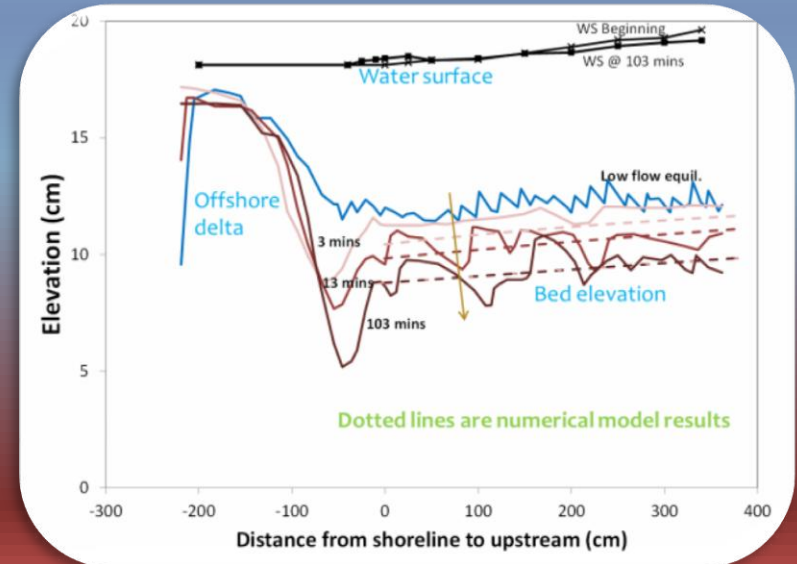
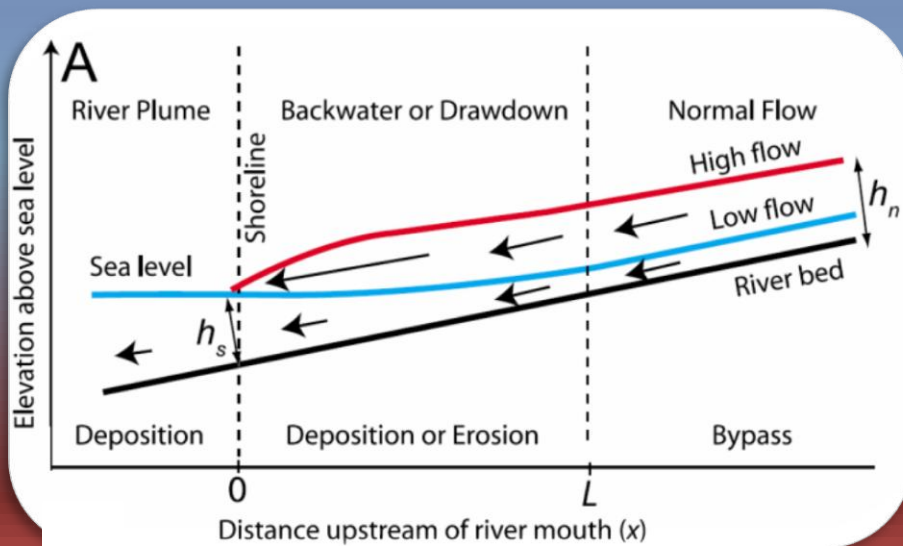


# Backwater controls on fluvial morphodynamics near river mouths

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Computer modeling and comparison to Mississippi River shows that a backwater zone exists at the junction between rivers and the ocean. This zone acts like a dynamic filter on sediment transport reducing the offshore sediment flux at low flow and enhancing the offshore flux during river floods.

Physical flume experiments scour during a high flow event due to backwater dynamics.