**Guided Notes: Shoreline Management Strategies**

Various strategies, including both \_\_\_\_\_\_\_\_ structures and soft alternatives, can be employed to manage beach erosion and shifting shorelines.

**Key Concepts:**

• Beach erosion is defined as the movement of sand and sediment from the shore to \_\_\_\_\_\_\_\_ waters.

• Hard structures for managing beach erosion include:

 1. \_\_\_\_\_\_\_\_ and groins: Built perpendicular to shoreline

 2. \_\_\_\_\_\_\_\_: Built at water's edge or slightly inland

 3. Coconut coir logs: Made of biodegradable \_\_\_\_\_\_\_\_ fibers

• Jetties and groins can cause unintended \_\_\_\_\_\_\_\_ on the downdrift side.

• Seawalls provide additional protection against \_\_\_\_\_\_\_\_ and tsunamis.

• Soft alternative strategies include:

 1. Beach nourishment: Adding \_\_\_\_\_\_\_\_ and sediment to a beach

 2. Vegetation management: Maintaining and introducing \_\_\_\_\_\_\_\_ along shorelines

• Benefits of beach nourishment:

 - Creates new natural environments

 - Rebuilds sand \_\_\_\_\_\_\_\_

 - Protects sediment volume during sea level rise

• Drawbacks of beach nourishment:

 - Very \_\_\_\_\_\_\_\_

 - Not a long-term solution

• Vegetation management helps trap more sand and sediment over \_\_\_\_\_\_\_\_.

**Real World Examples:**

1. Local beach restoration: Research if your nearest beach has undergone any erosion management projects, such as adding \_\_\_\_\_\_\_\_ or building structures.

2. Coastal park visit: Observe any erosion control measures in place, like planted vegetation or \_\_\_\_\_\_\_\_ structures along the shore.

**Word Bank:**

hard

deeper

jetties

seawalls

coconut

erosion

flooding

sand

plants

dunes

expensive

time

sand

man-made