

Estuaries and Deltas

Estuary = semi-enclosed coastal environment where freshwater and ocean water meet and mix

Delta = sedimentary deposit at mouth of river that causes coastline to protrude into ocean

Reading Material

“The Estuarine Environment”, from “The World Ocean”
W.A. Anikouchine and R.W. Sternberg, Prentice-Hall

“River Deltas”, from “The Coast of Puget Sound”
J.P. Downing, Puget Sound Books

“River Deltas”, from “Coasts”
R.A. Davis, Prentice-Hall

Impact of sea-level rise on fluvial and glacial valleys

20,000 y to 7,000 y ago

valleys flooded, all sediment trapped

7,000 y ago to present

if little sediment supply – estuaries and fjords still filling
trapping mechanisms very important
(Chesapeake Bay)

if moderate sediment supply – estuaries nearly full
some sediment leaks to continental shelf
(Columbia River)

if much sediment supply – estuaries full and sediment
overflowing

deltas build seaward
(Mississippi Delta)

Chesapeake and
Delaware Bays

Coastal-Plain
Estuaries

Drowned river
valleys

