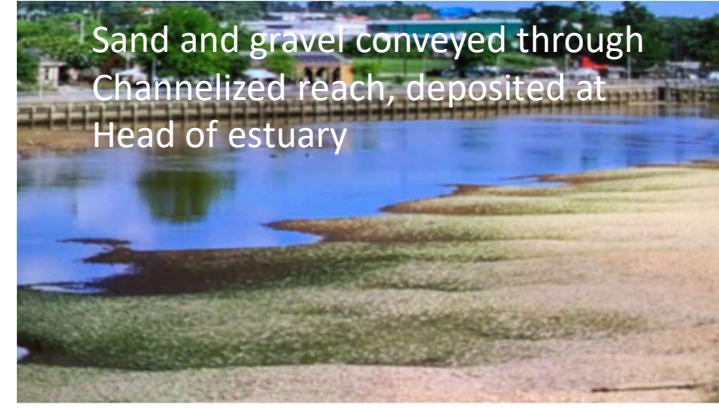
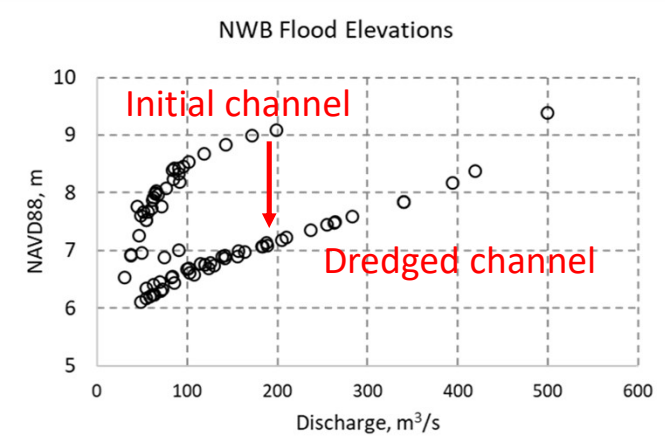
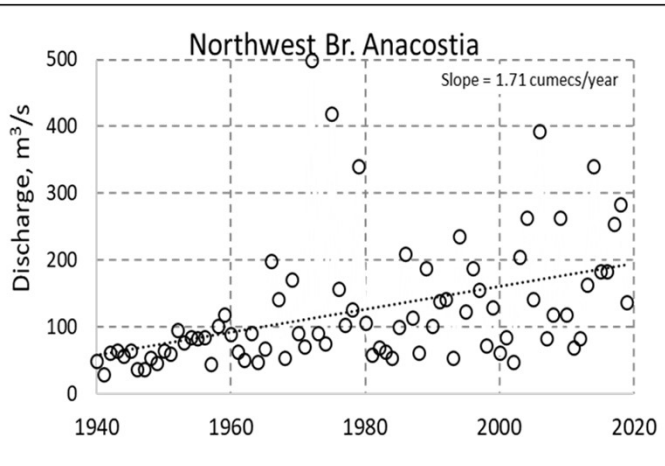
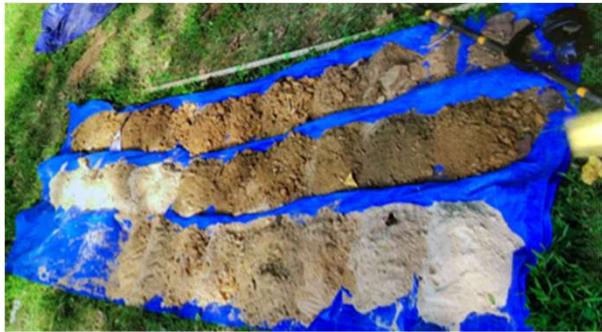


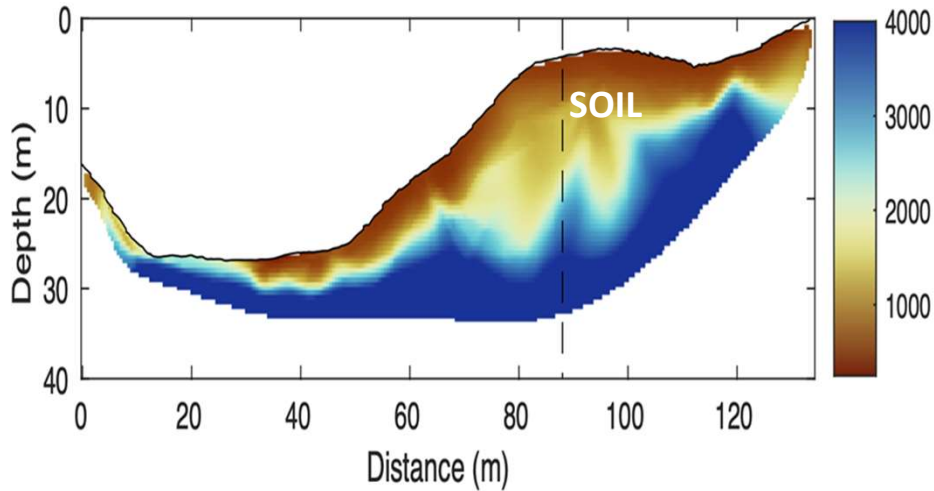
Urban runoff and channelization increases discharge, bank erosion, and stream hydraulics



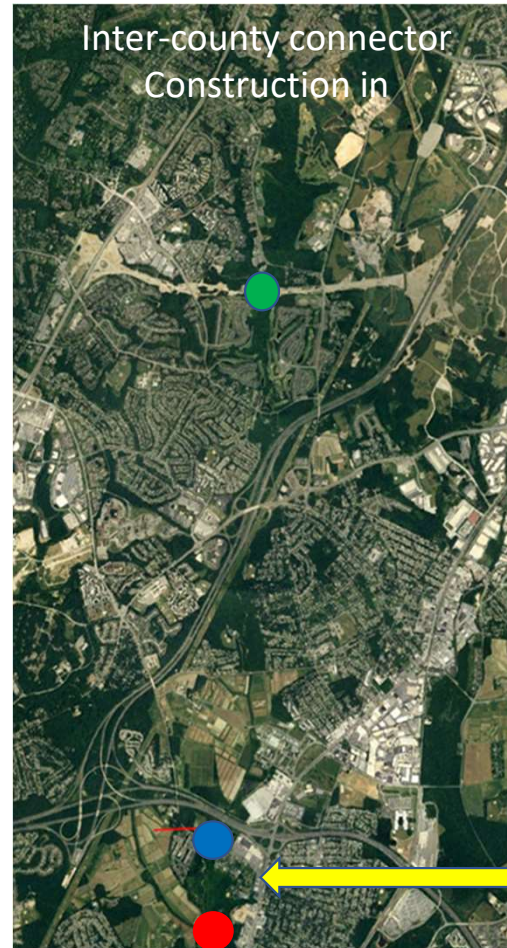
What is the source of sand? Erosion of sub-soils, from road and other construction



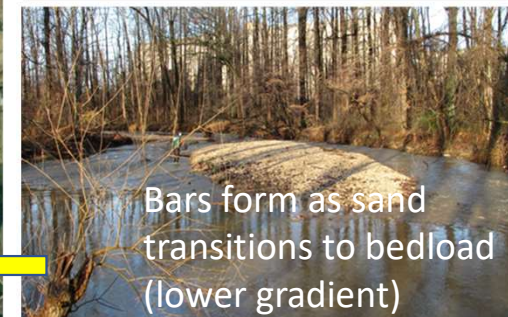
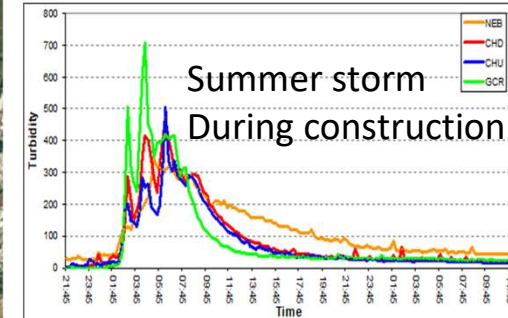
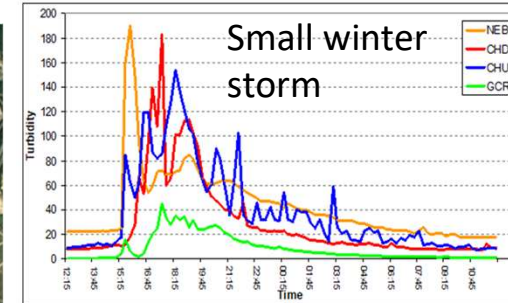
Core Samples
Note white, Sandy subsoil Derived from Weathering Of granitic rocks



Soils are thickest under flat ridge-tops, where Most development takes place



Inter-county connector Construction in

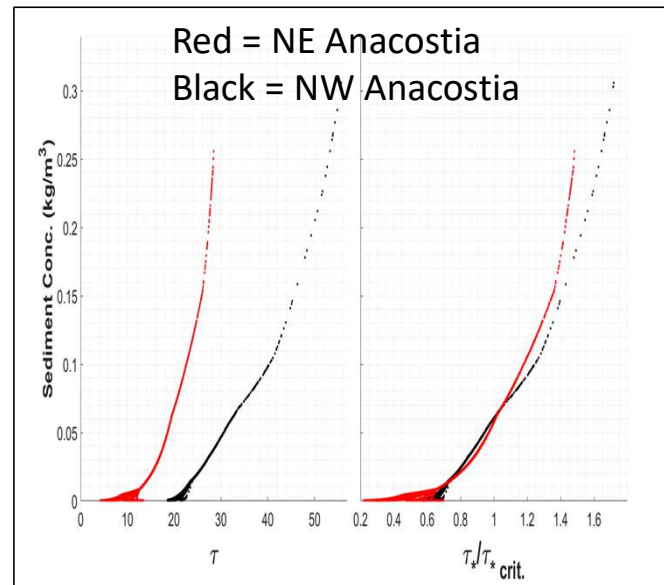
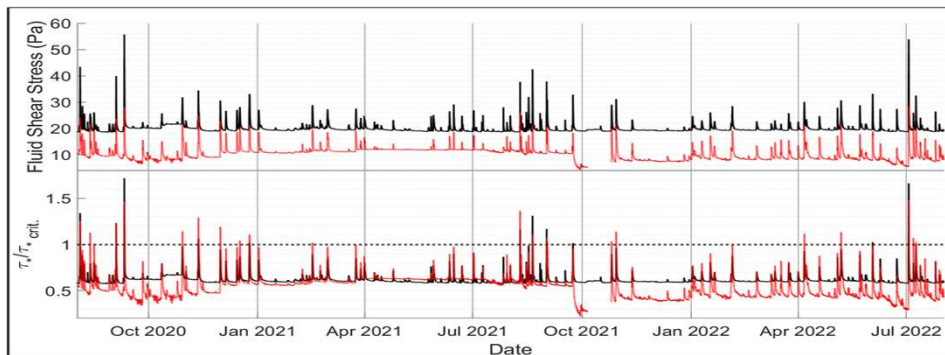
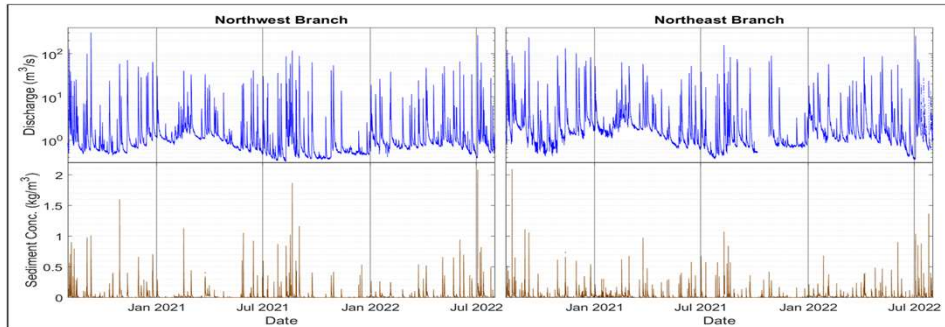
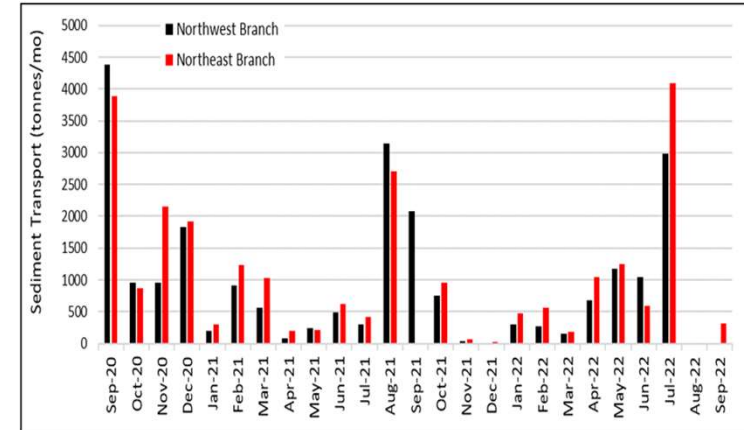


Bars form as sand transitions to bedload (lower gradient)

Bed sand changes mechanics of gravel transport



Event	Reach	D_{max} , mm	t_{fluid} , Pa	t_{crit}^*
3/24/2021	Alluvial	47	28.5	0.037
	Channelized	38	31.3	0.051
9/1/2021	Alluvial	53	32.7	0.038
	Channelized	45	36	0.049
9/21/2021	Alluvial	46	26	0.035
	Channelized	41	32.2	0.049



Suspended sediment Loads respond to Stream hydraulics And bed sediment (amount of sand).

Maximum sediment Loads occur in Summer months With intense summer storms