

Wenatchee Water System Plan And Water Use Efficiency Plan Informational Update

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Today's Presentation

- No action requested today
- Overview of Wenatchee Water System Plan
- Overview of Water Use Efficiency Program
- Next steps



Major components of a water system plan

- Description of water system
- Basic planning data and water demand forecasting
- System analysis
- Water use efficiency program
- Source water protection
- Operation & maintenance program
- Distribution design and construction standards
- Improvement program
- Financial program
- Supporting documentation



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Water System Statistics

- 26 pressure zones
- 25 storage reservoirs totaling 9.36 million gallons
- 17 booster pump stations
- 17 pressure reducing stations
- 160 miles of water main
- 5,800 service connections
- Approx. 720 million gallons delivered annually



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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)
 - Automatic meter reading replacement contemplated in 2022 not included in this analysis
- **Total current capital program = \$7.7M**
 - Note: 2015 budget forecast (2017-2022) = \$2.2M



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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 Rule

- Part of Municipal Water Supply Efficiency Requirements Act of 2003
- Went into effect Jan. 22, 2008, for systems with greater than 1,000 connections
 - Wenatchee system adopted WUE goal July 9, 2007
- Went into effect Jan. 22, 2009, for systems with fewer than 1,000 connections
 - Dryden, Olalla, Chelan Ridge adopted WUE goals November 24, 2008



Water Use Efficiency Rule

- Key elements
 - Meet a distribution system leakage standard to minimize water loss
 - 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



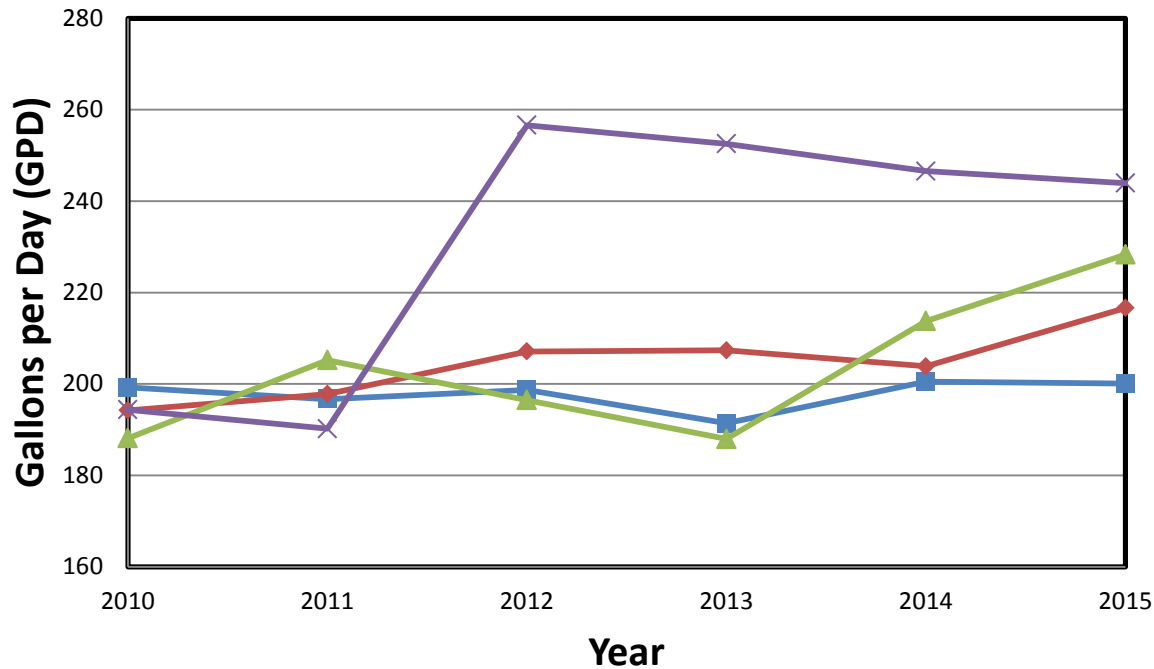
Distribution System Leakage (2012-2015 3-year average)

- Wenatchee 8.7%
 - Annual leak detect approx. 10% of system
- Olalla Canyon 3.0%
- Chelan Ridge 2.7%
- Dryden 36.7% or about 5 gpm
 - Leak detected entire system in 2014



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



Goal setting

- Criteria
 - No minimum number of goals required
 - Goals should be designed to encourage efficient water use
 - Goals must be quantifiable and measurable



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



Next Steps

Oct. 18-24

- Public notice for Water System Plan informational meeting and adoption of Water Use Efficiency goals

Nov. 7

- Present Water System Plan
- Request 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)