

CLEAN WATER SERVICES INVESTING IN SUSTAINABILITY & INNOVATION

March 16, 2021

Westside Economic Alliance Land Use & Housing Committee

Mark Jockers, Chief of Staff



WHO WE ARE

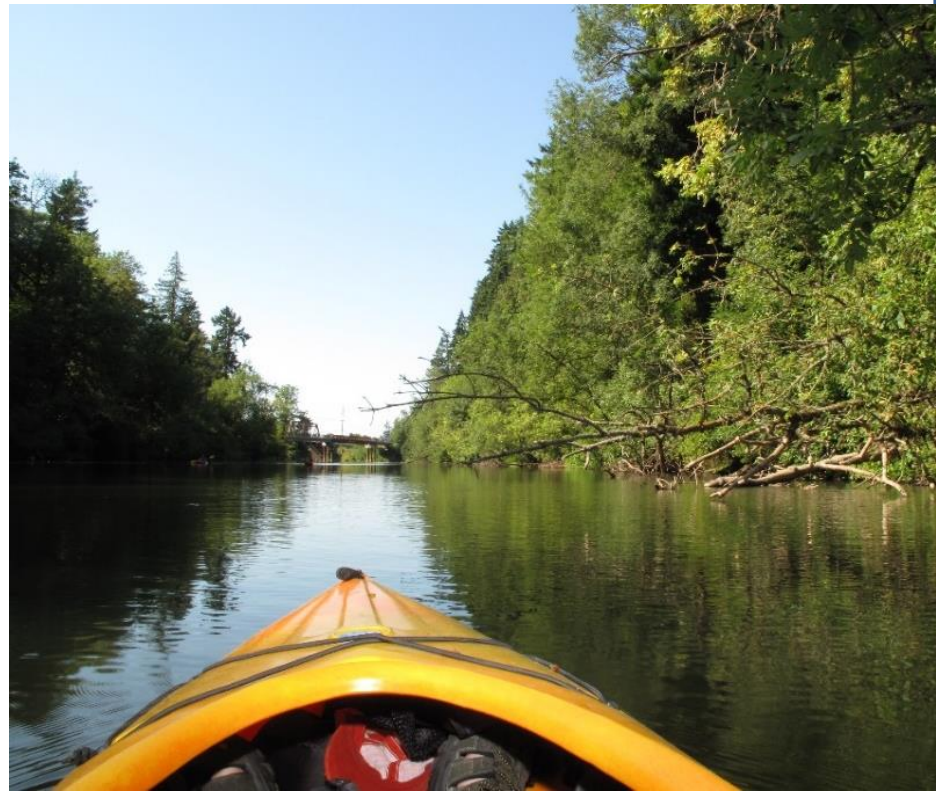
- Water Resources Management utility serving 600,00 residents of urban Washington County
- Formed in 1970 to address building moratorium brought on by public health and environmental crisis.
- Close working relationship with Washington County, but separately managed and financed utility



CleanWater Services
1970-2020

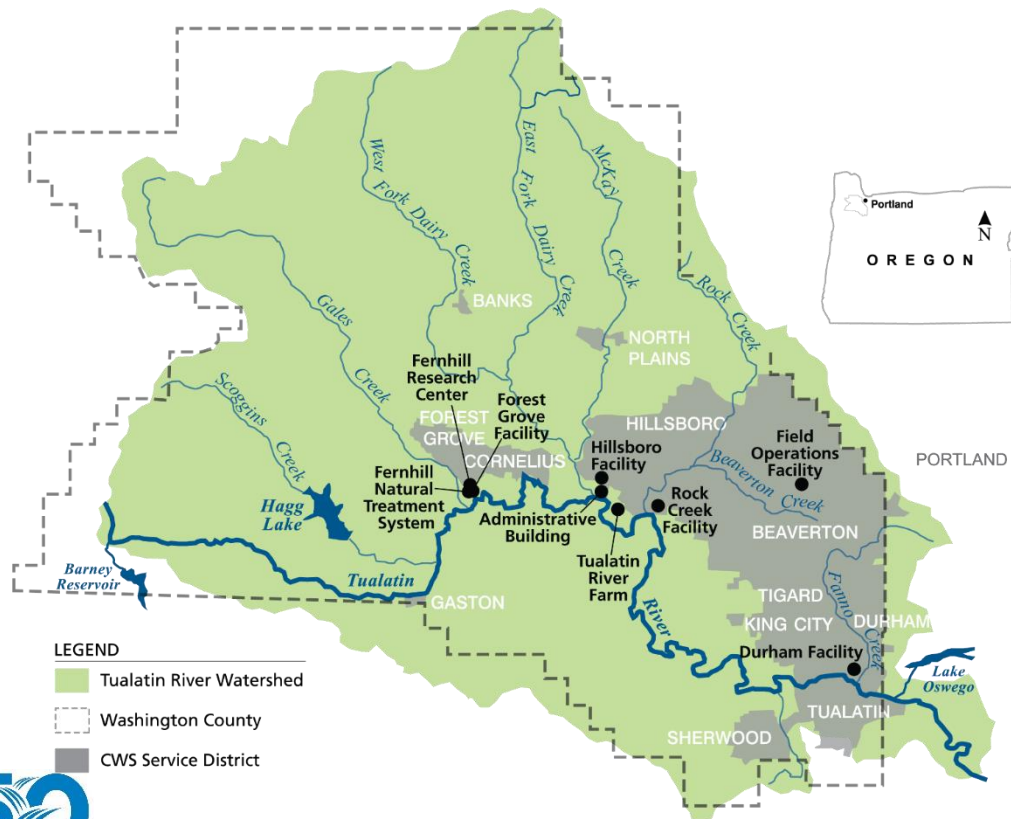


1959



Today

WHERE WE WORK



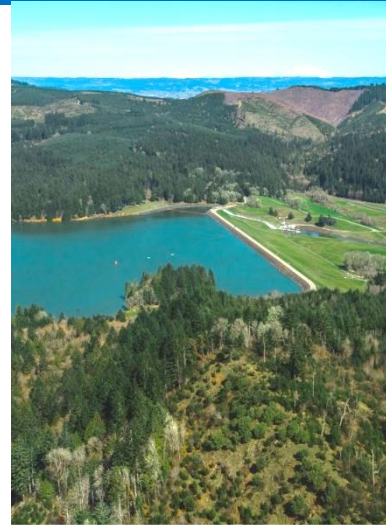
WHAT WE DO

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



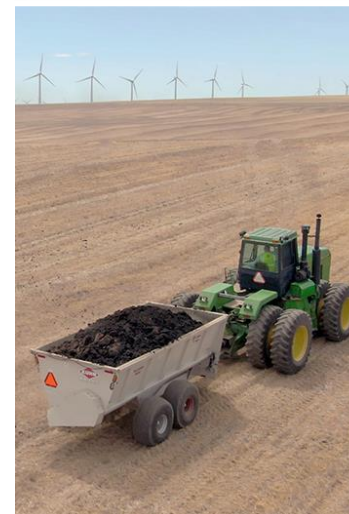
CHALLENGES

- 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



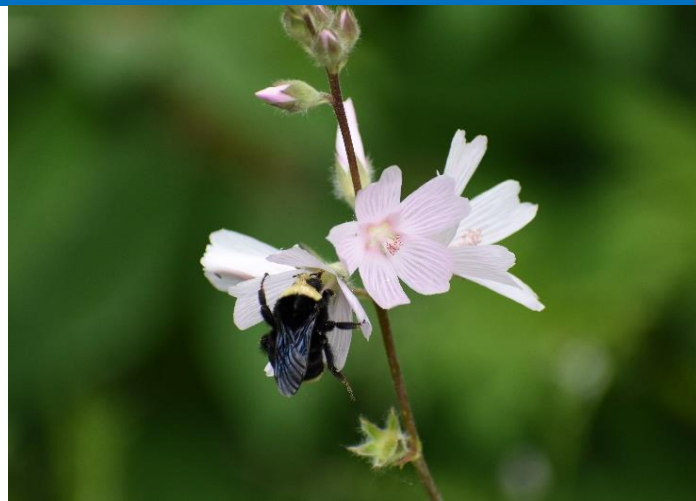
INVESTING IN GREEN INFRASTRUCTURE

- 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
- 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

12 million

native plants
planted



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)

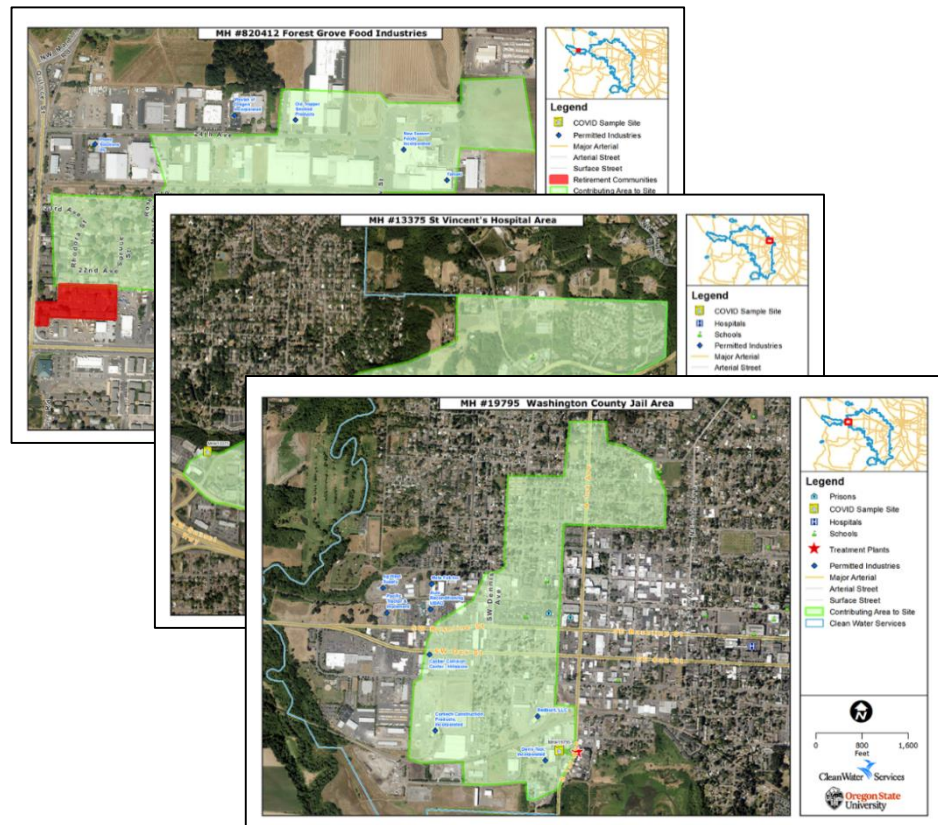


Oregon State University
College of Engineering



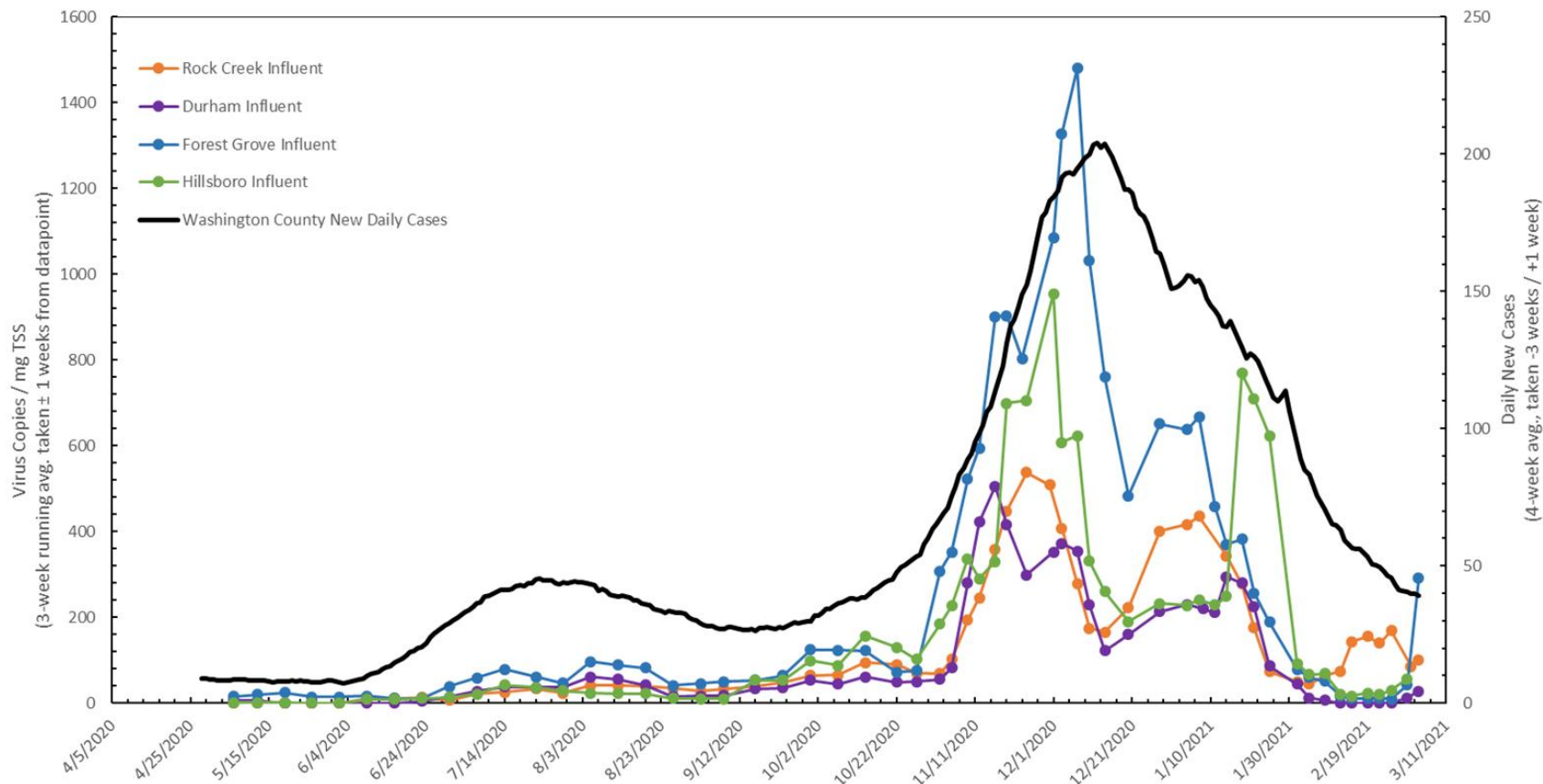
SEWERSHED SAMPLING

- 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 rippl facility in Forest Grove



CASES IN WASHINGTON COUNTY

(preliminary data through 3/11/21)



THANK YOU



CleanWater  Services
1970-2020

