

Quantifiable Objective Refinement

Weeki Wachee



Madison Trowbridge, Ph.D.

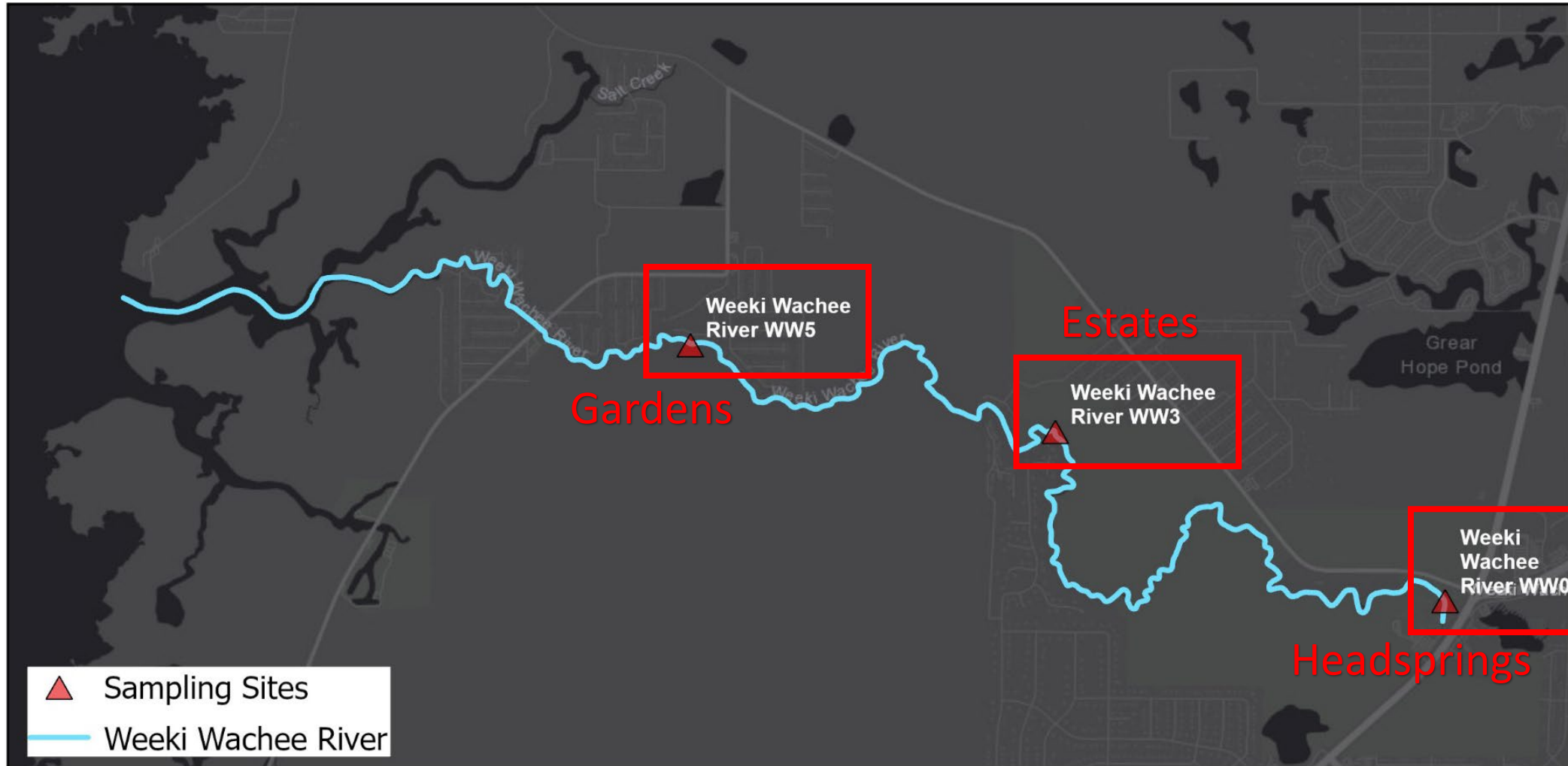
Springs Scientist

Natural Systems and Restoration

Q0: Weeki Wachee – potential refinements

- **Define quantifiable objectives as different river portions**
 - Water clarity – Headsprings, Estates, Gardens
 - Natural systems – upper and lower
- **Define water clarity as indicator**

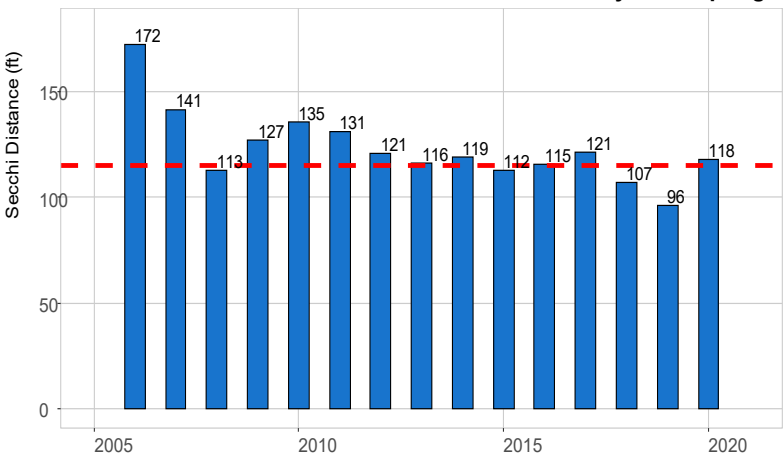
Q0: Weeki Wachee – water clarity



Q0: Weeki Wachee – water clarity

HEADSPRING

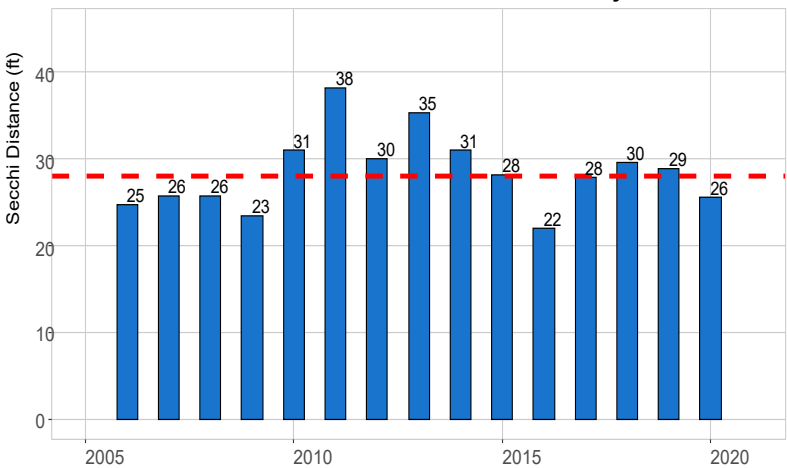
Mean Water Clarity: Headspring



AVG: 115 ft

ESTATES

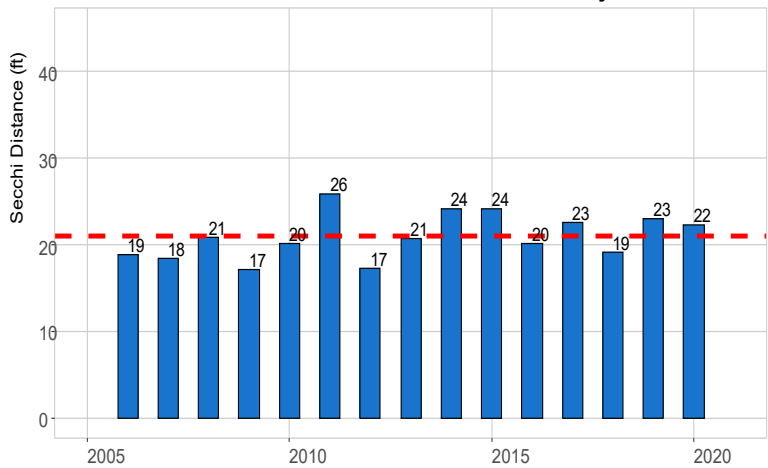
Mean Water Clarity: Estates



AVG: 28 ft

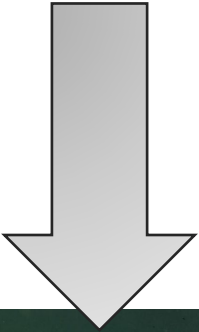
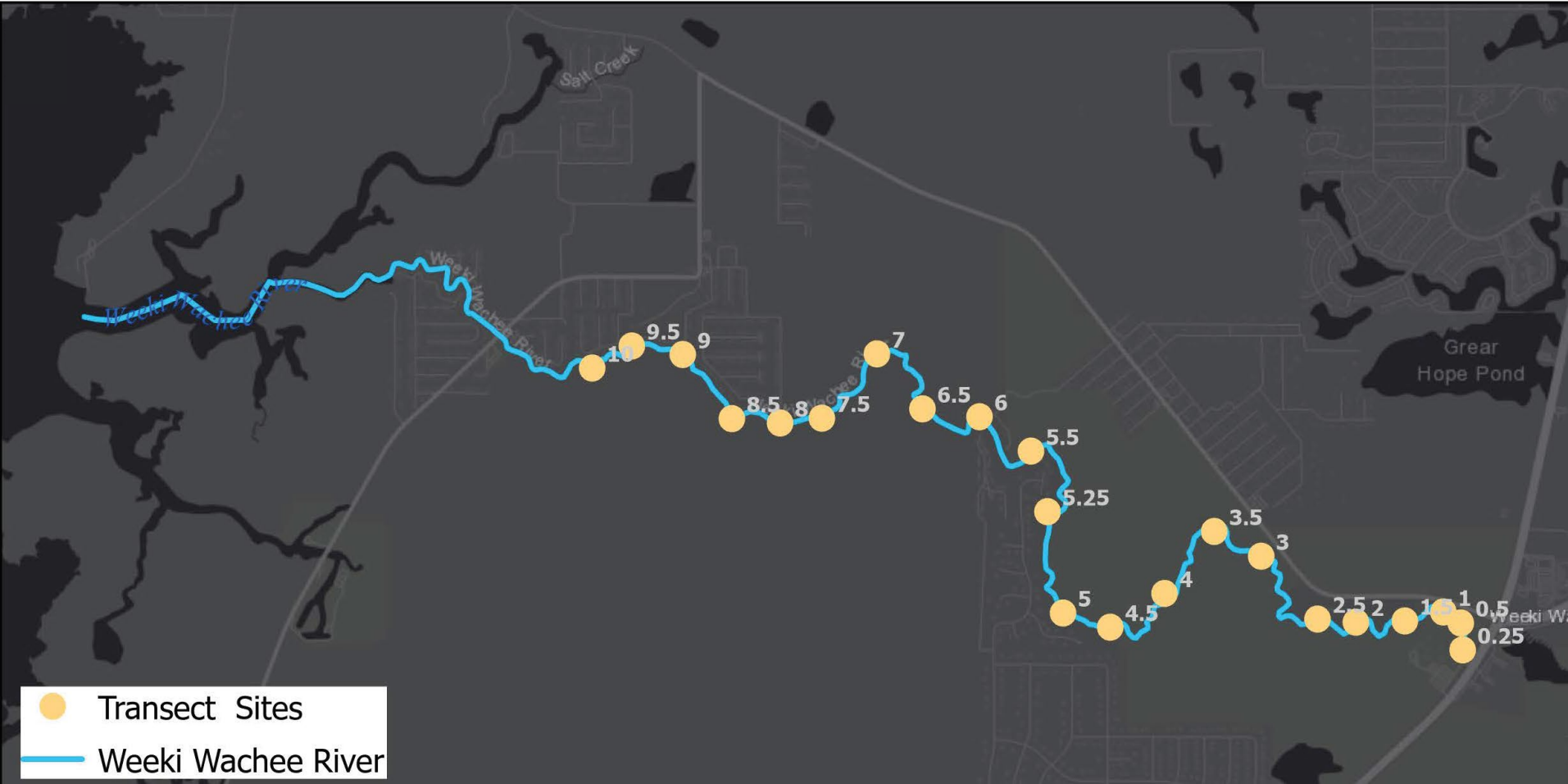
GARDENS

Mean Water Clarity: Gardens

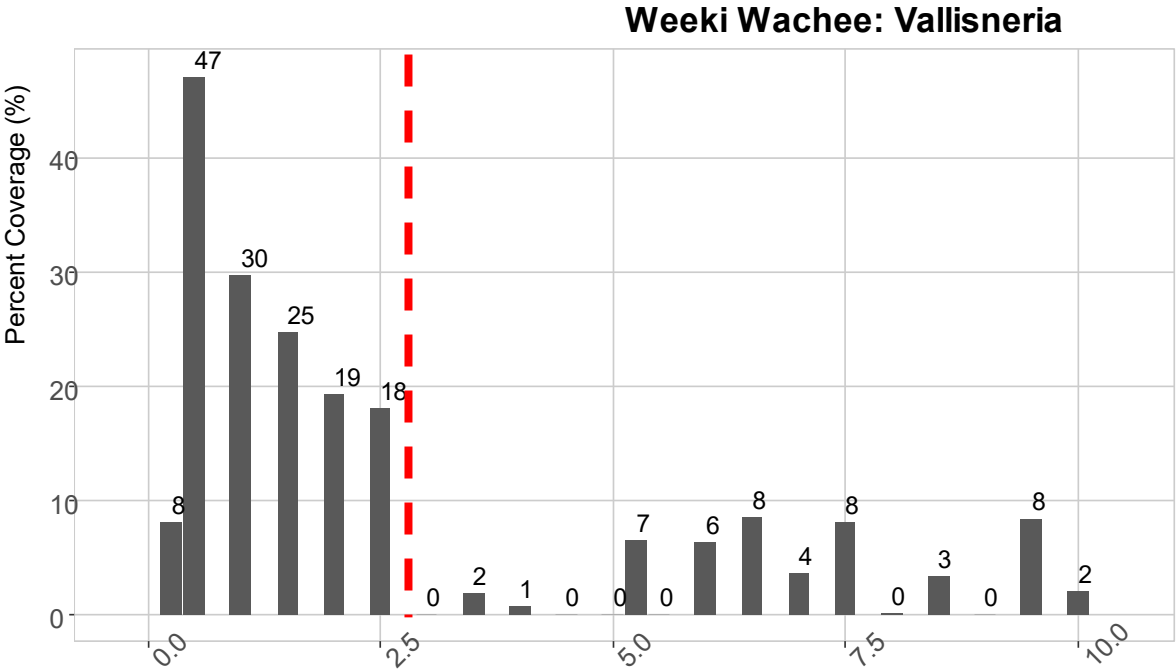
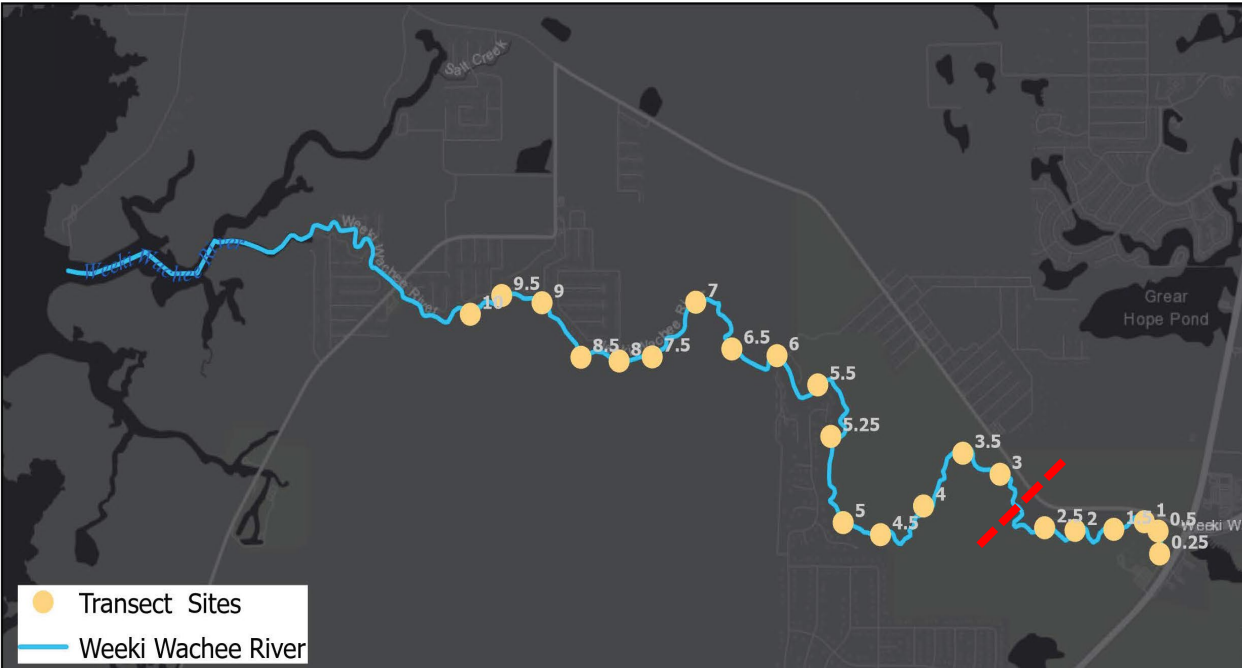


AVG: 21 ft

Q0: Weeki Wachee – natural systems



Q0: Weeki Wachee – natural systems



QO: Weeki Wachee – review

Water Quality	Target
Water clarity – river average	>50 feet ¹
Water clarity – near the headspring	>120 feet ¹
Nitrate concentration in the river	<0.20 mg/L ²
Water Quantity	
Minimum flow for the river system	>90% natural flow ³
Natural Systems	
Coverage of desirable submerged aquatic vegetation in the river	>40% ⁴
Coverage of invasive aquatic vegetation (including filamentous algae) in the river	<10% ⁴

Indicators

Water clarity	Threshold
Near the headspring	115 ft
Near the Estates	28 ft
Near the Gardens	21 ft

Quantifiable Objectives

Water quality	Target
Nitrate concentration in the springs	< 0.20 mg/L
Water quantity	
Minimum flows for the springs and river	> 90% natural flow
Natural systems	
Coverage of desirable submerged aquatic vegetation in the upper and lower portions of the river	> 40%
Coverage of invasive aquatic vegetation (including filamentous algae) in the upper and lower portions of the river river	< 10%

District staff recommendation

Approve refinements to the quantifiable objectives as recommended by District staff.

- **Redefine water clarity as an indicator**
- **Define water clarity evaluated as Headspring, Estates, Gardens**
- **Define natural systems evaluated as upper and lower portions**