

Improving spatial resolution in estimates of seagrass depth of colonization

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1 Outline

- Needs
 - Seagrass related to habitat quality and strongly affected by water clarity
 - Extensive datasets describing historical and current seagrass growth patterns and distribution in Florida estuaries
 - No consistent approach for estimating depth of colonization (DoC) to establish restoration targets
 - WBID has been considered appropriate management unit although considerable spatial heterogeneity in seagrass growth
 - Reproducible and empirical approaches can be developed that leverage multiple types of information to provide more consistent estimates for restoration targets or nutrient criteria
- Objectives
 - Use information-rich datasets to estimate seagrass DoC by incorporating spatially referenced information
 - Provide a basis for using these estimates to inform nutrient criteria development using empirical relationships with water clarity
- Approach
 - Describe Hagy method and/or WBID approach, emphasis on situations where seagrass growth is spatially variable or when restoration target is misinformed
 - Describe spatially-referenced method, case studies
 - Compare/contrast the two, with emphasis on relation to secchi data

- Implications for criteria development and/or restoration targets
- To do
 - Rectify seagrass depth bin procedures
 - Tidal datum correction
 - Segment specific relationship of seagrass depth of col w/ Secchi
 - Compare cumulative sum approach with binning
 - Quantitative evaluation of grid spacing, grid location, and radius