

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Quantifiable Objective Refinement

Homosassa



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Springs Scientist

Natural Systems and Restoration

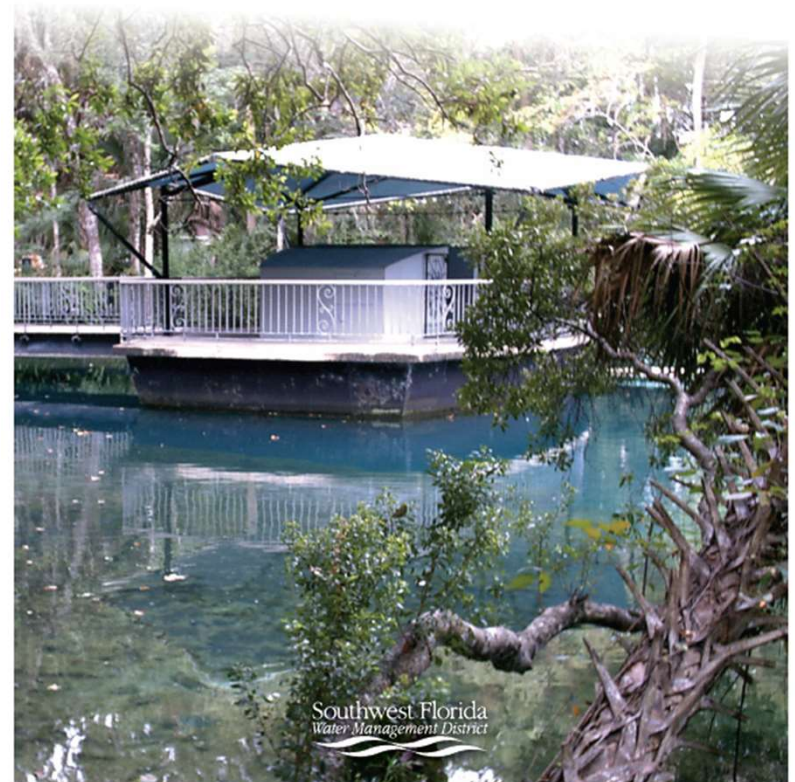
SWIM Plans

- Surface Water Improvement & Management (SWIM) Plans
 - Issues & Drivers
 - Management actions
 - Quantifiable objectives
 - Projects and Initiatives

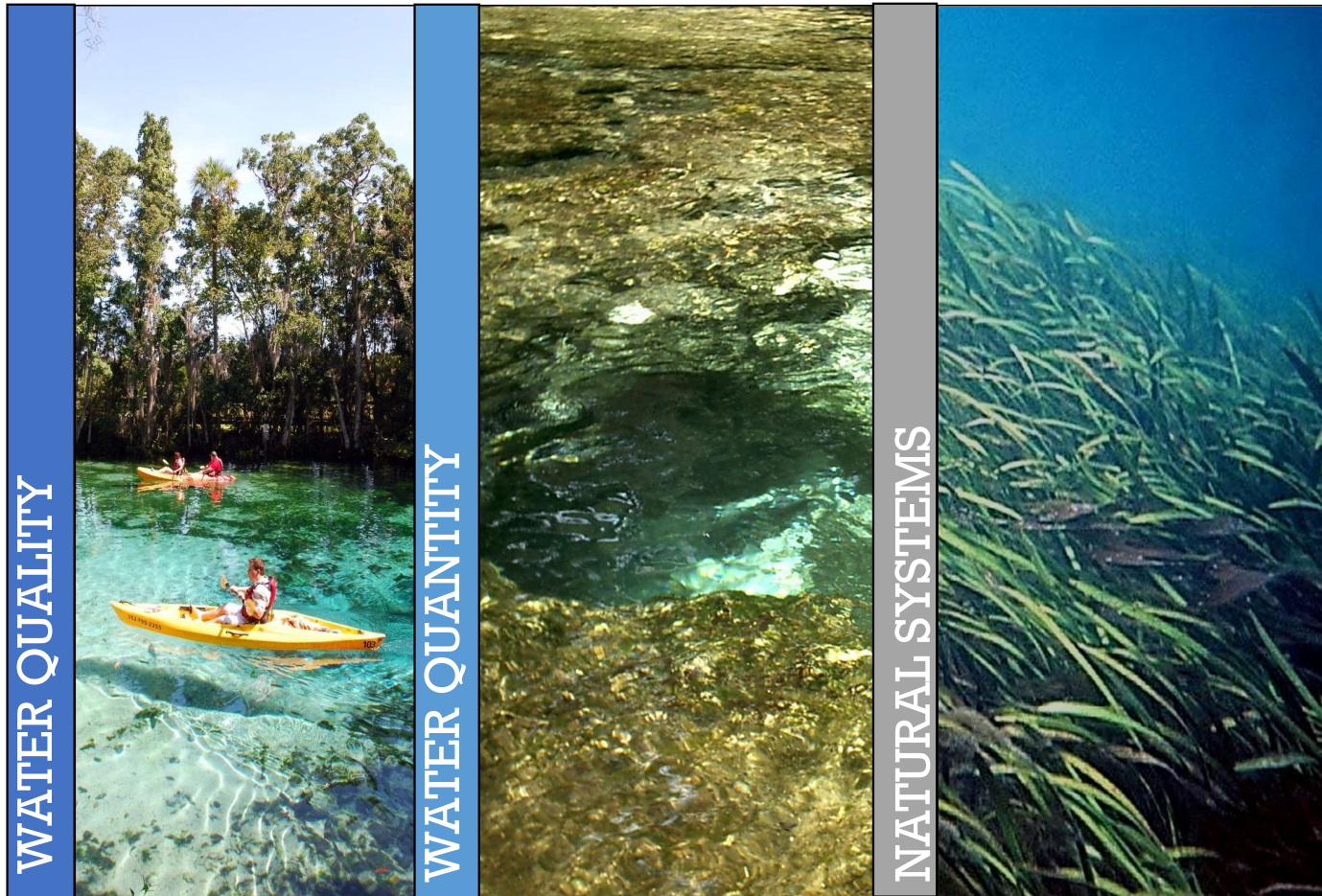
Homosassa River Surface Water Improvement and Management (SWIM) Plan

A Comprehensive Conservation and Management Plan

August 2017



Quantifiable Objectives



Quantifiable Objectives Refinements

- **Refinements**
 - Rainbow – approved July 2021
 - Crystal River/Kings Bay – approved March 2022
 - Weeki Wachee – approved July 2022
 - Chassahowitzka – approved March 2023
 - **Homosassa – in progress**
- **Public workshop**
- **District's Governing Board**

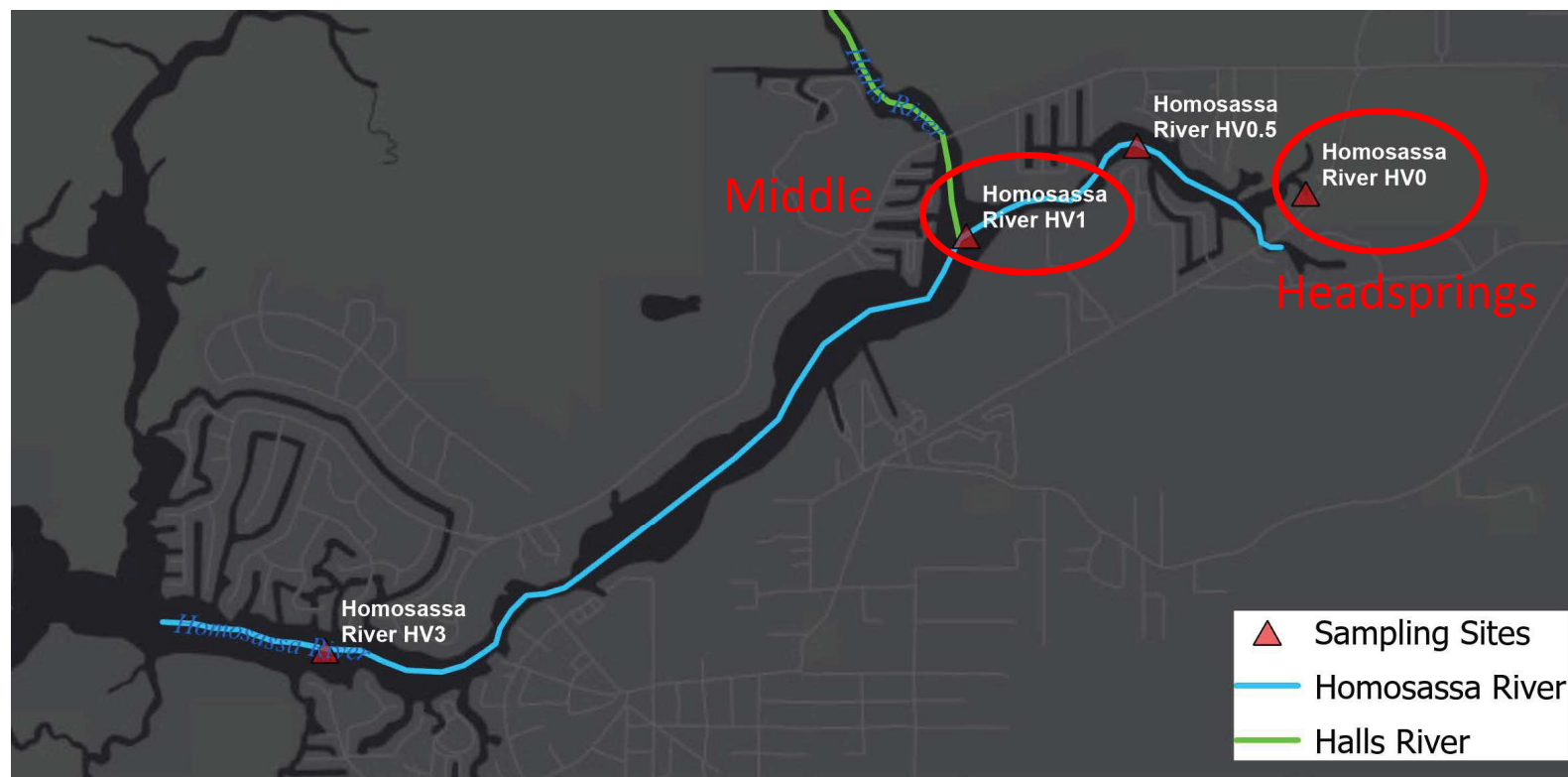
Homosassa - Current Quantifiable Objectives

Water Quality	Target
Water clarity – river average	>20 feet
Water clarity – near the headspring	>40 feet
Nitrate concentration in the river	<0.23 mg/L
Water Quantity	
Minimum flow for the river system	>97% natural flow
Natural Systems	
Coverage of desirable benthic habitat (SAV, oysters, etc.) in the river	>65%
Coverage of invasive aquatic vegetation (including filamentous algae) in the river	<10%
No net loss of shoreline in natural condition along the river	No net loss

QO: Homosassa – potential refinements

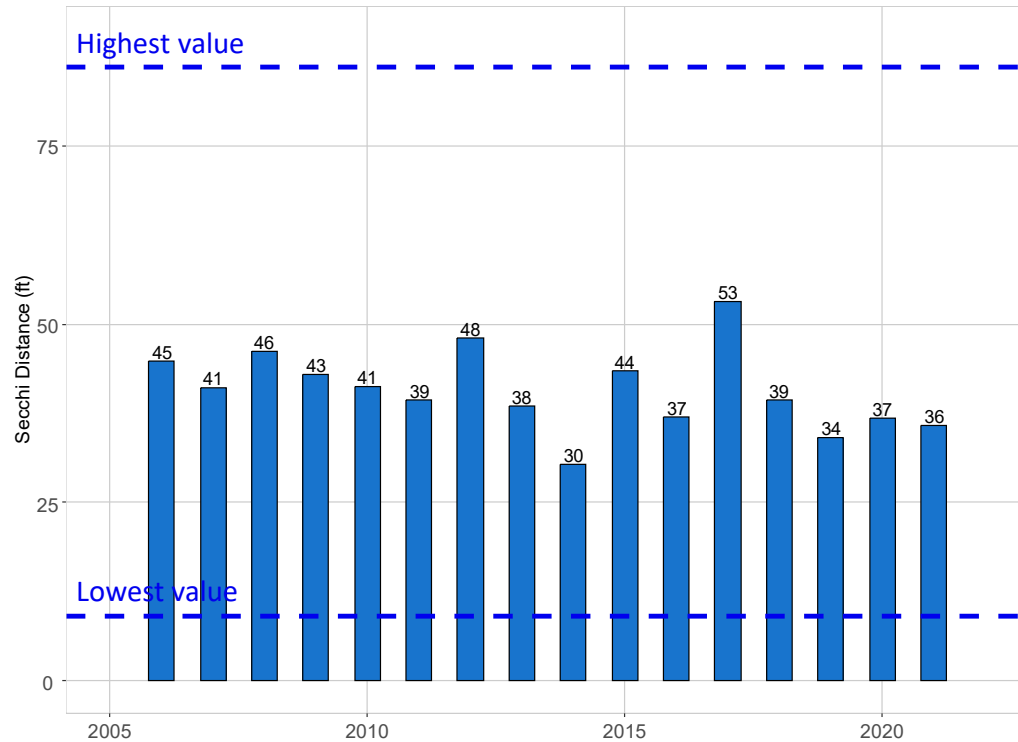
- **Define quantifiable objectives as different river portions**
 - **Water clarity – headsprings, middle**
 - **Natural systems – tidal freshwater habitat, transition, estuarine**
- **Define water clarity as indicator**
- **Define desirable submerged aquatic vegetation targets**

Q0: Homosassa –water clarity



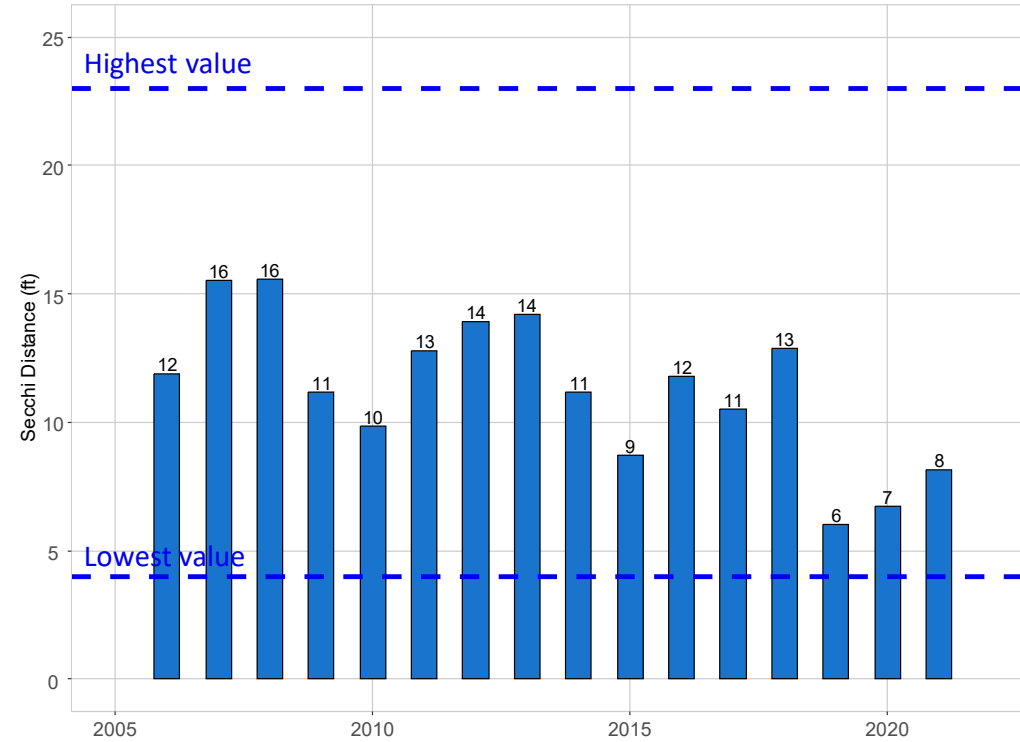
Q0: Homosassa TWG –water clarity

Mean Water Clarity: Headspring



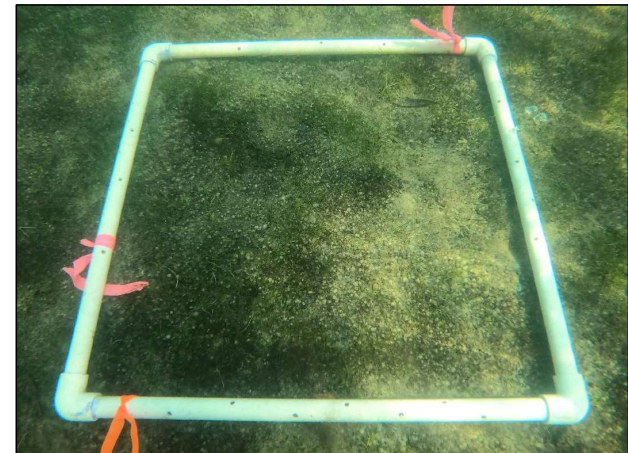
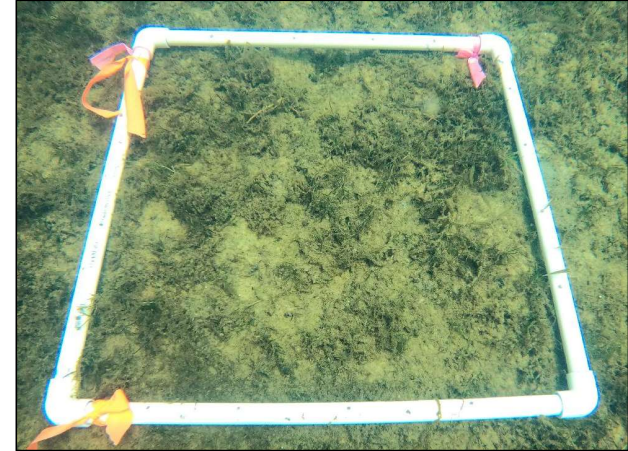
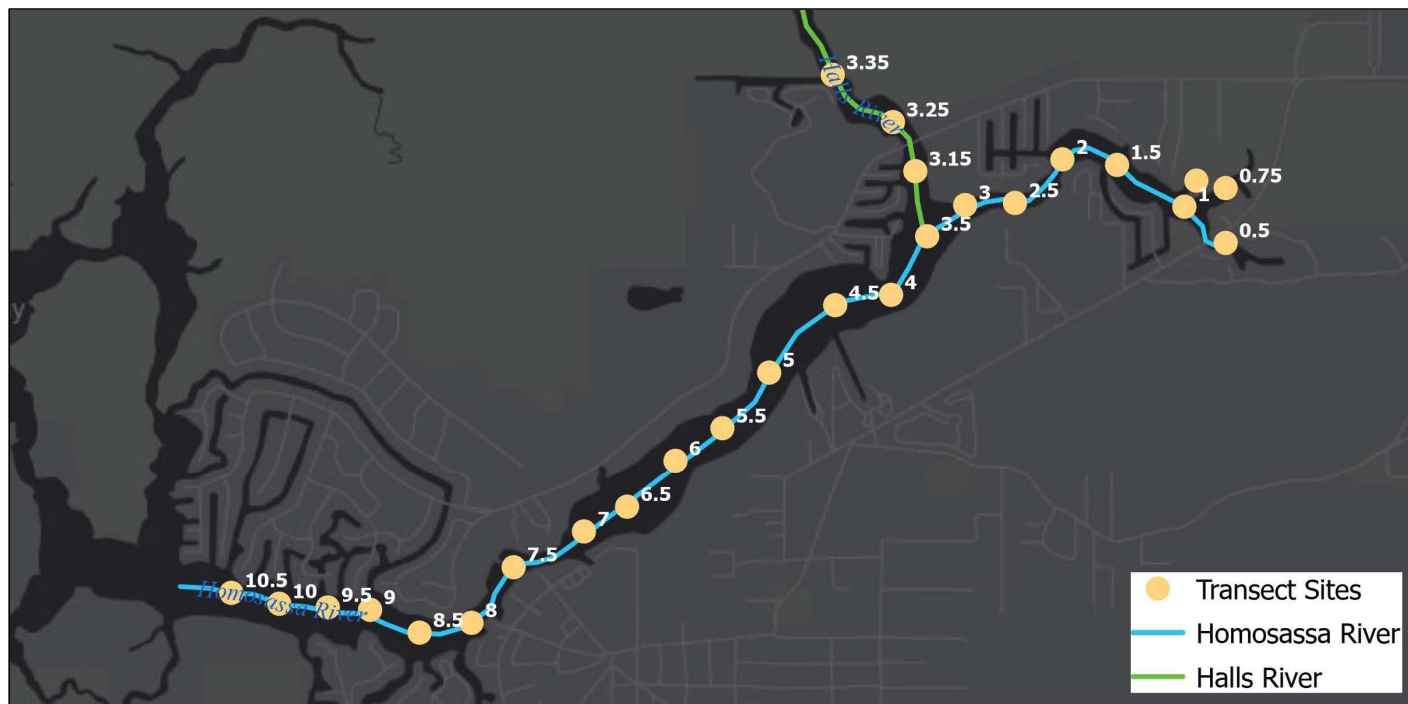
2006 – 2021 average : 40 ft

Mean Water Clarity: Middle

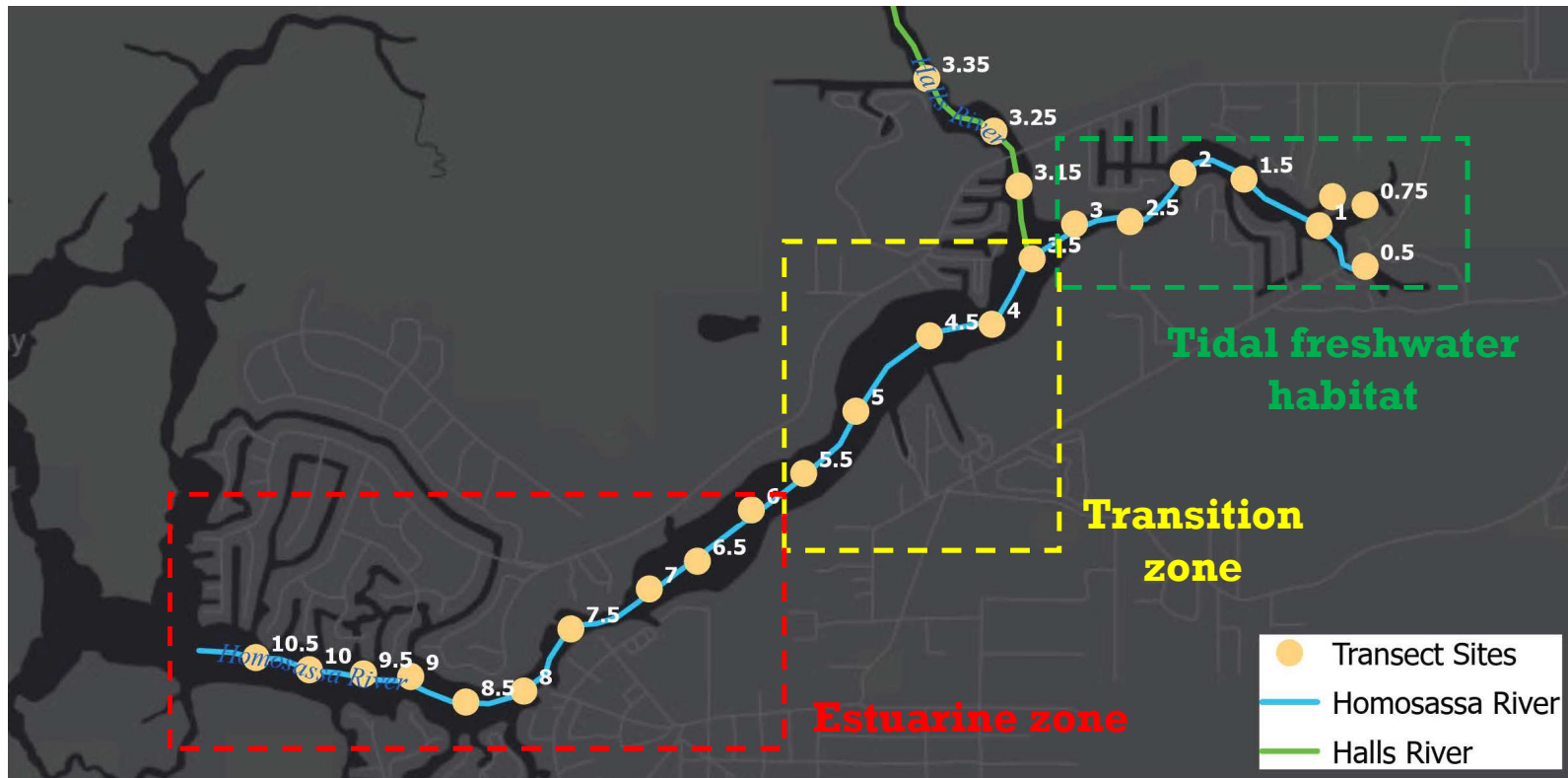


2006 – 2021 average: 11 ft

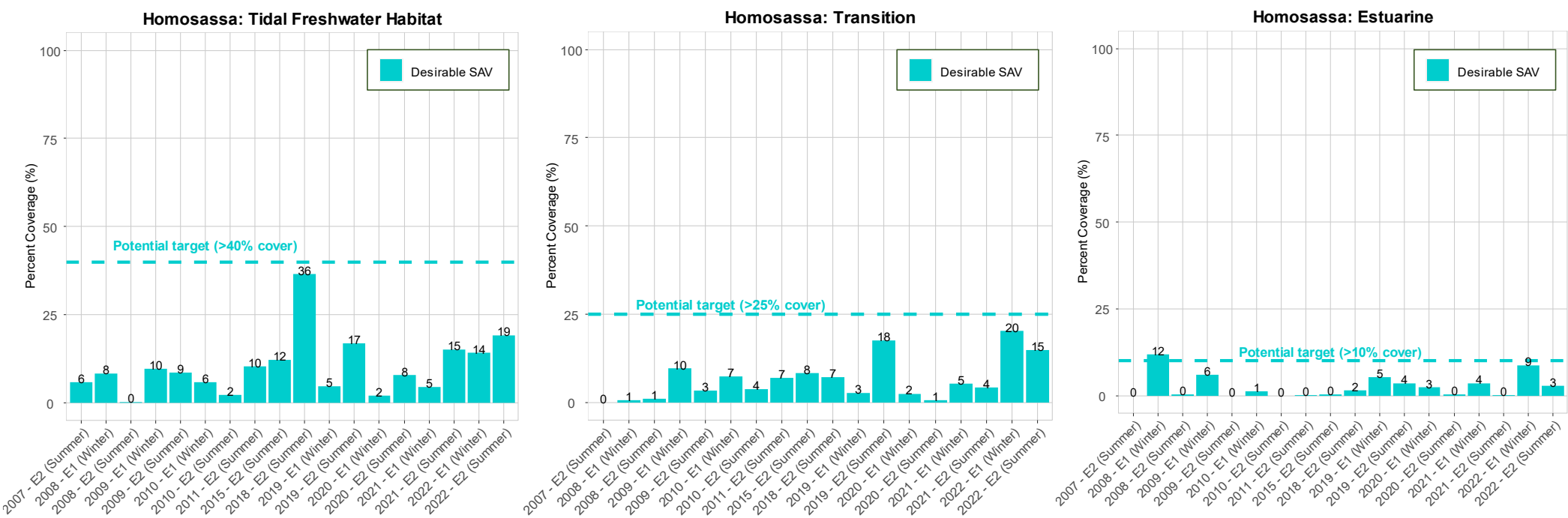
Q0: Homosassa – natural systems



Q0: Homosassa – natural systems



Q0: Homosassa – natural systems



QO: Homosassa TWG – review

Water Quality	Target
Water clarity – river average	>20 feet
Water clarity – near the headspring	>40 feet
Nitrate concentration in the river	<0.23 mg/L
Water Quantity	
Minimum flow for the river system	>97% natural flow
Natural Systems	
Coverage of desirable benthic habitat (SAV, oysters, etc.) in the river	>65%
Coverage of invasive aquatic vegetation (including filamentous algae) in the river	<10%
No net loss of shoreline in natural condition along the river	No net loss

Indicators

Water clarity	Threshold
Near the headspring	40 ft
Middle portion of river	11 ft

Quantifiable Objectives

Water quality	Target
Nitrate concentration in the springs	< 0.23 mg/L
Water quantity	
Minimum flows for the springs and river	> 95% natural flow
Natural systems	
Coverage of desirable submerged aquatic vegetation in the tidal freshwater habitat.	> 40%
Coverage of desirable submerged aquatic vegetation in the transition zone.	> 25%
Coverage of desirable submerged aquatic vegetation in the estuarine zone.	> 10%
Coverage of invasive aquatic vegetation in the tidal freshwater habitat, transition zone, and estuarine zone.	< 10%
No net loss of shoreline in natural condition along the river.	No net loss.

District staff recommendation

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

- Update minimum flows target as adopted
- Redefine water clarity as an indicator
- Define water clarity evaluated as headsprings and middle portions
- Define natural systems evaluated as tidal freshwater habitat, transition, and estuarine portions
- Redefine desirable submerged aquatic vegetation targets