# SECTION 1
# INTRODUCTION

## Authorization

The City of Sheridan authorized Murray, Smith & Associates, Inc. (MSA) to prepare this Storm Drainage Master Plan. This report documents the storm drainage master planning work that was conducted under this professional services agreement.

## Background

Approximately 25 miles northwest of Salem and 60 miles southwest of Portland, the City of Sheridan (City) is located in the western Willamette Valley in Yamhill County and near the foothills of the Oregon Coast Mountain Range. The South Yamhill River is the dominate drainage feature of this area, and flows west to east through the City. The river bisects the City forming several separate and independent drainage areas to the north and south of the river.

Runoff within the City is generally collected through a combination of street gutters, road side ditches, storm pipes and open channels, which convey runoff to the river. The City owns and operates most of the stormwater improvements within the City limits. In many developed areas of the City, the City's storm drainage system works generally well. Some minor flooding in a few localized areas can occur during larger rainfall events.

The major flooding risk in the City is due to high flows in the South Yamhill River. A significant portion of the City is located within the Federal Emergency Management Agency (FEMA) designated 100-year flood plain of the river. Flood conditions can impede the City's storm drainage system capacity. The City's storm drainage system may not work effectively during extreme flooding events. However, immediately following the storm, as floodwaters recede, it is important that water drains quickly away via the storm drainage system.

The City of Sheridan has, on occasion, prepared specific studies of local drainage problems as they become existent. Many of these have been performed in conjunction with proposed development. The City has also constructed several improvements to the storm drainage system over the years. However, the City has not prepared a comprehensive storm drainage master plan.

## Study Area and Study Period

The study area for this plan includes all area within the City's current Urban Growth Boundary. The study period for this plan is 20 years, through the year 2028.

## Purpose and Compliance

The purpose of this master plan effort is to examine and report on the City's storm drainage system requirements for current and future conditions. The master plan documents the results of the evaluation of the conveyance system under current and future forecasted development conditions to identify operational limitations, and to recommend improvements necessary to accommodate the City's stormwater needs through the 20-year planning period. Recommendations presented for improvements are based on long-range development of the City UGB, and include near-term and long-term projects that may be incorporated into the City's Capital Improvement Program to provide adequate stormwater conveyance capacity. This plan supports the City's requirements under the Oregon Administrative Rules (OAR 660-011) Public Facilities Planning rules.

## Objectives

The objectives of this master plan are to:

- ***Describe the Study Area*** – Summarize the study area and its land uses, demographics, economics, geographic and environmental features, and overlying local, state, and federal regulations relative to the preparation of the Storm Drainage Master Plan.

- ***Develop a Current System Inventory*** – Develop current inventory of the existing drainage system based on available mapping and other data. Provide mapping of major storm drainage facilities and other pertinent information.

- ***Identify Problem Areas*** – Identify problem areas that may present constraints or opportunities regarding stormwater quantity and quality planning interests.

- ***Review Stormwater System Analysis Methodology*** – Review current City standards for hydrologic/hydraulic analysis for stormwater systems.

- ***Conduct Stormwater System Analysis*** – Perform a hydrologic/hydraulic analysis on the existing storm drainage system to evaluate performance under established design storm conditions.

- ***Develop and Evaluate Improvement Alternatives*** – Identify and evaluate proposed improvements within the study area which provide the appropriate level of protection against stormwater flooding, reduce/minimize pollutant loadings and are acceptable from a regulatory perspective.

- ***Develop a Capital Improvements Program*** – Estimate cost of appropriate improvements, and prioritize recommendations. Develop an implementation schedule to allow the City to budget and plan for the construction of proposed capital improvements.

- ***Review Funding System*** – Identify alternate funding mechanisms which are predictable with respect to revenue impacts and are fair and equitable to all City residents.