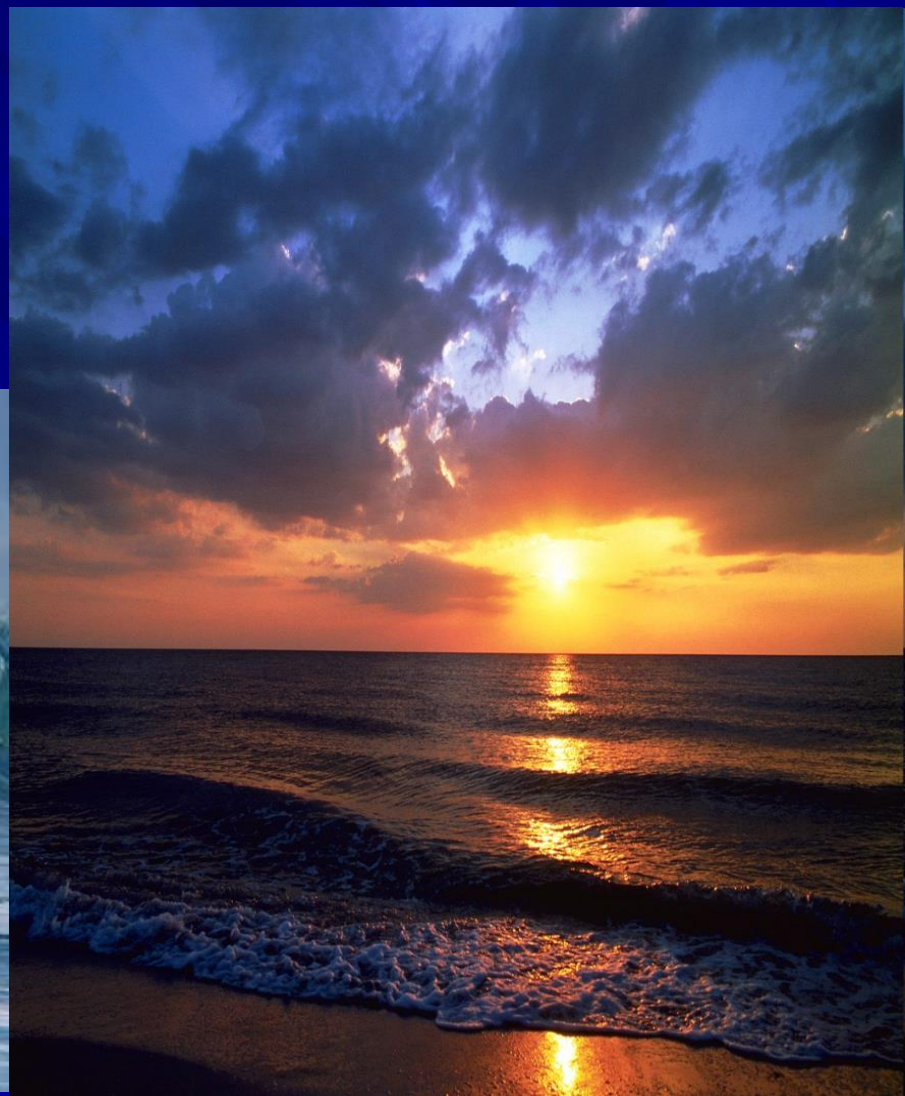
Shoreline Features

Unit 5 - Ch 16.3

Erosional **Forces**

- ***Wave Impact*** – Waves ***crashing*** towards land



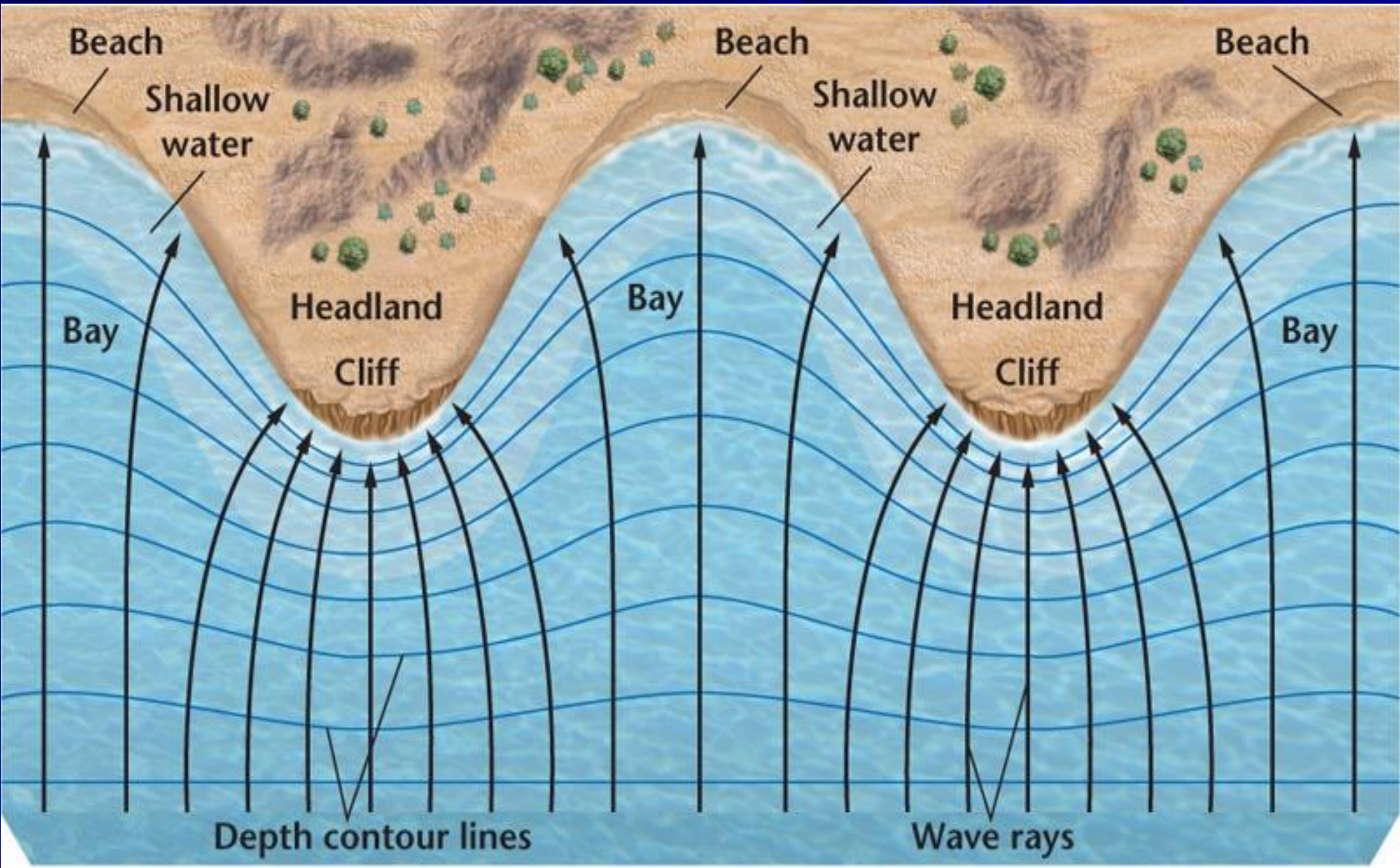
Erosional **Forces**

- ***Abrasion*** – Physical ***scraping*** of rock surfaces by ***friction***

Erosional **Forces**

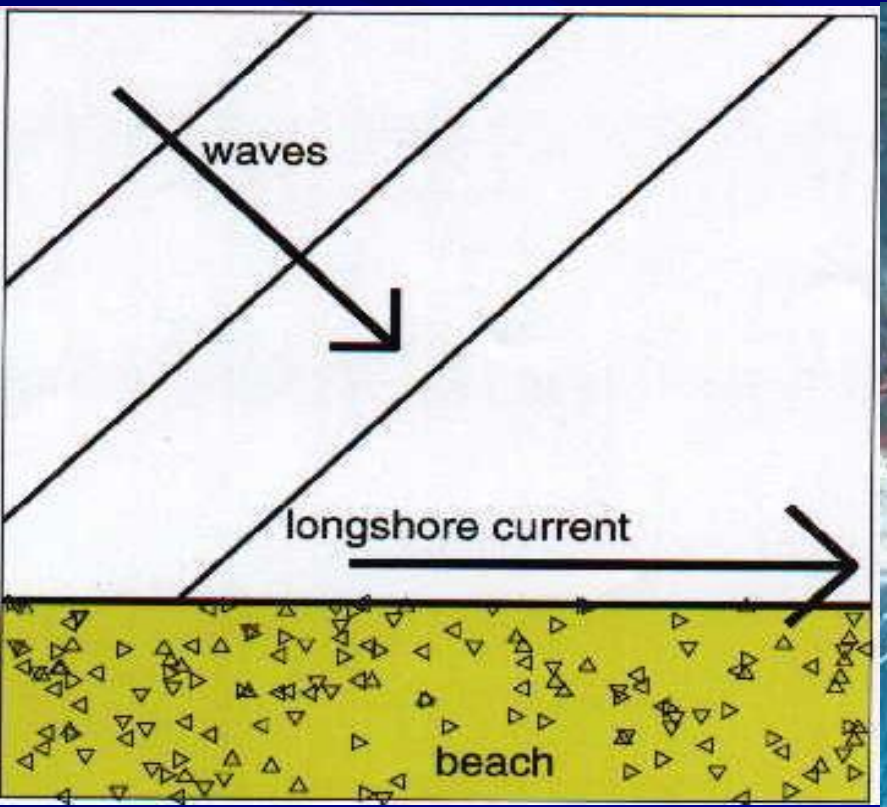
- ***Wave Refraction*** – ***Bending*** of waves

WAVE REFRACTION

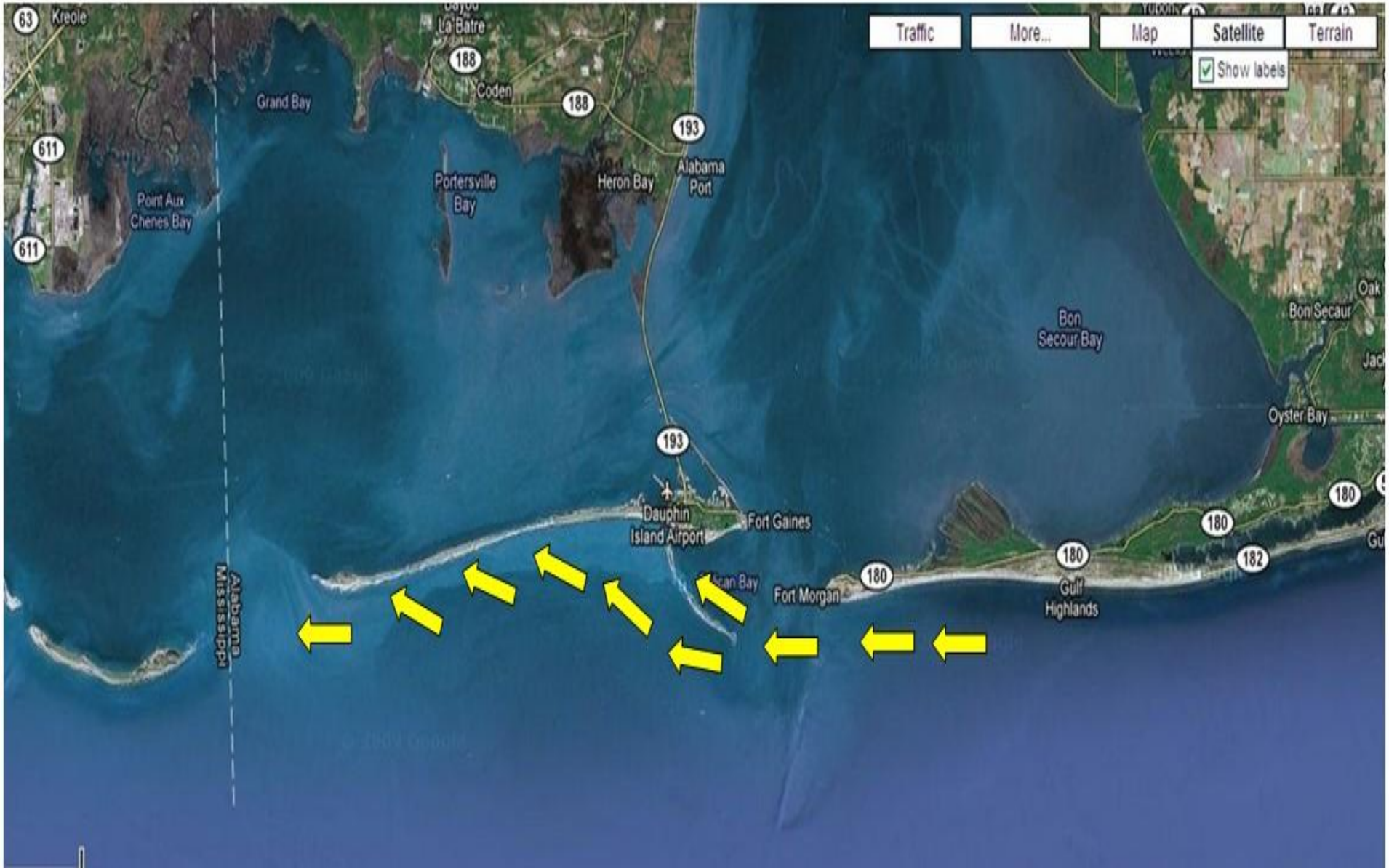


Erosional **Forces**

- ***Longshore Current*** – ***Wind*** flowing ***parallel*** to shore



LONGSHORE CURRENTS



Depositional **Features**

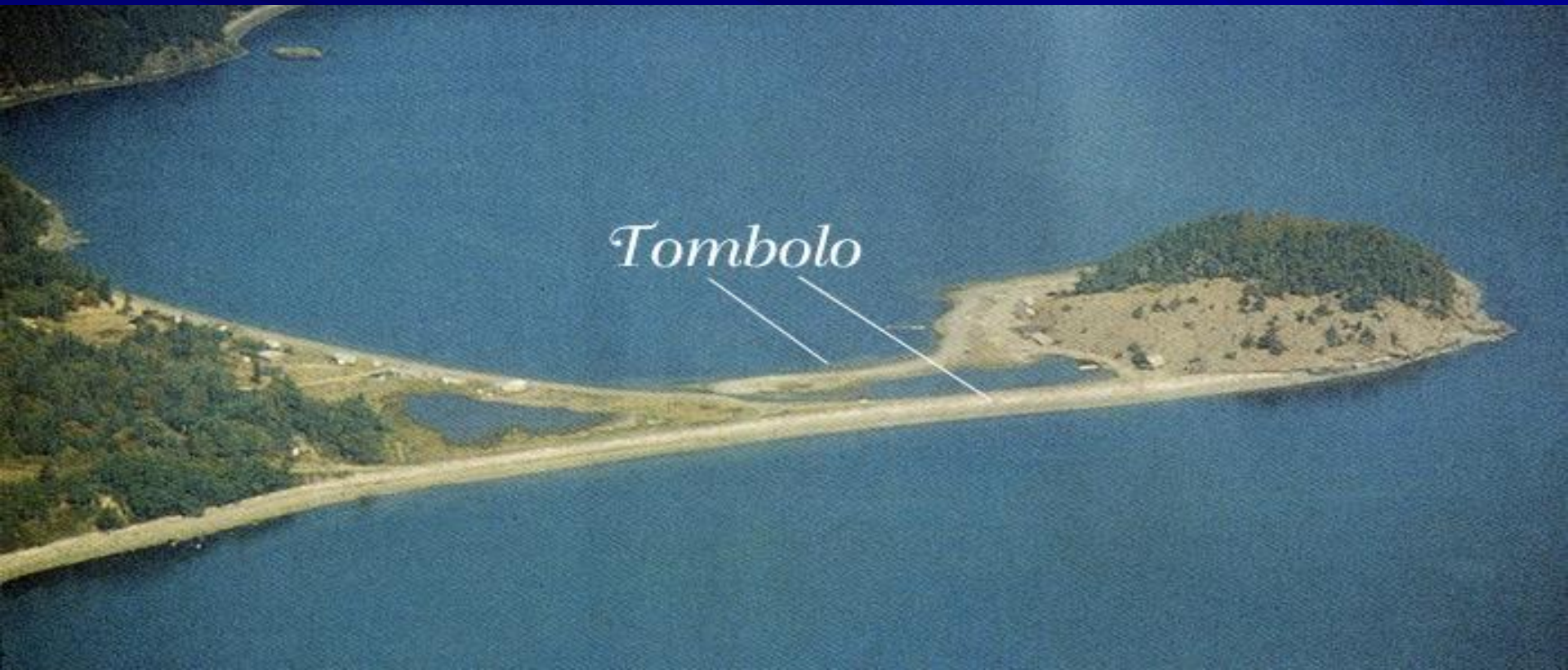
- ***Spit*** – Ridge of ***sand*** projecting from **mouth** of bay and ***hooks***

Depositional **Features**

- ***Baymouth Bar*** – ***Sandbar*** stretching across bay & ***sealing*** it in

Depositional **Features**

- ***Tombolo*** – Ridge of sand *connecting* ***island*** to ***mainland***



Protective Structures

- Designed to ***prevent*** or ***slow*** shoreline ***erosion***

Protective **Structures**

- ***Barrier Island*** – ***Natural*** sandbars ***parallel*** to, but ***separated*** from mainland

- Protects from erosion; ***POOR*** in stable land

Protective **Structures**

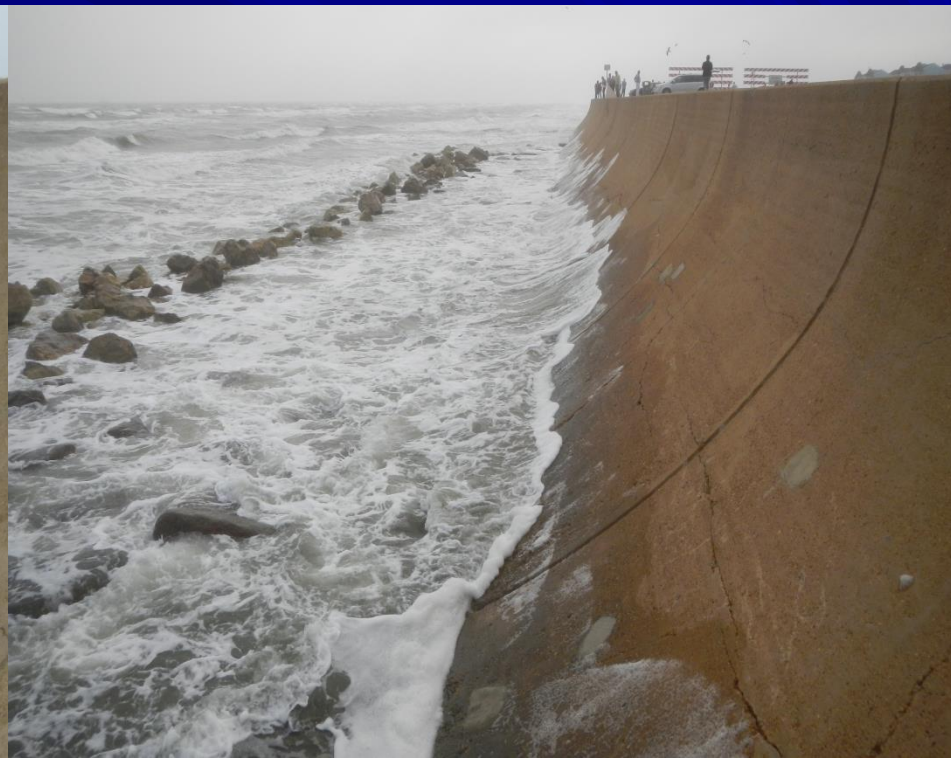
- ***Sand Dunes*** – ***Natural*** barrier to destructive ***wind*** & ***waves***

Protective **Structures**

- ***Groynes*** – ***Man-made*** *feature at* ***right angle*** to beach to ***trap*** sand

Protective **Structures**

- ***Seawalls*** – ***Man-made*** along ***shore*** protecting land from powerful ***waves***



Protective **Structures**

- ***Breakwaters*** – ***Man-made*** offshore features ***parallel*** to land ***reducing*** wave action

Protective **Structures**

- ***Jetties*** – ***Man-made*** built in ***pairs*** protecting **channel** *erosion & deposition*

Beach *Nourishment*

- ***Addition*** of large quantities of ***sand*** to beach system

Beach *Nourishment*

- **Benefits** – ***Restores*** eroded natural features ***(sand dunes, beach)***
  - Structures ***behind*** are protected

- **Disadvantages** – Very ***expensive*** & and must ***repeat*** process

Beach *Nourishment*