



**CITY OF WASHOUGAL
CITY COUNCIL WORKSHOP AGENDA
Monday, August 22, 2022
5:00 PM**

MEETING INFORMATION

Please click on link below to join webinar:
<https://us02web.zoom.us/j/83856182194>

I. CALL TO ORDER

II. ROLL CALL

III. PUBLIC COMMENTS

IV. NEW BUSINESS

A. Public Works: Water System Plan Update – Brent Gruber with Murraysmith

V. PUBLIC COMMENTS

VI. REPORTS AND COMMUNICATIONS

A. CITY MANAGER

B. MAYOR

C. CITY COUNCIL

VII. ADJOURNMENT

**UPCOMING MEETINGS: Monday, September 12, 2022 - Workshop at 5:00 pm and
Council at 7:00 pm**

BUSINESS OF THE CITY COUNCIL
City of Washougal, Washington

FOR AGENDA OF:

8/22/2022

SUBJECT:

MEETING INFORMATION

Please click on link below to join webinar:

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DEPT. OF ORIGIN:

Finance

REVIEWED AT:

TO BE RETURNED TO COUNCIL:

No

EXPENDITURE REQUIRED:

BUDGETED:

APPROPRIATION REQUIRED:

SUMMARY STATEMENT

RECOMMENDED ACTION

Water System Plan Update

Presented to Washougal City Council

Trevor Evers, Public Works Director

Brent Gruber, Murraysmith

August 22, 2022

Agenda

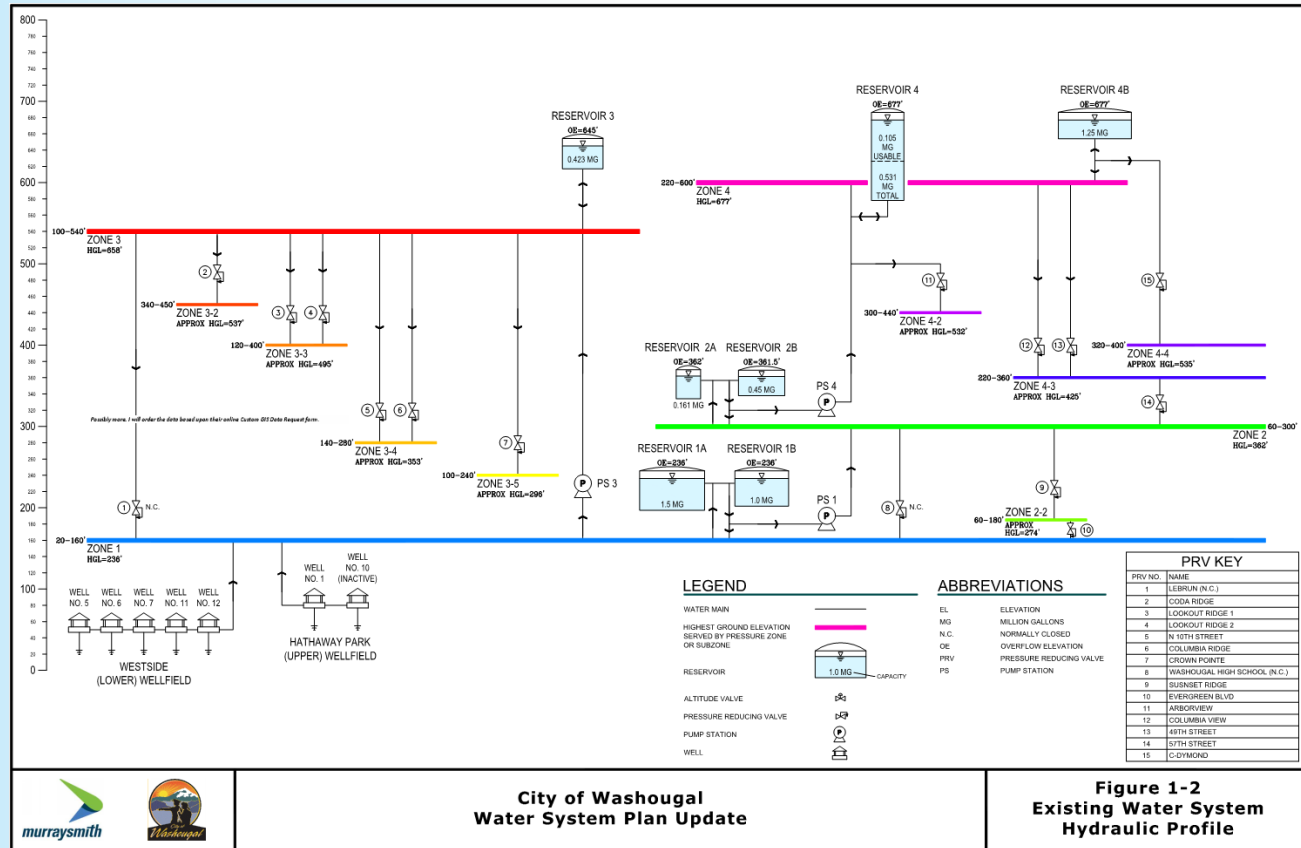
- Water System Plan (WSP) Purpose
- Overview of the Washougal Water System
- Summary of Findings and Recommendations
- Q&A

Why Develop a Water System Plan?

- Meet regulatory requirements of WAC – update required every 10 years
- Evaluate system compliance with DOH requirements
- Plan and budget for system improvements

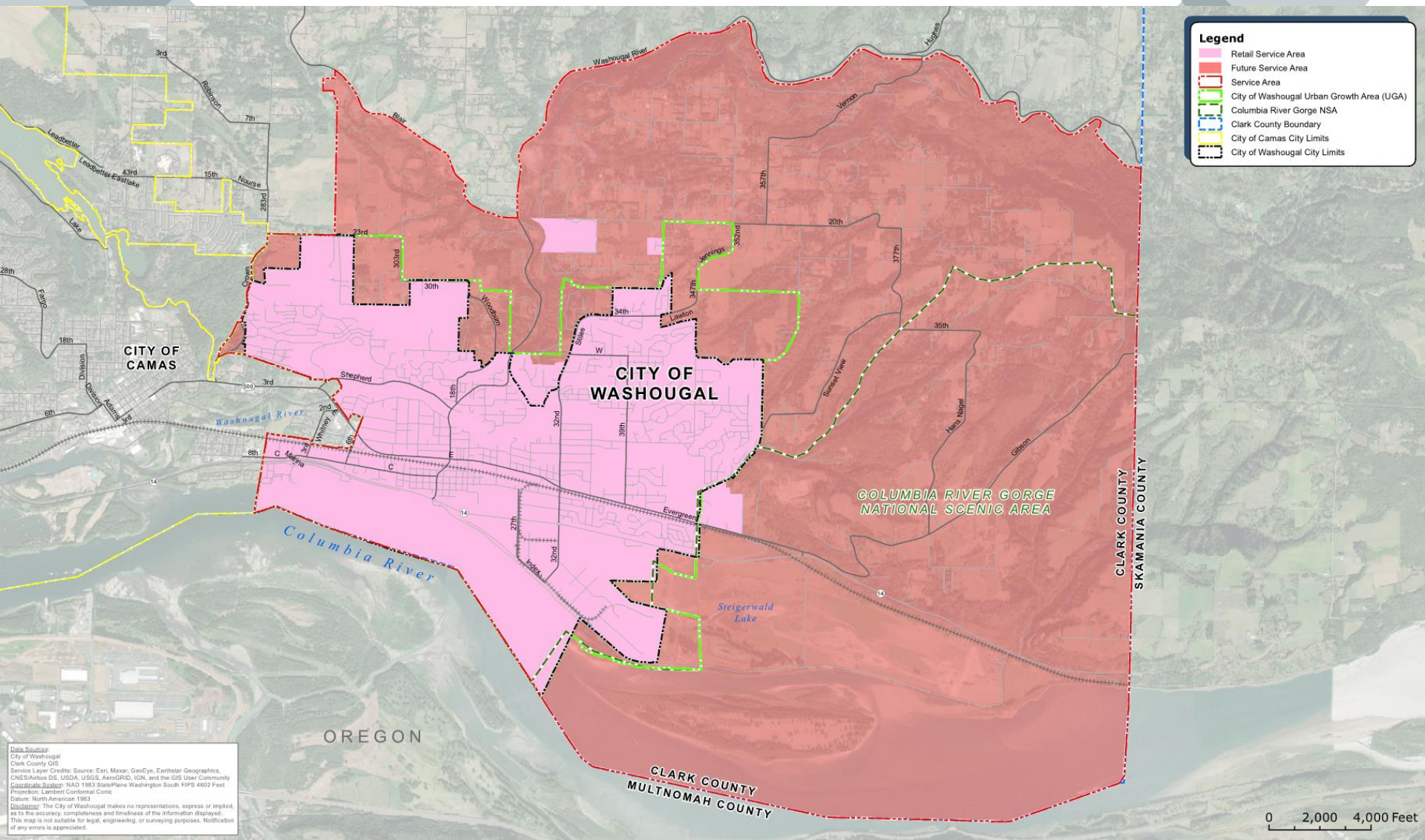
Existing Water System Infrastructure

- 6 Wells
- 8 Reservoirs
- 4 Booster Pump Stations
- 13 Pressure Zones
- 83 Miles of Pipe



Existing Water System Characteristics

- ~ 5,832 active accounts
- ~ 17,627 population
- 1.6 million gallons used on average each day (ADD)
 - ~ 75% Residential Usage, 25% Commercial/Industrial Usage
- 3.6 million gallons used on max day (MDD)

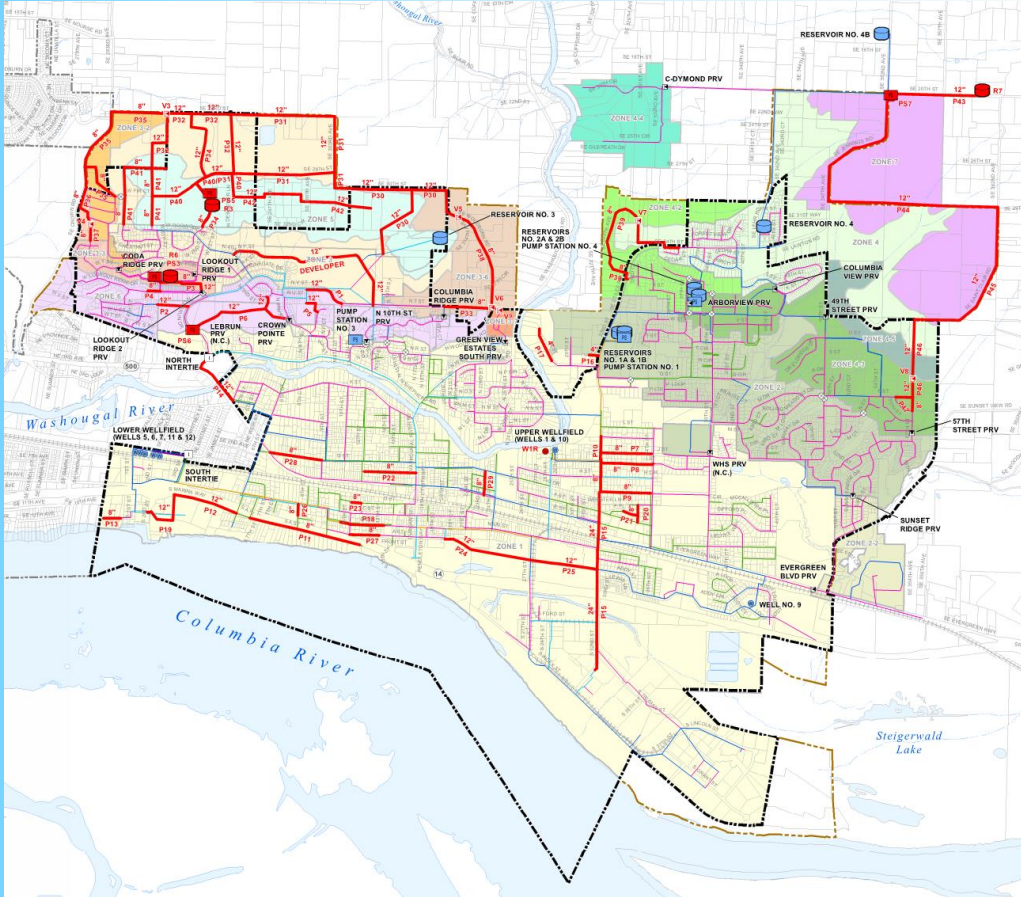


Existing System Assessment Criteria



- WAC/DOH Criteria
 - Sufficient water rights
 - Well supply can meet max day
 - Adequate backup power at supply facilities
 - Adequate tank storage volume
 - Meet minimum required fire flows on max day
 - Maintain minimum system pressures
 - High water quality

Existing Water System Assessment



- Evaluate infrastructure and pipe network to meet criteria for planning periods
- Use hydraulic model
- Identify deficiencies
- Propose projects to address deficiencies

Existing System Assessment Results

- Satisfies supply, storage, and booster pump station analysis criteria
- Provides high-quality water to customers
- Deficiencies
 - Fire flow deficiencies on undersized or dead-end mains
 - High service pressures on lower elevation homes in Zone 3

Future System Assessment Results

- Infill and future service area growth applied
- Assessed same criteria as existing scenario, but applied to future service area and demands
- Determined what projects and operational changes are needed to supply future areas and customers

Future System Assessment Results

- Addition of new Pressure Zones 5, 6, and 7 to accommodate growth
- Continue to address fire flow issues from existing assessment
- Plan for pipe replacement program as pipes age

Recommended Projects

- Address identified deficiencies
- Projects prioritized as 10-Year (2021-2029) and 20-Year (2030-2039)
- 20-Year projects will be refined and updated with future WSP updates
- Subject to annual updates and budget review

Recommended 10-Year Projects

Type	Description	Cost (\$)*
Storage Facilities	- Reservoirs 1A and 1B Seismic Upgrades - Future Reservoir 6 Site Grading <i>Completed</i> - Site Alternatives Analysis for Future Reservoir 7	\$1,143,800
Supply Facilities	425 gpm Well 1R	\$2,273,900
Northside Development	0.31 MG Reservoir 3B <i>Completed</i> 1,200 gpm BPS 5 <i>Completed</i> - Distribution System Oversizing <i>Completed</i>	\$2,100,000
Piping Improvements	12 new or replacement water main projects 2 water service transfer projects - Annual Pipe Repair / Improvements and AMI	\$7,708,400
Planning	- Rate and connection fee study - AWIA Risk and Resilience Assessment / ERP - Water System Plan Update - System Capacity / CIP Update	\$685,600
Total		\$13,911,700

**Note: Costs reflect 2020 / 2021 Planning Estimates*

Recommended Projects Summary

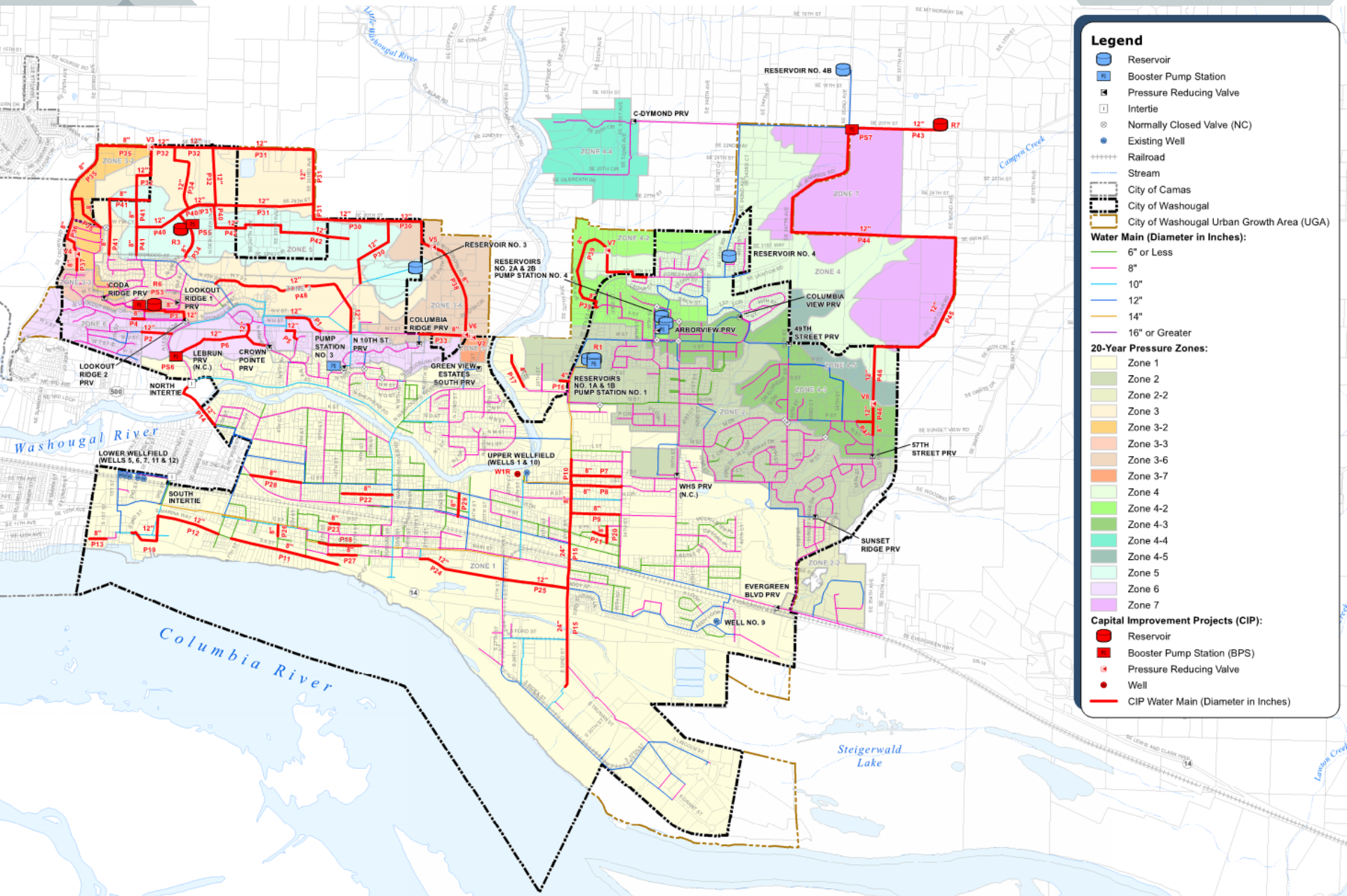
- \$13.9 million in years 1-10
- \$39.3 million in years 11-20
- \$53.2 million total over 20 years
- Financial Plan Assumptions:
 - ✓ 2020-2021 Planning Level Cost Estimates
 - ✓ 3% Annual Rate Increase
 - ✓ \$2.75M in Revenue Bond Financing

Next Steps

- Set the Public Hearing – September 12th
- Hold the Public Hearing, Final City Approval and Adoption - September 26th
- Submit Final WSP to DOH for Approval
- WSP Amendment/Update Every 10 years

Q&A





Legend

- Reservoir
 - Booster Pump Station
 - Pressure Reducing Valve
 - Intertie
 - Normally Closed Valve (NC)
 - Existing Well
 - Railroad
 - Stream
 - City of Camas
 - City of Washougal
 - City of Washougal Urban Growth Area (UGA)
- Water Main (Diameter in Inches):**
- 6" or Less
 - 8"
 - 10"
 - 12"
 - 14"
 - 16" or Greater
- 20-Year Pressure Zones:**
- Zone 1
 - Zone 2
 - Zone 2-2
 - Zone 3
 - Zone 3-2
 - Zone 3-3
 - Zone 3-6
 - Zone 3-7
 - Zone 4
 - Zone 4-2
 - Zone 4-3
 - Zone 4-4
 - Zone 4-5
 - Zone 5
 - Zone 6
 - Zone 7
- Capital Improvement Projects (CIP):**
- Reservoir
 - Booster Pump Station (BPS)
 - Pressure Reducing Valve
 - Well
 - CIP Water Main (Diameter in Inches)