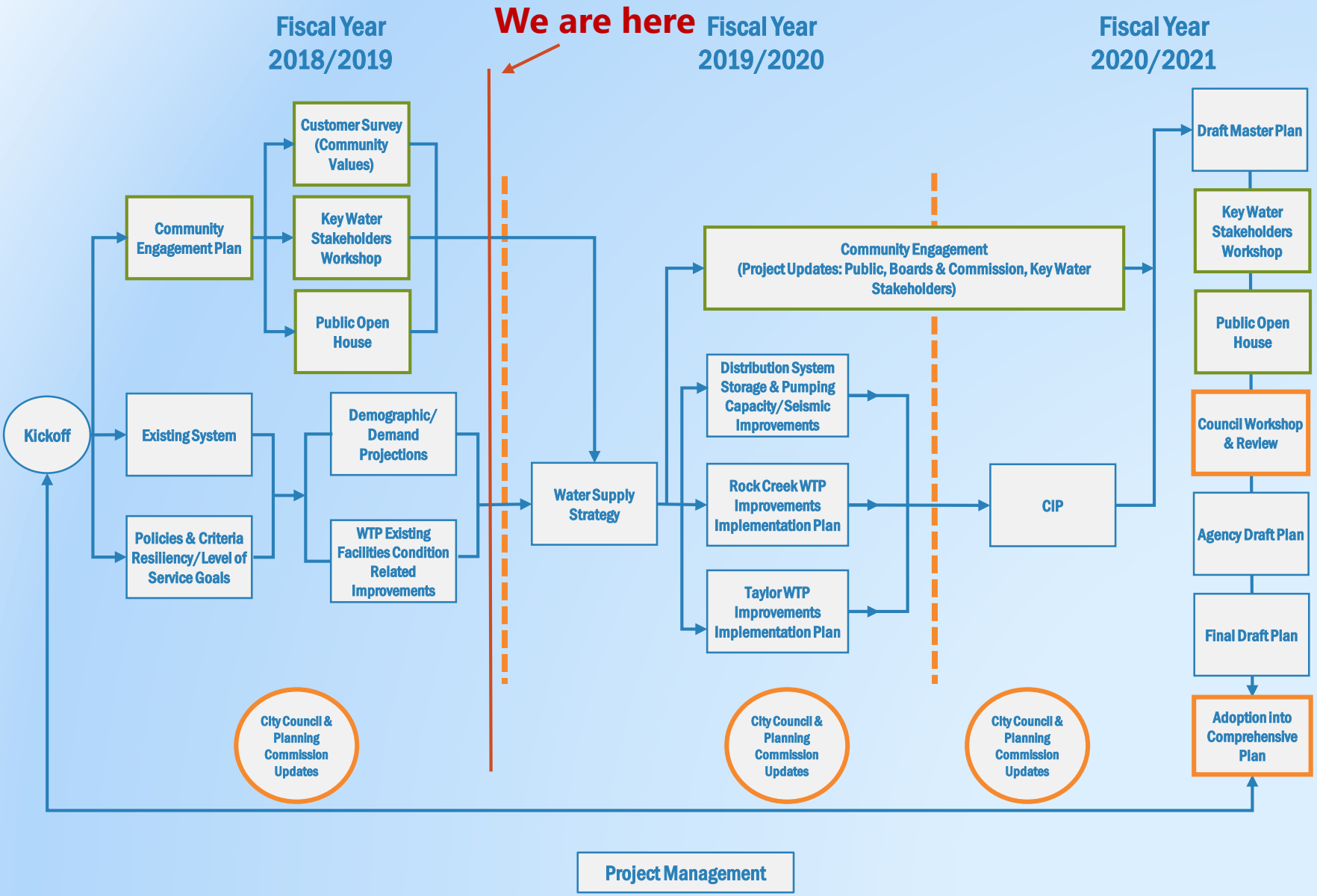
City of Corvallis
Water Treatment and Distribution Facilities Master Plan

WATER
OUR FOCUS
OUR BUSINESS
OUR PASSION

carollo
Engineers...Working Wonders With Water®

Project Approach



Public Outreach Schedule

Date	Task
√ January 23	Visit with Watershed Management AB
√ February 6	Visit with Community Involvement and Diversity AB
√ February 7	Briefing to City Council
√ March 6	Presentation to Community Involvement and Diversity AB
√ March 18	Launch community water survey
√ April 3	Water Forum Stakeholder Meeting
√ April 8 & 9	OSU Water Symposium
√ April 17	Briefing to Planning Commission
√ April 25	Public Open House
√ May 23	One pager on survey provided to City Council
√ June 5	Review survey success with Community Involvement and Diversity AB

Stakeholder Meeting Feedback Highlights

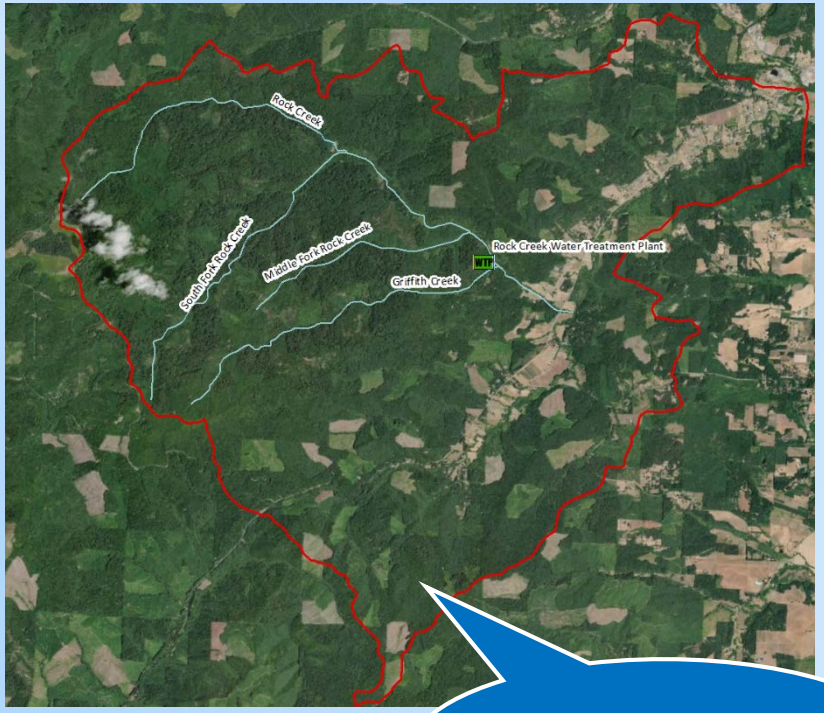
- Build in redundancy and resiliency in supply and treatment.
- Consider impacts on rates when prioritizing projects.
- Promote water conservation.

Survey Results Themes

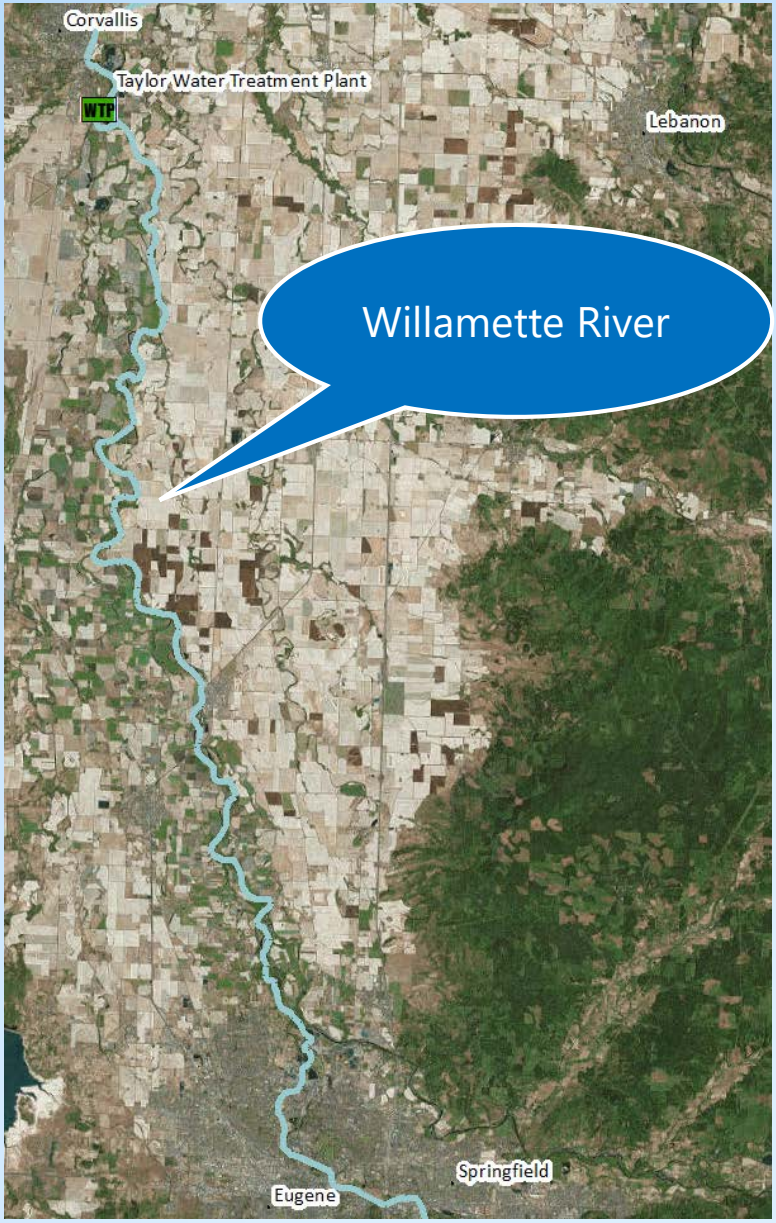
- Pleased with quality of service
- Want emergency preparedness information
- Notice occasional taste/odor during the summer
- Concern about contaminants in Willamette
- Promote ways to conserve water
- Consider the ecosystem/wildlife in watershed
- Concern about the addition of fluoride
- Perceive City Services bills as high by some

Water Quality

Corvallis is very fortunate to have two raw water supply sources.



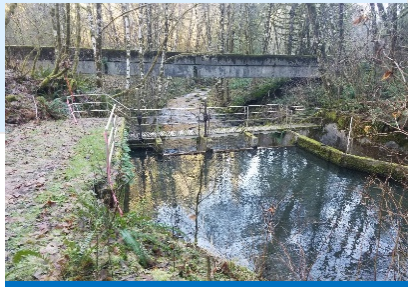
Rock Creek Watershed



Rock Creek Water Treatment Plant

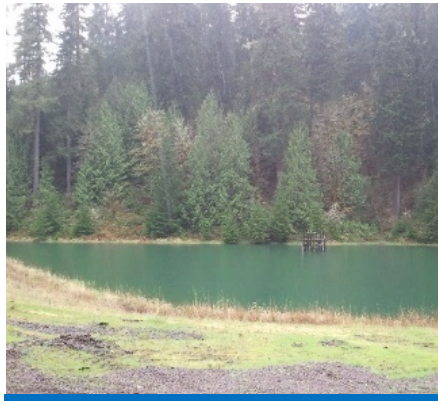
Factoids:

- Located on the east side of Marys Peak
- 2,400 acres of watershed City-owned
- Gravity fed—no electricity used to pump water to Corvallis
- Transmission pipe to Corvallis built in 1906
- Rock Creek Plant built in 1954. Upgrades in 1984, 2002
- Average annual production: 2.4 MGD
- Maximum daily capacity: 3 MGD



South Fork Intake

Griffith Creek Intake



North Fork Reservoir

Taylor Water Treatment Plant

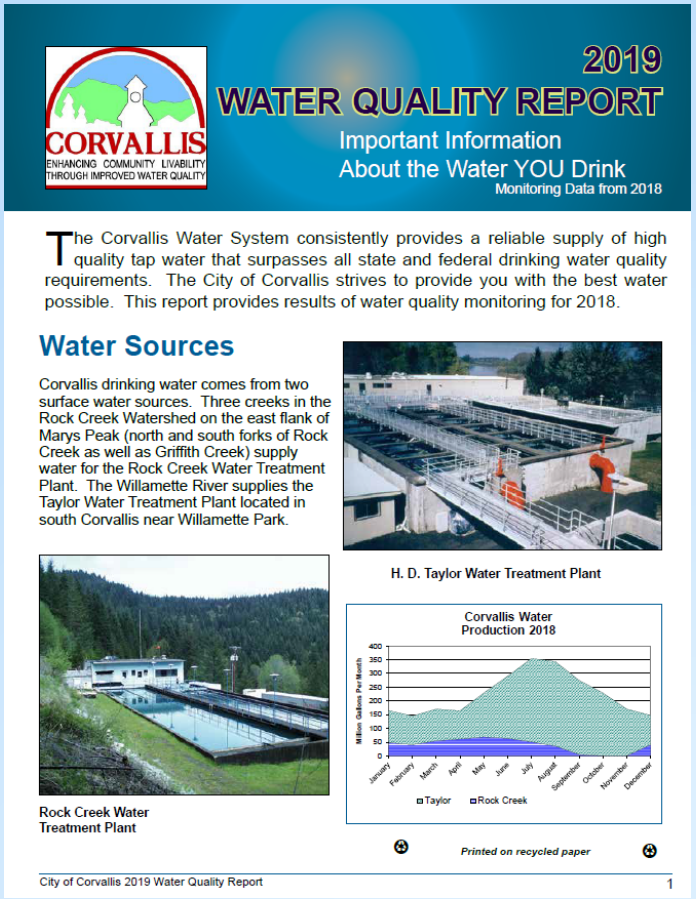
Taylor Water Treatment Plant is supplied from the Willamette River

Factoids:

- Built in 1949
- Last upgrade: 1996
- Ave daily production: 4.9 MGD
- Max daily capacity: 21 MGD
- Dredging required to maintain river flow past intake structure

Finished Water

- Both treatment plants are meeting or exceeding regulatory requirements.



CORVALLIS
ENHANCING COMMUNITY LIVABILITY THROUGH IMPROVED WATER QUALITY

2019
WATER QUALITY REPORT
Important Information
About the Water YOU Drink
Monitoring Data from 2018

The Corvallis Water System consistently provides a reliable supply of high quality tap water that surpasses all state and federal drinking water quality requirements. The City of Corvallis strives to provide you with the best water possible. This report provides results of water quality monitoring for 2018.

Water Sources

Corvallis drinking water comes from two surface water sources. Three creeks in the Rock Creek Watershed on the east flank of Marys Peak (north and south forks of Rock Creek as well as Griffith Creek) supply water for the Rock Creek Water Treatment Plant. The Willamette River supplies the Taylor Water Treatment Plant located in south Corvallis near Willamette Park.

H. D. Taylor Water Treatment Plant

Rock Creek Water Treatment Plant

Corvallis Water Production 2018

Million Gallons Per Month
400
350
300
250
200
150
100
50
0
January
February
March
April
May
June
July
August
September
October
November
December
Taylor
Rock Creek

Printed on recycled paper

City of Corvallis 2019 Water Quality Report 1

- **Water quality is the same from both plants!**

Water Facilities Existing Condition Assessments

Rock Creek

	Supply	Rapid Mix	Flocculation	Sedimentation	Filters	Backwash/ Surface Wash	Clearwells	Residuals Handling	Chemical Systems	Operability	Plant Access
Condition											
Capacity											
Performance											
Resiliency/ Redundancy											

Taylor

	Supply	Rapid Mix	Flocculation	Sedimentation	Filters 1 – 4	Filters 5 – 8	Backwash	Chlorine Contact Basin	Clearwells	High Service Pump Stations	Residuals Handling	Chemical Systems	Operability
Condition													
Capacity													
Performance													
Resiliency/ Redundancy													

Resilience Planning

Resilience Planning

- **Resilience Definition**

  "…the ability to ***prepare for*** and ***adapt to*** changing conditions and to ***withstand*** and ***recover rapidly*** from disruptions."

Draft 50-year Level of Service Goals – Seismic

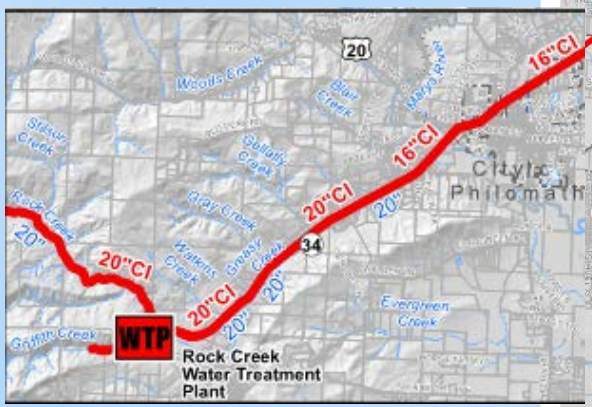
Location	Recovery Timing
• Key supply points for fire suppression • Good Samaritan Hospital Complex • Medical Treatment Triage Locations • City/County Emergency Ops Center	No disruption
• Fire Stations • Emergency Shelters • City/County Public Works • ODOT Complex • Corvallis Municipal Airport • Corvallis Wastewater Reclamation Plant • OSU Energy Center	1 – 3 days

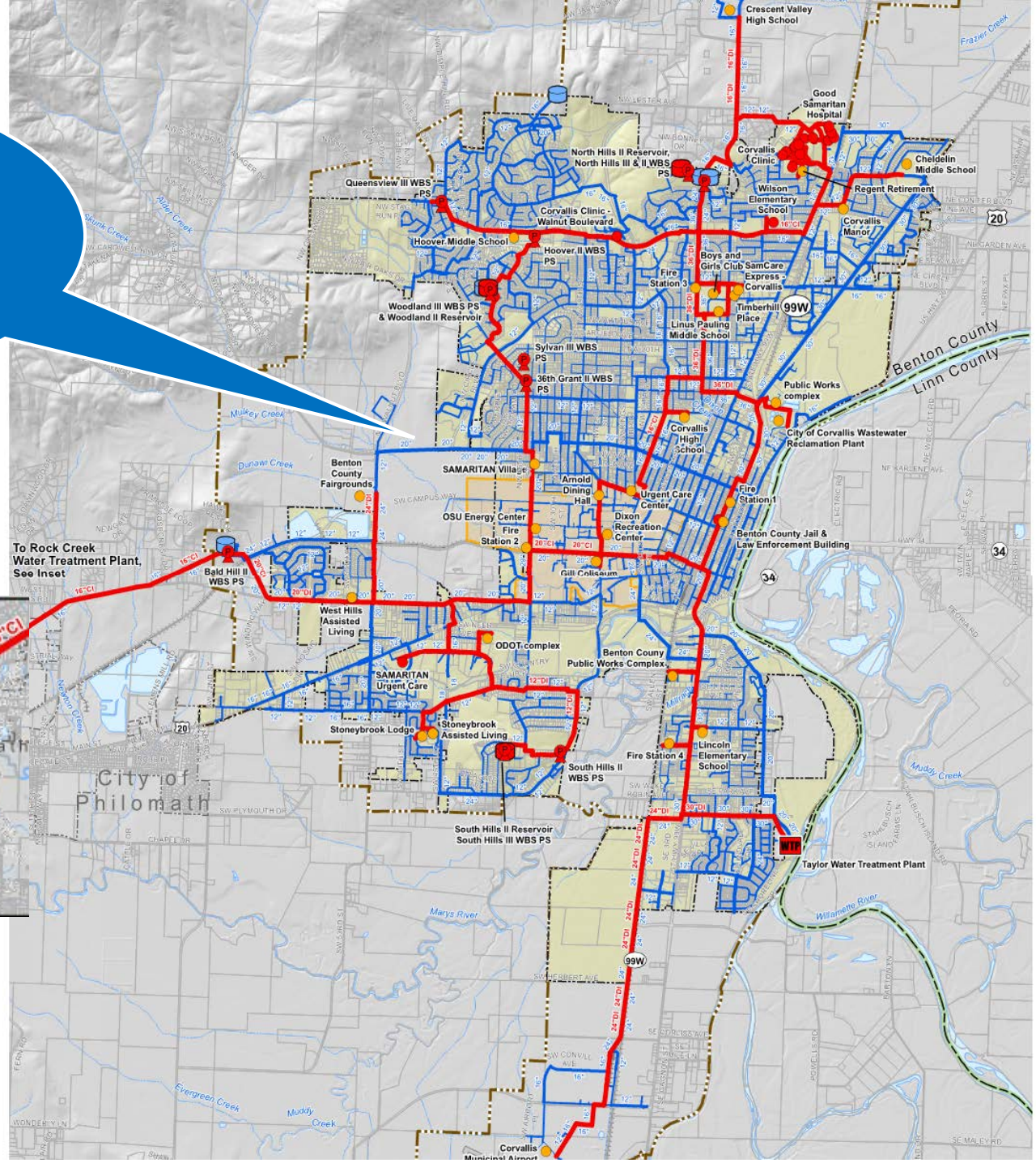
Next Steps

What's next for the Project Team?

- Evaluate the distribution system.
- Study and evaluate raw water intake options for the Taylor Water Treatment Plant.
- Finalize a resilient distribution backbone to serve critical customers following an earthquake.

Conceptual Resilient Water System Backbone





Water Supply Strategy

Water Supply Strategy decision matrix

		Alternatives		
Criteria	Weight	1	2	3
X	[1-5]	[1-5]	[1-5]	[1-5]
Y	[1-5]	[1-5]	[1-5]	[1-5]
Z	[1-5]	[1-5]	[1-5]	[1-5]
	Total Score			
Cost	Capital Cost			
	Life Cycle Cost			

Questions?