# PLAN IMPLEMENTATION

Techni	cal Memoranda	
BACKGROUND AND SUPPORTING DOCUMENTS ADOPTED AS PART OF THE COMPREHENSIVE PLAN		
Title	Year	Ordinance
Housing Needs Analysis	2019	1450-20
Parks and Recreation Master Plan	2019	1427-19
Sewer Master Plan	2019	1427-19
Water Master Plan	<del>2013</del> 2023	<del>1359 13 <u>1</u>476-23</del>
Transportation System Plan (TSP)	2012	1354-13
Natural Resource Inventory and Local	1995	979-97
Wetlands Inventory		
Historic Resource Technical Study and	1993	844-91; 894-93
Inventory		
Tualatin Drainage Plan	1979	491-79
AREA-SPECIFIC CONCEPT PLANS		
Basalt Creek Concept Plan	2019	1418-19
Southwest Tualatin Concept Plan	2010	1321-11
Northwest Tualatin Concept Plan	2005	1191-05

# Water Services

The Water Master Plan ( $2023 \ 2013$ ) is adopted as a background document to the Comprehensive Plan as seen in Part II.

The proposed water supply and distribution system is designed to accommodate the maximum demand that the system is expected to experience. The maximum demand is composed of consumer flows and fire flows. The <u>March 2023</u> July 2013 Water Master Plan projected a "build out population" of <u>33,469</u> <del>29,396</del> residents <u>by 2070</u>; <u>this</u> includ<u>es</u>ing estimates of 2,288 for redevelopment and infill and 1,048 for Town Center residential growth <u>as well as growth in the Basalt Creek and SW Industrial planning areas</u>. The <u>2023</u> July 2013 Master Plan's projected average day <u>water</u> demand at buildout <del>beyond 2031 for residential uses was is 52</del>.65 million gallons per day and the projected maximum day water demand at buildout beyond 2031 for commercial and industrial uses was 3.61 million gallons per day. The total system average day demand and maximum day demand were 6.47 and 14.24 million gallons per day, respectively.

The Master Plan also includes a Water Supply Strategy which explored the various regional water sources and recommended Tualatin continue to purchase water from the City of Portland. That strategy, found as Appendix B to the master plan, helped guide the decision to negotiate a 30 year contract to continue purchasing water from Portland.

Fire protection for the City's service area is provided by Tualatin Valley Fire & Rescue (TVF&R). General TVFR fire flow guidelines are described in the Fire Code Applications Guide consistent with the most recent edition of the Oregon Fire Code (OFC). Fire flow requirements by land use type based on these guidelines are summarized in Table 4-2 in the Water Master Plan and reflect a balance between providing fire suppression flows from the water system and requiring onsite fire suppression (per the OFC) to reduce the demand on the water system. The fire district has adopted fire flow requirements as defined in the 2010 State of Oregon Fire Code. A summary of fire flow recommendations based on the state fi re code, fire flow criteria adopted by similar communities and fire flow guidelines as developed by the American Water Works Association is presented in Table 4-2 of the 2013 Master Plan.

# **Goals and Policies**

# GOAL 9.1

<u>Water Quality.</u> Provide safe, high-quality water to all customers. Water Plan, construct, and maintain a City water system that protects the public health, provides cost-effective water service, meets the demands of users, addresses regulatory requirements and supports all land uses.

# **POLICY 9.1.1**

**Regulatory standards.** Ensure that water provided to Tualatin customers meets or exceeds all federal and state water quality regulatory standards. Require developers to aid in improving the water system by constructing facilities to serve new development and extend lines to adjacent properties.

### POLICY 9.1.2

Water lines should be looped whenever possible to prevent dead-ends, to maintain high water quality and to increase reliability in the system.

#### **POLICY 9.1.3**

Improve the water system to provide adequate service during peak demand periods and to provide adequate fire flows during all demand periods.

#### **POLICY 9.1.4**

Review and update the water system capital improvement program and funding sources as needed or during periodic review.

#### POLICY 9.1.5

Prohibit the extension of City water services outside the City's municipal boundaries, unless the water service is provided to an area inside an adjacent city.

### GOAL 9.2

Water Supply. Provide a reliable and economical supply of water to meet current and future needs.

### POLICY 9.2.1

**Coordination.** Coordinate the provision of water with local and regional water agencies and stakeholders.

### POLICY 9.2.2

**Supply development and diversification.** Plan for the development of additional water sources to meet projected water demand and diversify the portfolio of water sources that provide water to the City of Tualatin.

### POLICY 9.2.3

**Capital improvement projects.** Support capital improvement projects that enhance Tualatin's ability to deliver an adequate supply of water to current and future customers.

# POLICY 9.2.4

Water system development. Require developers to aid in improving the water system by constructing facilities to serve new development, by extending lines to adjacent properties, as well as by paying SDCs to help buy into the existing water system they are connecting to.

# POLICY 9.2.5

**Reliability.** Water lines should be looped whenever possible to prevent dead-ends and to increase reliability in the system.

# POLICY 9.2.6

**Storage and operational facilities.** Provide sufficient opportunity for water storage and operational facilities to ensure supply reliability and serve emergency needs.

# POLICY 9.2.7

<u>System boundaries</u>. Prohibit the extension of City water services outside the City's municipal boundaries, unless the water service is provided to an area inside an adjacent city.

# GOAL 9.3

Resiliency. Provide a resilient water system to reduce risk posed by natural disaster events.

# POLICY 9.3.1

Hazard Mitigation. Upgrade existing infrastructure to reduce risk posed by seismic events, climate change, and other hazards.

# POLICY 9.3.2

Aging infrastructure. Plan for the replacement or rehabilitation of existing infrastructure that is near the end of its useful life.

# **Proposed Improvements**

The water distribution and storage system with existing and proposed waterlines and reservoirs is illustrated in Map 9-1. The proposed short-term, medium-term and long-term capital improvements for the system recommended in the <u>March 2023</u> July 2013 Water Master Plan are in Master Plan Table <u>8-3</u> 7-1 and shown mapped on <u>Figure 8-1</u> Plate-1 in Appendix A of the Master Plan.

TDC 74.610. - Water Service.

(1)Water lines must be installed to serve each property in accordance with the Public Works Construction Code. Water line construction plans must be submitted to the City Manager for review and approval prior to construction.

(2)If there are undeveloped properties adjacent to the subject site, public water lines must be extended by the applicant to the common boundary line of these properties. The lines must be sized to provide service to future development, in accordance with the City's <u>Comprehensive</u> <u>Plan, Chapter 9 and</u> Water System Master Plan<del>, TDC Chapter 12</del>.

(3)As set forth in <u>Map 9-1 of the Comprehensive Plan</u> is TDC Chapter 12, Water Service, the City has three water service levels. All development applicants must be required to connect the proposed development site to the service level in which the development site is located. If the development site is located on a boundary line between two service levels the applicant must be required to connect to the service level with the higher reservoir elevation. The applicant may also be required to install or provide pressure reducing valves to supply appropriate water pressure to the properties in the proposed development site.