Grain size analysis: Ability of living shorelines to dissipate high energy **boat wakes**

Presenter: Amie Acevedo Introduction:



Sample Sites



Treatment versus Control

If the treatments work, then we expect to see finer grain sizes behind breakwaters and gabions.

Methods:



30% Hydrogen peroxide added to dissolve organic matter



Wet sieved to separate silt & clay content from the sample



Sediment dried in oven



Sodium hexametaphosphate added and shaken on orbital shaker



Remaining sediment dried in oven then dry sieved to separate by grain size.

Living shorelines can dissipate boat wakes and increase sediment deposition ... sometimes.





The breakwater and gabion treatment seemed to be successful at Site A because there were greater percentages of silt and clay behind the treatments.

Sites B and C seemed to be less successful.



Sites revealed great oyster recruitment in the gabions!

Conclusion:

The ability of living shoreline treatment to mitigate wave energy is not consistent across all sites.



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Breakwaters require a significant amount of manual labor and maintenance.





