

# CLEAN WATER SERVICES INVESTING IN SUSTAINABILITY & INNOVATION

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Westside Economic Alliance Land Use & Housing Committee

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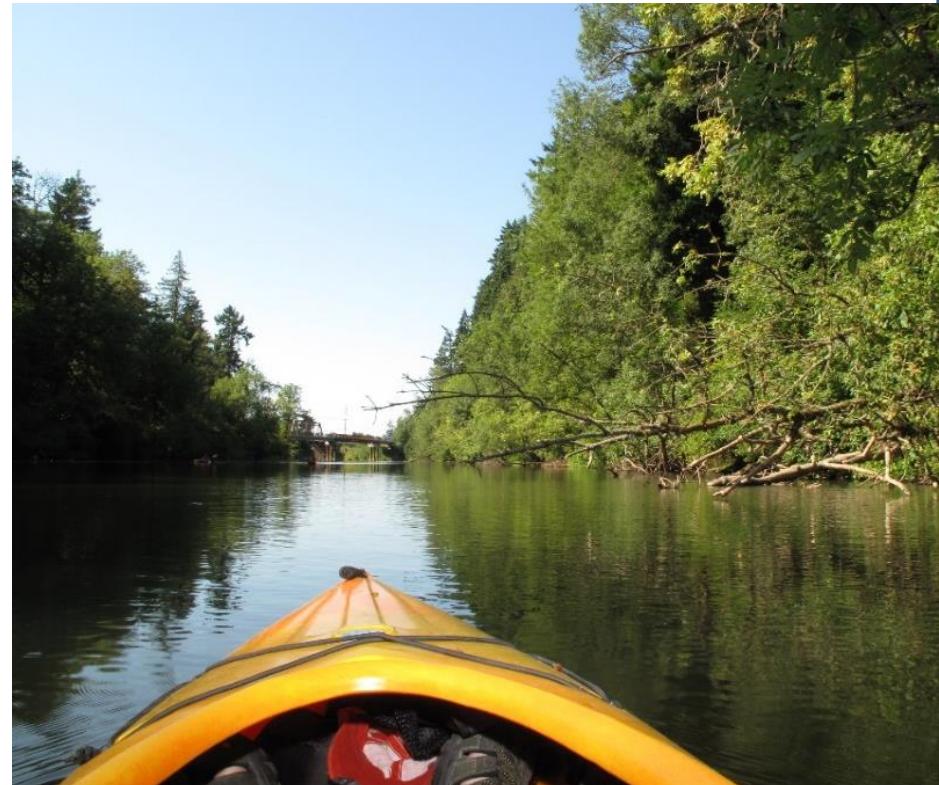
# WHO WE ARE

- Water Resources Management utility serving 600,000 residents of urban Washington County
- Formed in 1970 to address building moratorium brought on by public health and environmental crisis.
- Close working relationship with Washington County, but separately managed and financed utility



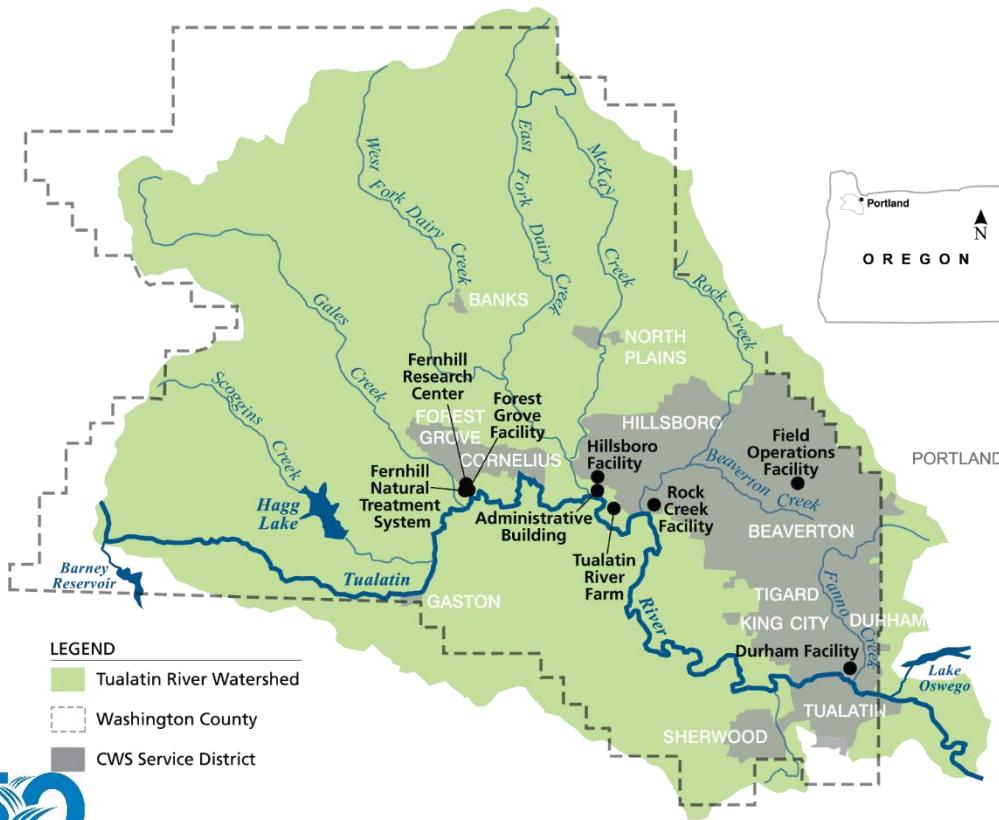


1959



Today

# WHERE WE WORK



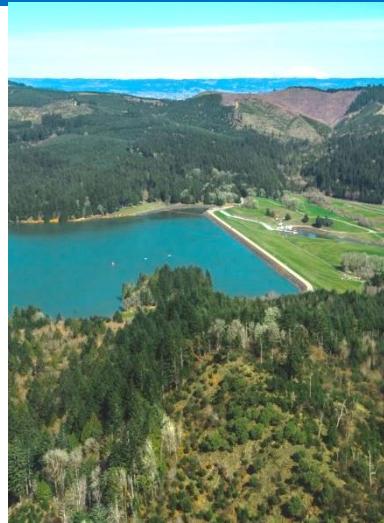
# WHAT WE DO

- Water Resource Recovery
- Stormwater Management
- Watershed Restoration
- Water security and river flow management



# CHALLENGES

- Slow, sensitive river
- Increasing regulatory requirements
- Growth
- Aging infrastructure
- Climate resiliency



# RESOURCE RECOVERY

- Water reuse
- Nutrient recovery
- Energy



# PURE WATER WAGON

- High purity mobile water treatment trailer
- Collaborative investment to demonstrate innovative treatment technologies & advances understanding
- Shows that water can be treated to any level regardless of its source



# NUTRIENT RECOVERY

- Phosphorus - Crystal Green®
  - North America's first commercial nutrient recovery facility
  - 750+ tons annually
  - Into commercial and wholesale market



# ENERGY GENERATION

- Annual usage of about 57 million kWh
- Meets 36% of our needs
  - Rock Creek co-gen
  - Durham Co-Gen and FOG receiving station
  - 474 kW generation capacity
- Future
  - Expansion of solar
  - Continued conservation
  - Renewable natural gas P3



# INVESTING IN GREEN INFRASTRUCTURE

- Nation's first Watershed-based NPDES Permit in 2006
- Allowed water quality trading for temperature
  - Release of cool water from Hagg Lake
  - Riparian planting on agricultural and urban lands



# COMMUNITY WATERSHED ACTION

- Tree for All
  - Partnerships
  - Planting >1 million stems a year
    - ❖ 54 species of plants
    - ❖ 7 regional growing contracts
  - Over Since 2004 planted more than 12 million native plants
  - [www.jointreeforall.org](http://www.jointreeforall.org)
- Stewardship
  - 40,000 volunteers
  - 92,000 hours



# NATURAL SYSTEMS: BY THE NUMBERS



**30,000**  
acres managed for  
watershed health



**40,000** volunteers  
+ **92,000** hours  
planting plants



**160**  
river miles of  
habitat

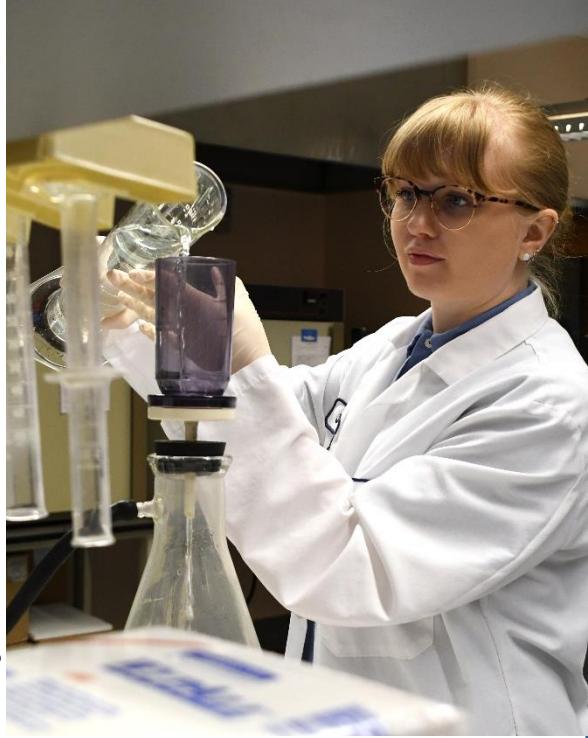


**40+**  
partners for  
Tree for All



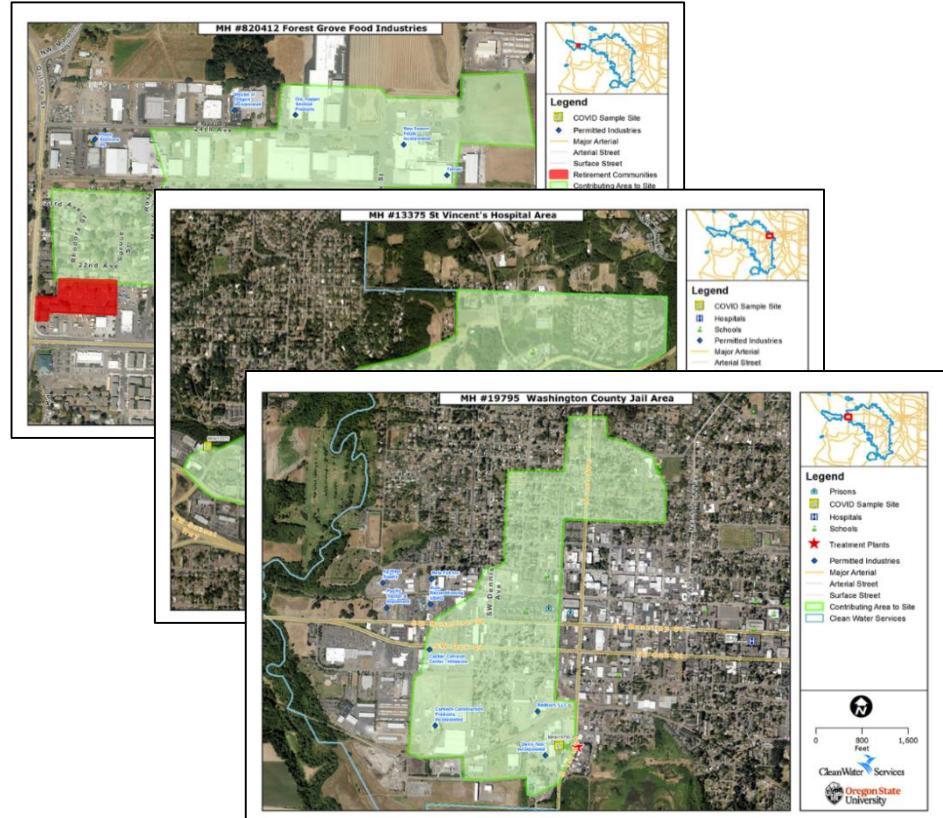
# TRACKING EVIDENCE OF COVID-19 IN SEWERS

- OSU/CWS Research collaboration
  - Sample within selected areas of concern (micro-sewersheds) such as nursing homes, hospitals, food processing plants, prisons, schools, etc.
- Provide a cost-effective COVID-19 tracking tool
- Funded by the National Science Foundation's Rapid Response Research (RAPID), Award No. 1519467 (April 27, 2020)



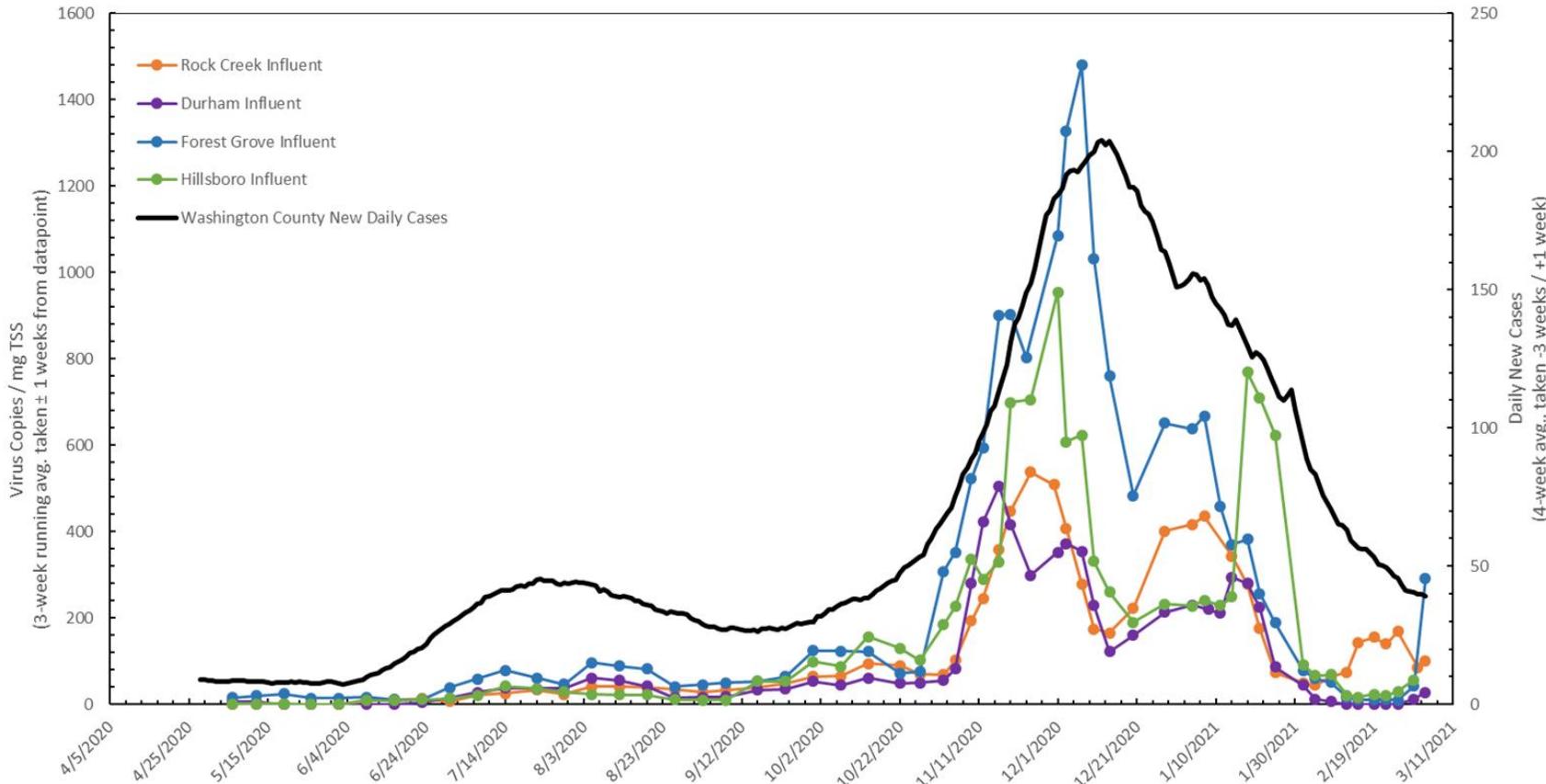
# SEWERSHED SAMPLING

- Targeted research at mix of sites locally
  - Four water resource facilities
  - Ten sample points in Washington County
- Sample and Analyze for SARS-CoV-2
  - Lewis & Clark
  - City of Portland/OHSU
- Analyses done at new ripl facility in Forest Grove



# CASES IN WASHINGTON COUNTY

(preliminary data through 3/11/21)



# THANK YOU



CleanWater Services  
1970-2020