

ORDINANCE NO. 12-1001

AN ORDINANCE ADOPTING AN UPDATE TO THE OREGON CITY WATER DISTRIBUTION SYSTEM MASTER PLAN, AN ANCILLARY DOCUMENT TO THE OREGON CITY COMPREHENSIVE PLAN.

AN ORDINANCE OF THE CITY OF OREGON CITY.

WHEREAS, Oregon City is fortunate to have an excellent source of high quality drinking water from the Clackamas River as provided by South Fork Water Board; and

WHEREAS, a high quality, well maintained water distribution system is critical for providing adequate and reliable water service to the present and future residents of Oregon City; and

WHEREAS, Oregon City maintains benchmarks for water service quality, quantity, and pressure, as well as the minimum supply levels for fire protection in compliance with federal, state and local standards; and

WHEREAS, the Oregon City Water Distribution System Master Plan is an Ancillary Document to the City's adopted Comprehensive Plan consistent with federal requirements, state statutes, and the Statewide Planning Goals; and

WHEREAS, the update to the Oregon City Water Distribution System Master Plan identifies existing water system deficiencies and required improvements, analyzes existing and future water demands and develops a capital improvement program (CIP) to meet these needs; and

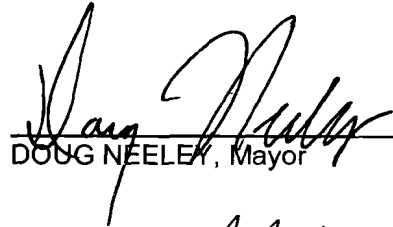
WHEREAS, adoption of the updated Water Master Plan will help Oregon City plan for the efficient and timely provision of water service to growth areas within the city's Urban Growth Boundary.

NOW, THEREFORE, OREGON CITY ORDAINS AS FOLLOWS:

Section 1. The City Commission hereby adopts the findings contained in the Legislative Staff Report for file LE 10-02 and attached to this Ordinance as Appendix A.

Section 2. The City Commission hereby amends the Water Master Plan as an ancillary document to the City of Oregon City Comprehensive Plan attached to this Ordinance as Appendix B.

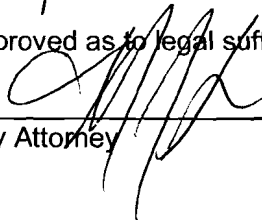
Read for the first time at a regular meeting of the City Commission held on the 18th day of January 2012, and the City Commission finally enacted the foregoing ordinance this 1st day of February 2012.


DOUG NEELEY, Mayor

Attested to this 1st day of February 2012:


Nancy Ide, City Recorder

Approved as to legal sufficiency:


City Attorney



OREGON CITY

Community Development – Planning

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Ph (503) 722-3789 | Fax (503) 722-3880

FILE NO.: Legislative File: L 10-02 - Water Distribution System Master Plan

HEARING DATE: Monday, December 12th, 2011 (Continued from October 24th, 2011)
7:00 p.m., City Hall - Commission Chambers
625 Center Street
Oregon City, OR 97045

APPLICANT: Oregon City Public Works Department – Nancy Kraushaar – City Engineer
Attn: John Burrell, Project Manager
625 Center Street, Oregon City, Oregon 97045

REPRESENTATIVE: West-Yost Associates Consulting Engineers
Attn: Walt Meyer, P.E.
8100 SW Nyberg Rd., Suite 200, Tualatin, OR 97062

REQUEST: Update of the Oregon City Water Distribution System Master Plan, an Ancillary Document to the Oregon City Comprehensive Plan (2004).

LOCATION: City-wide.

REVIEWER: Pete Walter, AICP, Associate Planner

RECOMMENDATION: Staff recommends that the Planning Commission recommend approval of the Oregon City Water Distribution System Master Plan, included as Exhibit 1, as an ancillary document to the Oregon City Comprehensive Plan to the City Commission for their consideration at the January 18th, 2012 public hearing.

17.50.170 - Legislative hearing process.

A. Purpose. Legislative actions involve the adoption or amendment of the city's land use regulations, comprehensive plan, maps, inventories and other policy documents that affect the entire city or large portions of it. Legislative actions which affect land use must begin with a public hearing before the planning commission.

B. Planning Commission Review.

- 1. Hearing Required. The planning commission shall hold at least one public hearing before recommending action on a legislative proposal. Any interested person may appear and provide written or oral testimony on the proposal at or prior to the hearing. The community development director shall notify the Oregon Department of Land Conservation and Development (DLCD) as required by the post-acknowledgment procedures of ORS 197.610 to 197.625, as applicable.*
- 2. The community development director's Report. Once the planning commission hearing has been scheduled and noticed in accordance with Section 17.50.090(C) and any other applicable laws, the community development director shall prepare and make available a report on the legislative proposal at least seven days prior to the hearing.*
- 3. Planning Commission Recommendation. At the conclusion of the hearing, the planning commission shall adopt a recommendation on the proposal to the city commission. The planning commission shall make a report and recommendation to the city commission on all legislative proposals. If the planning commission recommends*

adoption of some form of the proposal, the planning commission shall prepare and forward to the city commission a report and recommendation to that effect.

C. City Commission Review.

1. City Commission Action. Upon a recommendation from the planning commission on a legislative action, the city commission shall hold at least one public hearing on the proposal. Any interested person may provide written or oral testimony on the proposal at or prior to the hearing. At the conclusion of the hearing, the city commission may adopt, modify or reject the legislative proposal, or it may remand the matter to the planning commission for further consideration. If the decision is to adopt at least some form of the proposal, and thereby amend the city's land use regulations, comprehensive plan, official zoning maps or some component of any of these documents, the city commission decision shall be enacted as an ordinance.

2. Notice of Final Decision. Not later than five days following the city commission final decision, the community development director shall mail notice of the decision to DLCD in accordance with ORS 197.615(2). (Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 10-1003, § 1(Exh. 1), 7-7-2010)

IF YOU HAVE ANY QUESTIONS ABOUT THIS APPLICATION, PLEASE CONTACT TONY KONKOL IN THE PLANNING DIVISION OFFICE AT 657-0891.

Proposed Project

The proposal is to update the Oregon City Water Distribution System Master Plan, which is an adopted Ancillary Document to the Oregon City Comprehensive Plan (2004).

The purpose of the Water Distribution System Master Plan is to identify existing water system deficiencies and required improvements, to analyze existing and future water demands and develop a capital improvement program (CIP) to meet these needs.

According to the 2004 Oregon City Comprehensive Plan (Introduction, "Implementing the Plan" Page 4, Exhibit 6): "Ancillary Plans are adopted by the City Commission for such things as parks and recreation, transportation systems, water facilities, and sewer facilities. Usually prepared by City departments through a public process, ancillary plans are approved by the City Planning Commission and adopted by the City Commission to provide operational guidance to city departments in planning for and carrying out city services. These plans are updated more frequently than the Comprehensive Plan."

The Oregon City Water Distribution System Master Plan is a "public facilities plan", which is defined in the administrative rules implementing Goal 11, OAR 660-0110005(1), and provides: "A public facility plan is a support document or documents to a comprehensive plan. The facility plan describes the water, sewer and transportation facilities which are to support the land uses designated in the appropriate acknowledged comprehensive plans within an urban growth boundary containing a population greater than 2,500. Certain elements of the public facility plan also shall be adopted as part of the comprehensive plan, as specified in OAR 660-11-045."

A more detailed memorandum from Assistant City Attorney Carrie Richter detailing the Goal 11 requirements for the Water Distribution System Master Plan is provided in Exhibit 5.

Plan Document

The Water Distribution System Master Plan is a necessary part of the city's public facilities program relating to water infrastructure. The draft plan consists of an executive summary, nine chapters, and four (4) appendices (See Exhibit 1). Additionally, development of the master plan process resulted in three major work products which are included in the plan document:

1. A Diurnal Curve Development Technical Memorandum.
2. A recommended Capital Improvement Program (CIP) for the City's existing and future water system including renewal and replacement pipeline projects; and
3. A financing plan that addresses implementation of the recommended CIP. The 1996 City Charter requires rates to be rolled back to pro-bond levels once the bonds are paid which will occur in Fiscal Year 2014-15. The City must address this requirement before any long term water fund planning can realistically be established.

Recommended Capital Improvements

The executive summary describes recommended capital improvements which are organized into improvements to the existing water system, future improvements and renewal and replacement improvements.

Projects that will be required to extend water service into the urban growth boundary will primarily be funded by developers. Some projects could be funded by developers and could be reimbursed based on the capacity provided to other users. SDCs (System Development Charges) can be used to finance such improvements.

Planning Horizon and Growth Assumptions

The Water Distribution System Master Plan has a planning horizon of 2030 and future water demand is based on the anticipated rate of population growth in the city over the next 20 years based on Metro's 20 and 50 year regional population and employment forecasts, April 2009. The projections anticipate that the region will grow at an annual average rate of 1.14 to 1.3 percent. However, based on historical data for the 1990's, the plan recommends that the city consider the possibility of faster growth rates than the Metro projections, both 1.5 percent and 3.0 percent.

At a growth rate of 1.5 percent, the city's population of 30,405 will grow to 41,565 by 2030. At a growth rate of 3.0 percent, the population will grow to 56,562 by 2030.

Based on the 3.0 percent population projection, the Year 2030 Water Demand is 7.76 mgd. It is important to remember that this demand is planned only. Should the City grow more slowly than Metro or plan projections, improvements identified to upsize facilities to meet demand will not be triggered. However, changes in growth will have no effect on the overall system maintenance and operation costs.

The water demand calculations are a function of several measures, as described in Chapter 3 of the plan "Water Demand Analysis". These include an analysis of historical annual average demand, monthly average demand, maximum day demand, and peak hour demand. Based on these measures, the development of historical "peaking factors" is necessary to compare system-wide water use patterns in the city to other communities and for projecting future water use patterns.

Chapter 3 also presents water use in mgd (millions of gallon per day) by generalized customer classes which correlate to land use categories identified in the comprehensive plan and map: single family (2.32 mgd / 59%); institutional (0.33 mgd / 8%), multi family (0.61 mgs / 16%); and industrial / commercial 0.69 mgd / 17%). Based on analysis of water demand by existing land use category within the city limit, a “unit demand factor” was derived that can be allocated to the various plan districts that provides a basis for future planning (See table 3-12 – Summary of Recommended Unit Water Demand Factors).

UGB Build-Out Water Demand Projection

The projection of water demand in the City at build-out of the urban growth boundary is based on the land use demand factors extrapolated for the City’s ultimate urban area. Using these acreages and the unit demand factors developed for these customer use categories, the projected average annual water demand at the City’s UGB build-out condition is 7.0 mgd.

Since the demand projection based on land use falls very close to the year 2030 estimate at a growth rate of 3.0 percent, the plan assumes that the City could achieve build-out of those lands within the existing UGB within 20 years. System development charges would allow for new development to cover these expansion costs.

Water Transmission and Fire Flow

In addition to water demand, the plan includes water distribution system service standards to ensure adequate water storage of a variety of contingencies including operational storage, equalization storage, fire storage and emergency storage. These standards include the need to provide a minimum allowable service pressure of 40 PSI, and a maximum day demand plus minimum fire flow minimum standards.

City Charter Implications

The financing section in Chapter 9 addresses the fiscal aspects of the 1996 City Charter rollback. Because the current City charter requires that rates be rolled back once the bonds are paid, several scenarios for future rates are evaluated. Scenarios include continuation of the existing level of services and costs without the rollback, a rollback of rates including cutbacks in operations, maintenance and upgrades, and identification of the rates that are required for maintaining the system at a sustainable level of system replacements.

FACTS

Service Area

As stated in the Executive Summary, the City of Oregon City currently provides potable water service to most of the City’s residents. As shown on Figure ES-1 of the Executive summary the City’s service area is approximately 4,134 acres. Areas within the City limits not served by City are served by the Clackamas River Water District (CRW). There are also portions of the City that are adjacent to undeveloped, unincorporated county land that has the potential for development and annexation into the City’s service area.

From the 2004 Oregon City Comprehensive Plan (Page 80):

“Water Distribution and Storage. Surface water from the Lower Clackamas River is the source of potable water for Oregon City and West Linn. The wholesale water supplier is the South Fork Water Board, which is

owned equally by Oregon City and West Linn. Water is distributed by each city under separate utility departments. The South Fork Water Board has rights to withdraw 42.6 million gallons per day (mgd), which is expected to meet demand for Source of Supply."

Public Involvement and Public Comment

The Water Distribution System Master Plan update process provides opportunities for public involvement in the legislative decision making process through the public hearing process, newspaper noticing, meetings with the Citizen Involvement Committee, and work sessions with the City Commission.

The following public information meetings have been held or are scheduled to be held in order to discuss the plan prior to formal consideration by the City Commission:

- Citizen Involvement Council (CIC), September 13, 2010.
- Public Informational Presentation - Monday, November 21, 2011, 7:00 P.M (Exhibit D).
- Citizen Involvement Council (CIC) - Monday, December 5, 2011, 7:00 P.M. (Exhibit E).
- Work Session with City Commission - Tuesday, December 13, 2011, 5:30 P.M.

The Water Distribution System Master Plan (July 2010 draft) has been available for review on the Oregon City website at the following address: <http://www.orcity.org/publicworks/water-master-plan-model-updates>

Notice of the first Planning Commission public hearing for the proposal was published in the Clackamas Review on January 26, 2011, and mailed to the affected agencies, the CIC and all Neighborhood Associations January 21, 2011.

In accordance with ORS 197.610 and OAR 660-018-000, a Notice of Proposed Amendment to the Oregon City Comprehensive Plan was provided to the Oregon Department of Land Conservation and Development 45 days prior to the first noticed Evidentiary Hearing on January 21st, 2011.

Notice of the proposed amendment was provided to the following affected agencies: South Fork Water Board (SFWB), Clackamas River Water (CRW), Clackamas County, Clackamas Fire District #1, Oregon City School District, City of West Linn, City of Gladstone, City of Milwaukie, Tri-City Services District, Metro, and Oregon Department of Transportation (ODOT).

Various comments and questions were received from the Planning Commission at the first public hearing on October 24th, 2011, and staff received faxed comments and questions from Commissioner McGriff on November 3rd, 2011 (See Exhibit 1).

Staff has prepared a summarization of responses to these comments and questions in Exhibit 2.

Comments were received from the following entities prior to the first Planning Commission hearing on October 24th, 2011.

- Exhibit 2. Comments from Lee Moore, General Manager, Clackamas River Water (CRW), 4/18/2011.
- Exhibit 3. Comments from Paul Edgar, Canemah Neighborhood Association Land Use Chair, 1/26/2011.
- Exhibit 4. Comments from Paul Edgar, Canemah Neighborhood Association Land Use Chair, 10/10/2011.

None of comments received indicate which decision making criteria addressed below have not been met or cannot be met.

DECISION-MAKING CRITERIA:

According to the 2004 Oregon City Comprehensive Plan (Introduction, "Implementing the Plan" Page 4): "Ancillary Plans are adopted by the City Commission for such things as parks and recreation, transportation systems, water facilities, and sewer facilities. Usually prepared by City departments through a public process, ancillary plans are approved by the City Planning Commission and adopted by the City Commission to provide operational guidance to city departments in planning for and carrying out city services. These plans are updated more frequently than the Comprehensive Plan."

As an ancillary plan, the Water Distribution System Master Plan requires findings for consistency with applicable Comprehensive Plan Goals and Policies and also with Statewide Planning Goals. These findings are presented below.

Consistency with Oregon City Comprehensive Plan

Chapter O of the 2004 Oregon City Comprehensive Plan, Comprehensive Plan Maintenance and Update, contains criteria for approving changes to the comprehensive plan and plan map. Review of the comprehensive plan should consider:

1. *Plan implementation process.*
2. *Adequacy of the Plan to guide land use actions, including an examination of trends.*
3. *Whether the Plan still reflects community needs, desires, attitudes and conditions. This shall include changing demographic patterns and economics.*
4. *Addition of updated factual information including that made available to the City of regional, state and federal governmental agencies.*

Chapter O. Comprehensive Plan Maintenance and Update

Regular Review and Update

Another method of Plan maintenance and updating is a continuous technical review of the Plan by the Planning staff. This review and any subsequent recommendations for Plan updating should be presented to the Neighborhood Associations, Planning Commission and City Commission for input and discussion in the same manner as requested Plan changes. The continuous review should consider:

- ***Plan implementation process;***

Finding: The Water Distribution System Master Plan is a special purpose plan that is an adopted Ancillary Document to the Oregon City Comprehensive Plan. It is a technical document that requires regular review in order to maintain and update it. The applicant, Oregon City Public Works Department, has or will present the update of the Water Plan for input by the Citizen Involvement Committee, Neighborhood Associations, Planning Commission and City Commission in accordance with the recommended method described in the

Comprehensive Plan and pursuant to the applicable process described in Oregon City Municipal Code section 17.50.170. The plan implementation process is consistent with the Comprehensive Plan.

- ***Adequacy of the Plan to guide land use actions, including an examination of trends.***

As an ancillary document to the Comprehensive Plan, the Water Distribution System Master Plan Update provides an analysis of existing water distribution facilities and provides direction for future development, funding and needs. The plan provides a comprehensive review of the water distribution system and provides an adequate guide for future land use actions and the development of criteria to be utilized in land use actions.

The update includes updated construction cost estimates and contingencies for the planning and design of recommended water system facilities for the City (See Appendix D).

Adoption and implementation of the Water Distribution System Master Plan update accomplishes the following Goals and Policies of the adopted Oregon City Comprehensive Plan (2004).

- ***Whether the Plan still reflects community needs, desires, attitudes and conditions. This shall include changing demographic patterns and economics.***

The provision of a dependable, quality water supply is a basic human need. As part of this planning effort, the consultant conducted technical analysis of the city's existing water system and projected future demand within the planning area based on the land use designations in the City Comprehensive Plan. Water demands were projected through buildout of the City's Urban Growth Boundary (UGB) using a unit demand methodology based on land uses in the City's Comprehensive Plan. Individual water use (by meter) was linked to individual parcels using addresses. The unit demand factor for each land use designation was then calculated by dividing the total water use by the total parcel area for which it was linked. The same peaking factors used for existing water demands were used for future projections. Buildout water demand projections are shown by customer class in Table ES-2 of the Executive Summary.

Adoption of the Water Distribution System Master Plan update will address necessary improvements to ensure the orderly extension of water service to accommodate the projected growth envisioned in the City's Comprehensive Plan.

- ***Addition of updated factual information including that made available to the City by regional, state and federal governmental agencies.***

The consultant has included an analysis of the existing water distribution system based on available existing information provided by the City, the City's water supplier, and water metering data from Clackamas River Water (CRW).

The projections of water demand for existing and future service areas reflect updated population projections, recent comprehensive plan amendment areas (Park Place and East of Beavercreek Road), and new regulatory requirements at the state and federal level. This information is provided in the Water Demand Analysis in Chapter 3 and the Water Distribution System Service Standards in Chapter 4.

The City of Oregon City maintains benchmarks for service quality that are used to measure performance of the water utility. These benchmarks include service standards for water quality, quantity, and pressure, as well as the minimum supply levels for fire protection. For example, the Oregon City water distribution system was analyzed to ensure that service pressures are maintained above 40 psi during normal demand scenarios and fire flows are available without dropping system pressures below 20 psi. The service standards set forth in this master plan are derived from regulations, rules, and recommendations established by a variety of sources including the Oregon State Department of Human Services (DHS), the Environmental Protection Agency (EPA), the American Water Works Association (AWWA), the Insurance Services Office (ISO), and the Uniform Fire Code (UFC). A summary of these standards is presented in Table ES-3. A detailed description of the City's service standards is provided in Chapter 4.

The addition of this updated information will allow the City to keep the Water Distribution System Master Plan current.

CONSISTENCY WITH STATEWIDE PLANNING GOALS

STATEWIDE PLANNING GOAL 1: To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.

Finding: This goal is implemented through the applicable Goals and Policies in Section 1 of the Oregon City Comprehensive Plan: Citizen Involvement. A detailed description of the public involvement process for development of the Water Distribution System Master Plan is provided in the project description on Page 5 under "Public Involvement and Public Comment". Additional public meetings to discuss the water master plan have been summarized. Implementation of a water rate structure that will address the mandated rate roll-back in the City Charter will be necessary for plan implementation. Additional public meetings and workshops that have been held or are scheduled to be held prior to final consideration and adoption of the proposed draft plan by the City Commission. Subsequently, staff finds that the Water Distribution System Master Plan update process is consistent with Statewide Planning Goal 1.

STATEWIDE PLANNING GOAL 2: To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions.

Finding: This goal is implemented through the applicable Goals and Policies in Section 2 of the Oregon City Comprehensive Plan: Land Use. Because the Water Distribution System Master Plan is an ancillary document to the City's Comprehensive Plan, the application was processed pursuant to the legislative hearing process outlined in Section 17.50.170 of the Oregon City Municipal Code. The Water Distribution System Master Plan document and maps, analysis, projections, capital improvement program, cost estimates, and recommended funding mechanisms to finance the plan are based a variety of current sources which are cited throughout the plan. These sources include information, documents and technical data provided by the following departments and agencies:

- Oregon City Public Works Department
- Oregon City Geographic Information Systems (GIS)
- Oregon City Community Development Department
- Oregon City Utility Billing
- Clackamas River Water (CRW)
- South Fork Water Board (South Fork Water Distribution System Master Plan)
- Metro (Population projections)
- Engineering News Record Construction Cost Index (ENR CCI) of 8596 (20 Cities Average)
- USGS (United State Geological Survey)
- DOGAMI (Oregon Department of Geology and Mineral Industries)

The plan's Capital Improvement Plan (CIP) includes approximate alignments of future pipeline extensions within the City's Urban Growth Boundary (UGB) (See Appendix D). The alignments of future pipeline extensions shown on the drawings in Appendix D are estimates and actual alignments may be modified as necessary to accommodate actual development patterns when the extensions are actually proposed. The majority of these extensions will be constructed within public right-of-way. Future planning review of pipeline extensions would vary:

1. If the pipeline extension is part of newly dedicated public right-of-way within a development proposal, the alignment will be reviewed as part of a land use application such as a land division (subdivision or partition), site plan and design review, master plan, detailed development plan, or conditional use application.
2. If an extension or expansion is proposed to occur within an existing public right-of-way and will not affect private property, the project is typically exempt from land use review. In this case, there will be no impact on private property.
3. In all residential zones and commercial zones, the placement of new public utilities outside of the right-of-way requires a Conditional Use permit along with a Site Plan and Design Review application approved by the Planning Commission.
4. If any extensions / expansions are proposed within a an adopted City overlay district such as a Floodplain Overlay District, Natural Resource Overlay District or Geologic Hazard Overlay District, then applicable overlay review processes will apply when the extension is proposed. Within each of these overlay districts, the review process for utility lines currently codified in the Oregon City Municipal Code is as follows:

Overlay District	OCMC	Subsection
Natural Resource	17.49	-.080 (Exempt Uses), -.190 (Standards for new Utility Lines)
Geologic Hazard	17.44	-.035 (Exemption for existing ROW) -.080 (new utilities require permit)
Flood Management	17.42	Water lines may be reviewed administratively by city engineer (subject to applicable site and construction standards / i.e. no net fill)
Willamette River	17.48	-.100 (compatibility review and public access to Willamette River).
Historic	17.40	May apply to new facilities not in existing ROW and where proposed development affects native soils, designated

		landmarks and structures.
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Based on the existing review processes defined in the Oregon City Municipal Code and the adequacy of the facts provided in the proposed application, the proposed Water Distribution System Master Plan update is consistent with Statewide Planning Goal 2.

STATEWIDE PLANNING GOAL 5: To protect natural resources and conserve scenic and historic areas and open spaces.

Finding: This goal is implemented through the applicable Goals and Policies in Section 5 of the Oregon City Comprehensive Plan: Open Spaces, Scenic and Historic Areas, and Natural Resources. As stated in the responses to Statewide Planning Goal 2 above, the city code contains specific review criteria for the placement of public utilities within overlay districts to assure that designated Goal 5 resources are appropriately considered when development is proposed.

The Natural Resource Overlay District designation provides a review process for development proposals that have the potential to affect protection of Metro Title 3 and 13 lands (streams, wetlands, sensitive habitat areas) and Goal 5 resources within Oregon City. Utilities repair, replacement and expansions, including water lines, are either exempted from review or reviewed as a limited land use decision (Type II) or Planning Commission review (Type III) depending on the location.

Within the Historic Overlay District, which includes the Canemah historic district, McLoughlin Conservation district, designated Landmarks and Historic corridors, proposed public utility projects may be reviewed by the Historic Review Board if they are potential impact historic resources. The Historic Review Board has adopted character guidelines that pertain to improvements in the public right of way, utilities and related equipment to assure compatibility with historic resources.

Goal 5 resources outside the city limit within the Urban Growth Boundary are reviewed as part of the required Concept Planning for those areas prior to and subsequent with annexation. Concept plans must be implemented through zoning designations and overlay protections zones to assure that Goal 5 resources are protected to the extent required by State law and Metro. The City has mapped the known Goal 5 resource areas out to the current UGB based on the following documents:

1. The 1999 Oregon City Local Wetland Inventory.
2. The Oregon City Water Quality Resource Area Map (Ord. 99-1013).
3. 2004 Oregon City slope data and mapping (LIDAR).
4. Metro Regionally Significant Habitat Map (Aerial Photos taken 2002).
5. National Wetland Inventory (published 1992).
6. Beaver Creek Road Concept Plan (adopted September 2008).
7. Park Place Concept Plan (adopted April 2008).

Based on the existing review processes defined in the Oregon City Municipal Code, the proposed Water Distribution System Master Plan update is consistent with Statewide Planning Goal 5.

STATEWIDE PLANNING GOAL 6: To maintain and improve the quality of the air, water and land resources of the state.

Finding: This goal is implemented through the applicable Goals and Policies in Section 6 of the Oregon City Comprehensive Plan: Quality of Air, Water and Land Resources. By planning water system repair and upgrade based on projected demand and land use patterns, the proposed plan will ensure that land suited for development will be served efficiently. Further, by identifying a proactive plan for maintenance will protect

lands and waters of Oregon City from contamination resulting from facility corrosion or leaking. Water conservation objectives, as identified in the South Fork Water Board Master Plan remain a priority and will not be affected by this plan that is directed at providing maintenance and service extension objectives. As discussed above under the responses to Statewide Planning Goals 2 and 5, the proposed Water Distribution System Master Plan provides approximate locations for the locations of needed water facilities necessary to serve the Urban Growth Boundary. The alignments of future pipeline extensions and locations of other water facilities such as pump stations, pressure reducing valves and reservoirs is subject to further site planning when those facilities are proposed within the city limits. Based on the existing review processes defined in the Oregon City Municipal Code, the proposed Water Distribution System Master Plan update is consistent with Statewide Planning Goal 6.

STATEWIDE PLANNING GOAL 7: To protect people and property from natural hazards.

Finding: This goal is implemented through the applicable Goals and Policies in Section 7 of the Oregon City Comprehensive Plan: Natural Hazards. This goal primarily addresses how the city should plan development to avoid hazard posed by floods, steep slopes, geologically unstable areas and other natural hazards. The Water Distribution System Master Plan includes in the Appendices a seismic vulnerability assessment prepared by ABS Consulting Structural Engineers (Exhibit 1.ii.(b)). The report outlines the seismic hazards, facility evaluations, pipeline evaluations, and provides findings and recommendations for the short-term, mid-term and long term mitigation and protection of the existing water system from seismic hazards. New water facilities will be designed to avoid seismic hazards and identified hazard areas to the extent practicable. New facilities shall be constructed in conformance with the city's adopted public works standards and retrofitted where necessary according to the recommendations provided. Water line looping recommendations have been evaluated throughout the system, so that the water system may still function if one portion of the system has been disconnected. These measures, along with the existing review processes defined in the Oregon City Municipal Code, will assure that the proposed Water Distribution System Master Plan update is consistent with Statewide Planning Goal 7.

STATEWIDE PLANNING GOAL 9: To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.

Finding: This goal is implemented through the applicable Goals and Policies in Section 9 of the Oregon City Comprehensive Plan: Economic Development. Identification of needed water facilities within the UGB includes areas identified for future job creation, notably the Beavercreek Concept Plan area east of Beavercreek Road. The proposed Water Distribution System Master Plan identifies the approximate location of needed pipelines in this area in Appendix D (pipeline project 14). This infrastructure will be constructed and driven by development of the Beavercreek Concept Plan Area. Adoption of the CIP for the Water Distribution System Master Plan will allow the incorporation of the costs of building this water infrastructure into the System Development Charge (SDC) schedule. In existing developed areas, the CIP identifies necessary renewal and replacement of the system to ensure a high quality water supply to existing residential, commercial and industrial areas. The water infrastructure investments in this proposed Water Distribution System Master Plan are essential to support the continued and sustained economic development of the city. Based on the existing review processes defined in the Oregon City Municipal Code, the proposed Water Distribution System Master Plan update is consistent with Statewide Planning Goal 9.

STATEWIDE PLANNING GOAL 10: To provide for the housing needs of citizens of the state.

Finding: This goal is implemented through the applicable Goals and Policies in Section 10 of the Oregon City Comprehensive Plan: Housing. A dependable and high quality water supply for existing Oregon City residents depends in timely upgrades to the existing system. Water service to newly annexed developing areas and those areas zoned to higher density within the existing city limits will be largely developer constructed and driven. Adoption of the Water Distribution System Master Plan update will address necessary improvements to ensure the orderly extension of water service to accommodate the projected growth envisioned in the City's Comprehensive Plan, which includes a variety of housing types. The proposed Water Distribution System Master Plan update is consistent with Statewide Planning Goal 10.

STATEWIDE PLANNING GOAL 11: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

Finding: This goal is implemented through the applicable Goals and Policies in Section 11 of the Oregon City Comprehensive Plan: Public Facilities. A detailed memorandum from Assistant City Attorney Carrie Richter detailing the Goal 11 requirements for the Water Distribution System Master Plan is provided in Exhibit 5. The relevant goals and policies and findings are provided below.

Goal 11.1 Provision of Public Facilities

Serve the health, safety, education, welfare, and recreational needs of all Oregon City residents through the planning and provision of adequate public facilities.

Finding: The Water Distribution System Master Plan is necessary to maintain compliance with Statewide Planning Goal 11, Public Facilities. Goal 11 requires that public facilities and services be provided in a timely, orderly and efficient manner. The goal's central concept is that local governments should plan public services in accordance with the community's needs as a whole rather than be forced to respond to individual developments as they occur. This includes water distribution and storage. As shown in the findings below, the proposed update of the Water Distribution System Master Plan is consistent with Goal 11.1.

Policy 11.1.1

Ensure adequate public funding for the following public facilities and services, if feasible:

- *Water distribution*

Finding: the Water Distribution System Master Plan includes a comprehensive and detailed discussion of financing scenarios to assure that the existing and future water facilities can be funded. Because the current City charter requires that water rates be rolled back once the bonds are paid, several scenarios for future rates are evaluated. Scenarios include continuation of the existing level of services and costs, a rollback of rates coupled with an overall reduction of operations and maintenance, and the identification of rates that are required for maintaining the system at a sustainable level of system replacement. The plan recommends adoption of Scenario No. 3, adoption of water rates sufficient to assure maintenance of the system at a sustainable level of system replacements. This scenario would require amendment of the city charter and approval of voters, however it would ensure adequate funding for the city's water distribution system. The proposed Water Distribution System Master Plan is consistent with this policy.

Policy 11.1.2

Provide public facilities and services consistent with the goals, policies and implementing measures of the Comprehensive Plan, if feasible.

Finding: As discussed in this staff report, the Water Distribution System Master Plan provides guidance for the timely, efficient and economic provision of water service within the existing city and to new development areas within the Urban Growth Boundary consistent with the relevant goals, policies and implementing measures of the Comprehensive Plan. The proposed Water Distribution System Master Plan is consistent with this policy.

Policy 11.1.4

Support development on underdeveloped or vacant buildable land within the city where public facilities and services are available or can be provided and where land-use compatibility can be found relative to the environment, zoning, and Comprehensive Plan goals.

Finding: The plan includes a capital improvement program based on water demand for buildout of the city's urban growth boundary based on adopted land use categories within the City's Comprehensive Plan. The sizing of water pipes envisioned in the plan provides an adequate basis for evaluation of development and redevelopment proposals within the city. Chapter 7 of the plan evaluates the future water distribution system. This analysis is based on UGB buildout land use as shown on figure 7-2 and water duty factors developed in Chapter 3. The analysis includes underdeveloped and vacant buildable land within the city (See Figure 7-1). In most cases the extension of new water services will occur in existing or planned public right-of-ways as part of development in accordance with applicable public works standards, land division laws and zoning regulations, including applicable environmental overlay district standards depending on where development occurs. The specific locations of new city utility lines is not within the purview of this Plan, however the adopted city development code standard are sufficient to assure land use compatibility of future water service extensions identified in the Plan. The proposed Water Distribution System Master Plan is consistent with this policy.

Policy 11.1.5

Design the extension or improvement of any major public facility and service to an area to complement other public facilities and services at uniform levels.

Finding: The Water Distribution System Master Plan is designed to meet water distribution system services standards for existing and future development within the UGB. These standards are discussed in Chapter 4 of the plan and include Water Service Quality Standards, Fire Flow Requirements, Water Supply Capacity during High Demand Periods, Pumping Facility Capacity, Critical Pumping Facilities, Water Storage Capacity, and Water Transmission and Distribution System. These service standards, summarized in Table 4-1, reflect typical water system industry standards, including the Oregon State Department of Human Services (DHS), the Environmental Protection Agency (EPA), the American Water Works Association (AWWA), the Insurance Services Office, Inc. (ISO), and the Oregon Fire Code (OFC). The plan includes a detailed analysis of levels of service and existing and projected water demand within the UGB based on the City comprehensive plan. The plan also discusses the City's performance criteria for the water system (See Table 4-1). The city has adopted development code and engineering standards to ensure concurrent provision of public facilities and services at uniform levels. Pursuant to these requirements, water lines are typically required to be extended to a new development area at the same time as other public facilities such as sewer, storm drainage, and emergency services. The proposed Water Distribution System Master Plan is consistent with this policy.

Policy 11.1.7

Develop and maintain a coordinated Capital Improvements Plan that provides a framework, schedule, prioritization, and cost estimate for the provision of public facilities and services within the City of Oregon City and its Urban Growth Boundary.

Finding: The Water Distribution System Master Plan CIP in Chapter 8 for the years 2011-2022 which provides the necessary framework for scheduling, prioritization and cost estimates for existing and future capital improvements of the water system within the UGB. Chapter 9 includes three scenarios for financing the necessary capital improvements and a recommendation to the city commission to adopt scenario 3, which adopts a pay-as-you-go financing strategy to fund the project identified in the master plan. Tables 9-10 and 9-11 include an estimated schedule for when improvements could be funded addressing the need for a schedule identified in the city attorney's memo. The proposed Water Distribution System Master Plan is consistent with this policy.

Goal 11.3 Water Distribution

Seek the most efficient and economic means available for constructing, operating, and maintaining the City's water distribution system while protecting the environment and meeting state and federal standards for potable water systems.

Finding: As described in Chapter 4, the plan includes service standards for compliance with state and federal law, summarized in Table 4-1 which reflect typical water system industry standards, including the Oregon State Department of Human Services (DHS), the Environmental Protection Agency (EPA), the American Water Works Association (AWWA), the Insurance Services Office, Inc. (ISO), and the Oregon Fire Code (OFC). The CIP program and financing options described in Chapters 8 and 9 provide an adequate basis for determination of the most efficient and economic means to fund the construction, operation and maintenance of the water distribution system. The proposed Water Distribution System Master Plan is consistent with this policy.

Policy 11.3.1

Plan, operate and maintain the water distribution system for all current and anticipated city residents within its existing Urban Growth Boundary and plan strategically for future expansion areas.

Finding: The purpose of updating the Water Distribution System Master Plan is to assure that all current and anticipated city residents within the UGB can receive a dependable, high quality water supply as the city continues to develop. This includes maintenance and where needed, upgrading the existing system as well as to serve future expansion areas. The proposed Water Distribution System Master Plan is consistent with this policy.

Policy 11.3.2

Collaborate with the South Fork Water Board to ensure that an adequate water supply system is maintained for residents. Coordinate with the South Fork Water Board, the City of West Linn, and Clackamas River Water to ensure that there is adequate regional storage capacity.

Finding: The plan includes a description of the existing water distribution system in Chapter 2, along with a detailed discussion of how water supply is provided to the City of Oregon City by the South Fork Water Board and as discussion of the regional master metering system for the three customers sharing the water supply. The SFWB is a water wholesaler that works with its customers, City of Oregon City, City of West Linn and CRW to ensure that all residents have an adequate water supply. The Water Distribution System Master Plan is consistent with this policy.

Policy 11.3.3

Maintain adequate reservoir capacity to provide all equalization, operational, emergency, and fire flow storage required for the City's distribution system.

Finding: In addition to water demand, the plan includes water distribution system service standards to ensure adequate water storage of a variety of contingencies including operational storage, equalization storage, fire storage and emergency storage. These standards include the need to provide a minimum allowable service pressure of 40 PSI, and a maximum day demand plus fire flow minimum standard. The Water Distribution System Master Plan is consistent with this policy.

Policy 11.3.4

Adopt a progressive water rate structure that will encourage water conservation.

Finding: The proposed Water Distribution System Master Plan does not recommend the adoption of a progressive water rate structure at this time. Additional public meetings to discuss the implementation of a water rate structure that will address the mandated rate roll-back in the City Charter will be necessary for plan implementation.

Financing scenarios presented in the plan include continuation of the existing level of services and costs without the rollback, a rollback of rates including cutbacks in operations, maintenance and upgrades, and identification of the rates that are required for maintaining the system at a sustainable level of system replacements.

The South Fork Water Board promotes the conservation of treated water in several ways. One is through the SFWB Water Conservation Program. At the beginning of 2001 SFWB began implementing water conservation programs for both Oregon City and West Linn. South Fork Water Board began its conservation efforts in 1996 when it joined with other regional water providers to make up the Columbia Willamette Water Conservation Coalition, which is now the Regional Water Providers Consortium. Since then, regional water providers have been working together to further the role of water conservation and efficient water use region wide. The program consists of public education and incentives to promote and implement water conservation by the end user. For more information see <http://www.sfwb.org/conservation.html>.

Water conservation efforts by the city include maintenance and upgrade of the water system to minimize unaccounted-for water usage, as discussed on pages 3-9 and 3-10 of the water demand analysis chapter of the plan. Unaccounted for water was estimated at 16.8 percent for the years 2002-2008, and includes unmetered customers, transmission system leaks, reservoir leaks, main breaks, faulty meters, over-filling reservoirs, fire fighting activities, system flushing and other miscellaneous hydrant uses. Mitigation of this unaccounted-for water includes ongoing refinement of the master metering and record keeping practices, meter change-outs, and repair and replacement of the water distribution system in order to account for all usage.

STATEWIDE PLANNING GOAL 13: To conserve energy. Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

Finding: This goal is implemented through the applicable Goals and Policies in Section 13 of the Oregon City Comprehensive Plan: Energy Conservation.

The water distribution system proposed will support efficient use of a land within the city limits and urban growth boundary based on the adopted land use designations within the City Comprehensive Plan and zoning categories within the city limit through the timely, orderly and efficient delivery of water system extensions where it is efficient to promote higher intensity land uses and avoiding leap-frog development.

The city promotes the efficient use of land and conservation of energy through its Comprehensive Plan and Zoning Code and through the implementation of building codes. Higher density and mixed use zoning, land division, and site plan design standards promote more compact development patterns, and promote bicycling and walking instead of relying on the automobile for routine errands. New annexations are required to show that public utilities can be efficiently extended to new urban areas. Metro-approved Concept Plans are required prior to annexation to the city to assure that urban services and amenities will be developed in logical places as the community develops. Building codes require that new homes and businesses conserve energy through choice of materials, insulation, and installation of efficient plumbing, heating and cooling systems. The proposed Water Distribution System Master Plan is consistent with Statewide Planning Goal 13.

RECOMMENDATION

The Planning Commission may recommend City Commission adoption of the draft Water Master Plan finding that it is consistent with the City's Comprehensive Plan and the Statewide Land Use Goals. With respect to financing, rather than take a position on the most appropriate financing solution, the Planning Commission could acknowledge that under any of the financing scenarios identified in the plan, adequate water service can be made available to serve planned development including the UGB expansion areas.

Staff recommends that the Planning Commission recommend approval of the Oregon City Water Distribution System Master Plan, included as Exhibit 1, as an ancillary document to the Oregon City Comprehensive Plan to the City Commission for their consideration at the January 18th, 2012 public hearing.

LATEST EXHIBITS FOR PUBLIC HEARING OF 12/12/2011

- A. Questions and Comments from Planning Commissioner McGriff, dated 11/3/2011
- B. Staff Responses to Planning Commission Questions, dated 12/5/2011
- C. SFWB Water Management and Conservation Plan, including Emergency Curtailment Plan, September 2004.
- D. Public Information Presentation, November 21, 2011.
- E. CLC presentation, December 5, 2011.

EXHIBITS FROM PUBLIC HEARING OF 10/24/2011 (ALREADY ENTERED INTO RECORD)

- 1) Oregon City Water Distribution System Master Plan – Full Document (On File).
 - a) Executive Summary
 - (1) Introduction
 - (2) Existing Water Distribution System
 - (3) Water Demand Analysis
 - (4) Water Distribution System Service Standards
 - (5) Hydraulic Model Update
 - (6) Existing Water Distribution System Evaluation
 - (7) Future Water Distribution System Evaluation
 - (8) Recommended Capital Improvement Program
 - (9) Water Distribution System Financing Plan (Revised)
 - ii) Appendices
 - (a) Diurnal Curve Development Technical Memorandum
 - (b) Water System Seismic Vulnerability Assessment
 - (c) Cost Estimating Assumptions
 - (d) Project Sheets (Pipeline Project Maps and Data w/ Costs)
- 2) Comments from Lee Moore, General Manager, Clackamas River Water (CRW), 4/18/2011.
- 3) Comments from Paul Edgar, Canemah N.A. Land Use Chair, 1/26/2011.
- 4) Comments from Paul Edgar, Canemah N.A. Land Use Chair, 10/10/2011.
- 5) Memorandum from City Attorney Carrie Richter, regarding Goal 11 Requirements.
- 6) Oregon City Comprehensive Plan (2004). *Note: Goals and Policies for Public Facilities are in Section 11.*
- 7) Oregon City Water Master Plan (October 2004)

The Water Master Plan referred to in the ordinance, Section 2, may be found with the original City Commission packet dated January 18, 2012.