

# Olympic Water and Sewer, Inc. 2023 Water System Plan Update

Consumer Meeting  
& Water Use Efficiency Goal Setting

October 30, 2023

# Meeting Outline

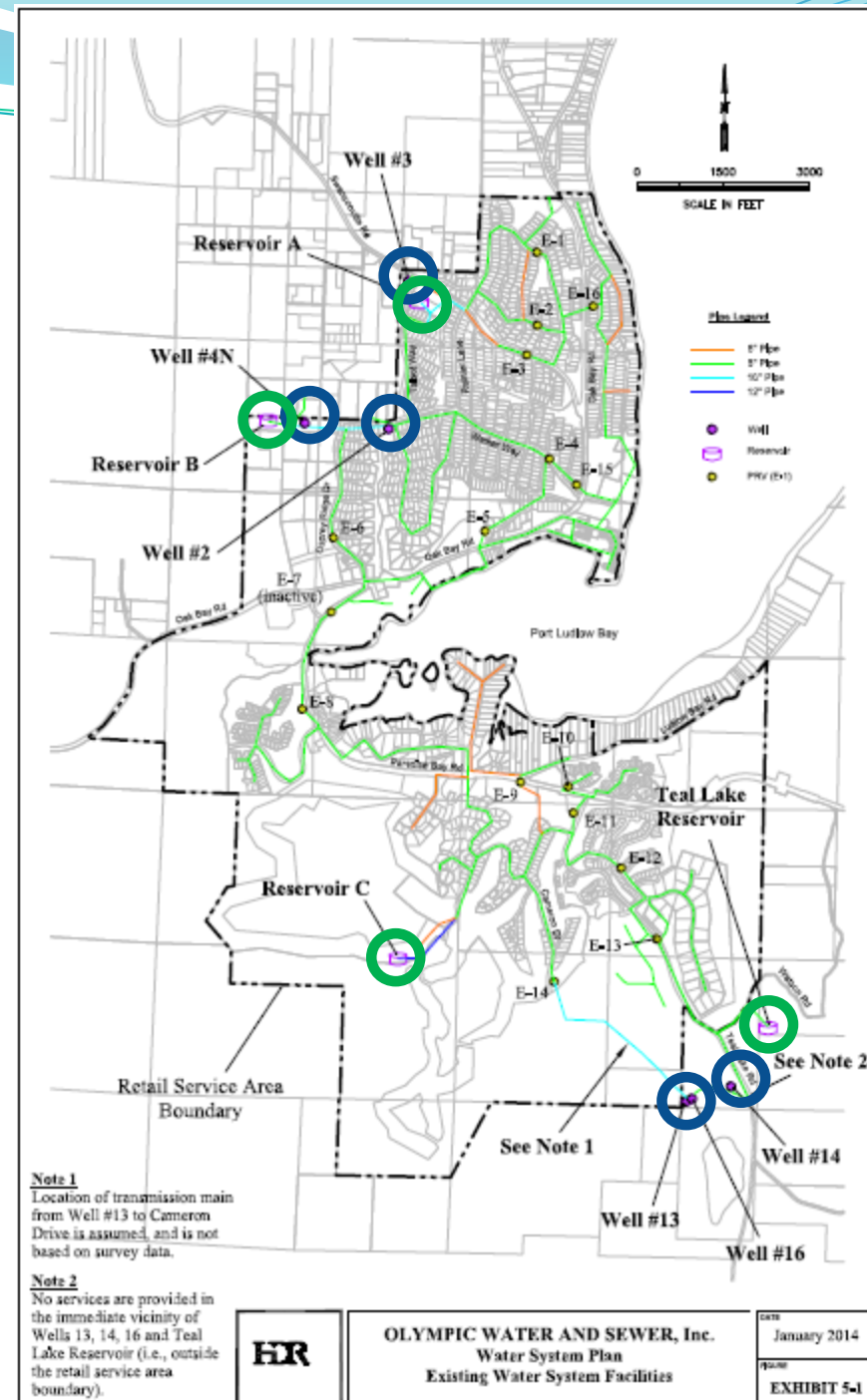
- Welcome and Introductions
- Water System Plan
  - Purpose of Water System Planning
  - Plan Highlights
  - Review and Approval Process
- Water Use Efficiency
  - Goals (prior and new)
  - Trends
- Other Items
  - Filtration Update
  - Alert Media
- Questions

# Purpose of Water System Planning

- Guides Water Utility Planning
  - Updated Every 10 Years
- Water Supply Needs (10 and 20 year horizons)
- System Capacity Analysis
- Operations and Maintenance
  - Water Use Efficiency
  - Source Protection and Water Quality Compliance
- Capital Improvement Program
- Financial Program Review

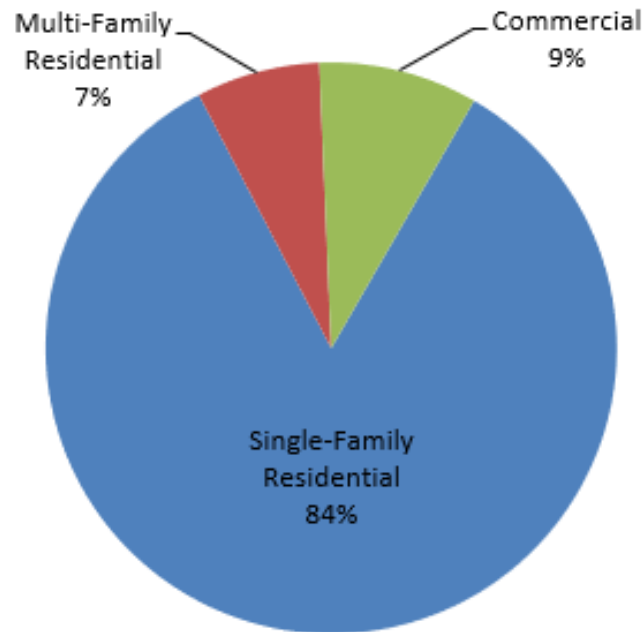
# Water System Facilities

- Wells – 5 active
- Reservoirs – 4
- Piping – >20 miles
- Booster Pump Station – 2 active
- Pressure Zones – 10



# Water Supply Needs - Current

Average Day Demand = 320,000 gallons per day  
Maximum Day Demand = 641,000 gallons per day



*Based on 2022 data*

# Water Supply Needs - Future

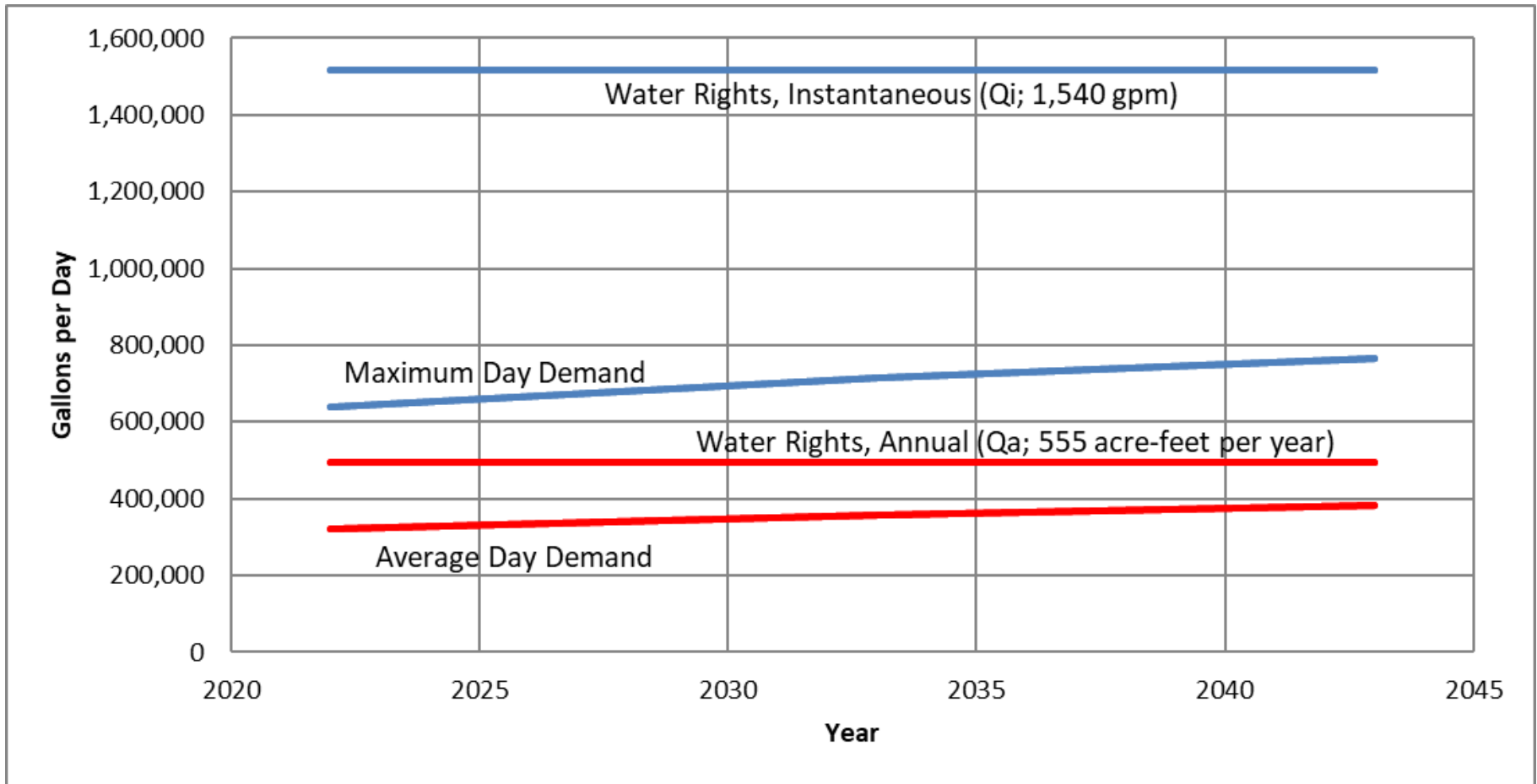
## Key Assumptions

- Single-family
  - 14 connections per year
- Multi-family
  - All new units (Ludlow Bay Village) connected by 2031
- Commercial
  - Allowed additional demands (per County MPR Code) connected by 2033

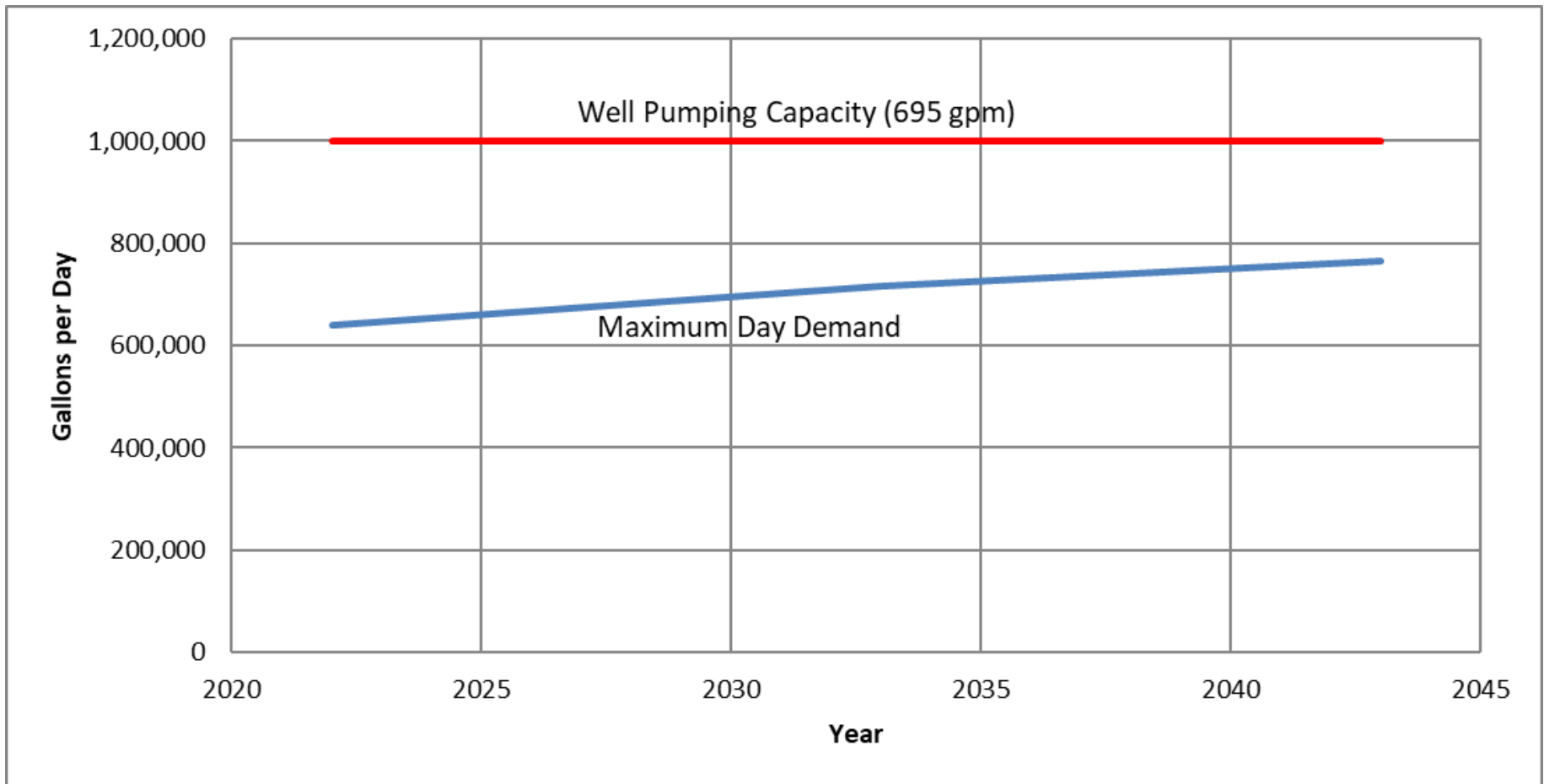
Year	Average Day Demand (gpd)	Maximum Day Demand (gpd)
2022	320,000	641,000
2033	358,000	716,000
2043	383,000	765,000

**The Result → A Conservative (i.e., High) Growth Scenario for Long-Range Water Supply Planning**

# Water Rights Analysis



# Source Capacity Analysis





# Capital Improvements

- Purpose
  - Address deficiencies & recurring / annual needs
  - Address growth needs
- Past 5-Year Improvements: ~\$1,092,360 (excluding \$1.9M for filtration project)
- 10-Year Improvements: ~\$3,280,000
  - Water meter replacement program
  - Water quality improvements
  - Service Zone A – planning and implementation of new well
  - Pipeline replacement
  - Equipment replacement

# Financial Program

- Considers Operating and Capital Expenses
  - Consider rate payer future increases
- Key Assumptions
  - Inflationary escalations in operating expenses
  - Capital costs per 10-Year Plan
- Financial Projections (2024-2033)
  - Revenues sufficient to fund expenses assuming additional rate adjustments in the future

# Review and Approval

Milestone	Date
Development of Plan	Feb – Oct 2023
Consumer Meeting / WUE Goal Setting	Oct 30, 2023
Review by State DOH, UTC, County, and Adjacent Water Systems for Review	Dec 2023 – Feb 2024
OWSI Adoption	Apr 2025 (anticipated)
DOH Approval	May 2025 (anticipated)

# Water Use Efficiency – Goals

- Prior goals
    - Maintain leakage at <10% of production
    - Maintain average day single-family use (ERU) at <185 gpd/ERU
  - New goals
    - Maintain leakage at <9% of production
    - Maintain average day single-family use (ERU) at <170 gpd/ERU
  - Recent trends
    - Leakage
      - Currently at 9.4%
    - Water use per ERU
      - 1999-2004: 185 gpd/ERU
      - 2007-2012: 160 gpd/ERU
      - 2013-2022: 155 gpd/ERU
- Future projections assume 175 gpd/ERU (to be conservative, for capacity planning purposes)

# Filtration Update

- History – Directed by Department of Health (DOH), OWSI proactively agreed to introduce chlorination to the system.
  - Both internal and third-party testing confirms the treatment's effectiveness, ensuring high-quality potable water.
  - DOH mandates that every part of the distribution system have a free chlorine residual of 0.20 mg/L at all times.
  - Chlorine is an oxidant and as such has an impact on historical deposits of iron and manganese in our system, causing them to slough off and move throughout the distribution system.

# Filtration Update

- Color and Aesthetic Concerns

Iron visibly noticeable in drinking water appears as a rust looking color that ranges from light orange to a darker brown. When settled it often appears like a light fluffy sediment.

- Iron comes from two possible sources: wells & service lines
  - Wells have a limited lifespan and the aquifer changes over time.
  - Infrastructure and homes built between approximately 1960-1985 have numerous galvanized service lines that are decaying in the system.

Iron and Manganese are classified by the federal government and state DOH as secondary contaminants. Secondary contaminants are not health hazards, they have cosmetic (skin or tooth discoloration) or aesthetic (taste, odor, or color) effects.

- Most people consume colored drink such as tea, coffee, and soft drinks regularly with no ill effects.
- Vast majority of potable water use is totally unaffected by color (showering, flushing of the toilet, irrigation, etc).

# Filtration Update

- How can OWSI help with the Colored Water?
  - Current near-term: flushing
  - Longer-term: reviewing range of solutions
- How can you help – please email [owsi@portludlowassociates.com](mailto:owsi@portludlowassociates.com) with concerns or issues. If an after hours emergency please call 1.877.826.5787.
  - Our Managers will reach out and discuss your concerns.
  - Residents that are closest to the injection points will have a higher residual than those that live at the tail end of the system due to chlorine level requirements.
    - It is also helpful to put water in the fridge overnight in an open container to dissipate the chlorine odor.

# Alert Media



CUSTOMER SERVICE ▾

NEWS ▾

ABOUT ▾

CONTACT



## Announcement: New Notification System

[Home](#) » [News](#) » [Announcement: New Notification System](#)

[< Previous](#) [Next >](#)

**NEW TOOL:**  
AlertMedia  
for Emergency  
Communication



Recent



Water Main Flushing  
Scheduled North Bay  
October 20th, 2023



Notice: Water System  
Plan Public Forum  
October 16th, 2023



Notice: Sewage Leak  
October 6th, 2023

Categories





# Questions