



# Stevenson Water System Plan Update

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City of Stevenson, Washington  
July 19, 2018; 6 PM

# Outline

- 1 Introduction
- 2 System History
- 3 System Description
- 4 System Evaluation and Assessment
- 5 Capital Improvement Plan
- 6 Financial Program

# 1. Introduction

- Washington Administrative Code (WAC) 246-290
- Department of Health schedule of required updates
- Stevenson WSP last updated in 2007

## 2. System History

**1904**

Water System development begins  
(114 years)

**1979**

Major improvements project including water  
treatment plant and storage tank(s) (39 years)

**1929**

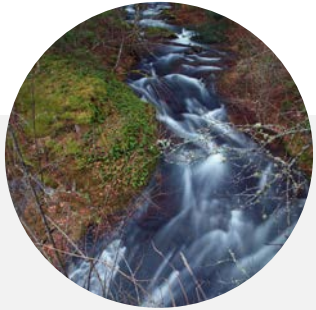
Public water system  
established (89 years)

**1981**

No new customers outside  
City limits (37 years)



# 3. System Description



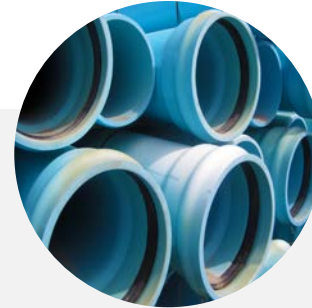
## Water Sources

- LaBong Creek
- Cedar Springs
- Rock Creek
- Hegewald Well



## Water Treatment Plant

1.0 million gallons per day (MGD) capacity



## Water Transmission & Distribution

>25 miles of pipe



## Water Storage

Three (3) reservoirs,  
0.96 million gallons

# 3. System Description

- Land Use
- Future Land Use
- Service Area

## 4. System Evaluation and Assessment

- Evaluation methodology follows State criteria
- Population projections
  - 2015: 1,530 people within City limits
  - 2036: 1,836 people within City limits
  - Build-out: 4,772 people within the UGA
- Water use
  - 80 percent single family; 44 percent consumption in 2015
  - Large water users
  - Distribution System Leakage

# 4. System Evaluation and Assessment

- Equivalent Residential Units (ERUs)
- Water Demands
  - 214 gpd / ERU: Average Day Demand (ADD)
  - 479 gpd / ERU: Maximum Day Demand (MDD)
  - Peak Hour Demand (PHD) calculated per DOH Equation 5-1



## 4. System Evaluation and Assessment

- Evaluation of Source Adequacy
- Evaluation of Water Rights Adequacy
- Evaluation of Treatment Adequacy
- Evaluation of Storage Adequacy
- Evaluation of Transmission / Distribution System Adequacy
- Evaluation of Water Quality

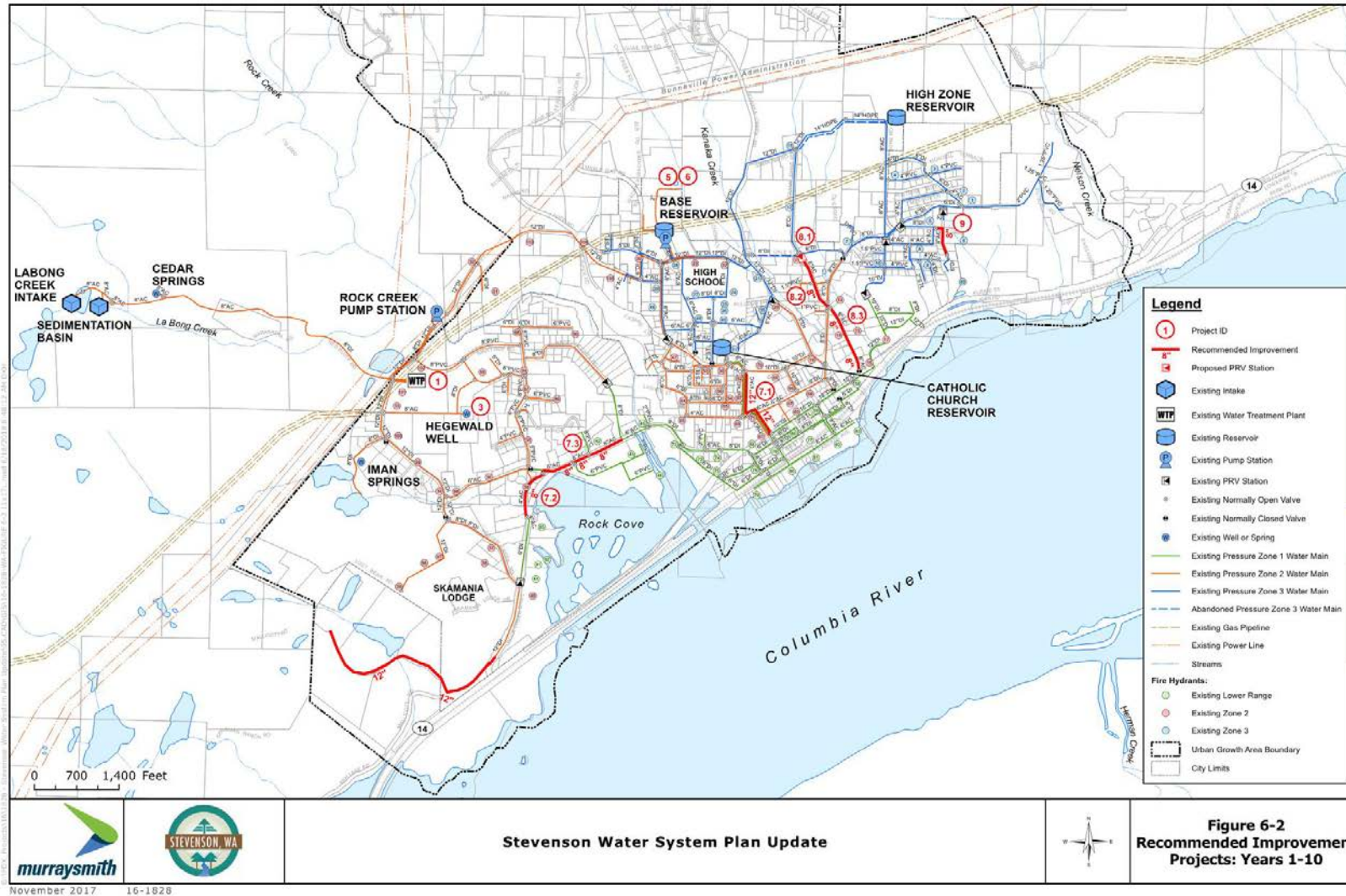
# 4. System Evaluation and Assessment

- Long-term water system viability
  - Water supply recommendations
  - Option 1: Continued use of surface water supply
  - Option 2: New groundwater supply
  - Summary and recommendations

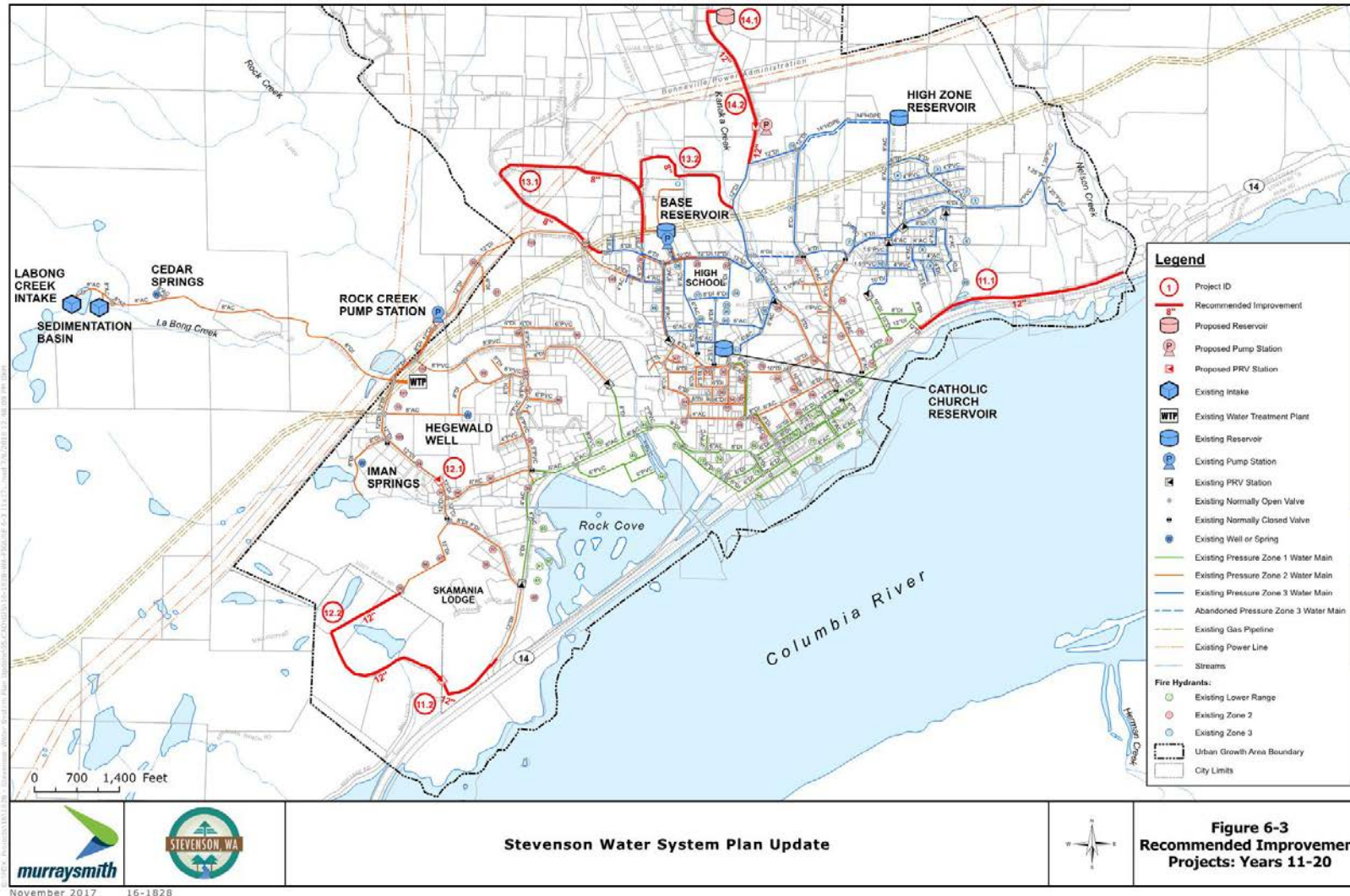
# 5. Capital Improvement Plan

- Projects identified to address deficiencies
- 1-10 and 11-20 year planning horizons
- Summary
  - Distribution system
  - Source of supply reliability
  - Reservoir resiliency
  - System information

# 5. Capital Improvement Plan



# 5. Capital Improvement Plan



## 6. Financial Program

- Sources of revenue mostly from water sales.
- Water rates went unchanged from 2013-2017 while operating expenses increased over 30% from 2013 to 2016.
- Rate increases are projected to keep in line with increased expenses and cover future loan payments.
- Capital Projects funded by system development charges, bonds, loans, Local Improvement Districts and reserves.
- Proposed \$2.847 million in capital projects in the next 10 years.