

2020

Surface Water Coliform-Control Tests

Willamette River Water Treatment, Wilsonville, OR

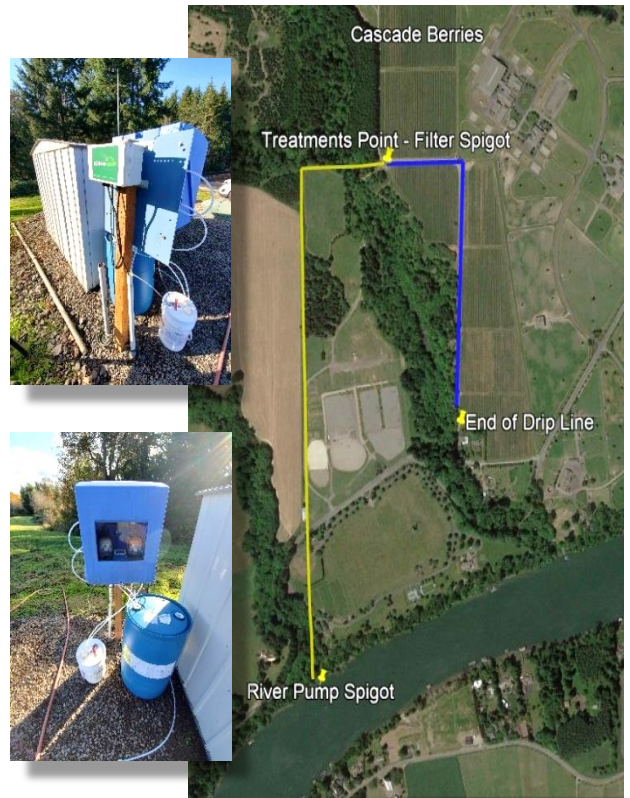
Tests compare Chlorine Dioxide vs. Flow-Tech Grow electronic treatments

On September 28, 2020, samples of Willamette River water were tested against water treated by a radio wave treatment system and notable reductions in harmful bacteria were found.

81% reduction in Total Coliform (TC)
93% reduction in E. Coli

On June 17, 2020, Cascade Berries, of Wilsonville, OR had measured extremely high counts of Total Coliform and E. Coli in irrigation water pumped from the neighboring Willamette River. Water samples were taken downstream of the Chlorine Dioxide treatment system. Tests showed the treatment system was under-performing.

In mid-August, Cascade asked WaterPoint to install a Flow-Tech Grow (FTG) non-chemical water treatment system as a test to address the issue. Flow-Tech has a history of successfully controlling [biofilm](#) and bacterial growth in [industrial applications](#), globally; the hope being industrial treatments will replicate in Surface water irrigation systems. If successful, the farm eliminates annual costs of the current CH2O services, reduces unnecessary chemical inputs to the soil, plus receives unintended benefits of irrigating with FTG treated water: Increased soil penetration rates, reduced leaching, increased Plant Available Water and Minerals – Plus a Yield bump.



Throughout the growing season, water was sampled from the spigot downstream of the CH2O and FTG treatment points. After six weeks of Flow-Tech Grow radio frequency treatment, a significant reduction was exhibited, in bacteria counts, compared to untreated Surface water and CH2O's chemical treatments.

MPN/100MI	<u>June 17</u>		<u>September 4</u>		<u>September 28</u>	
	TC	E. Coli	TC	E. Coli	TC	E. Coli
Willamette River (source water)					>2420	29
Untreated River Pump Spigot			613	9	345	15
CH2O treatment ONLY – Filter Spigot	518	37				
FTG treatment ONLY – Filter Spigot			461	7	77	1