

READINGS / REFERENCES

1. Erinç, S., 2001, **Jeomorfoloji I**, Der Yayınları, İstanbul.
2. Huggett, R.J., 2013. **Fundamentals of Geomorphology**. Third edition.
3. Huggett, R.J., 2015, **Jeomorfolojinin Temelleri** (Çeviri Editörü: Prof. Dr. Uğur Doğan), Nobel Akademik Yayınları, Ankara.
4. Bridge, J.S. 2003. **Rivers and Floodplains: Forms, Processes, and Sedimentary Record**. Blackwell.
5. Charlton, R. 2008. **Fundamentals of Fluvial Geomorphology**. London, Routledge.
6. Lowe, J.J. and Walker, M.J.C. 1997. **Reconstructing Quaternary Environments** (2nd Edition). Prentice Hall.
7. Doğan, U. 2012. **Akarsu Süreçleri**. Kazancı, N. ve Gürbüz A. (Ed.) Kuvaterner Bilimi, 281-306.

Course Contents

1. Fluvial System
2. Flow mechanics
3. Longitudinal Profile
4. Erosional processes
5. Sediment transport
6. Channel morphology
7. Floodplains
8. Terraces



Processes



Morphology

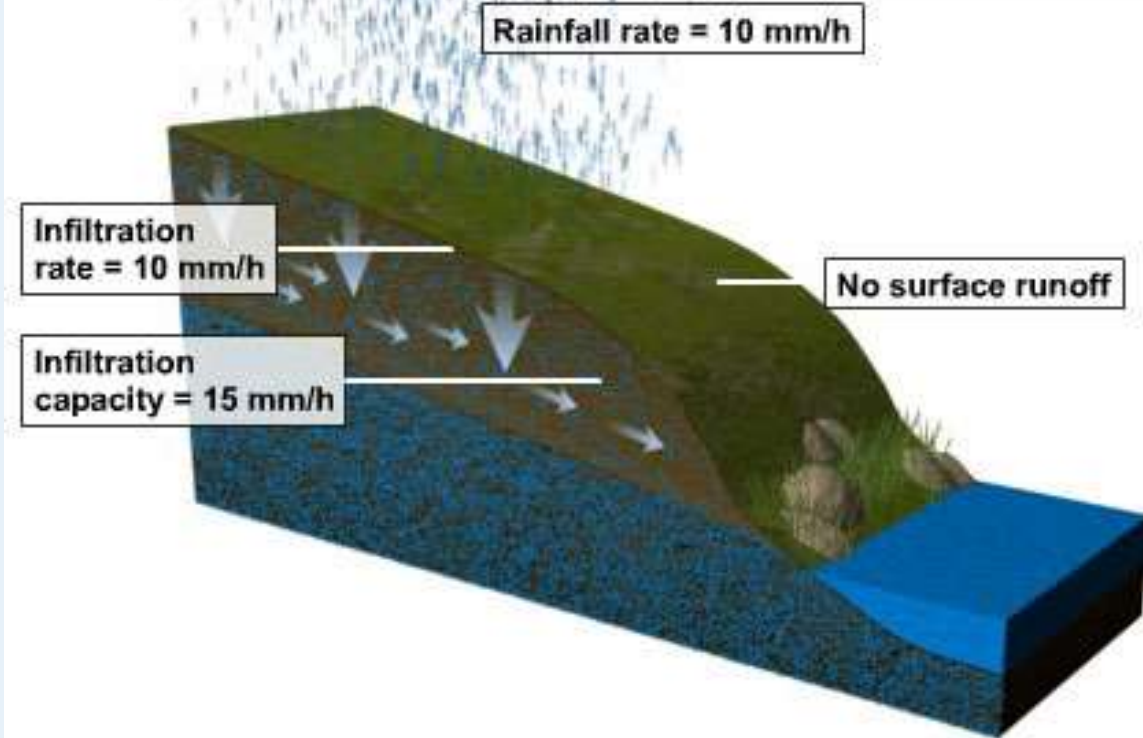
Fluvial (River) System

Runoff (overland flow)

In river systems, climate, geology, vegetation cover and topography are some of the control factors.

Infiltration capacity is also a very important factor. Because runoff occurs when there is more water than land can absorb.

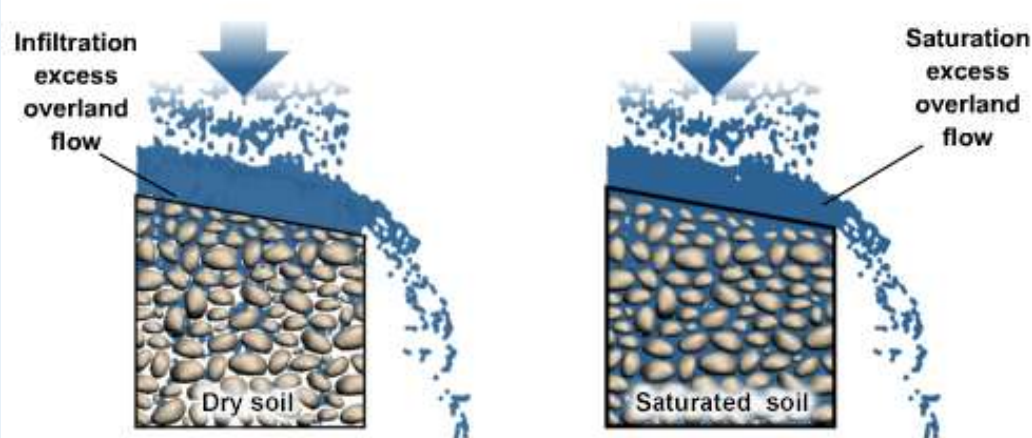
Relationship between Rainfall, Infiltration, and Runoff
(Rainfall Rate \leq Infiltration Capacity)



©The COMET Program

https://www.chmi.cz/files/portal/docs/poboc/CB/runoff_cz/print.htm

Types of Surface Runoff

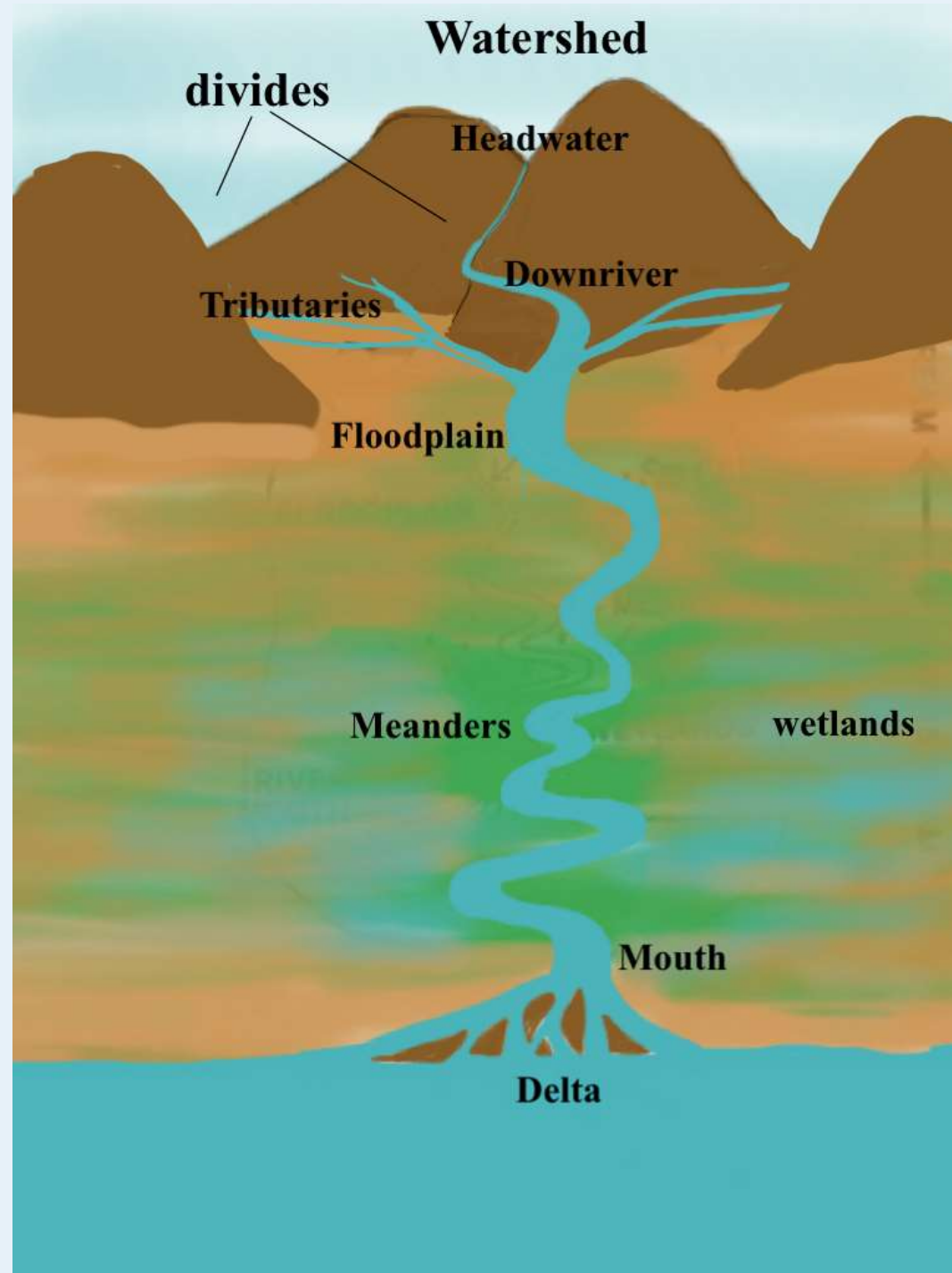


Note: Enlarged soil particles are not drawn to scale.

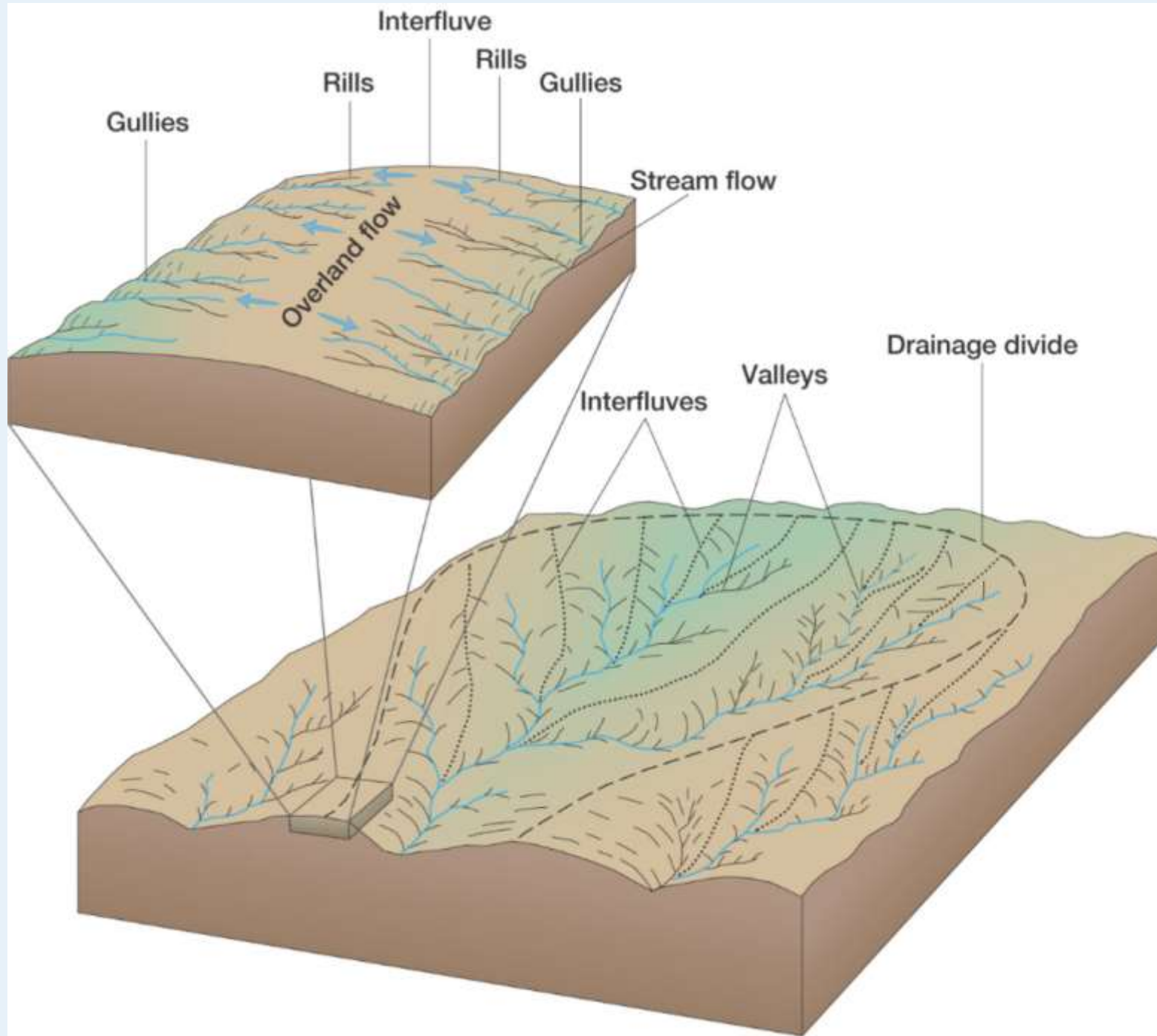
©The COMET Program

Overland flow also occurs when rain falls on saturated areas.

Fluvial-River System

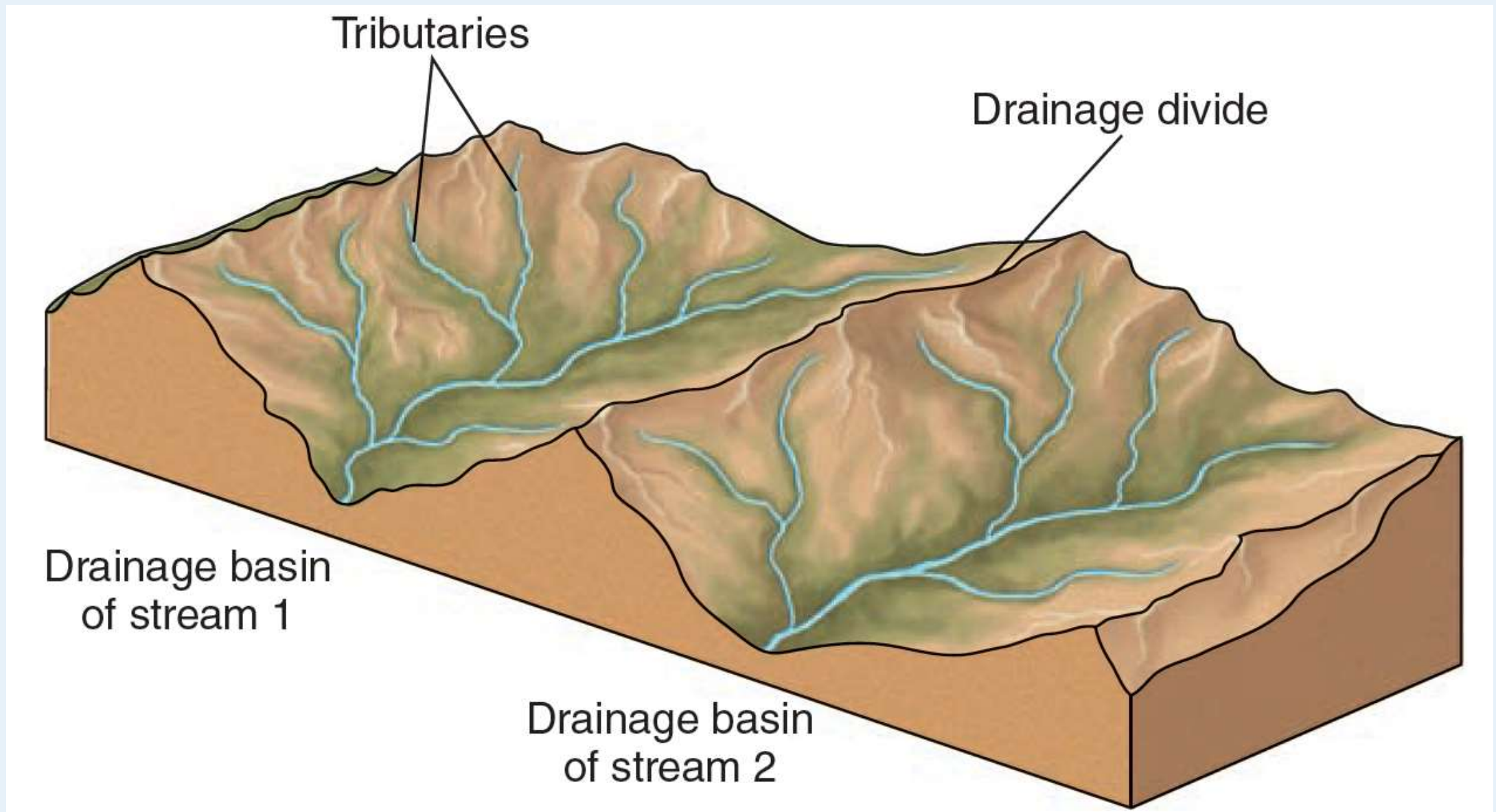


Drainage basin



The **drainage basin** is the land surface drained by a **stream system**; an **interfluve** is a **divide**, an area of higher land that separates one valley from the next (within a drainage basin); a **drainage divide (watershed)** is an interfluve that separates two drainage basins.

Drainage basin



<https://worldrivers.net/2020/03/25/drainage-basins/>

Drainage basin



<https://ian.umces.edu/blog/lower-mississippi-river-environmental-literacy/>

Drainage basin

TÜRKİYE HAVZA SINIRLARI



https://drive.google.com/drive/folders/1fXKqJHE3nfMmqmJzjkC2IE9-E9wjoT95?fbclid=IwAR2SUWmBnoxDo9j_nVid1JEQGD9v0Mj98AhCQILpNxSxaRMqIQDSJ2fydrs