



## Community Development – Planning

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**FILE NO.:** Legislative File: L 14-02 – Sanitary Sewer Master Plan (SSMP)

**HEARING DATE:** Monday, September 8<sup>th</sup>, 2014  
7:00 p.m., City Hall - Commission Chambers  
625 Center Street  
Oregon City, OR 97045

**APPLICANT:** Oregon City Public Works Department  
John Lewis, P.E., Public Works Director  
Aleta Froman-Goodrich, P.E., City Engineer  
Erik Wahrgren, P.E., Project Engineer  
625 Center Street, Oregon City, Oregon 97045

**REPRESENTATIVE:** Brown and Caldwell, Consulting Engineers  
6500 SW Macadam Avenue, Suite 200, Portland, OR 97239

**REQUEST:** Update of the Oregon City Water Sanitary Sewer 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 update to the Oregon City Sanitary Sewer Master Plan, included as Exhibit 1, as an ancillary document to the Oregon City Comprehensive Plan to the City Commission.

*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 Sanitary Sewer Master Plan (SSMP), which is an adopted Ancillary Document to the Oregon City Comprehensive Plan (2004).

According to the city's project website, "April 8, 2014 - The City and B & C have been working to complete the update, which has turned out to be more of a new sewer master plan than an update. The new master plan identifies areas with current system capacity concerns, build out capacity concerns, and areas within the system most likely to have leakage or other types of problems. Specifically, the plan is a detailed assessment based on a variety of information and analysis. The plan also provides the City with a detailed understanding of necessary capital improvements, system rehabilitation and replacement recommendations, the cost of the improvements and program recommendations, and recommendations for best management practices. In particular, as a result of the plan and modeling results the final plan will include a supplementary discussion of the impacts of development and redevelopment on the city-wide system."

The following excerpt from the SSMP's Executive Summary describes the purpose of the update:

*The City of Oregon City (City) provides sanitary sewer collection services to nearly 33,000 people spread across an area of approximately 9.3 square miles. Current users of the sanitary sewer collection system total over 10,400 total connections, including 9,740 residential, approximately 520 commercial, and 130 industrial. The City owns the following infrastructure: over 148 miles of gravity pipelines, ranging in size from approximately 2 to 36 inches in diameter; 3,700 manholes; 12 (major) pumping stations; and 6 miles of sanitary force mains. A majority of the sewer system was built after 1980 with much of the sewer pipes being constructed of poly-vinyl chloride.*

*The City commissioned this Sanitary Sewer Master Plan (SSMP) to provide guidance on capital improvement projects for City projects as required to convey the existing and future wastewater flows to the Tri-City Sewer District (TCSD) trunks and interceptors TCSD and eventually to the Tri-City Water Pollution Control Plant. The*

*City's buildout population is expected to reach 52,500 by the year 2035, with most of the growth occurring around the fringes of the existing city limits.*

### **The Sewer Moratorium and the adoption of the SSMP as a Corrective Program**

On August 6, 2014, the City Commission adopted Ordinance 14-1006 which imposed a moratorium on development as a result of sanitary sewer capacity deficiencies within four areas within the City. The areas subject to the moratorium are identified in Exhibit 4 to this report. ORS 197.530(1) requires that the City adopt a program to correct the problem creating the moratorium within 60 days, or before October 3, 2014, and requires that the program be considered through a public hearing. The SSMP identifies solutions necessary to remedy the capacity deficient sewers and therefore, serves as the City's corrective program. As the findings set forth in the sewer moratorium and the SSMP explain, a lack of sewer capacity infrastructure causes safety hazards and reduces the overall quality of life. These flow restrictions have not changed since the moratorium was adopted. Therefore, the City cannot allow any development or redevelopment that increases flows to these restricted areas. Adoption of the SSMP within 60 days after imposition of the moratorium indicates the City's commitment to alleviating the problem and lifting the moratorium as quickly as possible. Unless extended, the Ordinance 14-1006 moratorium shall expire six months from the date on which the corrective program, the SSMP, is adopted.

### **Relationship to the Comprehensive Plan**

According to the 2004 Oregon City Comprehensive Plan (Introduction, "Implementing the Plan" Page 4, Exhibit 3): "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 Sanitary Sewer 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."

### **Plan Document**

The Sanitary Sewer Master Plan (SSMP) is a necessary planning document relating to sewer infrastructure. The draft plan consists of an executive summary, six chapters and a set of appendices:

1. Introduction
2. Basis of Planning
3. Flow Projections and Modeling
4. Hydraulic Analysis
5. Capital Improvement Plan (CIP)
6. Limitations

## **Recommended Capital Improvements**

Chapter 5 describes recommended capital improvements which are organized into the following sections: Existing Conditions Planning Scenario, Capital Improvement Recommendations, Continued Observation, Rehabilitation and Replacement (R&R) Program, and a Capital Improvement Project Summary.

Projects that will be required to extend sewer 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 level estimates for the infrastructure needs are provided in the plan.

## **Service Area - Tri-City Service District**

As stated in the Executive Summary, the City commissioned this Sanitary Sewer Master Plan (SSMP) to provide guidance on capital improvement projects for City projects as required to convey the existing and future wastewater flows to the Tri-City Sewer District (TCSD) trunks and interceptors TCSD and eventually to the Tri-City Water Pollution Control Plant. The City's buildout population is expected to reach 52,500 by the year 2035, with most of the growth occurring around the fringes of the existing city limits.

TCSD was formed in 1980 and is comprised of three primary jurisdictions: the Cities of Oregon City, Gladstone, and West Linn. TCSD's mission is to provide wastewater conveyance, treatment, and disposal services to the three cities. The Clackamas County Board of Commissioners governs the TCSD with the Tri-City Advisory Committee made up from representatives from each city. Current copies of the agreement and amendments between the City and TCSD are included in Appendix K of the plan.

## **Planning Process and Public Involvement**

The Sanitary Sewer Master Plan update process provides opportunities for public involvement in the legislative decision making process through a project website, public hearing process, newspaper noticing, open houses, meetings with Neighborhood Associations, the Citizen Involvement Committee, and work sessions with the Planning Commission and City Commission.

The City last updated its Sanitary Sewer Master Plan in 2003. Sewer master planning for a City of Oregon City's size and complexity is considered necessary every 10 years. In preparation for a master plan update, the Public Works Department has undertaken the following steps to date:

- October 2011, executed a contract with Brown and Caldwell, Inc. (B & C) to provide the professional services necessary to develop a flow monitoring strategy for collecting wet weather sanitary sewer flow information from the City's sanitary sewer collection system.
- January 2012, executed Amendment No. 1 for the wet weather flow monitoring. Services included implementation of the recommended flow monitoring strategy including 2 months of flow monitoring at 15 locations around the City's wastewater collection network. The flow data was needed to accurately document wet weather flows for future hydraulic modeling.
- February 2012, executed Amendment No. 2 authorizing B & C to complete the bulk of the sewer master plan including utilizing the flow monitoring data, building the hydraulic model, evaluating the

hydraulics of the collection system, assessing the City's 13 lift stations, identifying existing and future capital improvements, completing project concept level cost estimates and assisting City staff during public outreach efforts.

- October 2013 - staff presented the City Commission with a Sanitary Sewer Master Plan Update "Master Plan Development 101".
- April 2014 - staff made a presentation to the City Commission.
- June 2014 - open house and CIC presentation
- July 2014 - joint work session with Planning Commission and City Commission

The Sanitary Sewer Master Plan (July, 2014 draft) has been available for review on the Oregon City website at the following address: <http://www.orcity.org/publicworks/sanitary-sewer-master-plan-update>

### **Public Notices**

Notice of the first Planning Commission public hearing for the proposal was published in the Clackamas Review on August 6, 2014, and emailed to the affected agencies, the CIC and all Neighborhood Associations August 4, 2014.

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 35 days prior to the first noticed Evidentiary Hearing on July 23, 2014.

Notice of the proposed amendment was provided to the following affected agencies on August 4, 2014: 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).

Copies of the applicable notices are provided in Exhibit 2.

### **Public Comment**

Public comments provided throughout the previously described planning process have been incorporated into the document as needed.

Planning staff has not received any written public comments regarding the Legislative File update as of the date of this staff report.

### **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 Sanitary Sewer 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:*

1. *Plan implementation process.*

**Finding:** The Sanitary Sewer 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 Sanitary Sewer Master 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.

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

**Finding:** As an ancillary document to the Comprehensive Plan, the Sanitary Sewer Master Plan provides an analysis of existing sanitary sewer facilities and provides direction for future development, funding and needs. The plan provides a comprehensive review of the sanitary sewer 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 will include updated construction cost estimates and contingencies for the planning and design of recommended sanitary sewer system facilities for the City.

Adoption and implementation of the Sanitary Sewer Master Plan update accomplishes the Goals and Policies of the adopted Oregon City Comprehensive Plan (2004).

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

**Finding:** As part of this planning effort, the consultant conducted technical analyses of the City's existing sanitary sewer system and projected future demand within the planning area based on the land use designations in the City Comprehensive Plan. Sanitary sewer 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 sanitary sewer 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 sanitary sewer connections by the total parcel area for which it was linked. The same peaking factors used for existing sanitary sewer demands were used for future projections.

Adoption of the Sanitary Sewer Master Plan update will address necessary improvements to ensure the orderly extension of sanitary sewer service to accommodate the projected growth envisioned in the City's Comprehensive Plan.

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

**Finding:** The consultant has included an analysis of the existing sanitary sewer system based on available existing information provided by the City and the TriCities Wastewater Treatment Plan.

The projections of sanitary sewer demand for existing and future service areas reflect updated population projections, recent comprehensive plan amendment areas (Park Place concept area and Beavercreek Road concept area), and new regulatory requirements at the state and federal level.

The City of Oregon City maintains benchmarks for service quality that are used to measure performance of the sanitary sewer utility. 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) and the Environmental Protection.

The addition of this updated information will allow the City to keep the Sanitary Sewer Master Plan current.

### **"Statements of Principle - Page 3.**

**Provide efficient and cost-effective services.** Water, **sewer**, fire protection, police services, streets, storm drainage, and other public services are directly affected by land-use decisions. This plan ensures that land-development decisions are linked to master plans for specific services such as water or sewer and to capital improvement plans that affect budgets and require taxes to build. The City Commission believes that citizens are economically well-served through compact urban form, redevelopment of existing areas, and public

investments (for example, street improvements) that are carefully tied to private investments when development occurs.”

**Finding:** The consultant has included an analysis of the existing sanitary sewer system based on available existing information provided by the City and the TriCities Wastewater Treatment Plan.

#### **“Implementing the Plan – Page 4**

The Oregon City Comprehensive Plan is implemented through City Codes, **ancillary plans**, concept plans, and master plans.

**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.”

**Finding:** This Sanitary Sewer Master Plan update requires approval of the Planning Commission and City Commission.

#### **“Ancillary Plans. – Page 15**

Since 1982, several documents have been adopted as ancillary to the 1982 Comprehensive Plan: the *Public Facilities Plan* (1990), *Oregon City Transportation System Plan* (2001), *Oregon City Downtown Community Plan* (1999), *Oregon City Waterfront Master Plan* (2002), *City of Oregon City Water Master Plan* (2003), *City of Oregon City Sanitary Sewer Master Plan (2003)*, *Drainage Master Plan* (1988, updated in 1999 as the *City of Oregon City Public Works Stormwater and Grading Design Standards*), *Caufield Basin Master Plan* (1997), *South End Basin Master Plan* (1997), *Molalla Avenue Boulevard and Bikeway Improvements Plan* (2001), the *Oregon City Park and Recreation Master Plan* (1999), and the *Oregon City Trails Master Plan* (2004).”

**Finding:** The Sanitary Sewer Master Plan update requires approval of the Planning Commission and City Commission and when approved, shall be an ancillary plan to the Comprehensive Plan.

#### **“Wastewater Collection and Treatment. Page 80**

The *City of Oregon City Sanitary Sewer Master Plan* (2003) contains specifications for the existing wastewater collection system and discusses how the specifications will need to change during the next 20 years, based on projected growth. According to the master plan, Oregon City’s sanitary sewer system is in relatively good condition with isolated areas of capacity problems, and will remain adequate within the Urban Growth Boundary for the next 20 years. The greatest deficiency is the older pipes that need repair, rehabilitation, or replacement. The City continues to work with the Tri-City Service District to reduce inflow and infiltration into the collection system. Wastewater is treated at the Tri-City Water Pollution Control Facility.

Located in Oregon City, Tri-City treats wastewater from Oregon City, West Linn and Gladstone. Wastewater flows from the greater Clackamas County area were recently diverted to Tri-City as a result of a cost-efficient strategy that benefited Tri-City ratepayers. Flows to Tri-City may increase if the Kellogg Creek Water Pollution Control Plant in Milwaukie closes and as planned growth occurs in the Damascus area. The need for



a major expansion of Tri-City will have to be weighed against preserving the valuable property around the treatment plant for future parks, recreation, and mixed-use development.

Oregon City and Tri-City should continue to collaborate on the Clackamette Cove area improvements identified in the *Tri-City Service District, Tri-City Water Pollution Control Facility (WPCF) Master Plan Plant Advanced Facilities Plan (2002)* and the *Oregon City Waterfront Master Plan (2002)*.”

#### **“Page 81 – NPDES MS-4 Permit**

The City’s stormwater management program is subject to the City’s National Pollution Discharge Elimination System Municipal Separate Storm and Sewer System (NPDES) MS-4 permit, which is administered by the Oregon Department of Environmental Quality (DEQ) for the U.S. Environmental Protection Agency (EPA).”

### **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 4 of this staff report under “Planning Process and Public Involvement”. Additional public meetings to discuss the sanitary sewer master plan have been summarized. The Sanitary Sewer 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 Sanitary Sewer 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 Sanitary Sewer 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.

The plan’s Capital Improvement Plan (CIP) section describes the improvements recommended to address the capacity and known condition deficiency needs of the City-owned sanitary sewer system for the future conditions planning scenario and to provide new sewer service to areas of the city without sewer service and to areas that may be annexed by the City in the foreseeable future. The City’s implementation of an infiltration/inflow (I/I) reduction program may be sufficient to address the capacity needs of many of the sewers identified for replacement.

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 Sanitary Sewer 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 sewer system upgrades 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 plan for extension and expansion of new facilities, as well as maintenance and repair and replacement of existing facilities, the plan will protect lands and waters of Oregon City from contamination resulting from facility capacity being exceeded or protect against corrosion or leaking. Water quality objectives, as identified in the City's stormwater management program is subject to the City's National Pollution Discharge Elimination System Municipal Separate Storm and Sewer System (NPDES) MS-4 permit, which is administered by the Oregon Department of Environmental Quality (DEQ) for

the U.S. Environmental Protection Agency (EPA). 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.**

**Comp Plan Goal 7.1 Natural Hazards**

*Protect life and reduce property loss from the destruction associated with natural hazards.*

*Comp Plan Policy 7.1.12*

Ensure that key public services, such as water and sewer; and key public facilities such as police, fire, and hospital structures have the capability to back-up electricity during emergencies.

**Finding:** This goal is implemented through the applicable Goals and Policies in Section 7 of the Oregon City Comprehensive Plan: Natural Hazards. New sanitary sewer 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. These measures, along with the existing review processes defined in the Oregon City Municipal Code, will assure that the proposed Sanitary Sewer Master Plan update is consistent with Statewide Planning Goal 7.

The Sanitary Sewer Master Plan has accounted for necessary electrical upgrades for the pump stations that will need this type of improvement in the planning horizon. Pump stations include back up electrical equipment in the event the power goes out or in the event of an emergency. The type of power generator has been identified in the Sanitary Sewer Master Plan for each of the City's pump stations.

**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 sewer facilities within the UGB includes areas identified for future job creation, notably the Beavercreek Concept Plan area east of Beavercreek Road. The proposed Sanitary Sewer Master Plan identifies the approximate location of needed new facilities. This infrastructure will be constructed and driven by development of the Beavercreek Concept Plan Area. Adoption of the CIP for the Sanitary Sewer Master Plan will allow the incorporation of the costs of building this sewer infrastructure into the System Development Charge (SDC) schedule. In existing developed areas, the CIP identifies necessary renewal and replacement of the system to ensure continued service to existing residential, commercial and industrial areas. The sewer infrastructure investments in this proposed 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 Sanitary Sewer 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 sanitary sewer system for existing Oregon City residents depends in timely upgrades to the existing system. Sewer service to newly annexed developing areas and those areas zoned for more intensive land use within the UGB will be largely developer constructed and driven. Adoption of the Sanitary Sewer 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. The relevant goals and policies and findings are provided below.

***Comp Plan 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 Sanitary Sewer 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 sanitary sewer service. As shown in the findings below, the proposed update of the Sanitary Sewer Master Plan is consistent with Goal 11.1.

***Comp Plan Policy 11.1.1***

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

- *Water distribution*

**Finding:** The Sanitary Sewer Master Plan includes a proposed Capital Improvement Program with a comprehensive and detailed discussion of cost estimates and options to assure that the existing and future sewer facilities can be funded. Several scenarios for funding of new sanitary sewer lines are evaluated. The following sections describe three types of projects based on funding mechanisms: Priority 1 CIPs that may be funded by the City through SDCs reimbursements, Priority 2 CIPs that are unlikely to be funded by the City, and concept area extensions that are most likely to be paid for directly by development except for some unique circumstances that may require City funding assistance to promote economic development.. With respect to the maintenance and rehabilitation of the existing system, the plan includes a detailed Rehabilitation and Replacement Program. This includes details regarding the potential costs of an I/I abatement program to help identify leakage within the system and recover lost capacity. The proposed Water Distribution System Master Plan is consistent with this policy.

***Comp Plan 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 Sanitary Sewer Master Plan provides guidance for the timely, efficient and economic provision of sanitary 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 Sanitary Sewer Master Plan is consistent with this policy.

***Comp Plan 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 Sanitary Sewer Master Plan is designed to meet system services standards for existing and future development within the UGB. The review of the system needs includes review of the following:

- 2.1 Background and History
- 2.2 City Location
- 2.3 Service Area Description
- 2.4 Topography
- 2.5 Climate and Rainfall
- 2.6 Population
- 2.7 Land Use and Zoning
- 2.8 Description of Existing Collection System
- 2.9 Description of Pumping Stations
- 2.10 Flow Monitoring Activities
- 3. Flow Projections and Modeling
  - 3.1 Model Development
  - 3.2 Model Extents
  - 3.3 Base Flows
  - 3.4 Wet Weather Flows
    - 3.4.1 RTK Method
    - 3.4.2 Precipitation Data
    - 3.4.3 Area Contributing to Rainfall Derived Infiltration and Inflow (RDII)
    - 3.4.4 Wet Weather Model Calibration
    - 3.4.5 Design Storm
  - 3.5 Future Flows
    - 3.5.1 Future Base Flows
    - 3.5.2 Future Wet Weather Flows
- 4. Hydraulic Analysis

These analyses reflect typical sewer system industry standards. The plan includes a detailed analysis of levels of service and existing and projected sewer demand within the UGB based on the City's comprehensive plan. 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 Sanitary Sewer Master Plan is consistent with this policy.

***Comp Plan 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 plan includes a detailed Capital Improvements Plan. The proposed Water Distribution System Master Plan is consistent with this policy. Timing of the extension of new sewer facilities, such as in concept plan areas in South End, Park Place and Beavercreek Road, will depend largely on the scale and pace of new development. The plan includes prioritization of CIPs to serve these new growth areas, although the exact timing of these improvements is unknown at this time. The plan also provides a discussion of the factors that will affect the timing of the rehabilitation and replacement program for existing facilities. The proposed Sanitary Sewer Master Plan is consistent with this policy.

### ***Comp Plan Goal 11.2 Wastewater***

*Seek the most efficient and economic means available for constructing, operating, and maintaining the City's wastewater collection system while protecting the environment and meeting state and federal standards for sanitary sewer systems.*

**Finding:** The Sanitary Sewer 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. As shown in the findings, the proposed update of the Sanitary Sewer Master Plan is consistent with Goal 11.1.

The Sanitary Sewer Master Plan provides guidance for the timely, efficient and economic provision of sewer 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 Sanitary Sewer Master Plan is consistent with this policy.

### ***Comp Plan Policy 11.2.2***

*Plan, operate and maintain the wastewater collection system for all current and anticipated city residents within the existing Urban Growth Boundary. Plan strategically for future expansion areas.*

**Finding:** The purpose of updating the Sanitary Sewer Master Plan is to assure that all current and anticipated city residents within the Urban Growth Boundary can receive a high quality and dependable collection system as the city continues to develop. This includes maintenance, and where needed, upgrading the existing system as well as serving future expansion areas. The proposed Sanitary Sewer Master Plan is consistent with this policy.

### ***Comp Plan Policy 11.2.2***

*Given the vision for Clackamette Cove, investigate strategies to deal with increased flows, including alternate locations for treatment, from growth in the Damascus area and the potential closure of the Kellogg Creek Water Pollution Control Plant.*

**Finding:** The Kellogg Creek Water Pollution Control Plant (KCWPCP) remains open and continues to serve the North Clackamas urban area and the cities of Happy Valley, Johnson City and Milwaukie. In fact, Clackamas County Water Environment Services operates the plant and they have and continue to upgrade the facility. There doesn't appear to be a need to plan for the potential closure of the KCWPCP.

*Comp Plan Policy 11.2.3*

*Work with the Tri-City Service District to provide enough collection capacity to meet standards established by the Oregon Department of Environmental Quality (DEQ) to avoid discharging inadequately treated sewage into surfacewater.*

**Finding:** The plan includes a description of the existing sanitary sewer system with detailed information outlining system responsibility for City and Tri-City services. The Sanitary Sewer Master Plan has identified the ownership of large trunk sewer piping with the City collection system. Brown and Caldwell developed a model of the City system which also includes the Tri-City trunk system. The model was built using the 10 year 24 hour storm, which meets and exceeds the DEQ requirement. From the model analysis the City has developed a City list and also identified and communicated the deficiencies with the Tri-City system of pipe.

*Comp Plan Policy 11.2.4*

*Seek economical means to reduce inflow and infiltration of surface- and groundwater into the wastewater collection system. As appropriate, plant riparian vegetation to slow stormwater, and to reduce erosion and stream sedimentation.*

**Finding:** In appendix D of the plan, it describes the primary components of an I/I abatement program. The I/I projects that come from the investigation work will include sewer rehabilitation and replacement, service lateral replacement, and potentially, the construction of new sanitary sewers. It is known that some small areas of the city do not have storm drain systems and that in these areas roof leaders and footing drains may be connected to the sanitary sewer. The City may find that converting the existing sanitary sewer into a storm drain and constructing a new sanitary sewer may be the most cost-effective means of eliminating these sources of inflow.

Recently, Tri-City Sewer District initiated a multi-year I/I investigation that will evaluate I/I contributions from throughout the service district. The City of Oregon City along with the others agencies were asked to join the investigation and evaluation efforts. The purpose of the investigation is to determine if and where I/I can be removed from the system cost-effectively.

*Comp Plan Policy 11.2.5*

*Implement the City's wastewater policies through the City of Oregon City Sanitary Sewer Master Plan.*

**Finding:** The Sanitary Sewer Master Plan update provides guidance for the timely, efficient and economic provision of sanitary sewer service within the existing city limits 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 Sanitary Sewer Master Plan is consistent with this policy.

**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 sanitary sewer 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 sewer 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 Sanitary Sewer Master Plan is consistent with Statewide Planning Goal 13.

#### **Comp Plan Goal 14.4 Annexation of Lands to the City**

Annex lands to the city through a process that considers the effects on public services and the benefits to the city as a whole and ensures that development within the annexed area is consistent with the Oregon City Comprehensive Plan, City ordinances, and the City Charter.

##### *Comp Plan Policy 14.4.1*

*Promote compact urban form and support efficient delivery of public services by ensuring that lands to be annexed are within the City's Urban Growth Boundary, and contiguous with the city limits. Do not consider long linear extensions, such as cherry stems and flag lots, to be contiguous with the city limits.*

##### *Comp Plan Policy 14.4.2*

Include an assessment of the fiscal impacts of providing public services to unincorporated areas upon annexation, including the costs and benefits to the city as a whole as a requirement for concept plans.

**Finding:** The Sanitary Sewer Master Plan identifies the fiscal impacts to providing public services to unincorporated areas upon annexation. The areas in the plan that were identified at included in Section 5, Capital Improvement Plan. The cost for improvements in these area can be found in Sanitary Sewer Master Plan table 5-3 (Septic Area Service Extensions), table 5-6 ( South End Concept Area, Estimated Improvement Costs), table 5-8 (Beavercreek Road Concept Area), table 5-10 ( Park Place Concept Area, Estimated Improvement Costs).

##### *Comp Plan Policy 14.4.3*

*Evaluate and in some instances require that parcels adjacent to proposed annexations be included to:*



- *avoid creating unincorporated islands within the city;*
- *enable public services to be efficiently and cost-effectively extended to the entire area; or*
- *implement a concept plan or sub-area master plan that has been approved by the Planning and City Commissions.*

**Finding:** Both the Comprehensive Plan and the Sanitary Sewer Master Plan shall work together to help avoid unincorporated island areas and to enable public services to be extended to unserved areas.

*Comp Plan Policy 14.4.4*

*Expedite the annexation of property as provided by state law in order to provide sewer service to adjacent unincorporated properties when a public health hazard is created by a failing septic tank sewage system.*

**Finding:** The Sanitary Sewer Master Plan identifies the need to service homes on septic in section 5.2.2.1. The City shall work with DEQ to address septic tank sewage system failures.

## **RECOMMENDATION**

The Planning Commission may recommend that the City Commission adopt of the draft Sanitary Sewer 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 sanitary sewer service can be made available to serve planned development including the UGB expansion areas.

Staff recommends that the Planning Commission recommend approval of the Sanitary Sewer Master Plan, included as Exhibit 1, as an ancillary document to the Oregon City Comprehensive Plan to the City Commission.

**EXHIBITS**

- 1) Oregon City Sanitary Sewer Master Plan (June 30, 2014 Draft)
- 2) Public Notices
- 3) Oregon City Comprehensive Plan (2004). **Note:** *Goals and Policies for Public Facilities are in Section 11.*
- 4) Ordinance 14-1006, Sanitary Sewer Moratorium