Water Management and Conservation Plan

June 2012

Prepared for

City of Veneta

Prepared by

GSI Water Solutions, Inc.
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Executive Summary

The City of Veneta (City) is a thriving community that experienced a population increase of nearly 81 percent from 2000-2010, the fastest growth in Lane County. The City recognizes that as the demand for water continues to grow, improving water management and conservation becomes increasingly important.

This Water Management and Conservation Plan (WMCP or “Plan”) fulfills the requirements of the Oregon Administrative Rules (OAR) adopted by the Water Resources Commission in November 2002 (OAR Chapter 690, Division 86). The Plan also fulfills the conditions associated with the City’s groundwater Permit G-11551, which authorizes the use of 1.11 cubic feet per second (cfs) for municipal purposes. The Plan describes water management, water conservation, and curtailment programs to guide the wise use and stewardship of City’s water supply.

Description of Municipal Water Supplier

As of 2010, the City’s estimated water delivery area population was 4,561, which the City served through approximately 1,575 accounts. These accounts serve residential and commercial customers, including commercial customers with dwelling units in their establishments. The water delivery area includes the area within the existing city limits, which is contiguous with the urban growth boundary (UGB).

The City’s water supply comes from five groundwater wells owned and operated by the City, and serve as the City’s sole water supply source. The City currently holds five water use authorizations for municipal use of groundwater from its wells. In total, these water use authorizations allow withdrawal of up to 2.66 cfs or 1.72 million gallons per day (mgd) of groundwater. The City also has one water use application that is currently on hold. The City is actively pursuing certification and protection of its water rights.

Water from Well 9 is pumped to the water treatment plant (WTP) at the Public Works Yard where it is treated and stored in a 2-million-gallon (MG) ground-level reservoir. Water from Well 4 and Well 12 bypasses the WTP and flows directly into the reservoir. A booster pump station pumps water from the reservoir into the distribution system. Water from Well 10 and Well 11 is treated at the adjacent Jeans Road WTP and is pumped into the distribution system.

The City’s 2009 Water System Master Plan (WSMP) found that a shortfall in water supply will occur in the near future. Groundwater development was determined to not be feasible because of potential constraints in aquifer capacity and potential regulatory constraints associated with the hydraulic connection between groundwater and surface water. Consequently, the City is pursuing an interconnection with the Eugene Water and Electric Board’s (EWEB) system.

Water Conservation

The Oregon Water Resource Department’s (OWRD) WMCP rules require municipal water providers to have 5-year benchmarks for initiating or expanding conservation measures related
to required conservation programs. The following is a summary of the City’s activities associated with the required conservation measures and the 5-year benchmarks for implementing those measures, which are described in Section 3 of this Plan.

**Five-Year Benchmarks for Required Existing or Expanded Conservation Measures**

1. **Annual water audits.** After replacement of the production meters in 2009 and accounting software in 2010, the City’s Public Works Department began conducting monthly water audits. The City will summarize the results of those monthly water audits on an annual basis beginning in 2012. The audit compares water production readings from the wells to total consumption, which consists of meter reads, backwash use, bulk water sales, and fire hydrant flushing flows. The difference between production and consumption, or unaccounted-for water, is calculated as a total volume and a percentage of production. The City’s unaccounted-for water was calculated to be 11.8 percent from July 2010 to June 2011.

   *Five-year Benchmarks:*
   - The City will continue to audit its water system monthly and will summarize the results of the monthly water audits on an annual basis beginning in 2012.
   - The City will develop and maintain a spreadsheet that compares production to consumption on a monthly basis.
   - The City will explore the logistics of tracking fire department water use from hydrants for training and emergency purposes and tracking the City’s flushing of its distribution system.

2. **System-wide metering.** The City’s water system is fully metered.

   *Five-year Benchmark:*
   - The City will continue to require all new connections to be metered.

3. **Meter testing and maintenance.** The City uses meter reading as one of its primary means of monitoring for leaks. The City replaced all production meters on its wells in 2009-2010 with magnetic meters and installed an Automated Meter Reading (AMR) system on all account meters from 2004-2010. The City replaces meters when the manufacturer’s warrantee period expires or at any time a service connection is serviced, whichever occurs first. The Public Works Department staff promptly investigates when it notes spikes in water use of an individual account or in unaccounted-for water. If any concerns arise about the meter accuracy of ¾-inch and 1-inch meters, the City typically replaces the meter outright. All meters that are broken or require service are replaced.

   *Five-year Benchmark:*
   - As a result of recent meter upgrades, the City plans to continue to conduct meter testing and replacement as needed during the next 5 years.

4. **Unit-based billing program.** The City has had an increasing block rate (tiered), unit-based billing structure designed to encourage water conservation. All residential accounts are charged the same monthly base charge and are charged for consumption based on the amount of water used by the customer each month, which is metered at each customer’s
point of connection to the public utility. Bulk water customers and commercial customers also have a consumption change based on an increasing block rate structure. Commercial accounts have a monthly base charge, as well.

Five-year Benchmark:

- In the next 5 years, the City will continue to bill customers based, in part, on the quantity of water metered at the service connection, and will continue to evaluate its billing structure and adjust consumption charges, as appropriate.

5. **Leak detection and pipeline repair or replacement.** A 2009 leak detection survey of the City’s entire water system (Water Line Leak Location Project Final Report, 2009) found that the system appeared to be in good condition with regards to leakage. However, the City’s unaccounted-for water was calculated to be approximately 11.8 percent from July 2010 to June 2011, which is higher than the City expected, likely resulting from authorized unmetered water use by the Fire Department for training and emergency use and by the City to flush the water distribution system.

The OWRD requires water providers to have a regularly scheduled and systematic program to detect leaks when system leakage is above 10 percent. Although the City believes the system leakage portion of its unaccounted-for water is below 10 percent, the City has a leak detection program in place. The City Public Works Department staff regularly inspects the water lines visually in the course of daily tasks as its primary means of monitoring for leaks. The soil types and the configuration of the water lines in the City make leaks visible. When a leak is discovered by City staff members or reported to the City by its customers, the City staff repairs the leak immediately.

Five-year Benchmark:

- The City will continue to fund leak detection and repair or replacement and to carry out repairs or replacements in a timely manner.

6. **Public education.** The City has a public education program that includes water conservation messages in print and online media. Print media include: monthly water bills, educational pamphlets and fliers, newsletter, and the community newspaper. The City’s recently created water conservation Web page provides useful tips on lawn watering efficiency, advertises the WaterSense Toilet Rebate program, explains the City’s conservation water bill rate structure, provides water use calculators, and offers indoor and outdoor water conservation tips. The Web site also provides links to EWEB’s weekly watering recommendation, and information about water-wise plants, water-efficient landscapes, smart irrigation controllers, greywater, and fixing leaks.

Five-year Benchmarks:

- The City will continue to include conservation messages in each water bill, provide educational pamphlets, send out newsletters, and maintain its water conservation Web page.

- During the 2011-2012 school year, the City will partner with local schools to incorporate water conservation education activities into the curriculum. The hope is that children will retain this knowledge and share it with their parents, potentially resulting in greater water conservation in households.
• In the next 5 years, the City will contact EWEB about contributing to its radio and television campaigns to have a greater influence on the City’s residents.
• The City will consider writing newspaper articles that encourage low-water use landscaping.

In addition to these required measures, Section 3 of the Plan highlights additional conservation measures implemented by the City including: technical and financial assistance, retrofit/replacement of inefficient fixtures, water rate structure and billing schedule, and reuse, recycling, and non-potable water opportunities.

Water Curtailment

The City has developed a curtailment plan that describes how it will respond to specific water-shortage conditions. The curtailment plan presented in this WMCP has three distinct stages that increase in order of severity. Each stage is triggered by one or more of the identified initiating conditions. The curtailment stages and initiating conditions are summarized in Exhibit ES-1. Initiating conditions and response actions are described in detail in Section 4 of this WMCP.

EXHIBIT ES-1. Curtailment Stages 1 through 3.

<table>
<thead>
<tr>
<th>Curtailment Stages</th>
<th>Initiating Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1: Mild Alert Condition</td>
<td>• Full reservoir recovery cannot be achieved overnight, likely the result of:</td>
</tr>
<tr>
<td></td>
<td>➢ High system demand during the peak summer season</td>
</tr>
<tr>
<td></td>
<td>➢ The loss of a supply well</td>
</tr>
<tr>
<td></td>
<td>➢ A prolonged period of hot dry weather is forecast</td>
</tr>
<tr>
<td>Stage 2: Moderate Alert Condition</td>
<td>• Water service reservoirs are unable to sustain a service level that allows for full fire flow and emergency storage</td>
</tr>
<tr>
<td></td>
<td>➢ Likely to occur when total reservoir storage is at less than half of existing capacity</td>
</tr>
<tr>
<td>Stage 3: Severe Alert Condition</td>
<td>• Water service system is in severe jeopardy, such as:</td>
</tr>
<tr>
<td></td>
<td>➢ When well production is reduced to less than half of the demand</td>
</tr>
<tr>
<td></td>
<td>➢ During sustained drought</td>
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<tr>
<td></td>
<td>➢ Serious damage to the water system because of a natural disaster</td>
</tr>
<tr>
<td></td>
<td>➢ Failure of a significant part of the water system or a facility</td>
</tr>
<tr>
<td></td>
<td>➢ Damage to pumps station resulting from a mechanical problem or vandalism</td>
</tr>
<tr>
<td></td>
<td>➢ Contamination of the water supply</td>
</tr>
</tbody>
</table>

Water Supply

The City’s water delivery area is not anticipated to expand beyond its current water delivery area during the 20-year planning horizon of this WMCP. The City’s projected population for its
water delivery area in 10 years (2020) is 7,401 and in 20 years (2030) is 9,640. The population projections are based on an average annual growth rate of 3.6 percent determined by the City’s planning staff and include 396 residents currently served by individual wells that the City anticipates integrating into its water system during the next 20 years.

The City’s projected maximum day demand (MDD) in 2020 is 3.3 mgd and in 2030 is 4.2 mgd. Estimates of projected MDD were developed by multiplying the City’s approximate average maximum daily per capita water usage between 2003 and 2007 (440 gallons per capita per day [gpcd]). (This excludes 2004 because that year was an outlier.) The maximum daily per capita values also incorporate storage loss in the City’s reservoirs and water used for residential, commercial, and public purposes.

The City’s MDD for July 2009-June 2010 of 1.46 mgd is close to the City’s total groundwater use authorizations of 1.72 mgd and within the next couple of years easily could exceed the City’s authorized groundwater supply. Even with conservation savings of 5 percent, the City’s current water rights likely still will be unable to meet MDDs within a short time period.

Because of regulatory and hydrologic limitations on further groundwater development, the City is developing an interconnection with EWEB to meet its future water needs. The wholesale water purchased from EWEB will provide the City with a reliable long-term water supply in combination with its groundwater rights and groundwater supply system.
# 1. Municipal Water Supplier Plan Elements

This section satisfies the requirements of OAR 690-086-0125. This rule requires a list of affected local government to whom the plan was made available, and a proposed date for submittal of an updated plan.

**Introduction**

The City of Veneta (City), incorporated in 1962, is a thriving community that experienced a population increase of nearly 81 percent from 2000-2010, the fastest growth in Lane County. The City’s estimated water delivery area population for the year 2010 was 4,561, which the City served through approximately 1,575 accounts. As the City continues to grow, demand for water and the necessity to improve the management and conservation of this crucial resource will become increasingly important. The purpose of this Water Management and Conservation Plan (WMCP or Plan) is to guide development, financing, and implementation of water management and conservation programs that encourage sustainable water use.

The Oregon Water Resources Department (OWRD) issued a final order approving the City’s first WMCP on November 24, 2004, which required that the City submit an updated Plan by August 13, 2009. As part of the approval of the previous plan, OWRD included a work plan. The work plan elements and City responses are summarized in Exhibit 1-1.

**EXHIBIT 1-1. Work Plan Tasks and Response References.**

<table>
<thead>
<tr>
<th>Work Plan Tasks</th>
<th>2012 WMCP Response Summary</th>
<th>Full Response Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examine 690 86 140 (1) list certificate numbers (if possible) and aquifers for each well (needed for step 2).</td>
<td>The City currently has two certificated water rights: 52376 and 87206 (OWRD is currently processing transfer application T-11297 related to this certificate).</td>
<td>City of Veneta Water Rights, OAR 690-086-0140(5), Exhibit 2-13, Page 2-19.</td>
</tr>
<tr>
<td>Long Range Water Supply Element: identify strategy to strengthen the City’s supply by taking advantage of the earliest priority dates possible.</td>
<td>The City’s wells produce water year round from the Older Alluvium unit of the southern Willamette Valley, also referred to as the Middle Sedimentary unit.</td>
<td>Water Sources, OAR 690-086-0140(1), Page 2-1.</td>
</tr>
<tr>
<td>Identify known wells inside and within ¼ miles of the city limits that may be impacted by City operations.</td>
<td>The City is aware of the priority dates of its water rights and their maximum supply, as shown by the City’s reliance on its senior water rights. The City will continue to rely on its senior water rights as it fully develops its groundwater use authorizations.</td>
<td>Schedule to Exercise Permits &amp; Comparison of Projected Need to Available Sources, OAR 690-086-0170(2) and (4), Page 5-4.</td>
</tr>
<tr>
<td>Recognize and incorporate the 2050 plan being developed by LCOG/DLCD/City into the long-range supply plan or adopted City/County comprehensive plans.</td>
<td>The majority of wells located inside and within a quarter mile of the city limits are for “exempt uses.” The exempt wells completion dates range from 12/31/1940 to 12/2/2011. Six groundwater rights are present, all senior to the City’s water rights and for small quantities of water. Thus far, well-to-well interference with non-City wells has not been an issue. The anticipated wholesale purchase of water from EWEB will reduce pressure on the City’s groundwater use and reduce the likelihood of well-to-well interference issues.</td>
<td>Evaluation of Water Rights/Supply, OAR 690-086-0140(5), Page 2-22, and Appendix A.</td>
</tr>
<tr>
<td>Explore the possibility of submitting proof on the existing permit.</td>
<td>The Region 2050 Plan was not adopted, such that the City of Veneta could not incorporate it into the City’s long-range supply plan or its comprehensive plan.</td>
<td>Schedule to Exercise Permits &amp; Comparison of Projected Need to Available Sources, OAR 690-086-0170(2) and (4), Page 5-3.</td>
</tr>
</tbody>
</table>

**City of Veneta Water Rights, OAR 690-086-0140(5), Page 2-16.**
The City requested additional time to complete the updated Plan and OWRD granted the request. The Department established a new deadline of March 12, 2012.

**Plan Organization**

This Plan fulfills the requirements of the Oregon Administrative Rules (OAR) adopted by the Water Resources Commission in November 2002 (OAR Chapter 690, Division 86). This Plan describes water management, water conservation, and curtailment programs to guide the wise use and stewardship of the City’s water supply. The City is also submitting this Plan to fulfill the conditions associated with groundwater Permit G-11551, which authorizes the use of 1.11 cubic feet per second (cfs) for municipal purposes.

The Plan is organized into the five sections shown in **Exhibit 1-2**, each addressing specific sections of OAR Chapter 690, Division 86. Section 2 is a self-evaluation of the City’s water supply, water use, water rights, and water system. The information developed for Section 2 is the foundation for the sections that follow. The later sections use this information to consider how the City can improve its water conservation and water supply planning efforts.

**EXHIBIT 1-2. Sections of the City of Veneta Water Management and Conservation Plan.**

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1 – Water Supplier Plan</td>
<td>OAR 690-086-0125</td>
</tr>
<tr>
<td>Section 2 – Water Supplier Description</td>
<td>OAR 690-086-0140</td>
</tr>
<tr>
<td>Section 3 – Water Conservation Element</td>
<td>OAR 690-086-0150</td>
</tr>
<tr>
<td>Section 4 – Water Curtailment Element</td>
<td>OAR 690-086-0160</td>
</tr>
<tr>
<td>Section 5 – Water Supply Element</td>
<td>OAR 690-086-0170</td>
</tr>
</tbody>
</table>

**Affected Local Governments**

**OAR 690-086-0125(5)**

The following governmental agencies may be affected by this Plan:

- City of Veneta
- Lane County

Thirty days before submitting this Plan to OWRD, the City made the draft Plan available for review by each affected local government listed above along with a request for comments relating to consistency with the local government’s comprehensive land use plan. The letters requesting comment and any comments received are in **Appendix A**.

In addition, the City provided the Eugene Water and Electric Board (EWEB) with notice of the draft Plan as a courtesy. The City has a contract in place for EWEB to serve the City if the City is able to fund and construct a pipeline connection.
1. Municipal Water Supplier Plan Elements

**Plan Update Schedule**
*OAR 690-086-0125(6)*

The City anticipates submitting an update of this Plan within 10 years of the final order approving this Plan. As required by OAR Chapter 690, Division 86, a progress report will be submitted within 5 years of the final order.

**Time Extension**
*OAR 690-086-0125(7)*

The City is not requesting additional time to implement metering or a previous benchmark.
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2. Municipal Water Supplier Description

This section satisfies the requirements of OAR 690-086-0140. This rule requires descriptions of the City’s water sources, water delivery area and population, water rights, and adequacy and reliability of the existing water supply. The rule also requires descriptions of the City’s customers and their water use, the water system, interconnections with other water suppliers, and quantification of system leakage.

Water Sources

OAR 690-086-0140(1)

The City’s water supply comes from five groundwater wells owned and operated by the City. The two most recently developed wells (Well 11 and Well 12) were brought online in 2008 and 2009, respectively. Currently, the wells serve as the City’s sole water supply source.

The City’s wells produce water year round from an aquifer primarily composed of alluvial sand and gravel deposits, which have been referred to as the Older Alluvium unit of the southern Willamette Valley and as the Middle Sedimentary unit. These sediments are ancient stream deposits from the erosion of sedimentary rocks of the Coast Range and are up to 140 feet thick. Within the Older Alluvium, Wells 10 and 11 draw from a clayey alluvial sand and gravel unit while Wells 4, 9, and 12 draw from the deeper clean sand and gravel unit. The Older Alluvium deposit that supplies the City’s water is below the shallowest unit of the alluvial sediments, which is 40 feet thick and described as a silt or clay unit in drillers’ logs. The Older Alluvium lies on top of marine sandstone and siltstones of the Tyee Formation.

Water from Well 9 is pumped to the water treatment plant (WTP) at the Public Works Yard where it is treated and stored in a 2.0 million gallon (MG) ground level reservoir. Water from Well 4 and Well 12 bypasses the WTP and flows directly into the reservoir. A booster pump station pumps water from the reservoir into the distribution system. Water from Well 10 and 11 is treated at the adjacent Jeans Road WTP and is pumped into the distribution system. As of 2010, total production capacity of the wells is approximately 2.46 cfs (1.59 million gallons per day [mgd]).

Interconnections with Other Systems

OAR 690-086-0140(7)

The City is currently in the process of building a pipeline to provide a water supply connection between existing EWEB infrastructure on the west edge of the City of Eugene’s water distribution grid and water distribution facilities owned by the City. The City is constructing this pipeline in response to findings in the City’s 2009 Water System Master Plan (WSMP) that a shortfall in water supply will occur in the near future. The WSMP identified two strategies to provide reliable and adequate drinking water for the City: continued groundwater development or an intertie with EWEB. Further groundwater development was determined to not be feasible because of potential constraints in aquifer capacity and potential regulatory constraints associated with the hydraulic connection between groundwater and surface water. As a result, the City is pursuing the intertie with EWEB.
Intergovernmental Agreements
OAR 690-086-0140(1)

The City has a water supply agreement with EWEB stipulating that EWEB will supply wholesale surplus water to the City once the City constructs an interconnection between its system and EWEB’s western terminus (Appendix B). EWEB Commissioners and the City approved the contract for EWEB to supply wholesale surplus water to the City on April 6, 2010, and April 12, 2010, respectively. The contract requires the City to maintain a WMCP in full compliance with OAR 690, Division 086 or to adopt the EWEB WMCP as amended from time to time. The purpose of this requirement is to promote the City’s beneficial and efficient use of the wholesale water. The City has no other water supply agreements, exchanges agreements, or other water supply/delivery contracts.

Current Water Delivery Area Description
OAR 690-086-0140(2)

Exhibit 2-1 shows the City’s current water delivery area. The water delivery area includes the area within the existing City limits, which is contiguous with the urban growth boundary (UGB). As of 2010, the City’s system provided water to approximately 1,575 accounts. These accounts serve residential and commercial customers, including commercial customers with dwelling units in their establishments. The City’s estimated water delivery area population for year 2010 was approximately 4,561, based on the 2010 U.S. Census data for Oregon.
Exhibit 2-1. City of Veneta Current and Future Water Delivery Area and Water System Schematic.
Records of Water Use
OAR 690-086-0140(4) and (9)

Methodology

The International Water Association (IWA) and the American Water Works Association (AWWA) developed a water audit method that is widely recognized and utilized throughout the water industry.¹ This method defines and classifies annual water production and consumption as shown in Exhibit 2-2. Determination of the magnitude of the components of production and consumption helps utilities estimate how production, billing, and leak detection practices affect utility finances.

EXHIBIT 2-2

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Input Volume =</td>
<td>Production =</td>
<td>System Demand (measured at Master Meters)</td>
<td>Billed Authorized Consumption</td>
<td>Billed metered consumption (including water exported to another system). Billed unmetered consumption.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Unbilled Authorized Consumption</td>
<td>Unbilled metered consumption. Unbilled unmetered consumption.</td>
</tr>
<tr>
<td>Water Losses</td>
<td>Apparent Losses</td>
<td>Unauthorized consumption. Metering inaccuracies. Data handling error.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Real Losses</td>
<td>Leakage from transmission and/or distribution mains. Leakage and overflows at storage tanks. Leakage from water delivery connections up to point of customer metering.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Revenue Water</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-Revenue Water</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

System input volume, also known as “production” and “demand,” is the total quantity of water delivered to a distribution system (Exhibit 2-2). Sources of the delivered water may include water treatment plants, wells, or wholesale purchases from neighboring systems. The quantity of the water delivered is generally measured using large master meters located at key entry points into the distribution system. The system input volume must equal the sum of the authorized consumption and the water losses that occur in the system (Column B of Exhibit 2-2).

Authorized consumption is divided into billed and unbilled categories, where billed authorized consumption is revenue water and unbilled authorized consumption contributes to a system’s non-revenue water. Authorized consumption may be either metered or unmetered. Unmetered volumes must be estimated on the basis of estimated flow rates and durations of

flow. Authorized billed consumption may include metered consumption for use by residential, municipal, commercial, industrial, and irrigation customers, as well as wholesale water connections. Authorized unbilled consumption may include public uses for firefighting or hydrant flushing.

Water losses are composed of both apparent losses and real losses. Apparent losses result from meter inaccuracies, error introduced by data entry or manipulation, and unauthorized consumption, such as illegal connection to the system or unauthorized use of a fire hydrant. Real losses result from water loss as a result of leakage, reservoir overflow, and evaporation. All water systems have some degree of real losses. The OWRD’s WMCP administrative rules set a goal for municipal systems to have “system leakage” (real losses) equal to or less than 15 percent of total system input or demand, and if feasible, less than 10 percent.

Demands and consumption in municipal systems are generally reported units of mgd, but they may be reported in units of cfs or gallons per minute (gpm), as well. Annual or monthly water quantities are generally reported in units of MG. Water use per person (per capita use) is reported in gallons per capita per day (gpcd).

The following terms are used to describe specific values of system demands:

- **Average day demand (ADD)** equals the total annual system input (demand) divided by 365 days.
- **Maximum day demand (MDD)** equals the highest system demand that occurs on any single day during a calendar year. It is also called the 1-day MDD.
- **3-day maximum day demand (3-day MDD)** equals the average of the 3 consecutive days with the highest daily demands, including the MDD.
- **Maximum monthly demand (MMD)** in MG equals the highest total monthly demand of the 12 months of a calendar year. MMD in mgd equals the average day demand of the 1 month with the highest total demand of the 12 months of a calendar year.
- **Peaking factors** are the ratios of one demand value to another. The most common and important peaking factor is the ratio of the MDD to the ADD. This ratio is often used for system modeling and demand forecasting.

**Water Demand and Consumption Background**

The City has been making significant investments in its water system during the last decade. In 2002, the City upgraded its WTP by installing a SCADA (supervisory control and data acquisition) system and program logic controllers to better monitor and control its entire water system. That same year, the City completely replaced the existing WTP, built a new reservoir (Bolton Hill), created an additional pressure zone for better service, and looped several dead-end distribution mains for better hydraulic performance. From 2006-2010, the City installed Automatic Meter Reading (AMR) on all residential and commercial meters to increase billing accuracy, eliminate the need for staff to physically read each meter, and better track water consumption.
In July 2009, the City completed installation of magnetic meters on all five of its municipal wells. The previous master meters, which had spinning parts, appear to have inflated the values of production by as much as 30 percent. Except for the initial months of start-up (July and August 2009 when meters were still undergoing calibration), the meter recordings have fully met the City’s accuracy goals. Consequently, the following analysis of water demand is limited to July 2009 through June 2011.

Finally, in July 2010, the City began to use new accounting software after learning that the previous software was inaccurate, often showing more consumption than production. The City has reliable consumption data only from July 2010 onward, which has limited the following analysis of water consumption to the time period of July 2010 through June 2011.

### Historical Water Demands

**Exhibit 2-3** summarizes demand, or production of finished water, for the overall system. Production of finished water is equal to all water produced from the City’s wells. From July 2009 to June 2011, the City’s average ADD was 0.50 mgd. In July 2009, MDD was 1.46 mgd. The 3-day MDD, which gives an indication of the duration of periods of maximum demand, was 1.33 mgd in July 2009, which is approximately 91.1 percent of the MDD. This means that if the MDD equals 1.5 mgd, the City can expect to experience 3 consecutive days with an average demand of approximately 1.4 mgd each day (91.1 percent of 1.5 mgd).

**EXHIBIT 2-3.** Historical Average Day, Maximum Day, 3-day Maximum Day, and Maximum Monthly Demands.

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Volume Produced (MG)</th>
<th>ADD (mgd)</th>
<th>MDD (mgd)</th>
<th>3-d MDD (mgd)</th>
<th>3-d MDD Percentage of MDD (%)</th>
<th>MMD (mgd)</th>
<th>MMD (MG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2009-June 2010</td>
<td>187</td>
<td>0.51</td>
<td>1.46</td>
<td>1.33</td>
<td>91.1%</td>
<td>1.03</td>
<td>32.08</td>
</tr>
<tr>
<td>July 2010-June 2011</td>
<td>180</td>
<td>0.49</td>
<td>1.26</td>
<td>1.05</td>
<td>83.3%</td>
<td>0.95</td>
<td>29.41</td>
</tr>
<tr>
<td>Average</td>
<td>183</td>
<td>0.50</td>
<td>1.36</td>
<td>1.19</td>
<td>87.2%</td>
<td>0.99</td>
<td>30.75</td>
</tr>
</tbody>
</table>
Exhibit 2-4 illustrates the City’s ADD and MDD for July 2009 to June 2010 and July 2010 to June 2011.

EXHIBIT 2-4. Historical Average Day Demand (ADD) and Maximum Day Demand (MDD), July 2009 to June 2011.

The demand values presented in Exhibit 2-3 are slightly lower than those in the City’s WSMP, which can be attributed to the limited timeframe analyzed in this WMCP (2 years), wet springs and mild summers during that limited timeframe, the recent economic downturn, and installation of new meters and a new accounting system with slightly different reporting since development of the WSMP.

Weather patterns and the economy have a strong influence on MDD, resulting in MDD fluctuations from year to year. Weather patterns that influence MDD include: maximum temperatures, the number of consecutive days with high temperatures, when high temperatures occur in the summer, overall rainfall levels during the summer, and consecutive days without rainfall. Increased outdoor irrigation resulting from unusually hot, dry weather increases MDD. The economy can affect MDD, as well. An economic downturn may cause customers to irrigate less to save money, decrease construction of new homes with landscapes requiring intense irrigation for plant establishment, and influence the opening or closing of industries that use water in their operations.

Monthly Demand

The MMD occurred in July in both water use periods described above. The MMD volume from July 2009 to June 2010 was 32.08 MG and the following year was 29.41 MG. The average MMD was 30.75 MG.
Exhibit 2-5 shows monthly demand data from July 2009 to June 2011 expressed as an average daily demand for the month, with the peak season months of June through September in red. During this period, the highest monthly ADD recorded was 1.04 mgd in July 2009, as shown in Exhibits 2-3 and 2-5. This exhibit highlights the seasonal change in demand that the City experiences and the months with the greatest demand, July and August. Consequently, these months should be the focus of water conservation efforts.


**Seasonal Demand**

From July 2009 to July 2011, monthly demand during the 4 summer months (June-September) accounted for an average of 51 percent of the City’s annual demand and winter demand (December-March) accounted for 24 percent of the annual demand. The shoulder seasons (April through May and October through November) accounted for the remaining 25 percent of the annual demand. The City’s water production increases substantially during the summer months (June-September) as a result of outdoor water use, largely irrigation, which is typical for western Oregon utilities. The summer ADD was 0.79 mgd during the period July 2009 to June 2010 and 0.74 mgd during the period July 2010 to June 2011. The winter ADD was 0.37 mgd during the period July 2009 to June 2010 and 0.35 mgd during the period July 2010 to June 2011. Summer ADD was approximately 2.1 times greater than the winter ADD during both time periods.
Peaking Factors

Peaking factors are the ratios of one demand value to another, and the most common and important peaking factor is the ratio of the MDD to the ADD. This ratio often is used for estimating peak demands when only ADDs are known or measured, as well as for hydraulic modeling of the system and for demand forecasting. For the period July 2010 to June 2011, the year with the City’s most reliable data, the City’s MDD to ADD peaking factor was 2.56. This value is slightly greater than the typical value for Willamette Valley water utilities, which generally ranges between 1.9 and 2.2.

Per Capita Demand

Exhibit 2-6 shows the City’s estimated average day per capita demands from July 2009 to June 2011. As previously described, the water delivery area population is based on 2010 U.S. Census data. The City’s average day per capita demand from July 2009 to June 2011 was 110 gpcd. This value is within the range of several water supply entities on the west side of the Cascades, including the City of Tigard (100 gpcd), Tualatin Valley Water District and City of Beaverton (120 gpcd) (Joint Water Commission [JWC] WMCP, 2010), and lower than City of Corvallis (144 gpcd) (Corvallis 2010 Water Use and Water Conservation Project), City of Forest Grove (150 gpcd) (JWC WMCP, 2010), and City of Hillsboro (170 gpcd) (JWC WMCP, 2010).

EXHIBIT 2-6. Per Capita Demand (gpcd), July 2009-June 2011.

<table>
<thead>
<tr>
<th>Year</th>
<th>ADD (mgd)</th>
<th>Estimated Water Delivery Population</th>
<th>Average Day per Capita Demand (gpcd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2009-June 2010</td>
<td>0.51</td>
<td>4561</td>
<td>112</td>
</tr>
<tr>
<td>July 2010-June 2011</td>
<td>0.49</td>
<td>4561</td>
<td>108</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td>110</td>
</tr>
</tbody>
</table>

The per capita demand values presented in Exhibit 2-6 are lower than those in the City’s WSMP, which can be attributed to the limited timeframe analyzed in this WMCP (2 years), wet springs and mild summers during that limited timeframe, the recent economic downturn, and installation of new meters and a new accounting system with slightly different reporting since development of the WSMP.

Per capita demand includes all water produced to meet demand from residential customers, commercial/industrial customers, and the Fire Department, as well as bulk water, backwash water, and flushing flows. As a result, calculated per capita demand values typically exceed the amounts of water actually used by a typical individual. In addition, per capita demand may not accurately portray year-to-year water use because of the calculation not accounting for the difference in customer demographics, climate, rainfall, and current economic conditions. The calculation also does not account for specifics, such as large changes in commercial/industrial uses that may not have any relationship to population or actual efficiency of use. Nevertheless,
per capita demands may show year-to-year trends and often are used to compare customers’
water use to that of other communities.

**Authorized Consumption**

Authorized consumption is equal to the metered and certain unmetered water uses within the
system. All customers served by the City are metered and all known authorized water
consumption is metered except for the Fire Department’s use from hydrants for training or
emergencies, and the City’s flushing of its distribution system.

**Customer Characteristics and Water Use Patterns**

*OAR 690-086-0140(6)*

The City has five metered consumption categories, three of which are customer categories:
residential, commercial, and residential/commercial (businesses with dwellings in them).
Exhibit 2-7 shows the number of retail accounts by customer category as of July 2010 and June
2011.

| EXHIBIT 2-7. City of Veneta Number of Retail Accounts by Customer Category, July 2010 and June 2011. |
|-----------------------------------|-----|-----|
| **Residential** | July 2010 | 1475 | June 2011 | 1470 |
| **Commercial** | 94 | 95 |
| **Residential/Commercial** | 3 | 3 |
| **Total** | 1572 | 1568 |

The other two consumption categories are backwash water and bulk water. Customers that
purchase bulk water typically have wells that go dry in the summer and receive bulk water
through delivery. Backwash water is finished water that is used to scrub WTP filters to remove
excess iron from the City’s iron-rich groundwater. The filters are scrubbed daily at a rate of 900
gpm by reversing the water flow through the filters and then disposing of that water and the
accumulated unwanted material. The backwash water is held in tanks and slowly released into
the sewer collection system at 100 gpm or less to avoid overwhelming the system with too
much water. The sewer collection system leads to the wastewater treatment plant. Backwash
water is tracked by a meter as it enters the filters inside each WTP to begin the backwash
process. The total metered consumption, including bulk water and backwash water, for July
2010 to June 2011 was 158.7 MG.
Exhibit 2-8 presents a pie chart showing the percentage of water used by each consumption category during July 2010 to June 2011. Residential water use represented 80.6 percent and commercial water use represented 14.3 percent of total metered retail consumption. Bulk water use and the City’s use of water to backwash its filters accounted for 1.0 percent and 3.9 percent, respectively. These percentages indicate that the greatest potential conservation opportunities are likely to be found among the City’s residential water users.

EXHIBIT 2-8. Percentage of Water Use By Consumption Category, July 2010-June 2011.

Monthly Water Use

Exhibit 2-9 and 2-10 present the City’s monthly consumption by category for July 2010 through June 2011. Average monthly residential consumption was 10.66 MG. Commercial consumption had the next greatest average monthly consumption with 1.90 MG. Residential and commercial consumption peaked in August 2010 with 19.20 MG and 4.51 MG, respectively. This peak in consumption in the summer months is due to increased outdoor irrigation.
EXHIBIT 2-9. City of Veneta Metered Consumption by Consumption Category (MG), July 2010-June 2011.

<table>
<thead>
<tr>
<th></th>
<th>Residential</th>
<th>Commercial</th>
<th>Residential/Commercial</th>
<th>Backwash</th>
<th>Bulk Water</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul-10</td>
<td>18.76</td>
<td>3.73</td>
<td>0.04</td>
<td>1.14</td>
<td>0.78</td>
<td>24.45</td>
</tr>
<tr>
<td>Aug-10</td>
<td>19.20</td>
<td>4.51</td>
<td>0.04</td>
<td>1.06</td>
<td>0.26</td>
<td>25.06</td>
</tr>
<tr>
<td>Sep-10</td>
<td>14.14</td>
<td>3.90</td>
<td>0.05</td>
<td>0.67</td>
<td>0.06</td>
<td>18.82</td>
</tr>
<tr>
<td>Oct-10</td>
<td>8.27</td>
<td>1.81</td>
<td>0.03</td>
<td>0.41</td>
<td>0.05</td>
<td>10.56</td>
</tr>
<tr>
<td>Nov-10</td>
<td>9.56</td>
<td>0.99</td>
<td>0.03</td>
<td>0.34</td>
<td>0.05</td>
<td>10.96</td>
</tr>
<tr>
<td>Jan-11</td>
<td>7.56</td>
<td>0.90</td>
<td>0.02</td>
<td>0.41</td>
<td>0.05</td>
<td>8.95</td>
</tr>
<tr>
<td>Feb-11</td>
<td>6.81</td>
<td>0.77</td>
<td>0.02</td>
<td>0.34</td>
<td>0.10</td>
<td>8.04</td>
</tr>
<tr>
<td>Mar-11</td>
<td>8.26</td>
<td>0.95</td>
<td>0.02</td>
<td>0.35</td>
<td>0.05</td>
<td>9.63</td>
</tr>
<tr>
<td>Apr-11</td>
<td>7.92</td>
<td>0.90</td>
<td>0.02</td>
<td>0.34</td>
<td>0.04</td>
<td>9.22</td>
</tr>
<tr>
<td>May-11</td>
<td>7.82</td>
<td>1.04</td>
<td>0.03</td>
<td>0.38</td>
<td>0.04</td>
<td>9.30</td>
</tr>
<tr>
<td>Jun-11</td>
<td>12.21</td>
<td>2.43</td>
<td>0.04</td>
<td>0.38</td>
<td>0.11</td>
<td>15.17</td>
</tr>
<tr>
<td>Total (MG)</td>
<td>127.87</td>
<td>22.76</td>
<td>0.36</td>
<td>6.12</td>
<td>1.60</td>
<td>158.71</td>
</tr>
<tr>
<td>Total (%)</td>
<td>80.6%</td>
<td>14.3%</td>
<td>0.2%</td>
<td>3.9%</td>
<td>1.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Average (MG)</td>
<td>10.66</td>
<td>1.90</td>
<td>0.03</td>
<td>0.51</td>
<td>0.13</td>
<td>13.23</td>
</tr>
</tbody>
</table>
EXHIBIT 2-10. City of Veneta Monthly Metered Consumption by Consumption Category, July 2010-June 2011.
Largest Water Users

Exhibit 2-11 lists the City’s top 10 water consumers for July 2010 to June 2011, identified by their customer type. These 10 customers were responsible for approximately 16.4 percent of the total July 2010 to June 2011 metered consumption of 158.7 MG. Water conservation efforts targeted at these customers potentially could result in significant water savings. As described in more detail in Section 3, the City targets the top 10 percent of its residential water users as part of its water conservation efforts.


<table>
<thead>
<tr>
<th>Consumption Category</th>
<th>Annual Volume (MG)</th>
<th>Percent of Annual Volume (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>6.2</td>
<td>3.9</td>
</tr>
<tr>
<td>Residential</td>
<td>4.5</td>
<td>2.8</td>
</tr>
<tr>
<td>Residential</td>
<td>4.1</td>
<td>2.6</td>
</tr>
<tr>
<td>Commercial</td>
<td>3.9</td>
<td>2.4</td>
</tr>
<tr>
<td>Commercial</td>
<td>1.9</td>
<td>1.2</td>
</tr>
<tr>
<td>Residential</td>
<td>1.2</td>
<td>0.8</td>
</tr>
<tr>
<td>Commercial</td>
<td>1.2</td>
<td>0.7</td>
</tr>
<tr>
<td>Commercial</td>
<td>1.1</td>
<td>0.7</td>
</tr>
<tr>
<td>Residential</td>
<td>1.0</td>
<td>0.6</td>
</tr>
<tr>
<td>Residential</td>
<td>1.0</td>
<td>0.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>26.0</strong></td>
<td><strong>16.4</strong></td>
</tr>
</tbody>
</table>
Seasonal Water Use

Exhibit 2-12 presents the average monthly consumption by season and consumption category for July 2010 to June 2011. For the purposes of this WMCP, the summer months are defined as June through September and winter months are defined as December through March. The City’s summer season use to winter season use ratio of 2.4 (20.88/8.79 = 2.4) is typical for Willamette Valley water utilities, and similar to the City’s summer ADD/winter ADD ratio of 2.1.


Average monthly consumption in the summer and winter seasons were compared to understand current (July 2010-June 2011) seasonal differences in consumption for each consumption type. Residential water consumption was 2.1 times greater in the summer season than the winter season, commercial consumption was 4.2 times greater, and bulk water consumption was 5.6 times greater. These ratios indicate that water conservation activities should focus on outdoor use and target residential customers, the largest user group, as well as commercial and bulk water customers, who have the highest summer season to winter season consumption ratios.
Indoor and Outdoor Water Use

Estimates of indoor and outdoor water use by customers also may provide information that helps the City target its water conservation efforts. The analysis below focuses on the largest customer categories: residential and commercial. To estimate the amount of indoor versus outdoor water use for customer categories, water use in the wintertime was assumed to be representative of annual indoor water use.

The 2010 to 2011 winter residential monthly average consumption of 7.5 MG was multiplied by a 12-month period to determine the average annual residential indoor use of 90.0 MG. Subtracting the average annual indoor use from the total annual use in July 2010 to June 2011 (127.9 MG) yielded the average outdoor use of 37.9 MG. Based on these estimates, indoor water use represented approximately 70 percent of annual residential water use and outdoor water use represented approximately 30 percent of annual residential water use, a substantial percentage considering that outdoor water use is confined to the summer months. Based on these percentages, water conservation efforts that target indoor uses year-round and outdoor uses during summer months could result in considerable water savings.

Residential Per Capita Demand

Residential per capita demand is a measure of water use by residential customers that can be used for comparisons to other communities and for developing water conservation strategies. The City’s residential per capita demand is estimated to be 77 gpcd, which was estimated by dividing the metered residential consumption for July 2010 to June 2011 (127,873,000 gallons) by the City’s service area population in 2010 (4,561) and then dividing by 365 days.

The City’s estimated residential per capita demand of 77 gpcd is similar to EWEB’s, with 76 gpcd (EWEB WMCP, 2011) and within the range of other cities and utilities in the Willamette Valley: Corvallis with 107 gpcd (City of Corvallis Water Use and Water Conservation Project, 2010), Hillsboro with 70 gpcd, Tigard and Beaverton with 80 gpcd, and Tualatin Valley Water District and Forest Grove with 90 gpcd (JWC WMCP, 2010).

Water Losses and Non-Revenue Water

Non-revenue water (i.e., water losses) is the difference between system demand or production of finished water, and metered consumption data. The percentage of non-revenue water is the production of finished water minus the metered use, divided by the production of finished water. For the period of July 2010 to June 2011, non-revenue water was 21.3 MG, or 11.8 percent of total production of finished water. The City believes its non-revenue water is actually closer to 9 percent and attributes the higher percentage to Fire Department use from hydrants for training or emergency purposes and the City’s flushing of its water distribution system, both of which are authorized unbilled uses. Tracking these unmetered uses would decrease the amount of unaccounted for water and is one of the water conservation benchmarks outlined in Section 3.

In general, causes of unaccounted-for water typically may include meter inaccuracies, evaporation, reservoir overflows, unmetered hydrant use, leakage, and unauthorized and
unbilled use of firelines. As described in more detail in Section 3, the City has a leak detection program, and repairs or replaces pipelines as needed. The City is not aware of any significant losses caused by leaks.

City of Veneta Water Rights

OAR 690-086-0140(5)

The City currently holds five water use authorizations for its wells: one inchoate transfer (T-10003), one certificate that is the subject of a pending transfer application (87206, T-11297), one certificate (52376), one permit (G-11551), and one limited license (LL-1219). All of the authorizations are for the use of groundwater for municipal purposes. In total, these water use authorizations allow withdrawal of up to 2.66 cfs (1.72 mgd) of groundwater. The City also has one water use application that is currently on hold (G-17291). The City is actively pursuing certification and protection of its water rights.

Exhibit 2-13 provides a description of the City’s municipal water use authorizations and their status. Because of a lack of confidence in the production data before installation of the magnetic meters in July 2009, the 5-year average monthly and daily diversions data are not provided.

<table>
<thead>
<tr>
<th>Application</th>
<th>Permit</th>
<th>Transfer</th>
<th>Certificate</th>
<th>Limited License</th>
<th>Source</th>
<th>Priority Date</th>
<th>Type of Beneficial Use</th>
<th>Authorized Date for Completion</th>
<th>Quantity (cfs)</th>
<th>Quantity (mgd)</th>
<th>Maximum Withdrawal To Date</th>
<th>July 2010-June 2011 Average Withdrawal</th>
<th>Five-Year Average Withdrawal</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-6783</td>
<td>G-6355</td>
<td></td>
<td>52376</td>
<td></td>
<td>Well 4, Long Tom River Basin</td>
<td>1/9/1975</td>
<td>Municipal</td>
<td>N/A</td>
<td>0.67</td>
<td>0.43</td>
<td>0.67</td>
<td>6.4</td>
<td>3.3</td>
<td>0.11</td>
</tr>
<tr>
<td>G-12780</td>
<td>G-11551</td>
<td></td>
<td></td>
<td></td>
<td>A well (Well 9), Coyote Creek Basin</td>
<td>2/18/1992</td>
<td>Municipal</td>
<td>Extended to 10/1/2010</td>
<td>1.11</td>
<td>0.72</td>
<td>1.11</td>
<td>15.8</td>
<td>7.9</td>
<td>0.26</td>
</tr>
<tr>
<td>G-4204</td>
<td>G-3968</td>
<td>T-10003</td>
<td>41536</td>
<td></td>
<td>Well 10 &amp; Well 11, Long Tom River Basin</td>
<td>7/18/1968</td>
<td>Municipal</td>
<td>10/1/2014</td>
<td>0.38</td>
<td>0.28</td>
<td>0.38</td>
<td>0.4</td>
<td>0.09</td>
<td>0.003</td>
</tr>
<tr>
<td>G-4204</td>
<td>G-3968</td>
<td>T-11297</td>
<td>87206</td>
<td></td>
<td>Well 12, Long Tom River Basin</td>
<td>7/18/1968</td>
<td>Municipal</td>
<td>10/1/2017</td>
<td>0.2</td>
<td>0.13</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LL-1219</td>
<td></td>
<td>Well 12, Long Tom River Basin</td>
<td>6/9/2009</td>
<td>Municipal</td>
<td>7/26/2014</td>
<td>0.5</td>
<td>0.32</td>
<td>0.5</td>
<td>7.1</td>
<td>3.8</td>
<td>0.12</td>
</tr>
<tr>
<td>G-17291</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Well 12, Long Tom River Basin</td>
<td>12/1/2009</td>
<td>Municipal</td>
<td>TBD</td>
<td>0.32</td>
<td>0.21</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*This is based on July 2010-June 2011 data.*
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Aquatic Resource Concerns

The City’s water source is groundwater, and consequently, an analysis of aquatic resource concerns is unnecessary. The City’s groundwater source is not in a designated critical groundwater area.

Evaluation of Water Rights/Supply

OAR 690-086-0140(3)

The City’s authorized water rights currently allow withdrawal of up to 2.66 cfs (1.72 mgd) of groundwater and their current production capacity is approximately 2.46 cfs (1.59 mgd; 1,104 gpm). Exhibit 2-14 summarizes the current capacity, the allowed quantity of use, and the water right allowing use for each well.


<table>
<thead>
<tr>
<th>Well</th>
<th>Capacity (gpm)</th>
<th>Capacity (cfs)</th>
<th>Maximum Authorized Rate (cfs)</th>
<th>Water Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>202</td>
<td>0.45*</td>
<td>0.67</td>
<td>Certificate 52376</td>
</tr>
<tr>
<td>9</td>
<td>498</td>
<td>1.11</td>
<td>1.11</td>
<td>Permit G-11551</td>
</tr>
<tr>
<td>10</td>
<td>99</td>
<td>0.22</td>
<td>0.38</td>
<td>T-10003</td>
</tr>
<tr>
<td>11</td>
<td>72</td>
<td>0.16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>233</td>
<td>0.52</td>
<td>(0.2**, 0.50, (0.32)</td>
<td>T-11297**, LL-1219, (Application G-17291)</td>
</tr>
<tr>
<td>Total</td>
<td>1104</td>
<td>2.46</td>
<td>2.66</td>
<td></td>
</tr>
</tbody>
</table>

*Well 4 has a capacity of 0.67 cfs for short intervals and a typical sustained capacity of 0.45 cfs.
**OWRD is currently processing transfer application T-11297, which proposes to change the POA to Well 12.

Certificate 52376 authorizes the use of up to 0.67 cfs (0.43 mgd; 301 gpm) from Well 4. Well 4 is capable of producing the full rate of Certificate 52376 for short durations. However, production at this rate will dewater the screen, which is undesirable as this promotes well fouling, and will reduce the amount of the water over the pump. As a result, the City does not routinely pump the well at its full rate under normal operations. Instead, the City typically runs it at a rate of 0.45 cfs. LL-1219 authorizes the use of up to 0.5 cfs (224 gpm) from Well 12 from July 27, 2009, to July 26, 2014. LL-1219 is intended to allow use of Well 12 until OWRD approves Transfer T-11297 for use of up to 0.2 cfs (0.13 mgd) from Well 12 and water right Application G-17291, which requests the use of up to 0.32 cfs (0.21 mgd) from Well 12, for a total of 0.52 cfs. The City is aware of the priority dates of these water rights and it will maximize its supply by relying on senior water rights.

Overall, the wells are fairly reliable, but have occasional issues with biofouling, the undesirable accumulation of microorganisms and algae that requires well redevelopment. Wells 4, 9, and 12 are the most economical wells for the City to operate. The City typically runs Well 4 and Well 12 simultaneously. In the past, the City has noticed that Well 4 and Well 12 can interfere with each other when pumped more than 20 hours per day for several consecutive days. If well
interference is observed, the City alternates their use. Wells 10 and 11 have limited capacity because of a thinner aquifer in the vicinity limiting available drawdown (difference between the static water level of the well and the depth above the pump intake required to maintain operation of the pump) and thereby preventing high pumping rates, distribution system limitations, well-to-well interference effects when pumping, and severe water quality issues that require treatment, all of which raises the cost per gallon to operate the wells. As a result of these issues, the City uses Wells 10 and 11 sparingly.

The City is approaching its water supply limit, as shown by the MDD of 1.46 mgd in July 2009-June 2010 and a current supply capacity of 1.59 mgd (2.46 cfs). Additional wells to increase water supply are not a viable option because of regulatory and hydrologic limitations. During its review of Application G-17291, OWRD determined that the proposed groundwater source is within 1 mile of the Long Tom River and hydraulically connected, thereby creating the potential for substantial interference with surface water. Consequently, OWRD proposed to limit the withdrawal to approximately 140 gpm per well. Moreover, most other potential well locations are within 1 mile of surface water bodies (and likely hydraulically connected) and also would be subject to limitations associated with that specific water body. In addition, groundwater yields have been decreasing in some wells.

Given the limitations described above, the City decided to obtain a more reliable water supply by purchasing water wholesale from EWEB. To obtain water from EWEB, the City is constructing a 10-mile-long interconnection between its water distribution facility and EWEB’s existing western terminus on Terry Street at the west edge of the City of Eugene’s water distribution grid. The 40-year contract states that the City agrees to purchase an estimated 150 MG per year with a minimum of 8 MG per month and to construct infrastructure to deliver up to 4 mgd to its system.

Based on OWRD’s online database of well logs, there are several wells with groundwater rights and/or associated “exempt uses,” (uses of groundwater that do not require a water right) located inside and within a ¼ mile of the city limits (see Appendix C). The vast majority of identified wells appear to be for exempt uses and have completion dates ranging from December 3, 1940, to December 2, 2011. The six groundwater rights identified using OWRD’s online database are all senior in priority date to the City’s water rights; however, the water rights are for small quantities of water. Although records exist of the wells and water rights, this does not necessarily indicate that the wells are still actively used. The City has not independently confirmed the status of each identified well.

To date, well-to-well interference with non-City wells has not been an issue. Moreover, the anticipated wholesale purchase of water from EWEB will reduce pressure on the City’s use of groundwater and reduce the likelihood of well-to-well interference issues. Finally, in the event that well-to-well interference does occur in the future, the City, in many cases, may be able to provide water to the subject water user to resolve the concern.

System Description

OAR 690-086-0140(8)

The City operates a public drinking water system (Public Water System Identification Number is 4100920), and owns and operates five groundwater wells that produce water year round and
serve as the City’s sole water supply source. The current combined capacity of the wells is approximately 1,104 gpm and each well is metered.

The City operates two mixed media pressure filtration WTPs, the Public Works Yard WTP and Jeans Road WTP. The WTPs treat the groundwater for iron removal to address the high levels of iron concentration (ranging from 0.3 milligram per liter [mg/L] to 3.5 mg/L) in the groundwater and then chlorinate the water before delivery to the distribution system. Water from Well 9 is pumped to the Public Works Yard WTP where it is treated. The Public Works Yard WTP contains three pressure filters each with a rated capacity of approximately 280 gpm. The total capacity of the WTP is approximately 840 gpm, or 1.2 mgd. Finished water is delivered to the 2-MG Broadway Reservoir, which is located in the Public Works Yard. Water from Well 4 and Well 12 bypasses the Public Works Yard WTP and flows directly into the Broadway Reservoir. The City has the ability to treat water from Well 4 and Well 12 at the Public Works Yard WTP, but does not because of the sufficiently low iron content in the water. A booster pump station pumps water from the reservoir into the distribution system. Finished water is supplied to the backwash pumps, as well. Backwash water then is sent to a decant tank that stores and slowly releases the backwash water into the sewer collection system that leads to the wastewater treatment plant.

Water from Well 10 and Well 11 is treated at the Jeans Road WTP. The Jeans Road WTP is located north of Jeans Road and consists of two pressure filters with a capacity of approximately 200 gpm each. The total capacity of the WTP is approximately 400 gpm, or 0.6 mgd. Finished water is delivered to the WTP clearwell, which provides supply for distribution system booster pumps and the backwash pump. The backwash water then is detained in a tank and slowly released into the sewer collection system that leads to the wastewater treatment plant.

In addition to the Broadway Reservoir, the City has Dogwood Reservoir (0.5 MG) and Bolton Hill High Level Reservoir (1 MG), for a total storage capacity of 3.5 MG. These reservoirs are welded-steel, ground-supported reservoirs.

In 2010, the City’s system provided water to approximately 1,575 water delivery connections, including residential, commercial, and public facility connections. These connections served a population of approximately 4,561.

City customers are served water through a system comprised of 29 miles of pipelines, three reservoirs with a total storage volume of 3.5 MG, and three pump stations with a total firm capacity of 2,100 gpm. Exhibits 2-15, 2-16, and 2-17 summarize the City’s pipelines, reservoirs, and pump stations. Exhibit 2-1 is a schematic of the City’s existing water distribution system and Exhibit 2-18 is a schematic of the City’s planned intertie with EWEB.
EXHIBIT 2-15. Summary of Pipeline Sizes (as of 2009).

<table>
<thead>
<tr>
<th>Pipe Diameter</th>
<th>Estimated Length (mi)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-inch or Less</td>
<td>4.2</td>
</tr>
<tr>
<td>6-inch</td>
<td>9.7</td>
</tr>
<tr>
<td>8-inch</td>
<td>9.1</td>
</tr>
<tr>
<td>10-inch</td>
<td>1.1</td>
</tr>
<tr>
<td>12-inch</td>
<td>3.1</td>
</tr>
<tr>
<td>14-inch</td>
<td>0.8</td>
</tr>
<tr>
<td>16-inch</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total Length</strong></td>
<td><strong>29.0</strong></td>
</tr>
</tbody>
</table>

EXHIBIT 2-16. Summary of System Reservoirs.

<table>
<thead>
<tr>
<th>Reservoir Name</th>
<th>General Location</th>
<th>Capacity (MG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadway Reservoir</td>
<td>City of Veneta Water Treatment Plant (Public Works Yard)</td>
<td>2</td>
</tr>
<tr>
<td>Dogwood Reservoir</td>
<td>Dogwood Lane &amp; Bolton Hill Road</td>
<td>0.5</td>
</tr>
<tr>
<td>Bolton Hill High Level Reservoir</td>
<td>Bolton Hill Road</td>
<td>1</td>
</tr>
</tbody>
</table>

EXHIBIT 2-17. Summary of Existing Pump Stations.

<table>
<thead>
<tr>
<th>Pump Station</th>
<th>Unit #</th>
<th>Horsepower (Hp)</th>
<th>Nominal Capacity (gpm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Works Yard Booster Pump Station</td>
<td>1</td>
<td>40</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>50</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>30</td>
<td>400</td>
</tr>
<tr>
<td>Jean Road WTP Pump Station</td>
<td>1</td>
<td>20</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>20</td>
<td>160</td>
</tr>
<tr>
<td>Dogwood Pump Station</td>
<td>1</td>
<td>30</td>
<td>190</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>30</td>
<td>190</td>
</tr>
</tbody>
</table>
EXHIBIT 2-18. City of Veneta’s Planned Intertie with EWEB.
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3. Municipal Water Conservation Element

This section addresses the requirements of OAR 690-086-0150(1) – (6). This rule requires a progress report on conservation measures in an existing Plan, if any, and a description of any additional conservation measures. The rule also requires descriptions of specific required conservation measures and benchmarks.

Background and Current Conservation Measures
OAR 690-086-0150(1) and (3)

Background
This is the City’s second WMCP. OWRD issued a Final Order approving the City’s first WMCP on November 24, 2004, which required that the City submit an updated WMCP by September 28, 2009. The City requested an extension of time to submit the updated WMCP and OWRD granted this request, establishing a new deadline of March 1, 2012.

Exhibit 3-1 shows the required and additional conservation measures required by OAR 690-086-0150(4)-(6) and provides a progress report for each measure, even if the City’s first WMCP did not include a five-year benchmark (or suggested conservation measure) for that measure. The 2003 Suggested Conservation Measures column includes measures mentioned as possible future actions in the City’s previous WMCP, but not specifically identified as benchmarks.
The City began incorporating water conservation measures into its activities in 1990, when the City passed a resolution declaring a water shortage and enacting outside watering restrictions. Since then, the City’s water conservation measures have been described primarily in Water System Master Plans and in its initial WMCP. However, in recent years, the City recognized that its rapid population growth necessitated development of more detailed and robust water conservation goals. In 2010, the City published the *Veneta Water Conservation Program* report to describe its new 5-year Water Conservation Program (WCP), which has the goal of reducing peak monthly per capita water usage by 5 percent during the program’s 5-year lifespan.


<table>
<thead>
<tr>
<th>Conservation Measure</th>
<th>2003 Suggested Conservation Measures</th>
<th>Progress Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual water audit</td>
<td>None</td>
<td>Water audits occur monthly and the City will summarize the results of the monthly water audits on an annual basis beginning in 2012.</td>
</tr>
<tr>
<td>System metering</td>
<td>None</td>
<td>The system is fully metered.</td>
</tr>
<tr>
<td>Meter testing and maintenance</td>
<td>None</td>
<td>All residential and commercial meters are AMR meters. Meters are replaced when the warranty expires or when broken and can’t be repaired.</td>
</tr>
<tr>
<td>Rate structure and billing practices</td>
<td>Consider increasing the flat rate or using an increasing block rate structure</td>
<td>Increasing block rate billing structure is in place for residential and commercial customers.</td>
</tr>
<tr>
<td>Leak detection and pipeline repair or replacement</td>
<td>None</td>
<td>Inspection of pipes occurs on a regular basis and is one of the primary means of monitoring for leaks.</td>
</tr>
<tr>
<td>Public education</td>
<td>Create a water conservation web page</td>
<td>The City created a water conservation Web page on its Web site.</td>
</tr>
<tr>
<td></td>
<td>Low water use landscaping education</td>
<td>The City developed the Lawn Guide to help residents reduce outdoor water use.</td>
</tr>
<tr>
<td></td>
<td>Possibly work with EWEB on public service announcements</td>
<td>The City has not pursued this yet.</td>
</tr>
<tr>
<td></td>
<td>Send out fliers and pamphlets with conservation messages.</td>
<td>The City assists with publishing water conservation articles in newspapers and periodically publishes articles in the City newsletter. Monthly water bills contain water conservation messages.</td>
</tr>
<tr>
<td>Technical and financial assistance programs</td>
<td>Consider providing toilet, toilet parts, dishwasher, clothes washer, faucet, low flow showerhead, and xeriscaping rebates</td>
<td>See &quot;Retrofit/replacement assistance.&quot;</td>
</tr>
<tr>
<td>Retrofit /replacement assistance</td>
<td>None</td>
<td>The new WaterSense Toilet Rebate program offers rebates to replace toilets with a flow rate greater than 1.28 gpf.</td>
</tr>
<tr>
<td>Water reuse, recycling, and non-potable water opportunities</td>
<td>None</td>
<td>The City reuses treated wastewater from the Wastewater Treatment Plant. The City conducted a study to determine whether it could recycle backwash water and found that it was not feasible.</td>
</tr>
<tr>
<td>Other conservation measures</td>
<td>Xeriscape the Hwy 126 and Territorial Hwy intersection and City Hall</td>
<td>The City is currently considering xeriscaping at City Hall locations.</td>
</tr>
<tr>
<td></td>
<td>Require commercial/industrial properties to xeriscape</td>
<td>The City is currently considering this requirement.</td>
</tr>
<tr>
<td></td>
<td>Consider limiting lawn watering to certain hours or days</td>
<td>The City decided not to implement this regime as it can lead to more watering.</td>
</tr>
</tbody>
</table>
As described in the Water Supplier Description (Section 2), summer landscape irrigation creates the peak demand that more than doubles water consumption and single family residences are the largest consumptive user group. Therefore, the WCP targets peak season use and residential users. The WCP goals are included in the 5-year benchmarks listed later in this section. The City officially adopted the WCP in 2010, and the WCP will run from Fiscal Year 2010 to 2015. Exhibit 3-2 shows the WCP goals for its first year (2010) and the extent to which the City achieved these goals.

Exhibit 3-2. Progress Report on the Year 1 Goals in the City’s 2010 Water Conservation Program.

<table>
<thead>
<tr>
<th>Year 1 Goals</th>
<th>Progress Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completely implement online water billing and payment</td>
<td>Online water billing and payment has been implemented.</td>
</tr>
<tr>
<td>Implement a residential seasonal block rate structure</td>
<td>A residential seasonal block rate structure is not in place. The City continues to have a residential increasing block rate billing structure.</td>
</tr>
<tr>
<td>Include water billing rate structure information on water bills</td>
<td>Water bills contain water billing structure information.</td>
</tr>
<tr>
<td>Make semi-monthly contacts regarding conservation information &amp; tips to residential users during peak season</td>
<td>Monthly water bills contain water conservation messages.</td>
</tr>
<tr>
<td>Create a water conservation Web page on the City’s Web site</td>
<td>The City created a water conservation Web page on its Web site.</td>
</tr>
<tr>
<td>Partner with the local schools</td>
<td>The City is making plans to partner with local schools on water conservation education in the 2011-2012 school year.</td>
</tr>
<tr>
<td>Publish articles periodically regarding conservation in the City newsletter</td>
<td>The City periodically publishes articles in the City newsletter.</td>
</tr>
<tr>
<td>Offer fifty $100 toilet rebates (retrofitting non-ultra-low-flow toilets with high efficiency toilets)</td>
<td>The new WaterSense Toilet Rebate Program offers rebates to replace toilets with a flow rate greater than 1.28 gpf.</td>
</tr>
<tr>
<td>Issue proactive letters to top 5 percent residential water consumers during peak season</td>
<td>Letters encouraging water conservation and providing conservation tips are mailed to the top 5 percent of residential users.</td>
</tr>
<tr>
<td>Distribute toilet leak detection tablets to all residential units twice per year</td>
<td>The City mails out leak detection tablets twice per year.</td>
</tr>
<tr>
<td>Distribute lawn watering gauges to top 5-10 percent residential water consumers during peak season</td>
<td>The City developed the Lawn Guide to help residents reduce outdoor water use and provides free lawn watering gauges to help residents assess water use.</td>
</tr>
<tr>
<td>City to lead by example: plan to Xeriscape a portion of City Hall lawn</td>
<td>The City is currently considering xeriscaping at City Hall.</td>
</tr>
<tr>
<td>City to lead by example: purchase and install Smart Controllers at public facilities</td>
<td>The City installed Smart Irrigation Controllers at City Hall.</td>
</tr>
</tbody>
</table>

According to the WCP, subsequent yearly goals will vary and depend upon the success of achieving the program’s first year goals. A few strategies will be carried on throughout the entire life of the program such as toilet rebates, bill inserts, and proactive letters. New strategies may be adopted in subsequent years and some will come to fruition over time, such as partnering with the schools and constructing the xeriscape pilot project, both in the program’s second year. Depending upon the success of Smart Controllers, subsequent years may include Smart Controller rebates. Goals specific to the coming years will be fine-tuned and fully established before yearly implementation. The 5 percent reduction goal will be evaluated at the end of five years; however, non-numeric goals will be evaluated annually. Some indoor
conservation measures may not yield substantial savings due to the amount of largely new houses.

The City also has been investing heavily in water system upgrades to improve water management. As described in the Water Supplier Description (Section 2), the City installed a SCADA system in 1992, automatic meter reading on all residential and commercial meters from 2006-2010, magnetic meters on its municipal wells in 2009, and new accounting software to track consumption and increase billing accuracy in 2010.

The water conservation efforts included in the progress reports and other efforts are detailed later in this section.

Use and Reporting Program

**OAR 690-086-0150(2)**

The City has a water use measurement and reporting program that complies with the measurement standards in OAR Chapter 690, Division 85. The City’s water use records can be found on the OWRD Web page: (http://apps.wrd.state.or.us/apps/wr/wateruse_report/default.aspx).

The City operates five groundwater wells (Wells 4, 9, 10, 11, and 12). Each well has a magnetic meter and data from these meters are reported to OWRD annually. In addition, each well has a simple SCADA system that measures water levels electronically using pressure transducers and allows the City to operate the wells remotely. The data are displayed on a computer screen, but not recorded into a retrievable database. Screen shots and print outs, for example, can be used to record data.

Required Conservation Programs

**OAR 690-086-0150(4)**

OAR 690-086-0150(4) requires that all water suppliers establish 5-year benchmarks for implementing the following required conservation measures:

- Annual water audit
- System-wide metering
- Meter testing and maintenance
- Unit-based billing program
- Leak detection and repair (if system leakage exceeds 10 percent)
- Public education

**Five-Year Benchmarks for Required Existing or Expanded Conservation Measures**

The City currently addresses all of the required conservation measures. A summary of the 5-year benchmarks for required and additional conservation measures is provided below. During the next 5 years, the City plans to continue or expand the following existing conservation measures that are required of all municipal water providers:
1. **Annual water audits.** OWRD defines a water audit as an analysis of the water system that includes a thorough accounting of all water entering and leaving the system to identify leaks in the system and authorized and unauthorized water uses, metered or estimated. The water audit also includes analysis of the water supplier’s own water use.

Until recently, the City was unable to easily calculate its unaccounted for water due to erroneous production meters and faulty consumption accounting software. After replacement of the production meters in 2009 and accounting software in 2010, the City’s Public Works Department began conducting monthly water audits. The City will summarize the results of those monthly water audits on an annual basis beginning in 2012. The audit compares water production readings from the wells to total consumption, which consists of meter reads, backwash use, bulk water sales, and fire hydrant flushing flows. Fire hydrant flushing flows are measured by multiplying the approximate flow rate by the approximate number of minutes flushed and are accounted for in the City’s water audit in months when flushing occur. Bulk water use from fire hydrants is metered and included in the bulk water consumption category. The difference between production and consumption, or unaccounted for water, is calculated as a total volume and a percentage of production. The City’s unaccounted for water was calculated to be 11.8 percent from July 2010 to June 2011.

*Five-year Benchmark:* The City will continue to audit its water system monthly and will summarize the results of the monthly water audits on an annual basis beginning in 2012. The City will develop and maintain a spreadsheet that compares production to consumption on a monthly basis. The City will explore the logistics of tracking fire department water use from hydrants for training and emergency purposes and tracking the City’s flushing of its distribution system.

2. **System-wide metering.** The City’s water system is fully metered.

*Five-year Benchmark:* The City will continue to require all new connections to be metered.

3. **Meter testing and maintenance.** Since 1993, the City has had an aggressive meter testing and maintenance program. Meter reading is one of the primary means of monitoring for leaks. The City replaced all production meters on its wells in 2009-2010 with magnetic meters and installed an Automated Meter Reading (AMR) system on all account meters from 2004 to 2010. Installing the AMR system involved replacing older account meters with AMR meters and installing new registers compatible with AMR into relatively new account meters. The City replaces meters when the manufacturer’s warrantee period expires or at any time a service connection is worked on, whichever occurs first. Most of the AMR system parts are under warranty for at least 10 years, but most of those are a prorated warranty after 2 to 5 years. When a spike in water use of an individual account or in unaccounted for water occurs, Public Works Department staff promptly investigate. All meters that are broken or require service are replaced.

Almost all of the City’s meters are ¾-inch to 1 inch and most meters are less than 10 years old. The AMR registers and MXUs (meter transceiver units) are no more than 5 years old and are expected to last for at least 20 years. If any concerns about accuracy arise, the City typically replaces the meter outright. The City has found that the cost of replacing a ¾-inch meter (approximately $120) is lower than the cost of testing it.
Five-year Benchmark: As a result of recent meter upgrades, the City plans to continue to conduct meter testing and replacement as needed over the next 5 years.

4. Unit-based billing program. Since 2006, the City has had an increasing block rate (tiered), unit-based billing structure designed to encourage water conservation. Attachment A is Resolution 1041, the latest resolution (adopted June 13, 2011) establishing water rates. Changes to water rates are only made through City Council resolutions. All residential accounts are charged the same monthly base charge (currently $10.42), which is based on meter size and covers the fixed operating costs of the utility, including meter reading, billing, and customer service. In addition, all residential customers are charged for consumption. The consumption charge is an increasing block rate based on the amount of water used by the customer each month, which is metered at each customer’s point of connection to the public utility. Exhibit 3-3 shows the current consumption charges for residential customers and bulk water customers.

EXHIBIT 3.3. Residential and Bulk Water Consumption Charges.

<table>
<thead>
<tr>
<th>Water Use Quantity</th>
<th>Current Residential Consumption Charge (as of June 2011)</th>
<th>Current Bulk Water Consumption Charge (as of June 2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 5,000 gallons per month</td>
<td>$2.27 per 1,000 gallons</td>
<td>$3.30 per 1,000 gallons</td>
</tr>
<tr>
<td>5,001-15,000 gallons per month</td>
<td>$2.70 per 1,000 gallons</td>
<td>$3.91 per 1,000 gallons</td>
</tr>
<tr>
<td>&gt; 15,000 gallons per month</td>
<td>$3.24 per 1,000 gallons</td>
<td>$4.71 per 1,000 gallons</td>
</tr>
</tbody>
</table>

Commercial accounts have a monthly base charge (currently $19.69) and a consumption charge, which are described in Exhibit 3-4.

Exhibit 3.4. Commercial Consumption Charges.

<table>
<thead>
<tr>
<th>Water Use Quantity</th>
<th>Current Commercial Consumption Charge (as of June 2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 10,000 gallons per month</td>
<td>$2.32 per 1,000 gallons</td>
</tr>
<tr>
<td>10,001-20,000 gallons per month</td>
<td>$2.90 per 1,000 gallons</td>
</tr>
<tr>
<td>&gt; 20,000 gallons per month</td>
<td>$3.48 per 1,000 gallons</td>
</tr>
</tbody>
</table>

Five-year Benchmark: In the next 5 years, the City will continue to bill customers based, in part, on the quantity of water metered at the service connection and will continue to evaluate its billing structure and adjust consumption charges, as appropriate.

5. Leak detection and repair. The City’s unaccounted for water was calculated to be approximately 11.8 percent from July 2010 to June 2011. This value, which is higher than the City expected, is likely attributed to authorized unmetered water use by the fire department for training and emergency use and by the City to flush the water distribution system. A 2009 leak detection survey of the City’s entire water system
(Water Line Leak Location Project Final Report, 2009) found that the system appeared to be in good condition with regards to leakage. It found only two relatively small leaks at a hydrant and meter and one valve leak, all of which the City subsequently fixed.

The OWRD requires water providers to have a regularly scheduled and systematic program to detect leaks when system leakage is above 10 percent. Although the City believes the system leakage portion of its unaccounted for water is below 10 percent, the City has a leak detection program in place. City Public Works Department staff regularly inspects the water lines visually in the course of daily tasks, which is the primary means of monitoring for leaks. The soil types and the configuration of the water lines in the City typically cause water from leaks in the transmission main to surface and puddle, making the presence of a leak visible.

When a leak is discovered by City staff or reported to the City by its customers, City staff repairs the leak immediately. The City replaces leaking pipe with ductile iron pipe. Since 1993, more reliable (copper) materials have been utilized to replace leaking plastic service connections, and in recent years, it has been staff policy to replace lines, not just the point of the leak. Those efforts, along with installing new service taps, have decreased leakage. In addition, the City conducted the leak detection survey mentioned above. Due to the costs of the survey and low number of leaks that it detected, the City does not expect to schedule such a survey in the near future.

Five-year Benchmark: The City will continue to fund leak detection and repair or replacement and to carry out repairs or replacements in a timely manner.

6. **Public education.** The City has a public education program that includes water conservation messages in print and online media. Simple conservation messages are included with each monthly water bill, thereby providing customers with water conservation tips regularly and during the peak season. Educational pamphlets and fliers related to water conservation are available in the front office of City Hall, where many residents drop off payments. The City occasionally assists the community newspaper, West Lane News, with publishing education articles related to water use and conservation. The City shares a radio and television market with EWEB and Springfield Utility Board who air public service announcements on radio and television during the summer to encourage water conservation. City residents hear these messages, aiding the City’s water conservation program. In addition, the City sends out occasional newsletters with conservation suggestions.

The City recently created a water conservation Web page on the City’s Web site that provides useful tips on lawn watering efficiency, advertises the WaterSense Toilet Rebate program, explains the City’s conservation-based rate structure, provides water use calculators, and offers indoor and outdoor water conservation tips. The website also provides links to EWEB’s weekly watering recommendation, and information about water-wise plants, water-efficient landscapes, smart irrigation controllers, greywater, and fixing leaks.

Five-year Benchmark: The City will continue to include conservation messages in each water bill, provide educational pamphlets, send out newsletters, and maintain its water conservation Web page. In the 2011-2012 school year, the City will partner with local...
schools to incorporate water conservation education activities into the curriculum. The hope is that children will retain this knowledge and share it with their parents, potentially resulting in greater water conservation in households. In the next 5 years, the City will contact EWEB about contributing to their radio and television campaigns to have a greater influence on the City’s residents. The City will also consider writing newspaper articles that encourage low-water use landscaping.

**Expanded Use under Extended Permits**

**OAR 690-086-0150(5)**

The City is not proposing to expand or initiate diversion of water under an “extended permit.” As a result, the provisions of this section are not applicable to the City. Further, the City’s unaccounted for water was calculated to be 11.8 percent in July 2010 to June 2011. As a result, the City’s system leakage is below the 15 percent target established by this rule. Nonetheless, the City has a system-wide leak repair and line replacement program, which is described above.

**Additional Conservation Measures**

**OAR 690-086-0150(6)**

OAR 690-086-0150(6) requires municipal water providers to implement an additional set of conservation measures or to provide documentation showing that implementation of the measures is neither feasible nor appropriate if they serve a population greater than 1,000 and propose to expand or initiate diversion of water under an extended permit for which resource issues have been identified under OAR 690-086-140(5)(i), or serve a population greater than 7,500.

The City does not propose to expand or initiate diversion of water under an extended permit and serves a population of less 7,500; therefore, OAR 690-086-0150(6) does not apply. Nevertheless, described below are additional conservation measures that the City is currently implementing.

**Additional Conservation Measures**

The City’s additional water conservation measures include:

1. **Technical and Financial Assistance.**

   **Leak Detection.** The City mails out toilet leak detection tablets twice a year to assist its residential and commercial customers with identification of toilet leaks.

   **Lawn Guide and Watering Gauges.** The City developed the Lawn Guide to help residents reduce outdoor water use and provides free lawn watering gauges at City Hall to help residents assess water use.
Personal Home Visits and Proactive Letters. In August 2010, the City made personal visits to the homes of the top 5 percent residential water users and gave them water conservation educational material. In July 2011, the City mailed proactive letters to the top 5 percent of residential users. These letters advise the users of their significantly larger consumptive pattern relative to their user group and provide tips on leak detection and conservation.

2. Retrofit/Replacement of Inefficient Fixtures. The City is actively addressing the replacement of inefficient indoor fixtures. In addition, the City has the WaterSense Toilet Rebate Program, which offers rebates to replace toilets with a flow rate greater than 1.28 gallons per flush (gpf). Toilets are the greatest water-consuming indoor fixture, accounting for 27 percent of indoor water use. New high-efficiency toilets (HET) only use 1.28 gpf, 20 percent less water per flush than the 1.6 gpf ultra-low flow toilets (ULFT) and 63 percent less than Non-ULFTs, such as toilets manufactured before 1993 that use as much as 3.5 gpf. To increase water conservation, the City offers a $50 rebate to replace a ULFT with an EPA WaterSense labeled HET and a $100 rebate is available to replace a Non-ULFT with an EPA WaterSense labeled HET. During fiscal year 2010-2011, nine residents replaced their inefficient toilets through the rebate program.

3. Water Rate Structure and Billing Schedule. The unit-based billing discussion in the section responsive to OAR 690-086-0150(4) details the monthly basic charge and consumption charge of residential, non-commercial, commercial, and bulk water user water bill. In addition, meter reading occurs on or around the 25th day of each month and all customers are billed on or around the first day of the month for water used during the preceding month, which provides customers with timely information on their water use. All bills show the history of water use and the water billing rate structure, and they include conservation messages. The City also has implemented an online bill payment system that makes bill payment more convenient, allows customers to view past and present charges, and provides customers with the ability to track water usage, such as comparing use across months and years.

4. Reuse, Recycling, and Non-potable Water Opportunities.

Water Reuse. During summer months, treated water from the wastewater treatment facility is used to irrigate a 117-acre area consisting of a commercial poplar plantation and hayfields. The City is considering the treatment of wastewater for additional non-potable applications, such as more irrigation. Treated effluent is used for treatment plant makeup and wash down water, as well. Approximately, 18,000 gallons of water per day are reused for internal operations at the plant.

Recycling Filtration System Backwash. Backwash water currently goes to the wastewater treatment plant. The City recently conducted a feasibility study on the recycling of backwash water for irrigation or other uses, but the iron content was determined to be too high to allow recycling.

5. Other Conservation Measures. In addition to the conservation measures described above, the City has implemented a number of other measures that improve water use efficiency.
- **Ordinance Prohibiting Wasteful Watering.** The City has an ordinance that prohibits wasteful watering, which is usually enforced by the Public Works Department. Typically, a warning is issued to first time offenders and fines are imposed for repeat violations.

- **Smart Irrigation Controllers.** The City has installed a smart irrigation controller at City Hall to determine whether the financial savings from water savings are worth the investment, and whether more smart irrigation controllers should be installed.

- **Xeriscaping.** The City is considering xeriscaping a portion of City Hall’s lawn to demonstrate and promote water-efficient landscaping. The location provides exposure to the public and the site may include signage to educate readers about the purpose of xeriscaping.
4. Municipal Water Curtailment Element

This section satisfies the requirements of OAR 690-086-0160. This rule requires a description of past supply deficiencies and current capacity limitation. It also requires inclusion of stages of alert and the associated triggers and curtailment actions for each stage.

Introduction

Water curtailment plans outline proactive measures that water suppliers may take to reduce demand and to find alternative supply during short-term water supply shortages. The intent of water curtailment plans is to minimize the impacts of water supply shortages, which may result from incidents such as: prolonged drought, mechanical or electrical equipment failure in the system, unanticipated catastrophic events (flooding, landslides, earthquakes and contamination), or events not under control of the water supplier (e.g., localized or area-wide power outages and intentional malevolent acts).

History of System Curtailment Episodes

OAR 690-086-0160(1)

The City has not experienced a supply deficiency during the past 10 years that required it to implement curtailment. The last time the City experienced a supply deficiency, and therefore, passed a water curtailment resolution that imposed a curtailment action was in 1998. In that case, the curtailment action was “moderate.” Since then, no official curtailment actions have been taken that involve mandatory restrictions on public water use. However, the City typically halts irrigation of public landscaping when water demand exceeds water supply to prevent the need for the City to enact a water curtailment resolution.

Curtailment Event Triggers and Stages

OAR 690-086-0160(2) and (3)

The City’s curtailment plan is designed to preserve water supplies in the event of a temporary or sustained shortage and to ensure that delivery can be maintained. The City will implement its curtailment plan if the City’s water supply cannot keep up with consumer water demands. Scenarios that could trigger curtailment could include droughts, natural disasters, source water contamination, or a system or facility failure, such as pump station or reservoir failure. This curtailment plan is designed to be initiated and implemented in progressive stages, which depend upon the nature of the event causing the water supply shortage and the conditions preceding and following the event.

Exhibit 4-1 presents the three curtailment stages, as well as their initiating conditions. The City’s initiating conditions focus on reservoir water levels and deficit rates in the water supply system, since conditions in the system and responses to those conditions can be clearly defined, rather than underlying drought-related causes of the water supply shortage. However, initiating conditions from other supply shortage scenarios are included in Exhibit 4-1, as well.
EXHIBIT 4-1. Curtailment Stages 1 through 3.

<table>
<thead>
<tr>
<th>Curtailment Stages</th>
<th>Initiating Conditions</th>
</tr>
</thead>
</table>
| **Stage 1:** Mild Alert Condition | • Full reservoir recovery cannot be achieved overnight, likely due to:  
• High system demand during the peak summer season  
• The loss of a supply well  
• A prolonged period of hot dry weather is forecasted |
| **Stage 2:** Moderate Alert Condition | • Water service reservoirs are unable to sustain a service level that allows for full fire flow and emergency storage  
• Likely to occur when total reservoir storage is at less than half of existing capacity |
| **Stage 3:** Severe Alert Condition | • Water service system is in severe jeopardy, such as:  
• When well production is reduced to less than half of the demand  
• During sustained drought,  
• Serious damage to the water system due to a natural disaster  
• Failure of a significant part of the water system or a facility  
• Damage to pumps station due to a mechanical problem or vandalism  
• Contamination of the water supply |

**Authority and Enforcement**

To initiate a curtailment action, the City’s Public Works Superintendent recommends to the assembled City Council what alert condition is appropriate to implement based on the above-described triggers. The City Council then must 1) pass a resolution declaring an alert condition in an effort to prevent water shortage, and 2) authorize City staff to implement curtailment actions associated with the designated alert condition, which may involve placing restrictions or enacting regulations to restrict water use until the water shortage is over. This authority is stated in the City’s municipal water code.

The curtailment stage will influence whether the City will request voluntary or mandatory curtailment of water use. Voluntary curtailment will be at the customer’s discretion, with the City providing guidelines on ways to conserve water. The City will request mandatory curtailment when the water system is at serious risk and will specify what type of curtailment is mandatory.

The municipal water code (13.05.310) states that any person, firm or corporation that the City has found in violation of the aforementioned resolutions can be fined up to $360 per day after notice.
Curtailment Plan Implementation

OAR 690-086-0160(4)

Stage 1: Mild Alert Condition
Stage 1 is activated when full reservoir recovery cannot be achieved overnight, which occurs when system demand is high during the peak summer season or when the city experiences the loss of a supply well, or when the City anticipates a prolonged period of hot and dry weather. With the City’s current water supply, this stage can be expected to occur in a typical summer, so could be a fairly common occurrence.

Stage 1 activates a program to inform customers of a growing water shortage and to recommend voluntary reductions in consumption and includes:

- The City halting the watering of public property when water demand exceeds water supply capacity,
- The City running radio and newspaper public service announcements,
- Customers voluntarily adopting a landscape watering schedule of watering every fifth day, and
- All users voluntarily refraining from vehicle cleaning and other unnecessary water uses.

Public service announcements will provide information about the water supply deficiency and will request that water users implement household water conservation measures. The announcements will also encourage water users to adopt the voluntary water conservation measures mentioned above.

Stage 2: Moderate Alert Condition
Stage 2 is activated when water service reservoirs are unable to sustain a service level that allows for full fire flow and emergency storage, which likely would occur when total reservoir storage is at less than half of existing capacity.

Stage 2 activates a similar program as Stage 1, but it also includes some mandatory actions. This stage should not occur in a typical year. In addition to the actions included in Stage 1, Stage 2 will include the following:

- Mandatory landscape watering restrictions (every other day based on location east or west of Territorial Road),
- Prohibition on washing vehicles, pavement, sidewalks, and other impervious surfaces except for washing required for public health reasons,
- Customers voluntarily reducing filling of swimming pools and other water features, and
- Customers voluntarily reducing their indoor water use, such as reducing shower times and use of washing machines.
In addition to running public service announcements, the City will attach notices of alert to all existing service connections.

**Stage 3: Severe Alert Condition**

Stage 3 is activated when the water service system is in severe jeopardy, such as from failure of a significant part of the water system or sustained drought. In addition to the Stage 1 and 2 actions, Stage 3 expands the suite of prohibited non-essential water uses. In Stage 3, additional curtailment actions will include:

- Prohibition of outdoor irrigation and filling of swimming pools and other water features with City water,
- Prohibition of the installation of new turf and landscape, and
- Imposing a temporary moratorium on new water delivery connections and temporary water delivery (i.e. construction operations).

If circumstances warrant, the City will possibly reduce service delivery pressure and limit all indoor and outdoor water uses other than those required for public health.

In the case of a catastrophic loss of water with the potential to last several days, the City will inform its customers where potable water can be obtained and will refer to the Contingency Plan element of the City’s Drinking Water Protection Plan. The Contingency Plan is a pre-planned strategy for a timely and effective response to an incident threatening the water supply, and it includes a Notification Roster that lists key personnel (by position title) and their roles in the incident.
5. Municipal Water Supply Element

This section satisfies the requirements of OAR 690-086-0170. This rule requires descriptions of the City’s current and future water delivery areas and population projections, demand projections for 10 and 20 years, and the schedule for when the City expects to fully exercise its water rights. The rule also requires comparison of the City’s projected water needs and the available sources of supply, an analysis of alternative sources of water, and a description of required mitigation actions.

Delineation of Water Delivery Areas
OAR 690-086-0170(1)

Exhibit 5-1 shows the City’s future water delivery area. This area is the same as the City’s current water delivery area, which is described in Section 2.
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Population Projections
OAR 690-086-0170(1)

Exhibit 5-2 summarizes the City’s projected water delivery area population within its current and future water delivery area in 10 years and 20 years. The population projections are based on an average annual growth rate of 3.6 percent determined by the City’s planning staff and include 396 residents currently served by individual wells that the City anticipates integrating into its water system over the next 20 years (see the City’s WSMP, page 3-4). Population projections were coordinated with other communities in Lane County and adopted through the coordinated population forecasting process in June of 2009. (The Region 2050 Plan that the Lane Council of Governments, Department of Land Conservation and Development, and several cities were developing from 1999 to 2006 was not adopted; therefore, the City did not incorporate the Plan into its long-range supply plan or its comprehensive plan.)

EXHIBIT 5-2. Population Projections for the City’s Water Delivery Area.

<table>
<thead>
<tr>
<th>Year</th>
<th>Water Service Area Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>7,401</td>
</tr>
<tr>
<td>2030</td>
<td>9,640*</td>
</tr>
</tbody>
</table>

*The adopted 2030 population forecast for Veneta is 9,847. However, the 9,640 figure from the WSMP, which was adopted before the new forecast, is used here for consistency.
Demand Forecast
OAR 690-086-0170(3)

Exhibit 5-3 shows the City’s projected MDD within its current and future water delivery area in 10 years and 20 years. Estimates of projected MDD were developed by multiplying the City’s approximate average maximum daily per capita water usage between 2003 and 2007 (440 gpcd), by the population projections shown in Exhibit 5-2, and then dividing each value by 1 million (See the City’s WSMP, pages 3-4 and 3-5). This calculation excludes 2004 as that year was an outlier. Based on advice from City staff, the projected maximum daily per capita values utilize historical peak groundwater well production records for a 24 hour period and incorporate a storage loss of 3 ft of depth in all three City storage reservoirs. This loss in storage volume over the 24 hour period reflects a peak demand that exceeded the production capacity of the City’s wells and this volume of water used over the 24 hour period is included in the calculation of maximum daily demand. For both the average and maximum daily per capita water usage, per capita values incorporate water used for residential, commercial, and public purposes.

Exhibit 5-3. City of Veneta’s Projected MDD.

<table>
<thead>
<tr>
<th>Year</th>
<th>Projected MDD (mgd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>3.3</td>
</tr>
<tr>
<td>2030</td>
<td>4.2</td>
</tr>
</tbody>
</table>

The projected 2010 MDD in the City’s WSMP (2.3 mgd) exceeds the actual MDD for July 2009-June 2010 (1.46 mgd), which can be attributed to slower growth in population and water demand due to the recent economic downturn, decreased water demand due to the wet springs and mild summers over the period July 2009-June 2011, and improved accounting of water use and consumption resulting from the installation of new meters and accounting systems.

Schedule to Exercise Permits and Comparison of Projected Need to Available Sources
OAR 690-086-0170(2) and (4)

As described in Section 2, the City currently holds five groundwater use authorizations for its wells for municipal purposes: one inchoate transfer (T-10003), one certificate that is the subject of a pending transfer application (87206, T-11297), one certificate (52376), one permit (G-11551), and one limited license (LL-1219). These groundwater use authorizations currently allow withdrawal of up to 2.66 cfs (1.72 mgd) of groundwater. The City also has one water use application that is currently on administrative hold (G-17291); however, when approved this use will replace the use under LL-1219.
Exhibit 5-4 shows the City’s total groundwater use authorizations superimposed on its projected MDD. Although the exhibit shows that the City’s projected MDD exceeds its existing water rights, this is not yet the case for the reasons discussed above (slowdown in the economy etc). However, the City’s MDD for July 2009-June 2010 of 1.46 mgd is close to the City’s total groundwater use authorizations of 1.72 mgd and within the next couple of years could easily exceed the City’s authorized groundwater supply. Consequently, the 10-year and 20-year projections have little bearing on the City’s long-term planning considering the evident need for the City to immediately secure an additional water source to meet its near-term MDD.

Finally, the City is aware of the priority dates of its water rights and their maximum supply, as shown by the City’s reliance on its senior water rights. The City will continue to rely on its senior water rights as it fully develops its groundwater use authorizations.

EXHIBIT 5-4. City of Veneta’s Projected MDD and Total Groundwater Use Authorizations.

Alternative Sources
OAR 690-086-170 (5)

OAR 690-086-0170(5) requires an analysis of alternative sources of water if any expansion or initial diversion of water allocated under existing permits is necessary to meet future water demand. During the next 20-year planning period, the City intends to fully develop all of its water rights to meet increased municipal demands, including full development of Permit G-11551 and any permit that may be issued as a result of Application G-17291. The City also intends to complete and perfect Transfer T-10003 and Transfer T-11297. The following subsections analyze the extent to which the City can meet its projected water need through other alternatives.
(a) Conservation Measures

As described in Section 3, the City recently approved a water conservation program and has been implementing a variety of water conservation measures to reach its stated water conservation goal of 5 percent water savings during the period 2010-2015. The City intends to maintain a water conservation goal of 5 percent thereafter by continuing and expanding its water conservation program. Estimates of projected MDDs with 5 percent conservation were developed by multiplying the City’s projected MDD, as shown in Exhibits 5-3 and 5-4, by 5 percent and then subtracting that value from the projected MDD for that year.

Exhibit 5-5 shows the City’s projected MDD, projected MDD with 5 percent conservation savings, and total groundwater use authorizations. This exhibit demonstrates that the City’s current water rights still will be unable to meet MDDs within a short time despite the 5 percent conservation savings. This is the case for both the City’s WSMP projection (2.3 mgd) and the City’s MDD for July 2009-June 2010 with 5 percent conservation savings (1.39 mgd), which is coming close to exceeding the City’s authorized groundwater use (1.72 mgd). Consequently, while water conservation is still a priority for the City, it will not substantially delay the City’s need to immediately secure an additional water source to meet its near-term MDD.

EXHIBIT 5-5. City of Veneta Water Delivery Area Projected MDD, Projected MDD with 5 Percent Conservation Savings, and Total Groundwater Use Authorizations.
(b) Interconnections

As described in Section 2, the City is developing an interconnection with EWEB to meet its future water needs because of regulatory and hydrologic limitations on further groundwater development. The wholesale water purchased from EWEB will provide the City with a reliable long-term water supply.

(c) Cost Effectiveness

OAR 690-086-170(c) requires an assessment of whether the projected water needs can be satisfied through other conservation measures that would provide water at a cost that is equal or less than the cost of other identified sources. As shown in Exhibit 5-5, a 5 percent decrease in water demand resulting from conservation will not significantly delay the City’s need for additional water. Given the City’s approaching water supply limit and the hydrologic and regulatory constraints associated with new groundwater development, the City decided to pursue the wholesale purchase of water from EWEB to meet its projected water needs. Even though the wholesale purchase of water relieves pressure on the City’s water supply, the City will continue to carry out measures that promote water conservation. Moreover, the City will continue to maintain its groundwater rights and groundwater supply system.

Quantification of Maximum Rate and Monthly Volume

**OAR 690-086-0170(6)**

OAR 690-086-0170(6) requires a quantification of the maximum rate of withdrawal and maximum monthly use if any expansion or initial diversion of water allocated under an existing permit is necessary to meet demands in the 20-year planning horizon. The City currently is in the process of preparing Claims of Beneficial Use for Permit G-11551 and Transfer T-10008, and in the near future, the City will be developing a Claim of Beneficial Use for T-11297. The City also plans to develop Application G-17291 upon issuance of a permit. While the City intends to complete and perfect the transfers, it only intends to “expand diversion” of water under the existing permit and the permit for the pending application. The sum of these two water rights (Permit G-11551 and Application G-17291) is 1.43 cfs. Within the next 20 years, the City is projected to require the maximum rate of withdrawal to meet its projected water demands, which would be 1.43 cfs (0.92 mgd), consisting of 1.11 cfs (0.72 mgd) under Permit G-11551 and 0.32 cfs (0.21 mgd) under Application G-17291. Assuming that those water rights are used at their maximum rate, 24 hours per day for 31 days during the maximum month (likely July or August), the City’s maximum monthly volume for those water rights would be approximately 28.6 MG, of which 22.2 MG would be under Permit G-11551 and 6.4 MG would be under Application G-17291.

Mitigation Actions under State and Federal Law

**OAR 690-086-0170(7)**

Under OAR 690-086-0170(7), for expanded or initial diversion of water under an existing permit, the water supplier is to describe mitigation actions it is taking to comply with legal
requirements of the Endangered Species Act, Clean Water Act, and other applicable state or federal environmental regulation. The City currently is not required to take any mitigation actions under state or federal law.

**New Water Rights**

**OAR 690-086-0170(8)**

Under OAR 690-086-0170(8), an analysis of alternative sources of additional water is required if acquisition of new water rights will be necessary within the next 20 years to meet the projected water demands. The City currently has one water use application that is on hold (G-17291), but this water right is intended to replace LL-1219, which the City is already using at its maximum rate. Consequently, the full development of the permit issued for application G-17291 is intended to protect an existing water use, as well as increase water use by a small amount, an additional 0.02 cfs, to use the full capacity of Well 12. Thus, the use of the water requested under Application G-17291 is essentially already considered in the analysis above. Nevertheless, alternative sources of water have been considered, as described earlier in this section, specifically water conservation and further groundwater development.

The City does not plan to acquire additional water rights within the next 20 years because of its ability to purchase water wholesale from EWEB.
Appendix A

Letters to Local Governments and Comments
January 24, 2012

Lane County Land Management Division
125 E. 8th Ave.
Eugene, OR 97401

Subject: Water Management and Conservation Plan for the City of Veneta

To Whom It May Concern,

The City of Veneta has developed a Draft Water Management and Conservation Plan (WMCP) to fulfill the requirements of Oregon Administrative Rule Chapter 690, Division 86 of the Oregon Water Resources Department.

Under these rules, the water supplier shall make its Draft WMCP available for review by affected local governments and seek comments relating to consistency with the local governments' comprehensive land use plans. Enclosed is the City's Draft WMCP for your review.

Please provide comments to me within 30 days from the date of this letter. If the plan appears consistent with your agency's Comprehensive Land Use Plan, a letter response to that effect would be appreciated. You may send your comment to me at the address on this letterhead or e-mail them to me directly at: kschauer@ci.veneta.or.us.

If you have any questions, please feel free to contact me at 541-935-2191. Thank you for your interest.

Sincerely,

[Signature]

Kyle Schauer
Public Works Superintendent
City of Veneta

Enclosure
January 24, 2012

Brian Issa- Community Services Director
City of Veneta
P.O. Box 458
Veneta, OR 97487

Subject: Water Management and Conservation Plan for the City of Veneta

Dear Mr. Issa,

The City of Veneta has developed a Draft Water Management and Conservation Plan (WMCP) to fulfill the requirements of Oregon Administrative Rule Chapter 690, Division 86 of the Oregon Water Resources Department.

Under these rules, the water supplier shall make its Draft WMCP available for review by affected local governments and seek comments relating to consistency with the local governments’ comprehensive land use plans. Enclosed is the City’s Draft WMCP for your review.

Please provide comments to me within 30 days from the date of this letter. If the plan appears consistent with your agency’s Comprehensive Land Use Plan, a letter response to that effect would be appreciated. You may send your comment to me at the address on this letterhead or e-mail them to me directly at: kschauer@ci.veneta.or.us.

If you have any questions, please feel free to contact me at 541-935-2191. Thank you for your interest.

Sincerely,

Kyle Schauer
Public Works Superintendent
City of Veneta

Enclosure
Dear Brad Taylor:

The City of Veneta has developed a Draft Water Management and Conservation Plan (WMCP). Enclosed is a courtesy copy of this Draft WMCP for your review.

Please send comments to me within 30 days. You may send your comments to me at the address below or e-mail them to me. If you have any questions, please feel free to contact me at 541-935-2191. Thank you for your interest.

Sincerely,

Kyle Schauer
Public Works Superintendent
City of Veneta
(541) 935-2191
P.O. Box 458
Veneta, OR 97487
Kyle,

In response to your request for comment on the proposed City of Veneta Water Management and Conservation Plan, I am providing you the following comments for Lane County Land Management, Planning Division.

Lane County Land Management, Planning does not have any concerns in regard to the proposed plan due to the plan not impacting any area outside of the City of Veneta city limits. Since the city limits and Urban Growth Boundary are one in the same, the proposed plan does not impact any land under the jurisdiction of the County.

Please let me know if you have any questions or need further information.

Thanks.

Mark Rust, AICP | Associate Planner
Lane County Department of Public Works
Land Management Division
125 East 8th Ave. | Eugene, OR 97401
Office 541.682.4541 | Fax 541.682.3947
mark.rust@co.lane.or.us | www.lanecounty.org/planning
Kyle:

Thank you for the opportunity to try and put myself asleep on a Friday by reading your WMCP (I guess it is only fair, since we afforded you a similar opportunity with our plan).

I thought the plan looked great.

I had one minor comment on Section 5. It might be worth mentioning that the EWEB supply will be use primarily for base load supply (with the possibility of using it for peaking depending on operational issues, etc) and the need to maintain a ground water system as a back-up in the event of a loss of the EWEB water supply. I guess what I thought would be important to communicate was the need to maintain these existing water ground water rights for redundancy and operational flexibility as you move out into the future (justifying the need for them once you have an EWEB supply connection).

Had to come up with something to say.

Talk with you down the road. Regards,

BRAD TAYLOR
Eugene Water & Electric Board
Water Planning Supervisor

e-mail:  brad.taylor@eweb.org
work/fax:  541-685-7385
mobile:  541-255-5607
address:  4200 Roosevelt Boulevard
          P.O. Box 10148
          Eugene, Oregon 97440-2148
Kyle, we have no further comments on the WMCP.

Brian Issa  
Community Services Director  
City of Veneta  
(541)935-2191  
Fax 935-1838  
bissa@ci.veneta.or.us
Appendix B

Water Supply Agreement
Between the City of Veneta and the Eugene Water and Electric Board
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PURCHASE OF SURPLUS WATER

This Agreement is between the City of Veneta, a municipal corporation of the State of Oregon, herein called “Veneta” and the City of Eugene, a municipal corporation of the State of Oregon, acting by and through the Eugene Water & Electric Board, herein called “EWEB.”

RECITALS

WHEREAS, Veneta is a municipal corporation organized under the laws of the State of Oregon and EWEB is the municipal utility of the City of Eugene established by Chapter 10, Section 44, of the Charter of the City of Eugene; and

WHEREAS, the Charter of the City of Eugene grants EWEB authority to operate a water utility with all powers of the Constitution and laws of the United States or of Oregon which expressly or impliedly grant and allow cities these powers as fully as if this Charter specifically stated each of these powers; and

WHEREAS, EWEB is entering into this Agreement as a wholesale sale of water to a municipal water utility, not provision of “water service” to retail customers and EWEB does not undertake to “extend” retail water service to customers. Rather, there is delivery to the City of Veneta of wholesale water at a point of delivery; and

WHEREAS, EWEB has determined that it is in the best interest of EWEB Customers within the City of Eugene to enter into agreements for the sale of surplus water by spreading and dividing the fixed overhead of the system over a wider rate base allowing a greater likelihood of water supply at less cost and of a higher quality than would otherwise be possible; and

WHEREAS, it is in the best interest of EWEB to put permitted water to beneficial use in order to help assure water availability for the citizens of Eugene in future years; and

WHEREAS, EWEB has surplus water available in its municipal water system and is now selling and contemplates that it will hereafter sell and dispose of such surplus water to water utilities outside the boundaries of the City of Eugene; and

WHEREAS, Veneta also owns, operates and maintains a municipal water system providing service to its citizens and desires to purchase surplus water from EWEB to obtain a reliable and redundant water supply; and

WHEREAS, Veneta also maintains water supply production capability for its municipal water system that is now and hereafter capable of supplying the basic needs of its system in the event the water supply from EWEB is interrupted; and

WHEREAS, EWEB and Veneta agree to maintain consistent Water Curtailment Plans to ensure that water is available to meet public health and safety needs during drought or emergency conditions; and

WHEREAS, it is also recognized that EWEB, in participation with metropolitan area water utilities (Springfield Utility Board and Rainbow Water District), may enter into a
metropolitan wide curtailment effort in order to assist when practicable in responding to emergencies. The response to such emergencies is outlined in an Intergovernmental Agreement signed by the three utilities. All EWEB Customers are expected to respond to such emergencies; and

WHEREAS, EWEB and Veneta recognize the importance of close cooperation for planning and coordinating a reliable and redundant water supply to all Customers and support regional efforts to plan the long-term viability of maintaining these supplies for the collective benefits of the Lane County community; and

WHEREAS, EWEB and Veneta agree that by agreement they can cooperatively achieve water resource management and environmental stewardship, infrastructure improvement for reliability and redundancy and water quality optimization for meeting regulatory requirements; and

WHEREAS, EWEB and Veneta desire to maintain an active water conservation program that results in wise, efficient use of water in a manner that is consistent with the requirements of the State and Federal Governments; and

WHEREAS, ORS 190.030 to 190.110 authorize units of local government to enter into intergovernmental agreements for the performance of duties or the exercise of powers conferred upon them, and being fully advised.

NOW, THEREFORE, in consideration of the mutual covenants of EWEB and Veneta, it is agreed as follows:

ARTICLE I – DEFINITIONS

1.1 Agreement means this Agreement.

1.2 Calendar Year is EWEB’s fiscal year (January 1 to December 31).

1.3 Capital Costs equals the sum of depreciated cost of capital installed prior to this contract as well as newly installed or maintained capital facilities. Only those proportionate capital costs that benefit Veneta will be included in the calculation of the rate.

1.4 Customer for purposes of this Agreement will include retail purchasers within EWEB’s Direct Service Territory, wholesale purchasers such as the City of Veneta and other users who are provided with Surplus Water upon the effective date of this Agreement. Customer may also be referred to as:

1.4.1 EWEB Customers are those customers now or hereafter within the Direct Service Territory of EWEB.

1.4.2 Other Customers are those municipal utility entities or users who now or hereafter have surplus or firm surplus water purchase agreements with EWEB for water.
1.5 Curtailment Plan is a written plan developed for curtailment of water delivery in accordance with the provisions of the Agreement and OAR Chapter 690, Division 86.

1.6 Direct Service Territory is the area within the boundaries of EWEB where EWEB provides water service to a retail customer and the area within the boundaries of Veneta where Veneta provides water service to retail customers.

1.7 EWEB is the Eugene Water & Electric Board, a municipal utility organized and operating under the authority of the Eugene City Charter and ORS Chapter 225.

1.8 OAR are the Oregon Administrative Rules.

1.9 Operations and Maintenance Costs are the costs budgeted by EWEB to operate and maintain the Water System. These costs include overhead costs of EWEB allocated to its water operations. These costs do not include expenditures included as Capital Costs.

1.10 ORS are the Oregon Revised Statutes.

1.11 Party or Parties are the entities who are signatories to this Agreement.

1.12 Point of Delivery is where the EWEB Water System connects to the Veneta water delivery pipeline at a water meter(s) used to measure delivery quantity (volume over time). The Point of Delivery is within the city limits and urban growth boundary of the City of Eugene.

1.13 Surplus Water is the provision of water in excess of the needs of EWEB retail customers and other contracts for firm Surplus Water by EWEB to Veneta whereby Veneta will receive a supply of water (quantity and quality) on equitable terms and conditions, but such supply is interruptible under conditions beyond EWEB's reasonable control, or pursuant to provisions of this agreement.

1.14 Veneta is the City of Veneta, an Oregon municipal corporation.

1.15 Water Managers Committee (WMC) is a group that consists of two members from EWEB and one from each purchaser of water from EWEB and who choose to participate. The purpose of the WMC is to meet regularly to communicate regarding the Water System.

1.16 Water Revenue Requirements is the sum of Capital Costs and Operations and Maintenance Costs incurred by EWEB for the fiscal year.

1.17 Water Rights mean storage, surface water, or ground water registrations, permits or certificates, now or hereafter existing, of EWEB.

1.18 Water System is defined as the facilities and assets utilized by EWEB consisting of Water Rights, raw water intakes, pumping and piping, water treatment plant facilities, transmission facilities, reservoirs and other assets and facilities necessary for treatment and conveyance of potable water to the Parties now or hereafter existing.

Page 3 – Purchase of Surplus Water
ARTICLE II – WATER SUPPLY

2.1 Subject to the terms and conditions contained herein, EWEB agrees to furnish and sell and Veneta agrees to purchase Surplus Water for the life of this Agreement. Specifically, Veneta shall not be obligated to perform hereunder unless it obtains satisfactory funding commitments for construction of the improvements described in Section 2.2. Similarly, EWEB is not obligated hereunder until it obtains validation of this Agreement. Veneta may obtain water from the EWEB Water System at a point approved by EWEB in mutual aid or emergency circumstances. Quantities requested for this purpose by Veneta shall be subject to approval by EWEB.

2.2 The Parties agree this Surplus Water Purchase Agreement obligates Veneta to purchase from EWEB an estimated 150 million gallons per year to serve its customers. Veneta agrees to purchase a minimum of 8 million gallons per month. Veneta will construct a transmission line and other necessary improvements to deliver up to 4 million gallons per day ("mgd") to its system. EWEB will construct water system improvements from its existing water system to the Point of Delivery set forth in Section 10.1 at Greenhill Road and Highway 126. The Parties recognize that these water system improvements will be sized to meet EWEB customer demand plus the Veneta purchase of Surplus Water up to 4 mgd. Veneta agrees to reimburse EWEB for that proportionate cost of EWEB Water System improvements necessary to deliver up to 4 mgd to the Point of Delivery. Veneta may elect to pay its cost share by lump sum payment or through rates.

2.2.1. By June 1st of each year, Veneta will forecast its demand for the period June 1 to May 31. EWEB commits to supply up to 4 mgd, subject to Article 2.3 and the terms of this Agreement. The amounts nominated for this year will become the quantity factored into rate calculations and allocations.

2.2.2. Veneta may request additional water in excess of 4 mgd. Whether such additional amount is available shall be at the sole discretion of EWEB and any Water System improvements necessary to deliver this additional quantity of water shall be paid by Veneta.

2.3 EWEB and Veneta will meet all applicable Federal and State drinking water regulatory requirements for their respective systems. Veneta’s supply of water will be reduced or terminated only in accordance with the terms of this Agreement or if EWEB is required by metropolitan area wide agreements to curtail. The Parties acknowledge and agree that this is a surplus contract and EWEB at all times retains the right to limit water delivery to Veneta so that EWEB Customers will be given priority. EWEB will reasonably endeavor to provide water to Veneta at an equivalent level as is provided to EWEB Customers. In the event of a general emergency or weather related water shortage affecting the entire EWEB Water System, general restrictions placed upon water deliveries to Veneta will be determined by EWEB and applied equitably to EWEB Customers and Veneta, but ultimately EWEB Customers will be given priority as EWEB determines.
2.4 In the event of localized emergency problems, Veneta acknowledges temporary localized interruptions may occur for the duration of the emergency. Examples of such circumstances include, but are not limited to, main breaks and dig-ins.

2.5 Veneta agrees that no liability for damages will attach to EWEB on account of any failure of supply or changes of pressure, flow rate, or water quality due to circumstances beyond the reasonable control of EWEB, acting in accordance with the standards of care common and usual in the municipal water supply industry. Examples of such circumstances include, but are not limited to, natural events such as earthquakes, landslides and floods and human caused events such as terrorism, malevolent acts, contamination of the water supply, and acts of war.

2.6 The Parties agree and acknowledge that EWEB is the owner and operator of the Water System and Water Rights used in its utility operations. The purchase of water under this Agreement will not constitute purchase of ownership rights to water or any portion of the Water System owned and operated by EWEB, except as may be specified herein or may be established by separate agreement. Nothing in this Agreement will preclude the Parties from entering into separate agreements involving joint ownership or joint operation of Water System elements.

ARTICLE III– CONDITIONS OF WATER DELIVERY

3.1 EWEB’s responsibility under this Agreement is to sell and provide Surplus Water on a wholesale basis at a Point of Delivery to Veneta as agreed by the Parties.

3.2 EWEB is not responsible for providing water service, distribution service, or other services to Veneta customers, which shall be the responsibility of Veneta.

3.3 Except as allowed by applicable statutes, administrative rules, and land use regulations, Veneta will not sell, allow unmetered water use (except for emergency events) or dispose of any of the Surplus Water purchased under this agreement outside of its Direct Service Territory.

ARTICLE IV – RATES AND CHARGES

4.1 Veneta will be charged under this Agreement equal to an amount estimated to be proportionate to its share of the cost to EWEB of providing water using standard cost-of-service and ratemaking principles as described in Manual M-1, published by AWWA Manual of Water Supply Practices–M1. Principles of Water Rates, Fees and Charges. Fifth Edition. Denver: 2000. (hereafter “AWWA Manual M-1”) and future Editions of the Manual M-1. A cost-of-service allocation methodology will be used to allocate the Water Revenue Requirement as determined by the EWEB Board approved budget annually. The components used to determine the Water Revenue Requirements will be:

4.1.1. Operation and Maintenance Costs. EWEB will set its Operations and Maintenance Costs through its formal budgeting process. Operation and Maintenance Costs may also include any right-of-way regulation fee, privilege tax, or franchise fee lawfully imposed on EWEB. Only those operations and
maintenance costs that benefit Veneta will be included in the calculation of their rate. Specific exclusions are costs associated with water conservation efforts and low-income assistance programs.

4.1.2. Capital Costs. EWEB will calculate Veneta’s rate to recover the depreciated cost of capital installed prior to this Agreement as well as newly installed or maintained capital facilities. Only those capital costs that benefit Veneta will be included in the calculation of their rate. Specifically excluded are the capital costs of upper level water facilities.

4.1.3. A return on investment of 10% or as otherwise directed by the EWEB Board not to exceed 10% will be charged on both the Operations and Maintenance Costs and the Capital Costs. It is the intent of EWEB to apply this rate of investment to all Surplus Water agreements or contracts.

4.1.4. EWEB and Veneta understand that EWEB currently has or may enter into similar agreements with Other Customers. The Parties agree that if EWEB enters into other agreements or contracts for supplying Surplus Water, the charges to Veneta will continue to be based on the proportionate cost of delivery to Veneta. EWEB will classify customer classes as retail and wholesale, by service area, or other customer classes in its discretion. EWEB will price its water using cost-of-service principles that allocate cost based on these classifications. Other classification factors will be revised as necessary to meet the cost-of-service principles set forth above.

ARTICLE V– BILLING AND PAYMENT

5.1 EWEB will submit to Veneta each month an itemized statement as requested by Veneta showing the following: amount charged for sale of water; and such amount will be due within 45 days of invoice. Bills are due upon receipt and subject to an interest charge at the statutory rate on unpaid accounts if not paid within 45 days of the invoice date.

ARTICLE VI– TERM AND TERMINATION

6.1 This Agreement will be effective on the date both Parties have adopted it and will continue in effect for an initial term of 40 years, unless the Agreement is terminated as provided herein. Each Agreement year will run from January 1 to December 31.

6.2 Not less than five years prior to the expiration of the initial term or any renewed term, Veneta may request renewal for an additional term(s) of ten (10) years. EWEB will have 180 days to determine if it has Surplus Water for the renewal term. If so, the Agreement will be extended and new cost of water study will be conducted at the beginning of any renewal term.

6.3 Except for default, either Party may terminate this Agreement upon providing written notice to the other not less than five years prior to the Agreement termination date.
6.4 In the event of a default, the nondefaulting Party may give notice of termination to the defaulting Party with such termination date to be not less than one (1) year from the date of notice. However, such termination date will be adjusted to be not less than one (1) year from the date of final completion of dispute resolution under this Agreement if the default is confirmed.

6.5 Notice will be sufficient if sent by first class mail, postage prepaid, to the following address or such other address as the Party designates:

EWEB
500 East 4th Avenue
PO Box 10148
Eugene, OR 97440-2148

Veneta
88184 Eighth Street
PO Box 458
Veneta, OR 97487

ARTICLE VII– WATER CONSERVATION

7.1 Veneta will maintain a Water Management and Conservation Plan (WMCP) in full compliance with OAR 690, Division 086 and successor regulations adopted during the term of this Agreement to promote beneficial and efficient use of Surplus Water purchased under this Agreement without waste or adopt the EWEB plan as amended from time to time.

7.2 The obligations in this section apply to both EWEB and Veneta and intend that water to which EWEB holds water rights will be used beneficially, efficiently, and without waste. The Parties will cooperate in the development of a joint conservation program where such partnerships are of mutual benefit and produce increased efficiencies in program costs or water savings. Provided, however, that funding for joint conservation programs will be established by separate agreement.

7.3 The Parties agree that Veneta must maintain the Veneta water system to be fully metered at the individual customer level.

7.4 Veneta will be responsible for implementing a WMCP that meets the following minimum requirements:

7.4.1. Leak detection and repair programs required under Oregon Administrative Rule 690-86-150(4)(e) and, if applicable, subsection (6)(a).

7.4.2. Education and outreach programs required under Oregon Administrative Rule 690-86-150(4)(f).

7.4.3. Rate structures based on the quantity of water metered at the service connection as required by Oregon Administrative Rule 690-86-150(4)(d).

7.4.4. A meter testing and maintenance program as required by Oregon Administrative Rule 690-86-150(4)(c).
7.4.5. An annual water audit as required by Oregon Administrative Rule 690-86-150(4)(a).

7.5 The WMCP will include discretionary programs unless such program is not needed, feasible, or appropriate to Veneta’s service area as determined by Veneta:

7.5.1. Technical and financial assistance programs to encourage and aid residential and commercial and industrial customers.

7.5.2. Retrofitting and replacement of existing, inefficient water using fixtures, including distribution of residential conservation kits and rebates for customer investments in water conservation.

7.5.3. Adoption of rate structures, billing schedules and other associated programs that support and encourage water conservation.

7.5.4. Water re-use, recycling and nonpotable water opportunities.

7.5.5. Other measures identified that would improve water use efficiency.

7.5.6. Operational measures to reduce peak event impacts on the EWEB Water System.

ARTICLE VIII– WATER CURTAILMENT

8.1 Subject to EWEB’s right to cease providing Surplus Water under this Agreement so that EWEB Customers have priority, EWEB will reasonably endeavor to cooperate with Veneta. During times when water supplies are not adequate to meet the aggregate of all demands placed upon the EWEB Water System, EWEB and Veneta will develop a plan to reduce or curtail demands so that fire, life, safety and other high priority needs are met. It is to the benefit of all of the Customers of the EWEB Water System that plans for curtailment be agreed upon in advance and that plans for curtailments be coordinated.

8.2 By signing this Agreement, Veneta and EWEB acknowledge that unforeseen or unavoidable circumstances may limit the amount of water available to EWEB for sale and distribution, whether temporarily or permanently. Should the available supply fall below the aggregate of all demands placed on the EWEB Water System, or should it be reasonably predicted that supply will fall below demands before other supplies are available, EWEB may declare that a water shortage is in effect. EWEB and Veneta will then coordinate and implement action under their adopted Curtailment Plans.

8.3 The Water Managers Committee will provide comments to EWEB on its Curtailment Plan. EWEB will adopt the recommended Curtailment Plan with such alterations as necessary or advisable in its sole discretion. The Curtailment Plan will be designed to accomplish reductions in demand necessary, in the event of a water shortage, to protect the Water System’s capacity to supply water for fire, life, safety, and other high priority needs. The Curtailment Plan will establish procedures, as well, whereby to coordinate demand reductions by Veneta and other Water Utilities to accomplish, jointly, total necessary system demand reductions imposed on them.
8.4 Veneta may adopt the EWEB Curtailment Plan or its own plan that is substantially equivalent to the EWEB Plan.

8.5 If EWEB declares a water shortage, Veneta will implement measures sufficient to meet the requirements of the Curtailment Plan (or other requirements of EWEB for proportional reduction in demand if no Curtailment Plan has been adopted). Veneta may do this through implementation of measures contained in the Curtailment Plan.

8.6 EWEB will monitor compliance with the Curtailment Plan on a schedule established in the Plan or at least every two weeks throughout the duration of the declared water shortage.

8.7 It is recognized by the Parties that emergency water use curtailment measures may have to be implemented by EWEB in order to meet an emergency condition or a metropolitan area wide water shortage pursuant to agreements that exist or may exist with other Water Utilities. The procedures to be used in the event of a weather-related metropolitan area wide water shortage or shortages caused by other factors will be as described in the Curtailment Plan in effect. If EWEB declares a water shortage under a Metropolitan Area Agreement, then Veneta, or in cooperation with Other Customers as contemplated by this Agreement, will use all good faith efforts to achieve the required reductions in the use of water supplied, EWEB may act to reduce the amount of water supplied to Veneta and EWEB Customers so that it does not exceed that amount specified under curtailment measures.

8.8 The Parties acknowledge that this is a Surplus Water purchase agreement with the goal that EWEB will provide water to Veneta. In the event of a general emergency or weather-related water shortage affecting the entire water supply system, general restrictions placed upon water deliveries to Veneta will be applied as equally as possible to EWEB Customers, but ultimately supply may be reduced or terminated for the benefit of EWEB Customers as EWEB determines.

8.9 The Parties recognize that EWEB may temporarily interrupt or reduce deliveries of water to Veneta if EWEB determines that such interruption or reduction is necessary or reasonable in case of system emergencies or to install equipment, make repairs, replacements, investigations, and inspections are performed or other maintenance work on the EWEB Water System. EWEB will give Veneta reasonable notice of any such interruption or reduction, the reasons for and the probable duration, and will use best efforts to minimize interruptions to Veneta.

ARTICLE IX– WATER MANAGERS COMMITTEE

9.1 A Water Managers Committee (WMC) will be established with all water utilities holding agreements to purchase water from EWEB. EWEB will provide staff as necessary.

9.2 The WMC will communicate on issues related to:

9.2.1 Capital Planning for EWEB. On an annual basis (around September), as part of the budgetary process, EWEB will convene the WMC to discuss development of
EWEB's Capital Improvement Plan. EWEB will identify criteria to be considered in prioritizing capital improvement projects. EWEB will share its proposed ranking of projects for funding and completion and its proposed schedule for such capital improvements related to Veneta. Veneta will be provided reasonable opportunity to present suggestions and recommendations for changes to the proposed Capital Improvement Plan, specific capital projects, and for improvements in the capital planning and financing process.

9.2.2. Operations and Maintenance Budget. On an annual basis, through the WMC, Veneta will participate in a review of EWEB's Operations and Maintenance Budget for the water supply system used to serve Veneta and other participating water Customers. The Operations and Maintenance Budget development and review will take place in a manner sufficiently timely to assure Veneta effective participation in the budget deliberations each year.

9.2.3. Water Rates, Changes, and Rate Design. EWEB will provide timely notification to Veneta of proposed changes in rates, charges, and rate design. EWEB will provide Veneta with opportunity to evaluate and provide input on such proposals. EWEB shall consider information from Veneta as part of its good faith effort to provide rates and charges that are consistent with ratemaking practices of other surplus agreements. By November of each year, EWEB will advise Veneta of its best estimate of the final budget for submission to the EWEB Board and will consult with Veneta. Veneta may request a draft of the proposed rate. Veneta will be provided at least 30 days review of the rate prior to adoption by the EWEB Board. Veneta will be advised of any significant change after submission to the governing body.


9.2.5. Water Curtailment.

ARTICLE X– CONNECTION AND MASTER METERS

10.1 EWEB will own, provide and maintain meter(s), values and controls in proper order at the Point of Delivery for the Veneta transmission line to be located near Greenhill Road and Highway 126. EWEB will arrange to have the meter(s) tested and calibrated annually by an independent tester qualified to do such work. Veneta personnel will be notified of testing and calibration so they may attend. A copy of the test report shall be provided to Veneta.

10.2 Veneta shall own, provide and maintain appropriate cross connection control devices on its transmission line so as to prevent any contamination of the EWEB system. Veneta shall provide EWEB with proof of annual testing and compliance with applicable statutes and administrative rules regarding cross connection control devices.

10.3 Veneta agrees to design and construct the transmission pipeline and all fixtures and appurtenances to EWEB standards, subject to EWEB approval of the pipeline design and connections to assure no adverse impact on the EWEB Water System.
ARTICLE XI— INSURANCE, INDEMNITY AND HOLD HARMLESS

11.1 Veneta will retain all liability for service to customers, operation, maintenance and construction of its water system. Veneta will purchase and carry in full force and effect during the term of this Agreement, a liability insurance policy in the amount of $1,000,000 Comprehensive General Liability coverage protecting EWEB and Veneta from liability of any nature whatsoever arising from Veneta’s performance of its obligations under this Agreement.

11.2 EWEB will retain all liability for operation, maintenance and construction of its Water System. EWEB will have in full force and effect during the term of this Agreement either through policy or self-insurance under ORS 806.130, liability coverage in the amount of $1,000,000 Comprehensive General Liability coverage protecting Veneta and EWEB from liability of any nature whatsoever arising from EWEB’s performance of its obligations under this Agreement.

11.3 To the extent allowed by the Oregon Constitution and the Oregon Revised Statutes not to exceed monetary limits of the Oregon Tort Claims Act, each Party will indemnify, defend, save and hold harmless the other and the other’s officers and employees from any and all claims, suits, and liabilities arising out of the negligent acts or omissions of indemnifying Party’s performance under this Agreement or related to this Agreement. This indemnity obligation shall not include any obligation of one Party to indemnify the other for actions or omissions of the other or the other’s officers, employees, or agents. In the event of joint acts, each Party shall be responsible for its own acts or those of its own officers, employees or agents.

ARTICLE XII — DISPUTES

12.1 The Parties agree that this Agreement is conditional upon the faithful performance by both Parties of all the terms and provisions stated herein. Any failure to do so by one Party (defaulting Party) will give the other Party (nondefaulting Party) the right to declare a default and seek remedies under the Agreement, which may include termination.

12.2 The Parties agree that if there is a dispute regarding breach of any provision or interpretation of this Agreement, charge or procedure between Veneta and EWEB, the Party with the grievance will give notice to the other Party in writing of the dispute. The other Party will within thirty 30 days respond in writing. If the correspondence does not resolve the issue, the Parties will meet and try to resolve the issue. If the Parties cannot reach a satisfactory resolution, and the governing bodies are unable to reach a resolution, then the Parties will agree upon mediation prior to commencement of arbitration. If mediation is unsuccessful, the Parties will agree upon an arbitrator and, if they cannot agree on selection of an arbitrator, then the matter will be referred to the presiding judge of the Lane County Circuit Court, who will appoint an arbitrator who will decide the matter in accordance with ORS Chapter 36.
ARTICLE XIII – CONFIDENTIAL INFORMATION

13.1 Information submitted to or produced by the Parties hereto or any other Customer of EWEB water, or otherwise exchanged by the Parties, may include documents related to the vulnerability or security of water supply systems. The Parties agree that if either receives a public document request for such information, the Party receiving that request will, prior to the release of any documents, expeditiously notify the entity about whose system information is sought and will, in addition, assert all applicable exemptions to release of the documents available under the Oregon Public Records Law.

ARTICLE XIV – GENERAL

14.1 Veneta or EWEB will make no assignment of the rights or interests herein granted without written permission from the other Party.

14.2 The pipeline from the Point of Delivery and master meter(s) set forth in Article X is part of the Veneta system. EWEB does not have the authority to allow connections to the pipeline paid for by Veneta to connect to the EWEB Water System. If at such time any part of the area through which the pipeline is located is annexed into the City of Eugene, both Parties agree to review whether ownership should remain with Veneta for that portion of the pipeline. If EWEB acquires full or partial ownership, the Parties agree that reimbursement would be required based on its present worth value at the time of such annexation.

14.3 If any of the provisions contained in this Agreement are held for any reason to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality, or unenforceability will not affect any other provision, and this Agreement will be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.

14.4 Either Party may request renegotiation of this Agreement upon a one year notice to discuss the issues raised. Any amendment to this Agreement requires mutual consent.

14.5 Entire Agreement. This Agreement embodies the entire agreement and understanding between the Parties hereto and supersedes all previous agreements and understandings relating to the supplying of water except as provided herein.

14.6 Counterparts. This Agreement may be executed in any number of counterparts and by the Parties or separate counterparts, any one of which will constitute an Agreement between and among the Parties.

14.7 Headings. The Article, section and subsection headings contained in this Agreement are for reference purposes only and will not in any way affect the meaning or interpretation of this Agreement.

14.8 Force Majeure. No Party will be considered in default in the performance of its obligations under this Agreement to the extent that the performance of any such obligation is prevented or delayed by any cause, existing or in the future, which is beyond the reasonable control of the affected Party, including, but not limited to, Acts of God,
earthquake, drought, labor disputes, civil commotion, war and the like. In the event a Party claims that performance of its obligations was prevented or delayed by any such cause, that Party will promptly notify the other Party of that fact and of the circumstance preventing or delaying performance. Such Party so claiming a cause of delayed performance will endeavor to the extent reasonable to remove the obstacles which preclude performance. This Force Majeure provision will also apply to each Party in performing its duties and obligations under this Agreement.

14.9 Survival of Covenants. Any provision of this Agreement which, by its terms has or may have application after the expiration or earlier termination of this Agreement, including all covenants, agreements, and warranties, will be deemed to the extent of such application to survive the expiration or termination of this agreement.

IN WITNESS WHEREOF, the City of Veneta has caused this Agreement to be executed by its Mayor and the City of Eugene, acting by and through its Eugene Water & Electric Board, has caused the same to be executed by its General Manager.

CITY OF VENETA
By: Sharon Hobart Hardin
Mayor
Date Signed 4/16/2010

EUGENE WATER & ELECTRIC BOARD
By: [Signature]
General Manager
Date Signed 4/14/2010
Appendix C

Groundwater Rights and Well Logs within City of Veneta limits and ¼ mile beyond the City limits
Well logs within City of Veneta limits and 1/4 mile beyond City limits

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*Well logs within City of Veneta limits and 1/4 mile beyond City limits. **# of Well logs within City of Veneta limits and 1/4 mile beyond City limits.
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LANE 14301 REYNOLDS MARVIN 9/21/1965 11/30/1966 175 6W 2 2
LANE 14203 CRANNER H S 7/22/1965 9/8/1965 175 6W 25
LANE 13405 GODDLE GEORGE W 6/8/1965 8/24/1965 175 5W 31
LANE 18001 MORIN GEORGE 10/7/1965 10/31/1965 185 6W 1
LANE 18004 WILSON GEORGE 10/9/1965 10/31/1965 175 5W 31
LANE 13366 BAILEY GUY 10/8/1965 11/10/1965 175 5W 29
LANE 13405 BAKER LOREN 10/13/1965 11/10/1965 175 5W 31
LANE 13367 CHARLES 10/18/1965 11/10/1965 175 6W 25
LANE 13365 FILON MELVIN 10/27/1965 11/10/1965 175 5W 29
LANE 13364 HAMILTON HAROLD 11/4/1965 11/10/1965 175 5W 31
LANE 13365 DODSON 2/26/1966 3/14/1966 175 6W 2
LANE 13460 BOYMAN JACK 9/29/1966 5/25/1966 175 6W 31
LANE 13462 CHURCH OF GOD 4/20/1966 5/25/1966 175 5W 31
LANE 13361 GILLETTE KING 5/15/1966 5/31/1966 175 5W 29
LANE 13364 JOHN 6/2/1966 7/17/1966 175 5W 29
LANE 13156 STARK LLOYD 7/7/1966 9/7/1966 175 5W 29
LANE 13156 REENTS CASPER 7/16/1966 9/7/1966 175 5W 29
LANE 14102 ZELLING ROBERT 7/25/1966 9/7/1966 175 6W 25
LANE 13155 SWENHEART DALE 6/2/1966 9/7/1966 175 5W 29
LANE 14471 JORGENSEN GLADYS 8/17/1966 9/8/1966 175 6W 36 NE SW
LANE 14404 CHRISTENSEN MARY 8/28/1966 11/15/1966 175 6W 36
LANE 18029 SEIDEN JOHN 10/7/1966 10/31/1966 185 6W 6
LANE 14199 HARRINGTON FRANK D 10/9/1966 11/19/1968 175 6W 25
LANE 18028 DOUGLAS DOLESLAN 1/6/1967 2/19/1967 185 6W 10
LANE 13459 BAKER JOHN 2/5/1967 3/20/1967 175 6W 31
LANE 13458 REX REXDivision B 3/27/1967 5/26/1967 185 6W 4
LANE 13353 RAGEL WILMART P 9/20/1967 5/26/1967 175 5W 29
LANE 18045 DOWIN TOM 4/10/1967 5/19/1967 185 6W 2
LANE 13456 SCHMITT DON 5/4/1967 7/7/1967 175 5W 31
LANE 13455 MUSHER ROY 5/22/1967 7/7/1967 175 5W 31
LANE 18027 PRUITT CARL 6/6/1967 6/16/1967 185 6W 6
LANE 97533 KRENG OTTO 6/12/1967 6/13/1967 185 6W 4 100
LANE 13356 TOUMAN JAY 6/12/1967 7/21/1967 175 6W 31
LANE 13350 THOR CARL 8/2/1967 10/16/1967 175 6W 29
LANE 13150 CITY OF VENETA 8/3/1967 12/27/1968 175 6W 31
LANE 13453 SHORTY'S TRAILER SALES INC 8/8/1967 10/10/1967 175 5W 31
LANE 13352 CITY OF VENETA S D I A CHURCH 8/21/1967 8/29/1967 175 6W 29
LANE 14107 KAU DARIEL 8/30/1967 10/26/1969 175 6W 25
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Note: The above data represents sales of real estate in Veneta, Texas, with the sale price ranging from $525,000 to $2,000,000. The data includes multiple transactions between February 2, 1999, and May 12, 1999.
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Groundwater Rights within City of Veneta limits and 1/4 mile beyond City limits

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