

# CHAPTER 1

## INTRODUCTION

### 1.1 OVERVIEW

The following report compiles and summarizes the planning and engineering studies undertaken by PACE Engineers, Inc. in the development of this Comprehensive Sewer System Plan prepared for Valley View Sewer District. This plan has been developed in accordance with all rules and regulations applicable to comprehensive sewer system planning in the State of Washington, and its development has been authorized by the District's Board of Commissioners.

This Plan updates and supersedes the 2015 Comprehensive Sewer Plan. It has been prepared in accordance with the requirements of the State Department of Ecology and the applicable requirements of the jurisdictions within which Valley View Sewer District operates. The following Sections are Included herein: Identification and description of the sanitary sewer service area; Description of the existing sanitary sewer system; adapted minimum design criteria; Identification of system deficiencies; Recommendations for system improvements; and a Capital Facilities Plan that includes a schedule and financial plan. The result of these considerations is an overall plan for developing and upgrading the sanitary sewer system to accommodate the existing and projected population and land use within the service area. This program addresses both maintaining high quality service to areas currently served by the District and extensions of service to areas and properties that are currently not receiving sanitary sewer service.

### 1.2 LOCATION

As shown on Figure 1-1, Valley View Sewer District is located south of the City of Seattle, in King County, Washington. The District generally extends from the City of Seattle limits at South Director Street and South Cambridge Street on the north to South 176th and 182nd Streets on the south, and from Interstate Highway 5 and State Route 599 on the east to 1st Avenue South and State Route 509 on the west. The District serves portions of the cities of Burien, SeaTac, Seattle, Tukwila, and unincorporated King County. The District's current Boundary is shown on Figure 2-1. Additional information regarding boundaries and service area characteristics is included in Chapter 2.

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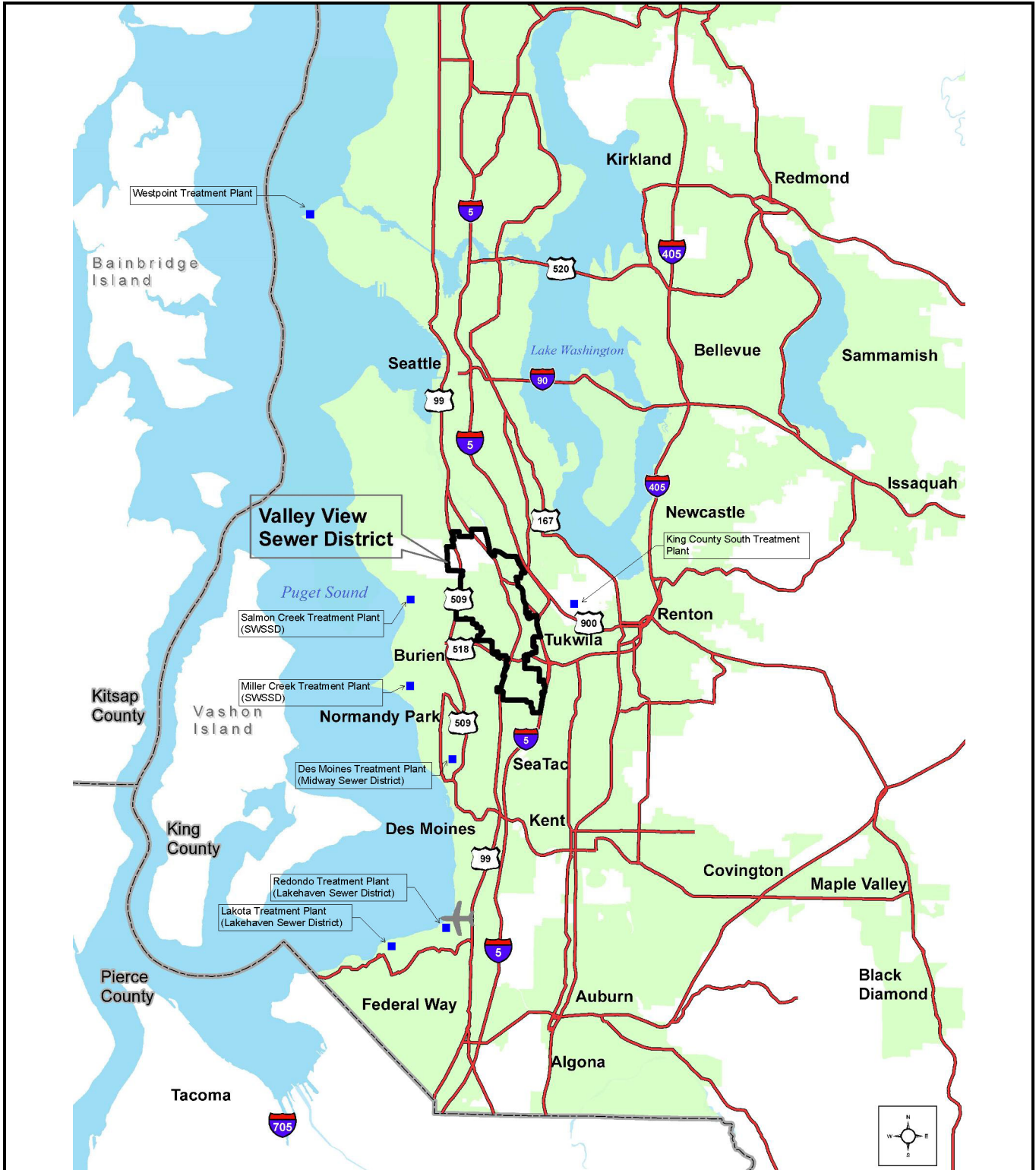


Figure 1-1

Location Map

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### 1.3 HISTORY OF THE DISTRICT

The Valley View Sewer District, previously known as Val Vue Sewer District, was established in 1946 and was one of the first sewer Districts in King County. Initially, the District provided sanitary sewer service to 0.37 square miles and served the Cascade Homes Addition and businesses along Pacific Highway South (International Blvd.). Effluent was treated, chlorinated and discharged into the Duwamish River at a primary treatment plant located just east of Pacific Highway South (near South 135th Street). This plant remained in service until 1958, when flows from the area increased and construction of a new primary treatment plant was required. The second plant was located near 42nd Avenue South and South 129th Street and discharged to the Duwamish River. It remained in service until 1966, when construction of freeways in the area necessitated abandoning the facility and contracting with the Municipality of Metropolitan Seattle (now King County Wastewater Treatment Division or KCWWTD) for wastewater treatment and disposal. In 1972, Valley View entered into a contract with Des Moines Sewer District (now Midway Sewer District) for the treatment and disposal of wastewater flows from major motels along Highway 99, in the southern most portion of the District. Valley View Sewer District changed its name from Val Vue Sewer District in 2007.

In 1995, Rainier Vista Sewer District merged into Valley View Sewer District to form one consolidated sanitary sewer district. The Rainier Vista portion of the current Valley View service area generally includes the northwest and western areas of the District. Figure 2-1 shows the current service area boundaries of Valley View and Rainier Vista prior to the merger and indicates neighboring sewer service providers.

Rainier Vista Sewer District was formed in 1945 to provide sanitary sewer service to the Beverly, Beverly Heights, Lerina, and McKinley areas of unincorporated King County. Subsequent to formation of the District, a large area was annexed in 1946 and a comprehensive plan was adopted by the District in 1947.

No action was taken on construction of a sewer system until 1956, when another comprehensive plan was adopted. Financing for the proposed system was accomplished by a combination of revenue bonds and through the formation of Utility Local Improvement District (ULID) No. 1. The original collection system and treatment plant were constructed in 1958 and 1959. Subsequently, ULID Nos. 2 through 14 were formed to construct the core infrastructure of the original Rainier Vista sewer system.

Rainier Vista continued to expand through ULIDs and developer extensions. In 1976, Rainier Vista's original treatment plant was closed, and the District contracted with KCWWTD for treatment and disposal of wastewater flows from the majority of the District. To maximize opportunities for gravity flow (without pump stations) and to control cost, an agreement was reached with Southwest Suburban Sewer District for treatment and disposal of wastewater flows from the western portion of the District.

### 1.4 AUTHORITY AND MANAGEMENT OF THE DISTRICT

Authority and procedures for sewer district functions are provided by the State of Washington in RCW Title 57. The District is governed by an elected three-member Board of Commissioners. Public meetings are held on the first and third Tuesday of every month at the District's office, which is located at the following address:

Valley View Sewer District  
3460 S. 148th Street, Suite 100  
P.O. Box 69550  
Seattle, Washington 98188  
Phone: (206) 242-3236

Day to day operation of the District is the responsibility of the District Manager, who oversees all office and field operations. To augment the expertise of the Board of Commissioners and staff, the District employs the services of consulting engineers as well as legal counsel and certified public accountants.

## 1.5 GOALS AND OBJECTIVES

The primary objective of Valley View Sewer District is to provide high quality, efficient, and low cost sanitary sewer service to its existing and future customers while minimizing impacts to the environment. Implicit to achieving this objective are the following considerations:

- ◆ Development and adoption of a Comprehensive Sanitary Sewer System Plan to be used as a guideline for future planning and construction of facilities to address the specific system requirements of the service area.
- ◆ Development of environmental policies which will provide guidelines for preservation of water quality and other features of the environment, as set forth in state and federal regulations.
- ◆ Compliance with the objectives and criteria set forth in the comprehensive plans and other requirements of the State Department of Ecology, KCWWTDD, and the cities of Burien, SeaTac, Seattle and Tukwila.
- ◆ Through research and study of Infiltration and Inflow (I & I) data, reduce the amount of I & I within the system.
- ◆ Provision of a well planned wastewater collection system, which is environmentally sound and adequately protects the public health and welfare in addition to ground water and surface water resources.
- ◆ Work with King County and other wastewater treatment providers and water purveyors, as appropriate, to implement regional water reuse goals.
- ◆ Maximize the availability of wastewater treatment options by routing flows to the most efficient wastewater treatment provider.
- ◆ Provide gravity flow wherever possible to minimize pumping costs. Future projects and system expansions should be based on cost benefit analyses of wastewater treatment alternatives.
- ◆ Prior to upgrading pump stations, force mains or sewer mains in the vicinity of pump stations, fully evaluate opportunities to eliminate existing pump stations.
- ◆ Reduce system vulnerability through system improvements and technology.
- ◆ Operation of the sanitary sewer system in a manner which is consistent with accepted procedures and practices and which maximizes the useful life of system components.

- ◆ Work to ensure consistent service is provided to all areas of the District and that potential overflows are minimized.
- ◆ Maintaining a financial level sufficient to retire all bonded indebtedness as it comes due, maintain adequate cash reserves, and provide service at the lowest reasonable cost.

## 1.6 RELATED PLANNING STUDIES

Planning and engineering studies completed by the District, or other agencies, that have been considered during development of this document are listed below. Related plans and policies of other jurisdictions which have been considered in this planning process are identified later in this section.

- ◆ Valley View Sewer District, Hazard Mitigation Plan, 2019, PACE Engineers, Inc.
- ◆ Valley View Sewer District, Comprehensive Sewer System Plan, 2015, PACE Engineers, Inc.
- ◆ Valley View Sewer District Interim Capital Facilities Plan, 2006, PACE Engineers, Inc.
- ◆ Valley View Sewer District Sewer Comprehensive Plan, 2000, Penhallegon Associates Consulting Engineers, Inc.
- ◆ Valley View Sewer District General Facility Charge/System Facility Charge Study, 2004, Penhallegon Associates Consulting Engineers, Inc.
- ◆ King County Regional Infiltration/Inflow Control Program, 2002, Earth Tech Team.
- ◆ I & I Study on Manhole Testing, RH2 Engineers, Inc.
- ◆ Valley View Sewer District, Comprehensive Sewer Plan, 1993, Horton Dennis and Associates, Inc.
- ◆ Rainier Vista Sewer District Comprehensive Sewer System Plan, 1990, Hammond, Collier, Wade-Livingstone Associates, Inc.

## 1.7 RULES AND REGULATIONS

Valley View Sewer District operates under a variety of rules and regulations, which are summarized in the following paragraphs. Detailed discussions regarding specific regulations affecting this document are contained in the relevant sections of this Plan, as appropriate.

### 1.7.1 Federal Requirements

Valley View Sewer District is required to operate within the regulations and requirements of the federal government, including the Endangered Species Act (ESA). Section 4 (d) of the Endangered Species Act (ESA) directs the National Marine Fisheries Service to issue regulations to conserve species listed as threatened. The 4 (d) rules apply to ocean and inland areas, and to any entity subject to U.S. jurisdiction. Locally, these rules protect Puget Sound Chinook Salmon, which were listed as threatened in 2000 and the Coastal-Puget Sound population of Bull Trout, which were listed as threatened in 1999.

Section 9 of the ESA prohibits the taking/harm of listed species and the 4 (d) rule identifies some activities that have a high risk of “take” associated with them, such as:

urban development in riparian areas and areas susceptible to surface erosion; destruction/alteration of habitats (in-stream and riparian); violation of discharge permits; and application of pesticides affecting water quality. Since the District does not own or operate a Wastewater Treatment Plant, many of the ESA requirements will be implemented by those agencies that the District relies on for treatment and disposal of its wastewater flows (KCWWTD, Southwest Suburban Sewer District and Midway Sewer District).

Other federal regulations which may have an impact on District operations are those associated with specific permits for individual projects. These specific regulations will be identified and addressed on a project-by-project basis.

Capacity Management Operations and Maintenance (CMOM) is an best practice program for sewer collection operators from the United States Environmental Protection Agency (EPA). CMOM programs are both comprehensive and holistic and helps lower the risk of National Pollutant Discharge Elimination System permit violations and prevent Sanitary Sewer Overflows (SSOs). Although CMOM itself is an EPA program, not a regulation, it is an excellent tool and currently, the District Valley View Sewer District operates in a manner to avoid all SSOs and has prepared strategies and documentation in accordance with the program.

Valley View contracts with KCWWTD, Southwest Suburban Sewer District, and Midway Sewer District to ensure all wastewater produced within its service area is conveyed to regional Wastewater Treatment Plants (WWTPs). Wastewater generated in the District is treated at these plants to meet the water quality standards established under the Federal Water Pollution Control Act (also referred to as the Clean Water Act) and under the terms of each Plant's National Pollutant Discharge Elimination System (NPDES) permits. The District's formal agreements with these wastewater treatment facilities ensure that it remains in compliance with the Clean Water Act and regional water quality management plans. Interlocal agreements are included in the Appendix F.

The District does not own and operate its own sewage treatment facility; however, it is important to discuss the adequacy of capacity of treatment as required by WAC 173-240-050(3)(h), which states, "A statement regarding provisions of treatment and discussion of adequacy of the treatment." The District's agreements, provided in Appendix F, do not discuss capacity in terms of quantities of flow however in the agreement it does state the following for the area that is directed to King County treatment, "The District shall deliver to Metro all of the sewage and industrial waste collected by the District...and Metro shall accept the sewage and industrial waste delivered for treatment and disposal." An agreement was formed with Midway to serve a portion of the District's area because the sewage can flow by means of gravity and no pumping is necessary, reducing costs.

### 1.7.2 State of Washington Requirements

Valley View Sewer District operates under the general rules and regulations put forth by Title 57 of the Revised Code of Washington. Additional requirements for various aspects of sewer district operation consistent with protection of the health and safety of the general public and the environment are found throughout the laws of the State of Washington and are adhered to by the District.

Approval of this Comprehensive Sanitary Sewer System Plan is under the jurisdiction of the State Department of Ecology (DOE). This Plan has therefore been prepared, and the District operates in accordance with, the requirements set forth in DOE's "Criteria for Sewage Works Design", which incorporates the policies, guidelines and practices of the State Department of Ecology and identifies the minimum engineering criteria for design, construction and operation of a public sanitary sewer system.

The Growth Management Act (GMA) has a direct impact on utility system planning as it requires that a complete inventory of existing facilities and a comprehensive effort toward determining the capability of existing systems to accommodate future growth. Although Counties and Cities are responsible for a majority of the growth management planning requirements, the District's Planning documents are a crucial element in their ability to comply with the Act.

State Environmental Policy Act (SEPA) review is generally required for all District projects other than regular renewal and replacement projects involving pipe sizes of 8-inches or less in diameter. SEPA requirements and exemptions are detailed in WAC Chapter 197-11 and adopted District environmental policies are in place to ensure that environmental concerns associated with construction are adequately addressed. Initiation of the SEPA process can be at the District's direction or as required for various permits and approvals.

The State Department of Ecology administers a variety of regulatory requirements that have a direct impact on operation of a public sanitary sewer collection system, including the following:

- Surface water quality regulations as put forth in WAC 173-201A
- Contract document review as authorized by WAC 173-240
- Shoreline management in accordance with WAC 173-27

### **1.7.3 King County Requirements**

A portion of Valley View Sewer District's service area is within unincorporated King County and the District operates within the regulations and requirements established by the King County Code. Specifically, Chapter 13.24 of the King County Code has been utilized in the development of this document. All work within King County road right-of-way will be carried out in accordance with the most current edition of the King County Road Standards and the District's current franchise.

The District also operates in accordance with the requirements of the KCWWTD, which is responsible for the treatment and disposal of the majority of wastewater flows from the District. The District operates under the terms and conditions of its contract with KCWWTD. Similarly, the District maintains contracts with Midway Sewer District and Southwest Suburban Sewer District for wastewater treatment and disposal, and adheres to the terms and conditions of those contracts.

### **1.7.4 City Requirements**

Valley View Sewer District is within the corporate limits of the cities of Tukwila, SeaTac, Seattle, and Burien and, therefore, adheres to the policies, right of way requirements and

regulations of those entities as appropriate to specific areas of the District. The Comprehensive Plans of these jurisdictions have been utilized in the development of this document and a copy of the final Plan is provided to each jurisdiction to ensure consistency between the District's Plan and those of the agencies having land use jurisdiction.