Island X Beach Renourishment Project

Accidental Consulting Services

"If we give you the right answer it was an accident."

The Island X Community Council has had several meetings to discuss what to do about their rapidly declining beach. This is a rich community where people bought their property several years ago because of broad, beautiful beaches. They are not happy that their beach has disappeared.

You, as an employee of the Accidental Consulting Services, have been hired to Determine what kind of sand to use to renourish their beach. You must consider A number of factors when making this decision. Even though the citizens have Chosen a number of beautiful sands to consider, you are the expert and must Decide whether these potential "source sands" are appropriate.

You will consider the following factors:

The rest of this activity is coming soon…..take a look at the photos that go along with it and if you are interested in using it with your students please contact us at susan.grammer@wmich.edu

Student Instructions

Coming soon

Click on picture to enlarge

Joulter's Cay, Bahamas

Un-sieved sand

>2mm fraction
X% by weight

1-2mm fraction
X% by weight

500um-1mm fraction
X% by weight

250um-500um fraction
X% by weight

125um-250um fraction
X% by weight

Next Beach Slide 10

Click picture to go back

Joulter's Cay, Bahamas

Un-sieved sand

Click picture to go back

Joulter's Cay, Bahamas

>2mm fraction
X% by weight

Click picture to go back

Joulter's Cay, Bahamas

1-2mm fraction
X% by weight

Click picture to go back

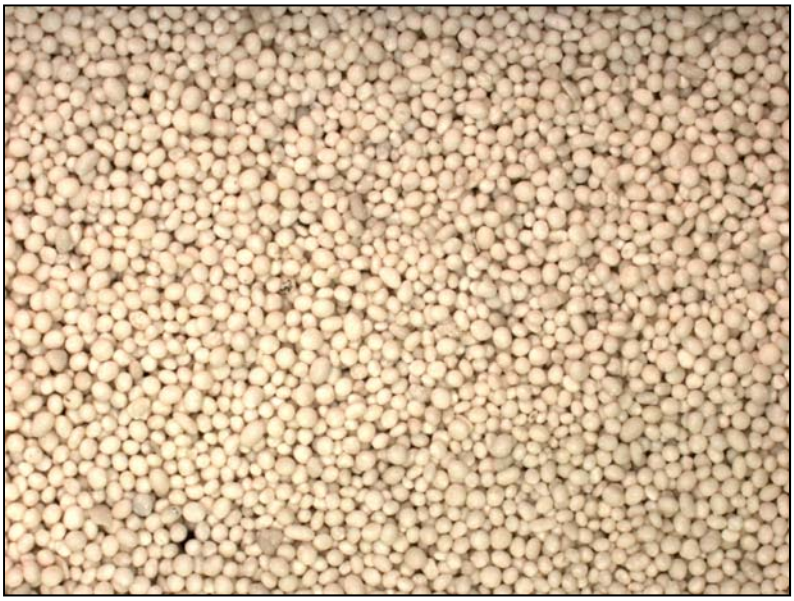
Joulter's Cay, Bahamas

500um-1mm fraction
X% by weight

Click picture to go back

Joulter's Cay, Bahamas

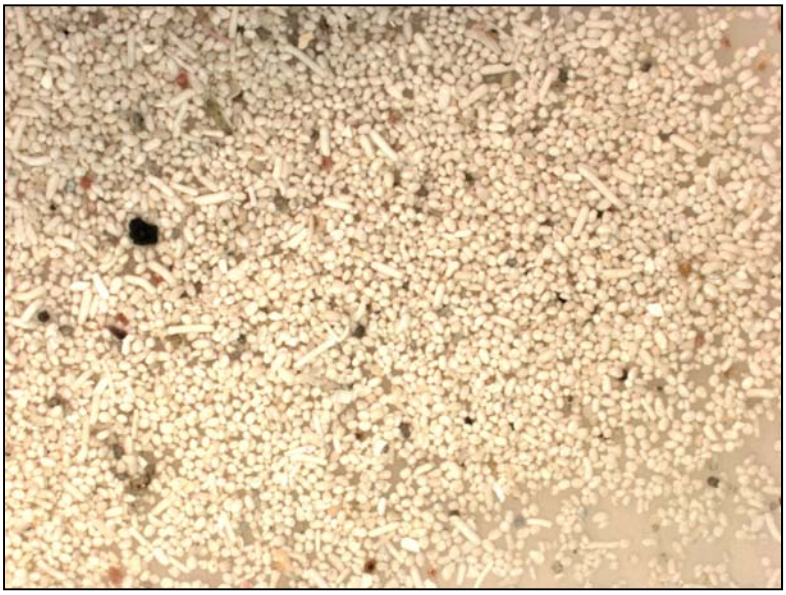
250um-500um fraction
X% by weight



Click picture to go back

Joulter's Cay, Bahamas

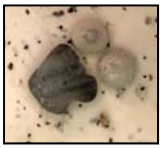
125um-250um fraction
X% by weight



Click on picture to enlarge

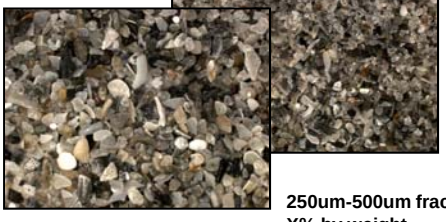
Delray Beach, FL

Un-sieved sand



>2mm fraction
X% by weight

1-2mm fraction
X% by weight



500um-1mm fraction
X% by weight

250um-500um fraction
X% by weight

125um-250um fraction
X% by weight

63-125um fraction
X% by weight

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Click picture to go back

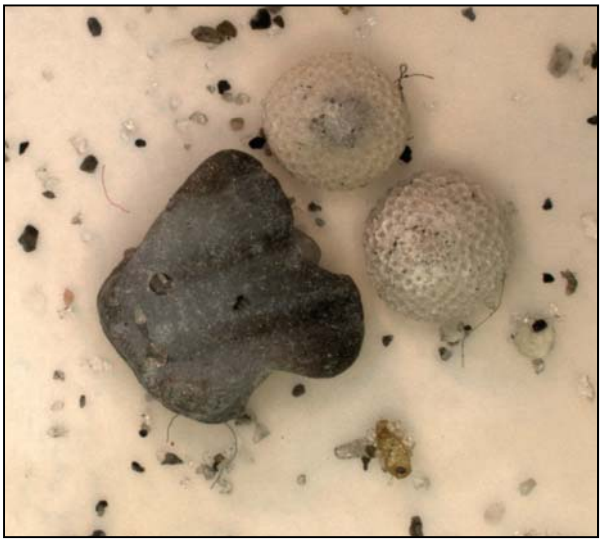
Delray Beach, FL

Un-sieved sand

Click picture to go back

Delray Beach, FL

>2mm fraction
X% by weight



Delray Beach, FL

1-2mm fraction
X% by weight

Click picture to go back

Delray Beach, FL

500um-1mm fraction
X% by weight

Click picture to go back

Delray Beach, FL

250um-500um fraction
X% by weight

Click picture to go back

Delray Beach, FL

125um-250um fraction
X% by weight

Click picture to go back

Delray Beach, FL

63-125um fraction
X% by weight

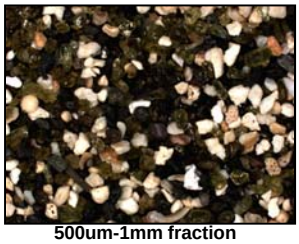
Click on picture to enlarge

Papakolea Beach, Hawaii

Un-sieved sand

>2mm fraction
X% by weight

1-2mm fraction
X% by weight



500um-1mm fraction
X% by weight

250um-500um fraction
X% by weight

125um-250um fraction
X% by weight

Views of Papakolea Beach, Hawaii

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Click picture to go back

Papakolea Beach, Hawaii

Un-sieved sand

Click picture to go back

Papakolea Beach, Hawaii

>2mm fraction
X% by weight

Click picture to go back

Papakolea Beach, Hawaii

1-2mm fraction
X% by weight

Click picture to go back

Papakolea Beach, Hawaii

500um-1mm fraction
X% by weight

Click picture to go back

Papakolea Beach, Hawaii

250um-500um fraction
X% by weight

Click picture to go back

Papakolea Beach, Hawaii

125um-250um fraction
X% by weight

Click on picture to enlarge

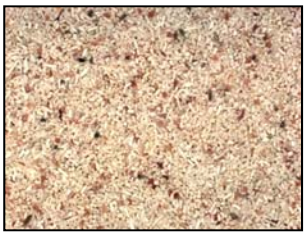
Cayman Islands

Un-sieved sand

1-2mm fraction
X% by weight

500um-1mm fraction
X% by weight

250um-500um fraction
X% by weight



125um-250um fraction
X% by weight

Back to Sieve Analysis and Microscopy

Click picture to go back

Cayman Islands

Unsieved sand

Click picture to go back

Cayman Islands

1-2mm fraction
X% by weight

Click picture to go back

Cayman Islands

.5-1mm fraction
X% by weight

Click picture to go back

Cayman Islands

250um-500um fraction
X% by weight

Click picture to go back

Cayman Islands

125um-250um fraction
X% by weight

Views of Papakolea Beach, Hawaii

Benchmarks and Standards

- National Science Education Standards
  - Science as inquiry
  - Earth and space science
  - Science in personal and social perspective
- AAAS Benchmarks for Science Literacy
  - The nature of science
  - The physical setting
  - Common themes
  - Habits of mind
- Michigan Curriculum Framework Science Benchmarks
  - Constructing new scientific knowledge
  - Reflecting on scientific knowledge
  - Using earth science knowledge
- Michigan Curriculum Framework Social Studies Benchmarks
  - ..