



RUNNING WATER

How does running water help shape our Earth?

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- Running water is the most common agent of erosion
- Stream - running water that is confined to a channel
- Tributary - smaller streams that flow into a larger one



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- Flood Plain - nearly level plain that borders the river



Flood Plain in Fargo, ND

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- Levee - mound of sediment that parallels the course of the river that prevents flooding



Built by Army Corp. of Engineers

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- Delta - landform that forms from deposition of sediment at the mouth of a river due to slower moving water



The Nile River Delta

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Ewaso Nigiro River Delta

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Arkansas River Levee Breaks



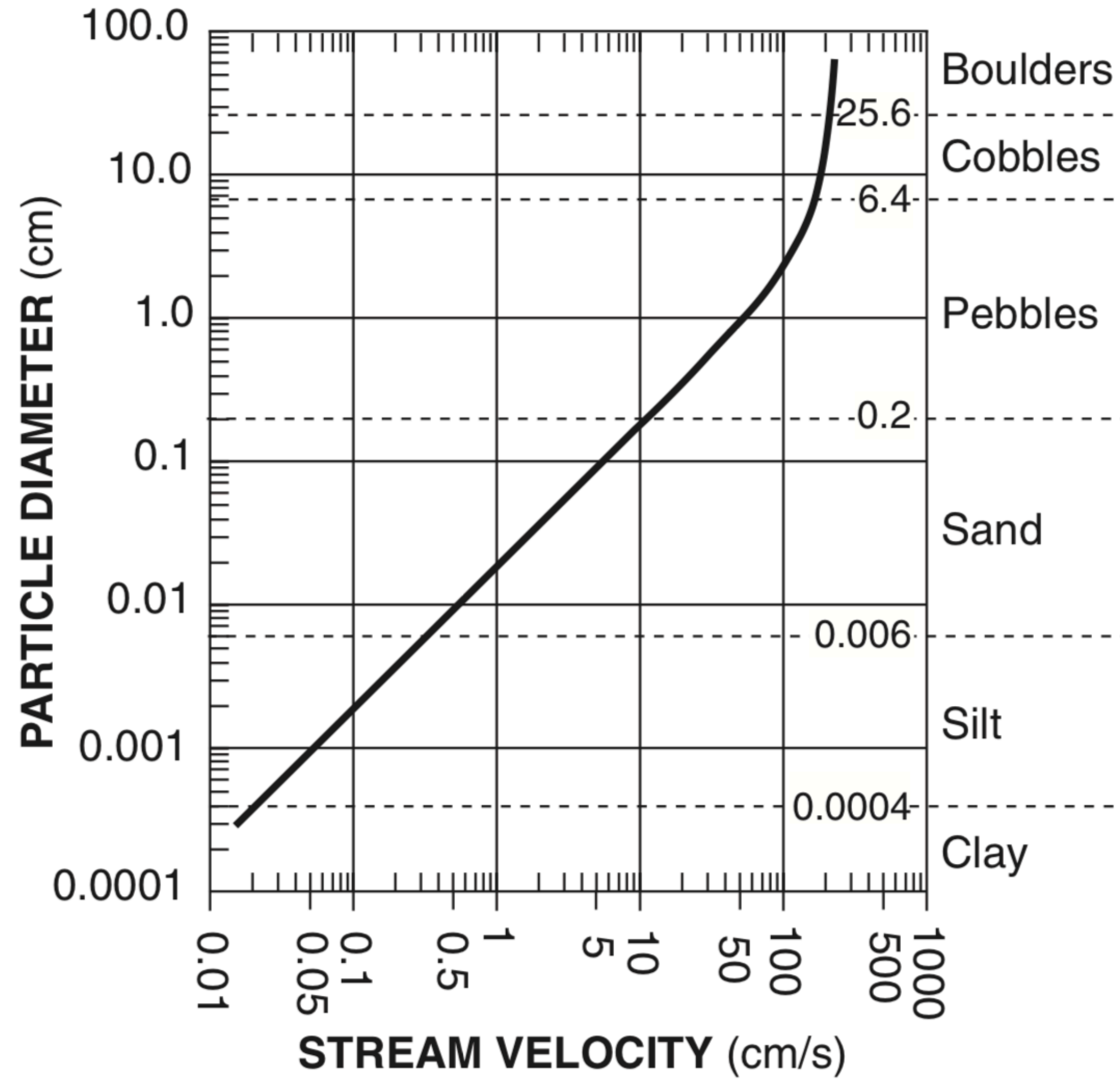
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- Streams carry sediment in various ways:
 - Dissolved minerals in solution
 - Solid particles are suspended in water
 - Larger particles roll, bounce or slide along the bottom

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- Stream Velocity - the speed of the stream
 - Gradient - slope of the stream
 - Discharge - amount of water that flows past a given point for a given period of time
 - Channel Shape - shape of the stream bed where the running water is confined

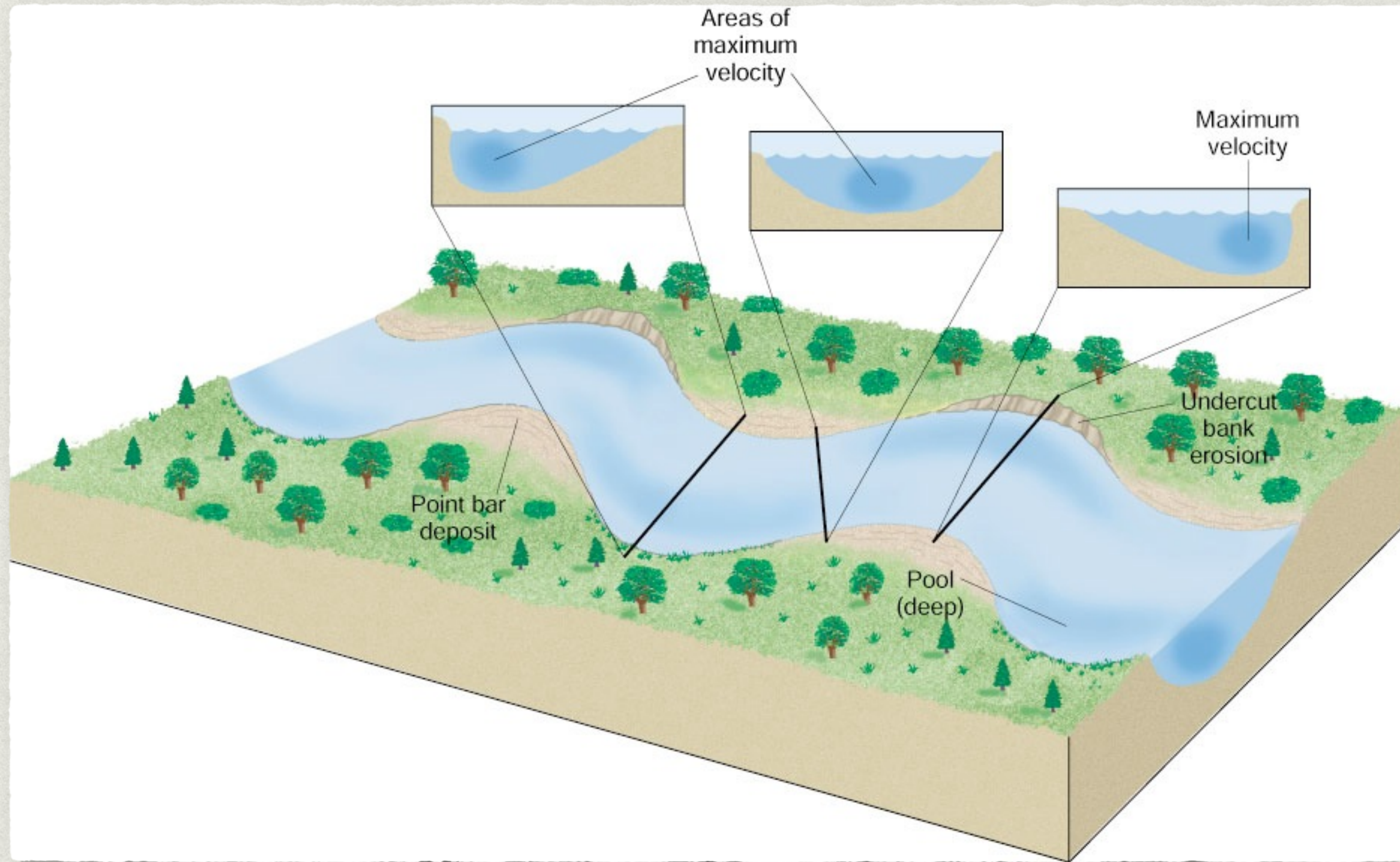
Relationship of Transported Particle Size to Water Velocity



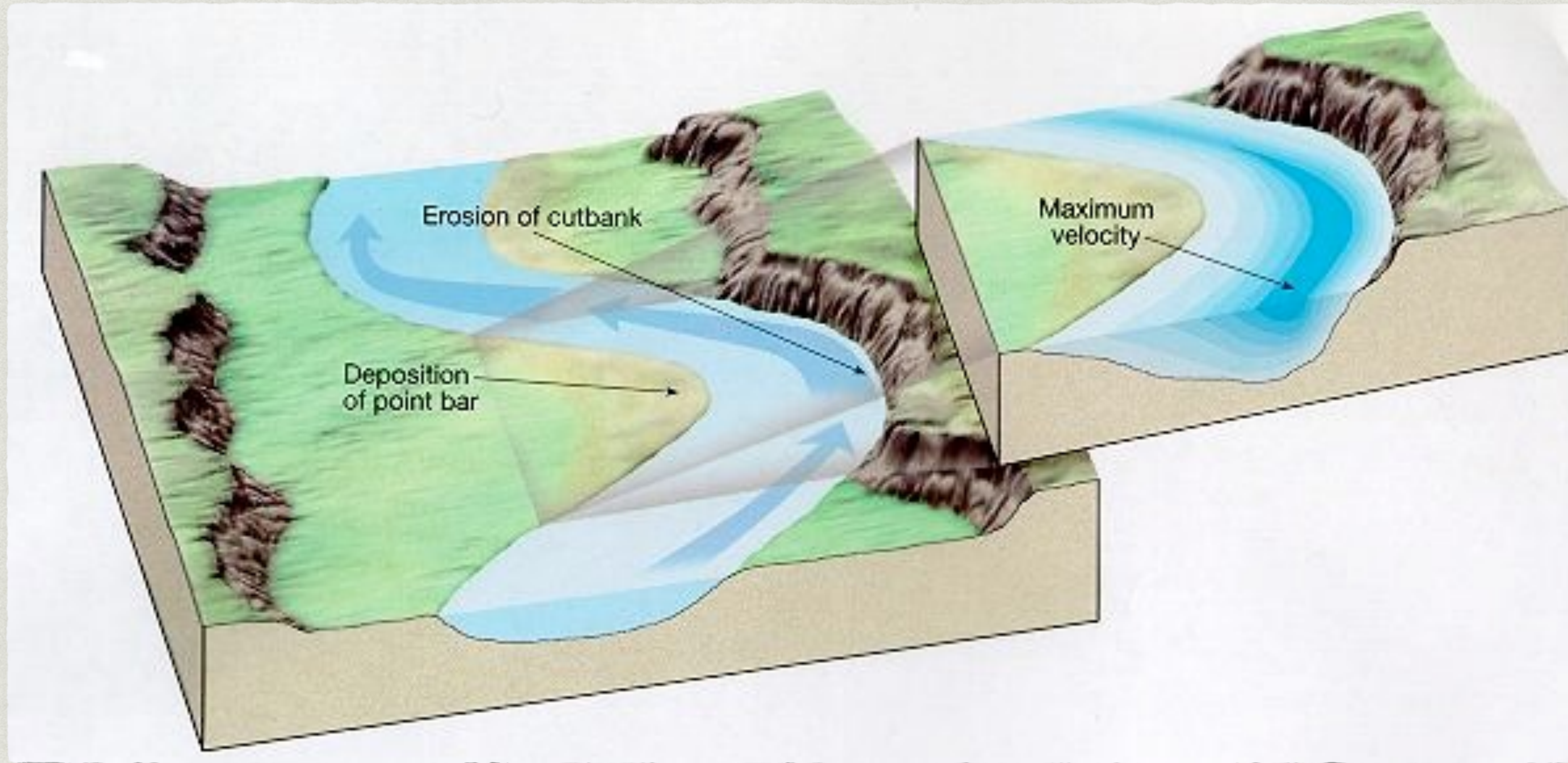
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- Variations in Stream Velocity:
 - When a stream channel is straight the greatest velocity is in the middle
 - When a stream channel curves the greatest velocity is on the outside of the curve

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- Variations in Stream Velocity:

Deposition ●

Erosion ●



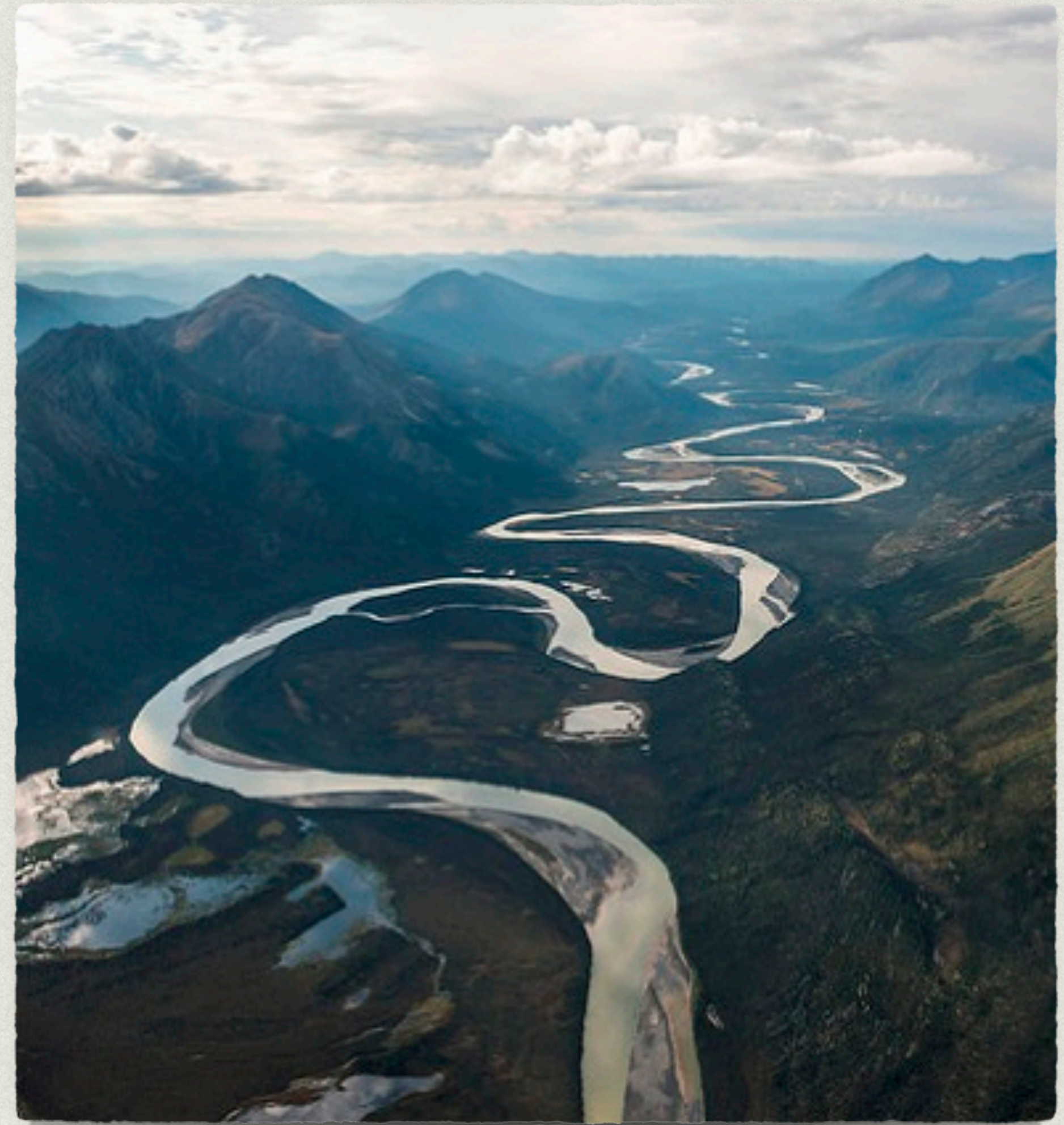
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- Stream Characteristics:
 - V-Shaped Valley - downcutting of a stream



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- Stream Characteristics:
 - Meanders - as a stream gets older it begins to shift its course in a series of bends



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Meandering Stream

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Grandpa is Crazy

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- Stream Characteristics:
 - Oxbow Lake - a curved lake formed from a cut off bend of the river



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Oxbow Lake

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