

Ocean 10 Fall 2012

CH 10 Beach and Shoreline Processes

- Beaches: Offshore, nearshore, foreshore, backshore, longshore bar, longshore trough, wave cut bench/abrasion platform, beachface, high tide shoreline, low tide shoreline, berm, wavecut cliff, coast.
- Sediment Transport:
 - Perpendicular (swash/backwash); Seasonal Changes
 - Parallel (Longshore); caused by refraction
- Shoreline Types:
- Erosional: headlands, wave cut cliffs, sea caves, sea arches, sea stacks, marine terraces
- Depositional: bay barrier, bay mouth bar, Tombolo, barrier islands, spit
 - Barrier Island: ocean beach, dunes, barrier flat, high marsh, low marsh, lagoon
- Beach Compartments (littoral cells)
- Emerging Shorelines (Crustal uplift and sea level fluctuations)
- Sea Level Changes (glacial cycles, global climate change)

CH 11 Coastal Waters

- Ocean Ownership: Law of the Sea, EEZ
- Salinity Changes (freshwater runoff, winds, tidal mixing)
- Temperature Changes (latitude, seasonal changes, winds)
- Geostrophic Currents
- Estuary Types
 - Coastal Plain, Fjord, Bar Built, and Tectonic
 - Columbia River: salt wedge
 - Chesapeake Bay: Stratified, seasonally anoxic
- Lagoons: salinity variation
- Pollution: Oil, Mercury bioaccumulation, Plastic