

# Quantifiable Objective Refinement

Crystal River/Kings Bay



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# QO: Crystal River TWG Discussions

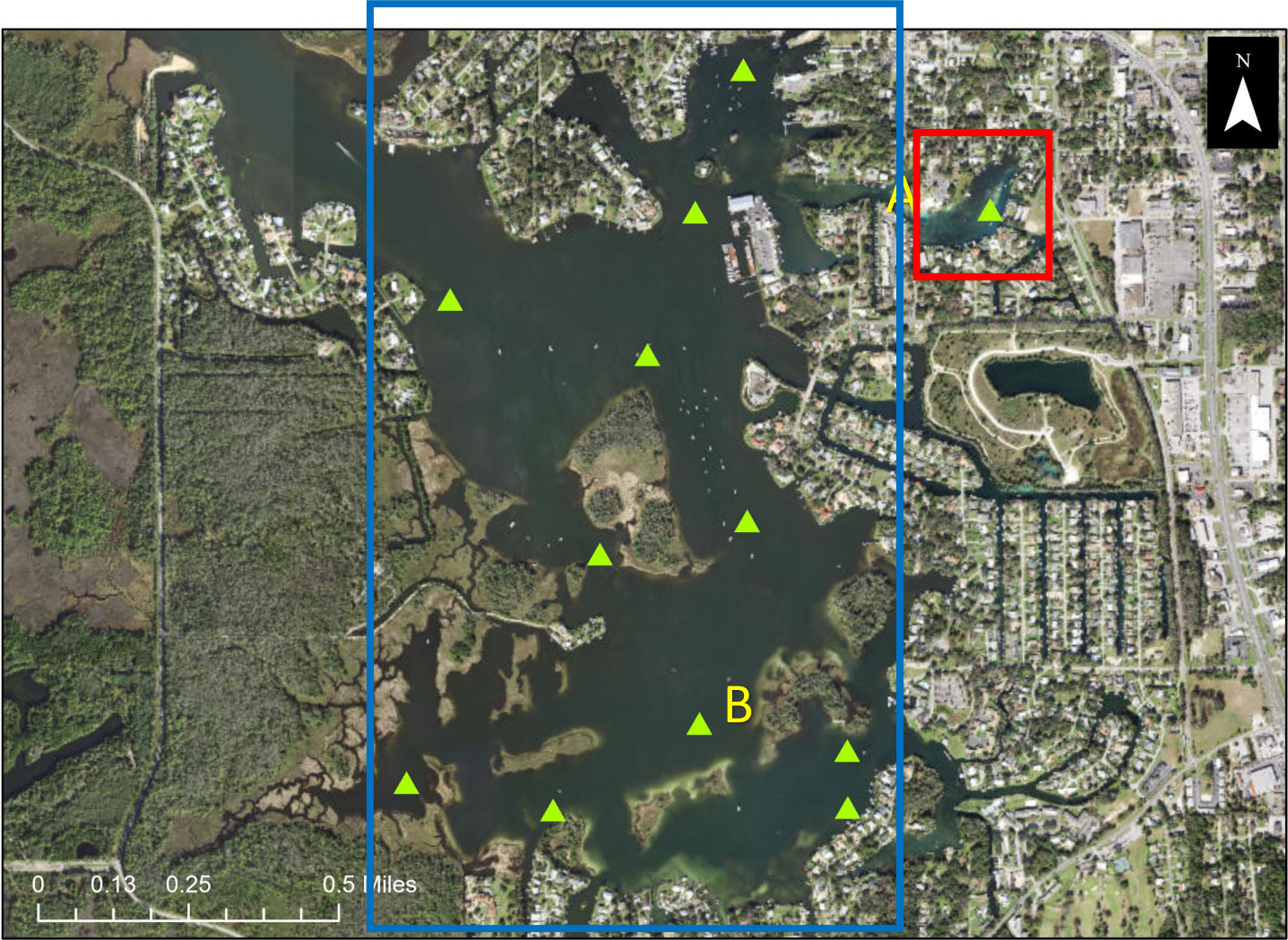
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- **Define quantifiable objectives as different portions**
  - Water clarity - Hunter Cove & Kings Bay Proper
- **Define water clarity and chlorophyll as indicators**

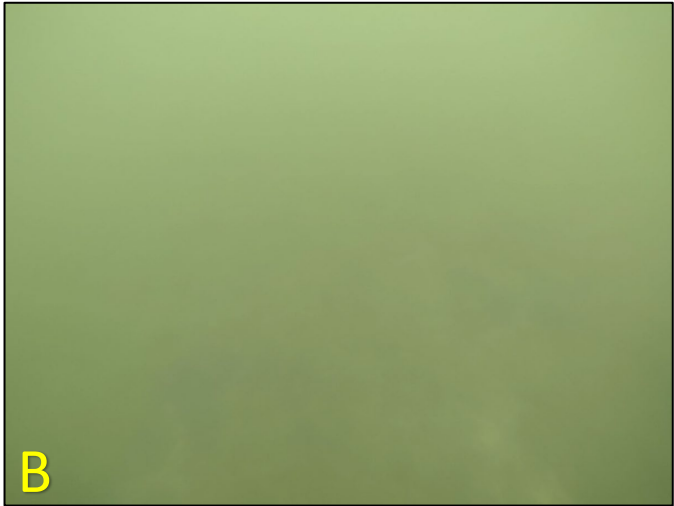
# QO: Crystal River TWG –water clarity



# QO: Crystal River TWG –water clarity



Hunter Cove

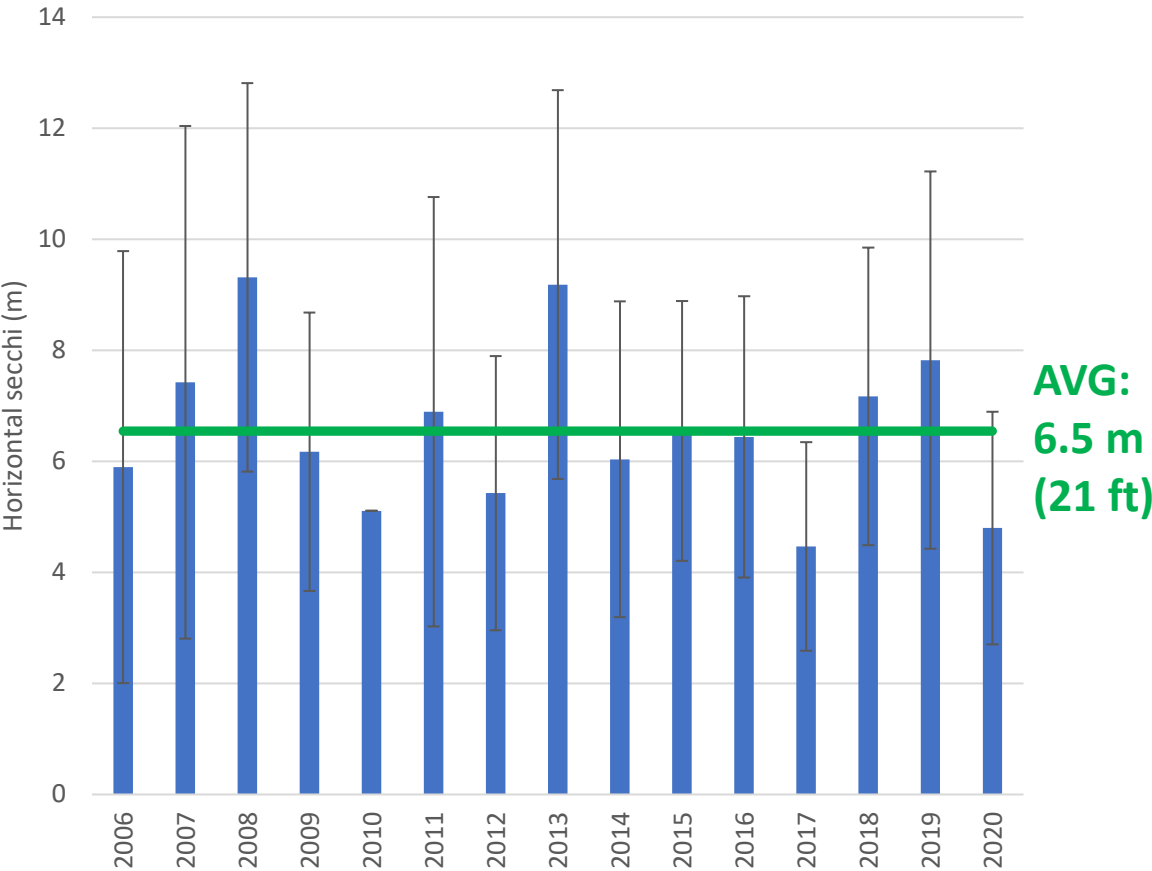


Kings Bay Proper

# Q0: Crystal River TWG –water clarity

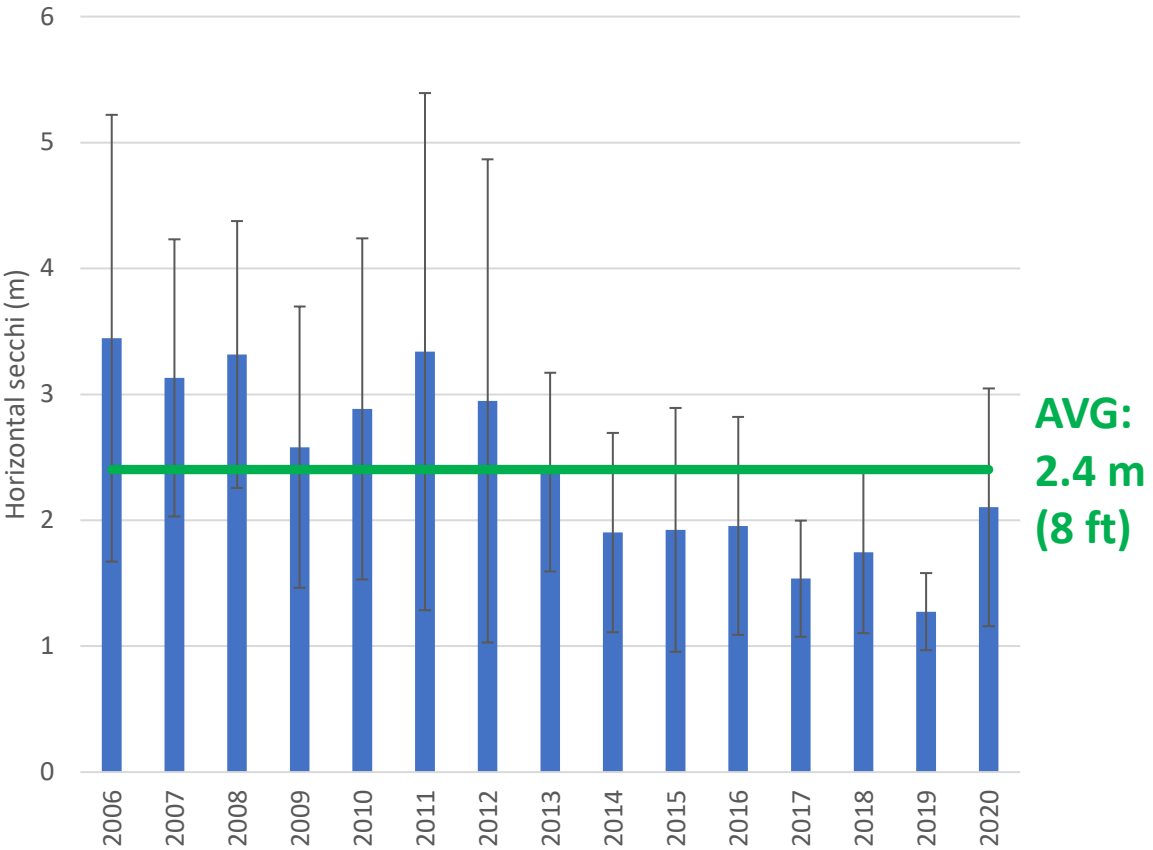
## HUNTER COVE

Annual Clarity Average: Hunter Cove

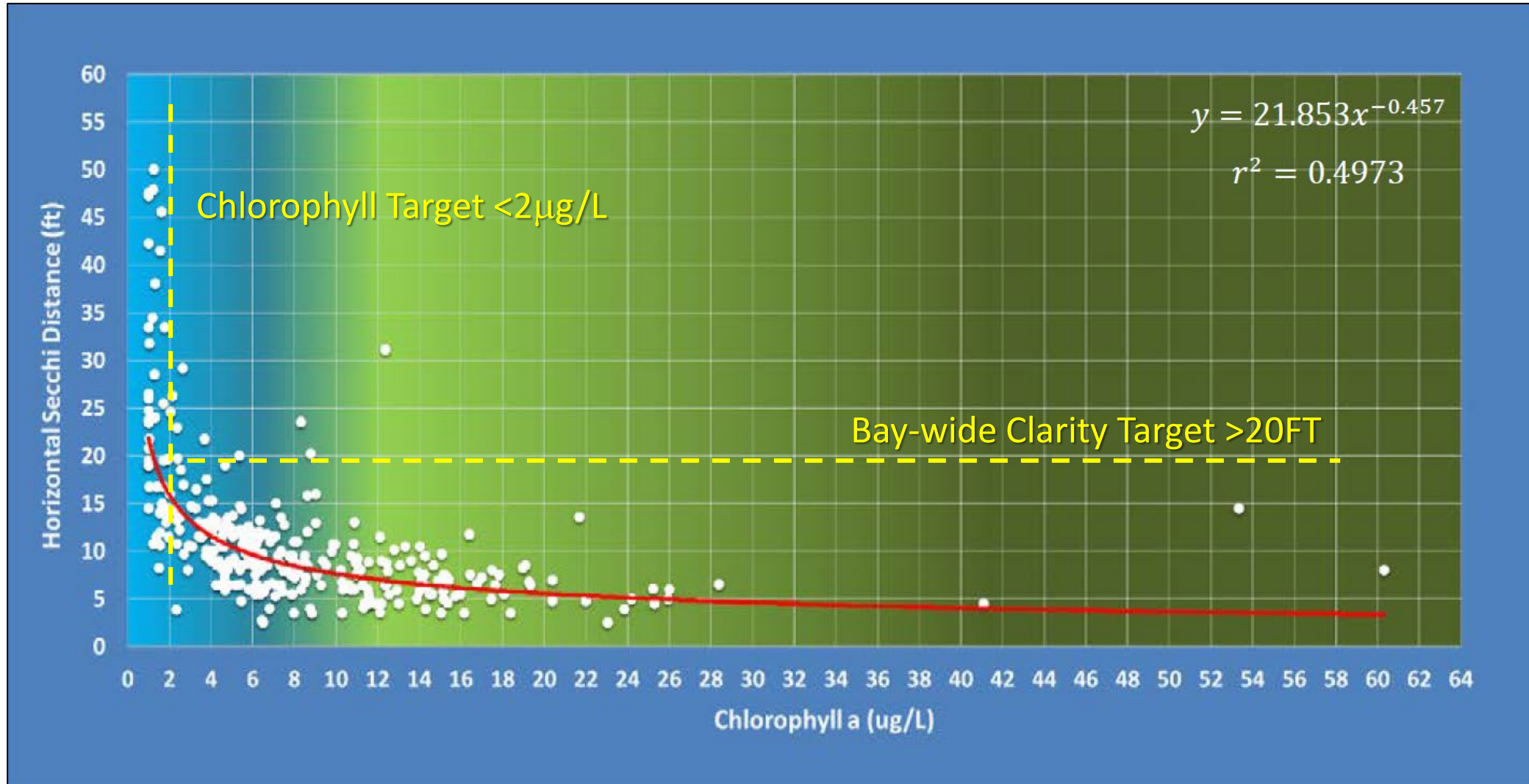


## KINGS BAY PROPER

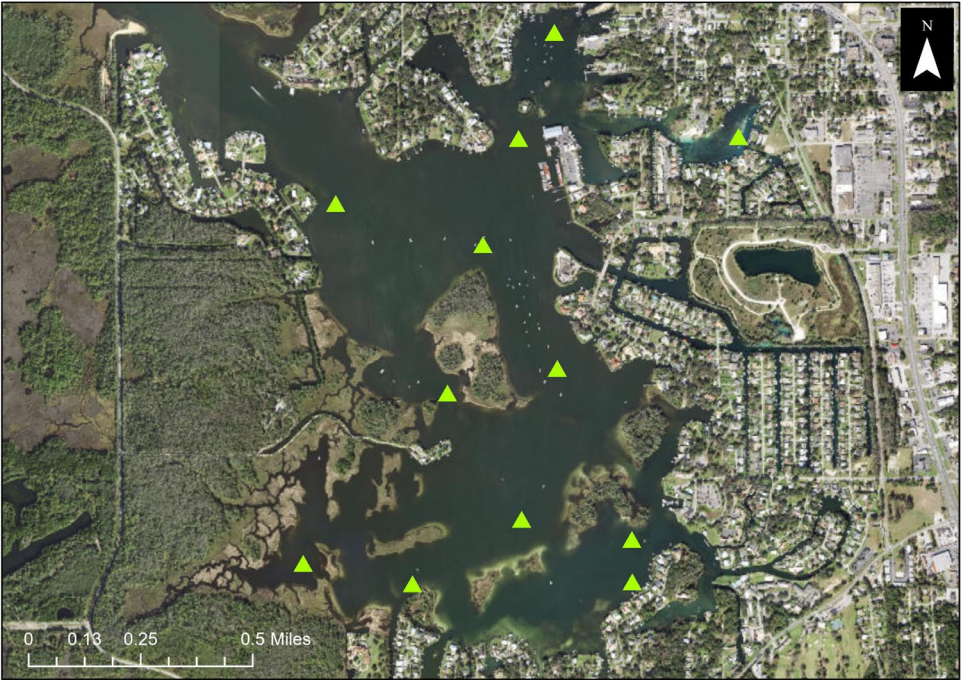
Annual Clarity: Kings Bay Proper



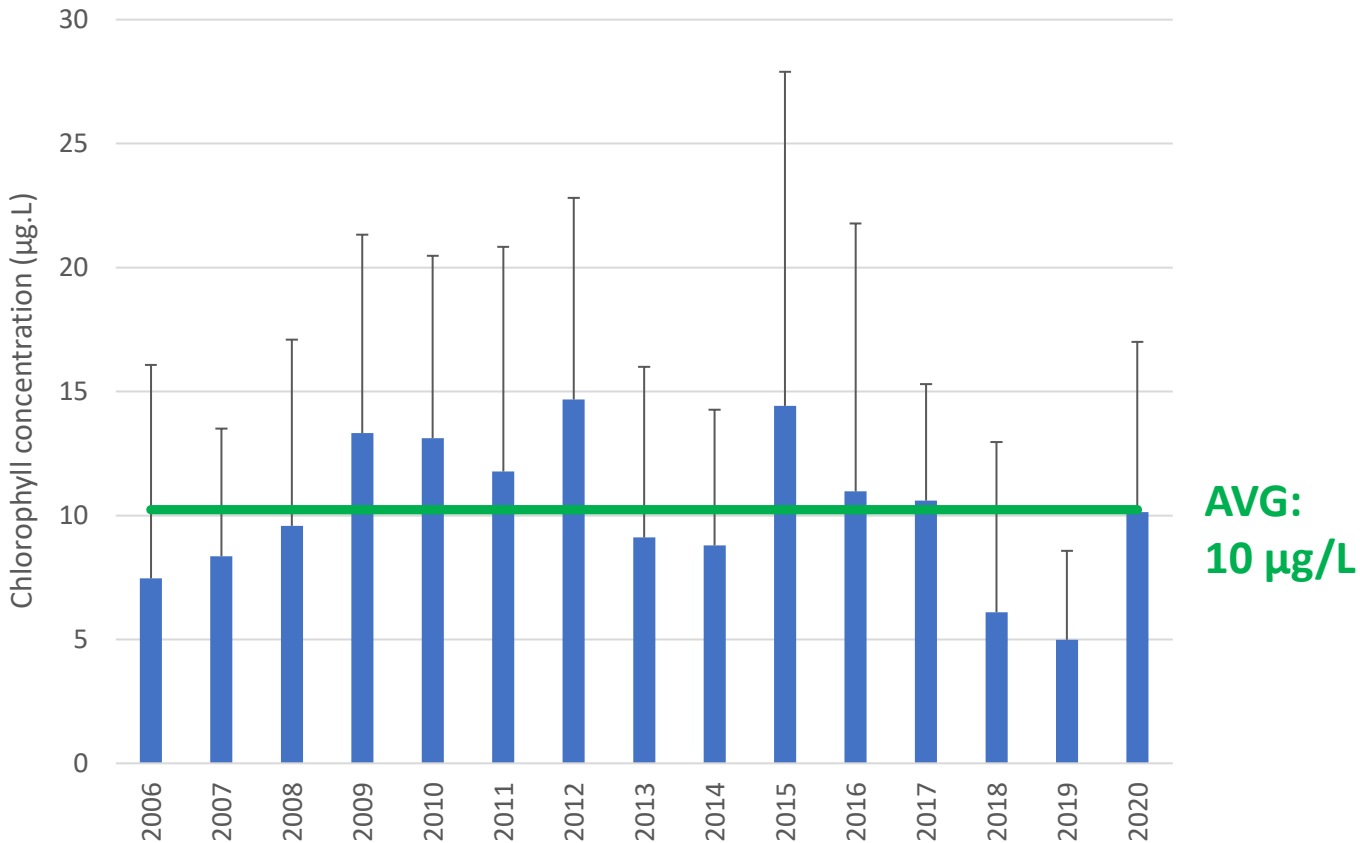
# Q0: Crystal River TWG – chlorophyll



# QO: Crystal River TWG – chlorophyll



Kings Bay: Chlorophyll



# QO: Proposed refinements

**CURRENT**

**OBJECTIVES:**

Water Quality	Target
Water clarity - bay wide	>20 feet
Water clarity – spring areas	>60 feet <sup>1</sup>
Total nitrogen concentration in the bay	<0.28 mg/L <sup>2</sup>
Total phosphorus concentration in the bay	<0.032 mg/L <sup>2</sup>
Chlorophyll concentration in the bay	<2.0 µg/L <sup>3</sup>

**PROPOSED**

**REFINEMENTS:**

Indicators	Threshold
Water clarity - Hunter Cove	21 ft
Water clarity - Kings Bay Proper	8 ft
Chlorophyll concentration in the bay	10 µg/L

Quantifiable Objectives	
Water quality	Target
Total nitrogen concentration in the bay	< 0.28 mg/L
Total phosphorus concentration in the bay	< 0.032 mg/L
Water quantity	
Minimum flows for the springs and river	> 89% natural flow

# District staff recommendation

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

- Update minimum flows target as adopted
- Redefine water clarity and chlorophyll as an indicators
- Define water clarity evaluated as Hunter Cove and Kings Bay Proper