

CHAPTER 1

INTRODUCTION

This *General Sewer Plan (2016 Plan)* for the City of Woodland (City) addresses the City's planning needs for wastewater collection, transmission, treatment, and disposal for the 20-year planning period. This *2016 Plan* was prepared in accordance with the provisions of the Revised Code of Washington (RCW) Section 90.48, *Water Pollution Control*, Washington Administrative Code (WAC) Section 173-240-050, *General Sewer Plan*, and WAC 173-240-060, *Engineering Report*. Development of the *2016 Plan* has been coordinated with the City of Woodland *Proposed Comprehensive Plan Update*, which is being prepared currently, and with the City of Woodland *2013 Water System Plan*.

The *2016 Plan* provides proposed conceptual designs, cost estimates, schedule, and financing plan for recommended major facility improvements. A State Environmental Policy Act (SEPA) checklist is provided in Appendix A. The projects described in the *2016 Plan* are consistent with Washington State regulations relating to the prevention and control of discharge of pollutants into waters of the state, anti-degradation of existing and future beneficial uses of groundwater, and anti-degradation of surface water. No adopted water quality plans pursuant to the Federal Water Pollution Control Act exist for the receiving water, nor are there other plans which Ecology and the City have entered into under the Clean Water Act.

Portions of the City of Woodland are located in both Clark and Cowlitz Counties in southwest Washington State as shown on Figure 1-1.

SCOPE OF WORK

The *2016 Plan* addresses the wastewater collection system and the wastewater treatment system. This evaluation includes collection system modeling, analysis, and a capital improvement plan with cost analysis and schedule. The scope of work for the *2016 Plan* includes the following items:

- Chapter 1 – Introduction
- Chapter 2 – Regulatory Requirements
- Chapter 3 – Land Use, Population Projections, and Service Area Characteristics
- Chapter 4 – Existing Facilities
- Chapter 5 – Wastewater Flow and Loading Projections and Design Criteria
- Chapter 6 – Collection System Analysis and General Sewer Plan
- Chapter 7 – Wastewater Treatment Plant Analysis

- Chapter 8 – Capital Improvement and Finance Plan

RELATED PLANNING DOCUMENTS

The following documents were consulted in the preparation of this General Sewer Plan:

GROWTH MANAGEMENT ACT (GMA) RELATED PLANS, POLICIES AND DEVELOPMENT REGULATIONS

Comprehensive Plan, Gibbs & Olson, Inc., 2005.

The most recent City of Woodland Comprehensive Plan (Gibbs & Olson, Inc.) was originally adopted in 1993 and subsequently updated in 2005. According to the Washington State Department of Commerce, the City of Woodland is listed under Clark County as in compliance with the GMA. The City of Woodland Comprehensive Plan addresses land use, transportation, housing, utilities, capital facilities, parks, and recreation. The Comprehensive Plan for the City of Woodland provides:

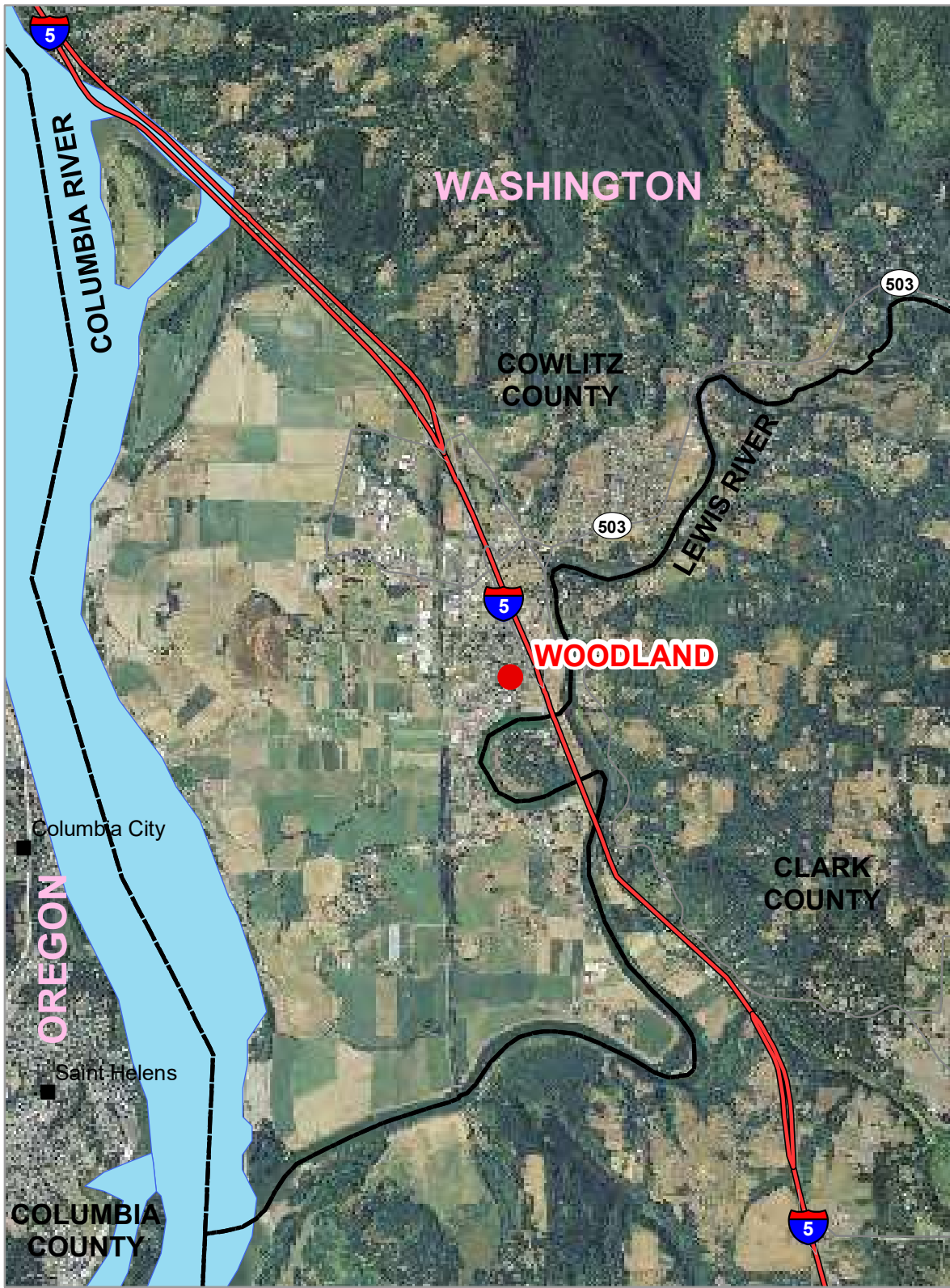
- Policies and recommendations to direct public and private decisions affecting future growth and development;
- A framework of goals and policies adaptable to the changing attitudes and resources of the region;
- A long-range vision, based on community values and goals, of how citizens want Woodland to look and function in the future as well as guidance for achieving that vision; and
- Guidelines for making decisions on growth, land use, transportation, public facilities and services, parks, and open space.

Urban Growth Management Program, City of Woodland, 2002.

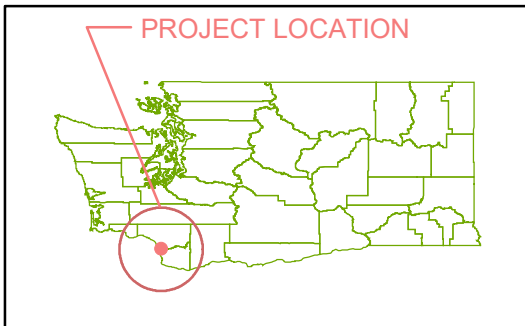
The original Urban Growth Management Program was developed and adopted by Cowlitz County in 1981; this document is an updated version of the original program and was adopted by the City of Woodland Planning Commission on March 12, 2002. The program was put in place to ensure that urban services are made available to all development within the urban growth management area.

Cowlitz County Shorelines Master Program, Cowlitz-Wahkiakum Regional Planning Commission, 1977.

Woodland adopted the Shoreline Master Plan (SMP) from Cowlitz County in August 1977. This program was developed to ensure the utilization, protection,



ORTHO PHOTO SOURCE: 2009 NAIP



CITY OF WOODLAND

GENERAL SEWER PLAN
 FIGURE 1-1
 LOCATION MAP



restoration, and preservation of the County's shorelines. The Cowlitz County Partnership is currently updating the County Shoreline Master Program. The City plans to adopt the SMP in 2015.

WASTEWATER SYSTEM PLANNING

Woodland High School – Off Site Sewer Study, September 2012, HDJ Design Group

This report summarizes the analysis done by HDJ Design Group of Sanitary Sewer Lift Stations 10 and 12 to determine the upgrades needed in order to connect the proposed high school to the City's public sanitary sewer system.

Woodland Sewer Standards, March 2014

This document outlines standard construction methods and specifications for sanitary sewer construction in the City of Woodland.

City of Woodland General Sewer Plan and Facility Plan, Gibbs & Olson, Inc., 1999

The *General Sewer Plan and Facility Plan (1999 Plan)* served as both a sewer system plan and a facilities plan. It provided an inventory of the existing system, estimated population and waste loads for the service area, identified necessary improvements, evaluated the performance of the treatment plant, gave recommendations, and cost evaluations for new facilities. A major recommendation of the *1999 Plan* was an upgrade of the existing wastewater treatment plant and conversion to a sequencing batch reactor plant.

WATER SYSTEM COMPREHENSIVE PLANS

City of Woodland Water System Plan, November 2012

The *City of Woodland Water System Plan* discusses the existing water system facilities, water usage and design criteria, conservation programs, system expansion, and water system improvements. This plan is an updated version of the Gibbs & Olson plan from 2006.

STORMWATER COMPREHENSIVE PLANS

City of Woodland Comprehensive Flood Management and Drainage Management Plan, January 2000, RW Beck

Stormwater runoff carries excessive amounts of sediment from exposed construction sites and pollutants from residential, commercial, and industrial developments. Pollutants in stormwater runoff may include metals such as lead, cadmium, and copper; oil and grease;

pesticides and fertilizers; and harmful bacteria. In addition, development of industrial areas has increased the amount of impervious surfaces associated with rooftops, streets, and parking areas. An increase in impervious surfaces directly relates to an increase in runoff volumes and peak rate flows. The pollutant loads and increased volumes of stormwater runoff resulting from development result in negative impacts to downstream water bodies including the Lewis River and Columbia River.

Construction site operators are required to be covered by a Construction Stormwater General Permit if they are engaged in clearing, grading, and excavating activities that disturb one or more acres and discharge stormwater to surface waters of the State. Smaller sites may also require coverage if they are part of a larger common plan of development that will ultimately disturb 1 acre or more. Operators of regulated construction sites are required to develop stormwater pollution prevention plans; implement sediment, erosion, and pollution prevention control measures; and obtain coverage under the Construction Stormwater General Permit.