



Florida Department of Environmental Protection

Living Shorelines Recent Research & Development Session

Materials



Andrea Noel
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Materials

Securing loose oyster shell

- Naltex
- Coconut Fiber
- Gabions

Anchoring, securing, supplementing substrate

- Coconut Fiber Logs
- Coconut Fiber Mats





Materials

Naltex – plastic mesh bags



Coconut Fiber – Woven mesh bags



Gabions –
Metal cages





Materials



Naltex – Plastic Mesh Bags

- Cost - ~\$0.26 per bag
- Longevity – 1st installation June 2012, still performing well.

Pros -

- Inexpensive
- Lightweight
- Versatile
 - Sizing
 - placement

Cons –

- ~10% loss due to ripping during transportation to site.



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Coconut Fiber – Woven Mesh Bags

- Cost - ~\$6.32 per bag
- Longevity – 1st installation April 2014, lasted one year.

Pros -

- Renewable material (Buyer Beware)

Cons –

- Expensive
- Fibers stretch when wet allowing contents to escape.
- Natural fibers degrade quickly leaving a ball of plastic filaments.



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Gabions – Metal Cages

- Cost - ~\$5.50 per cage
- Longevity – 1st installation March 2016, time will tell.

Pros -

- Inexpensive vs coverage
- Great surface area
- Stable due to weight
- Versatile
 - Sizing
 - design

Cons –

- Heavy, cumbersome to move to site.





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Coconut Fiber Logs – Wave Breaks

- Cost - ~\$100 per log or \$10 per foot of shoreline
- Longevity – Installation April 2014, lasted 6 months.



Pros -

- Renewable Materials
- Great surface area, showed initial accretion.

Cons –

- Costly
- Hard to secure, (they float).
- Degrade quickly



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Coconut Fiber Mats – supplement substrate

- Cost - ~\$2 per linear foot
- Longevity – 1st installation April 2014, Still performing

Pros -

- Great surface area
- Good base layer. Protects bags from sinking and prevents excessive sediment coverage.
- Provides stability to roots of marsh plants

Cons –

- Added cost to project.





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Thank You
Questions??

Andrea.Noel@dep.state.us.fl

904-823-4500

