents.

12. EASEMENTS

Any required easements shall be obtained by the DEVELOPER at his sole cost and expense, name the DISTRICT as grantee, and a copy of such easement in a form acceptable to the DISTRICT shall be delivered to the DISTRICT prior to the time the DEVELOPER commences construction hereunder. The easement shall be shown on the water plan and plat documents. Upon completion of construction and prior to acceptance of the extension by the DISTRICT in accordance with the provision hereof, the original easement shall be delivered to the DISTRICT. The DEVELOPER shall provide all necessary easements at his sole cost regardless of changes in the Contract Plans, together with good and sufficient evidence of clear title, and if required, a title insurance policy in a sum not less than \$5,000 per 500 feet of easement, insuring clear title to the easement in the DISTRICT.

13. PERMITS

All the necessary permits from any governmental agency shall be obtained by the DEVELOPER directly or, if required, the DISTRICT will use its reasonable efforts to obtain the same at the DEVELOPER's expense; and the DISTRICT shall be provided with a copy of all permits obtained by the DEVELOPER before construction commences. The DISTRICT shall not be required to appeal the denial of any such permit application, and the risk of obtaining all permits and approvals rests solely with the DEVELOPER.

14. GRADING OF ROADS

The DEVELOPER shall grade all roads to the design subgrade elevation prior to the start of construction and shall advise the DISTRICT in writing of any changes which may be contemplated during construction.

If the DEVELOPER changes the subgrade elevation or the road after completion of the extension of any part thereof, the DEVELOPER shall be responsible for all costs incurred to raise or lower the water lines when required as a result of said change in subgrade elevation.

15. CONNECTION TO THE DISTRICT'S SYSTEM

Not less than 3 days prior to the time that connection to the DISTRICT's system is desired, the DEVELOPER or his contractor shall make a written request for connection of the extension to the DISTRICT's System. All connections to the existing system shall be made by the DEVELOPER. No connections to the existing System shall be made until all testing and flushing of the new line is completed. Testing of the new extension shall be at a time specified by the DISTRICT and shall be conducted in the presence of the DISTRICT's Engineer and /or his authorized representatives. Where connections to the DISTRICT's water system would, in the opinion of the DISTRICT, create unacceptable disruption of service, such connection shall be made by live tap. The DEVELOPER shall be responsible for all associated costs to accomplish the connections to the existing water system.

16. CONDITION PRECEDENT

DISTRICT's obligation to permit connection of the extension to the DISTRICT's system, or to provide water service to the DEVELOPER's property shall not arise until DEVELOPER has complied with all terms and conditions of the extension documents, and all applicable resolutions of the DISTRICT, including payment of all fees and charges.

The DISTRICT shall not be obligated to provide water service to the property herein described if the construction by third parties of facilities to be deeded to the DISTRICT has not been completed and title accepted by the DISTRICT if said third party facilities are necessary to provide water service to the real property to be served.

17. ACCEPTANCE FOR USE AND OPERATION

At such time as the extension is partially completed but is not ready for acceptance of title by the DISTRICT by reason of other incomplete plat improvements, and one or more residences to be served are in need of water service and the DISTRICT is satisfied that the extension will be completed, the DISTRICT may, but is not required to, accept the extension or a portion thereof on conditions it shall determine in its sole discretion for use and operation only and authorize temporary water service to designated residences. In order to insure that the DEVELOPER will complete the system in the entire subdivision or specific phase thereof for which this application is filed the DISTRICT reserves the right to designate the number of residences or other structures which can be connected to the system for temporary service upon acceptance of a partially completed system for use and operation by the DISTRICT, and also reserves the right to refuse to connection all residences or other structures to the water system as installed until the DISTRICT can be assured that the system will be completed in accordance with this application.

Application for use and operation of the partially completed water extension shall be satisfactory completion of the following:

- A. Pressure tests on all lines in the System; and
- B. Sanitary testing and acceptable test results of water samples taken a representative points; and
- C. Inspection and approval by the DISTRICT Engineer of the System for use and operation in accordance with the approved plans and specifications.

After satisfactory completion of the testing and inspection provided for in the preceding paragraphs and acceptance of the water system for use and operation only, the DISTRICT may connect such extension to the water system and furnish temporary water service to such residences as it may designate, which residences shall be subject to the charges and subject to all resolutions, rules, regulations, and policies of the DISTRICT.

18. FINAL ACCEPTANCE

The DISTRICT agrees to accept title to the extension at such time as obligations of DEVELOPER in the extension documents have been completed and the DISTRICT's Engineer has made final inspection and given approval of the system as having been completed in accordance with the plans and specifications.

Prior to such acceptance, the DEVELOPER shall execute and deliver to the DISTRICT a Bill of Sale for the extension in the form furnished by the DISTRICT containing the warranty set forth in the General Conditions, Paragraph 23, entitled "Warranties

of DEVELOPER". Upon acceptance of the title by the DISTRICT, said extension shall be the property of the DISTRICT and subject to the control, use, and operation of the DISTRICT and all regulations applicable to service and charges as established by the DISTRICT from time to time.

Such acceptance by the DISTRICT shall not relieve the DEVELOPER of the obligations to correct defects in labor and/or materials as provided in the extension documents nor DEVELOPER's obligation to defend, indemnify and hold harmless from liability to third parties as provided herein. After acceptance of the extension by the DISTRICT, the DEVELOPER must furnish a maintenance bond in the form contained in the extension documents, which shall continue in force from the date of acceptance and transfer of title for a period of two (2) years. The maintenance bond shall be in an amount equal to ten percent (10%) of the cost of said extension, or a minimum of Two Thousand Dollars (\$2,000.00).

19. LIMITATION OF PERIOD FOR ACCEPTANCE

A. Completion

The extension shall be complete and accepted within one year of date of acceptance of this application by the DISTRICT.

B. Failure to Commence Construction

In the event the DEVELOPER, after the receipt of approved construction plans has not commenced construction and posted the required performance bond, and, if DISTRICT determines, in its absolute discretion, that it is necessary that the DEVELOPER extension be completed in order that the DISTRICT can provide water service to other property and completion of the extension is necessary to provide water service to other property, then in such event, the DISTRICT may give the DEVELOPER and additional owners notice (by certified mail to the addresses shown herein) that construction of the water system improvements must be commenced within sixty (60) calendar days of mailing said notice. If construction is not commenced within the time specified in said notice, the DISTRICT may, at its discretion, determine that this AGREEMENT is terminated. In such event, the DISTRICT shall retain all payments and deposits made by the DEVELOPER to the DISTRICT and the DISTRICT may proceed with construction of the water system improvements within the area described in the DEVELOPER extension. If delay in plans is occasioned by failure of the DEVELOPER to provide necessary data to the DISTRICT's Engineer for a period of thirty (30) days after notice, then this AGREEMENT likewise can be terminated and the DISTRICT may proceed with construction of the improvements.

C. Failure to Complete Construction

If the extension is not completed and accepted within one year from the date this application was accepted by the DISTRICT, the DEVELOPER's rights under this agreement shall cease and no water service shall be connected to such extension thereafter unless DISTRICT consents to the renewal of the existing Application or DEVELOPER shall make a new Application, in either event, the DEVELOPER may be required to pay additional administrative fees and additional legal, engineering, and inspection costs as determined by the DISTRICT.

In the event no new application or renewal of the existing application is made, the DISTRICT may proceed to require completion of construction under the provision of the DEVELOPER's Performance Bond, if so determined, in the sole discretion of the DISTRICT.

20. REIMBURSEMENT AGREEMENT

If in the process of extending water to the DEVELOPER'S property, the DEVELOPER has made improvements to the DISTRICT'S water system which would qualify for reimbursement from the adjacent property owners, the DEVELOPER may be entitled to a reimbursement through the establishment of a connection charge for a portion of the improvement costs from future connections to the subject improvements by such adjacent property owners. Eligibility for reimbursement from future connections to the subject water main will be made at the sole discretion of the DISTRICT. No reimbursement will be given for properties within the DEVELOPER'S project.

A. Procedure for Reimbursement

The DEVELOPER shall notify the DISTRICT by letter, no later than 90 days after acceptance of the water main, of the DEVELOPER'S request to file for a Reimbursement Agreement. All Reimbursement Agreements will be developed on a pro rata basis as determined by the DISTRICT. The DEVELOPER shall provide to the DISTRICT, as part of the reimbursement request, the following information:

- 1) Completed reimbursement agreement form.

- 2) A meets and bounds legal description and a map showing the subject properties which are to be included within the proposed reimbursement area. The map shall indicate the Douglas County Assessor's tax lot information and shall include the names and addresses of the current registered owners for those lots.
- 3) Documentation supporting the costs for construction of the water main including any indirect costs for legal, engineering, surveying, and administrative fees.
- 4) A summary of all costs and a list of improvements to be considered for reimbursement.
- 5) A summary sheet designating the tax lot number, name, and address of the legal owner, and associated reimbursement cost.

This documentation shall be provided to the DISTRICT for use in determining the eligibility of the proposed reimbursement costs. This information along with the completed Reimbursement Agreement form shall be completed by the DEVELOPER for review by the DISTRICT.

B. District Costs

All costs incurred by the DISTRICT for review of the Reimbursement Agreement, including related engineering and legal review costs, shall be borne solely by the DEVELOPER. Upon review and acceptance by the DISTRICT, it will be the responsibility of the DEVELOPER for all filing and recording costs of the Reimbursement Agreement.

C. Terms of Reimbursement

The District shall reimburse the Developer in the amount of the total Connection Charges actually received by the District during the term of this Agreement from owners of parcels of Benefited Property who connect to the Extension. At the time of hookup, the District will collect and keep an administrative fee calculated at five percent (5%) of the Connection Charge, which amount is in addition to and separate from the Connection charge to reimburse the District for administering the Reimbursement Agreement. The total reimbursed by the District hereunder to the Developer shall not exceed the Reimbursable Amount, and shall be payable only from such Connection Charges received during the term of this Agreement and not any other revenues of the District. The Reimbursement Agreement shall terminate upon the earlier of ten (10) years from its effective date or when the Owners, or their successors or assigns, shall have been fully reimbursed as provided herein.

D. Limitations on District Obligations

The District's obligations hereunder shall be to make reimbursements to the Developer from connection charges as provided herein, and the District shall have no other obligation to the Developer with respect to the Extension and the Reimbursable Facilities under the Reimbursement Agreement. By entering into the Reimbursement Agreement the District does not in any way warrant or guarantee the validity or collectability of any connection charge and the risk that such charge may prove to be uncollectable rests solely with the Developer. The District further reserves the right to interplead any dispute to Douglas County Superior Court and in such action the District shall be entitled to recover its attorney's fees and associated costs.

E. Recording

The District and the Developer agree that the terms, covenants and provisions of the Reimbursement Agreement shall run with and be a burden upon the real property described in the Reimbursement Agreement and that the Reimbursement Agreement or a memorandum thereof shall be recorded in the Office of the Douglas County Auditor or other appropriate governmental office. It shall be the responsibility of the Developer for filing and recording the Reimbursement Agreement.

F. Nonexclusive Connection Charge

The connection charge established under the Reimbursement Agreement shall be nonexclusive, and shall not prevent the District from imposing additional connection charges upon the Owners of benefited property.

21. WARRANTY OF AUTHORITY

The undersigned DEVELOPER and additional owners warrant that they constitute the owners of all of the DEVELOPER's property and upon request of the DISTRICT agree to provide title insurance, at the DISTRICT's option and at the DEVELOPER's sole cost and expense, establishing to the satisfaction of the DISTRICT that the parties executing this application constitute the owners of all the real property described and have the authority to execute this agreement with respect to said real property.

22. GENERAL

- A. All exhibits referred to above are, by this reference, incorporated herein.
- B. In the event that this application is referred or placed into the hands of attorneys by the DISTRICT for review and/or enforcement of any portion, or if suit is instituted with respect to this application; then, in either event, the DEVELOPER and Additional owner shall pay reasonable attorneys' fees as may be incurred by the DISTRICT or awarded by the Court, court costs, and all expenses in connection therewith as may be incurred by the DISTRICT.
- C. The parties agree that all terms, covenants, and conditions of this Developer Extension Agreement (including the application and conditions) shall be binding upon and inure to the benefit of their heirs, assigns, and successors.
- D. Severability. If any provision of this agreement or the application of this agreement to any party or circumstances shall be invalid or unenforceable to any extent, the remainder of this agreement and the application of the provisions of the agreement to any other party or circumstance shall not be affected thereby and shall be enforced to the greatest extent permitted by law.

23. LEGAL SERVICES

All legal services rendered by the DISTRICT's attorneys are rendered to the DISTRICT and not the DEVELOPER. The charges for legal service herein are to reimburse the DISTRICT for legal services it obtains in conjunction with this application and in administering the extension process. The DEVELOPER is encouraged to obtain its own counsel at any time during the extension process.

DATED at _____, Washington, this _____ day of _____, 20_____.

DEVELOPER: _____

By: _____

Additional Owners

Upon compliance with the terms and conditions of the application and contract documents furnished by the DISTRICT to the above-named DEVELOPER, the East Wenatchee Water DISTRICT will accept said extension permit connections thereto, and provide water service through the extension to retail customers, subject to and in accordance with applicable laws, rules, regulations, and resolutions and policies of the DISTRICT.

EAST WENATCHEE WATER DISTRICT
Douglas County, Washington

By: _____

Name of Extension : _____

PERFORMANCE AND GUARANTEE BOND
(For DEVELOPER Projects)

KNOW ALL MEN BY THESE PRESENTS: That whereas, East Wenatchee Water District, Douglas County, Washington, a municipal corporation, hereinafter designated as the "DISTRICT", has entered into an application dated the _____ day of _____, 20____, with _____, hereinafter designated as the "DEVELOPER", whereby the DEVELOPER has applied to the DISTRICT for permission and authority to install water improvements consisting of extensions to the water system as therein described, which agreement is on file in the DISTRICT office and by this reference is made a part thereof; and

WHEREAS, said DEVELOPER and his contractor is required, under the terms of said agreement to furnish the DISTRICT a bond for the faithful performance of said agreement in accordance with the conditions hereafter set forth, NOW, THEREFORE,

We, the undersigned DEVELOPER and contractor, as principal, and _____, a corporation organized and existing by virtue of the laws of the State of _____, and duly authorized to do a surety business in the State of Washington, as surety, are held and firmly bound unto the State of Washington, and said DISTRICT in the sum of _____ (\$_____), for the payment of which we do jointly and severally bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns by these presents.

THE CONDITIONS OF THIS OBLIGATION are such that if the said principal, or his (or its) representatives, heirs, successors, and assigns shall well and truly keep and observe all of the covenants and conditions and agreements in said contract and shall faithfully perform all the provisions of the contract and pay all laborers, mechanics, subcontractor, and material men and all persons who shall supply such person or subcontractors with provisions and supplies for carrying on such work and all legal, engineering and other professional fees and other costs and charges incurred or made by the DISTRICT and shall indemnify and save harmless the DISTRICT, its officers and agents, from any pecuniary loss resulting from the breach of any of said terms, covenants, and conditions to be performed by the principal;

AND FURTHER, that the principal will correct or replace any defective work or materials discovered by the said DISTRICT within a period of two years from the date of acceptance of such work by said DISTRICT, then become null and void; otherwise, it shall be and remain in full force and effect.

No change, extension of time, alteration or addition to the work to be performed under the agreement shall, in any way, affect principal's or surety's obligation on this bond and surety does hereby waive notice of any change, extension of time, alteration or additions thereunder.

This bond is furnished pursuant to the requirements of Section 39.08.010 et. seq. of the Revised Code of Washington and, pursuant to the requirements of the aforesaid application and in addition to the requirements of the aforesaid sections of the Revised Code of Washington, is made, executed, and delivered by the principal and surety to the DISTRICT for the use and benefit of said DISTRICT, together with all laborers, mechanics, subcontractors, material men, and all persons who supply such person or subcontractors with provisions and supplies for the carrying on of the work covered by the agreement, irrespective of whether or not such work is deemed to be "public work", within the purview of said Revised Code of Washington.

IN WITNESS WHEREOF, the said principal and the said surety have caused this bond to be signed and sealed by their duly authorized officers this _____ day of _____, 20_____.

Principal (DEVELOPER)

By _____

Contractor

By _____

Surety

BOND NO. _____

**MAINTENANCE BOND
EAST WENATCHEE WATER DISTRICT**

P.O. Box 7190
East Wenatchee, WA 98802

DEVELOPER: _____

Surety: _____

Amount: _____

Project Name: _____

KNOW ALL MEN BY THESE PRESENTS, that we _____ as Principal,
and _____, as Surety, are held firmly bound unto EAST WENATCHEE WATER DISTRICT, as
Obligee, in the full and just sum of _____ dollars (\$_____), for the payment of which sum, well and truly to be
made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents. The above sum is
certified to be equal to ten percent (10%) of the cost of said extension, or a minimum of Two Thousand Dollars (\$2,000.00), whichever is greater.

WHEREAS, the said construction of the extension has been completed, and the work was accepted on _____.

WHEREAS, said application and extension documents provide that the principal will furnish a bond conditioned to guarantee against all defects in
workmanship and materials discovered by the DISTRICT for a period of two years after the date of final acceptance of said Water Extension by the
DISTRICT, and

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if within two (2) years from the date of approval of the said
water extension, the work done under the terms of said application and extension documents shall disclose defects in workmanship in the execution of said
work, and the carrying out of the terms of said extension documents, or it shall appear that defective materials were furnished thereunder, then this obligation
shall remain in full force and effect, otherwise this instrument shall be void.

Signed and sealed this _____ day of _____, 20_____.

Surety

Principal

By: _____
Attorney-in-Fact

**UTILITY EASEMENT
(INDIVIDUAL)**

THE GRANTOR(S), _____
For valuable consideration, in hand paid, receipt of which is hereby acknowledged, convey(s) and grant(s) to the Grantee, the EAST WENATCHEE WATER DISTRICT, its successors and assigns, a permanent, non-exclusive easement, over, under, in, along, across and upon, the following described property:

See Exhibit "A" attached hereto and made a part hereof by reference as though fully set forth.

For the purpose of constructing, reconstructing, installing, repairing, replacing, operating, and maintaining water utilities and utility pipelines, together with the right of ingress and egress thereto without prior institution of any suit or proceedings of law and without incurring any legal obligation or liability therefore. This easement is granted subject to the following terms and conditions.

1. The Grantee shall, upon completion of any work within the property covered by the easement, restore the surface of the easement, and any private improvements disturbed or destroyed during execution of the work, as nearly as practicable to the condition they were in immediately before commencement of the work or entry by the Grantee.
2. Grantor shall retain the right to use the surface of the easement as long as such use does not interfere with the easement rights granted to the Grantee. Grantor shall not, however, have the right to:
 - a. Erect or maintain any buildings or structures within the easement; or
 - a. Plant trees, shrubs, or vegetation having deep root patterns which may cause damage to or interfere with the utilities to be placed within the easement by the Grantee; or
 - b. Develop, landscape, or beautify the easement area in any way which would unreasonably increase the costs to the Grantee of restoring the easement area and any private improvements therein.

This easement shall be recorded with the Douglas County Auditor, shall run with the land described herein, and shall be binding upon the parties, their heirs, successors in interest, and assigns.

DESIGN AND FORMAT STANDARDS FOR PREPARATION OF DEVELOPER EXTENSION CONSTRUCTION PLANS AND SPECIFICATIONS

1. GENERAL

The following standards are to be followed in the design of extensions to the water system of the DISTRICT and in the preparation of plans and specifications for the construction of these extensions. These standards are to be followed except where specific deviations are approved by the DISTRICT. Construction materials and procedures and construction details shall comply with the Standards and Details for Construction of Public Works Projects as prepared by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association except as revised or modified by the DISTRICT.

2. PRE-DESIGN CONFERENCE

When the DEVELOPER proposes to design and to prepare construction plans using his own engineer, a pre-design conference with the DISTRICT and the DISTRICT's engineer is recommended to assure there is a clear understanding of the DISTRICT Standards and the specific improvements required to extend the DISTRICT water system to serve the DEVELOPER's property.

3. DESIGN STANDARDS

The design of water extensions shall be consistent with the DISTRICT's approved Water Comprehensive Plan, District's standard details, the regulations and standards of the Department of Ecology, Department of Health, Department of Social and Health Services, Douglas County Fire Marshall and all other applicable State, County, and Local agency standard regulations. Specific standards established by the DISTRICT are as follows:

- A. Minimum size for all water mains shall be 8-inches except, at the discretion of the District, where the water main is permanently dead ended with no future potential for extension, is less than 300 feet in length, and does not include a fire hydrant.
- B. All water service lines shall be 1" or larger. Dual services are allowed.
- C. Water mains shall be located at a uniform 6 to 9 feet north and east of centerline, roughly centered in the driving lane, unless otherwise approved by the District. Fittings will be used when necessary to maintain, as closely as possible, the uniform offset from centerline.
- D. Where ever possible, valves shall be clustered at the tee or crosses of connecting intersecting water lines. Full valve clusters are required.
- E. All fittings, fire hydrants and other appurtenances shall be located on the plans by street centerline station and offset.
- F. All water mains 4 inches and larger shall be ductile iron pipe. The ductile iron pipe shall be class 50 except where trench, backfill and loading dictate a stronger class pipe. Class 52 shall be used in areas where pressures are 150 psi and greater.
- G. The locations and size of oversized mains or special structures such as a pressure reducing station shall be designated by the DISTRICT Engineer.
- H. Water lines shall be looped and dead-end lines avoided if possible.
- I. Water lines shall be extended to the boundaries of the property being served providing access to all adjacent properties that may require future service.
- J. All water service lines are to be located along the street-side of the lot and installed at 90o to the water main and street centerline.
- K. Waterlines shall be located in Public Right-of-Ways whenever possible.
- L. The bury for all waterlines shall be 48-inches minimum and 54 inches maximum as measured from the top of the pipe to top of the subgrade. Whenever excavation or fill changes the cover over an existing waterline then, at the discretion of the DISTRICT, the water main may be required to be replaced to the specified grade.
- M. Water and sanitary sewer mains separation shall conform to Department of Ecology Standards. For all other utilities, the water main shall have a minimum horizontal separation of 36-inches, unless waived by the DISTRICT.
- N. A fire hydrant shall be installed at all dead-end cul-de-sacs to improve water quality and facilitate testing.
- O. Extensions which are not to the benefit of the District shall be private and isolated from the system with a double check detector assembly.

4. EASEMENTS/RIGHT-OF-WAYS

Whenever water lines are located outside of public streets, the right-of-way or easement shall be of sufficient width to allow for future replacement of the facility without damage to permanent adjacent improvements. In general, if the water line is located in the center of the right-of-way or easement, its minimum width shall be 20 feet. Special circumstances may require additional easement widths. A graveled vehicular access road shall be provided over the easement, unless waived by the DISTRICT. Easements must be shown on the water plan and recorded on the plat.

5. CONSTRUCTION DRAWING FORMATS

The DISTRICT desires to maintain a consistent format to its construction drawings and, therefore, requires that all construction drawings conform to the following format unless exceptions are approved in advance by the DISTRICT and/or DISTRICT's Engineer.

The following format and requirements are minimum for normal type system extensions. Unusual or special facilities or construction requirements may dictate additional drawings and drawing requirements.

- A. Sheet size: 24" x 36"
- B. Water Plan: a separate construction plan is required at a scale of 1"=20', 30' or 40', showing all existing or proposed utilities, existing or proposed street surfacing and improvements, street centerline and stationing, street right-of-way margins, street names, legal identifications of properties such as lot number or tax lot number, section subdivision lines, all property lines and all water or other utility easements and rights-of-way.

All Water Plans shall show the following information:

- a. Size, material, location and length of each water main. Length measured between fittings or appurtenances.
 - b. Station and offset to all fittings and valves and listing of each fitting and the type of connection, i.e., flanges (FL), mechanical joint (MJ), etc.
 - c. Station and offset to all appurtenances such as fire hydrants, blow off and air vacuum release assemblies.
 - d. Details showing how the connection to the existing water system is to be made and how the new mains are to be tested and sampled for bacteriological analysis prior to connection.
 - e. Location and sizing of all water services and whether the service is a double or single.
- C. Water Profile: A drawing showing the vertical profile will be required for water lines. The scale of these drawings shall be a standard engineering scale with an appropriate vertical exaggeration. Other utilities (sanitary sewer, storm drain, etc.) shall also be shown on the profile.
 - D. Construction: The Owner shall use licensed and bonded Contractors to do all water system related work. After the Plans have been approved a pre-construction conference will be held prior to field construction beginning.
 - E. After construction, the Owner shall submit to the District a revised Plan showing all field changes in both mylar and an electronic file of the CAD drawing. Water service will not be provided until an as-built record has been received.

**GENERAL CONDITIONS
FOR EXTENSIONS CONSTRUCTED BY DEVELOPERS**

1. SCOPE

Set forth below are general conditions to all applications for extension of the DISTRICT's water system by DEVELOPER's. Reference to, or requirements for, non-applicable conditions for any particular application will be construed to have no meaning relative to the performance of such work. All other conditions shall be strictly followed.

2. DEFINITIONS

The following terms, as used in this contract, shall be defined and interpreted as follows:

- A. "Application" or "This Application": The application for permission to construct an extension to the water system executed by the DEVELOPER and the DISTRICT of which these General Conditions are an integral part.
- B. "Extension Documents": The Extension Documents shall consist of the following. In cases of conflict in provisions, the first mentioned shall have precedence:
 - 1. Application for permission to construct extension to the water system.
 - 2. Change orders after application is signed.
 - 3. Detail drawings and written instructions.
 - 4. Addenda
 - 5. Plans
 - 6. General Conditions
 - 7. Special Provisions
 - 8. Standards and Details (water)
 - 9. Reference Specifications
 - 10. Performance Bond
 - 11. Maintenance Bond
 - 12. Design and Format Standards
- C. "DISTRICT": East Wenatchee Water District of Douglas County, Washington.
- D. "DEVELOPER": The person, partnership, firm, or corporation having filed an application with the DISTRICT to cause the installation of water improvements to become a part of the DISTRICT water system. The term shall also include the DEVELOPER's agents, employees, and subcontractors. For purposes of notice, the DEVELOPER address is shown in the application.
- E. "Engineer": The consulting engineer or his duly authorized personnel acting as agents for the DISTRICT in the administration of this Application, for the benefit of the DISTRICT in accordance with the Extension Documents.
- F. "Extension": The system of water mains and appurtenances or other water system improvements to be constructed in whole or in part pursuant to this Application.
- G. "Plans": The plans shall mean all official drawings or reproductions of drawings made or to be made pertaining to the work provided for in the Application or to any structure connected therewith.
- H. "Specifications": The specifications shall mean the prescribed directions, requirements, explanations, terms, and provisions pertaining to the various features of work to be done or manner or method of performance and the manner and method of measurements and payments. They also include directions, requirements, and explanations as set forth in the plans

- I. "Reference Specifications": Reference specifications shall mean the technical specifications of other agencies incorporated or referred to herein.
- J. "Work": The work necessary to manufacture and deliver the machinery, equipment, and material and/or furnish all labor, tools, material, equipment, construction equipment, working drawings, where required; and other necessities for the construction or erection of the structures shown and called for in the plans, specifications, and Application and the act of constructing or erecting such structures complete.
- K. "Material or Materials": These words shall be construed to embrace machinery, manufactured articles, materials of construction (fabricated or otherwise), and any other classes of material to be furnished in connection with the contract.
- L. "Equipment": The machinery, accessories, appurtenances, and manufactured articles to be furnished and/or installed under the contract.
- M. "DEVELOPER's Equipment": The phrase "DEVELOPER's equipment" shall include all items of materials or equipment remaining in the DEVELOPER's ownership and removed from the site upon completion of the project.
- N. "Or Equal": Any manufactured article, material, method, or work which, in the opinion of the Engineer, is equally desirable or suitable for the purposes intended in these specifications and the Contract as compared with similar articles specifically mentioned herein.
- O. "Contract Drawings" or "Drawings". All drawings or plans prepared by the Engineer or prepared by the DEVELOPER and approved by the Engineer.
- P. "Details" or "Additional Drawings": All details or drawings prepared and issued by the Engineer subsequent to the signing of the contract for further explanation or amplification of the Contract Documents or for revision of same, all as herein provided.
- Q. "Supplemental Drawings and Instructions": The Engineer may furnish with reasonable promptness, at his sole discretion upon written request by the DEVELOPER, additional instructions by means of drawings or documents necessary, in the opinion of the Engineer, for the proper execution of the work. All such drawings and instructions shall be consistent with the Contract Documents.
- R. "Shop Drawings": All shop details, structural steel, pipe, machinery, equipment, schedules, bending diagrams, reinforcing steel, and other detail drawings furnished by the DEVELOPER, as required and provided for in the specifications.
- S. "Words and Phrases": Wherever the words, "as directed", "as required", "as permitted", or words of like effect are used, it shall be understood that the direction, requirements, or permission of the DISTRICT and the Engineer is intended. The words "sufficient", "necessary", "proper", and the like shall mean sufficient, necessary, or proper in the judgment of the DISTRICT and the Engineer. The words "approved", "acceptable", "satisfactory", and the words of like import shall mean approval of or acceptable to the DISTRICT and the Engineer.
- T. "Surety": Any firm or corporation executing a surety bond or bonds payable to the DISTRICT securing the performance of the Contract, either in whole or in part.
- U. "Points": Wherever reference is made to the Engineer's points, this shall mean all marks, bench marks, reference points, stakes, hubs, tacks, etc., established by the Engineer or DEVELOPER for maintaining horizontal and vertical control of the work.

3. PLANS AND SPECIFICATIONS; OMISSIONS AND DISCREPANCIES

The DEVELOPER shall carefully study and compare all drawings and specifications and other instructions and shall, prior to ordering material or performing work, report in writing to the Engineer any error, inconsistency, or omission in respect to design, mode, or construction or cost which he may discover. If the DEVELOPER, in the course of this study or in the accomplishment of the work, finds any discrepancy between the drawings, or any such errors or omissions in respect to design, mode of construction, or cost in drawings or in the layout as given by points and instructions, it shall be his duty to inform the Engineer immediately in writing, and the Engineer shall promptly check the same. Any work done after such discovery will be done at the DEVELOPER's risk.

4. STATUS OF ENGINEER

- A. The Engineer shall have general supervision and direction of the work, provided, however, nothing contained herein or elsewhere in the Extension Documents shall be construed as required the Engineer to direct the method or manner of performing any work by the DEVELOPER under this contract. The Engineer has the authority to stop work whenever, in his opinion, such stoppage may be necessary to ensure proper execution of the contract. The Engineer may also reject all work and materials which, in his opinion, do not conform to the contract.
- B. It is understood and agreed by and between the parties hereto that the work (except the method or manner of performing the work) included in the application is to be done under the general supervision and to the complete satisfaction of the Engineer, or his duly authorized representative, and the decision of the Engineer as to the true interpretation and meaning of the application, plans, specifications, and estimates and as to all questions arising as to proper performance of the work shall be final.
- C. The Engineer shall decide any and all questions which may arise as to the quality or acceptability of materials furnished and work performed and all questions as to be acceptable fulfillment and performance of the Application on the part of the DEVELOPER. The decision of the Engineer in such matters shall be final.
- D. The Engineer may direct the sequence of conducting work when it is in locations where the DISTRICT is doing work either by contract or by its own forces or where such other works may be affected by the contract, in order that conflict may be avoided and the work under these specifications be harmonized with that under other contracts, or with other work being done in connection with, or growing out of, operations of the DISTRICT. Nothing herein contained, however, shall be taken to relieve the DEVELOPER of his obligations or liabilities under the application.
- E. Neither the Engineer nor his representatives have the authority to waive the obligation of the DEVELOPER to perform work in accordance with the Extension Documents. Failure or omission on the part of the Engineer or his representatives to condemn unsuitable, inferior, or defective work and/or labor or material or equipment furnished under the application shall not release the DEVELOPER or his bond from performing the work in accordance with the Extension Documents.

5. SURVEYS, PERMITS, LAWS, AND REGULATIONS

- A. The DEVELOPER shall furnish all property boundary surveys unless otherwise specified. Permits, permission under franchises, licenses, and bonds of a temporary nature necessary for the prosecution of the work, and inspection fees in connection therewith shall be secured and paid for by the DEVELOPER. Where the DISTRICT is required to secure such permits, permission under franchises, and licenses and bonds and to pay the fees, the costs incurred by the DISTRICT shall be reimbursed to the DISTRICT by the DEVELOPER.
- B. The DEVELOPER shall give all notices and comply with all laws, ordinances, rules, and regulations bearing on the conduct of the work required by the Extension Documents. If the DEVELOPER observed that the Extension Documents, or any part thereof, are inconsistent or at variance therewith, he shall promptly notify the Engineer in writing, and any necessary changes shall be made as provided in the Application for changes in the work. If the DEVELOPER performs any work contrary to such laws, ordinances, rules and regulations, or prior to obtaining permits, permission under franchises, licenses, and/or bonds as required to be furnished by or obtained by the DISTRICT, he does so at his own risk.

6. CONSTRUCTION STAKING

The DEVELOPER shall, at DEVELOPER's sole expense, furnish all construction points, stakes, and instructions necessary to control the horizontal and vertical placement of all facilities to be constructed by the DEVELOPER pursuant to the application. The DEVELOPER shall not proceed to place any construction points or stakes until written notification from the DISTRICT or the Engineer that the DEVELOPER may proceed with construction under the application. Construction points, stakes and instructions to be provided by DEVELOPER shall meet the following minimum requirements:

- 1. Horizontal location of all water mains at 50 foot stations offset 10 feet from the water main location.
- 2. The location of and two direction 10 foot offsets to locate all pipe intersections, cast iron bends, valves, hydrants, blow off assemblies, and air and vacuum assemblies.
- 3. A stake at the edge of the public right-of-way, easement or other right-of-way adjacent the water main marking the horizontal locations of all water service meter box assemblies.

4. Sufficient horizontal and vertical reference marks to accurately locate and construct all other water facilities and structures such as pressure reducing stations.

The DEVELOPER shall perform all property surveys necessary for placement of the construction stakes including surveys of easements. The DEVELOPER shall provide to the DISTRICT drawings showing the bearing and dimensions of all property lines, ties to adjacent subdivisions and section control and the calculated closure of all control traverses. All surveying and construction staking shall be performed by a professional land surveyor licensed in the State of Washington.

7. INSPECTION AND TESTS

- A. Inspection of the work by the DISTRICT and its authorized agents shall be strictly for the benefit of the DISTRICT, and nothing contained herein shall be construed to relieve the DEVELOPER of his obligations under this application.
- B. The Engineer and his representatives shall, at all times, have access to the work for the purpose of inspecting and testing wherever it is in preparation or progress, and the DEVELOPER shall provide proper facilities for such access and for such inspection and testing.
- C. If any work should be covered up without approval or consent of the Engineer; it must, if required by the Engineer, be uncovered for inspection at the DEVELOPER's expense.
- D. Re-examination of questioned work may be ordered by the Engineer; and, if so ordered, the work shall be uncovered by the DEVELOPER. If such work be found by the Engineer to be in accordance with the Extension Documents, the DISTRICT shall pay the cost of re-examination and replacement. If such work be found not in accordance with the Extension Documents, the DEVELOPER shall pay such costs.
- E. The DEVELOPER shall make tests of the work as required by the Engineer at the DEVELOPER's expense and shall maintain a record of such tests.
- F. For a performance test to be observed by the Engineer, the DEVELOPER shall make whatever preliminary test are necessary to assure that the material and/or equipment are in accordance with the specifications. If, for any reason, the test observed by the Engineer is unsatisfactory, the DEVELOPER shall pay all costs incurred by the Engineer for the inspection and supervision of all further testing.
- G. Where work is performed other than during the normal 40-hours week, the DEVELOPER shall pay additional costs of DISTRICT for inspection and supervision.
- H. Where the specifications, the Engineer's instructions, laws, ordinances, or any government authority require any work to be specifically tested or inspected, the DEVELOPER shall give the Engineer timely notice of the date fixed for such inspection. Required certificates of inspection by other authority than the Engineer shall be secured by the DEVELOPER.
- I. Inspection during construction will be provided as deemed necessary by the Engineer.
- J. Written notice of deficiencies, adequately describing the same, shall be given to the DEVELOPER upon completion of each inspection, and the DEVELOPER shall correct these deficiencies within seven (7) days of notice thereof and before final inspection will be made by the Engineer.
- K. A representative of the DEVELOPER or the DEVELOPER's contractor shall arrange a time with and accompany the Engineer on the final inspection and subsequent inspections, if required, thereafter.
- L. Deficiencies discovered at the final inspection shall be corrected within seven (7) days notice thereof and, in no instance, shall service be provided until said deficiencies are corrected and the extension passes re-inspection.
- M. A deposit to cover all costs, including actual construction, engineering, and administration, may be required at the discretion of the DISTRICT to cover correction of deficiencies discovered at the final inspection.
- N. All costs incurred by the DISTRICT for inspection, including the fees and charges of its Engineer, except as specifically provided for in this section, shall be paid by the DEVELOPER, and a deposit, therefore, for this may be required in advance by the DISTRICT.

- O. Neither inspection nor acceptance by the DISTRICT shall relieve the DEVELOPER of any responsibility or liability, whether to the DISTRICT or others, provided in the Extension Documents.

8. PLANS AND SPECIFICATIONS ACCESSIBLE

- A. The DEVELOPER shall be furnished three (3) copies of plans and specifications and shall keep at least one (1) copy of the same constantly accessible at the construction site.
- B. Where shop drawings are required to be submitted for acceptance, one (1) copy of the approved shop drawings shall be kept constantly accessible at the construction site.

9. OWNERSHIP OF DRAWINGS

All drawings, specifications and copies thereof prepared or furnished by the Engineer are his property. They are not to be used on other work and, with the exception of the signed application, are to be returned to him upon completion of the work.

10. INSURANCE

The DEVELOPER shall carry liability and property damage insurance covering all work under this application, including that done by subcontractors. This insurance shall name the DISTRICT and the Engineer as co-insureds and shall be primary coverage with any insurance carried by the DISTRICT classified as additional coverage. Unless otherwise specified, this insurance shall be carried as follows: Bodily Injury, each person - \$500,000, each accident - \$1,000,000; Property Damage, each accident - \$500,000.

11. MATERIAL AND EQUIPMENT; MATERIAL AND EQUIPMENT LIST

- A. Material and equipment shall be new and shall be specified in the extension documents or, if not specified, shall be of a quality approved by the Engineer. All materials and equipment furnished are warranted by the DEVELOPER as new and as in compliance with the plans and specifications, if specified therein, and as suitable for the intended purpose. In addition thereto, the DEVELOPER shall furnish the DISTRICT with copies of the supplier's warranty and adopt the same as the warranty of the DEVELOPERs and shall also be liable thereon to the DISTRICT.
- B. The DEVELOPER shall file three (3) copies of materials and equipment list with the Engineer prior to proceeding with construction. This list shall include the quantity, manufacturer and model number, if applicable, of materials and equipment to be installed under the application. This list will be checked by the Engineer as to conformity with the plans and specifications. The Engineer will pass upon the list with reasonable promptness, making required corrections.
- C. The DEVELOPER shall make any required corrections and file two (2) corrected copies with the Engineer within one week after receipt of required corrections. The Engineer's review and acceptance of the lists shall not relieve the DEVELOPER from responsibility for deviations from the drawings and specifications or warranty for suitability for the intended purpose unless the DEVELOPER has, in writing, called the Engineer's attention to such deviations at the time of submittal and secured the Engineer's written approval for such deviation.

12. SHOP DRAWINGS

The DEVELOPER shall check and verify all field measures. He shall submit with such promptness as to cause no delay in his own work or in that of any other contractor three (3) copies, checked and approved by the DEVELOPER, of all shop or setting drawings and schedules (all collectively herein referred to as "shop drawings") required for the work of the various trades in the performance of the work or where requested by the Engineer and shall verify all field measurements or conditions to which the shop drawings are applicable. The Engineer shall pass upon them with reasonable promptness making required corrections, including those related to design and artistic effect. The DEVELOPER shall make any corrections required by the Engineer and, within one week after receipt of the required corrections, shall file with the Engineer two (2) corrected copies and furnish such other copies as may be needed by the Engineer. The Engineer's acceptance of such drawings or schedules shall not relieve DEVELOPER from responsibility for deviation from drawings or specifications, unless the DEVELOPER has, in writing, called the Engineer's attention to such deviation at the time of submission and secured the Engineer's written approval, nor shall it relieve the DEVELOPER from responsibility for errors in shop drawings or schedules.

13. CUTTING AND FITTING

The DEVELOPER shall do all cutting and fitting of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of other DEVELOPERS or contractors shown or reasonably implied by the drawings and specifications for the completed structure, and the DEVELOPER shall restore all surfaces damaged by cutting and fitting as the Engineer may direct.

14. LABOR, MATERIALS, EQUIPMENT, FACILITIES, AND WORKMEN

- A. The DEVELOPER shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the work, except as otherwise stipulated in the Extension Documents.
- B. The DEVELOPER shall, at all times, enforce strict discipline and good order among his employees and shall not employ on the work any person unfit or not skilled in the work assigned to him. Employees or agents of the DEVELOPER who, in the opinion of the Engineer, may impair the quality of the work shall forthwith be discharged by the DEVELOPER upon the written request of the Engineer.
- C. During the term of this application, neither party shall employ nor hire any employee of the other party, nor of the Engineer, without the written consent of the other party or of the Engineer. The DEVELOPER shall not use any work performed or any information obtained from any employee hired in violation of this provision in making a claim against the DISTRICT or Engineer and shall be liable to the DISTRICT, as liquidated damages, in an amount equal to double the amount of salary or wages paid to any such employees so hired in violation hereof.
- D. Necessary sanitation conveniences for the use of workmen on the job, properly secluded from public observation, shall be provided and maintained by the DEVELOPER.
- E. Contractors working within the right of way or on existing DISTRICT infrastructure shall be licensed, bonded and have experience installing public domestic water systems and be prepared to present examples of 5 such projects upon request by the DISTRICT.

15. SAMPLES

The DEVELOPER shall furnish for approval all samples as directed by the Engineer. The finished work shall be in accordance with approved samples. Approval of samples by the Engineer does not relieve the DEVELOPER of performance of the work in accordance with the Extension Documents.

16. DETERMINATION OF "OR EQUAL"

The Engineer shall be the sole judge of the questions of "or equal" of any supplies or materials proposed by the DEVELOPER. The DEVELOPER shall pay to the DISTRICT the cost of tests and evaluation by the Engineer to determine acceptability of alternatives proposed by the DEVELOPER, in accordance with the established rates of the Engineer for time and expense work.

17. ROYALTIES AND PATENTS

The DEVELOPER shall defend, indemnify and hold the DISTRICT harmless for all claims and/or suits brought against the DISTRICT by reason of infringement of patent rights or license on any material, machine, appliance, or process that he may use on the work or incorporate into the finished job except where specifically exempted by Special Provisions. Such indemnity shall include the costs of defense by an attorney of DISTRICT's choice.

18. PROTECTION OF WORK AND PROPERTY AND SAFETY

- A. DEVELOPER shall continuously maintain adequate protection of the work from damage and shall protect DISTRICT's property from injury or loss arising in connection with or during the existence of this application. DEVELOPER shall make good any such damage, injury, or loss, except as may be directly due to errors in the Extension Documents or caused by agents or employees of the DISTRICT. He shall adequately protect adjacent property from damage or loss occasioned by performance of the work. He shall provide and maintain all passageways, guard fences, lights, and other facilities for protection required by public authority or local conditions.

- B. DEVELOPER shall bear the risk of loss or damage for all finished or partially finished work until the entire extension is accepted by the DISTRICT.
- C. DEVELOPER shall take all necessary precautions for the safety of employees on the work site and shall comply with all applicable provisions of Federal, State, and Municipal safety laws and building codes. We shall erect and properly maintain, at all times, as required by the conditions and progress of the work, all necessary safeguards for protection of workmen and the public, shall post danger signs warning against known or unusual hazards; and he shall designate a responsible member of his organization on the construction site whose duty shall be the prevention of accidents. The name and position of such person so designated shall be reported in writing to the Engineer by the DEVELOPER.

19. EXISTING UTILITIES OR OBSTRUCTIONS

- A. DEVELOPER shall not enter upon or place materials on other private premises except by written consent of the individual owners, and he shall save DISTRICT harmless from all suits and actions of every kind and description that may result from his use of private property.
- B. Underground utilities of record shall be shown on the construction plans insofar as it is possible to do so. These, however, are shown for convenience only, and DISTRICT assumes no responsibility for improper locations or failure to show utility locations on the construction plans.
- C. DEVELOPER shall take adequate precautions to protect existing lawns, trees, and shrubs outside rights-of-way, sidewalks, curbs, pavements, utilities, adjoining property, and structures, and to avoid damage thereto caused by his operations to the satisfaction of the Engineer, except as otherwise provided in the Extension Documents.

20. REPLACING IMPROVEMENTS

Whenever it is necessary, in the course of construction, to remove or disturb culverts, driveways, roadways, pipelines, monuments, property stakes, or other existing improvements, without limiting the generality thereof and whether on private or public property, they shall be replaced to a condition equal to that existing before they were so removed and disturbed.

21. SUPERINTENDENCE AND SUPERVISION

The DEVELOPER shall keep on the construction site during the progress of the work a competent superintendent and any necessary assistants, all satisfactory to the Engineer. The superintendent shall not be changed except with the consent of the Engineer unless the superintendent proves to be unsatisfactory to the DEVELOPER and ceases to be in his employ. The superintendent shall represent the DEVELOPER in his absence, and all directions given to the superintendent shall be as binding as though given to the DEVELOPER. Instructions to the DEVELOPER shall be confirmed in writing upon his request in each case. The DEVELOPER shall give efficient supervision to the work, using his best skill and attention.

22. WARRANTIES OF DEVELOPER

Upon completion of the extension work and approval thereof by the DISTRICT and simultaneously with the acceptance of the title by the DISTRICT, the DEVELOPER warrants to the DISTRICT as follows:

- A. That the DEVELOPER is the owner of the property and the same is free and clear of all encumbrances and that the DEVELOPER has good right and authority to transfer title thereto to the DISTRICT and will defend the title of the DISTRICT against the claims of all third parties claiming to own the same or claiming an encumbrance against the same; and
- B. That the water extension is in proper working condition, order, and repair and that it is adequate and fit for the intended purpose of use as a water system and as an integral part of the water system of the DISTRICT; and
- C. That for a period of two years from the date of final acceptance and transfer of title of the extension to the DISTRICT, all parts of the extension shall remain in proper working condition, order and repair except where abused or neglected by the DISTRICT; and the DEVELOPER shall repair or replace, at its own expense, any work or material which may prove to be defective during the period of this warranty. The DEVELOPER shall obtain warranties and guaranties from its subcontractors and/or suppliers where such warranties or guaranties are specifically required herein and shall deliver copies to the DISTRICT upon completion of the work. When corrections of defects occurring within the warranty period are made, the DEVELOPER shall further warrant correct work for one year after acceptance by the DISTRICT.

23. CORRECTION OF DEFECTS OCCURRING WITHIN WARRANTY PERIOD

When defects occurring within the warranty period are discovered, the DEVELOPER shall start work to remedy any such defects within seven (7) days of mailing notice of discovery thereof by the DISTRICT and shall complete such work within a reasonable time. In emergencies, where damage may result from delay and where loss of service may result, corrections may be made by the DISTRICT immediately upon discovery; in which case the cost thereof shall be borne by the DEVELOPER. In the event the DEVELOPER does not commence and/or accomplish corrections within the time specified, the work shall be otherwise accomplished and the cost of same shall be paid by the DEVELOPER.

The DEVELOPER shall be responsible for any expenses incurred by the DISTRICT resulting from defects in the DEVELOPER's work including actual damages, cost of materials, and labor expended by the DISTRICT in making emergency repairs, cost of engineering, inspection, and supervision by the DISTRICT or Engineer, as well as reasonable attorney's fees to be fixed by the court in any action which the DISTRICT may commence against the DEVELOPER to enforce the provisions hereof.

24. INDEMNITY

The DEVELOPER shall indemnify, defend, and save harmless the DISTRICT and the Engineer from and against all losses and claims, demands, payments, suits, actions, recoveries, and judgments of every nature and description brought and recovered against the DISTRICT and/or Engineer by reason of any act or omission of the DEVELOPER, the DEVELOPER's subcontractors, agents, and/or employees arising directly or indirectly from the performance of the work under the application or in guarding of the work. The DEVELOPER will, after reasonable notice of any such suit or action, defend and pay the expense of defending any such suit which may be commenced against the DISTRICT or Engineer arising therefrom.

25. SUBLETTING AND SUBCONTRACTING

The DEVELOPER agrees that he is fully responsible to the DISTRICT for the acts and omissions of subcontractors and persons either directly or indirectly employed by subcontractors, as well as the acts and omissions of persons directly employed by the DEVELOPER. Consent to subcontracting part of the work shall in no way release the DEVELOPER from responsibility under the application, and he will be held, in all respects, accountable for the same as if no consent had been given. Nothing contained in the Extension Documents shall create any contractual relation between any subcontractor and the DISTRICT.

26. SEPARATE CONTRACT; INTERFERENCE WITH OTHER DEVELOPERS

The DISTRICT reserves the right to perform the work with its own forces or to let contracts for work under similar general conditions in connection with this project or other projects. The DEVELOPER shall afford the DISTRICT and other contractors reasonable opportunity for the execution of their respective work and shall properly connect and coordinate his work with theirs.

27. ATTORNEY'S FEES

In the event this application is referred to or placed in the hands of attorneys by the DISTRICT for review and/or enforcement of any portion, or if suit is instituted with respect to this application, then, in either event; the DEVELOPER and Additional Owner(s) shall pay reasonable attorneys' fees as may be incurred by the DISTRICT or awarded by the Court, court costs, and all expenses in connection therewith as may be incurred by the DISTRICT.

BILL OF SALE

_____ (project name)

KNOW ALL MEN BY THESE PRESENTS: that the undersigned individuals, known as the party of the first part, hereinafter designated "Vendor", in fulfillment of the Developer Extension Agreement dated _____, approved by Resolution No. _____, of Vendee, for and in consideration of the sum of ONE DOLLAR (\$1.00) lawful money of the United States, in hand paid by EAST WENATCHEE WATER DISTRICT, DOUGLAS COUNTY, WASHINGTON, party of the second part, hereinafter designated "Vendee", do by these presence grant, bargain, sale and deliver under the Vendee, the following described personal property affixed to and located in:

Section _____ Township _____ North, Range _____ East, W.M., being the Plat of

_____ in Douglas County, Washington, to-wit:

See Exhibit A attached hereto.

TO HAVE AND TO HOLD the same unto the Vendee, its successors and assigns forever. And the Vendor, jointly and severally, and their respective successors and assigns, covenant and agree to and with the Vendee, its successors and assigns, that the Vendor is the Owner of said property, and has good right and authority to sell the same, and that it will, and does hereby warrant and agree to defend the sale thereof hereby made unto the Vendee, its successors and assigns, against all and every person or persons whomsoever, lawfully claiming or to claim the same.

Vendor further warrants, represents, covenants and agrees with the Vendee that said personal property and facilities are fit for the purposes intended: To-wit, for use as a water distribution system adequate for the service intended, and have been constructed in accordance with the conditions and standards of the District.

Vendor further covenants and agrees with the Vendee to replace, repair, and correct any defect in work or materials in respect to the personal property subject to the Bill of Sale arising during a period of two (2) years from date hereof, without costs to Vendee.

Vendor agrees that the dollar value of these improvements is \$_____.

IN WITNESS WHEREOF, Vendor has hereto affixed the hands and seals on the _____ day of _____, 201_____.

By_____

By_____

By_____

EXHIBIT A

_____ (project name)
WATER MAIN EXTENSION

| ALONG | FROM | TO | SIZE | LENGTH |
|-------|------|----|------|--------|
| | | | | |
| | | | | |
| | | | | |

Appendix H

Service Applications

**EAST WENATCHEE WATER DISTRICT
APPLICATION FOR SERVICE ACCOUNT
692 EASTMONT AVE
E. WENATCHEE, WA 98802
PHONE 509-884-3569
FAX 509-886-0550**

- INSTRUCTIONS:
1. FILL OUT FORM
 2. PRINT OUT FORM AND SIGN AT BOTTOM
 3. YOU MAY FAX OR MAIL FORM ONCE COMPLETED OR DROP IT OFF AT THE OFFICE AT 692 EASTMONT AVE.

SERVICE ADDRESS

APPLICANT'S NAME PHONE

MAILING ADDRESS (if different than above)

Are you Buying? If so, please fill out the next line

SELLER BUYER

Are you Renting? If so, please fill out the next line

OWNER RENTER

EFFECTIVE DATE

SIGNATURE _____

The undersigned applicant hereby applies for a water connection to the above described property. The applicant is the owner or customer of the described property or the authorized agent of the owner. By signing this application, the applicant agrees, as a condition of the East Wenatchee Water District providing and continuing service to the above described property, to comply with all provisions of the current Resolution No. 462, or the latest revision thereof, and other such rules and regulations now existing or which may be established from time to time governing the public water system. The applicant specifically agrees to install and maintain at all times their plumbing system in compliance with the most current edition of the plumbing code having jurisdiction as it pertains to the prevention of water system contamination, prevention of pressure surges and thermal expansion in their water piping. For thermal expansion, it shall be assured that a check valve is installed by the East Wenatchee Water District on the water service pipe. Further, the applicant agrees not to make a claim against the East Wenatchee Water District or its agents or employees for damages and/or loss of production, sales or service, in case of water pressure variations, or the disruption of the water supply for water system repair, routine maintenance, power outages, and other conditions normally expected in the operation of a water system.

Per Resolution No. 550, the East Wenatchee Water District provides water service for Habitat for Humanity projects at an adjusted plant investment fee rate.

WATER REVIEW FOR

SINGLE BUILDING PERMIT

PUBLIC WATER AVAILABILITY CHECKLIST

APPLICANT'S NAME: _____ PHONE: _____
NAME OF PROJECT: _____
LOCATION: _____

FOR DEPARTMENT USE ONLY

COUNTY FILE # _____

DATE OF COMPLETED APPLICATION: _____ WATER SYSTEM: _____

- I. Capacity to provide service
- _____ a. The property is within the designated Water System's service area and the System has sufficient capacity and water rights to serve this property.
- _____ b. Service to this property is not available from the Water System at this time. To serve this property will require:
- Annexation or Boundary Review Board/Department of Health Approvals
- Additional water supply and/or water rights
- Other (Describe: _____)
- II. Availability of Domestic Water Service
- _____ a. Water will be provided at a minimum pressure of 35 psi by service connection to an existing _____ inch water main located _____ and is approximately _____ feet from the site.
- _____ b. Water service is available after the following improvements are completed:
- _____ feet of _____ inch water mains on _____ to reach the site; and/or
- the construction of a distribution system on the site; and/or
- Other (Describe: _____)
- III. Availability of water for fire fighting
- _____ 1. The nearest fire hydrant is located at _____ and is within _____ feet of the property.
- _____ 2a. Water for fire fighting (is / will be) available at the rate of _____ gpm for a _____ hour duration at no less than 20 psi measured at _____ and _____ feet from the (building/property).
- _____ 2b. The fire flow capacity of the water system is unknown without further hydraulic analysis of the water system by an engineer licensed within the state of Washington.
- _____ 2c. Fire flow capacity is not available.

WATER MAY BE AVAILABLE IF THE PROPERTY OWNER MEETS THE FOLLOWING CONDITIONS (SUCH LISTING IS NOT INTENDED TO BE AN EXHAUSTIVE LIST OF ALL CONDITIONS WHICH MAY BE REQUIRED IN ORDER TO PROVIDE SERVICE. OTHER FACTS MAY BE REVEALED DURING SUBSEQUENT REVIEW WHICH REQUIRE NEW OR CHANGED CONDITIONS BE MET BY THE PROPERTY OWNER PRIOR TO SERVICE):

CHELAN-DOUGLAS HEALTH DISTRICT

PWS NAME & ID NUMBER

Title: _____
Date: _____

Title: _____
Date: _____

NOTE:

The conditions of water availability stated within this form expire within one year of the water system personnel's signature date. A new water availability form shall be resubmitted after this date to confirm water availability.

This checklist was prepared to help applicants comply with the requirements of RCW 19.27.097, concerning the adequacy or inadequacy of the local water system's ability to serve the referenced property. The information provided is intended to summarize the water system's capacity and the required improvements, if any are needed to provide water service.

THIS FORM IS FOR WATER REVIEW ONLY. SEPARATE FORMS ARE REQUIRED FOR ELECTRICAL AND WASTEWATER SERVICE.

PURVEYOR CONTACTS:

Bauer's Landing PWS
421 Lakeview Drive
Orondo, WA 98843

Chelan County PUD #1
PO Box 1231
Wenatchee, WA 98807
(509) 663-8121

Chiwawa Communities Assoc.
2413 Salal Drive
Leavenworth, WA 98826
(509) 763-2833

City of Bridgeport
PO Box 640
Bridgeport, WA 98813
(509) 686-4041

City of Cashmere
101 Woodring
Cashmere, WA 98815
(509) 782-3513

City of Chelan
PO Box 1669
Chelan, WA 98816
(509) 682-4037

City of Leavenworth
700 Hwy 2
Leavenworth, WA 98826
(509) 548-5275

City of Rock Island
PO Box 99
Rock Island, WA 98850
(509) 884-1261

City of Waterville
PO Box 580
Waterville, WA 98858
(509) 745-8162

City of Wenatchee
PO Box 519
Wenatchee, WA 98807
(509) 664-3360

East Wenatchee Water Dist.
PO Box 7190
East Wenatchee, WA 98802
(509) 884-3569

Fish Lake Water District
PO Box 904
Leavenworth, WA 98826
(509) 763-2597

Lake Chelan Reclamation Dist.
PO Box J
Manson, WA 98831
(509) 687-3548

Malaga Water District
PO Box 249
Malaga, WA 98828
(509) 663-7333

Ponderosa Community Club
2100 Morgan Rd.
Leavenworth, WA 98826
(509) 763-3573

Sun Cove Public Water System
PO Box 426
Manson, WA 98831
(509) 687-9511

Three Lakes Water District
PO Box 272
Malaga, WA 98828
(509) 663-2551

OTHER AGENCY CONTACTS:

Chelan County Building/Planning
411 Washington Street
Wenatchee, WA 98801
(509) 664-5225

Chelan Douglas Health District
200 Valley Mall Parkway
East Wenatchee, WA 98802
(509) 886-6450

City of East Wenatchee
271 Ninth Street NE
East Wenatchee, WA 98802
(509) 884-1796

Douglas County T&LS
140 – 19th Street NW, Ste A
East Wenatchee, WA 98802
(509) 884-7173

This checklist was prepared to help applicants comply with the requirements of RCW 19.27.097, and RCW 58.17.150 concerning the adequacy of the local water system's ability and intent to serve the referenced project. The information provided is intended to summarize the water system's capacity and the required improvements, if any are needed to provide water service, the terms and conditions to be met by the developer, and the status of the developer's performance of the obligations necessary to obtain the water system's commitment to provide water service.

Water service connection applications will not be accepted for any part of the project until the improvements are accepted and conveyed to the purveyor. At the time an application is made for water service, the applicant will be required to pay all water service connection fees and charges.

Water for domestic service or for fire fighting is not available until the extension is completed, accepted and transferred to the water system purveyor.

PURVEYOR CONTACTS:

Bauer's Landing Public Water System
421 Lakeview Drive
Orondo, WA 98843

Chelan County PUD No. 1
P.O. Box 1231
327 Wenatchee Ave.
Wenatchee, WA 98801
(509) 663-8121

Chiyawa Communities Association
2413 Salal Dr.
Leavenworth, WA 98826
(509) 763-2833

City of Bridgeport
P.O. Box 640
Bridgeport, WA 98813
(509) 686-4041

City of Cashmere
Building/Planning Department
101 Woodring
Cashmere, WA 98815
(509) 782-3513

City of Chelan
Building/Planning Department
P.O. Box 1669
317 E. Johnson Ave.
Chelan, WA 98816
(509) 682-4037

City of Leavenworth
Building/Planning Department
P.O. Box 287
815 Front Street
Leavenworth, WA 98826
(509) 548-5275

City of Rock Island
P.O. Box 99
Rock Island, WA 98850
(509) 884-1261

City of Waterville
P.O. Box 580
Waterville, WA 98858
(509) 745-8162

City of Wenatchee
Building/Planning Department
25 N. Worthen St.
Wenatchee, WA 98801
(509) 664-3360

East Wenatchee Water District
P.O. Box 7190
692 Eastmont Ave.
East Wenatchee, WA 98802
(509) 884-3569

Fish Lake Water District
P.O. Box 904
Leavenworth, WA 98826
(509) 763-2597

Lake Chelan Reclamation District
P.O. Box J
Manson, WA 98831
(509) 687-3548

Malaga Water District
P.O. Box 249
Malaga, WA 98828
(509) 663-7333

Ponderosa Community Club
P.O. Box 490
Leavenworth, WA 98826
(509) 763-3573

Sun Cove Public Water System
P.O. Box 426
Manson, WA 98831
(509) 687-9511

Three Lakes Water District
P.O. Box 272
Malaga, WA 98828
(509) 663-2551

OTHER AGENCY CONTACTS:

Chelan County
Building/Planning Department
411 Washington Street
Wenatchee, WA 98801
(509) 664-5225

Chelan-Douglas Health District
200 Valley Mall Parkway
East Wenatchee, WA 98802
(509) 886-6400

City of East Wenatchee
Building/Planning Department
271 Ninth Street NE
East Wenatchee, WA 98802
(509) 884-1796

Douglas County
Building/Planning Department
470 9th Street, NE
East Wenatchee, WA 98802
(509) 884-1511

EAST WENATCHEE WATER DISTRICT
SPECIAL WATER SERVICE AGREEMENT

CUSTOMER NAME _____

PROPERTY LEGAL DESCRIPTION _____ SEC ___ TWN ___ RGE ___

SHORT PLAT/PROPERTY OWNER _____ LOT # _____

METER LOCATION _____ NEW EXISTING

This AGREEMENT is made and entered into this _____ day of _____ 20__ by and between the EAST WENATCHEE WATER DISTRICT OF DOUGLAS COUNTY, WASHINGTON, a municipal corporation, hereinafter referred to as the "District" and _____ hereinafter referred to as the "Customer".

TERMS AND CONDITIONS: The District agrees to furnish a water service connection to the Customer on the following terms and conditions.

- The service line from the meter to the Customer's dwelling will be installed and maintained at the Customer's expense.
- The domestic water service is limited to serve only one single-family residence.
- The District does not guarantee the quality of water in the Customer's service line from the meter related to taste, odor, or to growth of bacteria due to the length of the proposed service line to the Customer dwelling.
- Any and all booster pumps, switches, pressure tanks and related equipment for providing water service from the meter to the dwelling to be provided and maintained by the Customer.
- If at such time in the future, public water mains are extended adjacent to the Customer's property, it is the practice of the District to relocate the Customer's service meter to a location abutting the Customer's property. The Customer agrees to pay all costs and expenses incurred by the District in relocating the meter service and pay all costs and expenses within 30 days of the date of billing. The Customer shall perform all work and pay all costs in relocating the Customer's service line from the dwelling to the relocated meter service.
- Domestic water service to this property is being approved contingent upon the property owner assigning one of their existing 10-acre water rights from a specific parcel located inside the District's Service Area. The parcel number is _____ and is approximately _____ acres in size. The Customer agrees that this shall be a covenant running with the land and shall be binding upon customer's heirs, successors and assignees. Attached to this agreement shall be "Attachment A", a drawing describing the parcel with the water right.
 - Assign this right to parcel number or address _____ inside the District's service area.
 - Transferring this right to a parcel or address adjacent to but outside the District's service area. The following parcel number, address _____ is the property, which will be served by the new domestic water service.
- The property owner agrees to not protest future annexation into the District's Service Area should the District decide that it is in the best interest of the District.

- IN WITNESS WHEREOF, this special service agreement, the hands and seals of both parties hereto on the day and year in this Agreement first above written.

EAST WENATCHEE WATER DISTRICT

CUSTOMER

Sign By _____

Sign by _____

Print Name _____

Print Name _____

Title _____

Title _____

WITNESS

Sign By _____

Print Name _____



COMMISSIONERS:

Michael T. McCourt
G. Brian Egan
Terry Barnes

Greg Brizendine, Manager

East Wenatchee Water District

(509) 884-3569 • Fax (509) 886-0550 • 692 Eastmont Avenue • East Wenatchee, WA 98802

PERMIT APPLICATION FOR DOMESTIC ON-SITE IRRIGATION SYSTEM

Current and new water customers must complete the following information. Please specify the type of water source that will be, or is, used for your landscape irrigation system.

Name: _____ Date: _____

Property Address: _____

Mailing Address: _____

Telephone: _____

If NEW, the company responsible for installation and design of irrigation sprinkler system:

Company: _____ Name: _____

Telephone: () _____

This permit determines what type of backflow assembly is needed for the landscape sprinkler system that is installed or being updated. Please choose the option that best fits your sprinkler system:

This irrigation sprinkler system will, or is, ONLY using East Wenatchee Water District domestic water and with no chemical injection being plumbed into the sprinkler system. This requires the installation of Double Check Valve Assembly (DCVA) on the system.

This irrigation sprinkler system WILL be used in combination with an auxiliary water source such as: irrigation water, reclamation water, well, river, lake or spring water. Landscape sprinkler systems that use auxiliary water sources require the installation of a Reduced Pressure Backflow Assembly (RPBA).

This irrigation sprinkler system is using ONLY an auxiliary source such as: irrigation/ditch water, river, lake or spring water with no connection to the domestic water line. Landscape sprinkler systems that use only an auxiliary source of water are not required to install a Backflow Prevention Assembly.

Type of backflow prevention (if installed): NONE DCVA RPBA SVBA PVBA

Manufacturer: _____ **Model #:** _____ **Serial #:** _____

Location of Backflow Assembly: _____

APPLICANT'S STATEMENT:

I will comply with the proper installation of this system, following the guidelines set forth by the East Wenatchee Water District and Resolution No. 462 and subsequent resolutions. I also understand that any alterations to this irrigation system that change the water source shall be forwarded to the East Wenatchee Water District. Failure to comply may result in water service to the above property address being terminated as per the water service agreement.

Applicant's Signature

Dated: _____

Appendix I

Standard Details

1. CONSTRUCTION OF IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE EAST WENATCHEE WATER DISTRICT DEVELOPER EXTENSION AGREEMENT (as applicable), DISTRICT STANDARD DETAILS AND THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, MOST CURRENT EDITION, AS ISSUED BY THE WA. STATE DEPT. OF TRANSPORTATION.
2. A PRECONSTRUCTION CONFERENCE IS REQUIRED PRIOR TO CONSTRUCTION AND 48 HOURS ADVANCE NOTIFICATION OF THE LOCAL MUNICIPALITY, THE EAST WENATCHEE WATER DISTRICT AND ALL AFFECTED UTILITY COMPANIES PRIOR TO THE ACTUAL START OF WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH THE PROVISIONS OF THE RIGHT-OF-WAY/STREET CONSTRUCTION PERMIT AS ISSUED BY THE DOUGLAS COUNTY DEPT. OF TRANSPORTATION AND LAND SERVICES, CITY OF EAST WENATCHEE, AND/OR WA. STATE DOT FRANCHISE FOR THIS PROJECT.
4. LOCATIONS OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY, LOCATE AND PROTECT ALL UTILITIES WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING OR REPAIRING ANY UTILITIES DAMAGED DURING CONSTRUCTION. SHOW THESE UTILITIES ON THE AS-BUILTS.
5. LOCATION AND EXTENT OF IRRIGATION PIPELINES WITHIN THE PROJECT LIMITS ARE UNKNOWN. CONTRACTOR SHALL CONTACT ALL PROPERTY OWNERS ADJACENT TO THE PROJECT FOR LOCATING PRIVATE IRRIGATION SYSTEMS. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL IRRIGATION MAINS AND REPLACING OR REPAIRING PIPELINES DAMAGED DURING CONSTRUCTION. SHOW THESE PIPELINES ON THE AS-BUILTS.
6. WATER MAIN TRENCH SECTION AND ALL EXCAVATED AREAS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE STANDARD DETAILS AND WITH SECTIONS 7-9.3(10) AND 7-9.3(11) OF THE STANDARD SPECIFICATIONS. COMPACTION TESTING SHALL BE REQUIRED DURING BACKFILLING OPERATIONS AT THE DISCRETION OF THE WATER DISTRICT. IF TRENCH BACKFILL DOES NOT MEET COMPACTION REQUIREMENTS, CONTRACTOR SHALL EXCAVATE, RECOMPACT AND RETEST MATERIAL AT CONTRACTOR'S EXPENSE.
7. RESTORATION OF DAMAGED ROAD SURFACING SHALL BE IN ACCORDANCE WITH THE LOCAL MUNICIPALITY'S REQUIREMENTS. ALL OTHER AREAS SHALL BE RESTORED TO ORIGINAL CONDITION OR AS DIRECTED BY THE DISTRICT. THIS INCLUDES SHOULDERS, LANDSCAPING, WALLS, FENCES AND OTHER IMPROVEMENTS.
8. THE WATER MAIN SHALL BE INSTALLED WITH A MINIMUM OF 48" OF COVER. INSTALLATION OF MAIN WITH GREATER THAN 54" OF COVER SHALL BE ACCEPTABLE ONLY UNDER THE DIRECTION OF THE WATER DISTRICT. ALL SERVICES, FIRE HYDRANTS AND THRUST BLOCKING SHALL BE INSPECTED BY THE DISTRICT BEFORE BURY.
9. DISTRICT APPROVED THRUST RESTRAINTS ARE REQUIRED FOR ALL UNRESTRAINED FITTINGS. THRUST BLOCKING IS THE PREFERRED METHOD. RESTRAINED JOINTS ARE ALLOWED FOR VERTICAL BENDS, WHERE BLOCKING IS NOT PRACTICAL, AND ARE REQUIRED FOR MAINS THAT WILL BE EXTENDED.
10. A SANITARY GAP MUST BE PROVIDED BETWEEN THE EXISTING AND NEW WATER SYSTEMS. CONNECTION TO THE EXISTING WATER SYSTEM SHALL BE PERFORMED BY THE CONTRACTOR ONLY AFTER COMPLETING OF AN ACCEPTABLE HYDROSTATIC PRESSURE TEST AND THE PIPELINE IS DISINFECTED, FLUSHED AND RECEIPT OF APPROVAL OF WATER QUALITY TEST RESULTS FROM THE HEALTH DISTRICT.
11. CONTRACTOR SHALL PERFORM PRESSURE TEST AT 250psi, INCLUDING HYDRANTS AND SERVICE LINES. MAINLINE SHALL BE TESTED IN SECTIONS OF NO MORE THAN 1,500 FEET. PRESSURE DROP SHALL NOT EXCEED 5psi IN 60 MINUTES. THE DISTRICT INSPECTOR HAS DISCRETION TO MODIFY THE TESTING REQUIREMENTS AS HE DEEMS APPROPRIATE.
12. A PIPE PLUG SHALL BE USED ON EACH JOINT DURING INSTALLATION TO PROTECT AGAINST FLOODING OF THE PIPE.
13. NO OTHER UTILITIES SHALL BE INSTALLED WITHIN 36" HORIZONTALLY OF ANY ACTIVE WATER LINE UNLESS OTHERWISE PRE-APPROVED BY THE DISTRICT.
14. CONTRACTOR SHALL POTHOLE A SUFFICIENT DISTANCE AHEAD TO VERIFY DEPTH OF ALL EXISTING WATER MAINS AND CROSSING UTILITIES PRIOR TO CONSTRUCTION AND CONNECTIONS AND TO ANTICIPATE ANY NECESSARY CHANGES IN FITTINGS OR ALIGNMENT.
15. ALL METAL PRODUCTS (VALVE BOXES EXCLUDED) AND FITTING COMPONENTS (e.g. BOLTS, GASKETS, ETC) ARE TO BE OF DOMESTIC FABRICATION & CONSTRUCTION. ONLY FORD, MCDONALD AND MUELLER PRODUCTS ARE APPROVED FOR USE AS SERVICE BRASS, EXCEPT WHERE OTHERWISE NOTED IN THESE STANDARD DETAILS. ALL PE PIPE SHALL BE MIN 200psi RATED CTS (Copper Tube Size). GASKETS FOR ALL FLANGED FITTINGS SHALL BE RING TYPE ONLY, FULL FACED GASKETS ARE NOT ACCEPTABLE.
16. AN AS-BUILT RECORD MUST BE SUBMITTED TO THE DISTRICT BEFORE WATER SERVICE WILL BE PROVIDED.
17. DEFLECTION AT PIPE AND FITTING JOINTS WILL BE ALLOWED UP TO 3.0" (11" OVER 18') OR AS RECOMMENDED BY MANUFACTURER, WHICHEVER IS LESS.

CONTINUED ON NEXT SHEET . . .

East Wenatchee Water District



WATER SYSTEM STANDARD DETAIL CONSTRUCTION NOTES PAGE 1 of 2

18. CONTRACTOR SHALL ONLY DISPOSE OF WASTE MATERIAL AT SITES APPROVED BY DOUGLAS COUNTY TRANSPORTATION AND LAND SERVICES. STOCKPILE MATERIALS ONLY ON DISTRICT APPROVED SITES.

19. HATCH NOTE: ALL VAULT HATCHES 2'x2' OR LARGER SHALL BE HINGED, SPRING ASSIST OPENING, INCLUDE RECESSED PADLOCK HASP, DRAINAGE COLLECTION FRAME (U CHANNEL WITH PIPE CONNECTION), H2O RATED MINIMUM, ALUMINUM OR GALVANIZED STEEL. IF HATCH WILL BE LOCATED IN A TRAVELED AREA (ROAD OR DRIVEWAY), SUBMIT MANUFACTURER'S STATEMENT THAT HATCH IS RATED FOR CONTINUOUS AND DELIBERATE H2O TRAFFIC SERVICE. HATCHES SHALL BE CAST INTO VAULT LID OR RISER. FRAME DRAIN PLUMBED THROUGH LID TO SURFACE IF LID IS AT LEAST 4" ABOVE GRADE. OTHERWISE, INSTALL 1" OR LARGER SCH 40 PVC PIPE AND FITTINGS FROM THE FRAME DRAIN, ROUTED AND SECURED ALONG THE CEILING AND WALLS TO THE FLOOR.

20. ALL PIPE 3" AND LARGER SHALL BE DUCTILE IRON. PIPE SHALL BE MINIMUM CLASS 50 EXCEPT WHERE TRENCH BACKFILL AND LOADING DICTATE A STRONGER CLASS PIPE. CLASS 52 SHALL BE USED FOR HYDRANT RUNS AND IN AREAS WHERE PRESSURE EXCEEDS 150 PSI.

21. CASINGS SHALL BE NEW STEEL, HDPE OR PVC; MATERIAL AND WALL THICKNESS AT THE DISCRETION OF THE DISTRICT. PIPE THROUGH CASINGS SHALL BE SUPPORTED WITH RUNNERS SPACED NO FARTHER THAN 8 FEET APART. RUNNERS SHALL BE MANUFACTURED PRODUCTS (PSI, CALPICO, OR APPROVED EQUAL), NO BLOCKS AND STRAPS. CASING ENDS SHALL BE CAPPED WITH MANUFACTURED CASING END SEALS.

22. CONTRACTORS WORKING WITHIN THE RIGHT OF WAY OR ON EXISTING DISTRICT INFRASTRUCTURE SHALL BE LICENSED, BONDED AND HAVE EXPERIENCE INSTALLING PUBLIC DOMESTIC WATER SYSTEMS AND BE PREPARED TO PRESENT EXAMPLES OF 5 SUCH PROJECTS UPON REQUEST BY THE DISTRICT.

23. VAULT LID NOTE: FOR ALL TAPER-TOP STYLE VAULTS FOR WATER METERS, AIR VALVES, PERMANENT BLOWS AND OTHER PURPOSES, CONTRACTOR TO PURCHASE LID AND FRAME EQUAL TO EAST JORDAN IRONWORKS' EAST WENATCHEE WATER DISTRICT SPECIFICATION, MODEL 3620C/3620Z. ANCHOR FRAME TO VAULT USING NON-SHRINK GROUT. FRAME AND LID TO BE RATED FOR TRAFFIC LOADING IN TRAFFIC AREAS. METER VAULT LIDS TO INCLUDE ONE INTEGRAL 1.75" DIAMETER RECESS FOR RADIO. FOR AIR VALVES AND BLOW OFFS, DO NOT DRILL HOLE IN LIDS NOR PROVIDE "METER" TEXT ON FRAME.

24. REPAIR OF ANY EXISTING IRRIGATION SYSTEMS DAMAGED DURING CONSTRUCTION MUST USE PRODUCTS OF NO LESSER QUALITY THAN SCH 40 PVC.

25. CONTRACTOR TO PROVIDE NO LESS THAN 48 HOURS NOR MORE THAN 72 HOURS NOTICE TO THE DISTRICT PRIOR TO ANY REQUIRED SHUTDOWN OR CUSTOMER SERVICE OUTAGE. DISTRICT WILL PROVIDE NOTICE TO CUSTOMERS 24 HOURS IN ADVANCE OF OUTAGE.

26. EXTERNAL CONCRETE BLOCKING FOR UTILITY VAULTS SHALL BE INSTALLED BEFORE INTERNAL PIPING IS CUT OUT. BLOCKING SHALL BE FORMED, NOT DIRECTLY POURED AGAINST DIRT WALLS. BLOCKING SHALL BE CONSOLIDATED BY VIBRATION.

**East Wenatchee
Water District**



WATER SYSTEM STANDARD DETAIL
CONSTRUCTION NOTES
PAGE 2 of 2

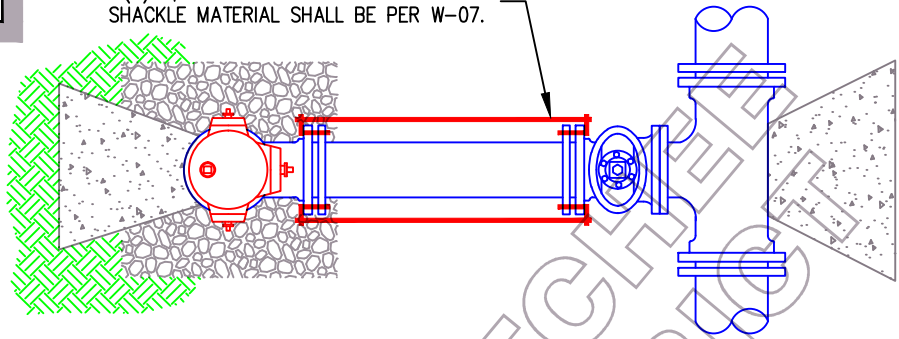
APPROVED HYDRANTS:
 MUELLER A423
 M & H 129 or 929
 CLOW F2500
 WATEROUS WB67-250
 KENNEDY K81A OR K81D

IF THERE IS AN EXISTING HYDRANT IN THE VICINITY THAT WILL BE DEACTIVATED, REMOVE AND DELIVER HYDRANT TO DISTRICT SHOP. CONFIRM WITH DISTRICT.

SEE STANDARD DETAIL W-23 FOR ADDITIONAL DETAILS INCLUDING LOCATION REQUIREMENTS.

ALL HYDRANTS SHALL BE DOUBLE RESTRAINED. WHERE THRUST BLOCKING IS NOT PRACTICAL, SHACKLES AND MEGA-LUG EQUIVALENTS ARE REQUIRED.

(2) 3/4" SHACKLE RODS OR MEGA-LUGS. SHACKLE MATERIAL SHALL BE PER W-07.



HYDRANT PLAN

COMPRESSION TYPE FIRE HYDRANT w/(1) 4" PCT PUMPER CONNECTION, (2) 2 1/2" HOSE CONNECTIONS, 5/4" MAIN VALVE OPENING, 6" MJ INLET, AND 1/4" PENTAGON OPERATING NUT. PAINT HYDRANT YELLOW. SET HYDRANT PLUMB.

MINIMUM 5' BURY UNLESS OTHERWISE APPROVED BY THE DISTRICT. VERIFY HYDRANT BURY PRIOR TO ORDERING. PROVIDE EXTENSION IF NECESSARY TO ACHIEVE CORRECT GRADE.

CONCRETE THRUST BLOCK, MIN BEARING AREA = 6 sqft. DO NOT OBSTRUCT DRAIN RINGS.

7 cuft MINIMUM OF 1/2" WASHED GRAVEL RETAINED ON A 1/4" MESH FOR DRAIN. PLACE 6mil PLASTIC OR FILTER FABRIC OVER TOP AND SIDES OF SUMP.

16"x8"x4" MIN CONCRETE BLOCK

TWO-PIECE CAST IRON VALVE BOX AND LID, SEE STANDARD DETAIL W-12.

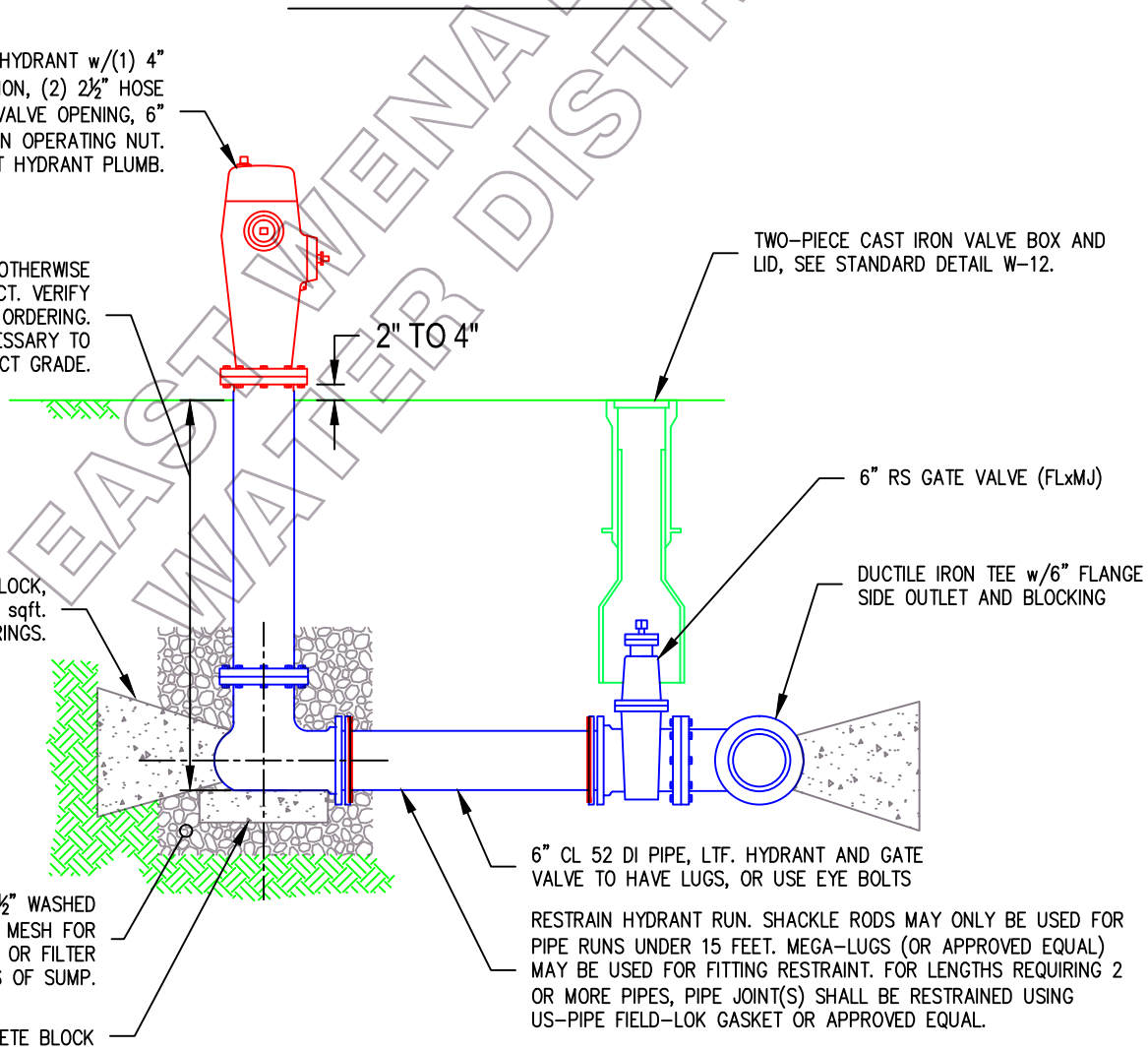
2" TO 4"

6" RS GATE VALVE (FLxMJ)

DUCTILE IRON TEE w/6" FLANGE SIDE OUTLET AND BLOCKING

6" CL 52 DI PIPE, LTF. HYDRANT AND GATE VALVE TO HAVE LUGS, OR USE EYE BOLTS

RESTRAIN HYDRANT RUN. SHACKLE RODS MAY ONLY BE USED FOR PIPE RUNS UNDER 15 FEET. MEGA-LUGS (OR APPROVED EQUAL) MAY BE USED FOR FITTING RESTRAINT. FOR LENGTHS REQUIRING 2 OR MORE PIPES, PIPE JOINT(S) SHALL BE RESTRAINED USING US-PIPE FIELD-LOK GASKET OR APPROVED EQUAL.



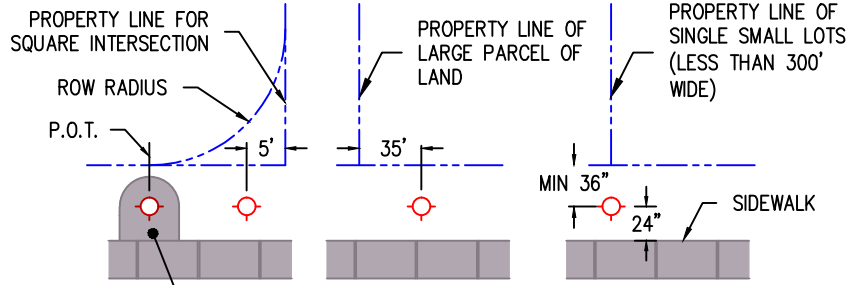
HYDRANT ELEVATION

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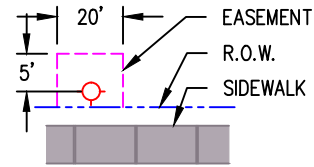


WATER SYSTEM STANDARD DETAIL

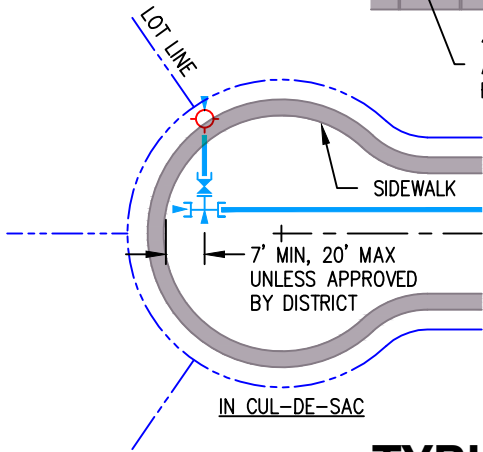
FIRE HYDRANT



IF HYDRANT CANNOT BE LOCATED WITHIN ROW WITH 3' CLEAR, AN EASEMENT MUST BE PROVIDED.



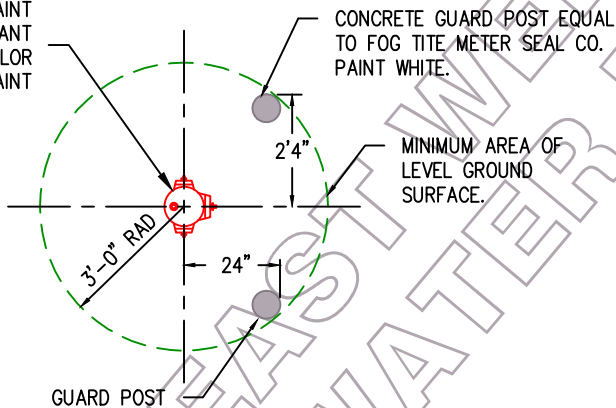
4" THICK CONCRETE APRON, 24" RADIUS, WHEN REQUIRED BY DISTRICT



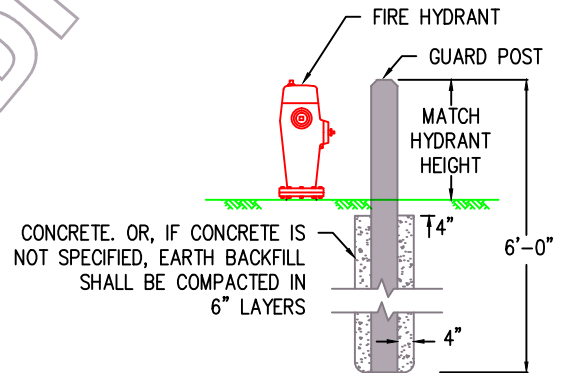
HYDRANTS SHALL BE INSTALLED AT THE END OF ALL 8" DIAMETER AND LARGER DEAD END MAINS.

TYPICAL HYDRANT LOCATIONS

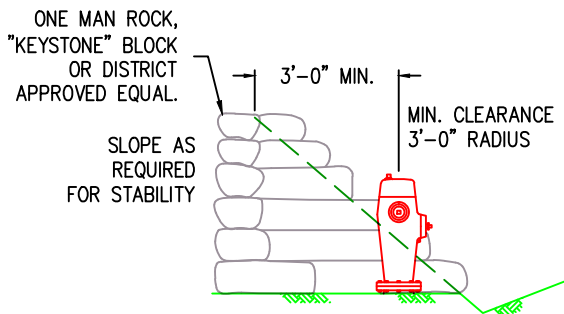
TOUCH UP ANY PAINT DAMAGE ON HYDRANT WITH SAME COLOR EPOXY PAINT



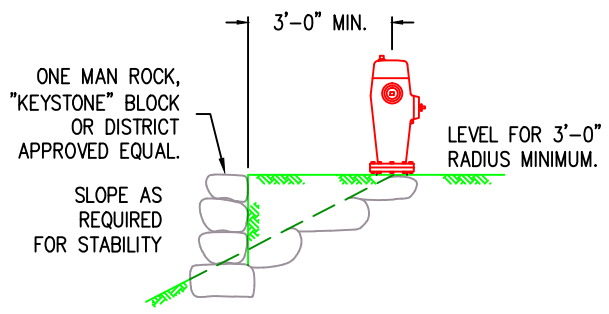
GUARD POST PLAN



GUARD POST ELEVATION



HILL CUT



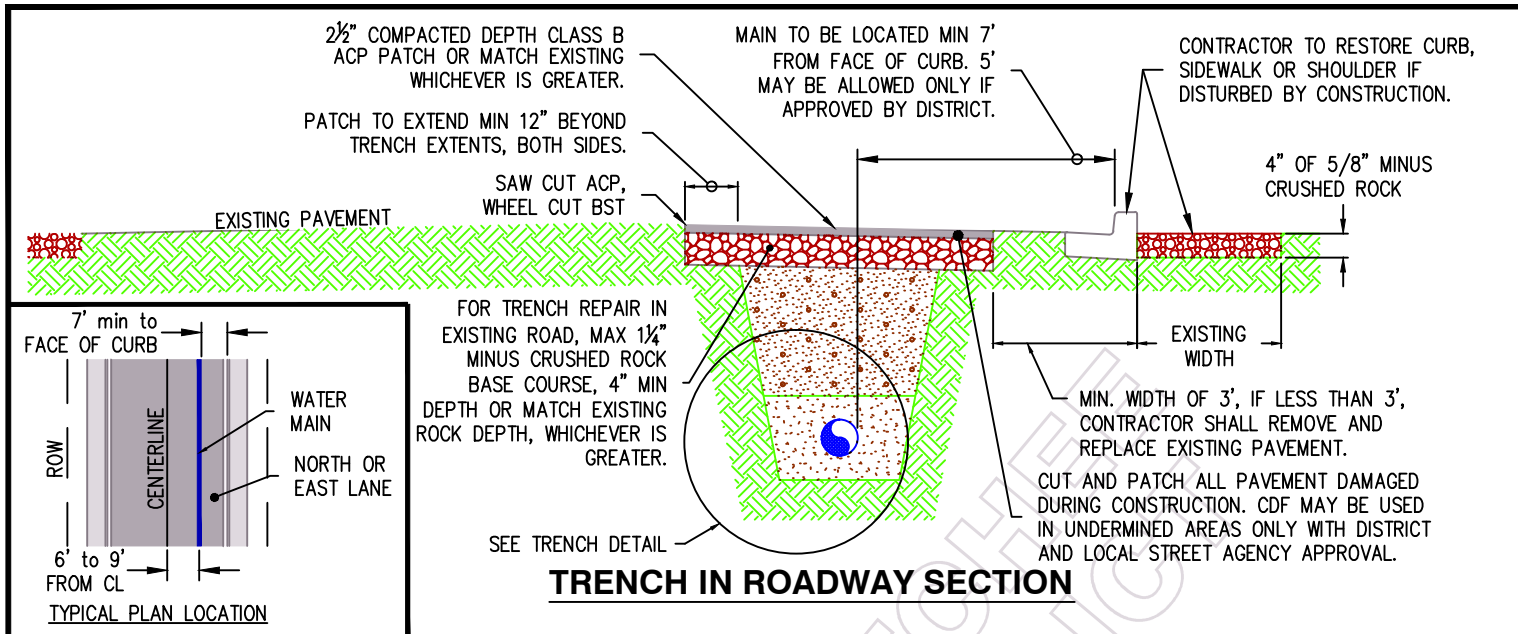
SLOPE FILL

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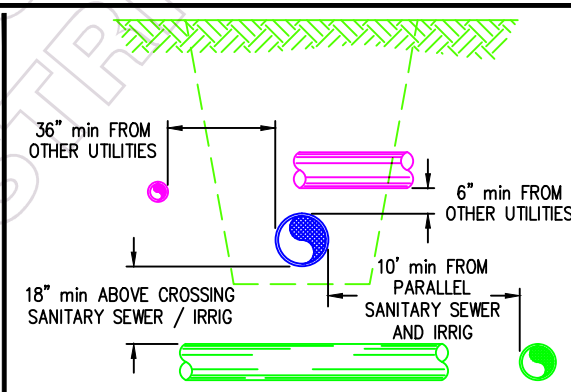


WATER SYSTEM STANDARD DETAIL

HYDRANT LOCATIONS

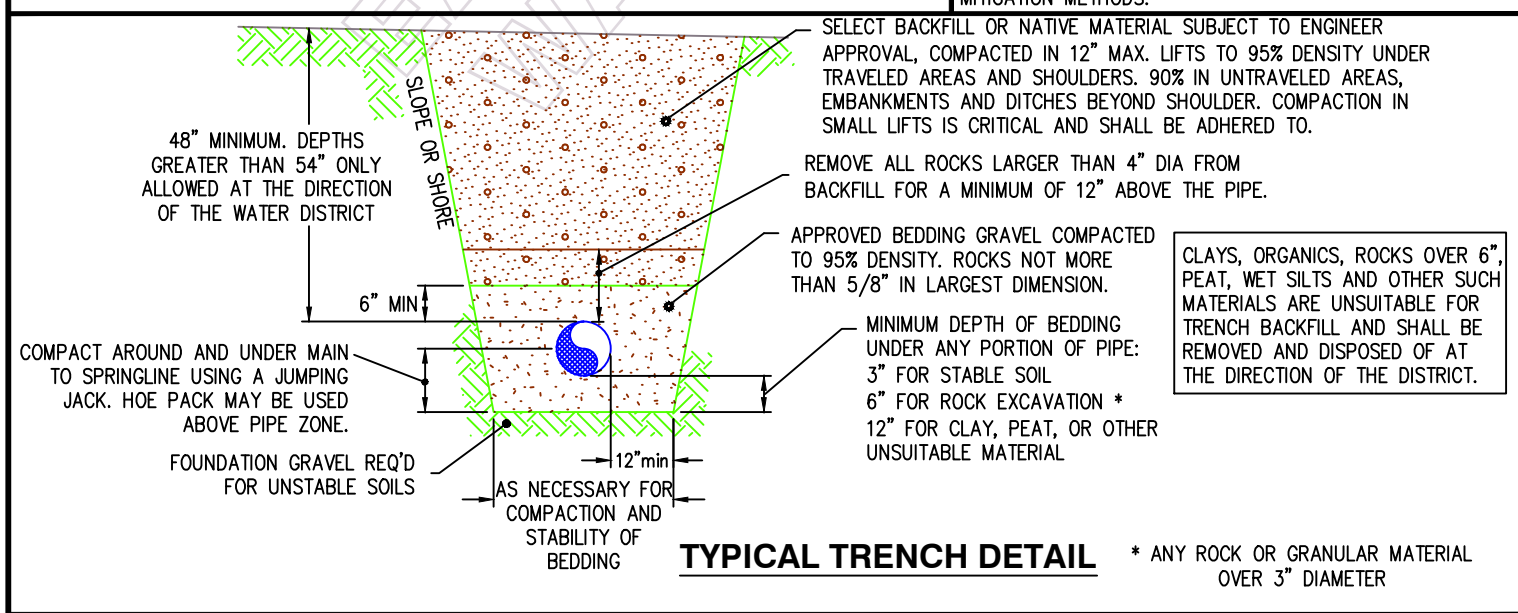


1. CONTRACTOR SHALL ADD WATER AS NECESSARY TO OBTAIN OPTIMUM MOISTURE CONTENT AS DETERMINED BY COMPACTION TESTING PROCTOR.
2. SHOULDERS SHALL BE RESTORED WITH 6" OF 5/8" MINUS CRUSHED ROCK IF DISTURBED.
3. ALL DITCHES DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION.
4. AT THE END OF EACH WORKING DAY, A TEMPORARY PATCH OVER THE TRENCH CUTS SHALL BE PLACED SO THAT TRAFFIC IS NOT AFFECTED IN ANY WAY. MATERIAL FOR THESE TEMPORARY PATCHES SHALL BE 5/8" MINUS CRUSHED ROCK. COLD MIX MAY BE REQUIRED BY DOUGLAS CO. TRANSPORTATION AND LAND SERVICES OR THE CITY OF EAST WENATCHEE AS A TEMPORARY PATCH IN SOME AREAS.
5. ALL TRENCHING TO BE DONE IN ACCORDANCE WITH OSHA AND WISHA STANDARDS.
6. CROSSINGS OF INTERSECTIONS SHALL BE RESTORED BY THE END OF THE DAY EITHER WITH PERMANENT PATCH OR TEMPORARY COLD MIX.
7. NO TRENCH IN PAVED AREAS SHALL BE LEFT UNPAVED FOR MORE THAN 12 CALENDAR DAYS OR BY THE SECOND FRIDAY, WHICHEVER COMES FIRST.
8. POLY PIPE FOR WATER SERVICES, AIR VALVES, ETC. SHALL BE BEDDED IN SAND A MINIMUM OF 6" ABOVE AND BELOW THE PIPE.
9. CITY OR COUNTY RESTORATION STANDARDS SHALL GOVERN IF MORE STRINGENT THAN SHOWN HERE.



CLEARANCES

IF 18" VERTICAL CLEARANCE IS AVAILABLE ABOVE PARALLEL SEWER/IRRIG, SEPARATION MAY BE REDUCED TO 5 FT HORIZONTAL, WALL TO WALL, ONLY IF APPROVED BY THE DISTRICT. D.O.H. WATER SYSTEM DESIGN MANUAL SECTION 8.4 AND D.O.E. CRITERIA FOR SEWAGE WORKS DESIGN SECTION C1-9 SHALL BE ADHERED TO FOR CLEARANCES AND FOR MITIGATION METHODS.



CONSTRAINTS

1. SOIL CONDITIONS AND BEARING CHARACTERISTICS ARE TO BE DETERMINED BY THE DISTRICT.
2. THIS STANDARD DETAIL IS FOR HORIZONTAL THRUST RESTRAINT ONLY.
3. CONCRETE BLOCKING SHALL BE PER DOT/APWA SPECIFICATION 7-09.3(21), CURRENT EDITION.
4. MAINTAIN 18" MINIMUM GROUND COVER OVER THE TOP OF ALL CONCRETE BLOCKING.
5. ALL THRUST BLOCKS TO BE FORMED AND FITTINGS COVERED IN PLASTIC.
6. ANY TEMPORARY BLOCKING USED TO SUPPORT FITTINGS DURING CONSTRUCTION SHALL BE REMOVED PRIOR TO BACKFILLING.

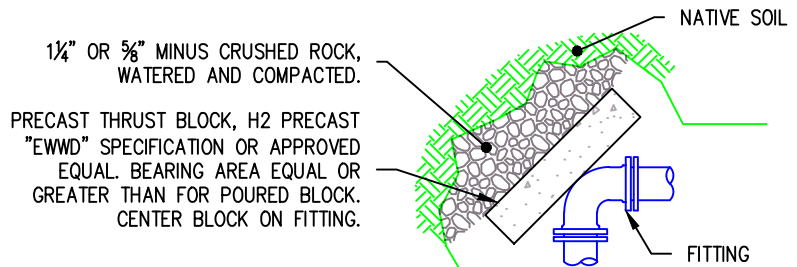
PROCEDURE

1. DETERMINE BEARING FACTOR IN TABLE 1 CORRESPONDING TO APPROPRIATE PIPE SIZE AND TYPE OF FITTING.
2. MULTIPLY THE BEARING FACTOR DETERMINED IN TABLE 1 BY THE MULTIPLICATION FACTOR IN TABLE 2 FOR THE APPROPRIATE SOIL CLASSIFICATION.

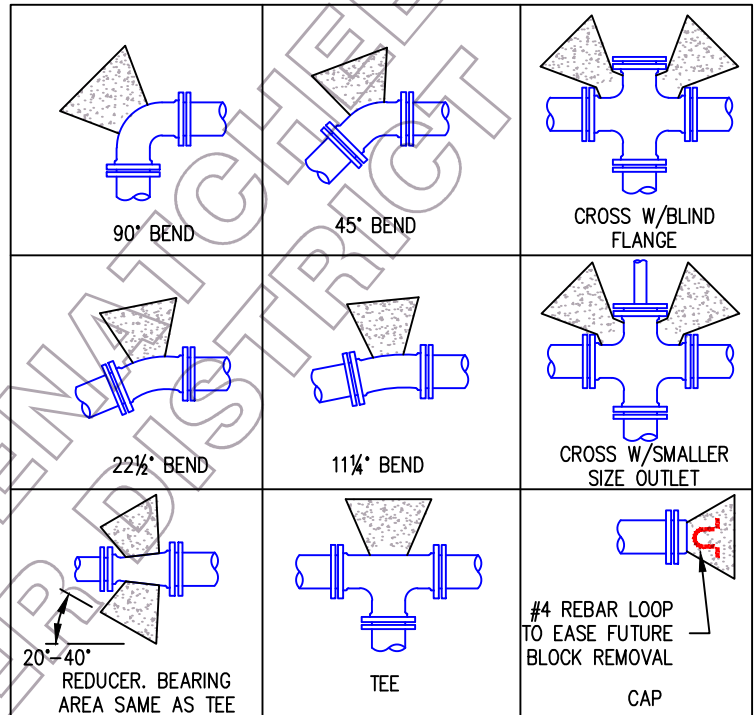
THE RESULT IS THE REQUIRED AREA OF CONCRETE (IN SQ. FT.) WHICH MUST BEAR AGAINST UNDISTURBED SOIL.

3. USING TABLE 3 LOCATE THE MINIMUM DEPTH OF CONCRETE (Dmin) CORRESPONDING TO THE REQUIRED BEARING AREA.
4. USING Dmin, THE HEIGHT AND LENGTH OF THE THRUST BLOCKING CAN BE DETERMINED FROM THE DIMENSION RELATIONSHIPS ILLUSTRATED IN FIGURE 1 AND DESCRIBED BELOW:

- A. "H" EQUALS "D"
- B. MAX. "L" EQUALS 2 x "H"
- C. MIN. "L" EQUALS "H"



PRECAST THRUST BLOCK



| SIZE | TEST PRESSURE | TEES DEAD ENDS | 90° BEND | 45° BEND | 22 1/2° BEND | 11 1/4° BEND |
|------|---------------|----------------|----------|----------|--------------|--------------|
| 3 | 300 | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 |
| 4 | 300 | 2.3 | 2.6 | 2.3 | 2.3 | 2.3 |
| 6 | 300 | 3.7 | 5.3 | 2.9 | 2.2 | 2.2 |
| 8 | 300 | 6.4 | 9.1 | 4.9 | 2.5 | 2.2 |
| 10 | 300 | 9.7 | 13.7 | 7.4 | 3.8 | 2.2 |
| 12 | 300 | 13.7 | 19.4 | 10.5 | 5.3 | 2.7 |
| 14 | 300 | 18.4 | 26.0 | 14.1 | 7.2 | 3.6 |
| 16 | 300 | 23.8 | 33.6 | 18.2 | 9.3 | 4.7 |
| 18 | 300 | 29.9 | 42.2 | 22.9 | 11.7 | 5.9 |
| 20 | 300 | 36.6 | 51.8 | 28.0 | 14.3 | 7.2 |
| 24 | 300 | 52.3 | 73.9 | 40.0 | 20.4 | 10.2 |

* 2.3 BASED ON GEOMETRIC FACTORS

TABLE 1 - BEARING FACTOR

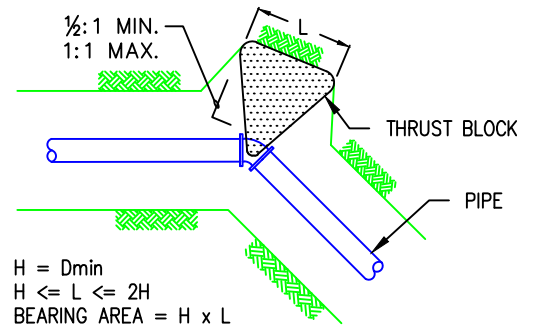
| SOIL CONDITION | MULTIPLICATION FACTOR |
|----------------------------------|-----------------------|
| *MUCK, PEAT, etc. | - |
| SOFT CLAY | 3.0 |
| SAND | 1.5 |
| SAND AND GRAVEL | 1.0 |
| SAND AND GRAVEL CEMENTED W/ CLAY | 0.75 |
| HARD SHALE | 0.30 |

* THRUST BLOCKING SHALL BE DESIGNED BY ENGINEER

TABLE 2 - MULTIPLICATION FACTOR

| REQ'D BEARING AREA (SQ. FT.) | MINIMUM DEPTH Dmin |
|------------------------------|--------------------|
| 2.25 MIN. - 5.0 | 1.5' |
| 5.01 - 10.0 | 2.3' |
| 10.01 - 15.0 | 3.0' |
| 15.01 - 30.0 | 4.0' |
| 30.01 - 40.0 | 4.5' |
| 40.01 - 50.0 | 5.0' |
| 50.01 - 70.0 | 6.0' |

TABLE 3 - BLOCK SHAPE



H = Dmin
H <= L <= 2H
BEARING AREA = H x L

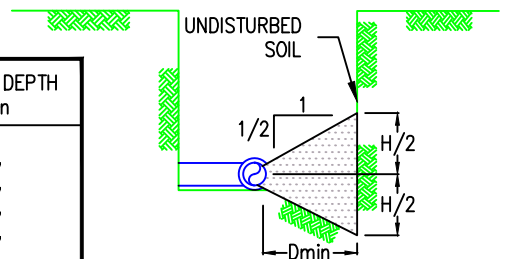


FIGURE 1

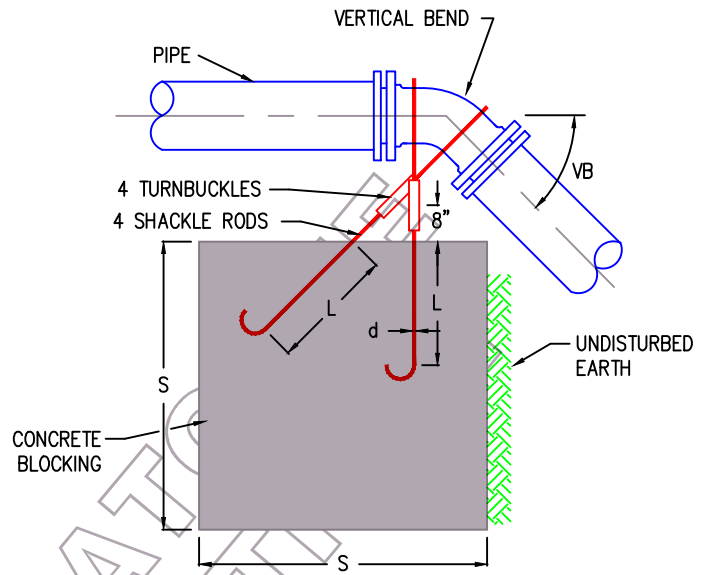
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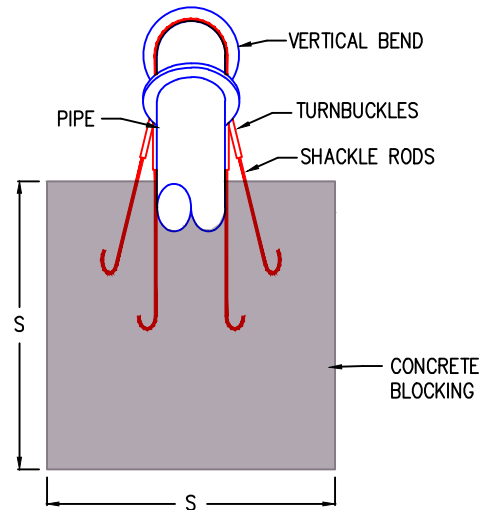
WATER SYSTEM STANDARD DETAIL

**HORIZONTAL
THRUST BLOCKING**

| VERTICAL THRUST BLOCKING FOR 11.25°, 22.5°, AND 45° BENDS | | | | | | | |
|--|----------------------|--------------------------------|-------------------------------------|-----------------------------|---------------------------------|--|---|
| PIPE SIZE NOM. DIAMETER - INCHES | TEST PRESSURE PSI | VB VERTICAL BEND DEGREES | AMOUNT CONCRETE BLOCKING - CU FT | S LENGTH OF SIDE FEET | d SHACKLE ROD DIA. INCHES | L DEPTH OF ROD IN CONCRETE INCHES | NUMBER OF TIE ROD SETS (2 EMBEDDED RODS PER SET) |
| 3" | 300 | 11 1/4 | 5.8 | 1.8 | 5/8 | 12" | 2 |
| | | 22 1/2 | 11.5 | 2.3 | 5/8 | 12" | 2 |
| | | 45 | 22.6 | 2.8 | 5/8 | 12" | 2 |
| 4" | 300 | 11 1/4 | 8.5 | 2.0 | 5/8 | 12" | 2 |
| | | 22 1/2 | 17.0 | 2.6 | 5/8 | 12" | 2 |
| | | 45 | 33.2 | 3.2 | 5/8 | 12" | 2 |
| 6" | 300 | 11 1/4 | 17.6 | 2.6 | 5/8 | 12" | 2 |
| | | 22 1/2 | 35.0 | 3.3 | 5/8 | 12" | 2 |
| | | 45 | 68.7 | 4.1 | 5/8 | 12" | 2 |
| 8" | 300 | 11 1/4 | 30.3 | 3.1 | 3/4 | 12" | 2 |
| | | 22 1/2 | 60.2 | 3.9 | 3/4 | 12" | 2 |
| | | 45 | 118 | 4.9 | 3/4 | 12" | 4 |
| 10" | 300 | 11 1/4 | 45.5 | 3.6 | 3/4 | 12" | 2 |
| | | 22 1/2 | 90.6 | 4.5 | 3/4 | 12" | 2 |
| | | 45 | 178 | 5.6 | 3/4 | 24" | 4 |
| 12" | 300 | 11 1/4 | 64.4 | 4.0 | 3/4 | 12" | 2 |
| | | 22 1/2 | 128 | 5.1 | 3/4 | 12" | 4 |
| | | 45 | 251 | 6.3 | 3/4 | 12" | 6 |
| 14" | 250 | 11 1/4 | 86.5 | 4.4 | 3/4 | 12" | 2 |
| | | 22 1/2 | 172 | 5.6 | 3/4 | 24" | 4 |
| | | 45 | 338 | 7.0 | 1" | 24" | 6 |
| 16" | 250 | 11 1/4 | 112 | 4.8 | 3/4 | 12" | 3 |
| | | 22 1/2 | 223 | 6.1 | 3/4 | 12" | 6 |
| | | 45 | 436 | 7.6 | 1" | 12" | 6 |
| 18" | 250 | 11 1/4 | 141 | 5.2 | 3/4 | 24" | 4 |
| | | 22 1/2 | 280 | 6.5 | 1" | 24" | 4 |
| | | 45 | 549 | 8.2 | 1-1/4" | 24" | 6 |



BLOCKING FOR VERTICAL BENDS



VERTICAL THRUST BLOCKING

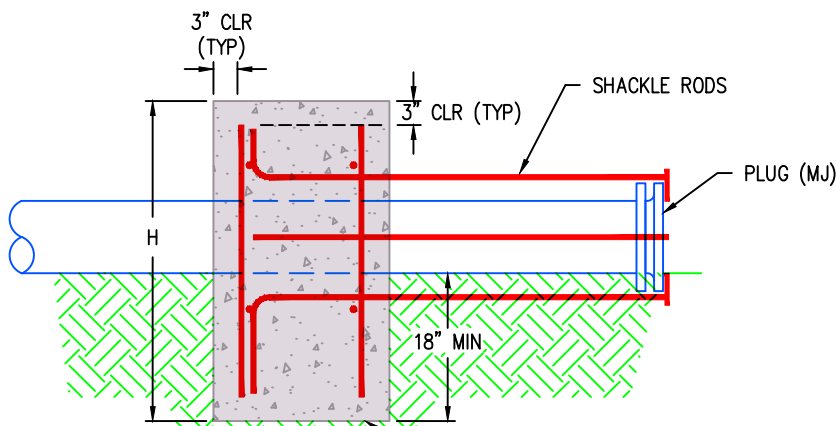
1. RESTRAINED JOINTS ARE PREFERRED OVER VERTICAL THRUST BLOCKING UNLESS RESTRAINTS ARE NOT PRACTICAL.
2. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI.
3. SHACKLE RODS SHALL BE PER W-07.

**East Wenatchee
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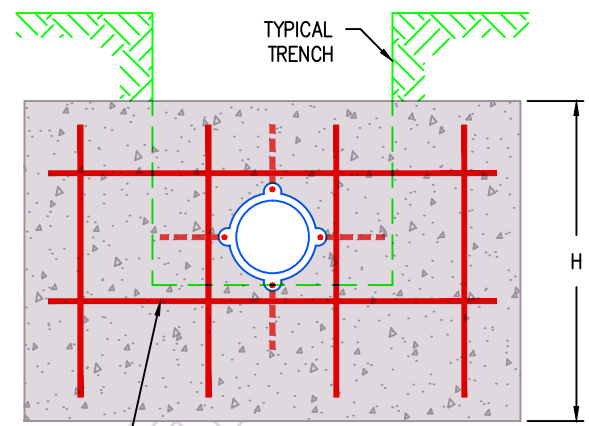


WATER SYSTEM STANDARD DETAIL

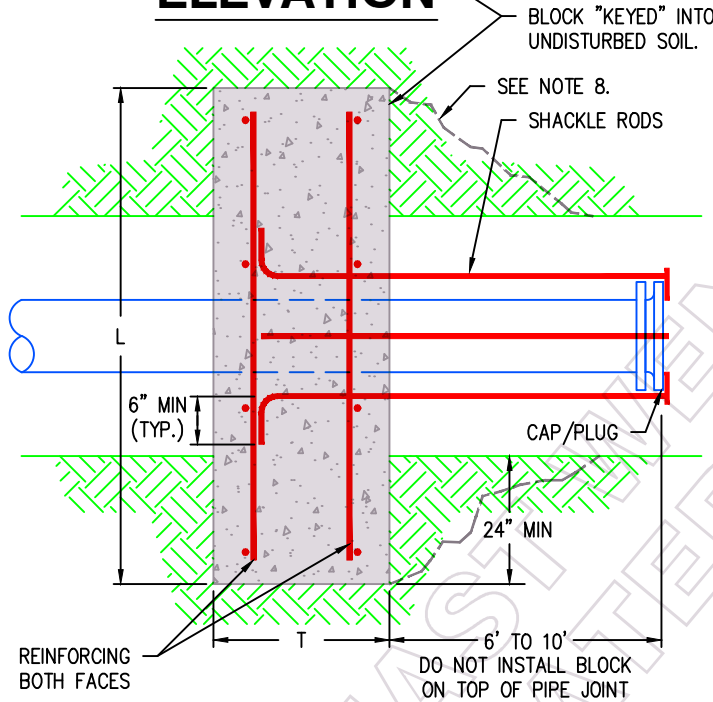
VERTICAL THRUST BLOCKING



ELEVATION



END VIEW



PLAN VIEW

BLOCK "KEYED" INTO UNDISTURBED SOIL.

SEE NOTE 8.

SHACKLE RODS

CAP/PLUG

DO NOT INSTALL BLOCK ON TOP OF PIPE JOINT

REINFORCING BOTH FACES

NOTES

1. DETAIL W-16 IS THE PREFERRED METHOD FOR RESTRAINING A DEAD END PIPE. THIS DETAIL MAY BE USED ONLY WITH APPROVAL FROM THE DISTRICT.
2. CONCRETE BLOCK SHALL BE PER APWA SPECIFICATION 7-11.3(13), CURRENT EDITION.
3. MAINTAIN 18" MINIMUM COVER OVER THE TOP OF BLOCK.
4. BOTTOM OF BLOCK IS TO BE ON UNDISTURBED SOIL.
5. TRENCH TO BE BACKFILLED WITH CRUSHED ROCK COMPACTED TO 95% DENSITY ON ALL SIDES OF BLOCK AND A DISTANCE OF 4' MIN. IN FRONT OF BLOCK TO FULL DEPTH OF BLOCK.
6. UPON EXTENSION OF WATER MAIN, SHACKLE RODS ARE TO BE CUT, REMOVE PLUG. CONCRETE BLOCK TO REMAIN IN PLACE.
7. FOR SOIL CONDITIONS NOT SHOWN, BLOCK IS TO BE DESIGNED BY ENGINEER.
8. IF BLOCK CANNOT BE KEYED INTO UNDISTURBED SOIL TO THE SATISFACTION OF THE WATER DISTRICT OR ENGINEER, a) THE BLOCK LENGTH SHALL BE EXTENDED TO PROVIDE AN ADEQUATE KEY OR b) CDF SHALL BE USED TO FILL BACK TO NATIVE SOIL OR c) THE TRENCH SHALL BE BACKFILLED AND COMPACTED TO 95% DENSITY A MINIMUM DISTANCE OF 15 FEET IN FRONT OF THE BLOCK TO THE SATISFACTION OF THE WATER DISTRICT OR ENGINEER.
9. SEE STANDARD DETAIL W-07 FOR ADDITIONAL SHACKLE ROD INFORMATION.

SIZING TABLE

| PIPE DIA | T (min) | H (min) | SHACKLE RODS | REINFORCING |
|----------|---------|---------|---------------------------|----------------|
| 6" | 18" | 36" | (4) #5 (5/8" dia) | #4 @ 10" OC EW |
| 8" | 18" | 42" | (4) 3/4" dia | #4 @ 12" OC EW |
| 10" | 24" | 52" | (6) 3/4" dia | #4 @ 12" OC EW |
| 12" | 24" | 54" | (6) 7/8" or (8) 3/4" dia | #4 @ 8" OC EW |
| 14" | 24" | 56" | (8) 7/8" or (10) 3/4" dia | #4 @ 6" OC EW |
| 16" | 30" | 58" | (10) 7/8" dia | #4 @ 5" OC EW |

MIN. BLOCK LENGTH (L)

| PIPE DIA | SOIL CONDITION | | | | | |
|----------|----------------|------|------------|------|------------|-----------|
| | SOFT CLAY | SILT | SANDY SILT | SAND | SANDY CLAY | HARD CLAY |
| 6" | 84" | 72" | 72" | 72" | 72" | 72" |
| 8" | 108" | 84" | 75" | 75" | 75" | 75" |
| 10" | 132" | 104" | 77" | 77" | 77" | 77" |
| 12" | 180" | 138" | 82" | 80" | 80" | 80" |
| 14" | 228" | 174" | 102" | 82" | 82" | 82" |
| 16" | 288" | 216" | 126" | 100" | 84" | 84" |

BLOCK SIZES GOOD TO MAXIMUM 300psi TEST PRESSURE

**East Wenatchee
Water District**



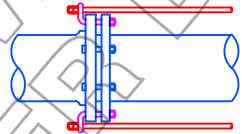
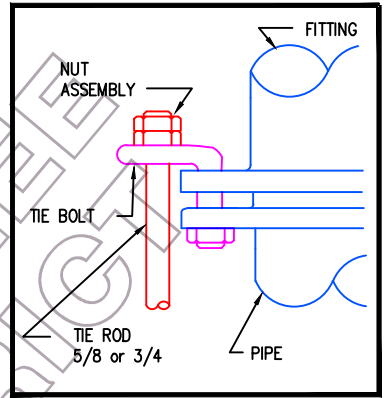
WATER SYSTEM STANDARD DETAIL

DEADMAN THRUST BLOCKING

TIE ROD SELECTION TABLES

| ASTM A242 (COR-TEN® OR EQUAL) STEEL | | | | | | | | | | ROD DIAMETER: 5/8" OR (3/4") | |
|-------------------------------------|------------------------------|----------|------------|-------------|------------------------------|-----------|------------|-------------|--|---------------------------------|--|
| PIPE DIAMETER | NUMBER OF TIE RODS PER JOINT | | | | MAXIMUM TIE ROD LENGTH, FEET | | | | | | |
| | TEE DEAD END VALVE 90° BEND | 45° BEND | 22.5° BEND | 11.25° BEND | TEE DEAD END VALVE 90° BEND | 45° BEND | 22.5° BEND | 11.25° BEND | | | |
| 3 | 2 - | 2 - | 2 - | 2 - | 100 -- | 100 -- | 100 -- | 100 -- | | | |
| 4 | 2 (2) | 2 (2) | 2 (2) | 2 (2) | 100 (100) | 100 (100) | 100 (100) | 100 (100) | | | |
| 6 | 2 (2) | 2 (2) | 2 (2) | 2 (2) | 60 (90) | 80 (100) | 100 (100) | 100 (100) | | | |
| 8 | 4 (3) | 2 (2) | 2 (2) | 2 (2) | 50 (50) | 50 (70) | 90 (100) | 100 (100) | | | |
| 10 | 6 (4) | 4 (2) | 2 (2) | 2 (2) | 40 (60) | 60 (50) | 60 (80) | 100 (100) | | | |
| 12 | 8 (6) | 4 (4) | 2 (2) | 2 (2) | 60 (60) | 60 (80) | 50 (80) | 100 (100) | | | |
| 14 | 10 (5) | 6 (4) | 4 (2) | 2 (2) | 60 (70) | 60 (60) | 80 (60) | 80 (100) | | | |
| 16 | 12 (8) | 8 (6) | 4 (3) | 2 (2) | 60 (50) | 60 (70) | 60 (70) | 60 (90) | | | |
| 18 | 16 (12) | 8 (6) | 6 (3) | 3 (2) | 50 (50) | 50 (60) | 70 (50) | 70 (70) | | | |
| ASTM A36 STEEL OR 304SS | | | | | | | | | | ROD DIAMETER: 5/8" OR (3/4") | |
| 3 | 2 - | 2 - | 2 - | 2 - | 100 -- | 100 -- | 100 -- | 100 -- | | | |
| 4 | 2 (2) | 2 (2) | 2 (2) | 2 (2) | 100 (100) | 100 (100) | 100 (100) | 100 (100) | | | |
| 6 | 2 (2) | 2 (2) | 2 (2) | 2 (2) | 60 (90) | 80 (100) | 100 (100) | 100 (100) | | | |
| 8 | 4 (3) | 3 (2) | 2 (2) | 2 (2) | 50 (50) | 70 (70) | 90 (100) | 100 (100) | | | |
| 10 | 6 (4) | 4 (4) | 2 (2) | 2 (2) | 70 (60) | 60 (90) | 60 (80) | 100 (100) | | | |
| 12 | 8 (6) | 6 (4) | 4 (2) | 2 (2) | 80 (90) | 80 (80) | 100 (80) | 100 (100) | | | |
| 14 | 12 (8) | 8 (6) | 4 (4) | 2 (2) | 70 (90) | 80 (90) | 80 (100) | 80 (100) | | | |
| 16 | 16 (10) | 10 (6) | 4 (4) | 3 (2) | 70 (80) | 80 (70) | 90 (90) | 90 (90) | | | |
| 18 | - (14) | 12 (8) | 6 (4) | 3 (2) | -- (80) | 80 (80) | 70 (70) | 70 (70) | | | |

ATTACHMENT DETAIL



TIE BOLT

STAR SUPPLY CORPORATION OR APPROVED EQUAL

GENERAL NOTES

- 1) TIE RODS SHALL BE "ALL-THREAD" ROD OF EITHER ASTM A242 (COR-TEN) OR 304 STAINLESS STEEL. MILD STEEL WILL NOT BE ALLOWED.
- 2) TIE RODS SHALL HAVE "NATIONAL-COARSE" THREAD WITH EITHER TWO NUTS OR ONE SELF-LOCKING NUT AT EACH END. NUTS ARE TO BE STAR NATIONAL TIENUT OR NUT OF EQUIVALENT OR GREATER OUTER DIAMETER.
- 3) NUMBER OF TIE RODS PER JOINT SHALL BE IN ACCORDANCE WITH TIE ROD SELECTION TABLES ABOVE UNLESS OTHERWISE SHOWN ON APPROVED DESIGN PLANS.
- 5) TIE RODS SHALL BE ASSEMBLED SYMMETRICALLY ABOUT EACH JOINT (IF AN EVEN NUMBER OF RODS ARE USED THEN EACH ROD SHALL HAVE A ROD LOCATED ON THE DIRECT OPPOSITE SIDE OF JOINT. IF 3 OR 6 RODS ARE USED THEN AN EQUAL NUMBER OF UNSHACKLED BOLT HOLES SHALL BE LEFT BETWEEN ANY TWO TIE RODS.)
- 6) TIE ROD NUTS SHALL BE TIGHTENED UNIFORMLY AT EACH JOINT.
- 7) TIE ROD LENGTHS SHALL NOT EXCEED THOSE LISTED IN ABOVE TABLES, UNLESS SPECIFICALLY SHOWN ON APPROVED PLANS.
- 8) TIE ROD COUPLINGS SHALL BE GALVANIZED "STAR NATIONAL PRODUCTS TIECOUPLING" OR APPROVED EQUAL.
- 9) TIE RODS SHALL BE ATTACHED TO JOINTS WITH TIE BOLTS, EXCEPT FOR FIRE HYDRANT INSTALLATIONS WHICH SHALL USE TIE BOLTS ON LUGS. TIE BOLTS SHALL BE GALVANIZED "STAR NATIONAL PRODUCTS TIEBOLT" OR APPROVED EQUAL. "DUC-LUGS" ARE NOT ALLOWED.
- 10) 20" FITTINGS AND LARGER SHALL HAVE TIE ROD DESIGN INCLUDED ON DESIGN PLANS.

**East Wenatchee
Water District**



WATER SYSTEM STANDARD DETAIL

TIE RODS

RESTRAINED JOINT PIPE IS APPROPRIATE TO USE IN MANY SITUATIONS. HOWEVER, THE DISTRICT WILL BE THE SOLE DETERMINER IF THE APPLICATION IS APPROPRIATE ON A GIVEN JOB. TYPICAL APPLICATIONS INCLUDE:

1. DEAD END MAINS THAT MAY BE EXTENDED.
2. SOILS NOT SUPPORTIVE OF THRUST BLOCKING.
3. INSUFFICIENT BEARING SOIL BEHIND FITTINGS.
4. VERTICAL BENDS (not covered here. must be designed by engineer for each job)

THE FOLLOWING PRODUCTS ARE PRE-APPROVED FOR USE IN RESTRAINED JOINT APPLICATIONS:

1. GRIFFIN: SNAP-LOK or BOLT-LOK
2. US PIPE: TR-FLEX or FIELD-LOK GASKET
3. EBAA IRON: MEGALUG
4. ROMAC ROMA-GRIP
5. PACIFIC STATES: THRUST-LOCK

NO RESTRAINTS OR PIPES (PORTIONS AFFECTED) MAY BE REUSED ONCE ASSEMBLED.

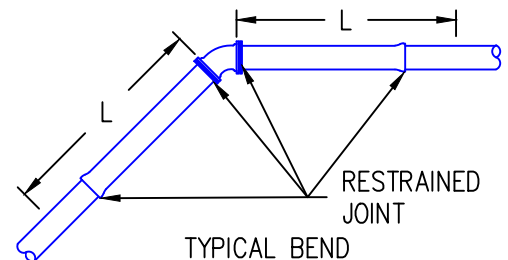
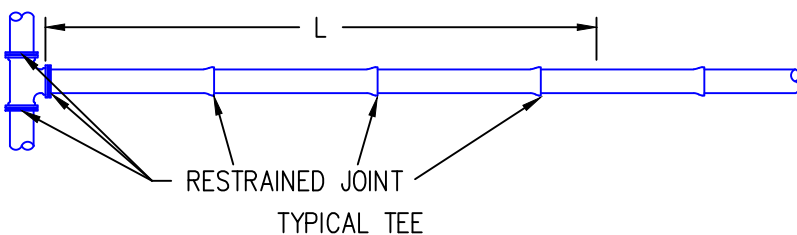
THE FOLLOWING TABLE HAS BEEN DEVELOPED USING THE DUCTILE IRON PIPE RESEARCH ASSOCIATION RESTRAINED JOINT CALCULATOR. THE FOLLOWING CONDITIONS MUST BE MET FOR THESE RESULTS TO BE VALID. IF ANY OF THESE CONDITIONS CANNOT BE MET, PROJECT SPECIFIC CALCULATIONS MUST BE PROVIDED:

- A) THIS TABLE ONLY FOR BARE DUCTILE IRON PIPE. ANY OTHER TYPES OF PIPE WILL REQUIRE RE-EVALUATION.
- B) PIPE LAYING CONDITION TYPE 4 or 5. SELECT GRANULAR BEDDING MATERIAL BELOW PIPE. PIPE ZONE MATERIAL EXTENDING TO TOP OF PIPE MECHANICALLY COMPACTED. PIPE RESTING DIRECTLY ON NATIVE TRENCH BOTTOM IS NOT ACCEPTABLE.
- C) BEDDING SAND IS WELL GRADED WITH FINES. IF GRAVELLY SAND IS USED, LENGTHS MUST BE MULTIPLIED BY 1.3
- D) DEPTH OF COVER IS 3.5 FEET MINIMUM.
- E) 300psi TEST PRESSURE MAXIMUM. FOR HIGHER TEST PRESSURE, TABLE LENGTHS MUST BE MULTIPLIED BY THE PROPORTIONAL DIFFERENCE. EXAMPLE: FOR 350psi, $350/300=1.17$ THEREFORE, LENGTHS MUST BE MULTIPLIED BY 1.17

THE LENGTH "L" GIVEN BELOW INDICATES THE DISTANCE THAT PIPE MUST BE RESTRAINED PAST THE FITTING JOINT. ALL JOINTS WITHIN THIS DISTANCE MUST BE RESTRAINED, INCLUDING THE FITTING.

| DIAMETER | 11¼° BEND | 22½° BEND | 45° BEND | 90° BEND | TEE w/SAME SIZE BRANCH* | DEAD END | REDUCER ** |
|----------|-----------|-----------|----------|----------|-------------------------|----------|------------|
| 4" | 3' | 5' | 11' | 25' | 26' | 50' | 30' |
| 6" | 4' | 7' | 14' | 36' | 48' | 72' | 37' |
| 8" | 5' | 10' | 19' | 46' | 70' | 94' | 67' |
| 10" | 6' | 11' | 24' | 56' | 90' | 114' | 70' |
| 12" | 7' | 13' | 28' | 66' | 110' | 134' | 71' |
| 16" | 10' | 17' | 35' | 85' | 151' | 175' | 104' |
| 18" | 11' | 19' | 40' | 95' | 170' | 196' | 106' |

* assumes all three legs restrained, and a minimum 5' stick of pipe in each run leg.
 ** assumes reducer down 2 sizes. (example 12"x8"). Larger reductions shall be treated as a tee.

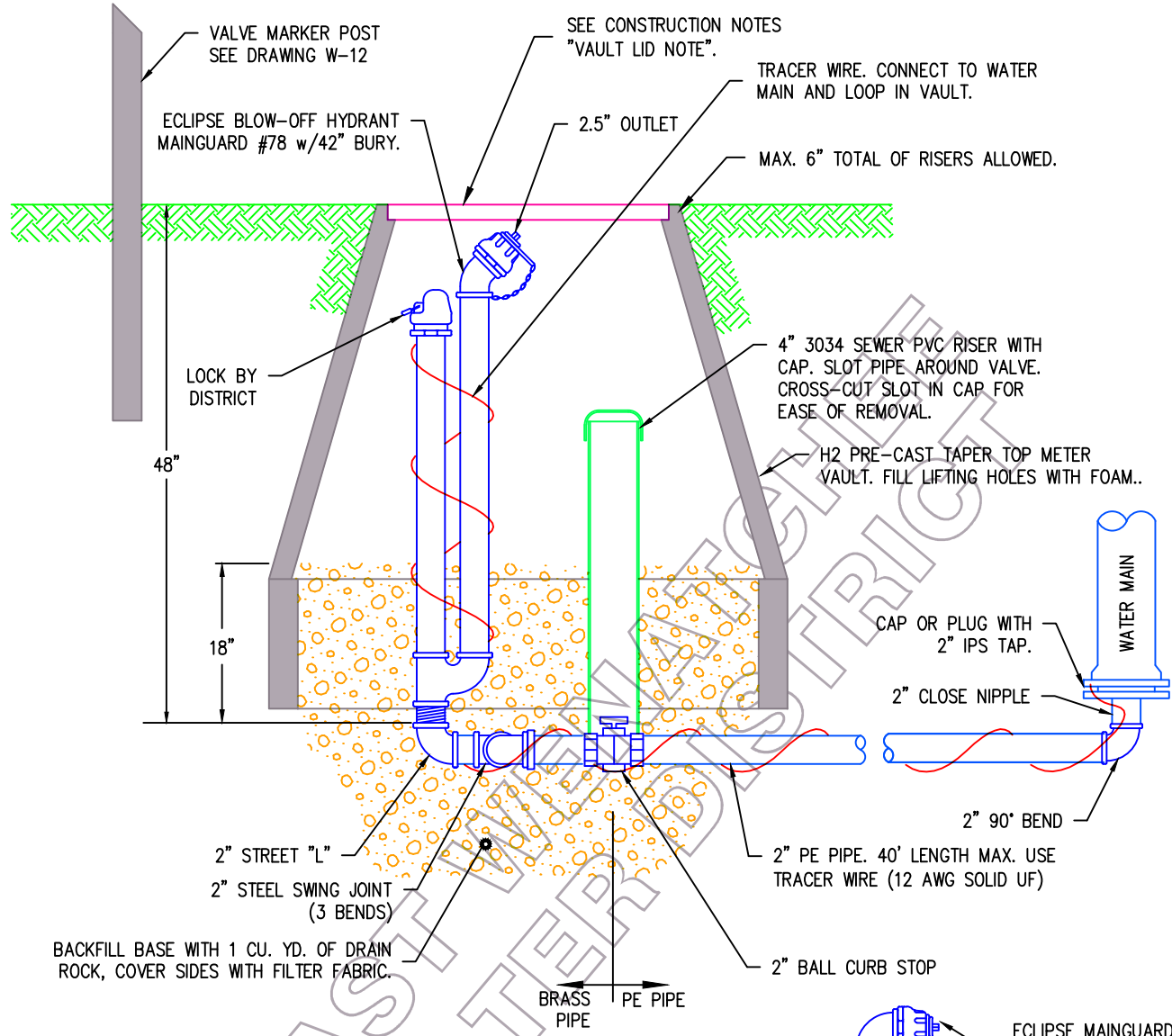


**East Wenatchee
Water District**



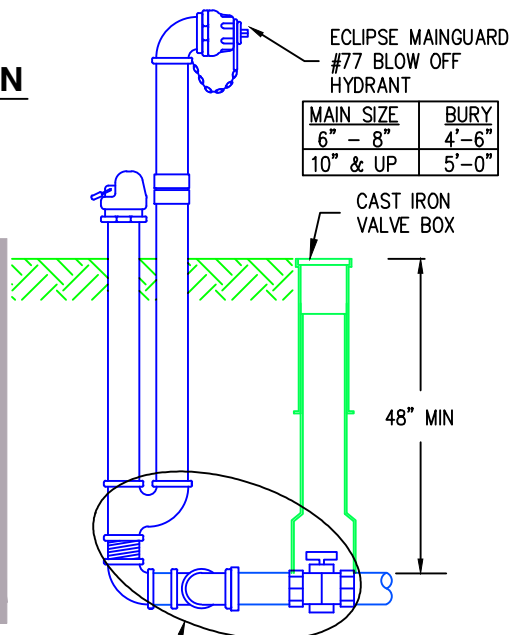
WATER SYSTEM STANDARD DETAIL

RESTRAINED JOINT PIPE



BELOW GRADE INSTALLATION

1. SET METER BOX FLUSH WITH SIDEWALK OR CURB IF LOCATED IN LAWN AREA. SET METER BOX APPROX. 2-INCHES ABOVE FINISHED GRADE IF IN LANDSCAPING AREA.
2. CAP OR PLUG ON WATER MAIN TO BE RESTRAINED PER W-16, BY STANDARD THRUST BLOCK OR DEADMAN THRUST BLOCK AS SPECIFIED ON THE PLANS.
3. CONTACT WATER DISTRICT TO DETERMINE WHETHER THE ABOVE GRADE OR BELOW GRADE HYDRANT IS TO BE USED FOR EACH INSTANCE.
4. PLACEMENT OF HYDRANT TO BE VERIFIED WITH DISTRICT PRIOR TO INSTALLATION. DISTRICT MAY REQUIRE A MINIMUM 3' RADIUS CLEAR ZONE AROUND HYDRANT AND THE INSTALLATION OF GUARD POSTS. DETERMINATION WILL BE MADE ON A PER INSTALLATION BASIS.
5. PROVIDE AND INSTALL MASTIC BETWEEN CHAMBER TOP AND BASE.



ABOVE GRADE INSTALLATION

| MAIN SIZE | BURY |
|-----------|-------|
| 6" - 8" | 4'-6" |
| 10" & UP | 5'-0" |

CONCRETE GUARD POST
SEE FIRE HYDRANT DETAIL

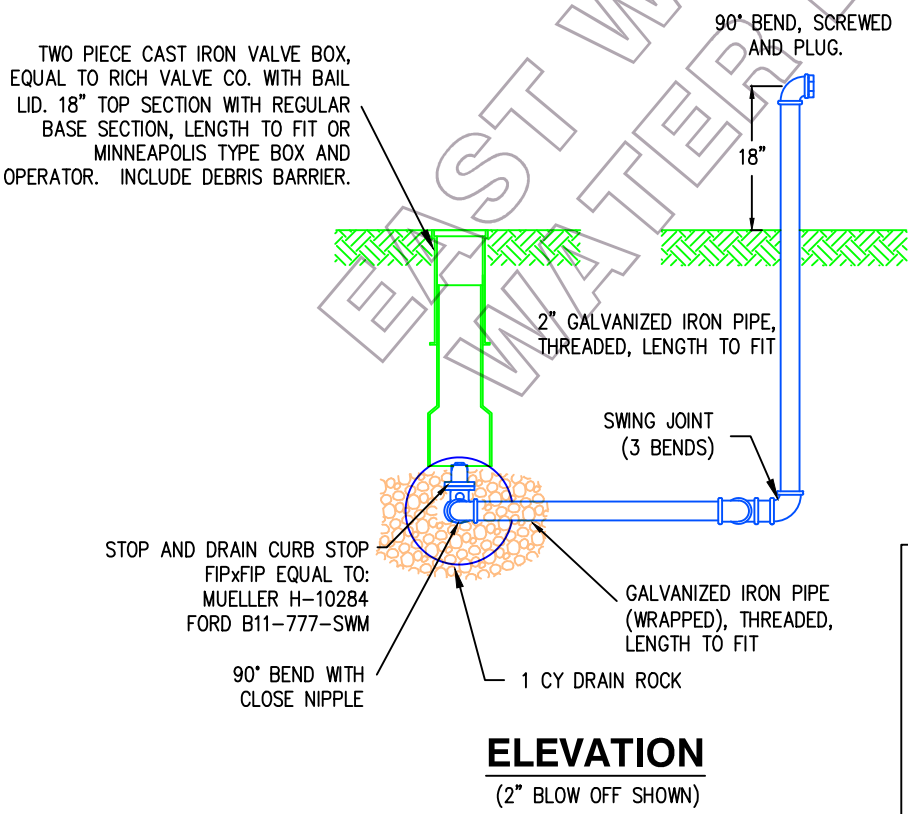
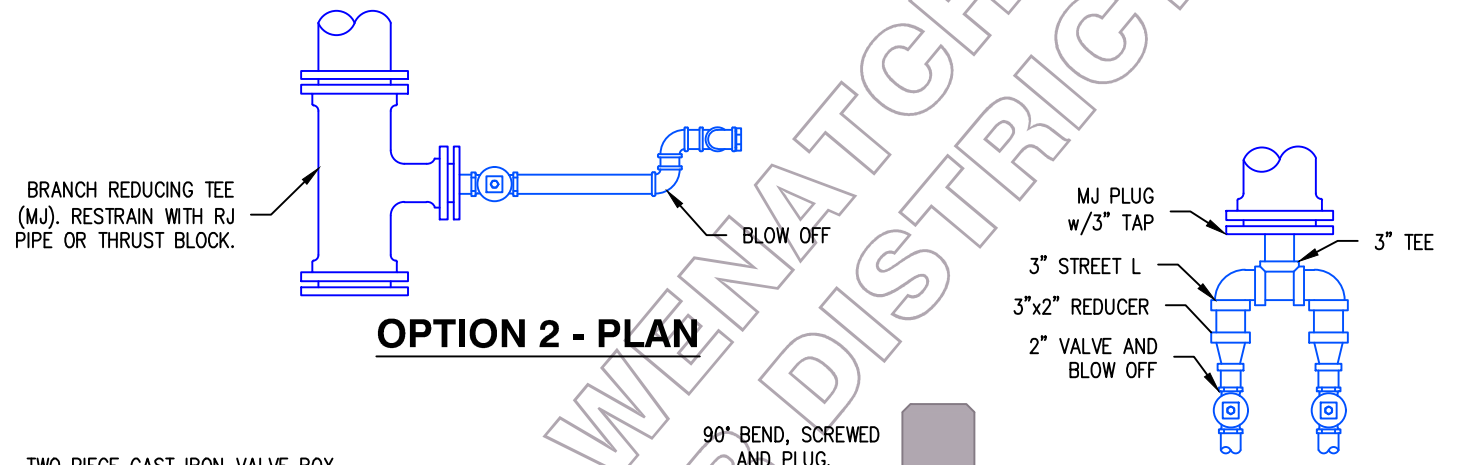
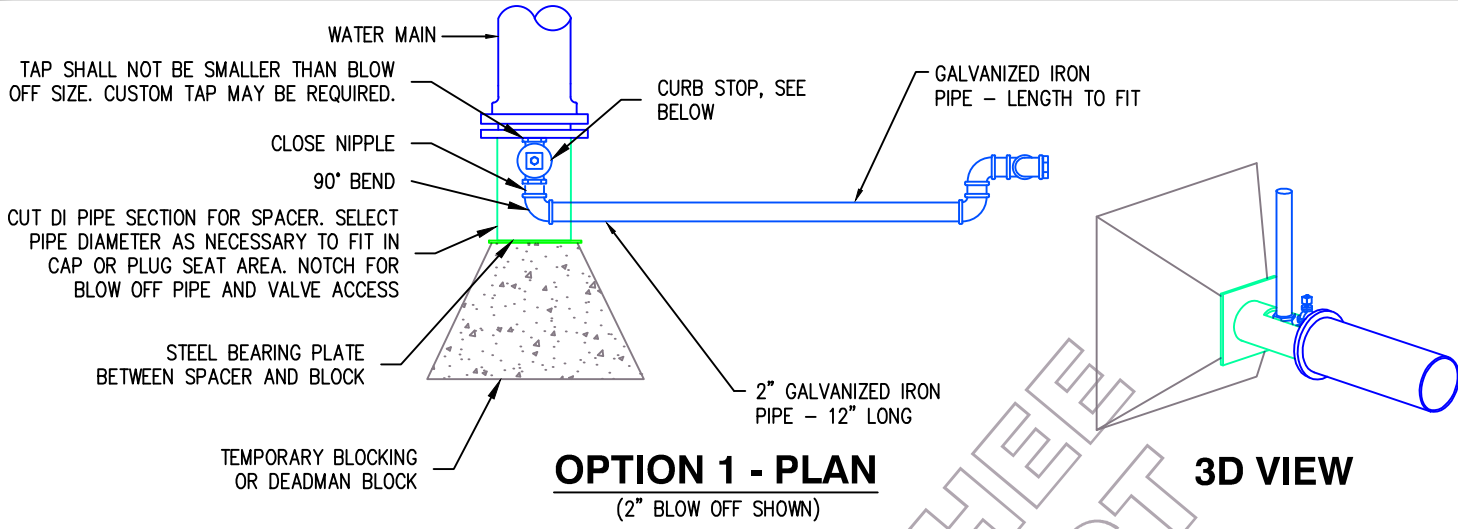
SEE ABOVE FOR ADDITIONAL DETAIL

**East Wenatchee
Water District**



WATER SYSTEM STANDARD DETAIL

PERMANENT BLOW-OFF HYDRANT

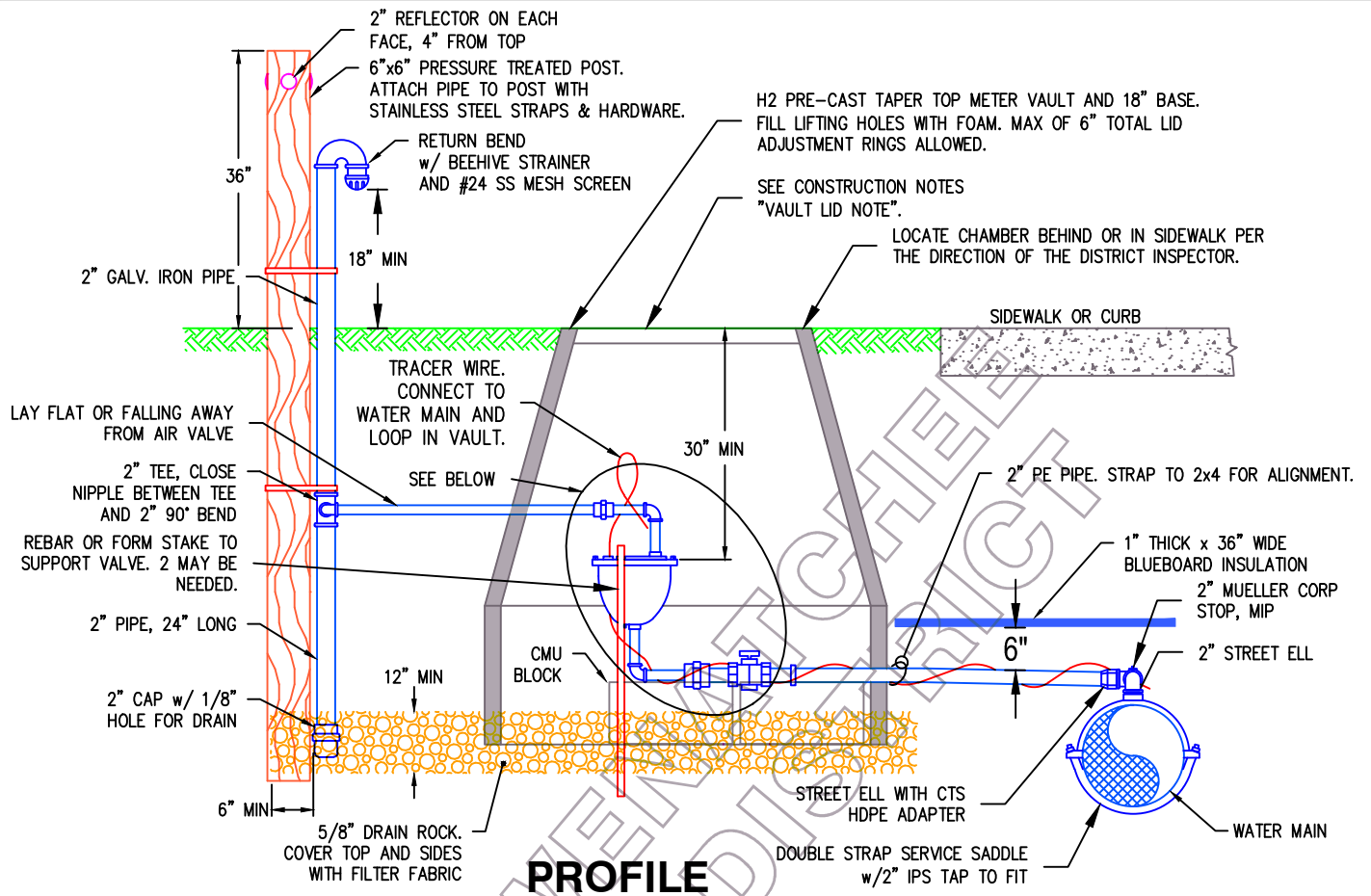


1. THIS DETAIL IS NOT TO BE USED IN SITUATIONS WHERE THE BLOW-OFF MAY STAY IN THE GROUND FOR A PERIOD OF MORE THAN ONE YEAR.
2. MINIMUM BLOW OFF SIZE SHALL BE 2" FOR 8" AND SMALLER MAINS. 3" OR DOUBLE 2" BLOW OFF FOR 10" AND 12" MAINS. 4" BLOW OFF ON 14" AND LARGER MAINS. LARGER BLOW OFFS MAY BE REQUIRED DEPENDING ON AVAILABLE SYSTEM PRESSURE.
3. PE PIPE AND FITTINGS MAY BE USED ON ONE SIDE OF CURB STOP. GALV MUST BE USED ON AT LEAST ONE SIDE.

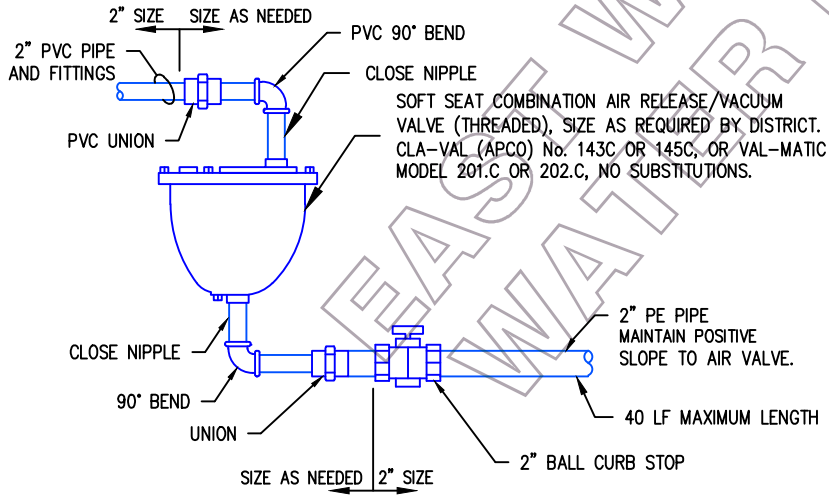
**East Wenatchee
Water District**



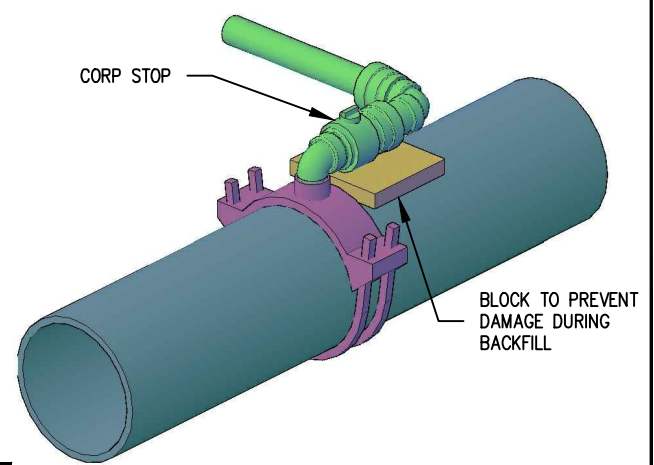
WATER SYSTEM STANDARD DETAIL
**CONSTRUCTION
BLOW-OFF ASSEMBLY**



PROFILE



ENLARGEMENT



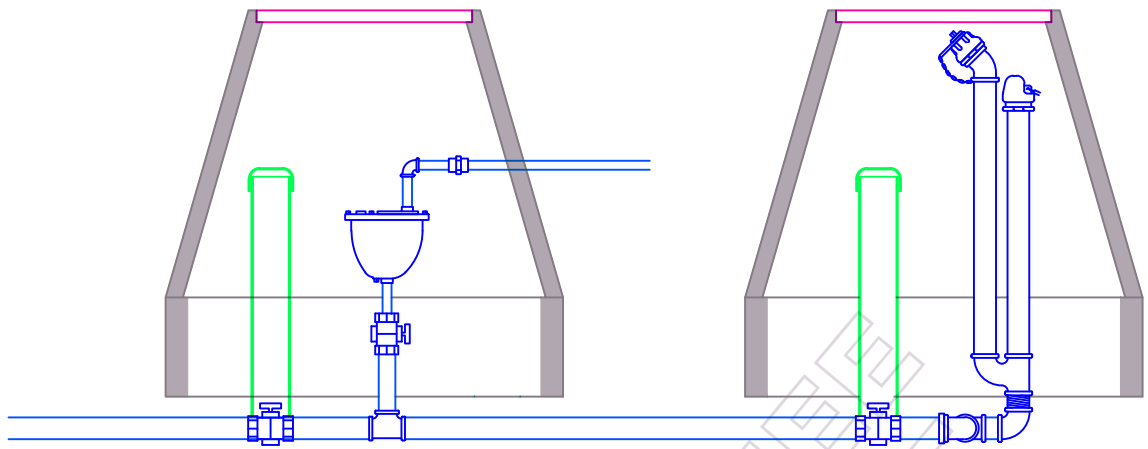
1. AIR VALVE ASSEMBLIES SHALL BE INSTALLED AT EVERY HIGH POINT.
2. COMBINATION AIR RELEASE AND VACUUM VALVE SHALL BE A 1" SIZE FOR 6" OR 8" MAINS WHEN SPACED AT 1000' MAX. ALL OTHER INSTALLATIONS SHALL BE 2" SIZE.
3. FOR 1" COMBINATION VALVE INSTALL 2"x1" REDUCER BETWEEN CURB STOP AND UNION.
4. SET METER BOX FLUSH WITH SIDEWALK OR CURB IF LOCATED IN LAWN AREA. SET METER BOX APPROX. 2-INCHES ABOVE FINISHED GRADE IF IN LANDSCAPING AREA.
5. PROVIDE AND INSTALL MASTIC BETWEEN CHAMBER TOP AND BASE
6. ALL FITTINGS TO BE DOMESTIC MADE BRASS UNLESS SHOWN OTHERWISE. ALL PVC PIPE/FITTINGS TO BE SCHEDULE 40 MINIMUM.

**East Wenatchee
Water District**



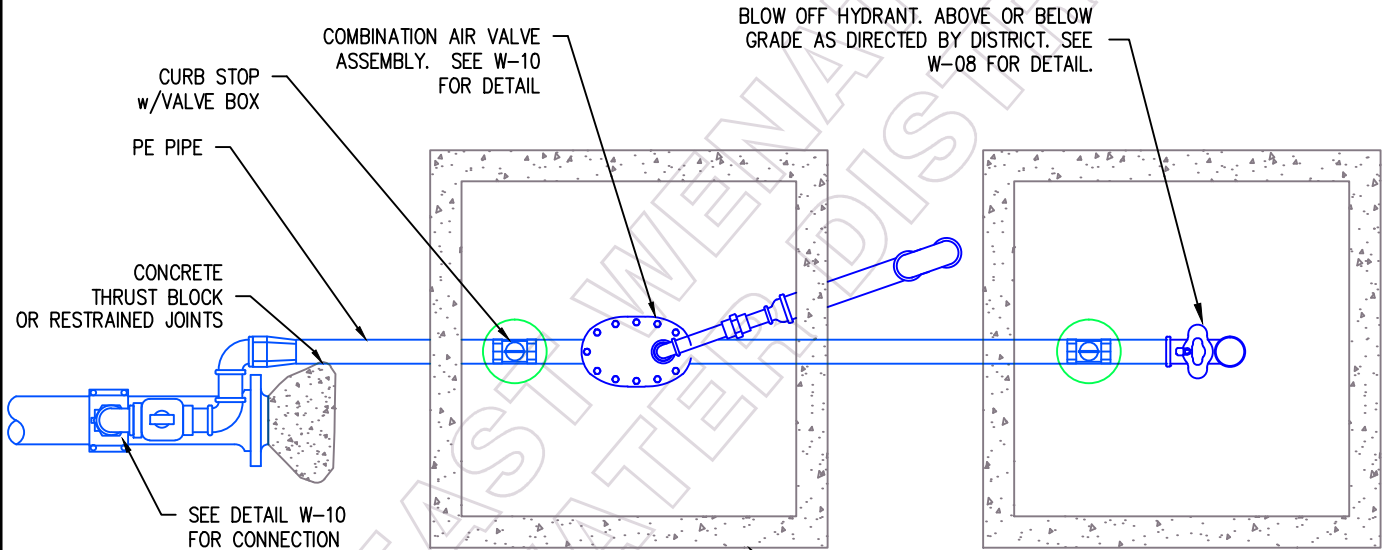
WATER SYSTEM STANDARD DETAIL

**COMBINATION AIR
VALVE ASSEMBLY**



ELEVATION

SEE COMBINATION AIR VALVE DETAIL AND BLOW OFF DETAIL FOR MORE INFORMATION.



H-2 PRECAST TAPER TOP METER VAULT. FILL LIFTING HOLES WATERTIGHT. FRAME AND LID TO BE PURCHASED BY CONTRACTOR EQUAL TO INLAND FOUNDARY EAST WENATCHEE SPECIFICATION. ANCHOR FRAME TO VAULT WITH NON-SHRINK GROUT. LID TO BE RATED FOR TRAFFIC LOADING IN TRAVELED AREAS. MAX OF 6" TOTAL LID ADJUSTMENT RISERS ALLOWED.

PLAN VIEW

NOTES:

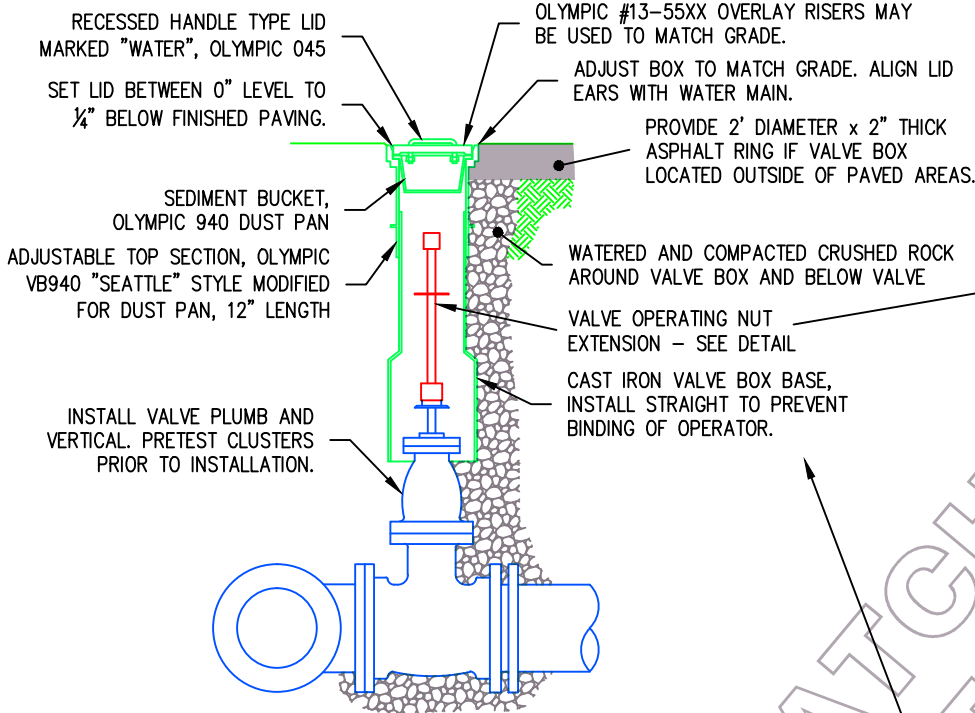
1. INSTALL STD. MARKER POST IDENTIFYING VALVE LOCATION
2. SET METER BOX FLUSH WITH SIDEWALK OR CURB IN LOCATED IN LAWN AREA. SET METER BOX APPROX. 2" ABOVE FINISHED GRADE IF IN LANDSCAPING AREA.
3. ALL FITTINGS TO BE COPPER OR BRASS UNLESS OTHERWISE NOTED.

**East Wenatchee
Water District**

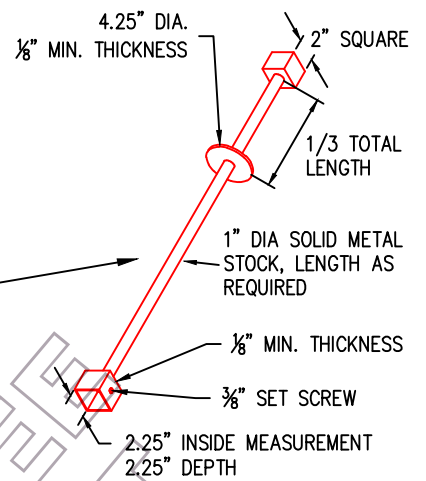


WATER SYSTEM STANDARD DETAIL

**COMBINATION AIR VALVE &
BLOW-OFF ASSEMBLIES**



ISOLATION VALVE DETAIL



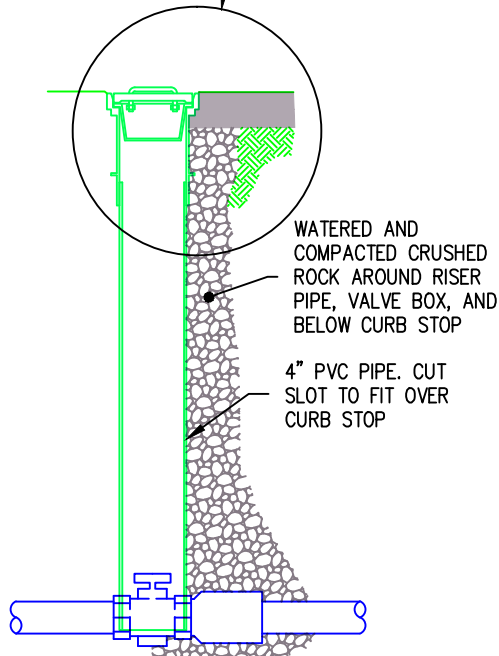
OPERATING NUT EXTENSION

EXTENSIONS ARE REQUIRED WHEN THE VALVE NUT IS MORE THAN 3.5 FEET BELOW FINISHED GRADE. EXTENSIONS ARE TO BE A MINIMUM OF ONE (1) FOOT LONG, ONLY ONE EXTENSION PER VALVE. ALL EXTENSIONS ARE TO BE MADE OF STEEL SIZED AS NOTED, AND PAINTED WITH TWO COATS OF CARBON ELASTIC (ATCO NO. 2221) AS SPECIFIED BY PRESERVATIVE PAINT CO. OR APPROVED EQUAL.

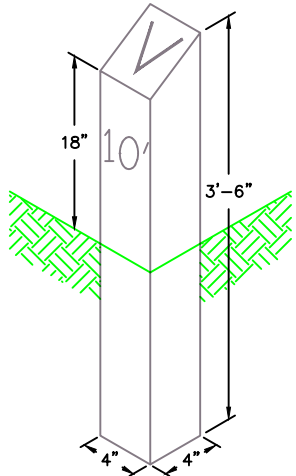
FOR EXTENSIONS LONGER THAN 4 FEET AND/OR VALVES LARGER THAN 12" DIAMETER, BAR SHALL BE 1 1/4" DIAMETER.

1. VALVES SHALL BE INSTALLED AT NO MORE THAN 1,000 FT SPACING.
2. ISOLATION VALVES 2" AND LARGER ARE TO BE NRS RESILIENT SEAT GATE VALVES MEETING AWWA C509 OR C515. OTHER TYPES OF VALVES (BUTTERFLY OR ECCENTRIC) ARE ONLY ALLOWED WHEN APPROVED FOR SPECIFIC LOCATIONS BY THE DISTRICT.
3. BACKFILL AROUND VALVE BOXES SHALL BE COMPACTED USING A JUMPING JACK.
4. OLYMPIC FOUNDRY MODEL NUMBERS SHOWN. OWNER APPROVED EQUALS WILL BE ALLOWED.
5. IN-LINE VALVES SHALL BE RESTRAINED WITH DEVICES SHOWN IN W-16; USE ONE FULL STICK OF PIPE ON EACH SIDE OF VALVE.
6. ALL VALVES SHALL BE SUPPLIED WITH VALVE BOX, LID AND DUST PAN. LID SHALL HAVE RECESSED HANDLE. VALVE BOX RISER EARS TO BE INSTALLED WITH THE EARS PARALLEL TO THE DIRECTION OF WATER FLOW.
7. ALL VALVES THAT WILL BE PART OF A CUT-IN CONNECTION OR HOT TAP ON AN EXISTING MAIN SHALL BE PRE-PRESSURE TESTED ON BOTH SIDES OF THE SEAT PRIOR TO INSTALLATION.

UPPER SECTION SHALL MATCH ISOLATION VALVE DETAIL



ISOLATION CURB STOP DETAIL



VALVE MARKER POST

USE MARKER POST WHEN VALVE IS LOCATED OUT OF TRAVELED WAY OR AT THE DIRECTION OF THE DISTRICT.

VALVE MARKER POST SHALL BE A RENTON CONCRETE PRODUCTS NO. VM-1 OR APPROVED EQUAL. VALVE MARKER SHALL BE PAINTED WITH TWO COATS OF NO. 43-114 (INTERNATIONAL YELLOW) PAINT AS SPECIFIED BY THE PRESERVATIVE PAINT CO. OR APPROVED EQUAL. THE POST SHALL BE SITUATED IN A SAFE AND REASONABLY CONSPICUOUS LOCATION AT A RIGHT ANGLE TO THE ROADWAY FROM THE VALVE. DISTANCE TO THE VALVE SHALL BE NEATLY STENCILED ON THE POST WITH TWO-INCH NUMBERS WITH NO. 43-102 (BLACK) PAINT AS SPECIFIED BY PRESERVATIVE PAINT CO.

East Wenatchee Water District



WATER SYSTEM STANDARD DETAIL

ISOLATION VALVE INSTALLATION DETAILS

PRECAST CONCRETE VAULT MIN H2O LOAD RATING EQUAL TO UTILITY VAULT. DEVELOPER MUST SUBMIT TO DISTRICT FOR APPROVAL. "HOT-BOX" ALSO ACCEPTABLE.

TEST COCKS SHALL FACE UP OR TO THE ACCESSIBLE SIDE OF THE ASSEMBLY.

ACCESS HATCH(ES) SIZED TO ALLOW REMOVAL OF CHECK ASSEMBLY. MINIMUM SIZE OF 2'x4'. SEE HATCH NOTE ON DETAIL W-01.

24" DIA MAN ACCESS. RING AND SOLID COVER MARKED "WATER". IF RING ACCESS NOT PROVIDED, ENLARGE HATCH TO 3'x6' AND PROVIDE LADDER.

PROVIDE AND INSTALL BOLT ON LADDER OR MANHOLE STEPS WITH LADDER UP EXTENSION.

CONCRETE THRUST BLOCK, MIN 12" DEPTH, EXTEND TO VAULT WALLS AND FLOOR, EXTEND MIN 18" ABOVE PIPE.

#4 @ 12" OC EW WITHIN BLOCK

PRIVATE SYSTEM INSTALLED BY LEVEL "U" CONTRACTOR

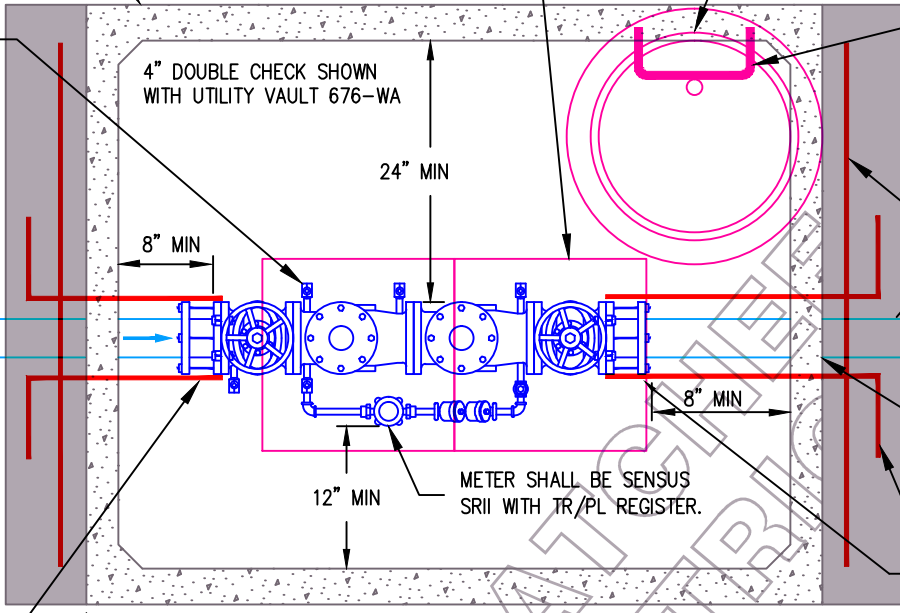
PIPE THROUGH VAULT WALL MUST BE DI IF SOLID GROUTED. PVC ALLOWED IF USING A FLEXIBLE BOOT. SEE STD DETAIL W-07 FOR NUMBER AND SIZE OF SHACKLE RODS.

SHACKLE OR RESTRAIN FLANGE COUPLING ADAPTER TO DEADMAN BLOCK OR BEND



SHACKLE OR RESTRAIN TO DISTRICT MAIN, DEADMAN BLOCK OR BEND

R.O.W. PRIVATE

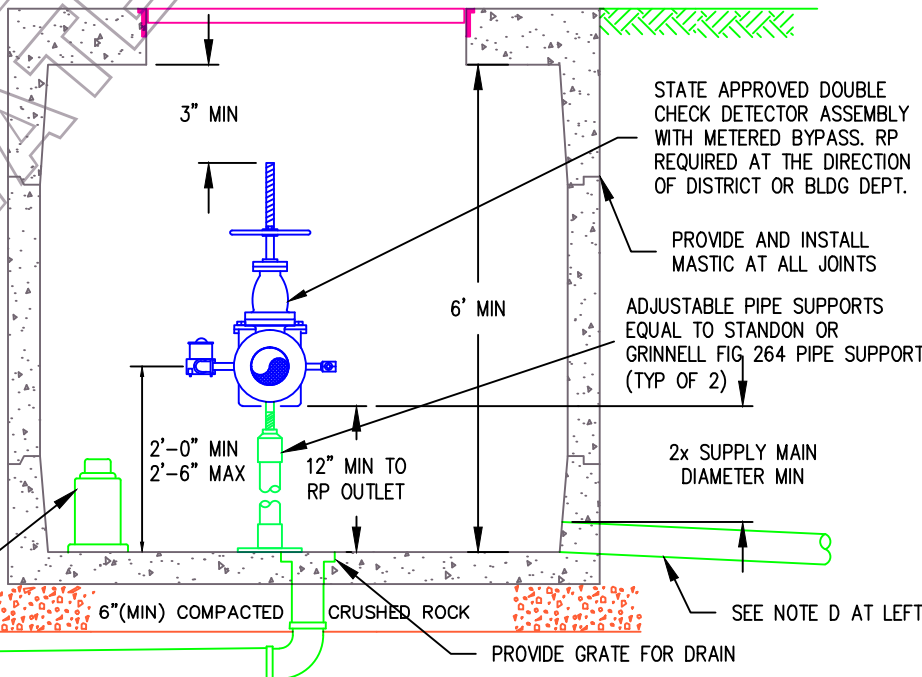


1. ASSEMBLY TO BE MAINTAINED BY OWNER AND ANNUAL CERTIFICATION REQUIRED.
2. WATER MAIN SHALL NOT BE PLACED IN SERVICE UNTIL AFTER DOUBLE CHECK IS APPROVED BY A DISTRICT INSPECTOR.
3. RESTRAIN CHECK DETECTOR WITH RESTRAINED JOINT PIPE OR SHACKLE RODS AS APPROVED BY THE DISTRICT.
4. DISTRICT OWNERSHIP TERMINATES AT R.O.W OR VAULT WALL, WHICHEVER IS REACHED FIRST.
5. THIS PLAN IS SHOWN FOR GENERAL LAYOUT ONLY. ENGINEER MUST PROVIDE DETAILED AND DIMENSIONED PLAN FOR EACH INSTALLATION INCLUDING HATCH AND LADDER LOCATIONS.
6. ENGINEER TO VERIFY SIZE OF DCDA REQUIRED PER MANUFACTURER AND FIRE DISTRICT CRITERIA. SUBMIT SIZING INFORMATION TO DISTRICT FOR REVIEW.
7. SEE STANDARD DETAIL W-25 FOR MORE INFO.
8. RP=REDUCED PRESSURE PRINCIPAL.
9. NOTHING ON THESE DETAILS SHALL BE INTERPRETED AS WAIVING STATE CROSS CONNECTION CONTROL REQUIREMENTS.

| VALVE SIZE | MAX FLOW* | VAULT MIN. INSIDE LENGTHxWIDTH |
|---------------------------------------|-----------|--------------------------------|
| 2 1/2" | 225 gpm | 5'x5' |
| 3" | 320 gpm | 5'x5' |
| 4" | 500 gpm | 6'x5' |
| 6" | 1000 gpm | 7'x5' |
| 8" | 1600 gpm | 8'x5' |
| 10" | 2300 gpm | 9.5'x5.5' |
| 12" AND LARGER, CONSULT WITH DISTRICT | | |

CLEARANCES SHOWN MUST BE MAINTAINED. VAULT DIMENSIONS ARE MINIMUMS AND LIKELY A LARGER VAULT WILL BE REQUIRED. OWNER'S ENGINEER TO CONFIRM SIZING.

* MAXIMUM FLOW RATE OBTAINED FROM AWWA C510, C511 AND FCCC



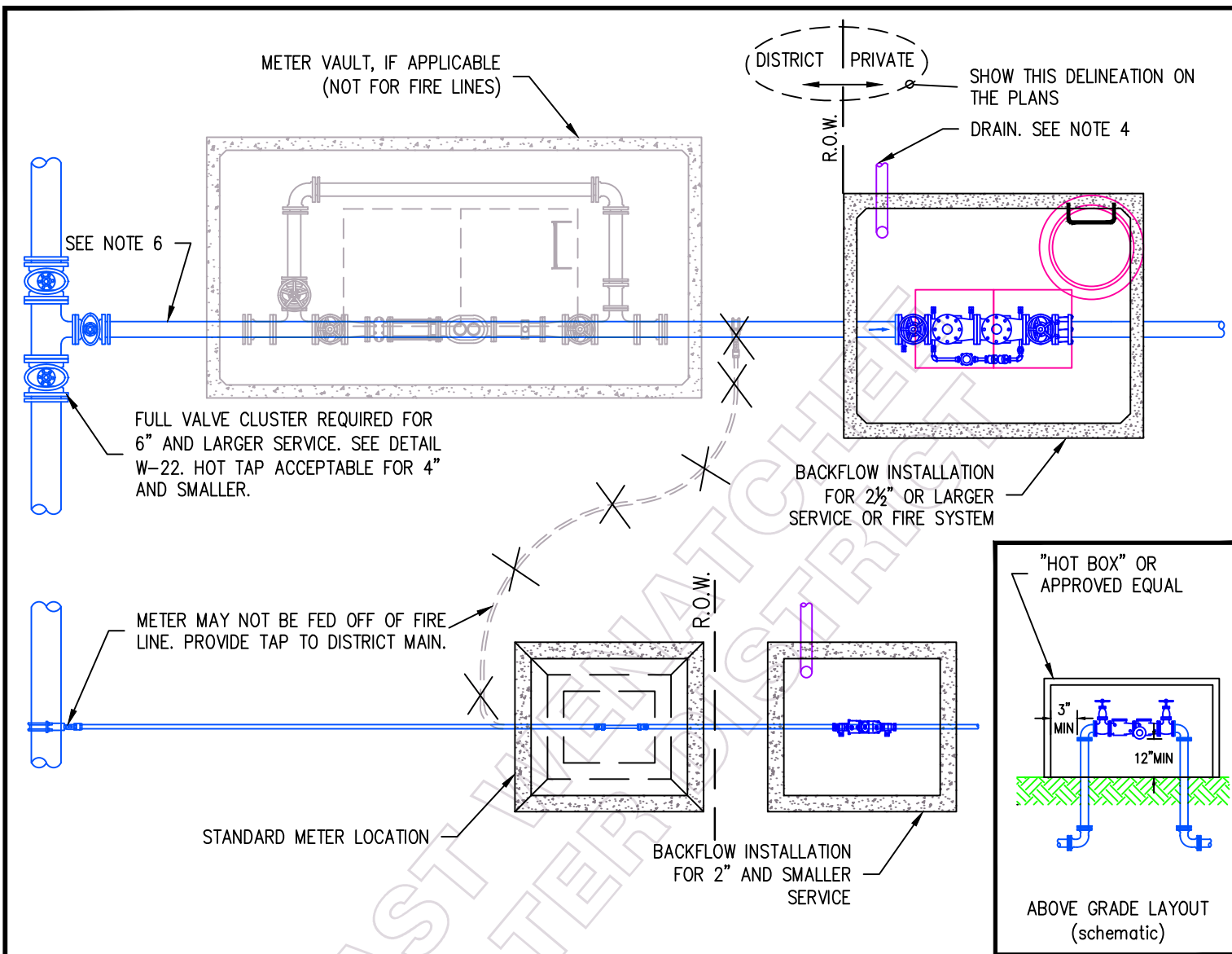
- DRAIN SYSTEM MUST BE PROVIDED.
- A) 4" DRAIN (MIN) TO DAYLIGHT OR STORM SYSTEM, OR
 - B) 2cy DRAIN ROCK WRAPPED IN FILTER FABRIC, OR
 - C) 120VAC SUMP PUMP WITH 15' CORD & 15' HOSE.
 - D) FOR RP DEVICES, INSTALLATION MUST BE ABOVE GRADE OR VAULT DRAIN BORESIGHTED (LANTERNED) TO DAYLIGHT.

DOUBLE CHECK DETECTOR ASSEMBLY

East Wenatchee Water District



WATER SYSTEM STANDARD DETAIL
BACKFLOW PREVENTION ASSEMBLY



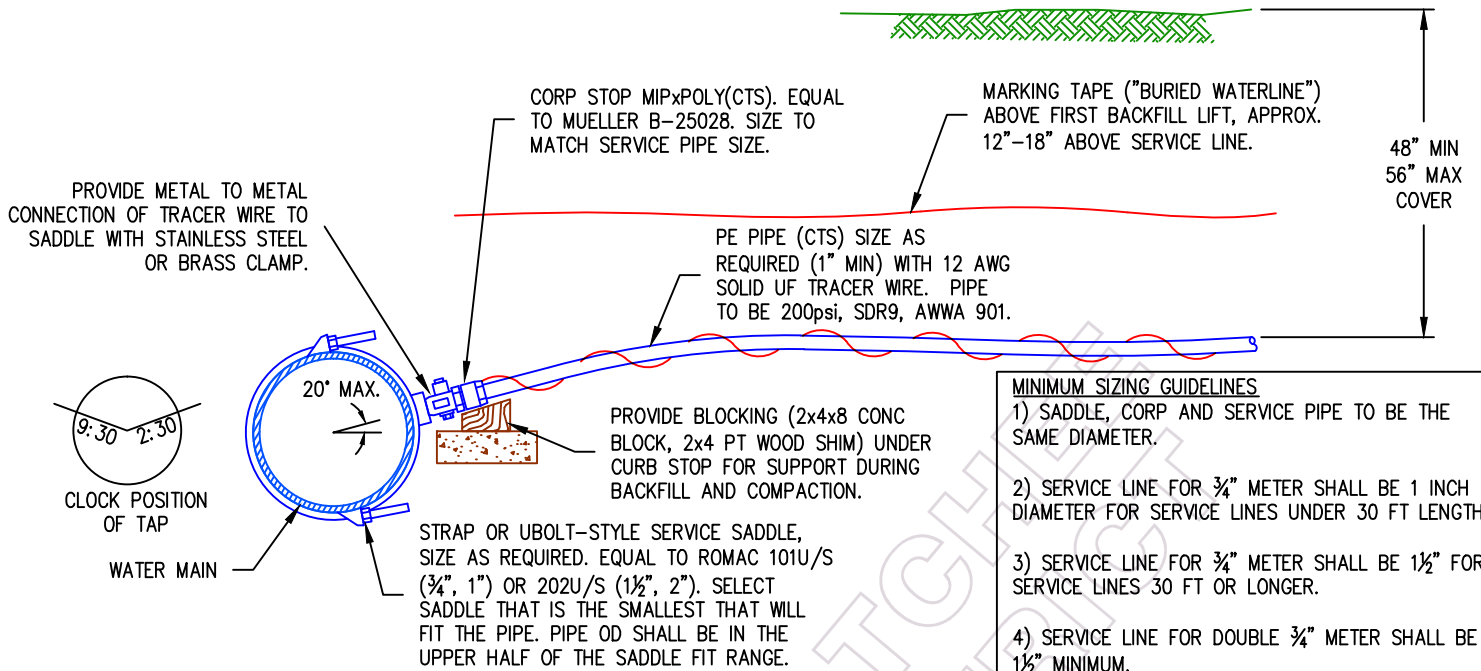
- 1) THIS DETAIL IS MEANT AS A GENERAL REFERENCE FOR COMMON CROSS CONNECTION CONTROL STANDARDS. EACH PROJECT SHALL BE REVIEWED BY THE DISTRICT ON A CASE-BY-CASE BASIS AND MAY REQUIRE ADDITIONAL ACTIONS.
- 2) ASSEMBLY INSTALLATION SHALL FOLLOW THE REQUIREMENTS OF WAC 246-290-490 THE PNWS-AWWA CROSS CONNECTION CONTROL MANUAL.
- 3) HOT-BOXES OR APPROVED EQUAL ARE PERMITTED.
- 4) IF A BURIED VAULT IS USED, A DRAIN MUST BE PROVIDED. FOR A NON-RPBA, THE DRAIN MAY GO TO DAYLIGHT OR A SUMP. FOR AN RP DEVICE, THE DRAIN MUST BE BORESIGHTED TO DAYLIGHT AND SIZED TO PASS THE DUMP-VALVE FLOW AS STATED BY THE MANUFACTURER'S DATA. DAYLIGHT DRAIN OUTLET MUST INCLUDE AIR GAP OF AT LEAST 2X DRAIN DIAMETER.
- 5) PIPE SIZE BETWEEN MAIN AND VAULT SHALL MEET DISTRICT CRITERIA OF MAXIMUM 8.0fps VELOCITY.
- 6) BACKFLOW ASSEMBLY SHALL INCLUDE DETECTOR ASSEMBLY IF MAINLINE IS NOT OTHERWISE METERED. DETERMINATION OF THE NEED FOR AN RPBA SHALL REST SOLELY WITH THE DISTRICT.
- 7) IN-PREMISE BACKFLOW PREVENTION IS THE JURISDICTION OF THE CITY OR COUNTY BUILDING DEPARTMENT AND DETERMINATION OF ANY ADDITIONAL BACKFLOW PREVENTION SHALL BE MADE BY THAT AGENCY. RCW 19.27.

RP=REDUCED PRESSURE. RPBA=REDUCED PRESSURE BACKFLOW PRINCIPAL ASSEMBLY.

**East Wenatchee
Water District**



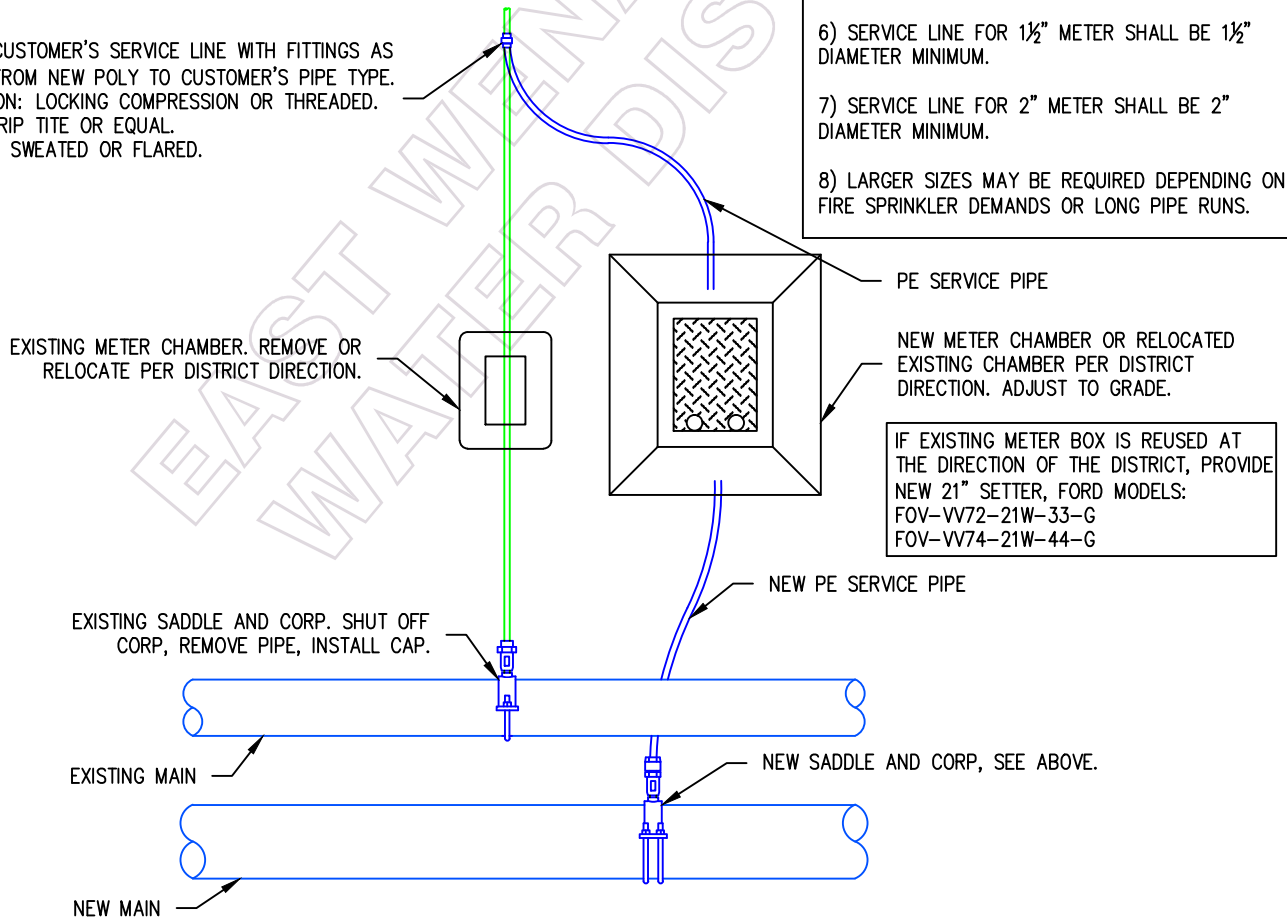
WATER SYSTEM STANDARD DETAIL
BACKFLOW ASSEMBLY INSTALLATION



NEW SERVICE CONNECTION

RECONNECT CUSTOMER'S SERVICE LINE WITH FITTINGS AS NECESSARY FROM NEW POLY TO CUSTOMER'S PIPE TYPE.

- GALV IRON: LOCKING COMPRESSION OR THREADED.
- POLY: GRIP TITE OR EQUAL.
- COPPER: SWEATED OR FLARED.



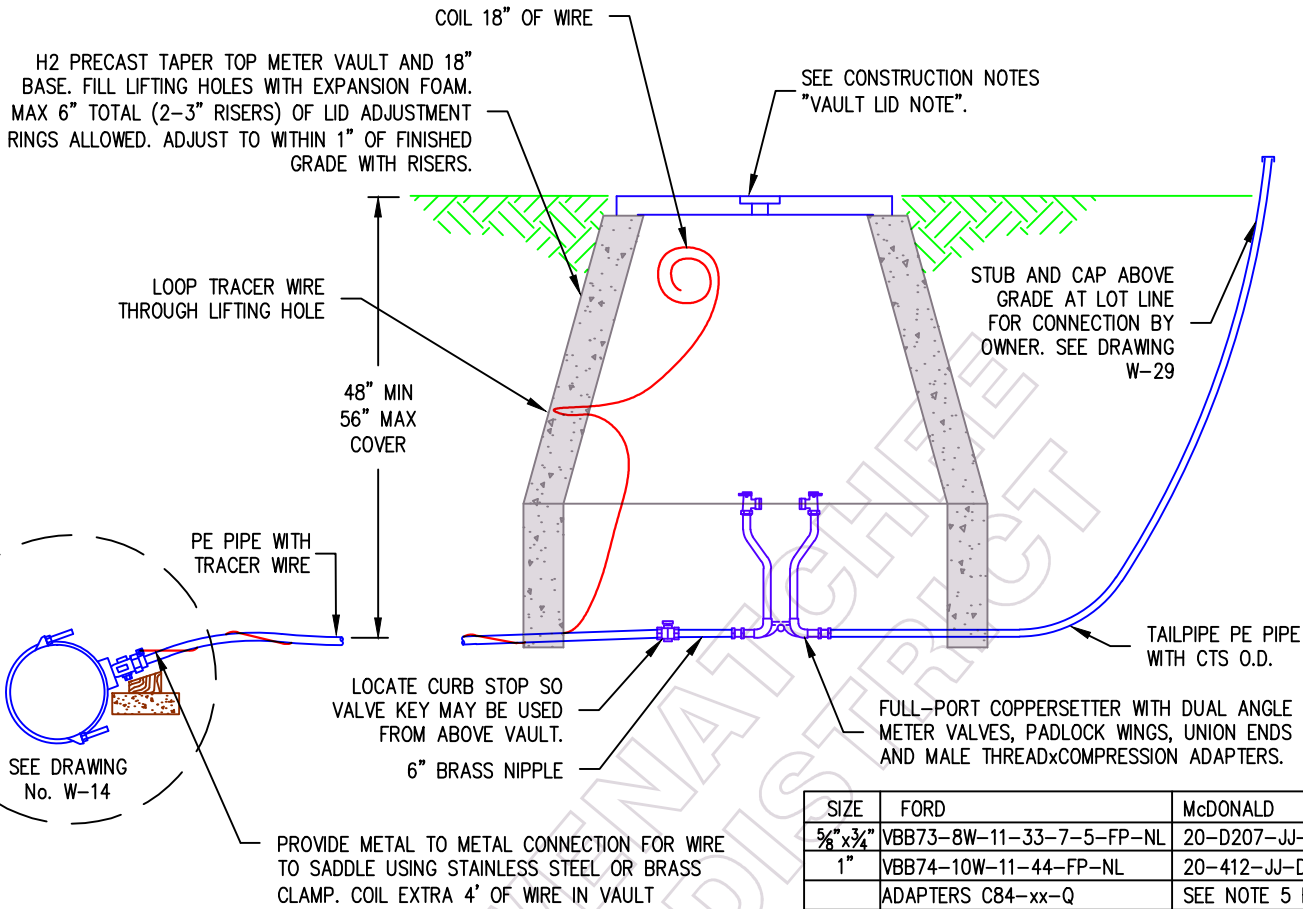
EXISTING SERVICE RECONNECTION

**East Wenatchee
Water District**



WATER SYSTEM STANDARD DETAIL

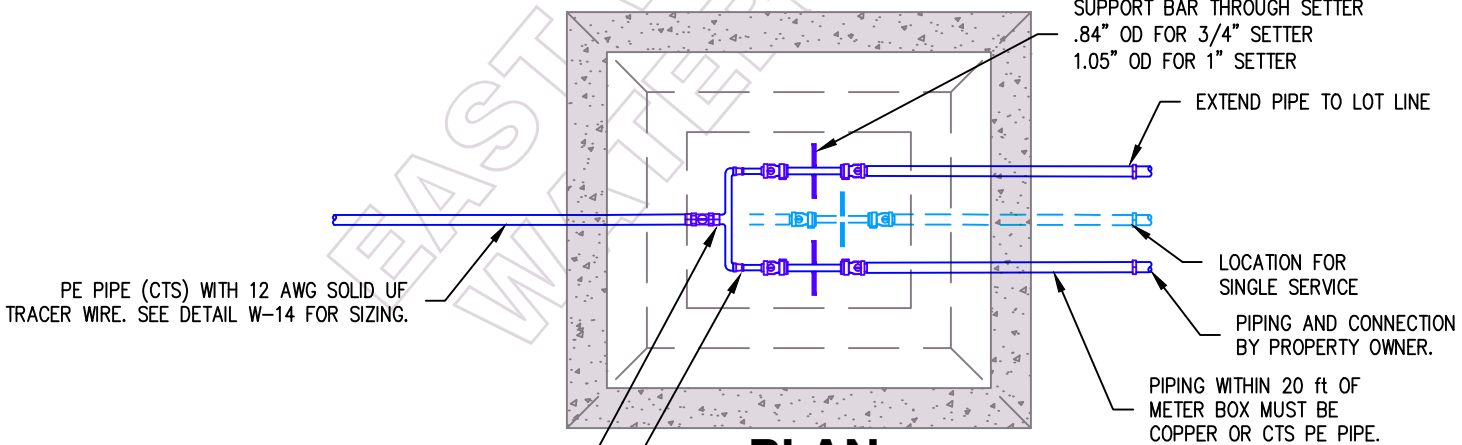
SERVICE CONNECTIONS



ELEVATION

| SIZE | FORD | McDONALD |
|-------------|--------------------------|------------------|
| 5/8" x 3/4" | VBB73-8W-11-33-7-5-FP-NL | 20-D207-JJ-DD-33 |
| 1" | VBB74-10W-11-44-FP-NL | 20-412-JJ-DD-44 |
| | ADAPTERS C84-xx-Q | SEE NOTE 5 BELOW |

NOTE: SETTER MODEL NUMBERS CHANGE FREQUENTLY. CONFIRM WITH SUPPLIER AND DISTRICT.



PLAN

CURB STOP SHALL MATCH INCOMING SERVICE LINE SIZE.
CURB STOP [PE(CTS)xFIP]
DOUBLE SERVICE 1 1/2"x1" U-BRANCH, FORD U88-64-12
1"x3/4" BRASS BELL REDUCER (FOR 3/4" SERVICE)
3/4" OR 1" BRASS NIPPLE

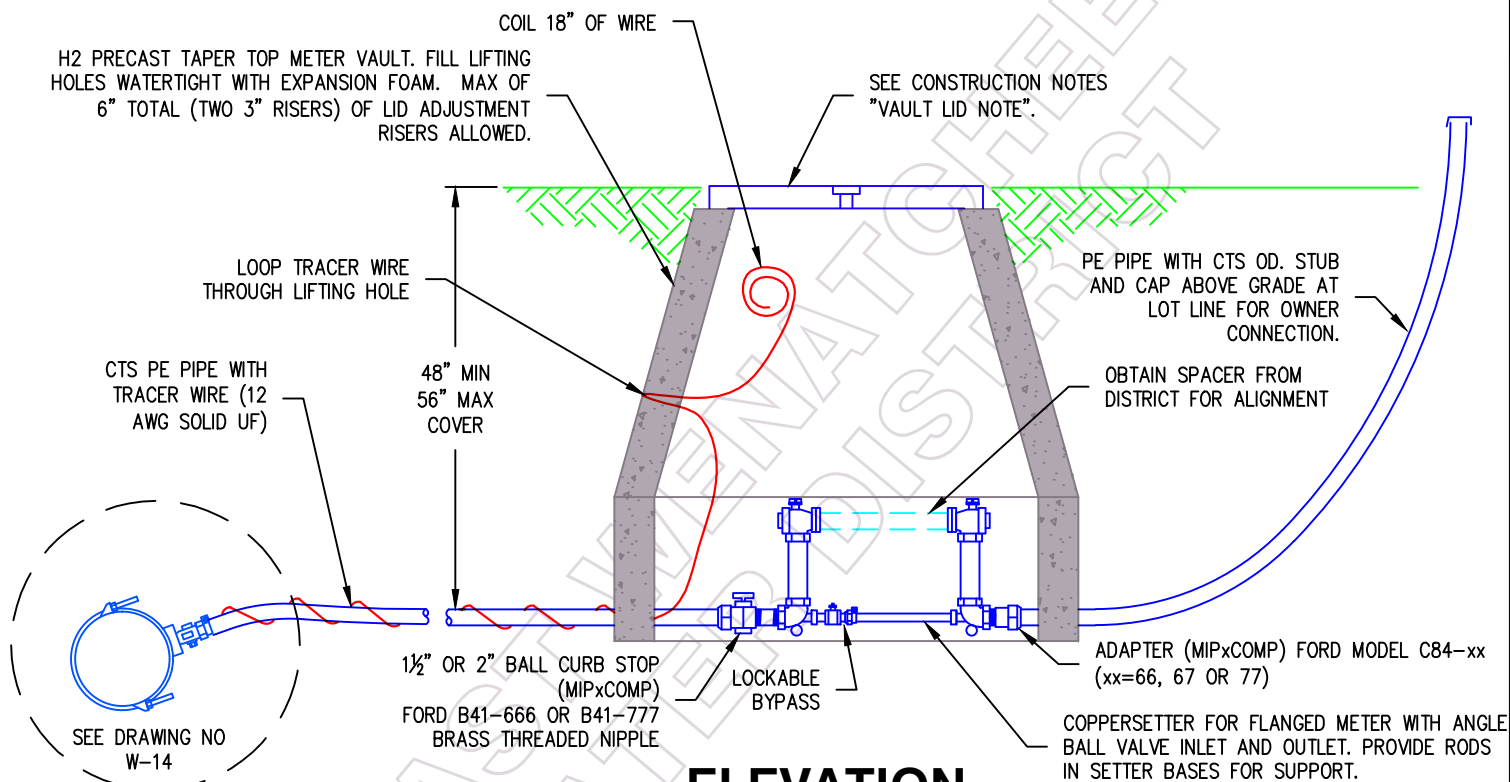
- 1) COMPACT SOIL UNDER AND AROUND VAULT ASSEMBLY TO 90% OF MAXIMUM DENSITY FOR UNTRAVELED AREAS, AND 95% IN ROADS, DRIVES AND SIDEWALKS..
- 2) SEE DRAWING W-29 FOR METER BOX LOCATION.
- 3) MUELLER MATERIALS WITH EQUIVALENT CONFIGURATION AS FORD ARE APPROVED. McDONALD COPPERSETTER EQUIVALENTS ARE APPROVED.
- 4) PROVIDE AND INSTALL MASTIC BETWEEN CHAMBER TOP AND BASE
- 5) ALL SETTERS SHALL BE FULL SIZE THROUGHOUT. e.g. A 5/8" x 3/4" SETTER SHALL HAVE 3/4" PIPE, VALVES AND FITTINGS, 1" SHALL HAVE 1" EQUIP. aka FULL-PORT.

East Wenatchee Water District



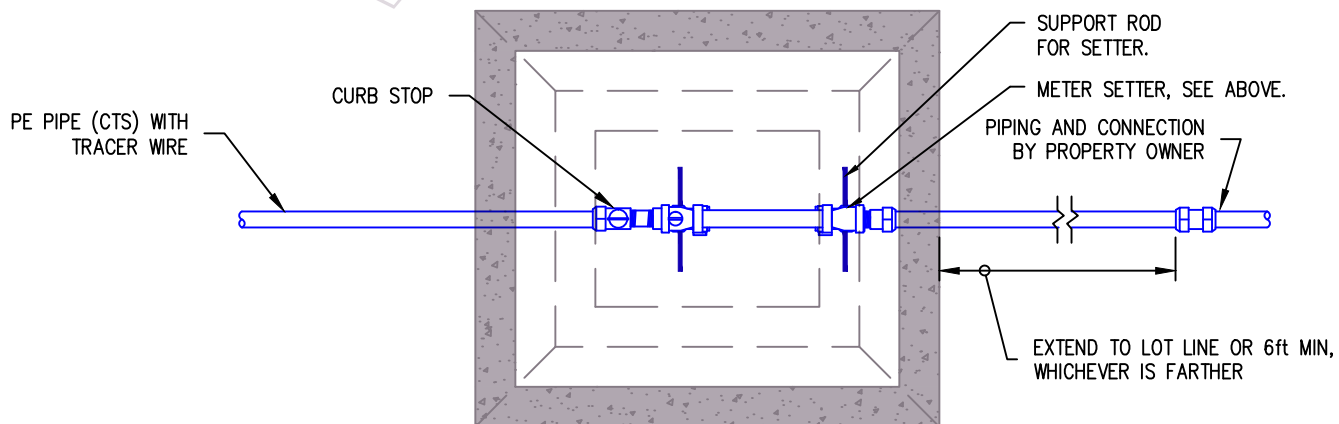
WATER SYSTEM STANDARD DETAIL 3/4" AND 1" SINGLE AND DOUBLE WATER SERVICES

- 1) ALL PIPE TO BE PE (NOT INCLUDING SETTER).
- 2) ALL FITTINGS TO HAVE GRIP-TITE CONNECTIONS WHERE APPROPRIATE.
- 3) SEE DETAIL W-14 FOR SERVICE LINE AND TAP SIZING.
- 4) SEE DRAWING W-29 FOR METER BOX LOCATION.
- 5) PROVIDE AND INSTALL MASTIC BETWEEN CHAMBER TOP AND BASE.



ELEVATION

| SIZE | FORD | McDONALD |
|--------|-----------------|-------------------|
| 1 1/2" | VBB76-95037-090 | 20-B612-WW-FF-665 |
| 2" | VBB77-95037-089 | 20-B712-WW-FF-775 |



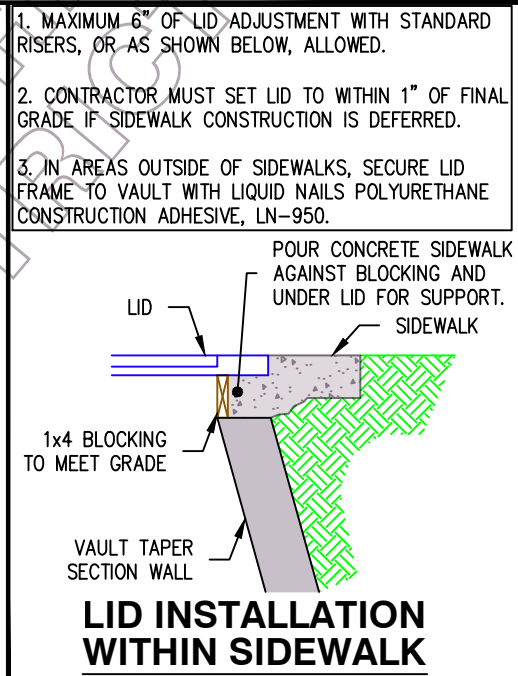
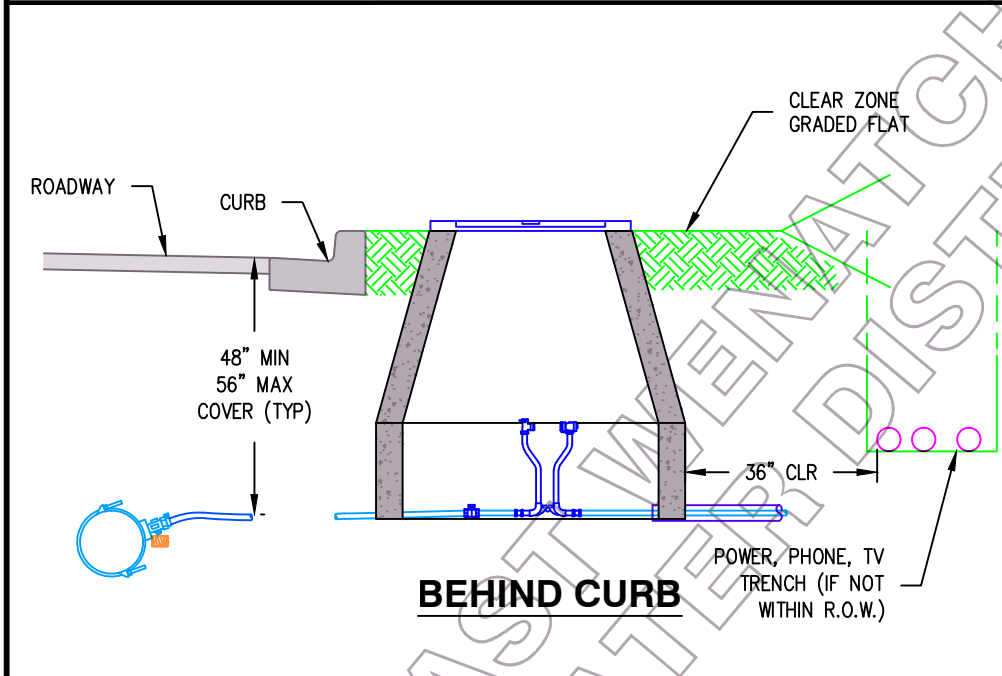
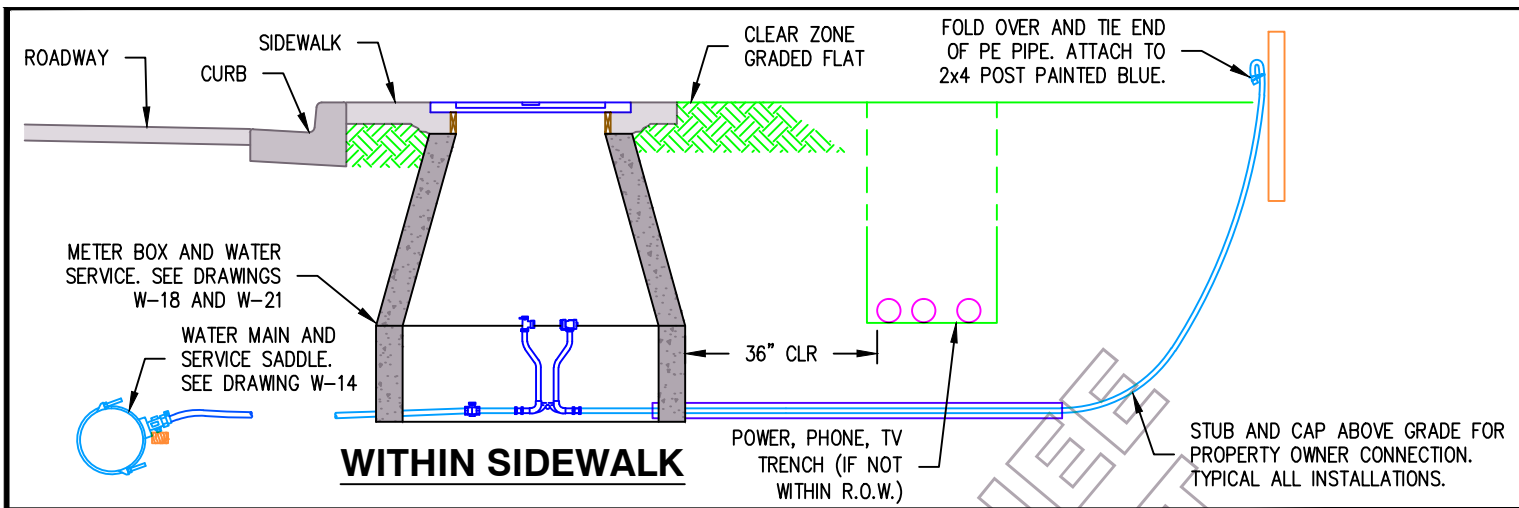
PLAN

**East Wenatchee
Water District**

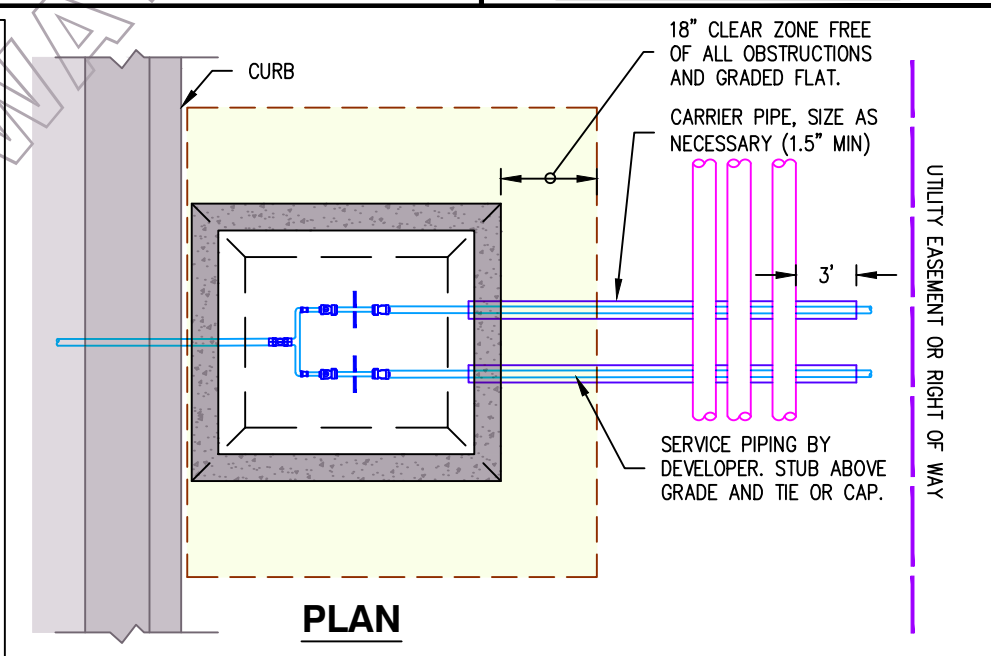


WATER SYSTEM STANDARD DETAIL

1 1/2" AND 2" WATER SERVICE



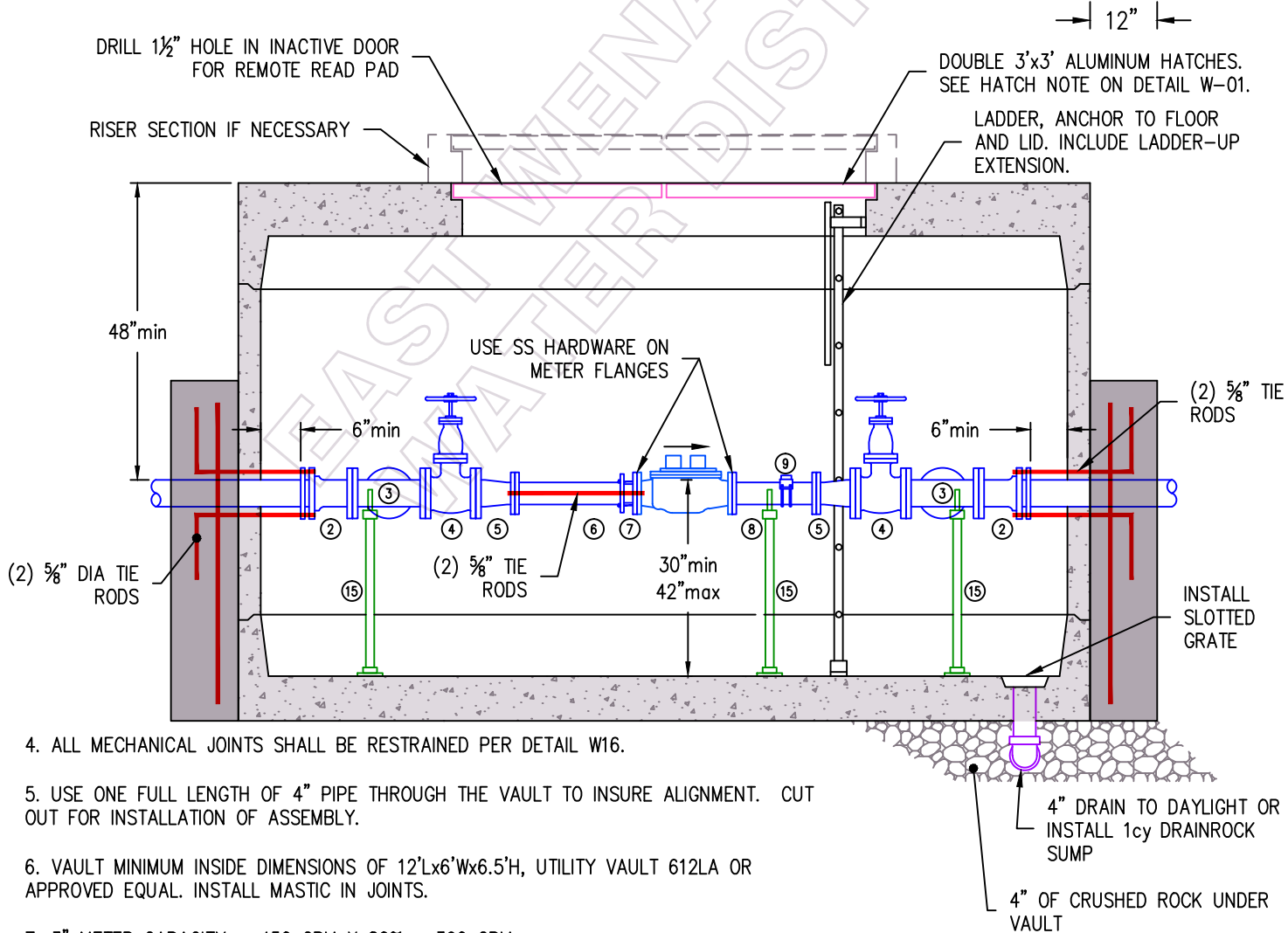
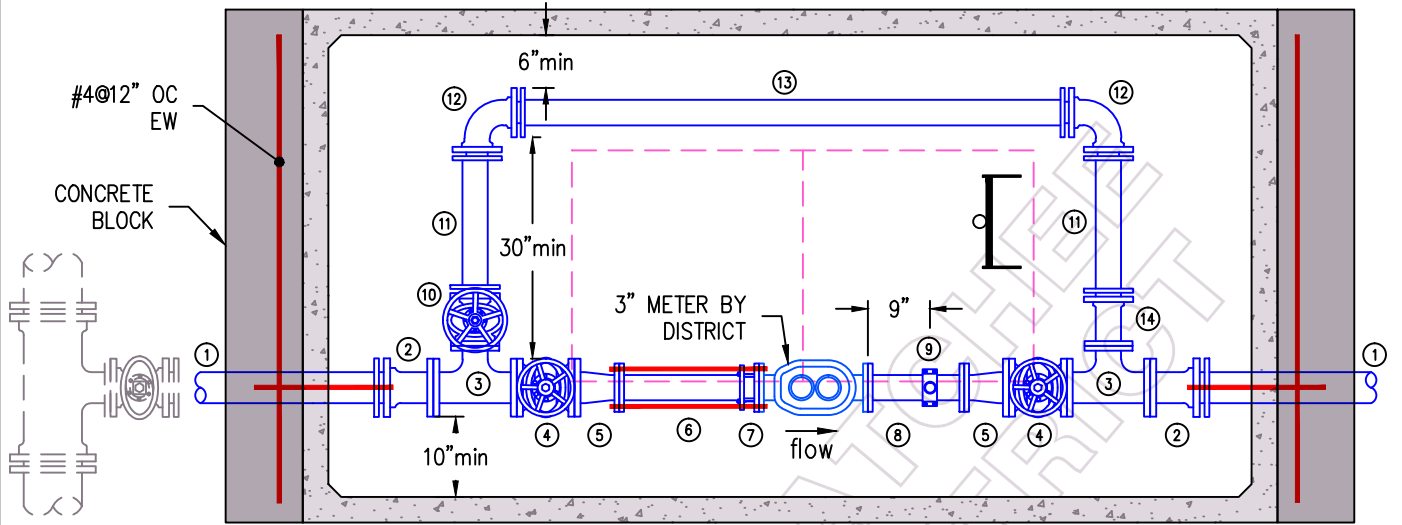
1. METER BOX MUST BE INSTALLED WITHIN RIGHT OF WAY OR UTILITY EASEMENT.
2. UTILITY EASEMENT MUST EXTEND A MINIMUM OF 3 FEET BEYOND METER BOX.
3. BRING LID TO WITHIN 1" OF FINISHED GRADE USING H2-PRECAST RISERS. FOR FINAL LEVELING, USE GROUT IN TRAVELED AREAS OR EXPANSION FOAM IN UNTRAVELED AREAS.
4. IF SERVICE MUST BE INSTALLED IN CUT OR FILL SLOPE, A 6'x6' PAD SHALL BE CONSTRUCTED WITH WHATEVER RETAINING STRUCTURES ARE REQUIRED TO MAINTAIN STABLE INSTALLATION AND APPROPRIATE COVER OVER PIPE.
5. METER VAULTS MUST BE LOCATED A MINIMUM OF 5 FEET FROM ANY POWER HAND-HOLES. TRANSFORMERS SHALL BE ON OPPOSITE LOT CORNER.
6. EXTEND SERVICE LINE TO PROPERTY LINE FOR CONNECTION BY OWNER.
7. CONTRACTOR MUST SURVEY TO PLACE VAULT LID FLUSH WITH CURRENT AND FUTURE SIDEWALK.



- ① 4" DI PIPE
- ② 4" FLxMJ ADAPTER
- ③ 4"x3" TEE (FL)
- ④ 4" RSGV w/HANDWHEEL (FL)
- ⑤ 4"x3" REDUCER (FL)
- ⑥ 3" DI PIPE FLxPE, 15" LENGTH
- ⑦ 3" FCA, DO NOT "PUSH HOME" PIPE
- ⑧ 3" DI PIPE FL, 15" LENGTH

- ⑨ 2"x3" SADDLE w/2" PLUG
- ⑩ 3" RSGV (FLxMJ) w/HANDWHEEL
- ⑪ 3" DI PIPE, 24" LENGTH
- ⑫ 3" 90° BEND (MJ)
- ⑬ 3" DI PIPE, 90" LENGTH
- ⑭ 3" FLxMJ ADAPTER
- ⑮ STANDON OR GRINNELL PIPE SUPPORT (5 total)

- 1. CRACKED OR OTHERWISE DAMAGED VAULTS WILL BE REJECTED AT THE DISCRETION OF THE DISTRICT.
- 2. NEPTUNE COMPOUND METER LAY LENGTH = 17"
- 3. TIE ROD MATERIAL TO BE PER W-07.



- 4. ALL MECHANICAL JOINTS SHALL BE RESTRAINED PER DETAIL W16.
- 5. USE ONE FULL LENGTH OF 4" PIPE THROUGH THE VAULT TO INSURE ALIGNMENT. CUT OUT FOR INSTALLATION OF ASSEMBLY.
- 6. VAULT MINIMUM INSIDE DIMENSIONS OF 12'Lx6"Wx6.5'H, UTILITY VAULT 612LA OR APPROVED EQUAL. INSTALL MASTIC IN JOINTS.
- 7. 3" METER CAPACITY = 450 GPM X 80% = 360 GPM

**East Wenatchee
Water District**

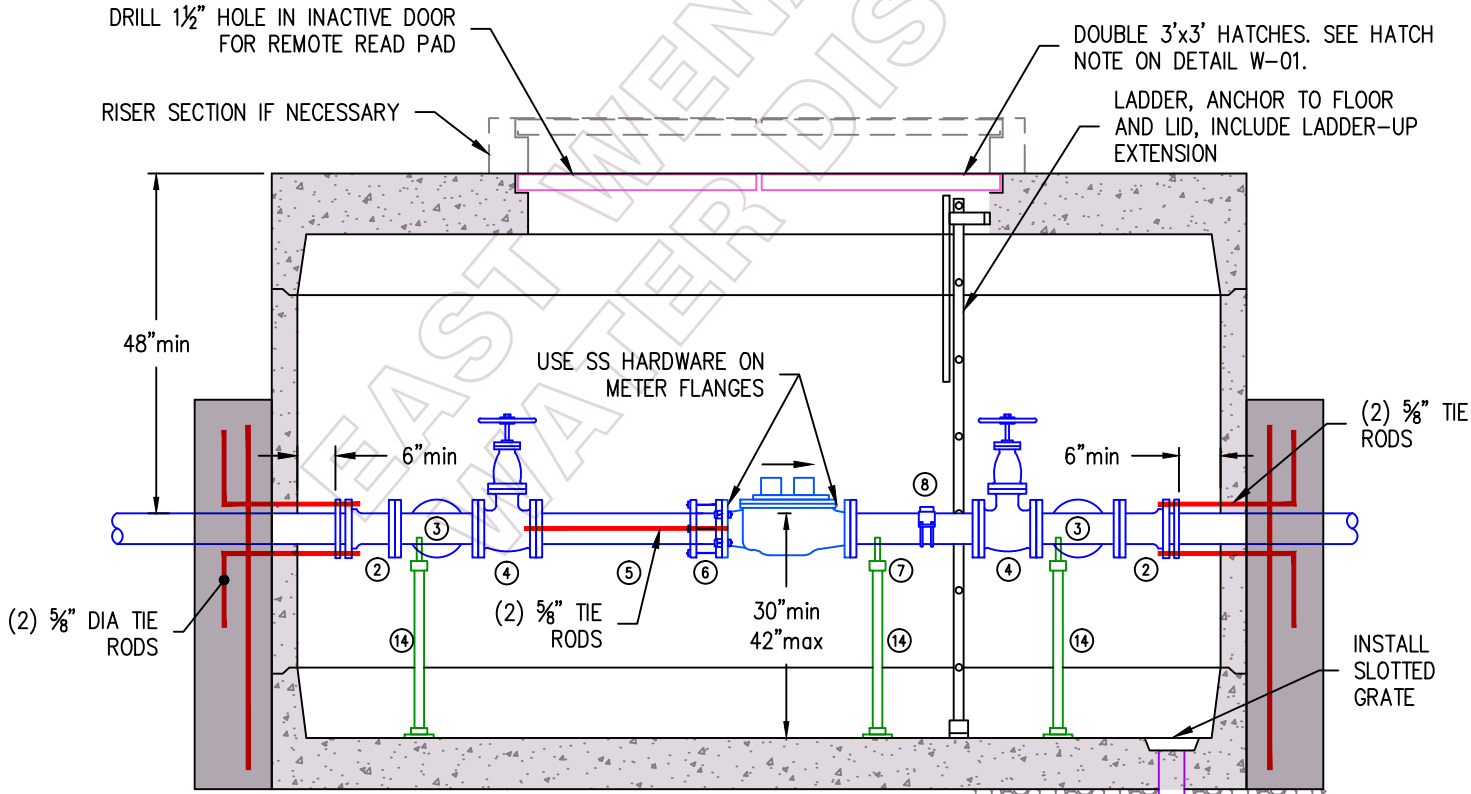
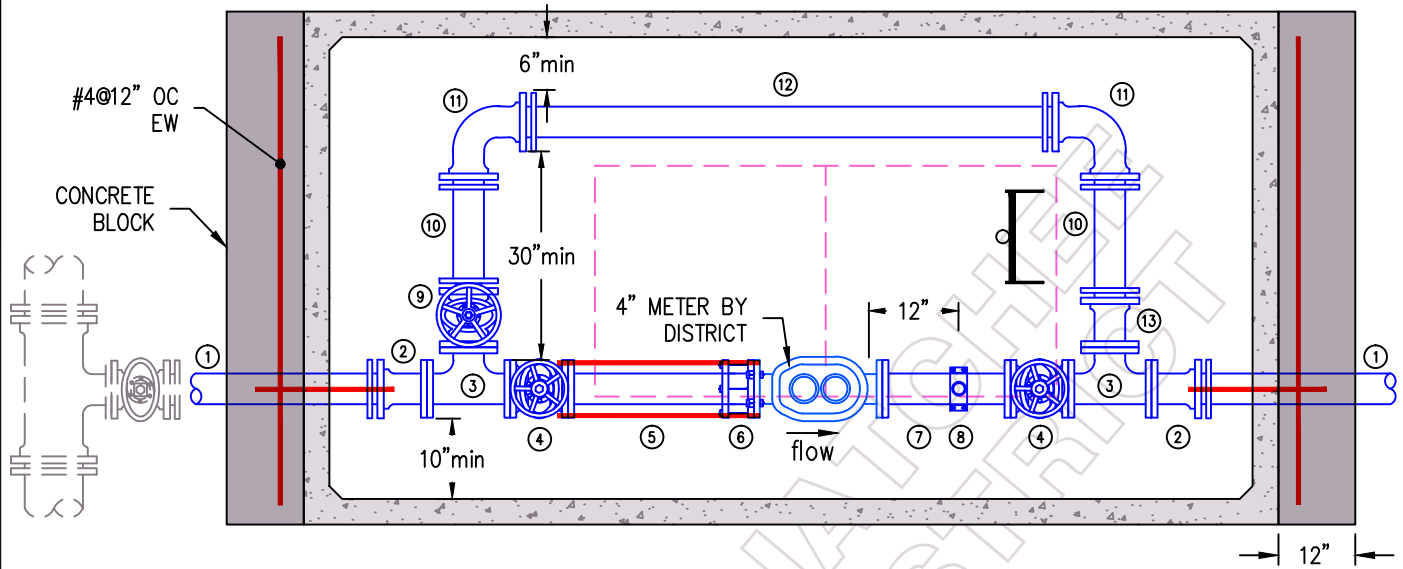


WATER SYSTEM STANDARD DETAIL

3" METER ASSEMBLY

- ① 4" DI PIPE
- ② 4" FLxMJ ADAPTER or FCA
- ③ 4" TEE (FL)
- ④ 4" RSGV w/HANDWHEEL (FL)
- ⑤ 4" DI PIPE FLxPE, 20" LENGTH
- ⑥ 4" FCA, DO NOT "PUSH HOME" PIPE
- ⑦ 4" DI PIPE FLxFL, 20" LENGTH
- ⑧ 2"x4" SADDLE w/2" PLUG
- ⑨ 4" RSGV (FLxMJ) w/HANDWHEEL
- ⑩ 4" DI PIPE, 20" LENGTH
- ⑪ 4" 90° BEND (MJ)
- ⑫ 4" DI PIPE, 84" LENGTH
- ⑬ 4" FLxMJ ADAPTER
- ⑭ STANDON OR GRINNELL PIPE SUPPORT (5 total)

1. CRACKED OR OTHERWISE DAMAGED VAULTS WILL BE REJECTED AT THE DISCRETION OF THE DISTRICT.
2. NEPTUNE COMPOUND METER LAY LENGTH = 20"
3. TIE ROD MATERIAL SHALL BE PER W-07.



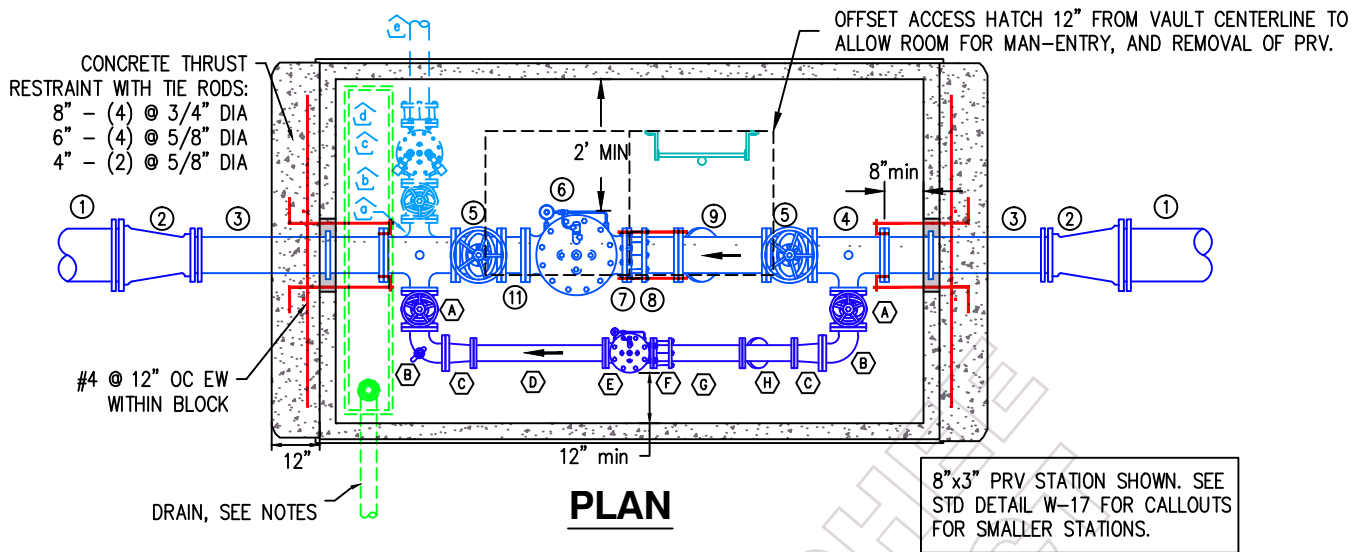
4. ALL MECHANICAL JOINTS SHALL BE RESTRAINED PER DETAIL W16.
5. USE ONE FULL LENGTH OF 4" PIPE THROUGH THE VAULT TO INSURE ALIGNMENT. CUT OUT FOR INSTALLATION OF ASSEMBLY.
6. VAULT MINIMUM INSIDE DIMENSIONS OF 12'Lx6'Wx6.5'H, UTILITY VAULT 612LA OR APPROVED EQUAL. INSTALL MASTIC IN JOINTS.
7. 4" METER CAPACITY = 1000 GPM X 80% = 800 GPM

**East Wenatchee
Water District**



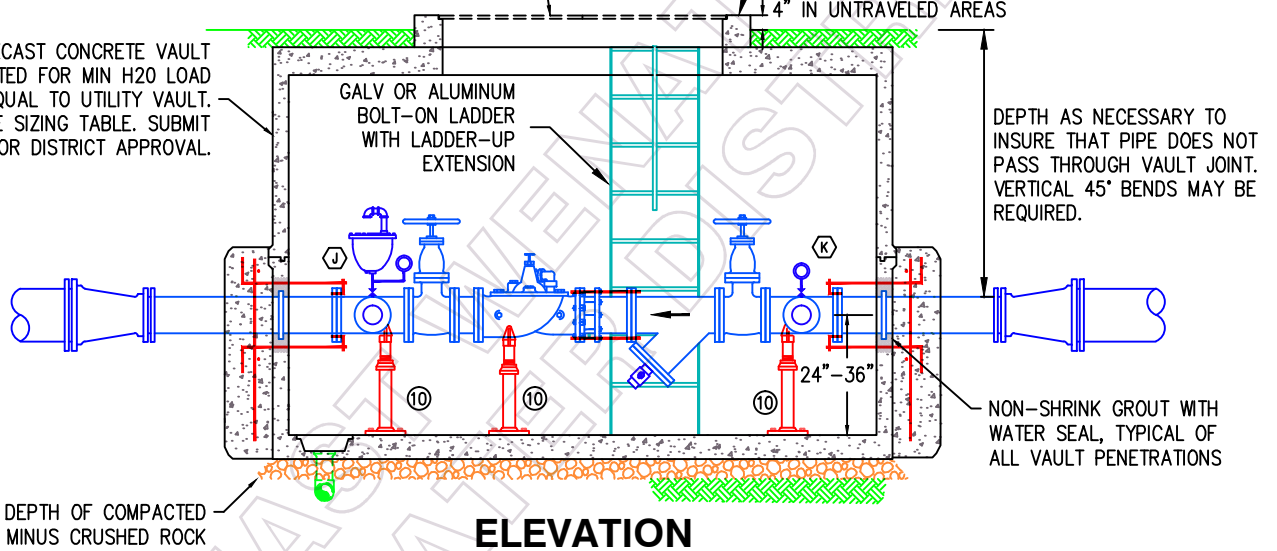
WATER SYSTEM STANDARD DETAIL

4" METER ASSEMBLY



DOUBLE 3'x3' CLEAR ACCESS HATCH EQUAL TO LW HATCH, OR SUBMIT ALTERNATE VAULT TOP AND HATCH(ES) TO WATER DISTRICT FOR APPROVAL. SEE HATCH NOTE ON DETAIL W-01.

PRECAST CONCRETE VAULT RATED FOR MIN H2O LOAD EQUAL TO UTILITY VAULT. SEE SIZING TABLE. SUBMIT FOR DISTRICT APPROVAL.



ELEVATION

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> ① DI PIPE, LENGTH TO FIT ② DI REDUCER (MxMxM) ③ DI SPOOL WITH COLLAR (FLxPE) LTF, OR LINK-SEAL ④ DI REDUCING TEE (FLxFLx4"FL) w/1" TAP ON TOP ⑤ RS GATE VALVE (FLxFL) w/HAND WHEEL ⑥ PRESSURE REDUCING VALVE (FLxFL) EQUAL TO CLA-VAL 90G-01ABCS OR DISTRICT APPROVED EQUAL, EPOXY LINING, VALVE POSITION INDICATOR, POLY PILOT LINES. ⑦ FCA w/SHACKLE RESTRAINT ⑧ DI PIPE (FLxPE) APPROX. 12" LENGTH ⑨ STRAINER (FLxFL) EQUAL TO WATTS 77F-D-FDA, EPOXY LINED, BRASS BALL VALVE FOR BLOW OUT | <ul style="list-style-type: none"> ⑩ ADJUSTABLE SADDLE PIPE SUPPORT, RISER PIPE, AND BASE EQUAL TO GRINNEL FIGURE 264. ALSO PROVIDE (1) UNDER BYPASS LINE ⑪ FLxFL SPOOL, 7" LENGTH ⊕ SAME AS ④ OR REDUCING CROSS (FL) FOR PRESSURE RELIEF VALVE. ⊕ RS GATE VALVE (FLxFL) ⊕ PRESSURE RELIEF VALVE (FLxFL) EQUAL TO CLA-VAL 50G-01, EPOXY LINING, VALVE POSITION INDICATOR, POLY PILOT LINES ⊕ FCA ⊕ DI PIPE | <ul style="list-style-type: none"> Ⓐ 4" RS GATE VALVE (FL) Ⓑ 4" DI 90° BEND (FL) W/1" TAP ON SIDE Ⓒ 4"x3" DI REDUCER Ⓓ 3" DI PIPE (FL) 36" LENGTH Ⓔ PRESSURE REDUCING VALVE (FLxFL) EQUAL TO CLA-VAL 90G-01ABS. EPOXY LINING, VALVE POSITION INDICATOR, POLY PILOT LINES. Ⓕ FCA Ⓖ 4" DI PIPE (FLxPE) LTF Ⓗ STRAINER (FL) EQUAL TO WATTS 77F-D-FDA AND BRONZE BALL VALVE FOR BLOW OUT Ⓙ PRESSURE GAUGE AND COMB. AIR VALVE, SEE W-17 Ⓚ PRESSURE GAUGE, SEE W-17 |
|---|---|--|

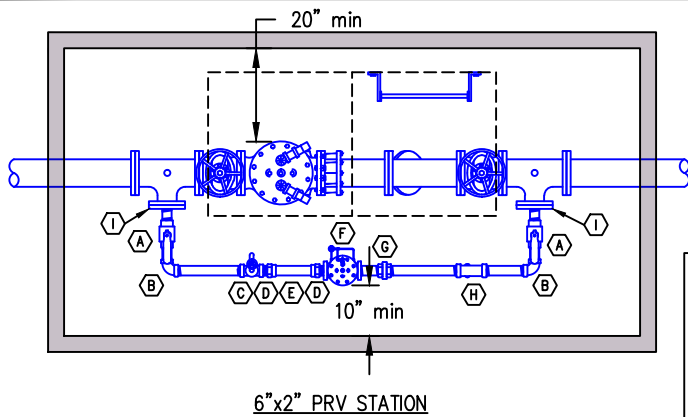
SEE SIZING TABLE ON STD DETAIL W17 FOR PIPE AND FITTING SIZES.

NOTE: ITEMS a - e ARE USED ONLY IF A PRESSURE RELIEF VALVE IS TO BE INSTALLED. DETERMINATION OF WHEN TO INSTALL AND SIZING WILL BE BY THE WATER DISTRICT ON A PER PROJECT BASIS.

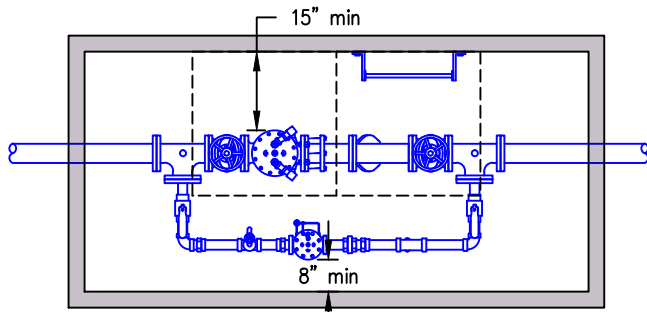
East Wenatchee Water District



WATER SYSTEM STANDARD DETAIL PRESSURE REDUCING STATION



6"x2" PRV STATION

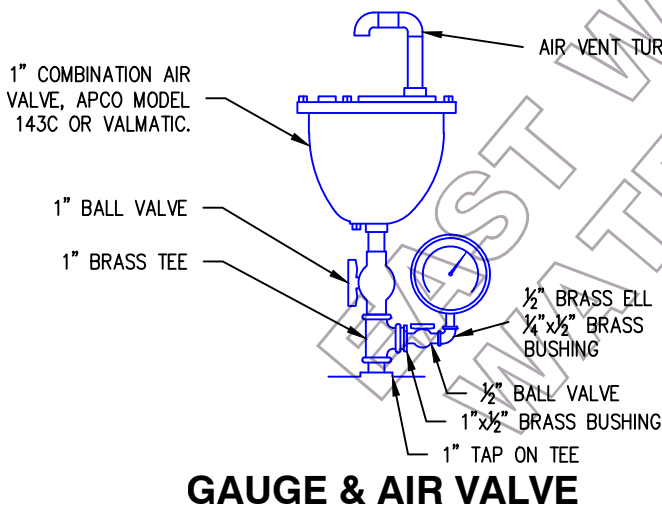


4"x2" PRV STATION

SIZING TABLE

| Main Line | Main PRV | Bypass Line | Utility Vault |
|-----------|----------|-------------|---------------|
| 12" | 8" | 3" | 712-LA |
| 10" | 8" | 3" | 712-LA |
| 8" | 6" | 2" | 612-LA |
| 6" | 4" | 2" | 5106-LA |

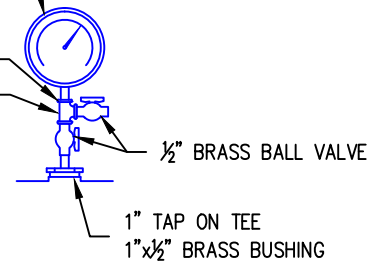
- SEE STD DETAIL W-19 FOR ADDITIONAL STATION INFORMATION.
- PREP ALL SURFACES PER PAINT MANUFACTURER'S INSTRUCTIONS PRIOR TO APPLICATION. REMOVE ALL DIRT, GREASE, SCALE AND RUST. FACTORY COATINGS SHALL BE ROUGHENED TO PROVIDE ADEQUATE PROFILE FOR TOP COATS.
- COAT DI PIPE, FITTINGS AND STEEL FASTENERS WITH POLYIMIDE EPOXY PAINT, 2 COATS AT 5 DRY MILS EACH. COLOR: LIGHT BLUE. PIPE SHALL BE EMPTY DURING COATING.
- COAT VAULT EXTERIOR WITH 20 MIL COAL TAR EPOXY.
- PROVIDE VAULT DRAINAGE EITHER BY:
 - 4" SCH 40 PVC DRAIN TO DAYLIGHT OR STORM SYSTEM, or
 - 2cy DRAIN ROCK SUMP WRAPPED IN FILTER FABRIC OFF TO SIDE OF VAULT, or
 - 120VAC SUMP PUMP WITH 15' OF CORD AND HOSE.
- IF RESTORED SURFACE GRADE IS TO BE GREATER THAN 2%, VAULT LID SHALL INCLUDE ADJUSTMENT RISERS AND/OR SHIMS TO MATCH GRADE.
- ALL BALL VALVES AND CURB STOP SHALL BE FULL-PORT.
- ALL SHACKLE SYSTEMS SHALL BE PER W-07.
- PROVIDE AND INSTALL MASTIC AT ALL VAULT JOINTS



GAUGE & AIR VALVE

PRESSURE GAUGE w/4 1/2" FACE, OVERALL ACCURACY ± 1/2% OF FULL SCALE. RANGE 0-200 psi OR AS OTHERWISE APPROVED BY DISTRICT.

1/2" x 1/4" BRASS BUSHING
1/2" BRASS TEE



GAUGE

NOTES:

- GAUGE & AIR VALVE COMBO SHALL BE INSTALLED ON THE DOWN SLOPE SIDE OF THE PRV (NOT NECESSARILY DOWNSTREAM). IF PIPING DROPS OFF ON EACH SIDE OF PRV THEN GAUGE & AIR VALVE COMBO SHALL BE INSTALLED ON EACH SIDE.
- BRASS NIPPLES NOT CALLED OUT, PROVIDE AS NECESSARY.

(A) 2" BRASS BALL VALVE (THREADED)

(B) 2" BRASS 90° BEND (THREADED)

(C) 2" BRASS TEE (THREADED)
3/4" HOSE BIB

(D) 2" BRASS THREADxSWEAT ADAPTER

(E) 2" COPPER PIPE, LTF

(F) PRESSURE REDUCING VALVE (THREADED) EQUAL TO CLA-VAL, 90G-01ABS. EPOXY LINING, VALVE POSITION INDICATOR, POLY PILOT LINES.

(G) 2" BRASS UNION

(H) STRAINER (THREADED) EQUAL TO WATTS 777S AND BRONZE BALL VALVE FOR BLOW OUT

(I) 4" DI BLIND FLANGE w/2" TAP

USE THREADED BRASS NIPPLES (NOT CALLED OUT) ON BYPASS PIPING. USE CLOSE NIPPLES WHEREVER POSSIBLE.

**East Wenatchee
Water District**



WATER SYSTEM STANDARD DETAIL
**PRESSURE REDUCING STATION
DETAILS**

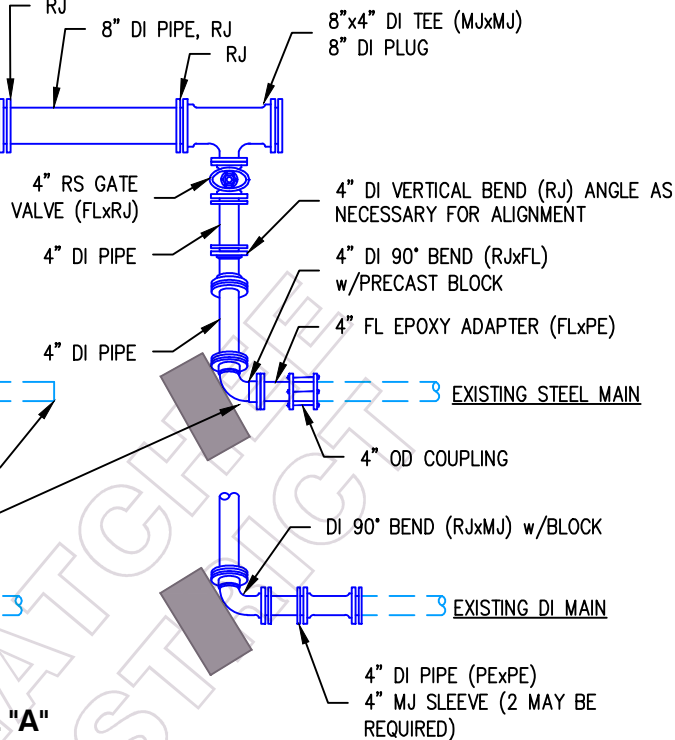
NEW DI TEE, VALVE CLUSTER AND BLOCK

EXISTING MAIN

5' MIN

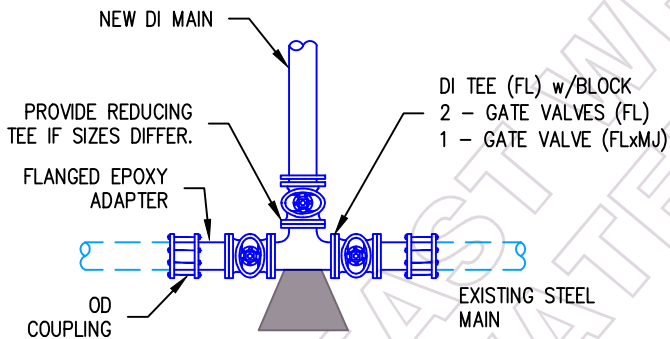
CUT EXISTING BRANCH, PLUG WITH GROUT

option: use FL tee instead of 90° bend

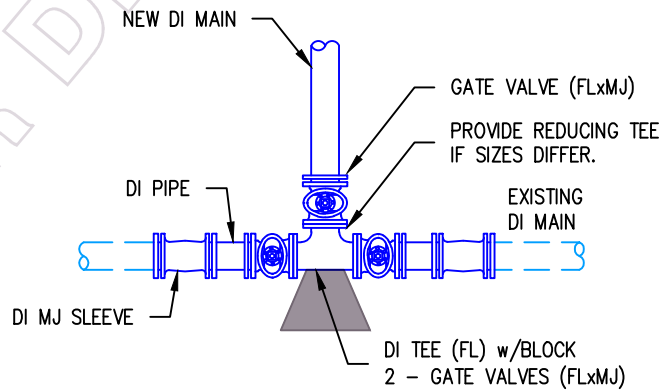


REMOVE VALVE. OR OPTIONALLY, ONLY AT THE DISCRETION OF THE DISTRICT INSPECTOR:
 A) IF MAINLINE TO BE ABANDONED, REMOVE TOP VALVE BOX SECTION, FILL WITH CRUSHED ROCK AND RESTORE SURFACE TO PRIOR CONDITION.
 B) IF MAINLINE TO REMAIN ACTIVE, INSTALL BLIND FLANGE, PLUG OR CAPPED COUPLING IN OUTLET OF VALVE.

DETAIL "A"
CONNECTION TO EXISTING STEEL BRANCH

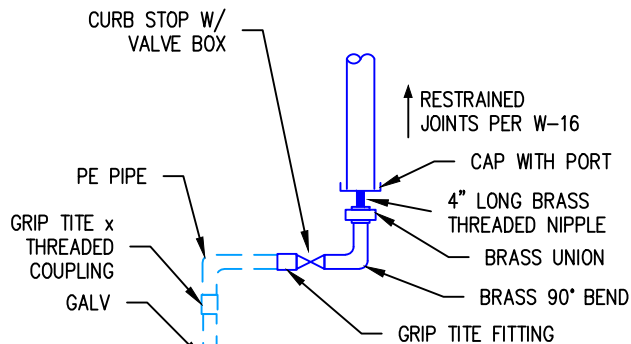


DETAIL "B"
CONNECTION TO EXISTING STEEL MAIN



DETAIL "C"
CONNECTION TO EXISTING DUCTILE MAIN

1. DETAIL "A" ASSUMES EXISTING 4" BRANCH. SIZES SHALL CHANGE TO MATCH ACTUAL PIPE DIAMETER.
2. NEW BRANCH RUN SHALL BE 8" UNLESS OTHERWISE DIRECTED BY DISTRICT.
3. PROVIDE 3 VALVES ON ALL TEES THAT LOOP OR ARE 6 INCHES OR LARGER.
4. COUPLINGS LARGER THAN 3" SHALL BE MINIMUM 10" BARREL LENGTH. CUT PIPE SUCH THAT NO GAP OCCURS BETWEEN NEW AND EXISTING PIPE INSIDE COUPLING. CUT AND INSTALL SPACER PIPE IF GAP LARGER THAN 1/2" OCCURS.
5. RJ = RESTRAINED JOINT: MEGALUGS, FIELD-LOK GASKETS OR DISTRICT APPROVED EQUAL. SEE STANDARD DETAIL W-16.
6. PRE-PRESSURE TEST TEE/CROSS/VALVE ASSEMBLIES BEFORE CUTTING INTO EXISTING MAINS.
7. FLANGED EPOXY ADAPTER IS A FLxPE STEEL SPOOL, EPOXY OR POWDER COATED INSIDE AND OUT. STEEL PIPE TO BE NOMINAL O.D. SIZE (e.g. 6" = 6.0" O.D.). COATING TO BE NSF61 CERTIFIED. SPOOL TO BE 3/16" MIN. WALL THICKNESS.



DETAIL "D"
CONNECTION TO 2" AND SMALLER MAIN

**East Wenatchee
 Water District**



**WATER SYSTEM STANDARD DETAIL
 CONNECTIONS TO
 EXISTING MAINS**

ABANDONMENT AND TERMINATION NOTES

DISTRICT SHALL BE SOLE DETERMINER OF APPROPRIATE ABANDONMENT PROCEDURES AND METHODS. RESTORE ALL DISTURBED SURFACES TO ORIGINAL CONDITION AND TO THE SATISFACTION OF THE DISTRICT. RETURN ALL REMOVED FACILITIES (HYDRANTS, FITTINGS, VALVES, ETC.) TO THE DISTRICT AT THE 15TH STREET SHOP, AT THE DISCRETION OF THE DISTRICT. UNUSABLE EQUIPMENT SHALL BE DISPOSED OF BY THE CONTRACTOR. THE FOLLOWING METHODS ARE APPROVED ABANDONMENT PROCEDURES FOR TERMINATED FACILITIES.

ABANDONED HYDRANTS, SERVICES, BRANCH MAINS, ETC. SHALL BE TERMINATED AT THE FACILITY LOCATION AND AT THE MAINLINE. THE LATERAL SHALL NOT BE LEFT CONNECTED TO THE MAINLINE.

VALVES

1. REMOVE VALVES AND VALVE BOXES. PLUG OR BLIND FLANGE THE WATER MAIN.
2. AN ALTERNATIVE METHOD OF ABANDONMENT IS ACCEPTABLE IF, AT THE DISCRETION OF THE DISTRICT, THE VALVE CANNOT BE REMOVED. PLUG AND CLOSE THE VALVE, THEN REMOVE THE VALVE BOX.

WATER MAINS

1. CUT AND DRAIN THE ABANDONED WATER MAIN WHERE EXPOSED DURING CONSTRUCTION.
2. REMOVE MAINS IN THE WAY OF NEW CONSTRUCTION. SAW CUT AND REMOVE SHORT SECTIONS OF PIPE. MAINS SHALL NOT BE FORCIBLY REMOVED WITH HEAVY EQUIPMENT DUE TO POTENTIAL DAMAGE TO SURROUNDING UTILITIES.
3. MAINS THAT WILL BE TERMINATED BUT NOT ENCOUNTERED DURING NEW TRENCHING MAY BE LEFT IN PLACE, BUT ALL VALVES MUST BE ABANDONED AS DESCRIBED UNDER "VALVES".
4. PLUG ENDS OF ABANDONED MAINS EXPOSED DURING CONSTRUCTION WITH GROUT PLUG, BLIND FLANGE, OR CAP AS DIRECTED BY THE DISTRICT DEPENDING ON THE TYPE OF PIPE AND SOIL CONDITIONS.

WATER SERVICES

1. REMOVE ALL VAULTS, SETTERS AND MISCELLANEOUS FITTINGS. BACKFILL WITH CRUSHED ROCK AND COMPACT. NATIVE SOILS MAY BE USED FOR BACKFILL ONLY IF APPROVED BY THE DISTRICT.
2. CUT SERVICE AT MAIN AND REMOVE STUB FROM CORP STOP. CLOSE AND PLUG CORP STOP.
3. REMOVE ENTIRE SERVICE LINE BACK TO WATER MAIN (EXCAVATE OR PULL).
4. AT THE DISCRETION OF THE DISTRICT, THE SERVICE LINE MAY REMAIN IN PLACE, BUT MUST BE TERMINATED AT THE MAINLINE AS DESCRIBED IN ITEM 2.

HYDRANTS

REMOVE ENTIRE HYDRANT AND ABANDON MAINLINE VALVE AS DETAILED ABOVE. REMOVE ANY BOLLARDS. BACKFILL WITH CRUSHED ROCK, OR NATIVE MATERIAL IF APPROVED BY THE DISTRICT.

**East Wenatchee
Water District**



WATER SYSTEM STANDARD DETAIL

**ABANDONMENT OF
TERMINATED FACILITIES**

Appendix J

WSDOT Special Provisions for Construction

Supplemental Provisions to the 2012 WSDOT/APWA Standard Specifications

1-01 DEFINITIONS and TERMS

1-01.3 Definitions

This section is supplemented with the following

Deleted Section: This section of the Standard Specifications does not apply to this project.

Engineer: RH2 Engineering and its duly authorized representatives.

Equal to: that the 'equal' product be the same or better than the product named in function, performance, reliability, quality, and general configuration. Determination of equality in reference to the project design requirements will be made by the Engineer.

New Section: This section does not appear in the Standard Specifications.

Owner: The East Wenatchee Water District

Replacement Section: Portions of the Standard Specification section are replaced as described herein.

Supplemental Section: The Standard Specification is to be used in its entirety with the addition of the information provided herein.

1-04 SCOPE OF THE WORK

1-04.1(2) Bid Items Not Included in the Proposal

Replace this section in its entirety with the following.

All work that is shown on the plans, described in the specifications, or necessary to complete the work by standard industry practices shall be included the Contractor's bid price in the most closely applicable bid item.

1-04.2 Coordination of Contract Documents

Replace this section in its entirety with the following.

In resolving inconsistencies among two or more sections of the contract documents, precedence shall be given in the following order:

1. Change Orders
2. Addenda
3. Agreement (Contract)
4. Contract Plans
5. Special Provisions
6. Supplemental Provisions
7. Technical Specifications
8. Instructions to Bidders
9. Water District Standard Details
10. General Conditions
11. Local Agency General Special Provisions
12. Amendments to the Standard Specifications
13. Standard Specifications

Figure dimensions on construction drawings shall take precedence over scale dimensions; detailed drawings shall take precedence over general drawings.

1-04.4 Changes

This section is supplemented with the following

The Contractor is responsible for determining all work, scheduling and cost impacts caused by changes, and shall include such in the price and time for the change. No subsequent requests for compensation will be accepted once the change has been approved or the protest period [1-04.5] expires.

1-04.6 Variation in Estimated Quantities

This section is supplemented with the following

If more or fewer materials are needed when the constructed quantity is within $\pm 25\%$ of the bid quantity, costs for restocking of unused materials, or delivery and handling costs on additional materials shall be incidental to the bid price and no additional payment will be made.

The following bid items are not subject to part 2 of this section. A change in quantity, including zero quantity, shall not be cause for unit price adjustment to these or other related bid items. Payment will be made only for actual quantity incurred.

- Traffic Control Labor
- Rock Excavation
- Removal and Replacement of Unsuitable Material
- Extra 2" depth crushed surfacing
- Commercial HMA (all items)

1-04.7 Differing Site Conditions

This section is supplemented with the following

The Contractor is responsible for determining all work, scheduling and cost impacts caused by differing site conditions, and shall include such in the price and time for the change. No subsequent requests for compensation will be accepted once the change has been approved or the protest period [section 1-04.5] expires.

1-04.11 Final Cleanup

This section is supplemented with the following

All areas impacted by the work shall be restored to at least original condition, unless specifically identified otherwise in the plans or specifications. All costs are incidental.

1-04.12 Intermediate Cleanup

This section is new

If an area of the project will be left idle, or minimal work performed for more than two weeks, the Contractor shall clean up the area prior to moving. In this context, clean-up means: stockpiles and materials shall be removed so as not to be obstructions or hazards; surfaces graded smooth as to their purpose; traffic control systems removed and traffic restored to the satisfaction of the local road agency.

1-05 CONTROL OF WORK

1-05.4(1) Roadway and Utility Surveys

This section is replaced in its entirety by *Survey and Easements* in the General Conditions.

1-05.16 Water and Power

This section is supplemented with the following

Cost for water shall not be charged to the Contractor, unless the Owner deems that the Contractor has been wasteful or has used excessive water due to repeated failed testing.

1-05.18 Warranty (New Section)

The CONTRACTOR shall guarantee the improvements for a period of two years from the date of acceptance against defects in the work as described in the construction drawings and project specifications and otherwise set forth in the contract documents. Contractor shall start work to remedy such defects within seven (7) days of mailing notice of discovery thereof by Owner and shall complete such work within a reasonable time. In emergencies where damage may result from delay or where loss of service may result, such corrections may be made by Owner, in which case the cost shall be borne by Contractor. In the event Contractor does not accomplish corrections at the time specified, the work will be otherwise accomplished and the cost of same shall be paid by Contractor. The CONTRACTOR shall be liable for any and all losses resulting there from including actual damages, engineering, inspection, court costs and attorney's fees in the event the same shall be incurred.

1-05.19 As-Built Drawings

The following section is new.

Prior to receiving final payment for the work, the Contractor shall deliver a complete set of acceptable "As-Constructed" records to the Owner. Drawings shall be made on clean, unmarked prints for this project in accordance with the following standards:

| | |
|--------------------------------------|-------------------------|
| <u>yellow</u> markings or highlights | = deleted items |
| <u>red</u> markings | = new or modified items |

The Contractor shall provide "as-built" information on all items and work shown on the plans showing details of the finished product including dimensions, locations, outlines, changes, etc. The information must be in sufficient detail to allow the Owner's personnel to locate, maintain, and operate the finished product and its various components.

The Contractor shall also show size, horizontal and vertical locations of all existing utilities encountered during construction

1-05.19(A) Payment

The following section is new.

"As-Built drawings", lump sum. Payment shall be full payment for all work to provide as constructed markups of the project plans. To promote comparable bidding, a fixed price is set for this bid item. Failure to provide complete and acceptable as-builts may result in reduction of the bid item price or deletion of the bid item.

1-06 CONTROL OF MATERIAL

1-06.1 Approval of Materials Prior To Use

This section is replaced with the following

All materials to be used in the project shall be submitted to the Engineer for approval prior to use. Submittal data for each item shall contain sufficient information on each item to determine if it is in compliance with the contract requirements. Information shall contain, at a minimum (as applicable):

- Material description
- Referenced specification section or plan sheet callout
- Brand name
- Model number
- Options and Accessories
- Applicable standards or codes (AWWA, ANSI, ASTM, UL, etc)
- Limitations or conditions of use
- Working Pressure and Test Pressure ratings
- Test and Performance data

- Manufacturer’s warranty

Submittals that do not meet the requirement of the project plans and specifications, or that do not provide sufficient information for a full review will be returned to the Contractor for re-submittal. Provide **4** (four) sets of submittal information to:

RH2 Engineering, Inc
 300 Simon St. SE, Suite 5
 East Wenatchee, WA 98802
 Attn: Ryan Peterson

2 (two) sets of submittals packets will be returned to the Contractor for their use and/or preparation of O&M manuals.

Submittal information shall be provided for all materials installed on the project, including but not limited to the following:

| | |
|--|--|
| <ul style="list-style-type: none"> • Ductile iron pipe • Ductile iron flanged fittings • Ductile iron mech-joint fittings • Flange gaskets • Restraint systems • Isolation valves • Fire hydrants • Blow offs • Control valves • Air valves • Valve boxes, lids and accessories • Couplings and adapters • Tapping tees | <ul style="list-style-type: none"> • Meter setters • Curb stops and corp stops • Copper and brass pipe • Service brass fittings • Service saddles • Poly pipe • Flow meters • Stainless steel pipe • Meter boxes and lids • Vaults, lids and hatches • Casing pipe • Casing runners and seals • Pressure gauges |
|--|--|

The Owner may, at their discretion, inspect any and all materials. Should the Owner deem any materials defective or not compliant with the design documents, such materials shall be replaced by the Contractor at his expense.

Electronic (email) submittals are acceptable, however no hard copies will be returned to the Contractor.

1-06.1(1) through 1-06.2(2)D

These sections are deleted.

1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC

1-07.17 Utilities and Similar Facilities

This section is supplemented with the following

The Contractor should expect to find live private irrigation systems along the project alignment. Avoidance or repair of any systems located at the time of bid shall be

included in the Contractor's bid price. The Contractor should contact adjacent property owners to determine locations of existing systems within the construction area. Should any irrigation systems be damaged during construction, they shall be repaired by the end of that working day by the Contractor. The Contractor shall have a dewatering pump available at all times to clear the trench should an irrigation line be damaged. Should the new work be filled with water from a line break due to failure of the Contractor to use a pipe plug, no payment will be made for cleaning of the new work. The Contractor shall also have on hand at all times a set of standard repair fittings (glued and compression couplings, bends, and pipe) for ½ inch, ¾ inch, 1 inch, 2 inch, 3 inch and 4 inch PVC and steel pipe. Time to obtain parts in these sizes is incidental. Costs associated with avoidance of irrigation systems located after bid, or repair of systems not located shall be made by force account. The Contractor shall make every effort to quickly and efficiently repair the damaged systems. Time for repairs deemed excessive by the Owner may at the Owner's discretion be excluded from reimbursement.

Lump sum price shown shall cover the complete cost of providing all work necessary for repair of irrigation lines not located at the time of bidding and damaged during construction. Payment shall be made based on time and materials to perform repairs.

1-07.18(1) Public Liability and Property Damage Insurance – General Requirements

This section is supplemented with the following

The making of partial payment to the CONTRACTOR shall not be construed as creating an insurable interest by for the OWNER or as relieving the various CONTRACTORS or their sureties of responsibility for loss from fire or other casualty occurring prior to final acceptance of the work.

1-7.23(1) Construction Under Traffic

This section is supplemented with the following

The Contractor shall prepare and distribute written traffic revision reports to local radio stations and the District. A report shall be prepared and distributed on days when traffic control is to be utilized. The report shall contain the location, time frame, and extent of the traffic revision. The report shall be distributed to KKRT, KKRK, KPQ, KWWW, KXYA, KYSN and KOHO radio stations.

1-08 PROSECUTION AND PROGRESS

1-08.4 Notice to Proceed and Prosecution of the Work

The section is supplemented as follows:

The existing water mains and appurtenances are to remain live through construction except for temporary outages to make connections. All existing mains and appurtenances being replaced shall be abandoned or removed by the Contractor by the end of the project.

No customer may be out of water service for longer than 8-hours at a time. The outage may only occur between 8:00 am and 5:00 pm.

1-08.5 Time for Completion

The section is replaced in its entirety as follows:

REVISE THE THIRD AND FOURTH PARAGRAPHS TO READ:

Contract time shall begin on the first working day following the Notice to Proceed Date. The contract provisions may specify another starting date for contract time, in which case, time will begin on the starting date specified.

Each working day shall be charged to the contract as it occurs, beginning on the day after the Notice to Proceed date, unless otherwise provided in the Contract, until the contract work is complete. If substantial completion has been granted and all authorized working days have been used, charging of working days will cease. Cessation of charging working days does not relieve the Contractor from responsibility for timely completion of the remaining work, nor liability for any costs relating to such delays.

If the Contractor elects to work 10 hours a day and 4 days a week (a 4-10 week), the 4-10 week shall be charged as 5 working days. If the Contractor works the fifth day of a 4-10 week, that day shall be charged as a sixth day. A weekend day or holiday that the Contractor works shall be counted as a working day.

1-08.9 Liquidated Damages

This section is supplemented with the following

The amount of liquidated damages shall be as shown on the Proposal.

The Contractor acknowledges and agrees that the Owner is entitled to recover all of Owner's consulting and attorney fees incurred as a result of any delay or effort to resolve disputes, liens, liquidated damages or any other issues requiring such services which are incurred beyond the normal progression of the contract.

1-09 MEASUREMENT AND PAYMENT

1-09.6 Force Account

Supplement this section with the following.

All schedule related impacts including delays, interruptions and equipment standby associated with force account work up to 125% of the total force account bid item cost shown in the proposal shall be included in the other contract pay items.

1-09.7 Mobilization/Demobilization

Replace this section in its entirety with the following.

Mobilization consists of preconstruction expenses and the costs of preparatory work

and operations performed by the Contractor which occur prior to the performance of the Work described in the contract documents. Demobilization consists of all costs and work associated with removal of equipment and materials, site cleanup, and project closeout, unless such work is specifically identified in other bid items. No more than 70% of this bid item will be paid prior to the final estimate and this bid item may not exceed **10%** of the total bid price.

1-09.14 Attorney Fees

This is a new section.

In the event any action is filed in connection with the Contract, the substantially prevailing party shall be entitled to recover its costs and a reasonable sum for attorney fees. The parties further agree that the substantially prevailing party shall be entitled to recover its costs and a reasonable sum for attorney fees incurred through any Final Order as a result of an Appeal.

1-10 TEMPORARY TRAFFIC CONTROL

1-10.3(3)A Construction Signs

Replace the first sentence of the first paragraph with the following:

All traffic control devices and construction related signs shall be provided by the Contractor.

1-10.4 Measurement

This section is supplemented with the following

The hours eligible for “Traffic Control Labor” will be those hours actually used for traffic control, including any work performed by the Traffic Control Supervisor or use of traffic control vehicles. Traffic control labor will be by the hour for each hour a person is actually performing the work. Traffic Control Supervisor’s time will be included in this measurement.

Replace the fourth paragraph with the following:

Construction Signs will be by Lump Sum. Traffic control vehicles shall be incidental to this bid item with no separate payment.

1-10.5 Payment

This section is supplemented with the following

“Traffic Control Labor,” per hour

Traffic control labor will be by the hour for each hour a person is actually performing the work described in Chapter 1-10, not including furnishing and removing devices to

and from the project. Traffic control supervisor's time will be included in this measurement.

Replace the third paragraph with the following:

“Construction Signs”, lump sum

The lump sum price shall be full pay for all costs for performing the work to furnish, install, maintain, and clean up traffic control devices. Traffic control vehicles are included in this item.

2-07 WATERING

2-07.2 Watering for Compaction

This is a new section.

Contractor shall provide watering as necessary to achieve optimal moisture content for compaction. Cost for watering shall be incidental to the contract. If requested by the Contractor, the Water District will provide a hydrant meter setup for construction water. The maximum flow rate allowed from this meter may be restricted at the District's discretion. The Contractor is responsible for protection of the hydrant meter assembly from theft, vandalism, damage, and freezing.

2-07.5 Payment

This section is deleted for water system construction.

2-09 STRUCTURE EXCAVATION

2-09.4 Measurement

The third paragraph currently reads:

For all pipes, . . . , the Structure excavation quantity will be calculated based on the following trench widths:

. . .

For pipes 15-inches and under, trench width = I.D. + 30-inches.

For pipes 18-inches and over, trench width = (1.5 x I.D.) + 18-inches.

. . .

This paragraph is replaced with the following:

Measurement for pay items related to trench width below subgrade (including removal and replacement of unsuitable material; rock excavation; etc.) shall not exceed a maximum width = pipe O.D. + 36 inches when no shoring or speed shoring is used, or pipe O.D. + 48 inches when box shoring is used.

The measurement for pay items related to the trench width from subgrade to the surface (including crushed surfacing; commercial HMA; paint restoration; etc.) shall not exceed a maximum width = pipe O.D. + 60 inches.

2-09.5 Payment

The following section is replaced in its entirety with the following:

“Shoring or Extra Excavation”, lump sum. Quantity of shoring or extra excavation required shall be determined by the contractor.

4-04 BALLAST AND CRUSHED SURFACING

4-04.3(4) Placing and Spreading

This section is supplemented with the following:

Compacted depth of crushed surfacing shall be 4-inches or matching existing, whichever is greater, but not to exceed 12-inches.

4-04.5 Payment

This section is replaced with the following:

Crushed surfacing is included in the applicable pay items for HMA. No separate payment for crushed surfacing will be made.

5-04 HOT MIX ASPHALT

5-04.3(7)A3 Commercial Evaluation

This section is supplemented with the following:

For pavement patching, the Contractor shall provide Commercial HMA of a gradation equivalent to HMA Class 1/2" or less.

For pavement overlay the Contractor shall provide Commercial HMA of a gradation equivalent to HMA Class 3/8".

The Contractor shall obtain the Engineer's approval prior to changing the source of asphalt binder during the production of HMA. Blending of different asphalt binder grades sources will not be permitted.

5-04.3(8)A Acceptance Sampling and Testing - HMA Mixture

This section is supplemented with the following:

The following HMA will be accepted by commercial HMA evaluation:

Commercial HMA shall be used where shown on the Plans and at the discretion of the Engineer for the restoration of: the area between the back of the new sidewalks and adjacent properties, asphalt sidewalk ramps, driveways, parking lots, paving aprons, and access roads; and for permanent pavement patching.

5-04.3(10)B Control

This section is supplemented with the following:

Testing frequency may be reduced at the Engineer's discretion.

5-04.3(12) Joints

This section is supplemented with the following:

The HMA overlay shall be feathered to produce a smooth riding connection to the existing pavement.

HMA utilized in the construction of the feathered connections shall be modified by eliminating the coarse aggregate from the mix at the Contractor's plant or the commercial source or by raking the joint on the roadway, to the satisfaction of the Engineer.

5-04.3(13) Surface Smoothness

The second sentence of the first paragraph is revised to read:

The completed surface of the wearing course shall not vary more than 1/4 inch from the lower edge of a 10-foot straightedge placed on the surface parallel to centerline.

5-04.3(16) Weather Limitations

This section is supplemented with the following:

The Contractor shall provide temporary drainage to keep the subgrade, crushed base and road surface free from standing water. If the Contractor fails to take such preventative measures, any costs or delay related to drying the surface shall be at his own expense. If the surface becomes saturated, it shall be the responsibility of the Contractor to dry the surface prior to any paving operations.

5-04.4 Measurement

This section is supplemented with the following:

No payment will be made for multiple pavings of the same area if the District deems that the Contractor removed excessive pavement in advance of pipelaying. No payment will be made for resurfacing an area should the cause be due to defective work.

The first paragraph is supplemented with the following:

Where payment is by the ton, the Contracting Agency shall measure all Asphalt Concrete Pavement items by certified weigh tickets. No payment will be made for patching required due to damage of pavement more than 4 feet away from the pipe centerline.

Where payment is by the linear foot of trench, measurement shall be along the trench parallel with the utility installed. Measurement will be made one time on the finished length of the work. Multiple patchings will not receive multiple payments unless the work was directed by the District Inspector. If the bidder believes multiple patchings of the same areas will be required for the work, the bidder shall adjust his unit price accordingly.

Furnishing, placing and compacting crushed surfacing is to be included in the unit price for HMA.

Commercial HMA measured by the lineal foot shall be parallel with the trench, regardless of patch width. Overlap of crossing trenches will be paid in both directions.

5-04.5 Payment

This section is replaced with the following:

“Commercial HMA”, per _____

Cost is full payment for all work related to trench patching. Unit price shall include saw cutting; subgrade preparation; furnishing, placing and compacting crushed rock; preparation of butt joints; complete installation of HMA; adjustment of valve boxes, manholes, catch basins and other features; re-stripping of any damaged or obscured street markings; and all applicable requirements of section 5-04.

“Commercial HMA for mainline”, per ton

Cost is full payment for all work related to patching of trenches for water mains 4-inches and larger, regardless of orientation to the roadway, not including fire hydrant runs. Unit price shall include saw cutting; subgrade preparation; preparation of joints; complete installation of HMA; adjustment of valve boxes, manholes, catch basins and other features; re-stripping of any damaged or obscured street markings; and all applicable requirements of section 5-04.

“Commercial HMA for services and fire hydrant runs”, per ton

Cost is full payment for all work related to patching for water service and fire hydrant trenches. Unit price shall include saw cutting; subgrade preparation; preparation of joints; complete installation of HMA; adjustment of valve boxes, manholes, catch basins and other features; re-stripping of any damaged or obscured street markings; and all applicable requirements of section 5-04.

“Saw cutting for rock excavation”, per lineal foot

Cost is full payment for District approved extra width saw cutting including: mobilize/demobilize personnel and equipment; equipment costs; cutting; clean up; and all other related work.

7-08 GENERAL PIPE INSTALLATION REQUIREMENTS

7-08.3(4) Plugging Existing Pipe

This section is supplemented with the following:

All existing non-functional pipes 3-inch and larger, regardless of original purpose, cut or broken during the course of construction shall be plugged.

7-08.4 Measurement

Paragraph 3 is replaced with the following:

The actual number of existing non-functional pipes in the project vicinity is unknown. Plugging six or less cut ends, regardless of size, shall be incidental to other bid items. Any ends that need plugging over the quantity of six shall be paid for by force account. Time to procure concrete shall be incidental and no extra payment made. The cost for plugging watermains abandoned during this project is to be included in the *Abandonment of Terminated Water Facilities* bid item.

7-09 WATER MAINS

7-09.2 Materials

This section is supplemented with the following

Replace the first sentence of paragraph 2 with the following: If requested by the Owner, the pipe manufacturer shall test all pipe and fittings as required by these Standard Specifications and the standards referenced.

7-09.3(1) Construction Requirements - General

This section is supplemented with the following:

The Contractor shall be required to patch all trenches installed within the existing pavement with Commercial Hot Mix Asphalt to the depth as shown in the plans. Trench patches shall be installed no later than the second Friday following excavation for trenches parallel to the road, and no later than two days following excavation for trenches crossing the road and across intersections.

On trenches parallel to the roadway, the Contractor shall provide and maintain crushed surfacing base course to a smooth and level grade with the existing pavement until patching is complete.

On trenches crossing the roadway or intersections, the Contractor shall provide and maintain asphalt hot or cold mix until final patching is complete.

Temporary patching, regardless of material used, shall be incidental to the project cost. No additional payment will be made.

7-09.3(3) Clearing and Grubbing in Ungraded Streets

This section is supplemented with the following:

Ungraded streets includes unimproved areas.

Replace the last sentence with the following:

Such material shall be disposed of by the Contractor and included in the bid price.

7-09.3(5) Grade and Alignment

Replace the first sentence of the third paragraph with the following:

The depth of trenching for the water main shall be as shown on the Water District standard trench detail, unless superseded by dimension callouts on the plan or profile drawings.

This section is supplemented with the following

Contractor shall pothole ahead of pipe-laying a sufficient distance at utility crossings and where noted on the plans to allow room to make vertical adjustments as necessary to avoid existing utilities. Should the Contractor fail to pothole identified utility crossings, any subsequent adjustments necessary shall not be cause for cost or time claim. If the area potholed is in a travelled area and will be reopened to traffic more than one day in advance of pipelaying through the zone, the hole shall be patched with hot or cold mix, the cost of which shall be incidental.

Any crossing utilities shown on the plans shall be potholed with the cost incidental to the project.

7-09.3(7) Trench Excavation

The third sentence of the second paragraph is replaced with the following:

Trench shall be excavated to a sufficient width to allow for pipe installation, compaction equipment, and shoring when necessary.

Supplement this section with the following:

To reduce the need to restore the same areas multiple times, removal of existing surface improvements in advance of trenching shall be kept to a minimum. No extra payment will be made for any duplicated work performed more than 20 feet in advance of pipelaying.

7-09.3(7)B Rock Excavation

Replace the first sentence of the first paragraph with the following:

Rock excavation shall cover the removal and disposal of rock that requires systematic drilling and blasting for its removal, and also boulders exceeding 1.0 cubic yards. In-situ rock (bedrock) will only be paid for if the rock to be removed exceeds 12 inches depth.

The unit price shall include any extra excavation and surface restoration that occurs if the rock is in boulder form and extends up to 4 feet away from the outside of the pipe as located on the plan.

Should, in the opinion of the Inspector, removal of boulders result in the need to provide additional pavement restoration, such restoration shall be entirely paid for under the unit price of “Commercial HMA with _-inch crushed rock base”.

7-09.3(9) Bedding the Pipe

Replace the first two sentences with the following:

See Water District Standard Trench Detail. District Inspector shall determine if native materials are acceptable for use as bedding. Bedding shall meet the following gradation or as approved by the District Inspector.

| Sieve Size | % Passing by weight |
|-------------------|----------------------------|
| 5/8" square | 50-100 |
| U.S. No. 4 | 20-80 |
| U.S. No. 40 | 3-24 |
| U.S. No. 200 | 10.0 max |
| Sand equivalent | 35 min |

Bedding for restrained joint pipe must be a well graded cohesive material with fines. Rounded gravels are not acceptable.

7-09.3(10) Backfilling Trenches

This section is supplemented with the following:

Trenches shall be backfilled to current working surface. If working surface requires reestablishment of traffic prior to final restoration, Contractor shall confirm with the transportation agency what method of temporary patching is acceptable. Road crossings and intersections must be patched with hot or cold mix asphalt. If temporary crushed rock surfacing is approved by the agency for longitudinal trenching, the upper trench section shall be backfilled with a minimum of 6" depth crushed rock as necessary for traffic. Any temporary patching and continuing maintenance of patching shall be incidental to the work and no additional payment shall be made.

7-09.3(12)A True Restrained Joint Pipe Installation

This section is new.

For _____, only integral restrained joint systems may be used. True Restrained Joint pipe and fittings shall be as described in section 9-30.2(6)A, installed in accordance with the manufacturer's printed specifications and instructions, and to the standards of the AWWA for installing the type of pipe used. The Contractor shall provide tools

and equipment, including any special tools required for installing each particular type of pipe used.

Short lengths of restrained joint pipe supplied by the manufacturer shall be used whenever possible to provide the proper spacing of valves, tees, or special fittings. After a restrained section has been assembled, the joints shall be extended to their full length prior to backfilling. The preferred method for restrained joint pipe installation is to place the fitting or valve first, then lay TRJ pipe away from the fitting or valve. Any cuts necessary to close gaps shall be made on the adjoining standard push-on joint pipe, not on the restrained sections.

7-09.3(15)A Laying Pipe on Curves-Ductile Iron Pipe

Replace the last sentence of the first paragraph with the following:

The amount of deflection at each pipe joint when pipe is laid on a horizontal or vertical curve shall not exceed 3 degrees per joint (11 inches over 18 feet) or the manufacturer's printed recommended deflections, whichever is less.

7-09.3(19)A Connections to Existing Mains

Delete paragraph three, plastic film wrap of couplings is not required.

Supplement the fourth paragraph with the following:

Connections to existing mains may only be performed on Tuesdays, Wednesdays or Thursdays unless permission is otherwise obtained from the District. Connections shall not be performed on District recognized holidays.

Flanged Epoxy Adapters shown on the plans are a FLxPE steel spool, epoxy or powder coated inside and out. Steel pipe is to be nominal O.D. size (e.g. 6" = 6.0" O.D.). Coating shall be NSF61 approved.

7-09.3(21) Concrete Thrust Blocking

This section is supplemented with the following:

Precast concrete blocking is allowed. The surface area of the block must be no less than shown in the District's Standard Detail for horizontal thrust blocking. Blocks shall be ecology-block style or as fabricated by H2 Precast using their EWWD specifications.

7-09.3(22) Blowoff Assemblies

Supplement this section with the following:

Temporary (construction) blowoff assemblies shall be provided as shown on the plans and as required for testing and flushing and shall be incidental to the contract. No separate payment will be made for temporary blowoff assemblies.

7-09.3(23) Hydrostatic Pressure Test

Replace the first sentence with the following:

All water mains and appurtenances (hydrants, service lines, etc) shall be tested in sections of convenient length, under a hydrostatic pressure equal to 250 psi, unless otherwise directed by the District Inspector.

Supplement this section as follows:

The following test method will be used unless otherwise directed by the District Inspector. Length of time for test will be 60 minutes or at the discretion of the District Inspector. Pressure drop shall not exceed 5 psi during a 60 minute period, regardless of water loss quantity. District Inspector shall have the authority to require more stringent criteria if he determines that field conditions warrant such measures. Valve clusters shall be assembled outside of the trench and pressure tested separately prior to installation. All valves which will be installed on or adjacent to existing water mains shall be pre-tested on both sides of the closed valve seat with zero pressure loss. Failing valves shall be replaced at the Contractor's expense.

Pressure gauges shall be in good working order and scaled appropriately for the test. Scale range shall not exceed 160% of the test pressure. For example, for a 250 psi test, the gauge scale shall not exceed $1.6 \times 250 = 400$ psi. The District has the right to reject any gauges that are suspect in their accuracy.

Sections of pipe that cannot be pressure tested, such as connections to the existing system, shall be left exposed for a visual inspection under system pressure.

7-09.3(24) Disinfection of Water Mains

Supplement this section as follows:

Local testing laboratories are not open on Fridays, therefore samples cannot be submitted on Fridays. Contractor shall schedule the work accordingly

7-09.3(24)A Flushing

Supplement this section as follows:

If the existing water system cannot provide the required flow capacity, the contractor shall supply the source of water or shall "pig" the main. All costs shall be incidental. The following table shows minimum exit port sizes for flushing, assuming at least 40 psi is available on the supply side and less than 20 feet of hose is used unless stated otherwise.

| Main size | Flow at 2.5 fps | Blowoff size | Hydrant ports (20 ft or less of hose) | Hydrant ports (up to 100 ft of hose) |
|-----------|-----------------|------------------------------|---------------------------------------|--------------------------------------|
| 8" | 400 gpm | 2" | (1) 2.5" | (2) 2.5" |
| 12" | 900 gpm | (2) 2", or (1) 3" | (2) 2.5" | (1) 4" |
| 16" | 1600 gpm | (4) 2", or (2) 3", or (1) 4" | (2) 2.5" or (1) 4" | (1) 2.5" and (1) 4" |

7-09.3(25) Abandonment of Terminated Water Facilities

The following section is new.

All water mains, hydrants, valves, valve boxes, meter boxes and services terminated during the course of the project shall be removed and/or abandoned in accordance with East Wenatchee Water District Standard Detail W-15.

7-09.4 Measurement

This section is supplemented with the following:

Trench pay width shall be as shown on the District Standard Detail. No additional payment will be made for excavation and backfill of trench widths beyond these pay limits (nor for related quantities such as bedding, paving, crushed rock, import backfill, rock excavation, etc.) unless extra trench width has been specifically directed by the District Inspector.

Add the following sentence to the fourth paragraph:

Measurement of boulders shall be based on the average dimensions of each rock, not on maximum dimensions.

Add the following section.

Plugging pipes [see 7-08.3(4) and 7-08.4] shall be included in the Abandonment of Terminated Water Facilities bid item.

Add the following section.

Measurement for Connections to Existing System shall include all work shown on the plans identified by the note “*Connection Bid Item*”. Fittings, fasteners, blocking, restraints, miscellaneous materials, dewatering, labor and equipment shall be included in the price. Pipe 4-inch and larger that is within this identified area shall be included in the appropriate “Pipe for Water Main” bid item. Valves larger than 2-inch shall be paid for under the appropriate valve bid item. Standby time for draining the existing mains and dewatering shall be included in this price.

Add the following section.

Potholing shall be paid per each exploration hole. If the utility is not found on the first attempt, the Contractor must get prior approval from the Owner prior to making further attempts. No payment will be made for further attempts that have not been approved. If the utility is not found at the depth shown on the plans or as is typical for the type of utility, exploration shall continue no less than an additional 3 feet and no more than 1 foot below the proposed base of watermain trench with the cost incidental to the pay item.

7-09.5 Payment

Replace the following sections in their entirety:

“__ Pipe for Water Main __ In. Diam”, per linear foot

The unit contract price for each size and kind of pipe shall be full pay for all work to complete the installation of the water main including but not limited to pavement saw cutting; excavation; bedding; providing and installing pipe, fittings and thrust restraint; backfill; CDF encasement (where shown on the plans); testing; flushing (including dechlorination); disinfecting; and cleanup. Price includes any surface restoration not specifically identified in other bid items.

“Rock Excavation”, per cubic yard. Cost shall include removal and disposal of rock. Materials and work for import backfill or bedding materials required for replacement of volume lost by removal of rock shall be included in this pay item.

“Removal and Replacement of Unsuitable Material”, per cubic yard. Cost shall include removal and disposal of unsuitable material. Cost for import materials required for replacement of volume lost by removal of unsuitable materials shall be included in this pay item. Import material shall meet the requirements of the material purpose, be it bedding or trench backfill.

7-09.5 Payment

This section is supplemented with the following:

“Abandonment of Terminated Water Facilities”, lump sum. Payment shall be full reimbursement for all work and materials necessary to abandon terminated water facilities. Also included is the cost to remove and dispose of any temporary water systems.

“Connections to existing system”, per each. Payment shall be for connecting the new water system to the existing water system. Included in the price shall be all thrust restraint, coordination with Water District, excavation, line cutting and draining, bedding, backfill, pipe and fittings between proposed main and existing main, disinfection, restoration, and all other work necessary for a complete connection.

“Pipe Bedding”, per ton. If extra import bedding material is required by the District Inspector, payment shall be made per ton based on truck tickets. Payment shall be made only for neat-line trench widths based on District Standard Detail W-03. Payment for bedding and backfill required to fill trench widths beyond neat line measurement will be made only if approved by District Inspector at the time the work is performed.

“Pothole”, per each. Payment shall be full reimbursement for all work to explore for utility crossings identified by Utility Locate, shown on the plans and as directed by the Owner. Work includes setup, traffic control, excavation, measurement and documentation, backfill, temporary patching, cleanup and demobilization.

7-12 VALVES FOR WATER MAINS

7-12.3(1) Installation of Valve Marker Post

Replace this section in its entirety.

Where required by the inspector, to be expected when valves are outside of paved areas, a valve marker post shall be furnished and installed with each valve. Refer to the District Standard Detail.

7-12.3(2) Adjust Valve Box

The following section is new.

All existing water valves within any road improvement area that will remain active at project completion shall have their valve box adjusted flush with finished grade. Any existing valve box components that are broken shall be replaced. If a valve box is blocked with debris, the Contractor shall remove such debris leaving the valve installation in a fully operable condition.

7-12.5 Payment

Replace the last sentence with the following:

The unit contract price per each for the valve specified shall be full pay for all work to furnish and install the valve complete in place on the water main, including trenching, joining, blocking of valve, painting, disinfecting, hydrostatic testing, valve box and accessories, marker post, crushed rock backfill, and operator extension if required.

7-12.5 Payment

This section is supplemented with the following:

“Adjust Valve Box”, per each. The unit contract price per each shall be full pay for all work to adjust existing valve boxes to grade, including providing and installing any risers, adapters or lids necessary for a complete assembly and clearing any obstructed boxes of debris.

“Comb. Air Release/Air Vacuum Valve Assembly __ In.”, per each.

Cost includes all materials, labor and equipment necessary for a complete installation as shown on the plans and details.

7-14 HYDRANTS

Throughout this section, replace the words “Standard Plans” with “Water District Standard Details”.

7-14.1 Description

This section is supplemented with the following:

Refer to Water District Standard Detail for additional requirements.

7-14.3(1) Setting Hydrants (Supplemental Section)

This section is supplemented with the following:

Contractor shall verify required hydrant bury depth for each individual hydrant location prior to ordering hydrants. Bury depth may vary along the project based on topography and water main depth.

7-14.3(2) Hydrant Connections

This section is supplemented with the following:

Refer to Water District Standard Detail if the distance between the auxiliary valve and hydrant is more than 16 feet, thereby requiring more than one stick of pipe.

7-14.3(2)C Hydrant Guard Post

The first sentence is replaced with the following:

Hydrant guard posts shall be constructed at the locations shown on the plans or as directed by the District Inspector.

7-14.3(4) Moving Existing Hydrants

Replace this section in its entirety.

Existing hydrants shall not be reused on this project unless specifically shown otherwise on the plans.

7-14.3(5) Reconnecting Existing Hydrants

Replace this section in its entirety.

Existing hydrants shall not be reused on this project unless specifically shown otherwise on the plans.

7-14.3(6) Hydrant Extensions

This section is supplemented with the following:

Contractor shall determine correct bury depth for ordering hydrants. Hydrant extensions shall be incidental to the contract. No additional payment will be made.

7-14.5 Payment

This section is supplemented with the following:

“Hydrant Guard Post”, per each

The unit price shall be full compensation for providing and installing, complete, each hydrant guard post.

7-15 SERVICE CONNECTIONS

7-15.2 Materials

Replace this section in its entirety.

Refer to Water District Standard Details for construction materials.

7-15.3 Construction Requirements

Replace the first two sentences with the following:

All service connections to water mains shall be made using saddles as shown on the District Standard Details. Direct taps are not allowed.

Replace the first sentence of the second paragraph with the following:

The depth of trenching for service connection piping shall provide a minimum of 3.5 feet of cover over the top of the pipe.

Replace the first sentence of the fourth paragraph with the following:

All existing service connections along the project route shall be reconnected to the new main, unless specifically identified otherwise on the plans or directed otherwise by the District Inspector.

This section is supplemented with the following:

Restore all disturbed surfaces to original conditions or better, including that on private property. Landscaping shall be restored to original condition.

7-15.4 Measurement

This section is supplemented with the following:

Surface restoration shall be incidental to the unit price unless specifically identified under other bid items. Surface restoration includes, but is not limited to: crushed rock; sidewalks; driveways; landscaping; signage; and any other surface improvements disturbed during construction. The flow meter will be purchased and installed by the Water District.

7-15.5 Payment

Replace the pay item in its entirety with the following:

“Service Connection ___ In. Diam.”, per each

The unit contract price per each for “Service Connection ___ In. Diam.” shall be full pay for all work to install the service connection, including but not limited to: pavement and concrete saw cutting; excavating; furnishing and installing all pipe, fittings, valves, setters, saddles and appurtenances, meter vault and lid; tapping the main; connecting to the existing service line on the customer side; backfilling; surface restoration; testing; flushing, disinfection of the service connection; and all other work necessary for a complete service connection.

“Double Service Connection __ In. Diam.”, per each

The unit contract price per each for “Double Service Connection.” shall be full pay for all work to install the double service connection, including but not limited to: pavement and concrete saw cutting; excavating; furnishing and installing all pipe, fittings, valves, setters, saddles and appurtenances, meter vault and lid; tapping the main; connecting to the existing service lines on the customer side; backfilling; surface restoration; testing; flushing, disinfection of the service connections; and all other work necessary for a complete double service connection.

“Relocate Existing Service Connection”, per each

The unit contract price per each shall be full pay for all work to install the service connection, including but not limited to: pavement and concrete saw cutting; excavating; furnishing and installing all pipe, fittings, valves, saddles and appurtenances; tapping the main; relocating the existing vault and setter; connecting to the existing setter on the District side (and customer side if relocated); backfilling; surface restoration; testing; flushing, disinfection of the service connection; and all other work necessary for a complete service connection.

“Reconnect Existing Service Connection”, per each

The unit contract price per each shall be full pay for all work to install a water service line and connect to the District side of the existing meter chamber, including but not limited to: pavement and concrete saw cutting; excavating; furnishing and installing all pipe, fittings, valves, saddles and appurtenances; tapping the main; backfilling;

surface restoration; testing; flushing, disinfection of the service connection; and all other work necessary for a complete service connection. Reuse existing setter and connection to customer service line.

“Service Box Rebuild”, per each

The unit contract price per each shall be full pay for all work to replace the old water service chamber but reusing the existing District service line, including but not limited to: pavement saw cutting; excavating; furnishing and installing all pipe, fittings, valves, setters, appurtenances, meter vault and lid; connecting to the existing service line on the customer side; backfilling; surface restoration; testing; flushing, disinfection; and all other work necessary for a complete rebuild.

“Spare Service Connection”, per each

The unit contract price per each shall be full pay for all work to install a water service for a future connection, including but not limited to: pavement saw cutting; excavating; furnishing and installing all pipe, fittings, valves, saddles and appurtenances; meter vault and lid; tapping the main; backfilling; surface restoration; testing; flushing, disinfection of the service connection; and all other work necessary for a complete service connection. No setter or connection to customer service line.

8-22 PAVEMENT MARKING

8-22.4 Measurement

This section is supplemented with the following:

“Paint and Traffic Loop Restoration” shall be measured as lump sum. Temporary pavement marking is permitted during construction but must be replaced with permanent pavement markings at completion. Markings must be in place prior to reestablishment of traffic each day. If traffic signal loops or home runs are damaged during construction, they shall be replaced in their entirety back to the nearest j-box or cabinet.

8-22.5 Payment

This section is supplemented with the following:

“Paint and Traffic Loop Restoration”, lump sum. Price includes providing temporary and permanent marking to replace any existing markings damaged, removed or obscured during construction. Price also includes replacement of any traffic signal loops and home runs damaged during construction.

9-06 STRUCTURAL STEEL AND RELATED MATERIALS

9-06.20 Utility Vault Hatch

This section is new:

Vault hatches shall be aluminum or galvanized steel frame and door(s), H20 rated with the following components: diamond plate surface; spring assist opening; stainless steel hinges and hardware; recessed padlock hasp with cover; channel frame for water collection; frame drain connection; slam lock with un-keyed interior operator to prevent accidental entrapment; full open clear space with no intermediate bracing; door hold-open locking arm or 180 degree swing. Provide hold-open locking arm and welded handhold rungs on bottom of door if shown on plans. Any aluminum in contact with concrete shall be coated with an appropriate corrosion protective coating prior to installation. Hatches, locks and operators shall operate freely with no binding. Plumb hatch frame drain to vault drain using Sch 40 PVC, secured to walls and ceiling.

9-30 WATER DISTRIBUTION MATERIALS

9-30.1 Pipe

This section is supplemented with the following:

Only domestic made ductile iron and steel pipe are allowed. Pipe and fittings larger than 2 inch shall be of Ductile Iron construction, unless otherwise shown on the plans or details.

9-30.1(1) Ductile Iron Pipe

This section is supplemented with the following:

All pipe shall have a wall thickness at least equal to Class 50 unless a higher Class is shown on the plans or details. Pipe for fire hydrant runs shall have a wall thickness at least equal to Class 52.

9-30.1(4)B Steel Pipe (4 Inches and under)

Replace this section in its entirety.

Steel pipe 4 inches in diameter and smaller shall be per ASTM A53, be hot-dip galvanized inside and out, and wrapped with factory installed protective tar sheeting or District approved coating.

9-30.1(6) Polyethylene (PE) Pressure Pipe (4 Inches and Over)

Replace the last two sentences with the following.

Pipe diameter and pressure class shall be as shown on the plans.

9-30.2(1) Fittings - Ductile Iron Pipe

This section is supplemented with the following:

All gaskets for flanged fittings shall be ring type. Full face type gaskets are not allowed. Gaskets must be minimum 1/8" thick. Only domestic made ductile iron fittings are allowed.

9-30.2(6) Restrained Joints

Replace the first sentence with the following:

Refer to Water District Standard Detail for acceptable restrained joint systems. Bolted systems are not allowed.

9-30.2(6)A True Restrained Joints

The following section is new.

True Restrained Joint System shall be *Griffin Snap-Lok, US Pipe TR-Flex*, or approved equal. Cutting of true restrained joint pipe and use of "field-kits" shall only be allowed where approved by the District inspector.

Manufacturer of system shall determine the correct restrained pipe lengths based on plan callouts. Pipe lengths shown on the plans are measured between the centers of fittings. Manufacturer shall fabricate pipe lengths to account for this method of measurement.

Under no circumstances shall restrained pipe lengths be less than that called out on the plans or details.

9-30.3(1)A Gate Valves (14 Inches and Larger)

The following section is new:

Gate valves 14-inches and larger shall be installed horizontally with right angle gear case. Valves 16-inches and larger shall be equipped with 2 inch gate valve bypass system.

9-30.3(3) Butterfly Valves

Replace this section in its entirety.

Butterfly valves: tight-closing rubber seat type, with 150 psi working pressure rating. Valves must meet full requirements of AWWA Standard C504. Valve bodies: cast iron ASTM A-126 Class "B." Provide valve disc constructed of cast iron ASTM A48, Class 40, or ductile iron ASTM 536, Grade 65-45-12. The disc seating edge shall be solid stainless steel. Sprayed mating seat surfaces are not acceptable. The seat shall be of Acrylonitrile-Butadiene. Valve bearings shall be sleeve-type, corrosion-resistant, and conform to AWWA C504 standards. Valve bearings shall be

of traveling nut type and shall open left. Valve components shall withstand an input torque of 300 foot-pounds without damage. Wetted surfaces (other than stainless steel or rubber) shall be epoxy lined. Butterfly valves: M&H Style 4500, or approved equal. Provide valves equipped with AWWA 2 inch wrench nut for buried applications or hand wheels for exposed locations.

9-30.3(4) Valve Boxes

This section is supplemented with the following:

Refer to Water District Standard Detail for additional requirements.

9-30.3(5) Valve Marker Posts

Replace this section in its entirety.

Refer to Water District Standard Detail.

9-30.3(6) Valve Stem Extensions

This section is supplemented with the following:

Refer to Water District Standard Detail for additional requirements.

9-30.3(7) Combination Air Release/Vacuum Valves

This section is supplemented with the following:

Refer to Water District Standard Detail for additional requirements.

9-30.3(8) Tapping Sleeve and Valve Assembly

Replace the last three sentences with the following.

Valves shall meet the requirements of AWWA C509 or C515. Tapping valves shall be of the same type as other valves on the project. Sleeves shall be stainless steel unless specifically called out otherwise on the plans.

9-30.6(1) Saddles

Replace this section in its entirety.

Refer to Water District Standard Details.

9-30.6(3)B Polyethylene Tubing

Replace this third paragraph with the following.

Tubing used for 2 inch and smaller shall be SDR9 CTS (copper tube size).

9-30.6(4) Service Fittings

This section is supplemented with the following:

Fittings for polyethylene tubing shall utilize Ford Grip-Tite, Mueller 110, or approved equal. Pack-joints are not allowed.

9-30.6(5) Meter Setters

Replace this section in its entirety.

Refer to Water District Standard Details.

9-30.6(7) Meter Boxes

Replace this section in its entirety.

Refer to Water District Standard Details.

Appendix K

City and County Municipal Codes

Douglas County – Excerpts from the Municipal Code

Chapter 8.04

NOISE

8.04.090 Maximum noise levels.

No person shall cause or permit noise to intrude into the property of another person which noise exceeds the maximum permissible noise levels set forth as follows in this section, with the point of measurement being at the property boundary of the receiving property or anywhere within. The noise limitations established are as set forth in the following table after any applicable adjustments provided for in this chapter are applied:

Table 8.04.090

MAXIMUM PERMISSIBLE ENVIRONMENTAL NOISE LEVELS

| EDNA of Noise Source | EDNA of Receiving Property | | |
|----------------------------|----------------------------|---------|---------|
| | Class A | Class B | Class C |
| Class A | 55 dBA | 57 dBA | 60 dBA |
| Class B | 57 | 60 | 65 |
| Class C | 60 | 65 | 70 |

(Ord. dated 8/27/79 § 5.1)

8.04.100 Deviations from noise levels.

The following deviations from the maximum permissible noise levels are permitted:

- A. Between the hours of ten p.m. and seven a.m. the noise limitations of Table 8.04.090 shall be reduced by ten dBA for receiving property within class A EDNAs.
- B. At any hour of the day or night the applicable limitations in Table 8.04.090 and the nighttime restrictions of subsection A of this section may be exceeded for any receiving property by no more than:
 - 1. Five dBA for a total of fifteen minutes in any one-hour period; or
 - 2. Ten dBA for a total of five minutes in any one-hour period; or
 - 3. Fifteen dBA for a total of 1.5 minutes in any one-hour period. (Ord. dated 8/27/79 § 5.2)

8.04.110 Daytime exemptions.

The following shall be exempt from the provisions of Section 8.04.090 between the hours of seven a.m. and ten p.m.:

- D. Sounds created by the installation or repair of essential utility services;

E. Sounds created by blasting. (Ord. dated 8/27/79 § 5.3)

8.04.120 Nighttime exemptions.

The following shall be exempt from the provisions of Section 8.04.100(A):

A. Noise from electrical substations and existing, stationary equipment used in the conveyance of water by a utility.

Title 12

ROADS AND BRIDGES

Chapter 12.20

ACCOMMODATION OF UTILITIES ON ROAD RIGHTS-OF-WAY

12.20.010 Purpose.

The purpose of this chapter is to establish a county policy to provide administrative and procedural guidance needed to accommodate the installation and relocation of all above and below ground utilities which are located within the county road right-of-way. (Ord. PW 94-01-84B § 1.)

12.20.020 Application of provisions.

This policy shall apply to all new franchises and permits issued pursuant to RCW 80.32.010, RCW 80.36.040 and RCW 36.55, to all public and private utilities, and to all installation and relocation of utilities within the county road right-of-way, including but not limited to electric power, telephone, television, telegraph, communication, water, gas, all petroleum products, steam, chemicals, sewage, drainage, irrigation, and similar pipes, lines or cables.

This policy cannot address all situations and conditions that may be encountered. Specific provisions contained herein may not be appropriate for all locations and existing conditions. The policy is intended to assist, but not substitute for, competent work by both road and utility design and installation professionals. This policy is not intended to limit any innovative or creative effort which could result in better quality, better cost savings or improved safety characteristics.

It shall be the responsibility of any utility installing or relocating any of its facilities to ascertain and abide by the requirements and conditions of this policy. (Ord. PW 94-01-84B § 2.)

12.20.030 Definitions.

Unless otherwise stated, words and phrases used herein shall have the following meanings:

“Appurtenance” means equipment and/or accessories which are a necessary part of an operating utility system or subsystem.

“Backfill” means replacement of excavated material with suitable material compacted as specified.

“Boring” means grade and alignment-controlled mechanical or other method of installing a pipe or casing under a road without disturbing the surrounding medium.

“Carrier” means a pipe directly enclosing a transmitted fluid or gas.

“Casing” means a larger pipe enclosing a carrier for the purpose of providing structural or other protection to the carrier and/or to allow for carrier replacement without re-excavation, jacking or boring.

“Coating” means protective material applied to the exterior of a pipe or conduit to prevent or reduce abrasion and/or corrosion damage.

“Conduit” means an enclosed tubular runway for protecting wires or cables.

“Cover” means depth to top of pipe, conduit, casing or gallery below the grade of a road or ditch.

“Drain” means appurtenances to discharge accumulated liquids from casings or other enclosures.

“Encasement” means structural element surrounding a pipe or conduit for the purpose of preventing future physical damage to the pipe or conduit.

“Franchise” means occupancy and use document granted by the county required for occupancy of road rights-of-way in accordance with RCW 36.55 and RCW 80.32.

“Gallery” means underpass for two or more utility lines.

“Manhole” means an opening in an underground utility system into which workers or others may enter for the purpose of making installations, inspections, repairs, connections, cleaning and testing.

“Pavement” means the combination of sub-base, base course, and surfacing placed on a subgrade to support the traffic load and distribute it to the subgrade.

“Permit” means a document issued under the authority of: (1) the county engineer (or public works director); and/or (2) a franchise granted by the county’s legislative authority. The permit provides specific requirements and conditions for specific utility work at specific locations within the right-of-way.

“Pipe” means a structural tubular product designed, tested and produced for the transmittance of specific liquids and gases under specific conditions.

“Plowing” means direct burial of utility lines by means of a plow-type mechanism which breaks the ground, places the utility line at a predetermined depth, and closes the break in the ground.

“Pressure” means internal gage pressure in a pipe in pounds per square inch, gage (psig).

“Private lines” means privately owned, operated and maintained utility facilities devoted exclusively to the use of the owner.

“Relocation” means planned change of location of an existing facility to a more advantageous place without changing the character or general physical nature of the facility.

“Replacement” means installation of a like element of a utility system or subsystem in the same or near-same physical location normally due to damage, wear or obsolescence of the element.

“Restoration” means all work necessary to replace, repair or otherwise restore the right-of-way and all features contained within to the same or equal condition as before any change or construction thereto.

“Right-of-way” means a general term denoting public land, property or interest therein, usually in a strip, acquired for or devoted to transportation or secondary purposes.

“Road (or roadway)” means a general term denoting a street, road or other public way, including shoulders, designated for the purpose of vehicular traffic.

“Sleeve” means short casing through a pier, wall or abutment of a highway structure.

“Traffic control” means those activities necessary to safeguard the general public, as well as all workers, during the construction and maintenance of utility facilities within the right-of-way.

“Trenched” means installation of a utility in an open excavation.

“Untrenched” means installation of a utility without breaking the ground or pavement surface such as by jacking or boring.

“Vent” means appurtenance to discharge gaseous contaminants from casings or other enclosures. (Ord. PW 94-01-84B § 3.)

12.20.040 General conditions and requirements.

A. Location.

1. Utility installations shall be located to minimize need for later adjustment to accommodate future roadway improvements and to permit access to servicing such installations with minimum interference to roadway traffic. Counties shall make available to utilities a copy of their six-year transportation improvement program (or capital facilities and transportation plan where required,) in order to minimize both utility customer and road user inconvenience should future road improvements (on existing or new alignment) require adjustment or relocating of the utility facilities. Said utilities shall, within the limits of standard business practice, make available appropriate short and long range development plans to the county.

2. Unless otherwise approved by the county, all aboveground utilities and their appurtenances as well as all aboveground appurtenances of below-ground utilities that may constitute a roadside obstacle for traffic using the road shall be located as close as practicable to the edge of the right-of-way line. Utility objects located within the control zone in the following areas are normally considered roadside obstacle: (Examples are as follows)

- a. Outside of horizontal curves where advisory sign speeds for the curve are fifteen or more mph below the posted speed limit of that section of roadway;
- b. Within the turn radius of public grade intersections (further defined as the quadrant area from the center of the circle connecting the tangents of the edge of the traveled way of the county roadway and intersecting streets or roads);
- c. Where a barrier or embankment, rock outcropping, ditch or other roadside feature may direct a vehicle into a utility object;
- d. Closer than five feet horizontal beyond the edge of the usable shoulder.

If an appurtenance within the right-of-way would constitute an unacceptable roadside obstacle, said obstacle may be:

- i. Relocated to another place within the right-of-way,
- ii. Converted to a break-away design,

iii. Crash-protected, or

iv. Relocated to another location off the road right-of-way.

4. Where existing facilities are in place, new facilities shall be compatible with the existing installations and conform to this policy as nearly as practicable.

B. Design--General.

1. The utility shall be responsible for the design of the utility facility being proposed. This responsibility shall include, in addition to the integrity of the proposed utility facility, provisions for public safety during the course of construction, as well as consideration of traffic safety and accident potential for the life of the installation.

2. For work requiring a permit as defined in Section 12.20.050A, the county may review and approve the utility's plans with respect to:

a. Location;

b. The manner in which the utility facility is to be installed;

c. Measures to be taken to preserve safe and free flow of traffic;

d. Structural integrity of the roadway, bridge or other structure;

e. Ease of future road maintenance, and appearance of the roadway.

3. Provision shall be made for known or planned expansion of the utility facilities, particularly those located underground or attached to bridges or other structures within the right-of-way.

4. Granting of a franchise or permit shall not imply or be construed to mean the county shall be responsible for the design, construction or operation of the facility or for public safety during the facility's installation, operation or maintenance.

C. Standards and Codes. All utility installations shall be designed in accordance with the standards, codes and regulations applicable to the type of utility. The methods of installation and materials used shall conform to the codes and standards promulgated by government and by the industry. This shall also include any road design standards which the county shall deem necessary to provide adequate protection to the road, its safe operation, appearance and maintenance.

D. Adjustment and Relocation of Existing Facilities.

1. Existing underground utilities on county road right-of-way may be removed or relocated when road work funded by the county would disturb the existing underground utility. All such removal or relocation shall be at the sole expense of the owning utility and all work must be accomplished by the same permitting process as for new installations.

2. Notwithstanding reinforcement or protection otherwise provided, a permittee shall be responsible for the security of each existing pipeline and utility within a road construction zone. Where there are unusual utility hazards or where heavy construction equipment will be used, the permittee shall provide adequate temporary protection. In replacing the roadway, the design should give due consideration to the protection of previously existing utilities in the roadway section without sacrificing the geometrics of roadway design. (Ord. PW 94-01-84B § 4.)

12.20.050 Permits.

A. General Requirements. For work consisting of any subsurface work, including relocation, upgrading existing service, new service, and work not authorized by franchise, comprehensive plan, or other agreement, a written permit may be required for occupancy of road right-of-way by all utility facilities, including private lines. No facility shall be used for other than the purpose stated, unless written approval is granted by the county.

B. Specific Requirements. When required, permit applications shall be submitted in a standard format as prescribed by the county. The permit application shall include the following information:

1. Agreement to all pertinent provisions of this policy and to such special conditions as the county may deem appropriate;
2. Description of the facilities to be installed;
3. Adequate exhibits depicting existing or proposed location of the facility in relation to the road, including right-of-way or easement lines; relationship to currently planned road revisions, if applicable; and all locations and situations for which deviations in depth of cover (including the proposed method of protection) or other locational standards are anticipated. (Ord. PW 94-01-84B § 5.)

12.20.060 Specific requirements— Underground utilities.

A. Underground Utilities--Location and Alignment.

1. For all crossings, the angle of crossing should be as near a right angle to the road centerline as practicable. However, lesser angles may be permitted based upon economic considerations of practical alternatives.
2. Where practicable, crossings should avoid deep cuts, footings of bridges and retaining walls, or locations where highway drainage would be affected.
3. Longitudinal installations should run parallel to the roadway and lie as near as practicable to the right-of-way line. Installations which cannot be so installed will be allowed within the right-of-way; provided, that:
 - a. The installation will not adversely affect the design, construction, stability, structural integrity, traffic safety or operation of the road facility; or
 - b. Failure to allow such installation will create an undue hardship or financial burden upon the utility.
4. Where irregularly shaped portions of the right-of-way extend beyond the normal right-of-way limits, a uniform alignment of facilities shall be allowed.

B. Underground Utilities--Cover. The grade of and resulting cover for an underground utility shall be in compliance with applicable federal, state and county requirements unless otherwise specified.

C. Underground Utilities--Encasement.

1. Casings shall be installed for roadway crossings where required by appropriate industry code.
2. Casings may be required for the following conditions:
 - a. As an expediency in the insertion, removal, replacement or maintenance of a carrier line crossing or other locations where it is necessary in order to avoid open trench construction;
 - b. As protection for carrier lines from external loads or shock either during or after construction of a road;

c. For jacked or bored installations of coated carrier lines unless assurance is provided to the county that there will be no damage to the protective coating.

3. Within the road right-of-way, where practicable, casing pipes shall extend beyond the toe of fill slopes, back of roadway ditch, or outside of curb.

4. Other than for necessary vents and/or drains, casing pipes shall be sealed at both ends.

5. Casing pipes shall be designed to support the load of the road and superimposed loads thereon and, as a minimum, shall equal the structural requirements for road drainage facilities. Casings shall be composed of materials of sufficient durability to withstand conditions to which they may normally be exposed.

D. Underground Utilities--Uncased Carriers.

1. The carrier pipe shall conform to the material and design requirements of the appropriate utility industry and governmental codes and specifications.

2. The carrier pipe shall be designed to support the load of the road, plus superimposed loads thereon, when the pipe is operated under all ranges of pressure from maximum internal to zero pressure.

E. Underground Utilities--Appurtenances.

1. Vents shall be required for casings, tunnels and galleries enclosing carriers of fuel where required by federal safety standards. Vent standpipes should be located and constructed so as neither to interfere with maintenance of the road nor to be concealed by vegetation. Preferably standpipes should stand by a fence or on the right-of-way line.

2. Drains shall be required for casings, tunnels or galleries enclosing carriers of liquid, liquified gas or heavy gas. Drains for carriers of hazardous materials shall be directed to natural or artificial holding areas to prevent the potential for surface or ground water contamination. Drains for which only water or other nonhazardous liquids may discharge may be directed into the roadway ditch or natural water course at locations approved by the county. The drain outfall shall not be used as a wasteway for routine purging of the carrier unless specifically authorized by the county.

3. Location markers and emergency information should be used when required by applicable state and federal standards.

4. Manholes should be designed and located in a manner that will cause the least interference to other utilities or future road expansion. Where practicable, installations in the pavement or shoulders should be avoided.

F. Underground Utilities--Installation. Installations shall ensure safety of traffic and preservation of the roadway structure, and required construction shall, unless otherwise provided in the approved permit, be in accordance with the following controls:

1. Trenched construction and backfill:

a. Where the pavement must be removed, it first shall be cut in vertical (or undercut) continuous straight lines.

b. Trenches shall be cut to have vertical faces, where soil and depth conditions permit, with a maximum width of outside diameter of pipe plus two feet. Shoring shall comply with the Washington State Department of Labor and Industries Safety Code.

c. The pipe or carrier shall be installed and the trench backfilled in a manner assuring no deformation of the pipe likely to cause leakage and restoration of the structural integrity of the roadway structure. Specific trench backfill requirements regarding materials and methods shall be provided by the county.

d. When trenching is approved on paved roads, the pavement shall be restored as required by the county. Minimum county standards shall be used in all trench excavation.

e. When disturbing a road surface prior to the established quarter life expectancy as described as follows:

i. Newly constructed and or overlaid roads, five years from completion.

ii. Seal coated roads, 2.5 half years from completion. The individual or utility will have one of three options:

(A) No not disturb the road surface until the established quarter life is complete;

(B) Bore or jet the necessary crossing under the road surface a minimum depth of thirty inches;

(C) Saw a neat line cut and remove pavement. Restore with appropriate sub grade materials and patch with a minimum two and one-half inches in depth of A.C.P. surfacing. All trenches will require a minimum thirty-six inches of width and will require a minimum one-inch overlay of A.C.P. class G surfacing. Patches running parallel with the roadway will require paving the entire lane to centerline. Patches transverse to a roadway will require a overlay within the entire lane to centerline and a transition of at least ten feet on either side of the patch.

Any emergency need to cross or disturb a roadway will be required to follow subdivisions (e)(ii)(A), (B) or (C) of this subsection.

All patching and paving requirements will follow guidelines as described in Section 5.04 of the current D.O.T standard specifications book for road, bridge and municipal construction.

2. Untrenched construction may be required for pipelines crossing roads paved with asphalt concrete or cement concrete and for roads paved with bituminous surface treatment when directed by the county.

a. If sufficient right-of-way exists, the length of untrenched construction shall extend a minimum of four feet from edge of pavement, except that a lesser standard may be permitted by the county engineer where conditions warrant.

b. Overbreaks, unused holes or abandoned casings shall be backfilled as directed by the county engineer.

c. Water boring under roadways will not be permitted in diameters greater than one inch.

d. Existing carriers and conduit installed under a roadway may be physically located prior to pipeline installation.

3. Plowing of communication and electrical lines on or adjacent to existing roads by means of a vibratory plow may be allowed by the county; provided, that the structural integrity of the roadway is not impaired.

G. Underground Utilities--One Call System. Utility facilities shall be located and identified in accordance with Title 19 RCW, Chapter 19.122, Sections 19.122.010 through 19.122.900 (Washington State One Call System). (Ord. PW 94-01-84B § 6.)

12.20.080 Installations on roadway bridges and structures.

Attachment of utility lines to a roadway structure (including bridges) may be allowed where such attachment conforms to sound engineering considerations for preserving the roadway structure and its safe operation, maintenance and appearance. The attachment shall be in accordance with the following:

- A. Attachment of a utility shall not be considered unless the structure in question is of a design that is adequate to support the additional load and can accommodate the utility facility without compromise of highway features, including reasonable ease of maintenance.
- B. Manholes and other utility access panels should be avoided within the roadway portion of the structure.
- C. Attachment on a structure of a pipeline carrying a hazardous transmittant shall be avoided where practicable.
- D. The utility attachment shall not reduce the clearance of a structure where such clearance is critical. Attachment to the outside of a structure should be avoided where there are reasonable alternatives.
- E. Utility mountings shall be of a type which shall not create noise resulting from vibration.
- F. The hole created in a structure abutment shall be sleeved, shall be of the minimum size necessary to accommodate the utility line, and shall be sealed to prevent any leakage of water or backfill material.
- G. The utility line back of the abutment shall curve or angle out to align outside the roadbed area in as short a distance as is operationally practicable.
- H. Communication and electrical power line attachments shall be suitably insulated, grounded and preferably carried in protective conduit or pipe from point of exit from the ground to re-entry. Carrier pipe and casing pipe shall be properly isolated from electric power line attachments. (Ord. PW 94-01-84B § 8.)

12.20.090 Preservation, restoration and cleanup.

- A. The size of disturbed area necessary to install a utility shall be kept to a minimum.
- B. Restoration methods shall be in accordance with the specifications of the county maintaining an original or better than original condition and/or special provisions of the franchise, permit or agreement.
- C. Unsatisfactory restoration work shall be promptly corrected by the utility. If necessary, unsatisfactory restoration work may be corrected by the county and billed to the utility. (Ord. PW 94-01-84B § 9(A).)

12.20.100 Traffic control and public safety.

- A. Traffic controls, including detours for all utility work, shall conform with the currently applicable "Manual on Uniform Traffic Control Devices for Streets and Highways."
- B. All construction and maintenance operations shall be planned to keep interference with traffic to a minimum. On heavily traveled roads, construction operations interfering with traffic should not be scheduled during periods of peak traffic flow. Work shall be planned so that closure of intersecting streets, road approaches, or other access points is held to a minimum.
- C. Adequate provision shall be made to safeguard any open excavation, and shall include barricades, lights, flaggers or other protective devices as may be necessary.

D. The storage of materials on through roadways shall not be allowed, and parking of vehicles on through roadways shall be kept to a minimum. (Ord. PW 94-01-84B § 9(B).)

12.20.110 Emergency repairs.

A. All utility facilities shall be kept in a good state of repair. Emergency repairs shall be undertaken in a timely manner.

B. If emergency repairs disturb the right-of-way, such repairs may be immediately undertaken and the right-of-way restored. Approval as to the manner of final restoration of the right-of-way shall be secured from the county in a timely fashion. (Ord. PW 94-01-84B § 9(C).)

Chapter 12.52

DESIGN CRITERIA FOR ROADS AND STREETS

12.52.060 New utilities.

A. Location of Utilities—Underground.

1. Underground utilities to be installed within the right-of-way on new roads (or on roads where existing topography, utilities or storm drains are not in conflict) shall be located as shown in Figures 3-10 and 3-11 at the end of this chapter. Where existing utilities or storm drains are in place, new utilities shall conform to these standards as nearly as practicable and yet be compatible with the existing installations. Utilities to be installed outside the road right-of-way shall be installed within a designated utility easement and shall meet the installation requirements of the utility.

2. Gravity systems, whether sanitary or storm drainage, shall have precedence over other systems in planning and installation except where a nongravity system has already been installed under previous approved permit and subject to applicable provisions of such permits or franchises.

3. Individual water service lines shall:

a. Be placed with minimum thirty-six-inch cover from finished grade, ditch bottom or natural ground.

b. Use road right-of-way only as necessary to make side connections.

c. For any one connection, not extend more than sixty feet along or through the right-of-way, or the minimum width of the existing right-of-way.

d. Water meter boxes, when placed or replaced, shall be located on the right-of-way line immediately adjacent to the property being served, unless otherwise approved by the county engineer. Meter box locations within the right-of-way may be approved by the county engineer based on site conditions that make routine service access difficult or impractical.

4. Sanitary Sewers.

b. Sanitary and water lines shall be separated in accordance with good engineering practice such as the Criteria for Sewage Work Design, Washington Department of Ecology, latest edition.

5. Service Connections—All. Mains and service connections to all lots shall be completed prior to placing of surface materials.

6. Materials and Installation—All. All underground utilities shall utilize materials and be installed in conformance with the requirements of the particular utility standards.

12.52.070 Connections to existing utilities.

Typically, new utility installations, both underground and overhead, constructed in conjunction with land development require a connection to existing utilities. Where such connections must utilize existing county right-of-way, the connection must be performed in accordance with DCC Chapter 12.20, Accommodation of Utilities on Road Rights-of-Way. (Ord. TLS 13-11-40B Exh. B (part); Ord. TLS 09-11-49E (Exh. B) (part); Ord. TLS 04-02-30B Exh. A (part))

Title 15

BUILDINGS AND CONSTRUCTION

Chapter 15.08

STATE CODES, INTERNATIONAL CODES AND THE UNIFORM PLUMBING CODE ADOPTED

15.08.010 Adoption by reference.

A. The following codes, as amended by the Washington State Building Code Council pursuant to RCW 19.27.074, are hereby adopted for the purpose of establishing rules and regulations for the construction, alteration, removal, demolition, equipment, use and occupancy, location and maintenance of buildings and structures, including permits and penalties:

1. The International Building Code published by the International Code Council (ICC), with the appendices and amendments set forth in Chapter 51-50 WAC as the same now exists or may hereafter be amended.
2. The International Residential Code published by the International Code Council (ICC), with the appendices and amendments set forth in Chapter 51-51 WAC as the same now exists or may hereafter be amended.
3. The International Mechanical Code published by the International Code Council (ICC), with the appendices and amendments set forth in Chapter 51-52 WAC as the same now exists or may hereafter be amended.
4. The International Fire Code published by the International Code Council (ICC), with the appendices and amendments set forth in Chapter 51-54A WAC as the same now exists or may hereafter be amended. The following appendices are specifically adopted:
 - a. Appendix B, Fire Flow for Buildings;
 - b. Appendix C, Fire Hydrant Locations and Distribution;
 - c. Appendix D, Fire Apparatus Access Roads, including the following minimum standards:
 - i. Minimum thirty-foot-wide easement;
 - ii. Minimum twenty-foot-wide improved all-weather surface;
 - iii. Minimum turning radius of fifty feet;
 - iv. Maximum grade of twelve percent for ACP surface; ten percent for gravel surface; and

- v. Maintenance of private access roads shall be the sole responsibility of the owner(s) and is not the responsibility of Douglas County;
 - d. Appendix E, Hazard Categories;
 - e. Appendix F, Hazard Ranking;
 - f. Appendix G, Cryogenic Fluids—Weight and Volume Equivalents;
 - g. Appendix H, Hazardous Materials Management Plan (HMMP) and Hazardous Materials Inventory Statement (HMIS) Instructions;
 - h. Appendix I, Fire Protection Systems—Noncompliant Conditions;
 - i. Appendix J, Emergency Responder Radio Coverage;
 - j. Appendix K, International Wildland Urban Interface Code, as amended by WAC 51-54A-8100.
5. Except as provided in RCW 19.27.170, the Uniform Plumbing Code published by the International Association of Plumbing and Mechanical Officials (IAPMO), with the appendices and amendments set forth in Chapters 51-56 and 51-57 WAC as the same now exist or may hereafter be amended.
6. The International Energy Conservation Code published by the International Code Council (ICC), with the appendices and amendments set forth in Chapter 51-11C WAC and in Chapter 51-11R WAC as the same now exist or may hereafter be amended.
- B. In case of conflict among the codes adopted in subsections (A)(1), (2), (3) and (5) of this section, the first named code shall govern over those following.

Chapter 15.12

PERMITS AND INSPECTIONS

15.12.040 Building permit—Domestic water and sewage disposal required.

No building permit shall be issued for any building intended for human occupancy unless served by legal and adequate domestic water supply and sewage disposal. Private domestic water supplies and private sewage disposal systems shall be approved by the health district as a condition to issuance of a building permit. (Res. TLS 04-41 Exh. A (part); Ord. TLS 01-02-06B Exh. A (part))

Chapter 15.28

FIRE HYDRANTS AND WATER MAINS

15.28.010 Purpose.

The purpose of this chapter is to regulate the installation of fire hydrants and water mains in the county, establish fire flow requirements, clarify installation standards, define the role of water authorities, and provide fire protection and safety to county residents. (Res. TLS 04-41 Exh. A (part); Ord. TLS 01-02-06B Exh. A (part))

15.28.020 Definitions.

As used in this chapter:

- A. "Agricultural building" means a structure which has as its sole use the storage or sheltering of farm implements, horticultural products, livestock, poultry, hay or grain. This definition shall not apply to buildings where agricultural products are processed, packaged, treated, or where workers are housed.
- B. "Approved method" means fire flow consistent with IFC 507.3 in accordance with, first, Appendix B 105.1 and 105.2; and then, second, Appendix B 103.3 if one thousand gallons per minute for a two-hour duration is not available from the water system or no system exists.
- C. "Commercial building" means any building having an International Building Code occupancy classification of group A, B, E, F, H, I, M, R-1, R-2, or S.
- D. "Dead-end main" means a water main over fifty feet long and not being fed from both ends at the time of installation.
- E. "Fire department" means the fire authority responsible for fire protection in the area in which a proposed building is to be built.
- F. "Fire flow" means the amount of water required for fire fighting at a specific building or within a specific area.
- G. "Fire marshal" means the duly appointed county fire marshal.
- H. "Flush-type hydrant" means a hydrant installed entirely below grade.
- I. "Private hydrant" means a fire hydrant situated and maintained to provide water for fire fighting purposes with restrictions as to use. The location may be such that it is not readily accessible for immediate use by the fire department for other than certain private property.
- J. "Public hydrant" means a fire hydrant so situated and maintained as to provide water for fire fighting purposes without restrictions as to use for the purpose. The location is such that it is accessible for immediate use by the fire department at all times.
- K. "Residential building lot" means any lot used exclusively for single-family residences or duplexes.
- L. "IBC" means the International Building Code adopted pursuant to DCC Chapter 15.08.
- M. "IFC" means the International Fire Code adopted pursuant to DCC Chapter 15.08.
- N. "UL" means Underwriters' Laboratories, Inc.
- O. "Water authority" means the water department, water district or other entity legally supplying pressurized water used for fire suppression purposes. (Ord. TLS 11-03-25B Exh. A (part); Res. TLS 04-41 Exh. A (part); Ord. TLS 01-02-06B Exh. A (part))

15.28.030 Applicability.

- A. All subdivisions and short subdivisions shall have water mains and fire hydrants consistent with this chapter, as a condition of final county approval, unless exempt pursuant to DCC Section 15.28.040.
- B. All structures or additions thereto erected or installed pursuant to a building or manufactured home permit on a lot subject to the requirements of this chapter shall be served by operational water mains and fire hydrants consistent with these standards prior to the commencement or installation of combustible construction.

C. Manufactured home parks and recreational vehicle parks shall be required to provide water mains and fire hydrants consistent with this chapter and other applicable provisions of the DCC as a condition of final county approval of such park.

D. All new water mains and all additions and extensions to existing water mains shall meet the requirements of this chapter, provided that the water mains, which serve only the uses exempt pursuant to DCC Section 15.28.040, are also exempt from the requirements of this chapter. (Res. TLS 04-41 Exh. A (part); Ord. TLS 01-02-06B Exh. A (part))

15.28.040 Exemptions.

The following permits, uses and approvals are exempt from the water flow and fire hydrant requirements of this chapter:

A. Single-family detached dwellings and manufactured home permits for manufactured homes not in manufactured home parks, provided the lot is at least one acre (forty-three thousand five hundred sixty square feet, not including any submerged area below the ordinary high water mark) in size and where buildings are separated by at least fifty feet as measured in the most direct manner, or provided the lot, tract, or parcel is exempt from the provisions of this chapter.

B. Buildings classified as occupancy group U in the IBC and not located within one thousand feet, as measured in the most direct manner, of an approved accessible water supply capable of providing fire flow otherwise required by this chapter. Any building subject to this exemption shall not be used for storing combustible materials.

C. Structures not exceeding two thousand five hundred square feet in floor area, and not located within a water district or within an area served by a state-approved private water system capable of delivering the fire flow required by this chapter.

D. Structures classified as group U occupancies pursuant to the IBC, which conform to the scope of an agricultural building in Appendix C of the IBC. Stables and riding arenas intended for public use or assembly or for boarding of animals other than those of the owner of the building are not exempt.

E. Residential subdivisions and residential short subdivisions containing no lots less than one acre (forty-three thousand five hundred sixty square feet, not including any submerged area below the ordinary high water mark) in size; provided, that buildings are separated by at least fifty feet as measured in the most direct manner. (Ord. TLS 11-03-25B Exh. A (part); Ord. TLS 10-09-41B Exh. A (part); Res. TLS 04-41 Exh. A (part); Ord. TLS 01-02-06B Exh. A (part))

15.28.050 New development and construction in areas with inadequate water flow.

A. New development and construction in unincorporated areas and served with water flows less than what is currently required pursuant to this chapter, and that are not otherwise exempt pursuant to DCC Section 15.28.040, may be approved by the fire marshal in accordance with the standards of IFC Appendix B, including NFPA 1142.

B. Water mains and fire hydrants shall be installed to be consistent with the requirements of this chapter. (Ord. TLS 11-03-25B Exh. A (part); Ord. TLS 10-09-41B Exh. A (part); Res. TLS 04-41 Exh. A (part); Ord. TLS 01-02-06B Exh. A (part))

15.28.060 Water main installation.

- A. All water mains subject to this chapter which serve fire hydrants shall be a minimum of eight inches inside diameter for dead-end mains and six inches inside diameter for circulating mains. Hydrant leads less than fifty feet in length may be six inches in diameter.
- B. All new water mains subject to this chapter shall have fire hydrants installed to conform to the requirements of this chapter.
- C. All water mains subject to this chapter shall meet applicable engineering and health standards adopted by the state and/or the water purveyor.
- D. All water mains installed for the sole purpose of supplying an automatic fire sprinkler or fire fighting standpipe system shall be installed in compliance with Chapter 18.160 RCW. An installing contractor shall be currently licensed by the Washington State Fire Marshal's Office for such work. No work shall commence prior to approval by the county fire marshal. (Res. TLS 04-41 Exh. A (part); Ord. TLS 01-02-06B Exh. A (part))

15.28.090 Fire flow.

Required fire flows shall be based on the IFC Appendix B. Such fire flow shall be for a minimum duration of two hours. (Res. TLS 04-41 Exh. A (part); Ord. TLS 01-02-06B Exh. A (part))

15.28.100 Water purveyor authority.

This chapter establishes minimum standards. Nothing in this chapter shall be construed to prohibit water purveyors from imposing more stringent requirements for the construction of water mains and installation of fire hydrants. (Res. TLS 04-41 Exh. A (part); Ord. TLS 01-02-06B Exh. A (part))

15.28.110 Modifications and appeals.

- A. The fire marshal may grant modifications of this chapter on a case-by-case basis if strict compliance with this chapter is impracticable, the modification is in conformity with the intent and purpose of this chapter, and the modification maintains the level of fire protection required by this chapter. The material, method and/or design of a modification must serve the intended purpose and be, at least, equivalent to the suitability, effectiveness and fire safety protection provided in this chapter. The fire marshal shall require sufficient qualified written evidence substantiating a proposed modification prior to approval. The details of any action granting a modification shall be retained in the records of the permitting authority.
- B. Proponents of modifications have the right to appeal the decision of the fire marshal pursuant to DCC Chapter 15.98. (Res. TLS 04-41 Exh. A (part); Ord. TLS 01-02-06B Exh. A (part))

Title 17

SUBDIVISIONS

Chapter 17.16

MAJOR SUBDIVISIONS

17.16.090 Recommendations of agencies.

- A. Each department, municipality, district, official, utility company, or other public agency shall report in writing within ten days after the map has been received by such agency to the hearing examiner its findings

and recommendation thereof. Failure to so report shall be construed to mean that such agency has no objection thereto.

B. The engineer shall report on:

1. The improvements required by this title;
2. Any easements required;
3. The effect of the proposed subdivision and of any proposed grading in connection therewith upon drainage of the general area;
4. The adequacy of methods proposed to be employed to provide for drainage and stormwater runoff;
5. Effects of the proposed subdivision on other public improvements under the jurisdiction of the engineer; and
6. The accuracy of technical information, survey data, mathematical data and computations submitted.

C. The health officer shall report on:

1. The adequacy of the domestic water supply and sewage disposal systems as proposed, and any other matter relating to the proposed subdivision which may affect the public health; and
2. If community-type or municipal sewer or water service is not available, he shall investigate lot size, sewage disposal and domestic water supply systems as proposed for the subdivision and report to the hearing examiner thereon as to whether the sewage disposal and water supply systems meet the health and safety standards of the Chelan-Douglas Health District; and
3. If whether such installation shall function properly on each individual lot in the proposed subdivision and report thereon.
4. For the purpose of making such investigation the health officer is empowered to require test holes and other exploratory tests as may be necessary to determine whether the proposed lots be of adequate size to provide adequate sewage disposal when all lots within the subdivision and area immediately adjacent thereto have been built upon; and the cost of such tests shall be paid by the subdivider.

D. The fire marshal or other appropriate fire official shall report on the adequacy of fire hydrants, the adequacy of the water supply for fire protection purposes, and any other matter affecting fire safety and protection, including any temporary fire protection measures necessary during development of the subdivision.

E. The planning director shall report in detail whether the proposed subdivision does or does not conform to the requirements of this title and to any other applicable standards and policies of the county.

F. The hearing examiner shall determine whether the proposed subdivision conforms to the general purposes of the comprehensive plan or any portion thereof, and whether the public use and interest will apparently be served by the proposal. (Res. CE 93-034 (part); prior code § 16.12.170)

17.16.100 Preliminary plat— Requirements for approval.

A. No plat shall be approved unless adequate provision has been made for drainageways, roads, alleys, easements for any purpose including water, sewer or other utilities, fire, police and other public safety

facilities, parks, playgrounds, sites for schools, schoolgrounds and other general purposes as may be required to protect the public health, safety and welfare.

B. Every dedication of land shall clearly and precisely appear on the face of the plat.

C. Every protective improvement and easements to maintain such improvement shall be dedicated.

Chapter 17.20 DESIGN STANDARDS

17.20.040 Easements.

A. Public Utilities. Where alleys are not provided, there shall be provided easements for public utilities which shall be along lot lines and not less than ten feet wide. Where possible, the width of such easement shall be continuous and aligned from block to block within the subdivision and with adjoining subdivisions.

Chapter 17.24 IMPROVEMENTS

17.24.060 Underground utilities.

A. All underground utilities, sanitary sewers and storm drains installed in the streets by the subdivider shall be constructed prior to surfacing of the streets.

B. Stubs for service connections to all underground utilities and sanitary sewers shall be placed to each property. (Prior code § 16.20.050)

17.24.080 Capacity and dimension.

A. The capacity and dimension of all improvements shall be such as to adequately provide for the future needs of undeveloped properties in the general vicinity.

17.24.130 Central water and sewer systems.

Every subdivision activity, regardless of location, shall be provided with central domestic water supply and a central domestic sewage treatment facility if within one thousand feet of a central sewage treatment plant. (Prior code § 16.20.160)

17.24.150 Water distribution.

Every subdivision shall be served by community, public or private water supply system approved and installed to meet the requirements and standards of the Chelan-Douglas Health District. (Prior code § 16.20.180)

Chapter 17.36 COMMERCIAL AND INDUSTRIAL BINDING SITE PLAN

17.36.060 Required improvements.

Prior to approval of any binding site plan, the subdivision review committee shall ensure that the following improvements will be provided to sufficiently service the anticipated uses throughout the proposed plan:

A. Adequate water supply;

- B. Adequate sewage disposal;
- C. Appropriate storm drainage;
- D. Adequate fire hydrants;
- E. Appropriate access to all anticipated uses within the plan;
- F. Provision for all appropriate deeds, dedications and/or easements. (Ord. dated 5/9/83 § 6)

Title 18

ZONING

Chapter 18.16

GENERAL REGULATIONS

18.16.030 Building height measurement.

- A. Building Height. Any building or structure or portion thereof hereafter erected in any use district shall not exceed the maximum height specified in the district, except as provided in subsections C and D of this section or as enumerated elsewhere in this title.
- D. The following types of structures or structural parts are not subject to the building height limitation of this title: aerials, belfries, chimneys, church spires, cupolas, domes, fire and hose towers, flagpoles, monuments, radio or television antennas, communication towers and associated antennas, water towers, windmills and other similar projections. These exceptions do not apply if the structure will penetrate the airspace of a general aviation airport as outlined in subsection C of this section. (Ord. TLS 08-03-05 Exh. B (part); Ord. TLS 03-01-01B Exh. B (part); Ord. TLS 00-02-06 Exh. B (part); Ord. TLS 97-10-71B Exh. F (part))

18.16.320 Utilities, communication and transmission facilities.

The following minimum conditions shall apply:

- A. Adequate ingress and egress to the site shall be provided pursuant to DCC Title 12;
- B. If the use requires parking, said parking shall be in accordance with DCC Chapter 20.42;
- C. If the use involves outside storage, the use shall be enclosed in a view-obscuring fence or total view-obscuring landscape buffer;
- D. A plan for the control of noxious and problem weeds must be submitted and implemented upon approval;
- E. The minimum lot size in the district that a utility structure is located in may be waived upon a finding that the waiver will not result in detrimental effects to adjacent properties.
 1. When a minimum lot size is waived, a note shall be placed on the face of the plat that the parcel is not a building site other than for the permitted utility use. The requirement for verification of adequate provisions for water and sewage disposal may be waived.
 2. When the minimum lot size is waived for utilities exempted from platting by RCW 58.17.040(9), a notice to title shall be recorded with the county auditor stating that the parcel is not an allowable building site other than for the permitted utility use. The notice shall be in a form approved by the land services director.

F. In general, utility uses in the rural area shall be designed and constructed to harmonize with the character of the surrounding area. Landscaping alternatives incorporating water conservation, such as xeriscaping, are preferred. The land services director is granted broad authority and discretion to approve modifications to landscape standards. (Ord. TLS 05-02-34B Att. B (part))

18.16.330 Infrastructure.

There exists in the county a network of infrastructure necessary to support various uses and activities. These include utility transmission lines (electrical, communication, irrigation and domestic water, sanitary and storm sewer, etc.) and transportation systems (motorized and nonmotorized) including streets, highways, pedestrian and bicycle ways, bus stops and shelters. These activities are considered necessary infrastructure and are outright permitted under the terms of this title. Nothing in this section exempts these activities from compliance with the standards of other portions of the county code including without limitation those portions of the county code pertaining to critical areas, shoreline management, right-of-way franchise, road standards, and building and fire safety. (Ord. TLS 08-11-47D Exh. B (part))

Chapter 18.80 CONDITIONAL USES

18.80.140 Utilities, communication and transmission facilities.

The following minimum conditions shall apply:

- G. The minimum lot size in the district that a utility structure is located in may be waived upon a finding that the waiver will not result in detrimental effects to adjacent properties.
1. When a minimum lot size is waived, a note shall be placed on the face of the plat that the parcel is not a building site other than for the permitted utility use. The requirement for verification of adequate provisions for water and sewage disposal may be waived.
 2. When the minimum lot size is waived for utilities exempted from platting by RCW 58.17.040(9), a notice to title shall be recorded with the county auditor stating that the parcel is not an allowable building site other than for the permitted utility use. The notice shall be in a form approved by the land services director. (Ord. TLS 08-03-05 Exh. B (part); Ord. TLS 05-02-34B Att. B (part); Ord. TLS 03-01-01B Exh. B (part); Ord. TLS 97-10-71B Exh. F (part))

City of East Wenatchee – Excerpts from the Municipal Code

Title 12

STREETS, SIDEWALKS AND PUBLIC PLACES

Chapter 12.16

UNDERGROUNDING OF UTILITIES

12.16.010 Definitions.

For the purposes of this chapter, unless it is plainly evident from the context that a different meaning is intended, certain terms used in this chapter are defined as follows:

B. "Utility" means any organization, person, firm, corporation or cooperative, whether public or private, furnishing gas, sewer, water, electricity, communication or television signal services.

C. "Utility facilities" means all equipment and appurtenances located above or below ground in streets, alleys, utility easements, rights-of-way, properties and ways of the city used or useful in supplying gas, sewer, water, electricity, communication or television signal services. (Ord. 163 § 1, 1971)

12.16.020 Rules and regulations.

The city council may, by resolution or amendment hereto, adopt and prescribe rules and regulations governing the underground installation of all utility facilities, not in direct conflict with any franchise or grant, contractual or statutory, of this city or of the law of the state and may, under the authority of this chapter, delegate authority to the various administrative officers of the city to enforce such rules and regulations. (Ord. 163 § 2, 1971)

12.16.030 Power of city to regulate.

The city shall include in all franchises of all utilities preservation of power in the city to govern and regulate the undergrounding of all utility facilities within the city. (Ord. 163 § 3, 1971)

12.16.040 Required.

From and after the effective date of the ordinance codified in this chapter, any plat for a new addition, or subdivision, to the city subject to the provisions of this chapter, any amendment hereto, and any authority granted under this chapter, shall not be approved by the planning commission or other delegated body, unless such plat shall provide that all new utility facilities shall be placed underground. (Ord. 163 § 4, 1971)

12.16.050 Exceptions – Designated.

The provisions of this chapter shall not apply to the following facilities above ground:

D. Temporary utility facilities used for supplying services to new construction, or for maintaining services during periods of restoration or replacement;

12.16.060 Exceptions – Procedure.

The authority to approve exceptions additional to those specifically set forth in EWMC 12.16.050 shall be reserved to the board of adjustment.

A. Applications for exceptions shall be made in writing, filed with the city engineer and city clerk/ treasurer, and shall specify the reasons why the applicant feels entitled to an exception, together with a fee of \$25.00 to cover administrative expenses. Before an exception is allowed, it shall be considered at a public hearing by the board of adjustment, to be held within 30 days after the filing of the application. The city clerk/treasurer shall give notice of the hearing in the following manner:

1. By publication of a notice in a newspaper of general circulation in the city not less than five, nor more than 20 days prior to the date of the hearing;
2. By sending notice by mail to the applicant and the owner of any other lot which he or the city engineer deems affected by the proposed variance.

B. The board of adjustment shall decide all applications for exceptions, uses or variances not later than 60 days after the public hearing thereon. All decisions and actions of the board of adjustment shall be by resolution which shall state the reasons therefor.

C. A copy of each resolution of the board of adjustment shall be transmitted to the city engineer and the decision of the board shall be binding upon him, and he shall incorporate the terms and conditions stipulated by the board in the permit to the applicant.

D. The decision of the board of adjustment on an application for an exception shall be final and conclusive, unless within 30 days from the date of such action the applicant or appellant makes application to the superior court for adjudication.

E. Approval by the board of adjustment of any such additional exception shall be based on either of the following:

1. There will be no economic or aesthetic advantage gained by placing utility installations underground, because of the presence of existing overhead utility facilities in a substantial portion of the area within or surrounding the new addition or subdivision.
2. Underground construction would not be practicable or feasible due to the nature of the services to be rendered or required, the soil or rock formations in the area, unusual rodent or animal infestation, the presence of existing impeding underground drainage ditches, or open storm sewers and impediments of like nature. (Ord. 163 § 6, 1971)

12.16.070 Applicability.

A. From and after the effective date of the ordinance codified in this chapter, any new service hookup of any of the defined utilities to any new structure or building, or any reconstruction or replacement of any of the defined utility facilities, including, but not limited to, the replacement or reconstruction of utility facilities made necessary by city street projects, and within the commercial utility district, as described in this chapter, shall be placed underground.

B. For the purpose of this section, all exceptions set forth in EWMC 12.16.050, and all definitions set forth in this chapter shall apply. (Ord. 163 § 7, 1971)

12.16.080 Commercial utility district defined.

For purposes of this chapter, “commercial utility district” means all that property lying within the city and designated on the official zoning map of the city as zoned pursuant to EWMC Title 17 of the city, any zoning district classification except “W-I” warehousing and industrial district. (Ord. 93-19 § 1, 1993; Ord. 383 § 1, 1985; Ord. 163 § 8, 1971)

12.16.090 Violation – Penalty.

It is unlawful to violate any of the terms and provisions of this chapter and said violation shall be a misdemeanor. The penalty for the conviction of violation of this chapter shall be the maximum of six months in jail or \$500.00 fine, or both. (Ord. 163 § 9, 1971)

Chapter 12.52

DESIGN CRITERIA FOR STREETS

12.52.060 New utilities.

A. Location of Utilities – Underground.

1. Underground utilities to be installed within the right-of-way on new streets (or on streets where existing topography, utilities or storm drains are not in conflict) shall be located as shown in Figures 3-10 and 3-11 in EWMC 12.60.010. Where existing utilities or storm drains are in place, new utilities shall conform to these standards as nearly as practicable and yet be compatible with the existing installations. Utilities to be installed outside the street right-of-way shall be installed within a designated utility easement and shall meet the installation requirements of the utility.

2. Gravity systems, whether sanitary or storm drainage, shall have precedence over other systems in planning and installation except where a nongravity system has already been installed under previous approved permit and subject to applicable provisions of such permits or franchises.

3. Individual water service lines shall:

a. Be placed with minimum 36-inch cover from finished grade, ditch bottom or natural ground.

b. Use street right-of-way only as necessary to make side connections.

c. For any one connection, not extend more than 60 feet along or through the right-of-way, or the minimum width of the existing right-of-way.

d. Water meter boxes, when placed or re-placed, shall be located on the right-of-way line immediately adjacent to the property being served, unless otherwise approved by the city engineer. Meter box locations within the right-of-way may be approved by the city engineer based on site conditions that make routine service access difficult or impractical.

4. Sanitary Sewers.

b. Sanitary and water lines shall be separated in accordance with good engineering practice such as the Criteria for Sewage Work Design, Washington Department of Ecology, latest edition.

5. Service Connections – All. Mains and service connections to all lots shall be completed prior to placing of surface materials.

6. Materials and Installation – All. All underground utilities shall utilize materials and be installed in conformance with the requirements of the particular utility standards.

B. Location of Utilities – Above Ground.

1. All poles, transformer cases, and other above ground utility appurtenances shall be located to avoid becoming a streetside obstacle. See EWMC 12.57.080 for further guidance.

2. Above ground utilities located within intersections shall be placed so as to avoid conflict with placement of curb ramps. (Ord. 10-09 § 9 (Exh. B), 2010)

12.52.070 Connections to existing utilities.

Typically, new utility installations, both underground and overhead, constructed in conjunction with land development require a connection to existing utilities. Where such connections must utilize existing city right-of-way, the connection must be performed in accordance with Chapters 12.04 and 12.16 EWMC. (Ord. 10-09 § 9 (Exh. B), 2010)

Title 15

BUILDINGS AND CONSTRUCTION

Chapter 15.16

FIRE CODE

15.16.010 International Fire Code adopted.

Except as provided in RCW 19.27.031, the current edition of the International Fire Code, including Appendices B through G, and including those standards of the National Fire Protection Association specifically referenced in the International Fire Code, as published by the International Code Council, Inc., and including all additions, deletions, and exceptions as set forth in WAC Title 51, as the same now exists or may be hereafter amended, is hereby adopted by this reference and incorporated herein as if fully set forth as the fire code for the city of East Wenatchee, except such portions as may be deleted, modified, or amended by ordinance. (Ord. 04-06 § 14, 2004; Ord. 98-8 § 10, 1998; Ord. 95-9 § 3, 1995; Ord. 90-11 § 10, 1990; Ord. 390 § 4, 1985; Ord. 332 § 1, 1982)

15.16.015 Fees.

Fire code permit fees shall be as established from time to time by city of East Wenatchee resolution. (Ord. 04-06 § 15, 2004; Ord. 90-11 § 11, 1990; Ord. 390 § 5, 1985; Ord. 332 § 1, 1982)

15.16.020 Enforcement.

The International Fire Code shall be enforced by the Douglas County Fire District No. 2. The chief of said fire district may designate such members of the fire department as inspectors as shall from time to time be deemed necessary by the chief. The chief of Douglas County Fire District No. 2 shall have all authority for enforcing the provisions of this chapter. (Ord. 04-06 § 16, 2004; Ord. 98-8 § 11, 1998; Ord. 332 § 2, 1982)

15.16.030 Jurisdiction.

Whenever the International Fire Code shall speak of jurisdiction or city or places where this code shall be effective, said jurisdiction shall be meant to be the city. (Ord. 04-06 § 17, 2004; Ord. 332 § 3, 1982)

15.16.040 Appeal.

A. Whenever the district fire chief disapproves an application or refuses to grant a permit applied for or when it is claimed that the provisions of the code do not apply, or that the true intent and meaning of the fire code have been misconstrued or wrongfully interpreted, the applicant may appeal from the decision of the fire chief to the city board of adjustment within 14 calendar days from the issuance of the building inspector's decision pursuant to Chapter 19.06 EWMC, as now exists or as may be hereafter amended.

B. Appeals from the board of adjustment decisions shall be made pursuant to EWMC 19.06.060 by filing a land use petition with the Douglas County superior court within 21 days of issuance of the decision as provided in Chapter 36.70(C) RCW, as now exists or as may be hereafter amended. (Ord. 98-8 § 12, 1998; Ord. 90-11 § 12, 1990; Ord. 332 § 4, 1982)

15.16.050 Violation – Penalty.

A. Any person who shall violate any of the provisions of the International Fire Code or this chapter or who shall fail to comply with any order made thereunder, or who shall build in violation of any detailed statement of specifications or plans submitted and approved thereunder, or any certificate or permit issued thereunder and from which no appeal has been taken, or who shall fail to comply with such an order as affirmed or modified by the city board of adjustment, or by a court of competent jurisdiction, within the time fixed therein, shall severally for each and every violation and noncompliance, respectively, be guilty of a misdemeanor. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violations or defects within a reasonable time; and when not otherwise specified, each 10 days that prohibited conditions are maintained shall constitute a separate offense.

B. The instigation of misdemeanor proceedings in accordance with subsection A of this section shall not prevent the city from exercising all available civil remedies to force removal of prohibited conditions. (Ord. 04-06 § 18, 2004; Ord. 98-8 § 13, 1998; Ord. 90-11 § 13, 1990; Ord. 332 § 5, 1982)

Chapter 15.40 PUBLIC WORKS CONSTRUCTION STANDARDS

15.40.010 Adopted.

The current edition of Standard Specifications for Road, Bridge and Municipal Construction, published by the Washington State Department of Transportation and the Washington State Chapter of the American Public Works Association (“WSDOT/APWA”) is hereby adopted by this reference and made part of this chapter. (Ord. 98-8 § 21, 1998)

15.40.020 Application.

The standards adopted in this chapter shall apply in all instances where public works projects are constructed in the city and for projects constructed which will be dedicated to the city, for example, and not by way of limitation, street improvements within a subdivision. In the event of conflict with standards set out in EWMC Title 16, Title 16 shall supersede and control. (Ord. 98-8 § 21, 1998)

Chapter 15.48 REQUIRED PUBLIC IMPROVEMENTS

15.48.050 Fire hydrants.

The applicant shall install fire hydrants when required by law as directed by the Douglas County Fire District No. 2. The specific location of fire hydrants shall be approved by the city engineer and the fire marshal. (Ord. 10-09 § 5, 2010; Ord. 431 § 1, 1987)

15.48.090 Utility lines and appurtenances.

The applicant shall locate sewer lines, water mains and storm drainage lines as directed by the city engineer. Utility lines, water meters and other utility appurtenances shall be located within the utility strip, unless an alternative location is required under the circumstances and approved by the city engineer. All utility lines shall be underground. Utility appurtenances shall be below the finished grade unless otherwise allowed by the city engineer. (Ord. 10-09 § 5, 2010; Ord. 431 § 1, 1987)

Chapter 16.20 DESIGN STANDARDS

16.20.240 Public utilities.

Where alleys are not provided, easements for public utilities shall be provided along lot lines and shall be a minimum of 10 feet in width. Where possible the width of lot line easements shall be continuous and aligned from block to block within the subdivision and with adjoining subdivisions. Design and installation of utilities shall comply with the standards and provisions of the comprehensive street standards in Chapters 12.50 through 12.60 EWMC, and any amendments. (Ord. 10-09 § 6, 2010; Ord. 282 § 5.10.1, 1979)

16.20.260 Utility installation.

Subdivisions shall provide underground utility lines in compliance with the standards and provisions of the comprehensive street standards in EVMC 12.52.060, and any amendments. (Ord. 10-09 § 6, 2010; Ord. 282 § 5.10.3, 1979)

Article VII. Fire Protection Standards

16.20.290 When required.

All subdivisions containing lots of less than one acre shall be required to provide water supplies for fire protection which shall be in addition to those water supplies required for domestic purposes. Water supplies for fire protection of lots over one acre in size may be required by the council upon recommendation of the planning commission or the responsible fire authority in the area concerned. (Ord. 10-09 § 6, 2010; Ord. 282 § 5.12.1, 1979)

16.20.310 Provision of water.

Water distribution mains on which fire hydrants are located shall be a minimum of six inches in diameter in commercial zones and four inches in residential zones. Minimum fire flows shall be 500 gallons per minute for two hours' duration in all cases where water supplied for fire protection is required by the council upon recommendation of the planning commission. (Ord. 10-09 § 6, 2010; Ord. 282 § 5.12.3, 1979)

16.20.320 Hydrants.

In a subdivision where lot size is one-half acre or larger fire hydrants shall be spaced no further than 1,000 feet apart and in subdivisions where lot size is less than one-half acre fire hydrants shall be spaced no further than 600 feet apart. The size, type and location of fire hydrants shall meet the approval of the responsible fire authority in the area. (Ord. 10-09 § 6, 2010; Ord. 282 § 5.12.4, 1979)

16.20.330 Additional requirements.

Where a subdivision is in or adjacent to forest, brush or grass covered lands or where it is determined that in the future additional developments will also be served by the distribution mains being installed as a part of the plat, the board, upon recommendation of the planning commission, may require additional fire safety precautions including but not limited to annexation to existing fire districts, the provision of firefighting apparatus, the clearing and maintaining of permanent firebreaks, the provision of easements for access to adjacent lands and the installation of larger than minimum distribution mains. (Ord. 10-09 § 6, 2010; Ord. 282 § 5.12.5, 1979)

Chapter 16.24

IMPROVEMENTS

16.24.050 Utility installation.

All underground utilities, sanitary sewers and storm drains installed in the street by the subdivider shall be constructed prior to the surfacing of the streets and shall comply with the standards and provisions of the

comprehensive street standards in Chapters 12.50 through 12.60 EWMC, and any amendments. (Ord. 10-09 § 7, 2010; Ord. 282 § 6.00.4, 1979)

16.24.130 Water distribution.

All subdivisions shall be served by public, private or community water supply systems approved by and installed to meet the requirements and standards of the Chelan-Douglas Health District and to meet the standards and provisions of the comprehensive street standards in Chapters 12.50 through 12.60 EWMC, and any amendments. (Ord. 10-09 § 7, 2010; Ord. 282 § 6.02.7, 1979)

16.24.150 Public sewer and water systems required.

All subdivision activity regardless of location must provide a central domestic water system and a central domestic sewage treatment facility if within 1,000 feet of a central sewage treatment system. (Ord. 10-09 § 7, 2010; Ord. 282 § 6.02.9, 1979)

16.24.160 Capacity and dimension standards.

The capacities and dimensions of all improvements shall be adequate to provide for the future needs of other undeveloped properties in the general vicinity. The city may share in the cost of these improvements to the extent of the difference in cost between the capacities needed to serve the subdivision and the capacities to serve the vicinity. (Ord. 10-09 § 7, 2010; Ord. 282 § 6.02.10, 1979)

Appendix L

Coliform Monitoring Plan

Coliform Monitoring Plan for: East Wenatchee Water District

A. System Information

Plan Date: 6/2/2014

| | | |
|--|---|---|
| Water System Name East Wenatchee Water District | County Douglas | System I.D. Number 218005 |
| Name of Plan Preparer Shawn Wilkerson | Position Water Quality | Daytime Phone # 509-884-3569 |
| Sources: DOH Source Number, Source Name, Well Depth, Pumping Capacity | S11 – Wenatchee Regional (Intertie) # 943507 | |
| Storage: List and Describe | 9 Reservoirs: Baker Flats, Carmichael, 15 th St, Daniels Dr., Canyon Hills, Fancher Heights, 10 th St., Pearcot, Pangborn; totaling 7.9 MG of storage | |
| Treatment: Source Number & Process | S11, Chlorine | |
| Pressure Zones: Number and name | Zones: 961,1105, 1170, 1284, 1350, 1492, 1591, 1770 | |
| Population by Pressure Zone | Zone 961=8186, 1005=164, 1170=8025, 1284=6106, 1350=259, 1492=1562, 1591=1433, 1770=760 | |
| Number of Routine Samples Required Monthly by Regulation: | Number of Sample Sites Needed to Represent the Distribution System: 8 | |
| *Request DOH Approval of Triggered Source Monitoring Plan? | | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> |

*If approval is requested a fee will be charged for the review.

B. Laboratory Information

| | |
|--|--|
| Laboratory Name Cascade Analytical | Office Phone # 509-662-1888 |
| Address 3019 G S Center Rd. Wenatchee WA 98801 | After Hours # 1-800-545-4206 |
| Hours of Operation Mon. – Fri. 8:00 a.m. to 5:00 p.m. | |
| Contact Name Tanya or Bethany | |
| Emergency Laboratory Name Chelan / Douglas Health | Office Phone # 509-886-6445 |
| Address 200 Valley Mall Parkway East Wenatchee WA 98807 | After Hours # 509-886-6499 |
| Hours of Operation Mon. – Thur. 8:00 a.m. to 5:00 p.m. | |
| Contact Name: Sally | |

| |
|--|
| |
|--|

C. Wholesaling of Groundwater

| | Yes | No |
|--|--------------------------|--------------------------|
| We are a consecutive system and purchase groundwater from another water system. | X | <input type="checkbox"/> |
| If yes, Water System Name: Wenatchee Regional Contact Name: Mike Cockrum / Tony Scherting Telephone Numbers: 509-670-7579 / 509-670-0812 | | |
| We sell groundwater to other public water systems. | <input type="checkbox"/> | X |
| If yes, Water System Name: _____ Contact Name: _____ Telephone Numbers: _____ | | |
| Water System Name: _____ Contact Name: _____ Telephone Numbers: _____ | | |
| Water System Name: _____ Contact Name: _____ Telephone Numbers: _____ | | |
| Water System Name: _____ Contact Name: _____ Telephone Number: _____ | | |
| Water System Name: _____ Contact Name: _____ Telephone Numbers: _____ | | |

D. Routine, Repeat, and Triggered Source Sample Locations*

| Location/Address for <u>Routine</u> Sample Sites | Location/Address for <u>Repeat</u> Sample Sites | Sources for Triggered Sample Sites** |
|--|--|--------------------------------------|
| X1. Valley Mall Parkway | 1-1. 1151 VMP 1-2. 10 13th St. 1-3. 1100 VMP 1-4. 1101 VMP | S11 |
| X2. Rock Island Rd. | 2-1. 2520 Rock Is. Rd. 2-2. 2511 Rock Is. Rd. 2-3. 2490 Rock Is. Rd. 2-4. 1178 S. Nile | S11 |
| X3. Blue Grade | 3-1. 19 Blue Grade 3-2. 20 Blue Grade 3-3. 14 38th St. 3-4. 15 38th St. | S11 |

*NOTE: If you need more than three routine samples to cover the distribution system, attach additional sheets as needed.

** When you collect the repeats, you must sample every source that was in use when the original routine sample was collected.

Important Notes for Sample Collector:

- 1) Collect samples early in the week.
- 2) Do not collect samples in a week where there is a holiday.
- 3) If a sample site is no longer a good site, substitute an acceptable site in the same area temporarily or choose a new sample site and update this CMP.
- 4) Always review the lab results for your coliform samples.
- 5) If you notice low chlorine residuals in a certain area talk to Pump Station Maintenance personnel about checking chlorine levels and pump rates.

D. Routine, Repeat, and Triggered Source Sample Locations*

| Location/Address for <u>Routine</u> Sample Sites | Location/Address for <u>Repeat</u> Sample Sites | Sources for Triggered Sample Sites** |
|--|--|--------------------------------------|
| X4. Baker Flats | 4-1. 5905 Nelpar 4-2. 5875 Nelpar 4-3. 5810 Nelpar 4-4. 5781 Nelpar | S11 |
| X5. 5 th & Keller | 5-1. 484 Kent 5-2. 1520 5th St. 5-3. 1525 5th St. 5-4. 501 Keller | S11 |
| X6. Grant Rd. & Van Well | 6-1. 4346 Grant Rd. 6-2. 224 Van Well 6-3. 4000 Grant Rd. 6-4. 3950 Grant Rd. | S11 |

*NOTE: If you need more than three routine samples to cover the distribution system, attach additional sheets as needed.

** When you collect the repeats, you must sample every source that was in use when the original routine sample was collected.

Important Notes for Sample Collector:

- 1) Collect samples early in the week.
- 2) Do not collect samples in a week where there is a holiday.
- 3) If a sample site is no longer a good site, substitute an acceptable site in the same area temporarily or choose a new sample site and update this CMP.
- 4) Always review the lab results for your coliform samples.
- 5) If you notice low chlorine residuals in a certain area talk to Pump Station Maintenance personnel about checking chlorine levels and pump rates.

D. Routine, Repeat, and Triggered Source Sample Locations*

| Location/Address for <u>Routine</u> Sample Sites | Location/Address for <u>Repeat</u> Sample Sites | Sources for Triggered Sample Sites** |
|--|--|--------------------------------------|
| X7. Batterman Rd. | 7-1. 6350 Batterman 7-2. 6349 Batterman 7-3. 6300 Batterman 7-4. 5900 Batterman | S11 |
| X8. Badger & Fancher | 8-1. 2294 Deer Run 8-2. 1244 Wheatridge 8-3. 2206 Inglewood 8-4. 2208 Fancher Blvd. | S11 |
| | | |

*NOTE: If you need more than three routine samples to cover the distribution system, attach additional sheets as needed.

** When you collect the repeats, you must sample every source that was in use when the original routine sample was collected.

Important Notes for Sample Collector:

- 1) Collect samples early in the week.
- 2) Do not collect samples in a week where there is a holiday.
- 3) If a sample site is no longer a good site, substitute an acceptable site in the same area temporarily or choose a new sample site and update this CMP.
- 4) Always review the lab results for your coliform samples.
- 5) If you notice low chlorine residuals in a certain area talk to Pump Station Maintenance personnel about checking chlorine levels and pump rates.

E. Reduced Triggered Source Monitoring Justification (add sheets as needed):

F. Routine Sample Rotation Schedule

| Month | Routine Site(s) | Month | Routine Site(s) |
|-----------------|------------------------|------------------|------------------------|
| January | X1 through X8 | July | X1 through X8 |
| February | X1 through X8 | August | X1 through X8 |
| March | X1 through X8 | September | X1 through X8 |
| April | X1 through X8 | October | X1 through X8 |
| May | X1 through X8 | November | X1 through X8 |
| June | X1 through X8 | December | X1 through X8 |

G. Five Routine Sample Locations – Month after an Unsatisfactory Sample

| Location/Address for Routine Sample Site(s) Unsatisfactory the Previous Month | Location/Address for the five Routine Sample Sites |
|---|--|
| <p>X1.</p> <hr/> <p>N/A We collect more than 5 routine monthly samples therefore we continue sampling as normal</p> | <p>1.</p> <hr/> <p>2.</p> <hr/> <p>3.</p> <hr/> <hr/> <hr/> |
| <p>X2.</p> <hr/> | <p>1.</p> <hr/> <p>2.</p> <hr/> <p>3.</p> <hr/> <p>4.</p> <hr/> <p>5.</p> <hr/> |
| <p>X3.</p> <hr/> | <p>1.</p> <hr/> <p>2.</p> <hr/> <p>3.</p> <hr/> <p>4.</p> <hr/> <p>5.</p> <hr/> |

H. *E. coli*-present response plans

Distribution System *E. coli* Response Plan

If we have *E. coli* in our distribution system we will immediately:

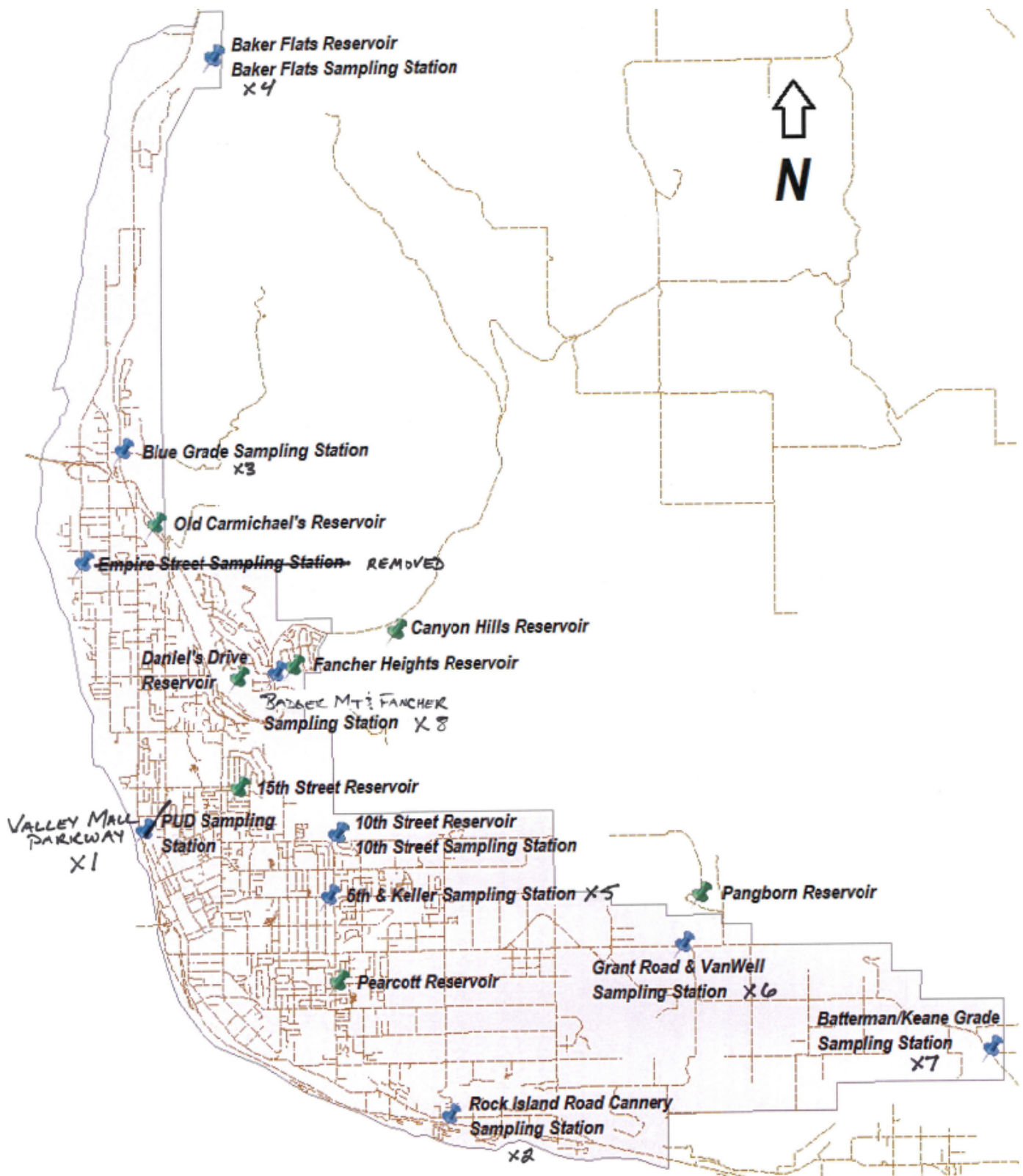
1. Call DOH.
2. Collect repeat and triggered source samples per Part D. Collect additional investigative samples as necessary.
3. Inspect our water system facilities, including booster stations for proper operations.
4. Interview staff to determine whether anything unusual was happening in the water system service area, especially since the previous month's sample dates.
5. Review new construction activities, water main breaks and pressure outages that may have occurred during the previous month.
6. Review Cross Connection Control Program status.
7. Discuss with DOH whether to issue a Health Advisory based on the findings of steps 3-6.

E. coli-Present Triggered Source Sample Response Plan – Source ____

If we have *E. coli* in Source ____ water we will immediately:

1. Call DOH.
2. Call Wenatchee Regional.
3. Distribute required notice.
4. Interview staff.
5. In concert with DOH, begin working on corrective action plan.

I. System Map




Appendix M


Water Use Efficiency Forum Documents



WUE Goal Setting Public Forum Information

| Grays Harbor Water District No.1 | |
|---|--|
| ID Number: 29200 W County: Grays Harbor Contact Name: Patty Cole Phone: 360-267-2411  Date and Time: Tuesday, September 2, 2014 - 5:30 p.m. Location: 2058 SR 105 South Grayland, Washington 98547 | |
| Purpose of Forum: | Review of 2014 Water System Plan Update Water Use Efficiency Goal Setting. |
| For More Info: | At the District office: 2058 SR 105 South, Grayland, Washington 98547 |
| Directions to Forum: | In Grayland next door to Grayland True Value Hardware. |

Back to [Water Use Efficiency](#)

| East Wenatchee Water District | |
|---|---|
| ID Number: 21800 County: Douglas Contact Name: Greg Brizendine Phone: 509-884-3569  Date and Time: Thursday, September 4, 2014 - 3:00 p.m. Location: 692 Eastmont Ave. East Wenatchee, WA. 98802 | |
| Purpose of Forum: | To review the proposed Water Use Efficiency goals of the District as stated in the District's new DRAFT Comprehensive Water System Plan for 2014 + six years. |
| For More Info: | Contact the District and/or see the District's web site at: ewwd.org |
| Directions to Forum: | District office at 692 Eastmont Ave., East Wenatchee, WA. |

Meeting advertisement posted on District website. <http://ewwd.org/>

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MEETING

***Water Use Efficiency (WUE) Goal Setting & Review
Updated Draft Waster System Comprehensive Plan***

Thursday, September 4, 2014 at 3:00 p.m.

[EWWD \(WUE\) Goals](#)

[Department of Health \(DOH\) Website Link](#)

[On-Line Pay](#)

[2013 Consumer Confidence Report \(CCR\)](#)



East Wenatchee Water District
REGULAR MEETING AGENDA
September 4, 2014
3:00pm

ATTENDEES:

- | | | |
|---|--|---|
| <input type="checkbox"/> Terry Barnes | <input type="checkbox"/> Mike McCourt | <input type="checkbox"/> Brian Egan |
| <input type="checkbox"/> Jennifer Leonhardt | <input type="checkbox"/> Greg Brizendine | <input type="checkbox"/> Shawn Wilkerson |
| <input type="checkbox"/> Vince Johnston | <input type="checkbox"/> Dale Foreman | <input type="checkbox"/> Kristine Nicklas |
| <input type="checkbox"/> Randy Asplund | <input type="checkbox"/> Ryan Peterson | <input type="checkbox"/> Jeff Johnston |
| <input type="checkbox"/> Guests: _____ | | |

1. Pledge of allegiance.

Agenda Items:

1. Any changes to the agenda

2. Review and approve meeting minutes from August 20, 2014.
3. Review and approve Vouchers in the amount of \$.
4. Open Public Mtg. to discuss WUE goals and Draft Comp Plan. Review proposed WUE goals as stated in Chapter 4 of our DRAFT Comprehensive Plan. Adopt/edit goals as stated.
5. Future projects and potential rate impacts
6. Motion approving final SEPA and DNS for Comp Plan 2014
7. Approve Scope and Budget for 10th ST NE watermain
8. Approve agreement with RH2 for French St watermain

Informational Items:

9. New employee
10. Move the next regular meeting to September 24, 2014 3:00pm
11. Executive session personnel issues for 30 minutes

Any other business or comments?

Adjourn regular meeting

September 4, 2014

This meeting is also an Open Public Meeting to discuss WUE goals and Draft Comp Plan.

The regular meeting of the Board of Commissioners of the East Wenatchee Water District was held in the District's Office at 692 Eastmont Avenue at 3:00pm. Members present: Terry Barnes, Mike McCourt and Brian Egan. Others present: Greg Brizendine, Jennifer Leonhardt, Vince Johnston, Jeff Johnston, Kristine Nicklas, Ryan Peterson, Randy Asplund and Dale Foreman.

The meeting minutes of August 20, 2014 were presented. Commissioner McCourt made a motion approving the minutes as written. Commissioner Barnes seconded the motion. Motion carried unanimously.

Today was the published date for the Public Meeting on our new Water System Comprehensive Plan and our Water Efficiency Plan and associated measures. There was a discussion about the District's efficiency program and goals. Chapter 4 of the Comprehensive Plan was also discussed. Commissioner McCourt made a motion to adopt said six-year program and goals as part of the District's new Water System Comprehensive Plan. Commissioner Barnes seconded motion. Motion carried unanimously.

Greg and Randy went over a five year plan for the District's future projects and associated water rates and rate increases. Commissioner McCourt made a motion approving the rate schedule as presented. Commissioner Barnes seconded the motion. Motion carried unanimously. Over the next six weeks, RH2 will propose a plan for replacing older steel mains and how that impacts water rates.

Vouchers were presented in the amount of \$280,226.04. Commissioner McCourt made a motion to approve the vouchers as presented. Commissioner Barnes seconded the motion. Motion carried unanimously.

Greg said that the SEPA and DNS for the 2014 Comp Plan are final. Commissioner McCourt made a motion to approve the final SEPA and DNS for the 2014 Comp Plan. Commissioner Barnes seconded the motion. Motion carried unanimously.

Greg told the Commissioners that he has the scope of work for Phase 1 of the 10th ST NE watermain replacement. This phase will replace the main on 10th ST NE from Grover to James. The Commissioners would like to possibly do all three phases of the project at once as part of a revised CIP list as discussed above. Randy will develop a plan for that and report back to the Commissioners.

Greg told the Commissioners that he has the scope of work agreement with RH2 for the French Street watermain replacement. There will be 800 feet of watermain replaced. The cost for the scope of work is \$36,603. This is a City of East Wenatchee street reconstruction project for 2015. Commissioner McCourt made a motion approving the agreement. Commissioner Barnes seconded the motion. Motion carried unanimously.

Greg told the Commissioners that our front desk clerk has given her notice and will be leaving. We have hired a new person and her first day is September 15, 2014.

Commissioner McCourt made a motion to move the next regular meeting from September 17, 2014 to September 24, 2014 due to the WASWD Fall conference. Commissioner Barnes seconded the motion. Motion carried unanimously.

Commissioner McCourt made a motion to start executive session at 4:30pm to discuss personnel issues for 30 minutes. Commissioner Barnes seconded the motion. Motion carried unanimously.

Commissioner McCourt made a motion to end executive session at 4:45pm. Commissioner Barnes seconded the motion. Motion carried unanimously. No decisions made.

Commissioner McCourt made a motion to continue this regular meeting to Tuesday, September 9, 2014 at 3:00pm. Commissioner Barnes seconded the motion. Motion carried unanimously.

The next regular meeting will be September 24, 2014 at 3:00pm.

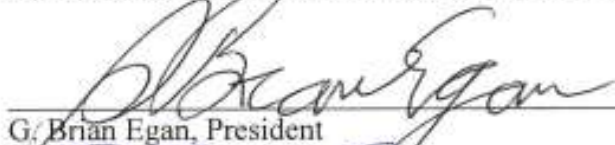
September 9, 2014, 3:00pm—The District continued the September 4, 2014 meeting.

Commissioner McCourt made a motion to start executive session at 3:00pm to discuss personnel issues. Commissioner Barnes seconded the motion. Motion carried unanimously.

Commissioner McCourt made a motion to end executive session at 4:20pm. Commissioner Barnes seconded the motion. Motion carried unanimously. No decisions made.

Commissioner McCourt made a motion to approve the minutes of the September 4, 2014 meeting as well as the continuation today. Commissioner Barnes seconded the motion. Motion carried unanimously.

Commissioner McCourt made a motion to adjourn the meeting at 4:21pm. Commissioner Barnes seconded the motion. Motion carried unanimously.


G. Brian Egan, President


Terry Barnes, Vice President


Mike McCourt, Secretary

Appendix N

10th Street NE Service Area Study



March 2, 2005

Mr. Hank Lewis
Safari Development
530 Valley Mall Parkway, No. 9
East Wenatchee, WA 98802

RH2 ENGINEERING, INC

<http://www.rh2.com>

mailbox@rh2.com

1.800.720.8052

Sent Via: US Mail

Subject: P&F Holdings Property - Water Supply Analysis

WESTERN WASHINGTON

12100 NE 195th St, Ste 100

Bothell, WA 98011

(tel) 425.951.5400

(fax) 425.398.2774

EASTERN WASHINGTON

300 Simon Street SE, Suite 5

East Wenatchee, WA 98802

(tel) 509.886.2900

(fax) 509.886.2313

KITSAP PENINSULA

600 Kitsap Street, Suite 101

Port Orchard, WA 98366

(tel) 360.876.7960

(fax) 360.876.7988

Dear Hank:

The purpose of this letter is to review the options available to provide water service for the proposed P&F Holdings Property development. This is a residential development located north of 8th Street NE and east of N. Kentucky Avenue. We received a preliminary plan layout showing approximately 100 lots.

The elevations in this area range from 1,180 feet along 8th Street to 1,350 feet north of 10th Street. Currently, this area is served from the Pangborn Reservoir, which has an overflow elevation of 1,490 feet. The area south of 8th Street is in the 1,286 Zone. The 1,286 Zone can only serve 35 psi to a maximum elevation of 1,195 feet, which eliminates service to all but perhaps 2 or 3 lots near the intersection of 8th and Lyle. Service from the 1,490 Zone would provide pressures ranging between 55 and 150 psi based on service elevation.

Approximately 1½ miles to the north of this property is the Fancher 1,592 Pressure Zone. Service from this zone would result in pressures ranging from 95 to 155 psi north of 10th Street. The areas south of 10th Street are impractical to serve from Fancher due to pressures that would exceed 170 psi. The 1,592 Zone can realistically serve to a maximum elevation of 1,500 feet.

The existing water distribution system is not capable of serving any new customers in this area due to small and aging piping. This is documented in Moratorium Resolution 410. Therefore, any new development will require infrastructure construction of sufficient size to supply the proposed development.

In addition to hydraulic transmission capacity, there is also the need for storage capacity. A 100-lot residential development may require the following storage components.

- Standby = 330 gpd/ERU x 2 days x 100 ERU = 66,000 gallons.
- Equalizing = (130 gpm demand – 40 gpm supply) x 150 minutes = 13,500 gallons.
- Fire Flow = 1,000 gpm x 120 minutes = 120,000 gallons.

Fire storage can be included (nested) within the existing reservoir fire storage component, as standard practice is to assume there will not be simultaneous fires within a zone. However, the Standby and Equalizing storage total of 80,000 gallons cannot be nested and must be



additive to any other storage requirement. The 1996 *Comprehensive Plan* identified a design fire flow capacity in this zone of 4,000 gpm for 4 hours. The 2004 *15th Street Booster Station Predesign Report* shows a total of 440 existing ERUs in the Pangborn Zone. Storage requirements for the existing customers are as follows:

- Standby Storage = 200 gal/ERU x 440 ERU = 88,000 gallons (DOH recommended minimum).
- Equalizing = 0 (Nile Booster Station supply exceeds peak hour demand).
- Operational Storage = 2 feet x 32,000 gal/ft = 64,000 gallons.
- Fire Storage = 4,000 gpm x 240 minutes = 960,000 gallons.
- Total Required Storage = 88,000 + 0 + 64,000 + 960,000 = 1,112,000 gallons.

The apparent deficiency of 112,000 gallons can be addressed by “nesting” the standby and fire flow storage, which can be allowed at the discretion of the Fire District. Nesting may only be applied to existing services and facilities. This results in existing deficit storage of 24,000 gallons. The standby storage value may also be adjusted for existing customers by assuming that commercial and industrial uses can be restricted during emergency conditions. Any new development may not utilize nesting. In brief, there is no excess storage available in the Pangborn Reservoir to supply new lot divisions.

There is also no available domestic capacity available in the Fancher Heights Reservoir. All Fancher storage has already been allocated.

There are three potential methods of providing water supply to this development. Transmission, Closed Zone, and Gravity Storage. Each of these is described below.

Transmission

As was shown above, there is no available capacity in the Pangborn Reservoir. Therefore, this transmission option is presented only as a purely hydraulic study.

Construct pipelines to supply the development with water from an existing pressure zone. Pangborn Reservoir is the most obvious choice due to the existing zone boundary and the appropriate pressure range. In order to supply the estimated 1,000 gpm fire, approximately 1½ miles of pipeline is required to connect the development to the existing 12-inch pipeline in Grant Road. To obtain 1,000 gpm at a residual pressure of 20 psi, at least half of this new main would need to be 12 inches in diameter and the rest could be 8 inches, depending on the route selected. If 1,500 gpm fire flow is required, then the entire main to the development must be 12-inch diameter, plus a strong internal grid would be required. It may also be possible to serve the lots north of 10th Street from the Fancher Zone with construction of approximately 1½ miles of 12-inch pipe to Fancher Heights.

Closed Zone

Construct internal distribution grid. Install an engine driven fire pump (or generator backup) to supply fire flow rather than relying on gravity storage. This would only be a temporary system. Ultimately, gravity storage will have to be provided to meet District standards of reliability. The timing of when storage is required may be based on number of homes built and/or a fixed timeframe. The developer and District will need to come to an agreement on timing. For example, the Canyon Hills development was allowed a closed zone system up to 40 homes or four years, whichever came first. After which, they had to build transmission and storage. To supply fire flow for this project, preliminary sizing would be for a fire pump sized for either 1,000 gpm at 170 ft TDH (60 hp), or 1,500 gpm at 180 ft TDH (100 hp). Exact sizing



would be performed when more formalized plans for the development are presented. A closed zone booster pump would provide domestic demands. A 100-lot development may require two 10hp pumps at roughly 130 gpm each to meet peak demands. It may be prudent to build the pump station so that capacity can be added in the future without the need to construct an entirely new facility.

Gravity Storage

Provide a new reservoir to supply the development. The 100-lot development would require at least 200,000 gallons of storage, though the District’s minimum acceptable tank size is 500,000 gallons. The new tank must match the overflow of either the Pangborn or Fancher tanks to insure consistency and redundancy with the District’s system. If the tank is at the Fancher elevation, a new pump station would need to be built also. If the tank matches Pangborn, either a new pump station would be needed, or pipelines constructed so that the Nile booster can fill the new tank. The tank site shall have sufficient room to construct a second equal or larger-sized tank in the future. If the developer has a long term idea of how many lots will ultimately be served, it would be prudent to review these forecasts to determine if a tank larger than 500,000 gallons should be initially built.

Costs

The developer can recoup the costs of these improvements through a reimbursement agreement. Any new development that uses the pipelines, booster station or reservoir can be charged a portion of those costs. Typically, a reimbursement agreement is in effect for 15 years.

Below are planning level cost estimates for the improvements. Please note that none of these costs include the water system internal to the development, which will have to be constructed regardless of the chosen supply options.

| | Description | Construction Cost | Engineering, Overhead, Admin (20%) |
|---|--|-------------------------------|------------------------------------|
| A | 1½ mile of 12 inch transmission main | 8000 ft x \$60/ft = \$480,000 | \$96,000 |
| B | 500,000 gallon reservoir – not including land cost | \$500,000 | \$100,000 |
| C | Temporary closed zone booster with fire pump - throw away | \$150,000 | \$30,000 |
| D | Temporary closed zone booster with fire pump – upgradeable | \$300,000 | \$60,000 |
| E | Permanent booster station | \$350,000 | \$70,000 |

Note that the construction costs assume paying Prevailing Wages. If the work can be done privately, up to 25 percent savings may be possible.

The least cost option up-front would be to build a temporary throw away pump and closed pressure zone. However, permanent pumping and storage facilities would ultimately be required, likely within less than 5 years.

Recommended Layout

This section presents a layout that, given the information currently available, we believe provides the best level of service. Any development between 8th and 10th Streets is best served by the 1,490 Zone for



pressure. Areas above 10th Street are best served by the 1,592 Zone, making 10th Street a convenient boundary. A temporary booster station can be built to pump to a hydraulic grade line of 1,592, and pressure reducing station built to serve those lots south of 10th Street on the 1,490 Zone. Once the development has reached a predetermined number of lots, the booster station would be converted to permanent by removing the fire pump(s) and adding larger domestic pump. A 1,592 Reservoir is then built.

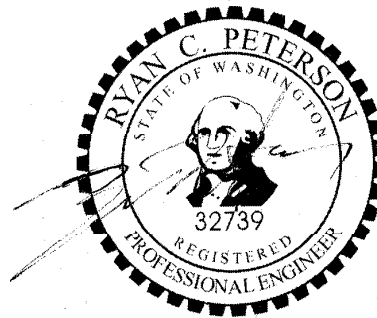
We believe it is in the developer's best interest to contact those property owners along 8th and 10th Streets west of Nile Avenue. These lots should directly benefit from any proposed improvements, increasing the value and development potential of their land. They could participate in sharing costs for the improvements. Cost sharing could occur either by direct payment or a reimbursement (late-comer's) agreement. At this time, we do not foresee the District participating in cost sharing for the project, though the developer may wish to discuss with the District any options for shared benefit.

If you have any questions regarding this analysis, please do not hesitate to contact us.

Sincerely,

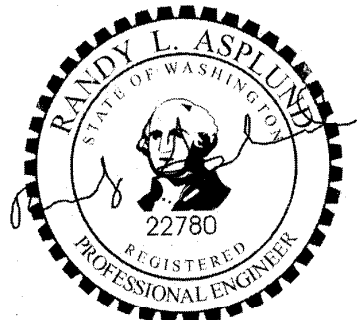
RH2 ENGINEERING, INC.

Ryan Peterson, P.E.
Project Manager



SIGNED:
3/2/05

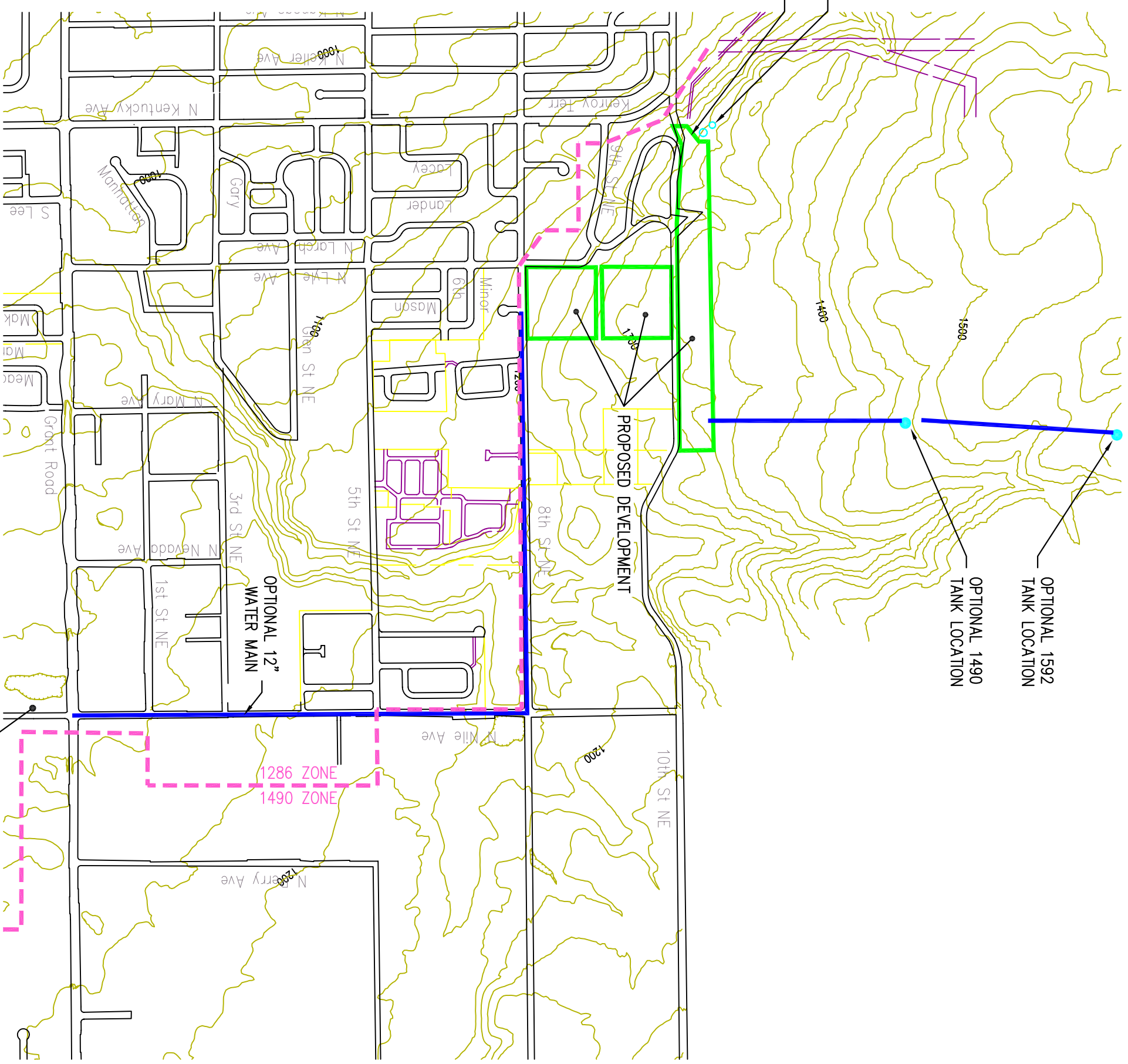
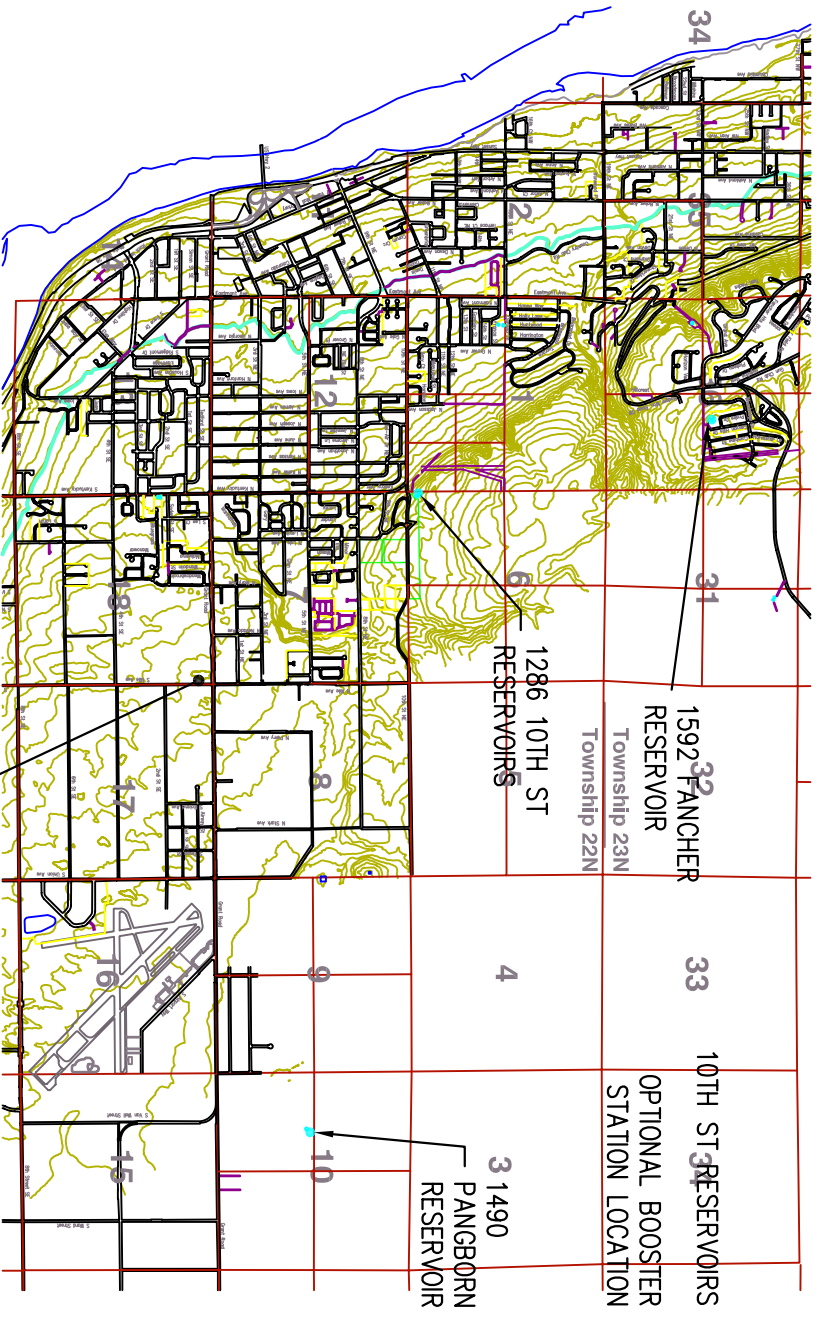
EXPIRES 12/13/06



EXPIRES 3/19/06

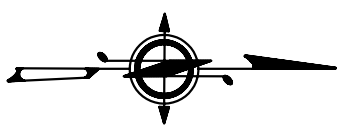
RP/RA/sh/ll

cc: Mr. Greg Brizendine, P.E., East Wenatchee Water District
Enclosure: Project Area Map



P&F HOLDINGS PROPERTY

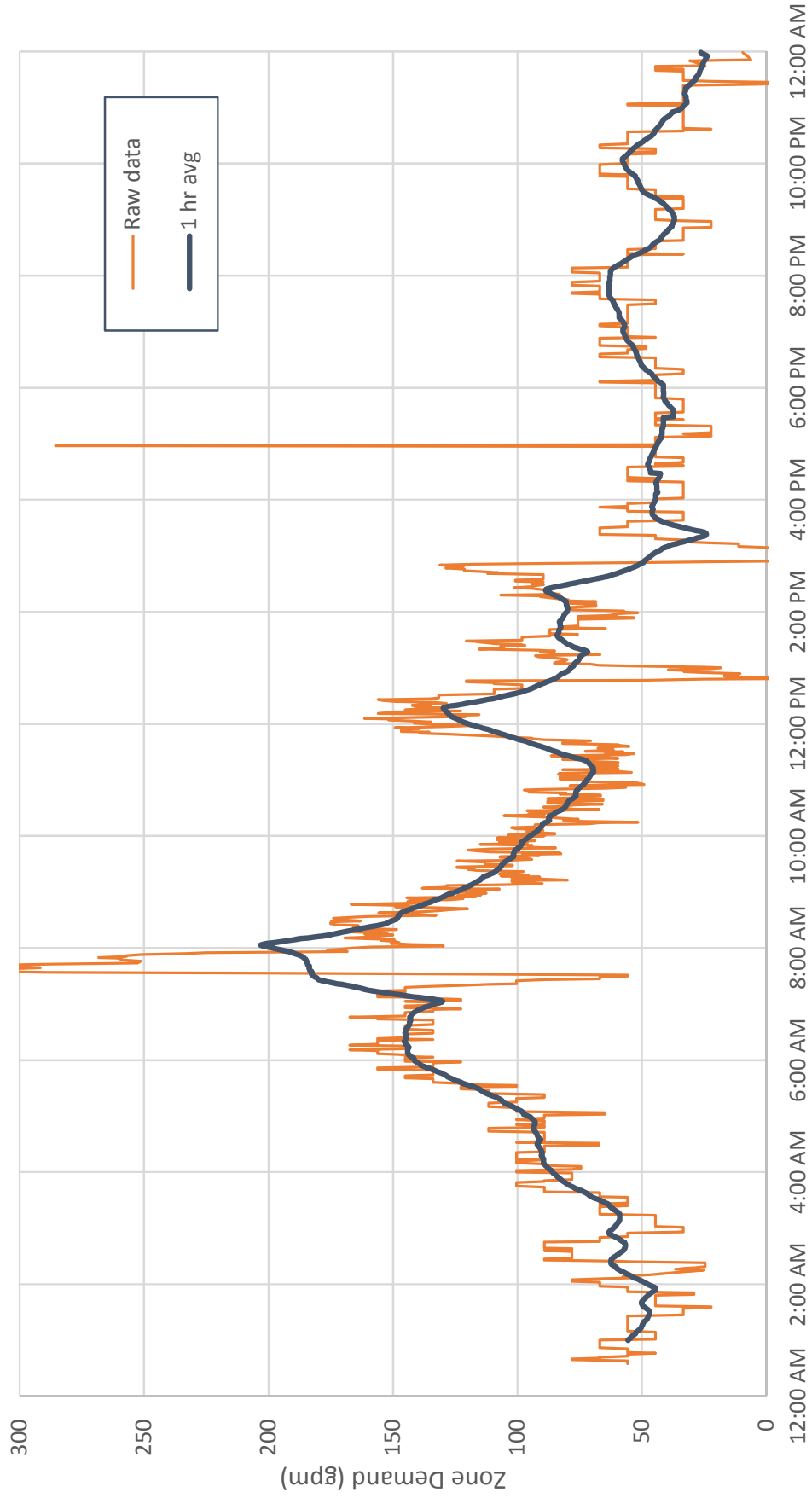
PROJECT AREA



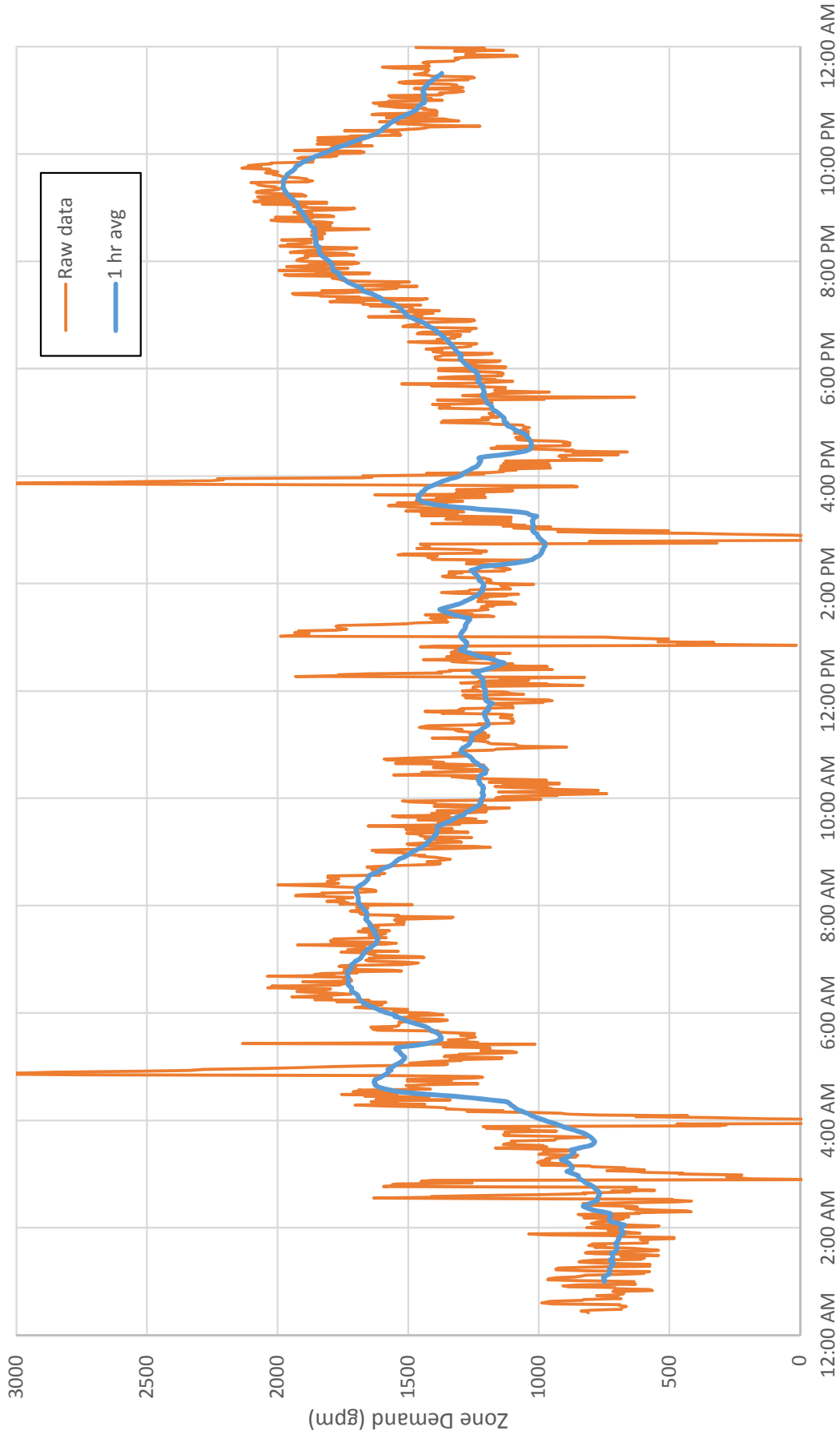
Appendix O

Water Use Diurnal Curves

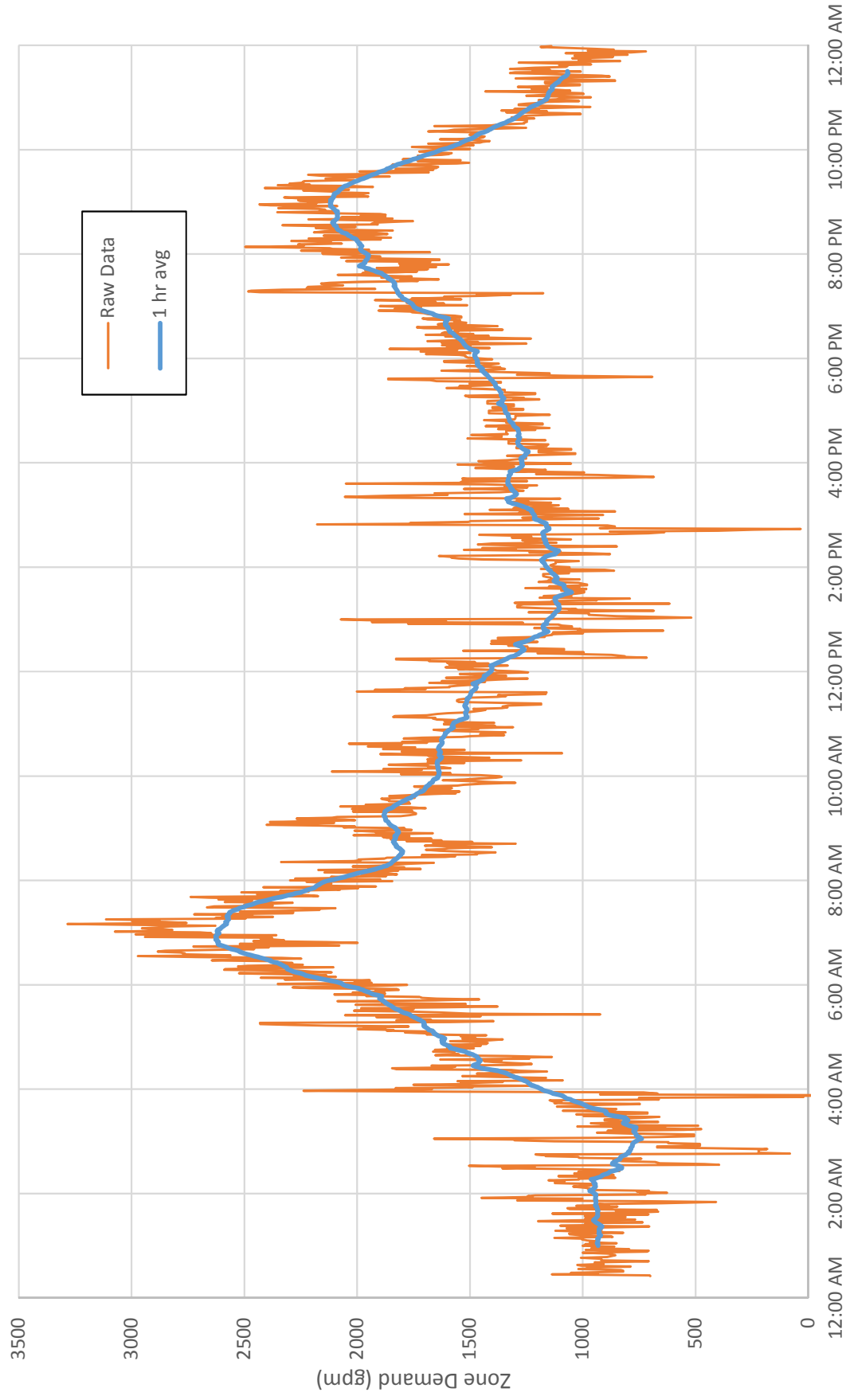
965 N Pressure Zone Peak Day Demand Diurnal - Aug 28, 2012



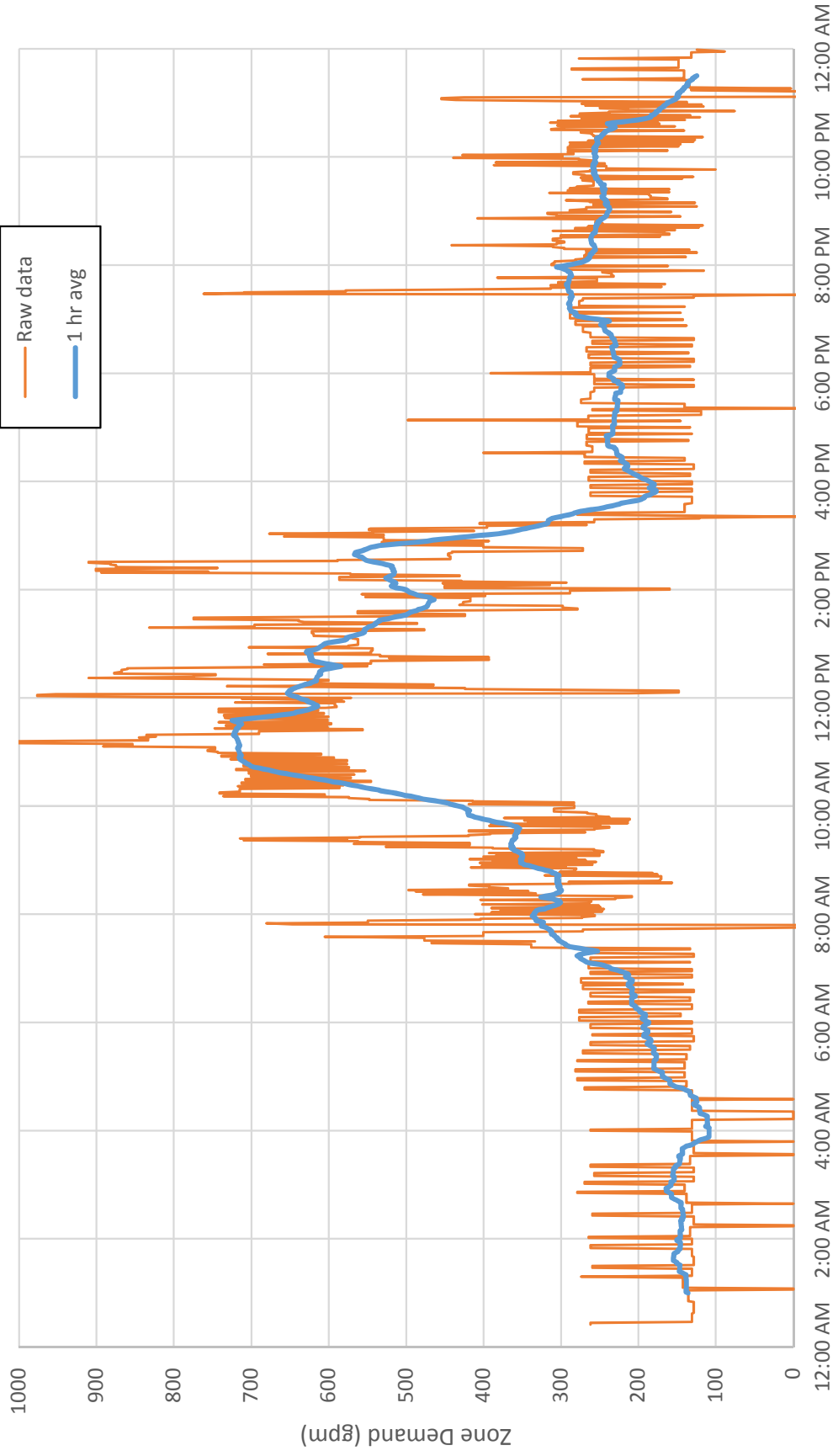
965 S Pressure Zone Peak Day Demand Diurnal Curve - July 11, 2012



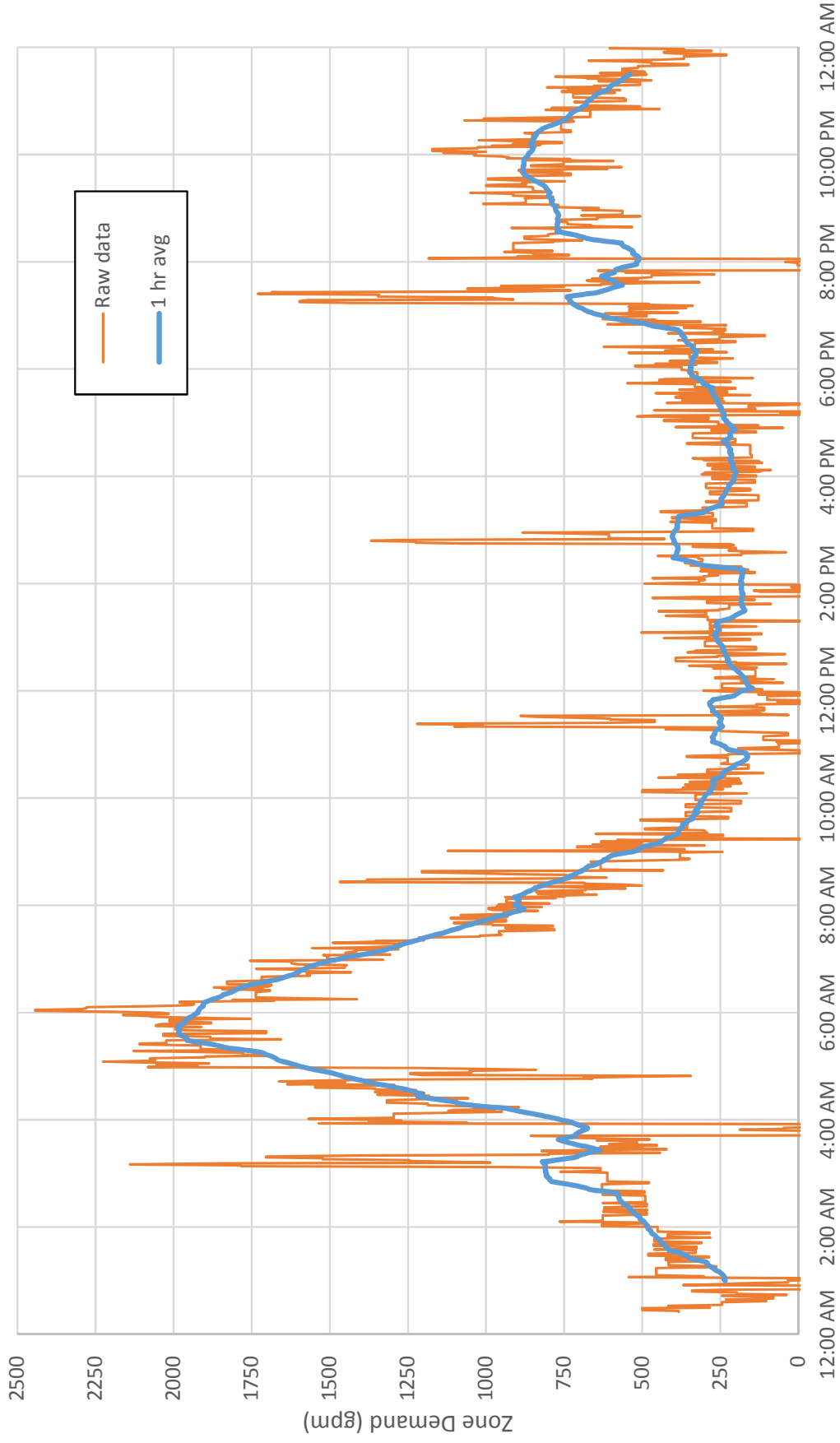
1170/1292 Pressure Zone Peak Day Demand Diurnal Curve - July 11, 2012



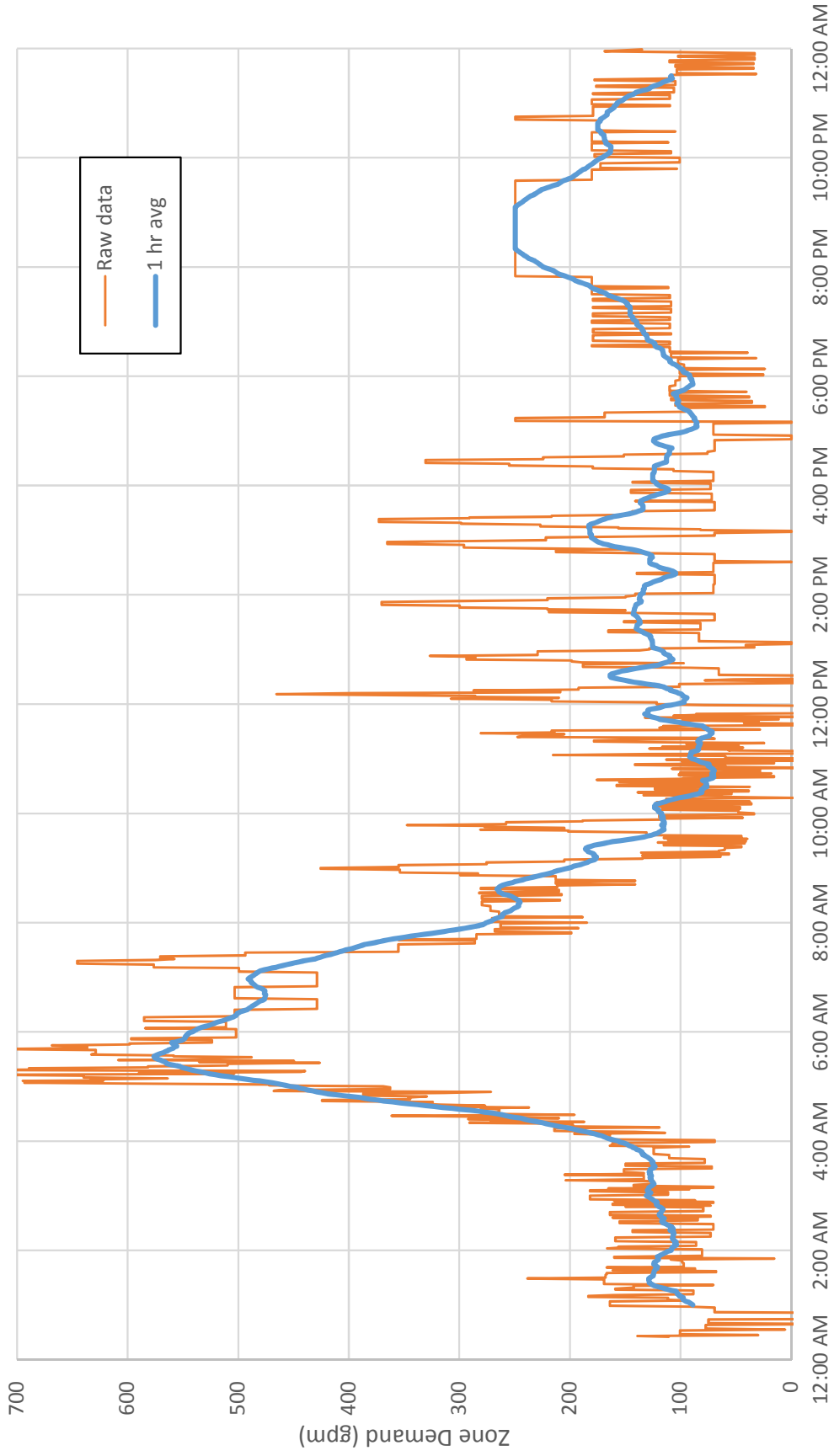
1350/1494 Pressure Zone Peak Day Demand - Aug 8, 2012



1594 Pressure Zone Peak Day Demand - Aug 3, 2012



1768 Pressure Zone Peak Day Demand Diurnal - Aug 15, 2012



Appendix P

Billing Rates

| 2014 Water Rates / Bi-Monthly | | | |
|--|------------------|------------------|---------------|
| Meter Size | 2013 Rate | 2014 Rate | Change |
| 5/8 Inch | \$46.00 | \$47.00 | \$1.00 |
| 1 Inch | \$51.00 | \$52.25 | \$1.25 |
| 1-1/2 Inch | \$57.50 | \$58.75 | \$1.25 |
| 2 Inch | \$74.00 | \$75.50 | \$1.50 |
| 3 Inch | \$197.50 | \$202.00 | \$4.50 |
| 4 Inch | \$245.00 | \$250.50 | \$5.50 |
| Additional Multi-Family Unit | \$37.50 | \$38.50 | \$1.00 |
| Excess Water Consumption | | | |
| Charge per 100cf* | \$1.45 | \$1.45 | \$0.00 |
| *Consumption charge in excess of 1,200cf (cubic feet) per billing cycle. | | | |

| 2014 METER CHARGES | | | |
|---------------------------------|----------------|---|---------------------------------------|
| METER SIZE | PIF (1) | INSTALL CHARGE | TOTAL |
| 5/8" | \$2,000.00 | \$500.00 | \$2,500.00 |
| 1" | \$3,600.00 | \$700.00 | \$4,300.00 |
| 1" 2 UNITS | \$5,200.00 | \$700.00 | \$5,900.00 |
| 1" 3 UNITS | \$6,800.00 | \$700.00 | \$7,500.00 |
| 1" 4 UNITS | \$8,400.00 | \$700.00 | \$9,100.00 |
| 1 1/2" | 10,000.00 | All Materials with 20% markup plus Labor Cost | Total of PIF and Installation Charges |
| 3" | 32,000.00 | | |
| 4" | 50,000.00 | | |
| 6" | 100,000.00 | | |
| (1) Plant Investment Fee | | | |

Appendix Q

Cross Connection Control Resolution

Resolution No. 462 (AMENDED)

CROSS CONNECTION CONTROL ORDINANCE

FINDING OF FACT:

Whereas it is the water purveyor's responsibility to provide water to the customer that meet state water quality standards; and

Whereas it is the water purveyor's responsibility to prevent the contamination of the public water supply system; and

Whereas cross connections within the customer's plumbing system pose a potential source for the contamination of the public water supply system;

Now be it resolved that the EAST WENATCHEE WATER DISTRICT establishes the following service policy to protect the public water supply system from the risk of contamination. For public health and safety, this policy shall apply equally to all new and existing customers.

PREVENTION OF CONTAMINATION:

The customer's plumbing system, starting from the termination of the purveyor's water service, shall be considered a potential high health hazard requiring the isolation of the customer's premise by a purveyor approved, customer installed and maintained air gap. The air gap shall be located at the end of the purveyor's service pipe. Water Shall only be supplied to the customer through this purveyor approved air gap.

Notwithstanding the aforesaid, the purveyor, upon assessing the risk of contamination posed by the customer's plumbing system and use of water, may allow the customer to connect directly to the water service, i.e., without a purveyor approved air gap. Permission for the direct connection to the water service will be at the sole discretion of the purveyor, and will be based on the following terms and limitations:

1. The customer agrees to take all measures necessary to prevent the contamination of the plumbing system within their premise and the purveyor's distribution system that may occur from backflow through a cross connection. These measures shall include the prevention of supply from the purveyor's system that may occur by reason of routine system maintenance or during emergency conditions, such as a water main break.
2. The customer agrees to install, operate and maintain at all times their plumbing system in compliance with the current edition of the plumbing code having jurisdiction as it pertains to the prevention of contamination, and protection from thermal expansion due to a closed system that could occur with the present or future installation of backflow preventers on the customer's service and/or at plumbing fixtures.

3. For cross connection control or other public health related surveys, the customer agrees to provide free access for the employees of the purveyor to all parts of the premise during reasonable working hours of the day for routine surveys, and at all times during emergencies.
4. The customer agrees to install all backflow prevention assemblies requested by the purveyor, and to maintain those assemblies in good working order. The assemblies shall be of a type, size and make approved by the purveyor and the State (Provincial) Health Authority. The assemblies shall be installed in accordance with all standards established by the purveyor.
5. The customer agrees to have all backflow prevention assemblies tested upon installation, annually thereafter or when requested by the purveyor, after repair and after relocation. All testing shall be done by a purveyor approved and Washington State Department of Health certified backflow prevention assembly tester (BAT). The results of the tests shall be reported within 30 days to the purveyor on a form provided by or approved by the purveyor.
6. The customer agrees to obtain prior approval from the purveyor for all changes in water use, and alterations and additions to the plumbing system, and shall comply with any additional requirements imposed by the purveyor for cross connection control.
7. The customer acknowledges the right of the purveyor, in keeping with changes to Washington State Department of Health or the purveyor's risk management policies, to impose retroactive requirements for additional cross connection control measures.
8. The customer acknowledges the right of the purveyor to discontinue water supply within 72 hours of giving notice, or a lesser period of time if required to protect the public health, if the customer fails to cooperate in the installation, maintenance, repair, inspection or testing of backflow prevention assemblies or air gaps required by the purveyor.
9. The customer agrees to indemnify and hold harmless the purveyor for all contamination of the customer's plumbing system or the purveyor's distribution system that results from an unprotected or inadequately protected cross connection within their premise. This indemnification shall pertain to all backflow conditions that may arise from the purveyor's suspension of water supply or reduction of water pressure, recognizing that the air gap separation otherwise required would require the customer to provide adequate facilities to collect, store and pump water for their premise.

The administrator of the East Wenatchee Water District shall establish the priority for the survey and repeat survey of new and existing premises for cross connections, based on the risk management policies established by the East Wenatchee Water District, and the minimum requirements imposed by the Washington State Department of Health. The administrator shall establish standards and procedures governing the application, installation, approval and testing of assemblies, and other related tasks, in accordance with the Washington State Department of Health, and the American Water Works Association - Pacific Northwest Section "Manual of Cross Connection Control," Sixth Edition, or latest edition thereof; and may establish such other more stringent requirements deemed necessary to reduce the risk of contamination of the public water supply system.

The survey of a customer's premise shall be for sole purpose of establishing the purveyor's minimum requirements for the protection of the public water supply system, commensurate with the purveyor's assessment of the degree of hazard. It shall not be assumed by the customer or other regulatory agencies that the purveyor's survey, requirements for the installation of backflow prevention assemblies, lack of requirements for the installation of backflow prevention assemblies, or other actions by personnel employed by the purveyor, constitutes an approval of the customer's plumbing system, or an assurance to the customer of the absence of cross connection therein.

DEFINITIONS

ACCESSIBLE:

In reference to the installation of backflow preventers, accessible shall mean that such backflow preventers shall be placed so that they can be reached for testing and/or maintenance safely, but may allow access panels, doors, etc.

ADMINISTRATIVE AUTHORITY:

An individual, department, or other agency given the responsibility and authority by a state, province, county, city or other political entity created by law to administer and enforce the provision of a cross connection control program.

AIR GAP:

The vertical physical separation between the free flowing discharge end of the potable supply line and the overflow rim of the receiving vessel. In an "approved" air gap, the separation must be at least twice the inside diameter of the supply line, but never less than one-inch. When the air gap is within three pipe diameters (measured horizontally) of a wall, the air gap shall be increased to three times the incoming pipe diameter, or four times the effective opening for intersecting walls.

APPROVAL/APPROVED:

Approved in writing by the health authority or other agency having jurisdiction.

ASPIRATION:

The use of the venturi principle (a sub-atmospheric pressure condition caused by an increase of velocity in a water line through a localized restriction) to introduce a second substance in the water supply.

ASSE:

ASSE is the abbreviation for the American Society of Sanitary Engineering.

ATMOSPHERIC VACUUM BREAKER (AVB)

A device which contains a float check (poppet), a check seat and an air inlet vent. When water pressure is reduced to a gauge pressure of zero or below, the float check drops, allowing air to enter the device, preventing back siphonage. It is designed to protect against back-siphonage only.

AUXILIARY WATER SUPPLY:

Any water supply on, or available to, a premise in addition to the purveyor's approved public potable water supply.

AUXILIARY WATER SUPPLY - APPROVED:

An auxiliary water supply which has been investigated and approved by the health authority, meets water quality regulations, and is accepted by the water purveyor.

AUXILIARY WATER SUPPLY - UNAPPROVED:

An auxiliary water supply which is not approved by the health authority and the water purveyor.

AWWA:

AWWA is the abbreviation for the American Water Works Association.

BACKFLOW:

The flow of water or other liquids, gases or solids from any source back into the customer's plumbing system or the water purveyor's water distribution system.

BACKFLOW PREVENTION ASSEMBLY:

The nomenclature "assembly" refers to a backflow preventer which are designed to be in-line tested and repaired, and to meet the head loss and flow requirements of the recognized approval authority. The "assembly" consists of the backflow prevention unit, two resilient seated shutoff valves, and test cock(s).

BACKFLOW PREVENTION DEVICE:

The nomenclature "device" refers to a backflow preventer that is not designed for in-line testing.

BACKFLOW PREVENTION ASSEMBLY TESTER-CERTIFIED (BAT):

See Certified Backflow Assembly Tester.

BACKPRESSURE:

Water pressure which exceeds the operating pressure of the pressure of the purveyor's potable water supply.

BACKSIPHONAGE:

Backflow due to a negative or reduced pressure within the purveyor's potable water supply.

BAROMETRIC LOOP (BL):

A loop of pipe rising at least 35 feet at its uppermost point, above the highest point on the downstream piping.

CAS:

CAS is the abbreviation for the Canadian Standards Association.

CAPILLARY ACTION:

A form of backflow where liquids can be drawn into small openings of a water outlet by capillary action. Capillary action (or attraction) is the energy that causes a liquid to adhere to the internal walls of a small pipe, overcoming the internal cohesion of the liquid.

CERTIFIED BACKFLOW ASSEMBLY TESTER:

A person who is certified by the administrative authority having jurisdiction to test backflow prevention assemblies.

CERTIFIED CROSS CONNECTION CONTROL SPECIALIST/INSPECTOR:

A person who is certified by the administrative authority having jurisdiction to administer a cross connection control program and to conduct cross connection surveys.

CHECK VALVE:

The term “check valve” is a generic term used for a variety of valves that specifically allow flow in one direction only. The variety of such valves include slanting disc checks, silent checks (wafer or globe), automatic control checks, rubber flapper checks, double disc swing checks, swing checks (internally or externally weighted), and a spring loaded check. A check valve in an approved assembly must be an approved check valve (components of double check valve assemblies, reduced pressure backflow assemblies, pressure vacuum breakers etc.) that is drip-tight in the normal direction of flow when the inlet pressure is at least one p.s.i.

CONFINED SPACE:

Any space having a limited means of egress and not intended for continuous occupancy, which is subject to the accumulation of toxic or flammable contaminants or an oxygen deficient atmosphere.

CONTAINMENT:

To restrict or limit the flow of contaminated or polluted water to the meter or service connection where the public water enters the private (customer’s) water system. The two systems are separated by a back flow preventer commensurate with the degree of hazard. (See also Premise Isolation.)

CONTAMINATION:

An impairment of the quality of the potable water which creates an actual hazard to the public health through poisoning or through the spread of diseases by sewage, industrial fluids or waste. Also defined as severe or high hazard. Also see **Pollution and Maximum Contaminant Level**.

The term “contamination” used in EPA and state drinking water regulations “Maximum contamination level” bestows a different meaning than that used in describing a cross connection hazard.

CRITICAL LEVEL:

The point on a vacuum breaker which determines the minimum elevation above the flood level rim of the fixture or receptacle served at which the vacuum breaker may be installed.

CROSS CONNECTION:

A cross connection is any actual or potential physical connection between a potable water line and any pipe, vessel, or machine containing a non-potable fluid or has the possibility of containing a non-potable fluid, such that it is possible for the non-potable fluid to enter the water system by backflow. A cross connection could be any physical arrangement whereby a potable water supply is connected, directly or indirectly, with any non-potable or un-approved water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or any other device which contains, or may contain, contaminated water, liquid, gases sewage, or other waste, of unknown or unsafe quality which may be capable of imparting contamination to the potable water supply as a result of backflow. See also **Point of Hazard**.

DOUBLE CHECK DETECTOR ASSEMBLY (DCDA):

An approved assembly consisting of two approved double check valve assemblies, set in parallel, equipped with a meter on the bypass line to detect small amounts of water leakage or use

DOUBLE CHECK VALVE ASSEMBLY (DCVA)

An approved assembly consisting of two independently operating check valves, loaded to the closed position by springs or weights, and installed as a unit with, and between, two resilient seated shutoff valves and having suitable connections for testing.

DISTRIBUTION SYSTEM:

The network of pipes and other facilities which are used to distribute water from the source, treatment, transmission, or storage facilities to the water user.

DUAL DISTRIBUTION SYSTEM:

A facility with two water systems, one potable and the other non-potable. The purpose of the non-potable water system is to reduce the cost of the potable water supply.

FLOOD LEVEL:

The highest level to which water, or other liquid, will rise within a tank or fixture (i.e. the overflow rim of the receiving vessel).

GRAY WATER:

Gray water is untreated household waste water which has not come into contact with sewage. Gray water can include used water from kitchen sinks, dishwasher waste water, bathtubs, showers, bathroom wash basins and water from clothes washing machines and laundry tubs.

HAZARD-PLUMBING:

“Plumbing Hazard” is a cross-connection in a customer’s potable water system.

HAZARD-PUBLIC HEALTH:

A condition, device or practice which is conducive to the introduction of waterborne disease organisms, or harmful chemical, physical, or radioactive substances into a potable water system, and which presents an unreasonable risk to health.

HEALTH AUTHORITY:

The appropriate state or provincial departments or districts of public health or, in some cases, a local agency having jurisdiction.

HEAT SINK:

The use of the purveyor's potable water system as a heat sink, by taking water from a water main, passing it through a heat exchanger and then returning the warm water back to the purveyor's potable water system.

HIGH HEALTH HAZARD:

A physical or toxic hazard which could be detrimental to one's health.

HOSE FAUCET VACUUM BREAKER (HFVB):

Hose faucet vacuum breakers are vacuum breakers that are either incorporated into or attached onto the hose faucet (hose bib) threads.

INDUSTRIAL WATER:

See Process Water.

INDUSTRIAL PIPING SYSTEM:

A customer's "industrial piping" system refers to that piping system that transmits, confines, or stores any fluids that are not approved potable water. Such a system would include all pipes, tanks, fixtures, equipment and other extensions of the non-potable water system.

IN-PLANT ISOLATION:

The practice of installing backflow prevention assemblies at the point of hazard to protect one or more actual or potential cross connections within a premise. See **Point of Hazard**.

INTERNALLY-LOADED CHECK VALVE:

A check valve which is internally loaded, either by springs or weights, to the extent it will be drip tight with a 1 p.s.i. differential in the direction of flow.

INTERNAL PROTECTION:

Internal isolation is the practice of installing backflow prevention assemblies to protect an area within a customer's facility.

LOCAL ENFORCEMENT AUTHORITY:

Authorized agent of the regulatory authority and/or the water purveyor.

LOW HEALTH HAZARD:

A low hazard means those contaminants which, at the levels found in the water, could cause aesthetic problems such as adverse effects on the taste, odor and color of the water or have a detrimental effect on the quality of the purveyor's potable water supply, but which does not present a danger to health.

MAXIMUM CONTAMINANT LEVEL (MCL):

The maximum amount of a contaminant allowed in a sample of water according to federal and state (provincial) regulations. The importance of this to cross connection is that the presence of a higher level than at the source may signify the occurrence of a cross connection incident.

NON-POTABLE FLUID:

Any water, other liquid, gas, or other substance which is not safe for human consumption, or is not a part of the public potable water supply as described by the health authority.

NON-POTABLE PIPING SYSTEM:

A piping system which is made of non-potable material. Such materials are to be considered non-potable if they can affect either the aesthetics or degradation of the healthfulness of the water. Examples of such pipe are black iron and certain plastics.

PATHOGENIC:

"Pathogenic" means a specific agent (bacterium, virus or parasite) causing or capable of causing disease.

POLLUTION:

An impairment of the quality of the public potable water supply which does not create a hazard to the public health but which does adversely affect the aesthetic qualities of such potable waters for domestic use. Also defined as low hazard. See Also **Contaminant** and **Maximum Contaminant level**.

An impairment of the quality of potable water which creates an actual hazard to the public health through poisoning or through the spread of diseases by sewage, industrial fluids or waste. Also defined as high hazard.

POINT OF HAZARD:

The point where a real or potential cross-connection (potable water coming in contact with non-potable water, gases, or other fluids) can be determined. More obvious points include fixtures and any systems including boilers, fire protection services, or any system where the possibility of chemical contact or stagnation exists).

POTABLE WATER:

Water which is safe for human consumption, free from harmful or objectionable materials, as described by the health authority. (See **Safe Drinking Water.**)

PREMISE ISOLATION:

The practice of protecting the public potable water supply by installing backflow prevention assemblies at or near the point where water enters the premise. This type of protection does not provide protection to personnel on the premise.

PRESSURE VACUUM BREAKER ASSEMBLY (PVBA):

An approved assembly consisting of a spring loaded check valve loaded to the closed position, an independently operating air inlet valve loaded to the open position and installed as a unit with and between two resilient seated shutoff valves and with suitable connections for testing. It is designed to protect against back siphonage only.

PRIVATE HYDRANT:

Any hydrant which is not owned, operated or maintained by the local water purveyor or his agent.

PROCESS WATER:

Water that is directly connected to, or could come in contact with, an extreme high hazard situation, and must never be consumed by humans.

REASONABLE RISK:

The amount of risk acceptable to a prudent and reasonable water purveyor using reasonable diligence.

RECLAIMED WATER:

Wastewater that has been treated for non-potable use within the same facility or premise. Examples of use would be irrigation and for industrial use.

REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA):

An approved assembly consisting of two independently operating check valves, spring loaded to the closed position, separated by a spring loaded differential pressure relief valve loaded to the open position, and installed as a unit with and between two resilient seated shutoff valves and having four suitable test cocks for checking the water tightness of the check valves and the operation of the relief valve.

REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA):

An approved assembly consisting of two approved reduced pressure backflow assemblies, set in parallel, equipped with a meter on the bypass line to detect small amounts of water leakage or use. This unit must be purchased as a complete assembly. The assembly may be allowed on fire line water services in place of an approved reduced pressure backflow assembly upon approved by the local water purveyor.

SAFE DRINKING WATER ACT:

The Safe Drinking Act was legislation that was enacted by the United State Congress in 1974 to ensure that the public is provided with safe drinking water, thereby protecting the public welfare.

SAFE DRINKING WATER:

“Safe Drinking Water” means water which has sufficiently low concentrations of microbiological, inorganic chemical, organic chemical, radiological or physical substances so that individuals during such water at normal levels of consumption, will not be exposed to disease organisms or other substances which may produce harmful physiological effects.

SERVICE CONNECTION:

“Service Connection” means the piping connection by means of which water is conveyed from the water purveyor’s distribution main to a customer’s premise. For a community water system, the portion of the service connection which conveys water from the distribution main to the customer’s property line, or to the service meter where provided, is under the jurisdiction of the water purveyor.

SYSTEM HAZARD:

The actual or potential threat of severe danger to the physical characteristics, as well as serious water quality deterioration of public and private plumbing systems, such as, the damage caused by air or steam in piping systems not designed for such substances.

THERMAL EXPANSION:

Thermal expansion is the pressure increase due to a rise in water temperature. The problem becomes acute in heated water piping systems when such system becomes “closed” due to a backflow preventor which disallows expansion beyond that point.

TOXICITY:

The degree to which a substance is toxic, that is poisonous, in relating to affecting the potability of the water supply.

UNREASONABLE RISK TO HEALTH:

A risk to health which is not necessary or acceptable to the water purveyor and/or consumer; a term used to distinguish what type of backflow prevention should be required. See also **Reasonable Risk**.

USC FCCCHR:

“USC FCCCHR” is the abbreviation for the University of Southern California Foundation for Cross Connection Control and Hydraulic Research. It is an agency which tests and approves backflow prevention assemblies by approved standards.

USED WATER:

Any potable water which is no longer in the purveyor's distribution system. In most cases, the potable water has moved past (downstream of) the water meter and/or the property line.

WATER PURVEYOR:

Any agency, subdivision of the state, municipal corporation, firm company, mutual or cooperative association, institution, partnership, person or other entity that owns or operates a public potable water system. It also means the authorized agents of such entities as listed above.

WATER SYSTEM:

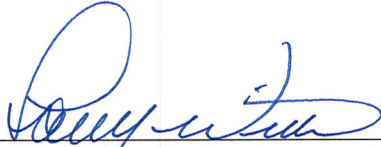
"Water System" means a system for the provision of piped water for human consumption.

Adopted this 4th, day of March, 1999, by the Board of Commissioners of the East Wenatchee Water District, Douglas County Washington at a regular meeting thereof.



Mike McCourt, President

ATTEST:



Larry Witte, Secretary

/sr

Appendix R

Consumer Confidence Report

East Wenatchee Water District

2013 Annual Water Quality Report

We're pleased to provide you with information about our region's most precious resource, drinking water. In 2013 your water, again, met or exceeded all state and federal drinking water standards. This annual water quality report is sent in accordance with the Federal Safe Drinking Water Act. We are happy to comply as we want our customers to know their water is of the highest quality. This report is also available on our website www.ewwd.org



WE APPRECIATE YOUR COMMENTS

The East Wenatchee Water District welcomes your questions, concerns and observations. Our Board of Commissioners, Michael T. McCourt, Terry Barnes and G. Brian Egan, meet on the first and third Wednesday of each month at 3:00 p.m. at the District Headquarters located at 692 Eastmont Ave. Unless they are in executive session, any meeting of two or three commissioners is open to the public. Our District Manager, Greg Brizendine can be reached by calling (509) 884-3569.

Atención:

Este documento contiene información muy importante con relación a su agua potable. El propósito de este documento es proporcionarle información con respecto a la calidad del agua suministrada por el East Wenatchee Water District (Distrito de Agua). En 2013 el agua suministrada por el distrito cumplió y superó todos los estándares estatales y federales con respecto a la seguridad y la calidad. Si desea obtener más información con respecto a la calidad del agua u otros temas analizados en este documento, favor de llamar al (509) 884-3569.



WHAT'S IN YOUR WATER AND WHAT ISN'T

The results of the most recent monitoring including that in 2013 are shown in the table below. Water was tested for the presence of potential contaminants, but only those required based on their detection are listed in this table.

Samples were also taken for the presence of Coliform 30 times from 8 different sample sights monthly in 2013. Coliform are naturally present in the environment and a test result showing their presence simply indicates the need for additional sampling. Last year we again had no unsatisfactory samples for Coliform. State and Federal regulations dictate which contaminants the District must test for and how often. Not all compounds are tested for every year. The results presented represent the most current data for the source and the water system.

| ANALYTES | DETECTED LEVEL | UNIT | MCLG | MCL | COMPLY | LIKELY SOURCES |
|---|--------------------|------|--------|--------|------------------------|---|
| EPA REGULATED | | | | | | |
| Arsenic | <0.002 | ppb | 0.002 | 0.01 | Yes | Erosion of natural deposits and orchard run off |
| Barium | 0.021 | ppm | 0.1 | 2 | Yes | Erosion of natural deposits and drilling wastes |
| Nitrite - N | <0.07 | ppm | 0.5 | 1 | Yes | Erosion of natural deposits, animal waste |
| Nitrate - N | 0.191 | ppm | 0.5 | 10 | Yes | Erosion of natural deposits, septic, fertilizer |
| Total Nitrate/Nitrite | 0.191 | ppm | 0.5 | 10 | Yes | Erosion of natural deposits, septic, fertilizer |
| EPA REGULATED (Secondary) | | | | | | |
| Iron | <0.02 | ppm | 0.1 | | Yes | Naturally occurring |
| Manganese | <0.005 | ppm | 0.01 | | Yes | Naturally occurring |
| Chloride | 1.15 | ppm | 20 | | Yes | Naturally occurring |
| Sulfate | 9.96 | ppm | 10 | | Yes | Naturally occurring |
| Sodium | 2.3 | ppm | 5 | | Yes | Naturally occurring |
| Hardness | 7.71 | ppm | 10 | | Yes | Erosion of calcium and mineral deposits |
| Turbidity | <0.20 | NTU | 0.3 | | Yes | Soil erosion |
| Total Dissolved Solids | 108 | ppm | 150 | | Yes | Erosion of solids |
| Pesticides | | | | | | |
| Dimethoate | ND | ppm | | 0.70 | Yes | |
| Terbufos Sulfone | ND | ppm | | 0.40 | Yes | |
| PBDE47 | ND | ppm | | 0.30 | Yes | |
| PBDE 100 | ND | ppm | | 0.50 | Yes | |
| PBDE 99 | ND | ppm | | 0.90 | Yes | |
| 2,2',4,4',5,5'-Hexabromobiphenyl | ND | ppm | | 0.70 | Yes | |
| PBDE 153 | ND | ppm | | 0.80 | Yes | |
| FROM THE TAP RANGE | | | | | 90th Percentile | |
| Lead | <0.0005 to 0.00286 | ppb | 0 | 15 | 0.0013 | Plumbing corrosion, erosion of natural deposits |
| Copper | 0.016 to 0.959 | ppm | 1.3 | 1.3 | 0.696 | Plumbing corrosion, erosion of natural deposits |
| DISINFECTION BY-PRODUCTS (see below for description) | | | | | | |
| Total Trihalomethane | 6.385 LRAA | ppb | N/A | N/A | Yes | By-product of drinking water chlorination |
| Total Haloacetic Acid | 0.51 LRAA | ppb | 48 | 60 | Yes | By-product of drinking water chlorination |
| Chlorine Residual | 0.32 avg | ppm | MRDL=4 | MRDL=4 | Yes | Measure of remaining disinfectants |

DEFINITIONS:

LRAA : Locational running annual average.

ppb: Parts of contaminant per billion parts of water, also the same as micrograms per liter.

ppm: Parts of contaminant per million parts of water, also the same as milligrams per liter.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

ND: None Detected.

N/A: Not applicable

NTU: Nephelometric Turbidity Unit.

THE PURPOSE OF DISINFECTION, AND THE RESULTING DISINFECTION BY-PRODUCTS

Drinking water is disinfected with chlorine to destroy bacteria, viruses and Giardia. Inadequate disinfection may lead to acute gastrointestinal illnesses. However, as the disinfectant reacts with naturally occurring organic matter in the water, disinfection by-products are formed. Disinfection by-products have been linked to increased cancer risks from drinking water containing high levels over many years. New drinking water regulations provide a balance between required levels of disinfection and the resulting disinfection by-products. We are pleased to announce that after five years of extensive monitoring for disinfection by-products throughout our District we have seen results well below any state or federal action levels. Chlorination is our only treatment required and we monitor its levels throughout our system daily.

INFORMATION ON LEAD IN DRINKING WATER

In Washington State, lead in drinking water comes primarily from materials and components used in household plumbing. The more time water has been sitting in pipes, the more dissolved metals, such as lead, it may contain. Elevated levels of lead can cause serious health problems, especially in pregnant women and young children. To help reduce potential exposure to lead: for any drinking water tap that has not been used for 6 hours or more, flush water through the tap until the water is noticeably colder before using for drinking or cooking. You can use the flushed water for watering plants, washing dishes, or general cleaning. Only use water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead. Information on lead in drinking water is available from EPA's Safe Drinking Water Hotline at 1-800-426-4791 or at www.epa.gov/safewater/lead.

EDUCATIONAL INFORMATION

As water travels over the surface of land or through the ground, it dissolves naturally occurring minerals and can pick up substances resulting from the presence of animals or from human activity. Contaminants that can occur in untreated water include: microbial contaminants such as viruses and bacteria; inorganic contaminants such as salts and metals; pesticides and herbicides; organic chemicals from industrial or petroleum use, and radioactive materials. In order to ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a

health risk. Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at-risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the website www.epa.gov/safewater or by contacting the EPA's Safe Drinking Water Hotline (1-800-426-4791).

SOURCE PROTECTION INFORMATION

The Department of Health has Source Water Assessment Program (SWAP) data compiled for all community Public Water Systems in Washington. SWAP data for the East Wenatchee Water District is available online at <http://www.doh.wa.gov/ehp/dw/sw/assessment.htm>. Simply enter our system's name and I.D. # 218005 and you will have access to the information. Currently the assessment shows no significant susceptibility to potential sources of contamination.

WHERE OUR WATER COMES FROM

East Wenatchee Water District, system #218005. Your water comes from a groundwater source called the East Bank Aquifer. Located in Douglas County near Rocky Reach Dam, the aquifer is tapped by four wells drilled 200 feet in depth. The water from the East Bank Aquifer is of excellent quality and quantity and is capable of supplying an estimated 240 million gallons per day. The District also has two other seasonal groundwater sources that can be used if needed: Wells 4 & 5 located off Rock Island Road, and Well 7 located off of Cascade St. Water was not used from these sources in 2013.

CUSTOMER INFORMATION

We have the Direct Payment Plan for your convenience. You may have your water bill withdrawn directly from your checking account at no additional cost and, also for your convenience, we accept credit and debit cards for payment of your water bill.

SENIOR CITIZEN & DISABLED PERSON DISCOUNT

We still adjust water service charges for low income senior citizens and disabled persons. The maximum annual income is \$35,000 and you must be exempt from a portion of your property tax through Douglas County. If you think you may qualify, please stop by the District office and complete the paperwork for your adjustment.

| Water Rates For 2014 | |
|---|------------------------|
| <i>Meter Size</i> | <i>Bi-Monthly Rate</i> |
| 3/4 Inch | \$46.00 |
| 1 Inch | \$51.00 |
| 1 1/2 Inch | \$57.50 |
| 2 Inch | \$74.00 |
| 3 Inch | \$197.50 |
| 4 Inch | \$245.00 |
| Additional Multi-Family Unit | \$37.50 |
| Charge per 100 cubic feet in excess of 1200 = \$1.45 | |
| Senior/Low income Discount for 2014 | |
| Level 1 | \$13.00 |
| Level 2 | \$9.00 |
| Level 3 | \$5.00 |

WATER USE EFFICIENCY

The East Wenatchee Water District adopted the following water savings goals through our Comprehensive Water System Plan and Resolution # 586, adopted Jan. 16, 2008, and states our 6 year conservation goals of:

- Reducing “unaccounted-for” water by 1 percent to 2 percent by 2014.
- Reducing per-connection use by 2 percent to 3 percent by 2014.
- Promote public education and awareness of water conservation issues.

In 2005, when our Comprehensive Plan was completed, our “unaccounted-for” water use was down to 8.34%, which is in contrast to 1996's high of 17.9%. In 2013 the District experienced a record amount of water distribution main leaks and our unaccounted for water rose to 11%, which gave us a 3 year average of 8.9% which is in compliance with the Water Use Efficiency Rule.

Furthermore, water usage per connection has dropped dramatically from 428 gpd per ERU in 1994 to 306 gpd in 2012, or an average consumption reduction of 1.8 percent per year. Water consumption per ERU has reduced by 6-percent since the prior Plan, exceeding prior goals by a significant margin.

Compared to 1994, the demands per ERU in 2012 represent a 30-percent reduction in supply required per ERU. This is a significant accomplishment and speaks well of the District's efforts to consistently improve the system infrastructure and educate on efficient use of water. To date, the District has exceeded our prior conservation goals.

Our water use efficiency has been successful because of our efforts to promote information on water-use efficiency to the public. We include literature in our Consumer Confidence Reports, we have informational brochures on water use efficiency available at our office as well as posted on our web site. And we promote water conservation every year at the Home Show in Wenatchee, handing out brochures and answering questions as well as providing tips for conserving water. Also, we have replaced thousands of feet of old steel pipe where we have had numerous leaks in the past.

WATER CONSERVATION TIPS

In 2012 and again in 2013 we noticed some dramatic changes in water use during the summer months.

Thank you for doing your part to conserve this precious resource!

- **Remember that 1" of water per week is all your lawn needs to stay healthy. To easily determine if your lawn needs to be watered, simply walk across it. If you leave footprints it's time to water. Don't waste by over-watering!**
- **Pick low-water plants. When you buy plants, choose plants for immediate beauty and future water savings. Group plants with similar water needs together. Explore Xeriscape for landscaping ideas.**
- **Mulch-mow your lawn. Set your mower height at 2-inches and leaving the clippings on the lawn. The clippings help retain moisture and you won't need to bag the clippings!**
- **Improve water penetration by aerating your lawn and dethatching.**
- **Water wisely. When you do water, water deeply, but infrequently. Water only during the cooler hours of the day, between 7:00 p.m. and 10:00 a.m. to avoid losing up to half of your water to evaporation.**
- **Improve your soil. Add compost throughout your planting areas.**
- **Use soaker hoses or drip irrigation. Repair leaks in faucets and hoses. Use water-saving nozzles.**
- **Adjust sprinklers to avoid watering the street, driveways and sidewalks. Choose sprinklers with spray patterns that match the shape of your lawn or garden area.**
- **Limit watering periods by setting a timer to remind you when it's time to turn the water off.**
- **Install a rain shut off device to prevent watering during rainy periods.**
- **Use a broom to clean the driveway or walkways, not the hose.**
- **Cover your spa or pool to reduce evaporation.**

- **Check Your Meter** - Turn off all water-using appliances and fixtures inside and outside your home. Locate the water meter (typically out at the property line in a concrete box. Call us if you're not sure!) Check and record the current meter reading. Wait 10 minutes, without using any water inside or outside the home. While you're waiting check and see if there's a leak detection dial on the meter. It is usually a small red or black triangle that spins if there is water being used and is an indication that there is a leak.

After the 10 minutes, check the meter again and compare readings. If the numbers don't match, you have a leak. The most common culprits are leaking toilets and dripping faucets. If you believe your consumption is due to a factor beyond your control, please call the office and we will send out a crew worker to re-read your meter and help you troubleshoot your abnormal water consumption.

- **Test Your Toilet** - Lift the lid off of your toilet and add 5 to 10 drops of food coloring, or a dye tablet (available at our office) into the tank. Wait 5 minutes and then check the toilet bowl. If you see coloring in the bowl, you have a leak. In most cases, replacing the toilet flapper and/or the filling mechanism will correct the problem.



An Introduction to

Cross-Connection Control

TERMS

A **cross-connection** is any actual or potential physical connection between a drinking water system and any other non-potable substance (liquid, solid, or gas).

Backflow occurs when water or other substances flow in the opposite direction than intended allowing contaminants to enter the public water system or consumer's plumbing.

A **backflow incident** occurs when biological, chemical, or physical contaminants enter the drinking water supply (under backflow conditions) via unprotected cross-connections. Backflow incidents may cause injury, illness, or death.

Backflow prevention assemblies are mechanical assemblies installed on water service lines (or at plumbing fixtures) to prevent backflow of contaminants into drinking water through cross-connections.

Background

To protect public health, State drinking water rules require public water systems like ours to develop and implement Cross-Connection Control (CCC) programs. Under these programs, some water system customers (property owners) may have to install backflow prevention assemblies. Backflow assemblies must get tested (when installed and annually after that) to make sure they work properly.

WHO IS REQUIRED TO INSTALL THE ASSEMBLY?

It is the responsibility of the homeowner to have the backflow preventer installed if one is in fact required by State rules. So how do you know if you need one? If your home has an in-ground sprinkler system using East Wenatchee Water District supplied water you are required to have a backflow preventer installed. Also, homes having a portable kidney dialysis machine, or fire sprinkler system, cooling systems, direct plumbed swimming pool or hot tub, hard plumbed fountains or ponds or water-heated floors are required to have a backflow preventer installed as well.

How do you know which type of preventer is required? The best way to be certain is to call the office and ask! We're happy to help you determine which assembly is best suited for the use.

Some of you have received our Residential Survey that asks questions about the water use. This helps us determine what type of assembly may or may not be required. We'd be happy to send you one. Just call the office Monday through Thursday during our normal business hours, 7:00 a.m. to 5:30 p.m.

Appendix S

Dialysis Center Letter

05/20/2014

DaVita East Wenatchee
300 N Colorado Ave
East Wenatchee, Washington 98802

East Wenatchee Water District
Attn: Greg Brizendine
692 Eastmont Ave.
East Wenatchee, Washington 98802



Dear Greg Brizendine;

This is a letter of introduction regarding our dialysis facility, DaVita HealthCare Partners Inc. Wenatchee Valley Dialysis. Our intent is to remind you of our continued presence in the community, and of our mission to serve the needs of our patients. The revised End Stage Renal Disease (ESRD) Conditions for Coverage, enacted by the Centers for Medicare and Medicaid Services (CMS) in 2008, set forth requirements for disaster planning and response for all dialysis facilities. The Conditions for Coverage require all dialysis facilities to provide patient education, staff training, planning, and facility drills. All of our facilities plan for hazards with the potential to impact patients, staff, and community. We understand that there can be situations where water quality may be compromised due to unplanned occurrences. We ask that your office include in its emergency plan a system for communicating with the local dialysis facilities anytime there is a change in water quality that may have an adverse effect on their systems. A change of extreme nature may have the ability to defeat safeguards currently in place.

Dialysis is a life-sustaining medical procedure. Our facility has 8 dialysis stations and provides dialysis treatments to 15 patients in the community. We operate Monday-Wednesday-Friday from 0600am-0300pm. We are sure that you are aware of the requirement for high quality water to treat dialysis patients. Our evaluation process starts with an analysis of the water delivered to our facility (feed water). The standard that we operate from is much more stringent than EPA drinking water standards. Our water treatment system is designed to meet National AAMI Standards, and the equipment selection for each facility is based on both the feed water analysis from your jurisdiction as well as an analysis performed by our own laboratory.

Typically, our facilities take the water supplied by the local water authority, increase the pressure, pre-filter for particulates, soften the water, remove the chlorine, and then purify it by means of reverse osmosis. We also utilize ultra-filtration in our product water which removes unwanted bacteria, endotoxins. Our facility dialyzes multiple shifts of patients, typically three (3) days per week, and does use a large volume of water. Although we pre-treat and purify the water that you supply, our systems are designed and "sized" based on the feed water analysis originally provided by your jurisdiction. In essence, there are limitations to the performance capability of our equipment. Of key concern to us are changes implemented regarding Chloride/Chloramines, Fluoride, and Aluminum. The water quality in our facilities is in direct contact with our patient's blood stream, so effects that might not harm you or I could be fatal to a dialysis patient. I would be happy to speak with you regarding a communication plan, our emergency plan, and how we may fit into your emergency plan during any significant event. Attached is general information that explains emergency preparedness for dialysis patients. Also included is facility emergency contact information for your records. DaVita HealthCare Partner Inc.'s corporate Emergency Response Team (DaVERT) is responsible for assisting our facilities with disaster preparation and recovery. Please include my facility and DaVERT (davert@davita.com) in any correspondence or meetings you may have related to emergency preparedness.

I look forward to our continued partnership in the future.

Sincerely,

A handwritten signature in black ink, appearing to read "M Fischer". The signature is written in a cursive style with a large initial "M" and a long, sweeping underline.

Mike Fischer
Biomed Technician
DaVita East Wenatchee
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