

# *Water District No. 49*

## **WATER SYSTEM PLAN**

**FEBRUARY 2019**





## WATER SYSTEM PLAN

FEBRUARY 2019

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This plan was prepared under the direction of a Registered Professional Engineer.

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## INTRODUCTION

This report presents the results of studies that have been used to develop the 2019 Water System Plan (WSP) for King County Water District No. 49. This plan updates the 2017 WSP in response to comments provided by the State Department of Health, Seattle Public Utilities and King County. The update also extends the 20-year planning period by two years and updates the analysis and plan for a new water storage facility. The plan outlines the projected needs for the District and recommends capital improvement and financial programs to adequately provide for all aspects of supply, storage, treatment and distribution of water to the District's customers.

The plan has been prepared for compliance with applicable requirements of the State of Washington Department of Health and King County. The plan was prepared in accordance with WAC 246-290-100, WAC 246-293-230 and RCW 43.20 and 57. This plan supersedes all previous Water System Plans adopted by the Board of Commissioners of King County Water District No. 49.

The purpose of this study is to create a Water System Plan which will identify facilities and improvements necessary to serve the District for the present and reasonably foreseeable future. Some of the principal objectives of this plan are as listed below.

- Provide a comprehensive evaluation of existing and future system needs.
- Provide details of the District's policies to customers.
- Provide information to help educate customers on District needs.
- Minimize public health risks for customers.
- Maintain reliable delivery of high quality water.
- Make efficient use of available resources.
- Help assure orderly growth of the system.
- Provide documentation for water rates, plus grant and loan requests.
- Develop strategies for complying with the Safe Drinking Water Act and other requirements.
- Develop consistency between the District's planning efforts and local land use plans.

The plan addresses the following elements:

- Basic water system planning data;
- Existing system analysis;
- Planned improvements;
- Conservation program;
- Financial program;
- Relationship and compatibility with other plans, including local growth management plans and development policies;
- Operation and maintenance program;
- Ownership and management;
- State Environmental Policy Act;



The District purchases all of its water supply from Seattle Public Utilities. Therefore, a watershed control program is not required for this system.

The following abbreviations are used in this Water System Plan:

ADD	Average Daily Demand
CIP	Capital Improvement Program
CWA	Cascade Water Alliance
CCCP	Cross Connection Control Plan
cfs	Cubic feet per second
DEM	Developer Extension Manual
ERU	Equivalent Residential Unit
FAZ	Forecast Analysis Zone
gal	Gallon(s)
gpd	Gallons per day
g/d/conn	Gallons per day per connection
gpm	Gallons per Minute
HWD	Highline Water District
ccf	Hundred Cubic Feet
WD 49	King County Water District No. 49
WD 20	King County Water District No. 20
WD 45	King County Water District No. 45
WD 85	King County Water District No. 85
WD 125	King County Water District No. 125
LID	Local Improvement District
MDD	Maximum Daily Demand
MSL	Mean Sea Level
mgd	Million Gallons per Day
ppm	Parts per million
PHD	Peak Hourly Demand
PSRC	Puget Sound Regional Council
RCW	Revised Code of Washington
SDWA	Safe Drinking Water Act
SPU	Seattle Public Utilities
SEPA	State Environmental Policy Act
ULID	Utility Local Improvement District
WAC	Washington Administrative Code
DOH	Washington State Department of Health
OFM	Washington State Office of Financial Management
WFI	Water Facilities Inventory
WSCP	Water Shortage Contingency Plan
WSDM	Water System Design Manual
WSP	Water System Plan