

# Wenatchee Water System Plan And Water Use Efficiency Plan

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Ron Slabaugh – Water and Wastewater Manager



CHELAN COUNTY

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# Today's Presentation

- Overview of Wenatchee Water System Plan
- Overview of Water Use Efficiency Program
- Community engagement
- Request adoption of water use efficiency goals



# Wenatchee water system plan system analysis

- Analysis performed and plan developed by RH2 Engineering of East Wenatchee
- Identify service area and forecast water demands
- Analyze condition and capability to meet Department of Health and PUD approved design standards
- Evaluate improvements to satisfy deficiencies
- Select improvements and develop capital program
  - Historically least cost due to immediate financial concerns
  - Currently refining asset management strategies emphasizing whole life cycle cost consideration



# 6-Year Improvement Program 2017-2022

- **Booster pump stations**
  - No new stations or capacity improvements needed
  - Minor repairs to address reliability totaling \$15,000
- **Storage reservoirs**
  - Two replacements totaling \$1.9 million
  - One abandon and demolish totaling \$0.2 million
  - Minor repairs totaling \$75,000
- **Distribution system**
  - Water main replacements totaling \$5.6 million (approx. 4.5 miles)
- **Total current capital program = \$7.7M**
  - Note: 2015 budget forecast (2017-2022) = \$2.2M



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# Water main replacements

- Main replacements comprise a large amount of the capital improvement program
  - 160 miles total water main
  - 150 miles ductile iron installed post 1974
  - 10 miles of steel mains installed pre 1974 remaining
- Typically replace less than 1 mile steel main per year
- Replacement evaluation criteria
  - Repair frequency/difficulty
  - Water quality
  - Property damage risk
  - Outage potential
  - Fire flow capacity
  - Near term cost impact
  - Coordination with city/county projects



# Financial Analysis

- Revenues forecasted to increase 4% annually
  - 2% system growth (2017-2022)
  - 2% adopted rate increases (2015-2019)
  - 2% CPI increase assumed (2020-2022)
- Capital improvement projects funded by rates and system cash
- Financial policies adopted in 2015 on target through 2022
  - Liquidity >\$2 M (target >1.25M)
  - Debt ratio <15% (target <60%)
  - O&M coverage ratio >135% (target >120%)



# Water Use Efficiency Goal Setting

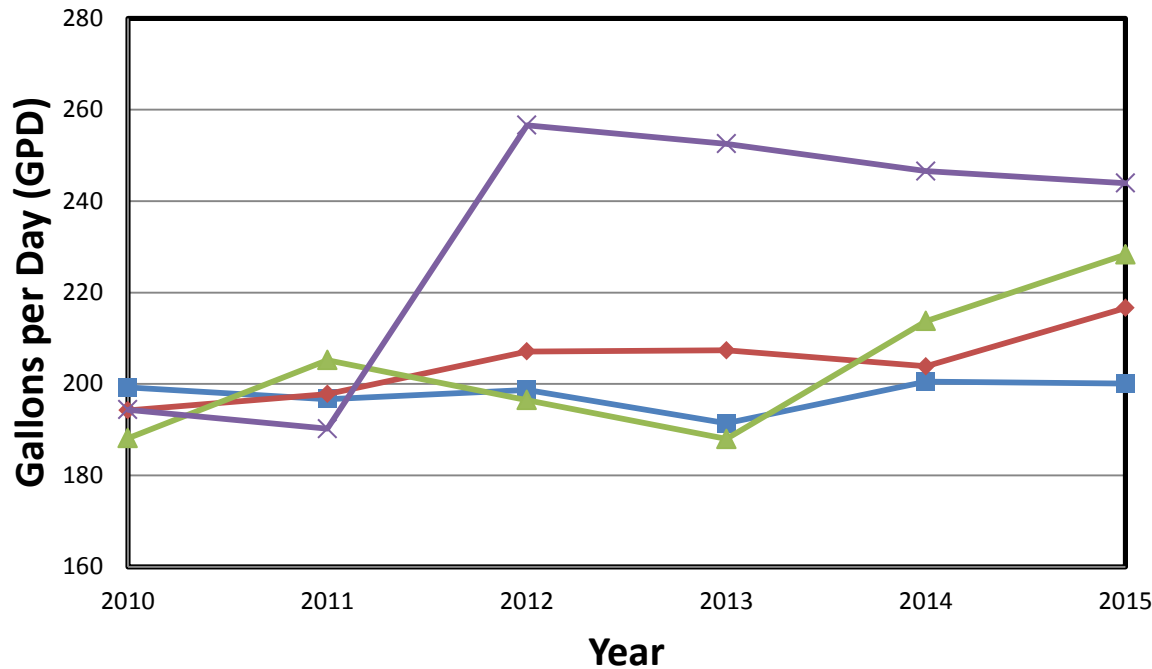
- Key elements

- Collect and analyze data; identify potential items for improvement
- Set quantifiable and measurable water use efficiency goals through a public process
- Evaluate or implement measures to achieve efficiency goals
- Report progress annually to customer and the Department of Health



# Data Analysis

## Residential Average Day Demand



500-600 GPD typical for low rainfall communities without irrigation

200 GPD typical for Washington State indoor household use

■ Wenatchee

◆ Dryden

▲ Ollala

✕ C. Ridge





# Proposed goals

- Maintain 3-year average day demand per residential connection of less than the following through 2022:
  - Wenatchee 210 gallons per day
  - Dryden 250 gallons per day
  - Olalla Canyon 250 gallons per day
  - Chelan Ridge 275 gallons per day



# Measures

- Conservation rates (3 tiers)
- Lightly email newsletter
- Customer leak detection and notification
- Customer water meter monitoring
- Customer meter data recording/reporting
- Xeriscape (low water use) landscape program
- Comprehensive website
- Outdoor water audits



# Community Engagement

- October 3<sup>rd</sup> Board Presentation
- October 17<sup>th</sup> Board Presentation
- October 19<sup>th</sup> & 26<sup>th</sup> display advertisements
  - Wenatchee World
  - Leavenworth Echo
  - Lake Chelan Mirror
  - Cashmere Valley Record
- Water system plan, water use efficiency plans, and proposed goals available for public review



# Public Comment

- Display advertisements invited public comment through November 4, 2016
- Summary of comments received



# Next Steps

Nov. 7

- Overview of plans & public comment
- Seek Board approval of water use efficiency goals

Nov. 22

- Submit documentation to Department of Health

Dec. 5

- Request Board approval of 2017 budget

TBD

- Await Department of Health approval
- Adopt Water System Plan (upon Dept. of Health approval)