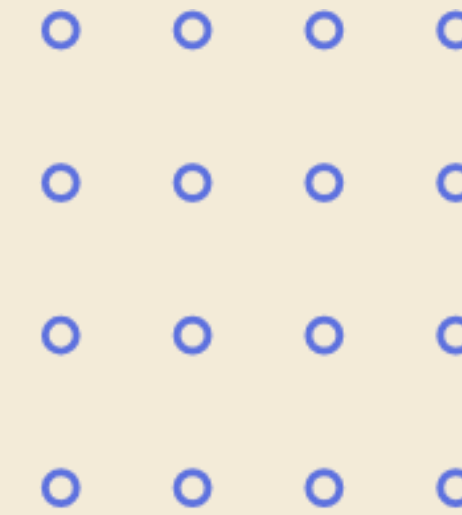


Hydraulics





Introduction and history of hydraulics

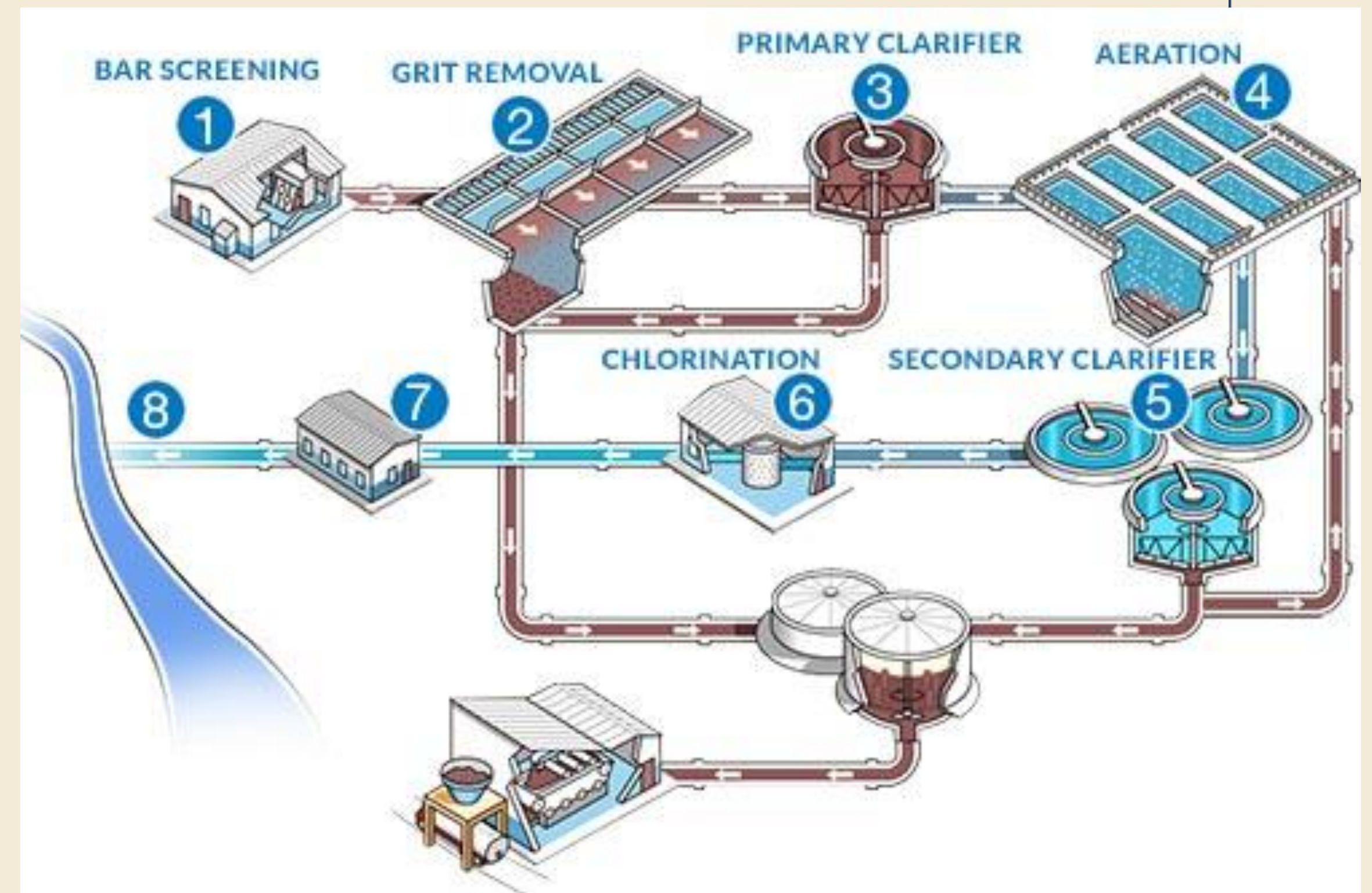
Hydraulics is one of the oldest activities of human civilization, since it controls all uses of water. From antiquity we find traces of hydraulic works (sanitation canals of the Nile valley, 4000 years before the Christian era). The subsequent development of hydraulics is essentially based on the improvement of mathematical tools and theoretical mechanics which took off greatly in the 17th century.

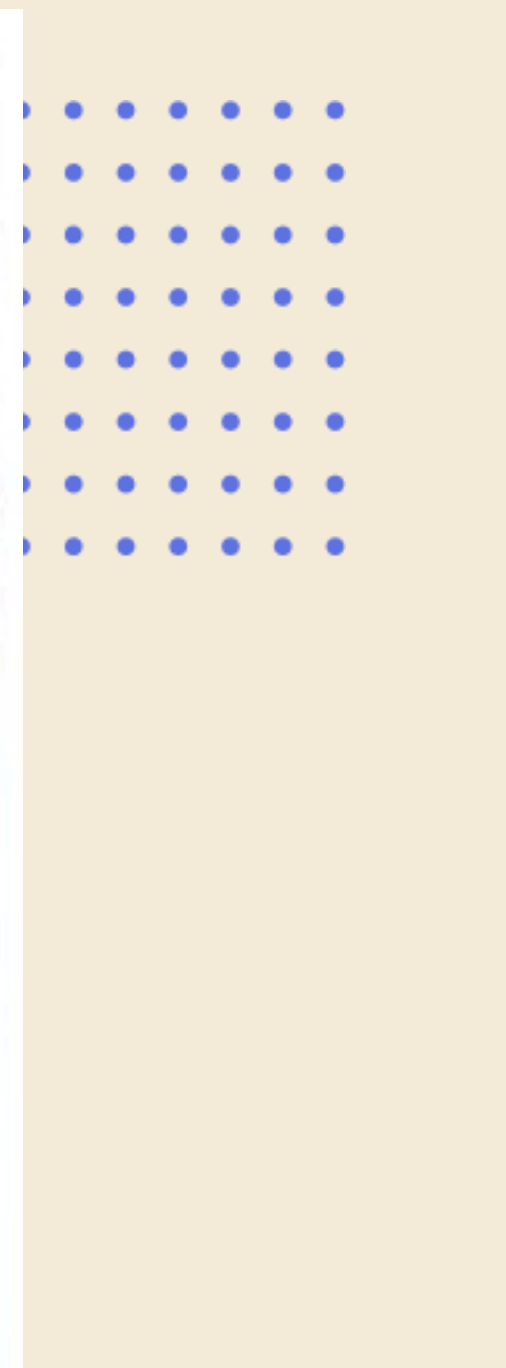


Fields of study of hydraulics

Drinking water supply:

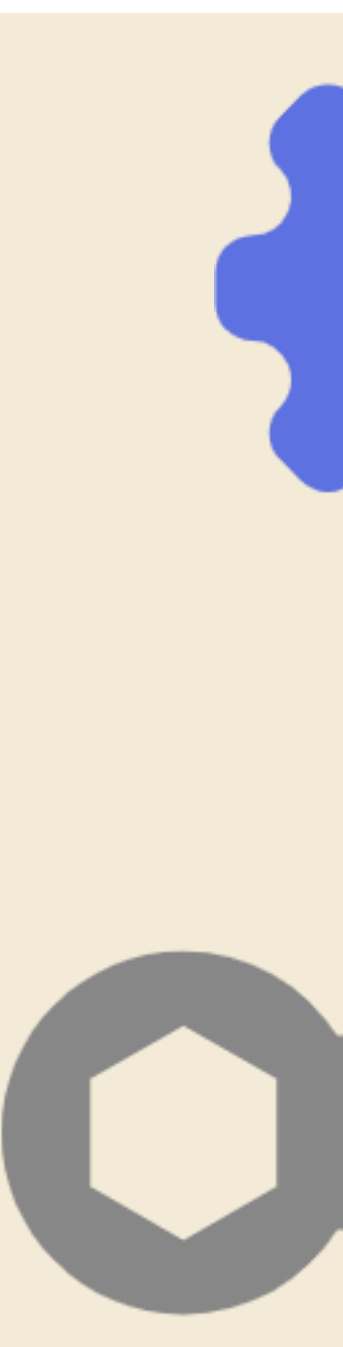
is an essential component of hydraulic engineering which aims to provide drinking water in a secure, efficient and sustainable manner to the population. There are four stages distinct : catchments (surface water or groundwater); treatment to make water potable; adduction (transport and storage); distribution to the consumer.

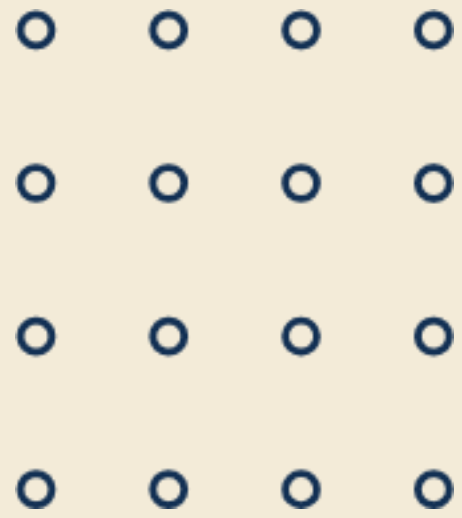




Sanitation:

refers to the promotion of hygiene and the maintenance of health through the provision of clean conditions and the disposal of waste. It encompasses a range of activities and infrastructure aimed at ensuring a safe and healthy living environment. Sanitation includes the management of human waste, the provision of clean water, proper waste disposal, and measures to prevent the spread of diseases.





Hydraulic Flows:

Hydraulics is the study of flows. There are two types of flow:

-Load flows: “full section flow”: The straight interior section of the pipe is entirely filled by the liquid stream, this is particularly the case for drinking water networks.



-Free Surface Flows: A free surface flow designates a flow with a free interface between air and water, this is the case for rivers and sewerage networks.



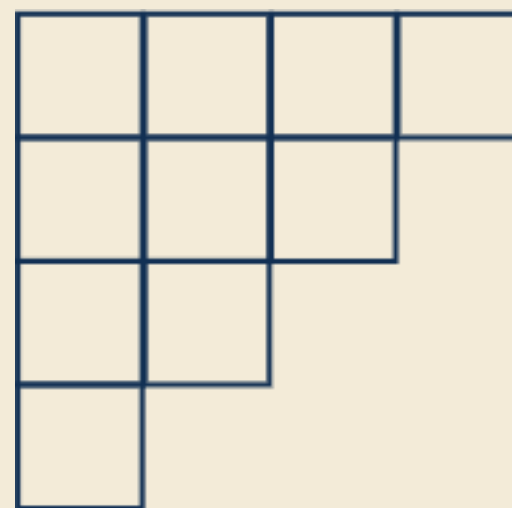


Hydraulic professions



- Hydroelectric power plants
- Seawater desalination plants
- Water treatment plants
- Management of sanitation systems or irrigation and drinking water supply networks
- Groundwater extraction.
- Companies involved in the equipment or operation of facilities
- Maritime ports
- Environment or eco-industries (water, soil decontamination...)
- Local authorities
- Public service (water agencies, etc.)
- Etc..





Work institutions in Algeria

