



MEMORANDUM CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

FROM: Sherilyn Lombos, City Manager

DATE: May 13, 2013

SUBJECT: Work Session for May 13, 2013

5:00 p.m. (20 min) – Tualatin Tomorrow Vision & Strategic Action Plan Update. Candice Kelley and Councilor Bubenik will brief the Council on the update of the Tualatin Tomorrow Action Plan on the next steps in this project.

5:20 p.m. (40 min) – Council Building Feasibility Study. The Council Building is the current location for the Council Chambers, Municipal Court and the City's Finance Department offices. CenterCal Properties recently submitted a Master Plan application and Conditional Use Permit application for the "Nyberg Rivers" project, a proposal to redevelop the former Kmart site and adjacent properties. The proposed Master Plan includes an extension of Seneca Street per the project included in the City's Transportation System Plan (TSP). This road extension impacts the existing Council Building. This presentation follows the Council's direction from the Council Work Session discussion on March 25, 2013 where additional information regarding a feasibility study to examine options for the Council Building site was requested.

6:00 p.m. (40 min) – Water Conservation Plan Update and Other Regional Water Issues. Tualatin's current Water Conservation Plan is from 2008; since we are updating the Water Master Plan, we are in a position to update the conservation plan to include activities that assist in meeting the water demand projected in the master plan. Attached is the conservation plan for your discussion and direction. In addition, we are working with the City of Portland on some issues associated with a request to purchase summer interruptible water. City Staff will brief the Council on this issue as well as an update on recent water supply decisions by Tualatin Valley Water District.

6:40 p.m. (10 min) – Council Meeting Agenda Review, Communications & Roundtable.

This is the opportunity for the Council to review the agenda for the May 13th City Council meeting and take the opportunity to brief the rest of the Council on any issues of mutual interest.



STAFF REPORT

CITY OF TUALATIN

City Council Work Session

Meeting Date: 05/13/2013

Subject: Tualatin Tomorrow Vision Plan Update

Through: Sherilyn Lombos, Administration

Attachments

Attachment A-Tualatin Tomorrow Vision Plan Update

envision



Tualatin Tomorrow



TUALATIN TOMORROW
VISION AND STRATEGIC
ACTION PLAN
UPDATE

City Council Work Session – May 13, 2013

Attachment A
1 of 7

Overview

- Vision Plan Update
- Project Goals
- Consultant Selection Process
- Next Steps

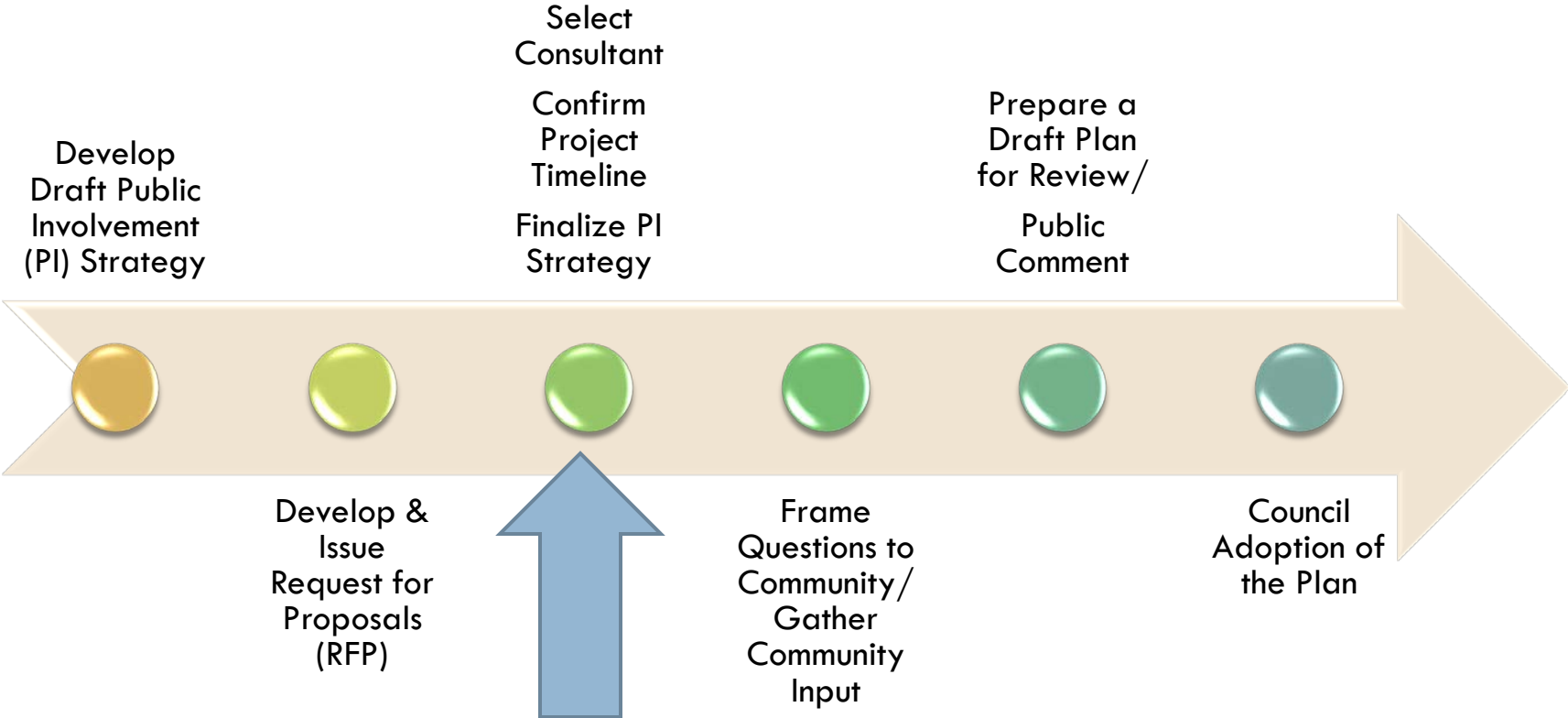
Vision Plan Update

- The plan was first adopted in June 2007, and we are working on the update!
- At the October 2012 Partner meeting we worked on developing Goals and Objectives for the project.
- Outreach efforts to the City's Advisory Committees were completed in January
- The Request for Proposals was released in March
- The Tualatin Tomorrow Advisory Committee met on May 1st to discuss the consultant selection

Vision Plan Update Goals

- Ensure the Vision Plan is living and dynamic
- Reflect the progress on the Vision
- Amend the plan to reflect current community needs and aspirations
- Develop a comprehensive public involvement strategy to update the plan

Project Update



Recommended Consultant

- J. Robertson and Co.
 - Community visioning and public involvement experts
 - Works with the Cities of Beaverton and Hillsboro on their visioning efforts
 - Experience in engaging diverse populations in the visioning process

Next Steps

- Develop a detailed project schedule with J. Robertson and Co.
- Confirm the public involvement strategy



MEMORANDUM

CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos

FROM: Sara Singer, Deputy City Manager

DATE: 05/13/2013

SUBJECT: Council Building Feasibility Study

ISSUE BEFORE THE COUNCIL:

The City Council Building located at 18880 SW Martinazzi Avenue is the current location for the Council Chambers, Municipal Court and the City's Finance Department offices. CenterCal Properties submitted a Master Plan application and Conditional Use Permit application for the "Nyberg Rivers" project, a proposal to redevelop the former Kmart site and adjacent properties. The proposed Master Plan includes demolition of three existing buildings (including the former Kmart), construction of seven (7) buildings, access and public facilities improvements, parking, pedestrian, bicycle, and landscaping improvements. The proposed plan also includes the improvement of the Seneca Street extension per the project included in the City's Transportation System Plan (TSP). This road extension impacts the existing Council Building. In addition, there are other factors which must be considered regarding the future of this building, including: existing citywide space constraints, accessibility issues with the existing building, service and space issues, and an opportunity to revisit a concept which has been introduced at different times over the years. This presentation follows the Council's direction from the Council Work Session discussion on March 25, 2013. The Council requested additional information regarding a feasibility study to examine options for the Council Building site.

DISCUSSION:

Background

At the March 25th City Council Work Session, the Council directed staff to develop a scope, schedule and budget for a feasibility study for the Council Building which would examine the following:

1. Use the existing site to replace the building. The existing site provides synergy among the other civic buildings. In addition to replacing the existing building, a small addition could also be included to allow for the Administration Department offices to move out of the current space the City is leasing.
2. Using the space assumptions developed by the consultant, look at the options of rental space in Tualatin.

3. Using the space assumptions developed by the consultant, analyze existing space owned by the City to accommodate Council Chambers, Municipal Court, and the Finance Department offices.
4. Make no changes to the site, and conduct additional traffic analysis to determine the impact of not building the Seneca Street extension.

Feasibility Study

The City has received a quote from SRG Partnership, Inc. (SRG) to complete a study which would assist the City in analyzing the option of replacing the building on the existing site. SRG is an award-winning design firm providing full services in programming, planning, architecture and interior design from offices in Portland and Seattle. Their work focuses on complex projects for a diverse range of public and private clients, and in the last five years SRG has been involved on projects including libraries, civic centers, public education, and healthcare facilities. SRG also has a history of working with Tualatin on projects such as the Tualatin Library Feasibility Study, Design and Construction Administration for the Tualatin Library, Feasibility Study for the expansion of the Juanita Pohl Center, Design and Construction Administration for Phase I of the Juanita Pohl Center expansion, and other space analysis of the City Offices and Council Building. Their firm would build the study on their existing knowledge of Tualatin's facilities. Their scope of work would include:

- A visual assessment/walk through of existing facilities and review "as-built" drawings
- Confirm parking needs
- Attend meetings with City of Tualatin staff and other stakeholders
- Develop plan diagrams and a range of options
- Provide order of magnitude for development costs
- Develop a design and construction schedule for identified options
- Prepare all deliverables for presentation to the City Council

The schedule for this project would require 60 days and the cost would be approximately \$23,500.

Regarding the remaining options of examining existing City buildings and looking for rental space in Tualatin, staff would use SRG's space and parking analysis to analyze these options. For the option of making no changes to the site, additional traffic analysis would be required. Additional discussions with the developer may be needed prior to conducting this traffic analysis, as this option could impact the CenterCal's proposed Master Plan for the site.

Financial analysis will be conducted by staff using the consultant's assumptions. The financing options would examine using available funding sources and would investigate other possible financing tools and revenue sources available. It would also use the consultants' proposed design and construction schedules to determine any associated costs for temporary offices or relocation fees if needed.

Public Involvement

A public involvement strategy will need to be developed to allow the public to weigh in on this discussion. There are many options for engaging the public, but additional direction from the Council on the timing and methods for the outreach is needed. Staff recommends moving forward with gathering data and information through the feasibility study process, and then presenting the data, information and various options to the public for their input and discussion. Some outreach options could include a Council subcommittee for this project, a Task Force including members of the public, business community, and Citizen Involvement Organization (CIO) representatives, a public open house to display and gather input on the options developed in the study, and utilization of the newsletter, website, social media, CIOs, and other media outlets to share and gather information.

RECOMMENDATION:

Staff respectfully requests City Council direction on moving forward with a feasibility study and development of a public involvement plan for the Council Building project.

Attachments: [Attachment A-Council Building Feasibility Study PowerPoint](#)

Council Building Feasibility Study

City Council
Work Session
May 13, 2013



Overview

- What's driving this discussion
- Feasibility Study
- Options for Consideration
- Public Involvement
- Council Discussion and Direction



What's Driving This Discussion?

- Nyberg Rivers application has been submitted which includes the construction of Seneca Street per the City's Transportation System Plan (TSP) and the Central Urban Renewal District (CURD) Plan.

Options to Examine

1. Relocate the building on the existing site- at least 3 options will be presented
2. Look for rental space in the community to meet the needs identified in the study
3. Examine existing buildings in the City to accommodate the needs for these functions
4. No changes to the site, examine the traffic impacts this would have with the new development of Nyberg Rivers

SRG Partners, Inc.

- SRG has a long history with the City of Tualatin
 - Tualatin Library Feasibility Study
 - Design and Construction Administration for the Tualatin Library
 - Feasibility Study for the Juanita Pohl Center
 - Design and Construction Administration for Phase I of the JPC
 - Other space analysis projects for the City offices and Council Building

Feasibility Study

- SRG Study to include:
 - Space needs for Council Chambers, Finance Dept., Administration Dept., Municipal Court, Future Expansion, and related parking needs.
 - Develop plan diagrams and range of options
 - Estimates for development costs
 - Design and construction schedule

Feasibility Study

- Staff would use SRG's assumptions to examine:
 - Use of existing City buildings
 - Rental options for these services in Tualatin
 - Financial Analysis
- The “no-build” option would require additional outside traffic analysis

Public Involvement Options

- Once the feasibility study has shown the various options, we could begin the public outreach process for the public to weigh in on potential options for this site:
 - Open houses
 - Online citizen discussion
 - Council subcommittee
 - Appoint a community task force with Council representatives
 - Engage the Citizen Involvement Organizations, business community and other community stakeholders

Next Steps

- Complete a feasibility study
- Develop a public involvement plan
- Conduct a financial analysis for each identified option

Discussion & Questions



MEMORANDUM

CITY OF TUALATIN

TO: Honorable Mayor and Members of the City Council

THROUGH: Sherilyn Lombos

FROM: Kaaren Hofmann, Engineering Manager
Alice Rouyer, Assistant City Manager

DATE: 05/13/2013

SUBJECT: Update to the Water Conservation Plan and Updates on Other Regional Water Issues

POLICY CONSIDERATIONS:

The information in this plan will be forwarded to the City of Portland to fulfill the requirements of the Water Supply Agreement between Portland and Tualatin.

EXECUTIVE SUMMARY:

Staff has developed this Water Management and Conservation Plan (WMCP) in accordance with the Tualatin Portland Regional Water Sales Agreement. This update to the City's original 2008 plan is attached.

Overview of Plan

The City of Tualatin provides water to its citizens, businesses, and industry. Tualatin also sells water by agreement to the City of Sherwood, as well as providing emergency water supplies to the cities of Tigard and Lake Oswego.

Tualatin purchases water from the City of Portland under contract. The source of water is the Bull Run Watershed and the Columbia South Shore Well Field systems.

This WMCP is based on the 2013 Water Master Plan. The Plan documents additional demands projected over the next 20+ years. Maximum Daily Demand (MDD) is projected to rise from 9.5 million gallons per day (MGD) in 2013 to 15 MGD at build-out. Average daily demand (ADD) is projected to rise from 4.3 MGD in 2013 to 6.8 MGD at build-out.

To assist in meeting these needs, the City will include water conservation activities in its plan for future water supplies. Other elements of the supply plan are aquifer storage and recovery (ASR), the purchase of additional water from Portland, and potential changes in land uses.

The Tualatin Portland Regional Water Supply Agreement requires that Tualatin purchase a

guaranteed amount of water.

The City of Tualatin participates in the Regional Water Providers Consortium as time and resources allow.

Changes from 2008 Plan

- The number of connections grew by about 1%.
- The overall amount of water sold has decreased by 12% due to water conservation and changes in the economy.
- To enhance the program, the City has increased its efforts in order to be able to provide a larger presence in the community for water conservation efforts. This effort has included the Water Conservation Calendar from the elementary schools.

Other Water Management Issues

The City of Tualatin is working with the City of Portland on some issues associated with a request to purchase summer interruptible water. City Staff will brief the Council on this issue as well as an update on recent water supply decisions by Tualatin Valley Water District.

Attachments: A. Water Conservation Plan
 B. PowerPoint



City of Tualatin, Oregon

**WATER MANAGEMENT
& CONSERVATION
PLAN**

June 2008

Adopted May 2009
Updated September 2010
Updated April 2013

Submitted by:

**Kaaren Hofmann
City Engineer**

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EXECUTIVE SUMMARY

The City of Tualatin is submitting this Water Management and Conservation Plan (WMCP) in accordance with the Tualatin Portland Regional Water Sales Agreement. This is an update to the City's original 2008 plan.

Overview of Plan Findings

The City of Tualatin provides water to its citizens, businesses, and industry. Tualatin also sells water by agreement to the City of Sherwood, as well as providing emergency water supplies to the cities of Tigard and Lake Oswego.

Tualatin purchases water from the City of Portland under contract. The source of water is the Bull Run Watershed and the Columbia South Shore Well Field systems.

This WMCP is based on the 2013 Water Master Plan. The Plan documents additional demands projected over the next 20+ years. Maximum Daily Demand (MDD) is projected to rise from 9.5 million gallons per day (MGD) in 2013 to 15 MGD at build-out. Average daily demand (ADD) is projected to rise from 4.3 MGD in 2013 to 6.8 MGD at build-out.

To assist in meeting these needs, the City will include water conservation activities in its plan for future water supplies. Other elements of the supply plan are aquifer storage and recovery (ASR), the purchase of additional water from Portland, and potential changes in land uses.

The Tualatin Portland Regional Water Supply Agreement requires that Tualatin purchase a guaranteed amount of water.

The City of Tualatin participates in the Regional Water Providers Consortium as time and resources allow.

SECTION 1: INTRODUCTION

The City of Tualatin has developed this Water Management and Conservation Plan (WMCP) to fulfill the requirements of Section 13 of the Tualatin Portland Regional Water Supply Agreement.

1.1 System Overview

Tualatin draws water from one primary source: Portland's Bull Run Watershed and Columbia South Shore Well Field. Water is delivered to Tualatin by gravity through the Washington County Supply Line, the Tualatin-Metzger supply line, and the Tualatin-Portland Water Line. Gravity supply serves the A and B service levels. The Norwood Pump Station serves the C service level.

The City is currently operating a single Aquifer Storage and Recovery (ASR) facility. ASR operations allow the City to store surplus drinking water in a groundwater aquifer during low demand periods (fall through spring) and then recover the water from a groundwater well during high demand periods (summer).

The current population of Tualatin is approximately 26,060. The 2013 Water Master Plan is based this approximate population.

Tualatin also provides water by agreement through an intertie to the City of Sherwood, with a population of approximately 16,500 people. There are also interties with Tigard and Lake Oswego that are used for emergencies.

1.2 Proposed Date for Future Submittals

Tualatin anticipates submitting its next update of the WMCP five years from now, in accordance with the Tualatin Portland Regional Water Supply Agreement.

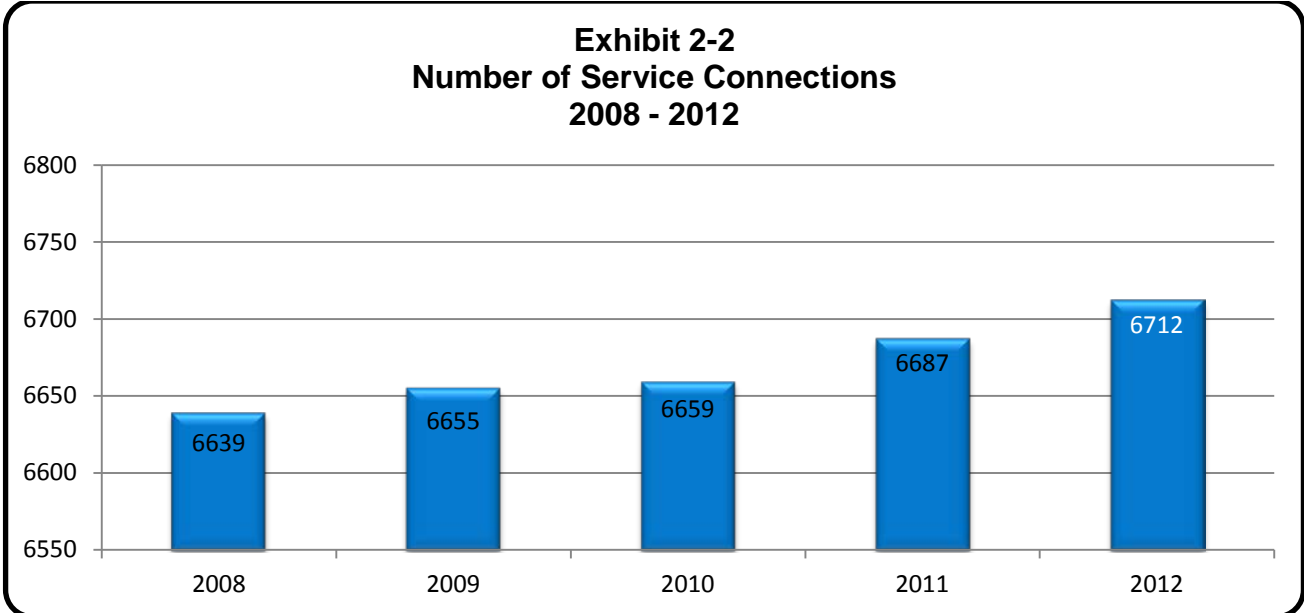
SECTION 2: WATER SUPPLIER DESCRIPTION

2.1 Service Area, Customer Characteristics, and Water Usage

Tualatin serves the entire population within its city limits, as well as some customers outside city limits but within the Urban Growth Boundary (UGB). Exhibit 2-1 shows the water service area, 12" supply lines, and existing and future reservoirs. The City also delivers water on a wholesale basis to the City of Sherwood. Most of Tualatin and all of Sherwood are located in Washington County; the portion of Tualatin east of 65th Avenue is located in Clackamas County.

The 2013 Water Master Plan was based on a peaking factor of 2.62 for the system. Currently, the system is operating within the assumptions of the master plan. The peaking factor is driven by peaking characteristics of the various customer classes served by the City. For example, residential uses exhibit a pronounced peaking pattern in the summer months due to outdoor irrigation of turf and landscape materials. Many commercial customers in Tualatin also have turf that is irrigated. Uses at city parks and schools also increase substantially, with highest use occurring typically in August. In contrast, the City's large industrial customers have peak uses that may occur at any time of year and do not coincide with irrigation peaks.

Tualatin provides water to residential, commercial, and industrial customers, as well as a hospital, schools, and municipal facilities. Exhibit 2-2 displays the number of service connections from 2008 to 2012. Over that time-period, the number of connections grew by about 1%.

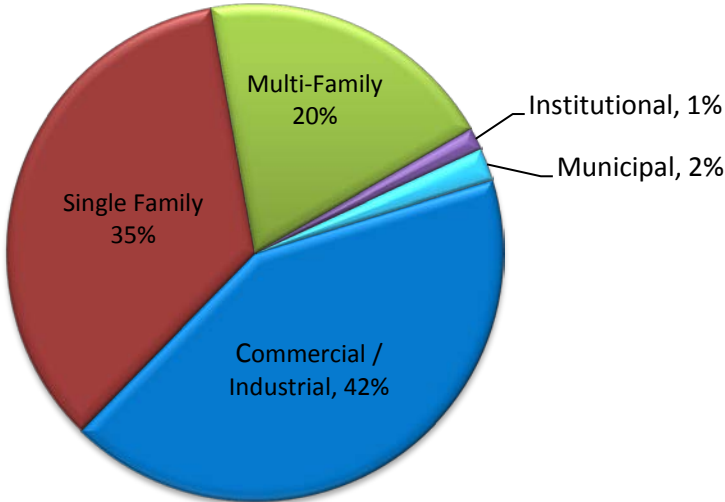


As shown in Table 2-1, total water sold to Tualatin customers increased slightly last year, but overall has decreased by 12% in the last five years.

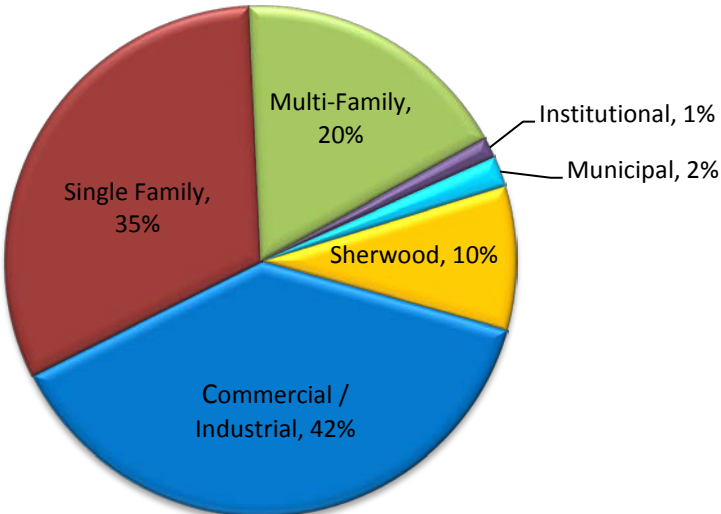
Category	2008	2009	2010	2011	2012
Single-Family	1.42	1.37	1.23	1.22	1.27
Multi-Family	0.75	0.75	0.71	0.70	0.71
Commercial/Industrial	1.78	1.49	1.55	1.55	1.53
Institutional	0.13	0.12	0.06	0.06	0.05
Municipal – Tualatin	0.07	0.09	0.07	0.06	0.08
TOTAL	4.15	3.81	3.63	3.59	3.64

The breakdown of water uses by customer category in 2012 is shown in Exhibits 2-3 and 2-4.

**Exhibit 2 - 3
Demand by Customer Category - 2012
Without Sherwood Usage**



**Exhibit 2-4
Demand by Customer Category - 2012
With Sherwood Usage**



Sales to the top five customers by volume are shown in Table 2-2.

Table 2-2					
Top Five Customers in Tualatin					
Average Day Demand (GPD)					
Customer	2008	2009	2010	2011	2012
PACIFIC FOODS OF OREGON	129,313	125,861	154,020	159,431	178,918
PACIFIC NUTRITIONAL FOODS	42,025	33,732	36,191	36,729	34,013
FUJIMI CORPORATION	96,843	21,017	18,139	18,229	20,657
MERIDIAN PARK HOSPITAL	36,797	30,605	34,003	36,812	34,136
CITY OF TUALATIN	34,893	33,561	31,778	29,919	34,287

2.2 Adequacy and Reliability of Supply Sources

At this time, the City's sources of supply are sufficient to meet its needs and to continue to sell interruptible water to Sherwood. Reliability of the City's supplies is good. In an emergency, Tualatin has interties with Lake Oswego and Tigard. While this may result in reduced supply to some pressure zones, the distribution system can be used to move water throughout the system. During drought conditions in the early 1990s, the City's supplies proved adequate to meet community needs.

The City has an intertie with Sherwood to deliver water. Sherwood has begun receiving water from Tualatin Valley Water District and the Willamette River, but will continue to purchase minimal quantities of water to keep the intertie active.

Tualatin is participating with Tualatin Valley Water District to construct a pump station that will enable Tualatin to get water from the Trask Tualatin System in case of emergency when water cannot be supplied from Portland.

A comparison between water purchased and billed sales indicates that the water system typically produces more water than is delivered to customers through their meters. Table 2-3 displays this comparison for the past five years. The difference between production and sales is termed "non-revenue water." It includes water used for beneficial purposes, such as flushing water mains to meet water quality objectives, using water for fire fighting, and taking authorized withdrawals from fire hydrants at construction sites. It may also include some unauthorized uses, leakage, and other losses.

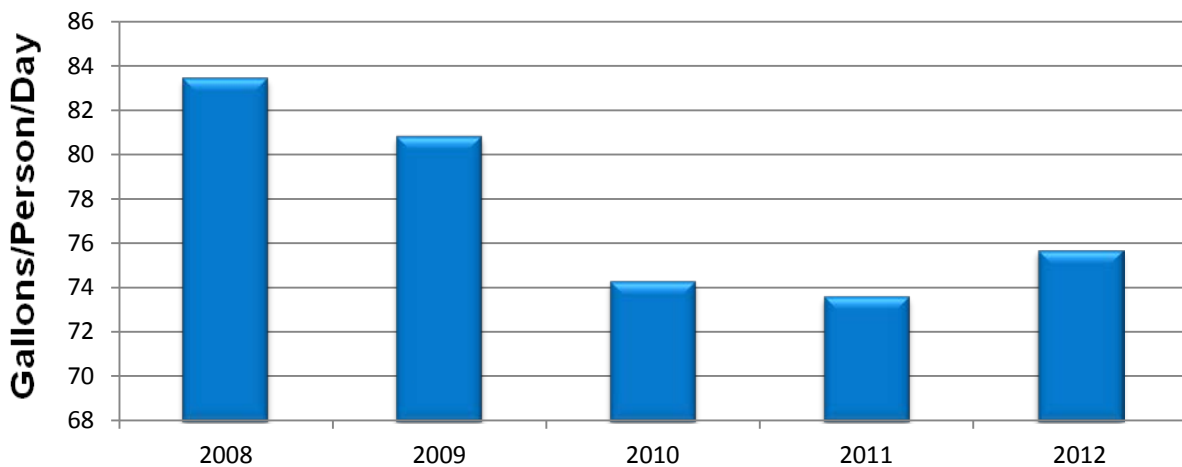
**Table 2-3
Non-Revenue Water (MGD)**

	2008	2009	2010	2011	2012
Water Purchased	5.81	5.29	4.62	4.85	4.43
Billed Sales	5.60	5.27	4.62	4.76	4.02
Non-Revenue Water	0.21	0.02	0.00	0.09	0.41
% of Total Purchase	3.7%	0.3%	<.1%	1.8%	9.2%

Note: Pilot testing and operations of the Aquifer Storage and Recovery system began in 2010 and continues to date. In 2012, 106.4 MG of water was injected, 62.4 MG was recovered and distributed, and .76 MG was recovered and pumped to waste during backflushing and system testing.

The City does not have a means to directly measure flushing, firefighting, and other authorized uses. Water main leaks occur occasionally and are repaired. However, there have been no major leaks in the past 10 years that would result in major losses to the system. In the absence of direct measurements, and given the amount of non-revenue water shown above, it is estimated that system leakage is generally less than 5%.

**Exhibit 2-5
Residential Per Capita Use
2008 - 2012**



SECTION 3: WATER CONSERVATION PLAN

In accordance with OAR 690-150, this section describes water conservation activities the City plans to implement during the next 20 years. Some of these activities are ongoing, while others are new.

3.1 Existing Conservation Program

Annual Water Audit

Tualatin does not conduct a formal water audit of the system usage. Engineering and Operations Departments monitor the water purchased vs. the water sold to see if the ratios change.

Leak Detection and Repair

The City encourages customers to find and repair leaks. The meter reader flags accounts with excessive water use and the technician for utility billing looks for accounts appearing to use higher-than-normal amounts of water. When an account is identified, the utility billing system generates a work order and a water crew from the Operations Department visits the customer.

Based on the data provided in Section 2.2 of this WMCP, total non-revenue water is typically below 5%. Since much of this represents water that is used for authorized purposes, but not billed, system leakage is believed to be below 5%. Based on this estimate of system leakage, the State Rules do not require a leak detection program.

Rate Structure

The City currently has a rate structure that includes.

- Facilities Charge – fee based on meter size per month.
- Service Charge – flat rate for all meters per month.
- Water Charge – fee for hundred cubic feet (CCF) of water used per month.

The Division 86 Rules require all water suppliers to have a rate structure that is based, at least in part, on the quantity of water metered at the service connection. The City's existing rate structure meets this requirement for all metered services.

For water suppliers servicing a population over 7,500, the Division 86 Rules require consideration of rate structures that "support and encourage water conservation." Tualatin serves a population of approximately 26,000, and, therefore, is subject to this requirement.

The City's wastewater rates are based on the average amount of water used during the winter months. This encourages efficient indoor water use.

Meter Testing and Repair

Customer meters may become less accurate as they age and, occasionally, fail altogether. The City currently calibrates all customer meters 3" and larger every year. There are approximately 50 meters of this size in the system. The City has begun systematically replacing the aging larger meters. Smaller meters are replaced when failures occur, as reported by customers or city meter readers. The City will continue these policies in the future as part of its overall approach to metering.

Tualatin's source meter is calibrated by the City of Portland.

Education and Outreach

The City conducts and participates in education and outreach programs for a variety of customers and age groups through the Regional Water Providers Consortium Conservation Group.

The Consortium hosts a Children's Clean Water Festival each year and contracts for classroom plays and presentations which are provided to area schools. For example, during the 2012-2013 school year, "Mad Science" – Performed the "What Do You Know About H₂O?" show using science to highlight the unique and magical attributes of water that encourage 3rd through 5th graders to do their part to conserve water.

In 2010, the City began partnering with a local elementary school to produce a monthly water conservation calendar featuring various conservation themed artwork created by students. Each month showcases a different student's artwork, conservation tips and interesting water facts. Each year calendars are distributed throughout the community.

Tualatin's participation in the Regional Water Providers Consortium and Conservation Committee provides residential customer education through the Consortium's website and the annual summer marketing campaign. The campaign's summer theme is promoted through a broad range of media, including radio and television advertisements and public service announcements.

Conservation programs currently target outdoor water use that impacts summer peaking, so they focus on residential irrigation practices and also promotes sensible indoor conservation practices such as shorter showers, turning off the water while brushing teeth, finding and fixing toilet leaks, etc.

The City delivers conservation messages via the City's website, articles in the City's monthly newsletter, and displays and participation at community events, like the Crawfish Festival.

Brochures and Materials

The City has several brochures and informational material that is made available at community events, the Tualatin Public Library, and the reception areas in city buildings. The City's website has a link to the Consortium website and some of the brochures are available there. Listed below are examples of the information available for Tualatin customers.

Title/Item	From
Conservation Calendar	City
How Water Smart Are You? (English and Spanish)	Consortium
How to select a landscape contractor	Consortium
How to select an irrigation contractor – Be an informed consumer	Consortium
General information about the Consortium	Consortium
Indoor water saving tips (copies)	Consortium
Indoor water conservation kits	Consortium
Tips for indoor water conservation	Consortium
Outdoor water saving tips (copies)	Consortium
Tips for outdoor water conservation	Consortium
7 basic steps for creating water efficient landscapes	Consortium
Planting and maintaining your lawn	Consortium
Native Plant guides	Consortium
Low water use plants for the Portland Metro Area	Consortium
How much water do you use?	TVWD
Irrigation Bill of Rights	Consortium
Be Water Smart stickers	Consortium
How does your garden grow?	Consortium
Splash activity book	AWWA
The Story of Drinking Water	AWWA
Public Works Workbooks for Kids	APWA
Sprinkler Gauges	Consortium
Promotional bags	Tualatin
Be Water Smart Magnets	Tualatin
Be Water Smart – Tattoos	Tualatin
Use Water Wisely – Seeded Bookmarks	Tualatin
Pencils – Water. Save a little. Help a lot	Tualatin
Erasers – City of Tualatin	Tualatin
Dye Tablets	Tualatin
Shower Timers	Consortium
Indoor water conservation kits	Consortium

Operational Measures

The City has expanded its water supply system:

- The City is currently operating a single Aquifer Storage and Recovery (ASR) facility. ASR operations allow the City to store surplus drinking water in a groundwater aquifer during low demand periods (fall through spring) and then recover the water from a groundwater well during high demand periods (summer).
- A new one-million-gallon C-level reservoir has been designed and funding for construction has been allocated beginning with fiscal year 2013-14.

Telemetry System

The City's telemetry system operates 24 hours per day, 7 days per week. The system monitors sites at reservoirs, pump stations, master meters, and critical pressure-reducing valves. The system is used to fill and drain reservoirs, to respond to power and communication failure alarms, and to monitor and record data related to water quality values such as chlorine levels, turbidity, pH, and conductivity.

Technical and Financial Assistance

The City collaborates with and supports the Regional Water Providers Consortium to provide limited supplies of water conservation kits that can include showerheads, faucet aerators, and outdoor spray nozzles. These kits are made available at the Crawfish Festival and other events.

3.2 Additions to Conservation Program

To enhance the program, the City has increased its budget to be able to provide a larger presence in the community for water conservation efforts.

Public Education

As described in Section 3.1, Tualatin currently carries out public education activities to encourage wise use of water by customers. The City will expand its public education program as follows:

- Encourage water efficiency throughout City of Tualatin-owned facilities, including posting signs that encourage employees to avoid waste wherever possible.
- Continue free leak detection tests for customers who suspect a leak. City staff will help determine the location of the leak, if the leak is outdoors, and offer free brochures with conservation information and a free conservation kit when applicable.
- Promote conservation on the City's website and provide links to the Regional Water Providers Consortium and to an American Water Works Association (AWWA) *Waterwise* sites.
- Publish three water conservation articles in the City's monthly newsletter, *Tualatin Today*, which all residences and businesses receive by mail. Article topics will include tips to reduce seasonal peak demand (outdoor measures); tips to reduce base

demand (indoor measures); and introduction of other important conservation-related measures, such as the Regional Water Providers Consortium web page.

Reduction in peak demand may help to delay or minimize the need for new source projects, with cost savings to the City's customers. Information will be included customer's utility bill and in newsletter articles.

- Distribute water conservation brochures at community events twice per year and provide brochures at key city office sites frequented by customers. Brochures include tips on water-saving irrigation techniques and methods to reduce consumption indoors.
- Distribute water conserving devices such as faucet aerators, shower timers, and irrigation gauges (to measure volume of water applied.)

Water Reuse, Recycling, and Non-potable Opportunities

Clean Water Services of Washington County owns and operates the Durham Treatment Plant. In the past, water reuse and recycling uses have not been financially beneficial to Tualatin.

SECTION 4: WATER CURTAILMENT

Tualatin has agreed to participate with the City of Portland and other wholesalers in a Curtailment Plan should the Bull Run Watershed and the Columbia South Shore Well Field be unable to supply all the needs of the system.

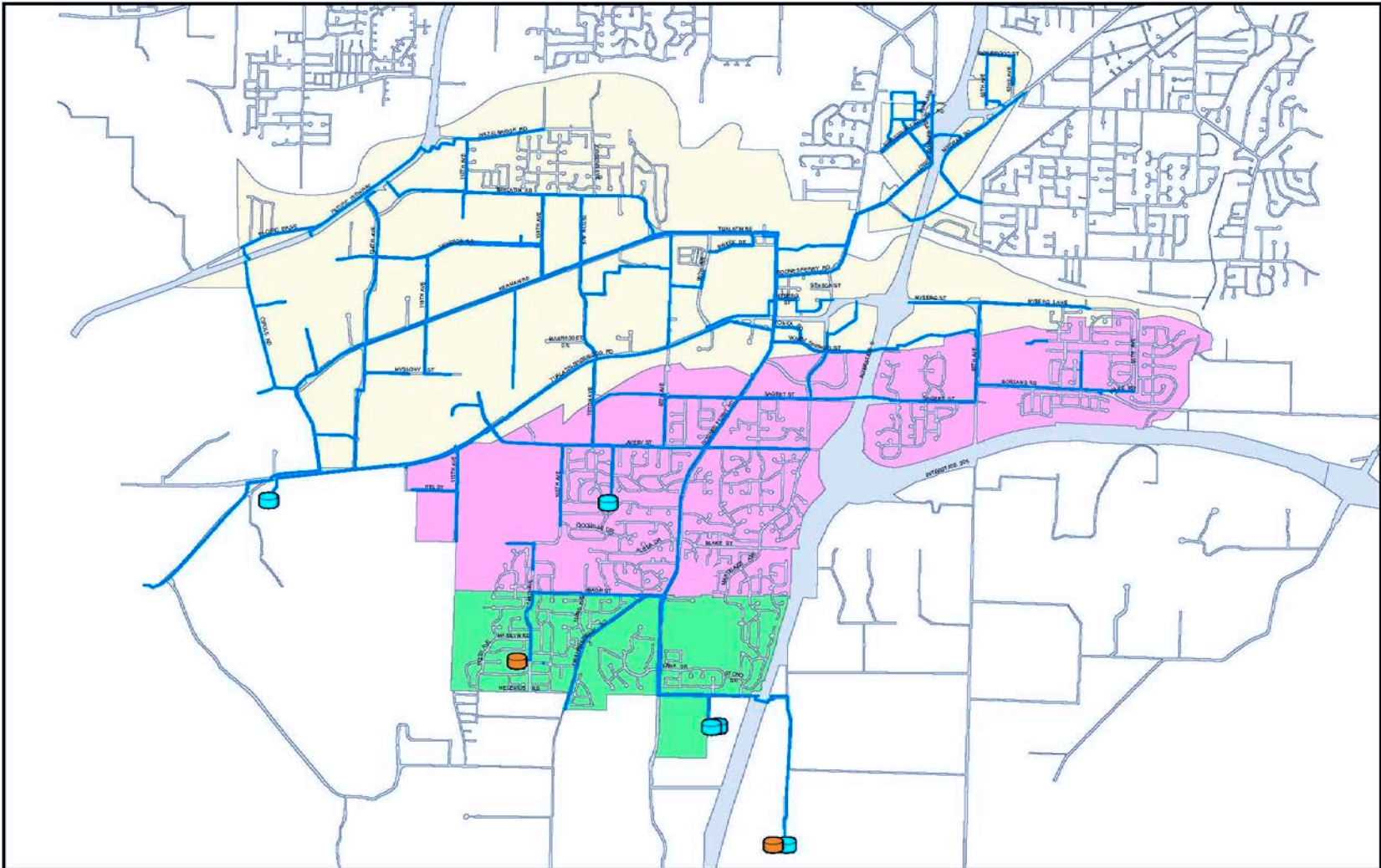


Water Management & Conservation Plan Update 2013

Water Management & Conservation Plan Update - Overview

- Updating the 2008 plan

City of Tualatin: Water System



- Existing Reservoirs
- Future Reservoirs
- Water Lines (12" diameter and above)
- Service Level A
- Service Level B
- Service Level C

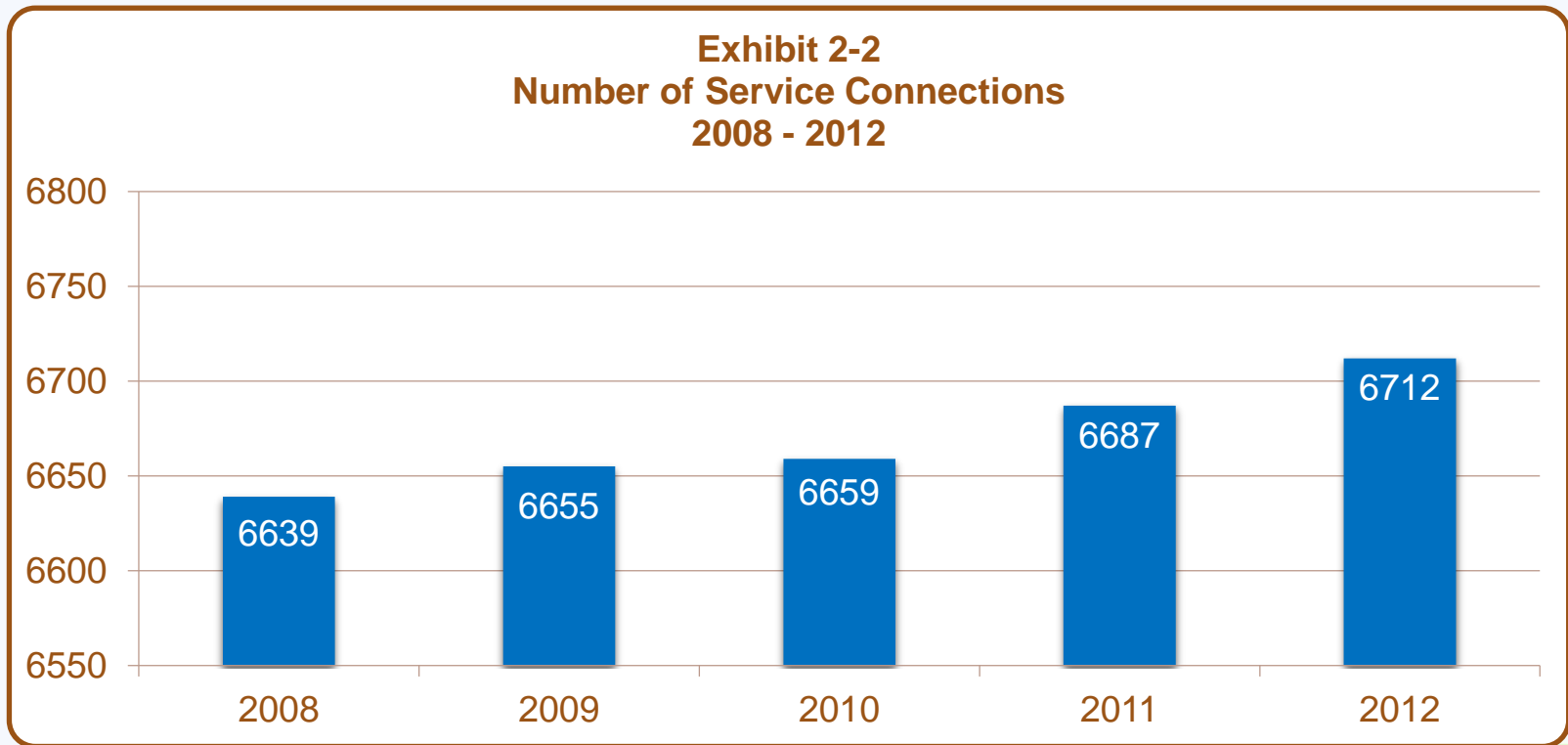
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This map is derived from various digital database sources. While an attempt has been made to provide an accurate map, the City of Tualatin, OR assumes no responsibility or liability for any errors or omissions in the information. This map is provided "as is". - Engineering and Building Dept. Plotted 9/20/2010

Tualatin provides water to residential, commercial, and industrial customers, as well as a hospital, schools, and municipal facilities.

From 2008 to 2012, the number of connections grew by about 1%.



Total water sold to Tualatin customers increased slightly last year, but overall has decreased by 12% in the last five years.

**Table 2-1
Water Sold by Category (MGD)**

Category	2008	2009	2010	2011	2012
Single-Family	1.42	1.37	1.23	1.22	1.27
Multi-Family	0.75	0.75	0.71	0.70	0.71
Commercial/Industrial	1.78	1.49	1.55	1.55	1.53
Institutional	0.13	0.12	0.06	0.06	0.05
Municipal – Tualatin	0.07	0.09	0.07	0.06	0.08
TOTAL	4.15	3.81	3.63	3.59	3.64

**Table 2-2
Top Five Customers in Tualatin
Average Day Demand (GPD)**

Customer	2008	2009	2010	2011	2012
PACIFIC FOODS OF OREGON	129,313	125,861	154,020	159,431	178,918
PACIFIC NUTRITIONAL FOODS	42,025	33,732	36,191	36,729	34,013
FUJIMI CORPORATION	96,843	21,017	18,139	18,229	20,657
MERIDIAN PARK HOSPITAL	36,797	30,605	34,003	36,812	34,136
CITY OF TUALATIN	34,893	33,561	31,778	29,919	34,287

Additions to the Plan

The City will continue to promote public education and support water conservation.

Use Water Efficiently at City Owned Facilities

Distribute Free Devices
(shower timers, aerators)

Free Leak Detection for Customers

Web Links to AWWA, RWPC

Publish Articles in Tualatin Today

Distribute Calendars & Brochures



Other Regional Issues...

