

Water Resources Engineering Department
MONTHLY NEWSLETTER

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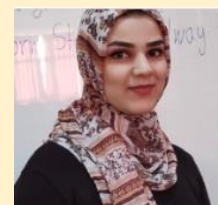
Khalil Hamadamin
Assistant Professor

Bastora Dam

The Bastora Dam is situated in the Bastora Valley, directly upstream of the Bastora Bridge on the Erbil-Pirmam Road, approximately 20.7 km from Erbil city center. The total area of the Bastora watershed is 108 km². The Basora Earth Dam has a height of about 33 meter and a width of 10 meter. The soil at the dam location has high permeability, so plastic concrete is used to construct a cutoff wall to reduce foundation seepage. The dam is of the zoned earth-fill type and can store around 20 million m³ of water. Upstream of the Bastora Dam is the Gomaspan Dam, which is currently under construction. The main purpose of constructing the dam is to store water for tourism, despite its additional benefit of recharging groundwater.



Image of Bastora dam during construction-Erbil.



Shawnm M. Saleh
Assistant Lecturer

Stepped Spillway

A spillway is a hydraulic structure which disposes the excess water stored in the dam reservoir at the upstream to its downstream to protect the dam from damaging due to the water overtopping during high flow discharge. Stepped spillway is one of many types of the spillway that presumably was firstly build by

Khosr River dams that designed to deliver the water to their capital city Nineveh. Developing Roller Compacted Concrete (RCC) increases the interest in the design of stepped spillways. Further reasons that attract hydraulic engineers for designing stepped chutes are its ability to dissipate large amount of energy and enhance the self-aeration mechanism. These lead to reduce the cost of stilling basin and the need of aeration device.



Osama Khasraw
Assistant Lecturer

Groundwater Engineering

Groundwater is an important natural resource. The precipitation infiltrates into the ground and travels down until it reaches the impervious stratum where it is stored as groundwater.

Groundwater engineering involves the exploration, utilization, and management of subsurface water resources. Engineers in this field focus on designing and implementing sustainable solutions for extracting, treating, and distributing groundwater for various purposes such as drinking water supply, agriculture, and industrial use. Sustainable groundwater management is crucial for ensuring water security, especially in regions where surface water may be insufficient or unreliable.

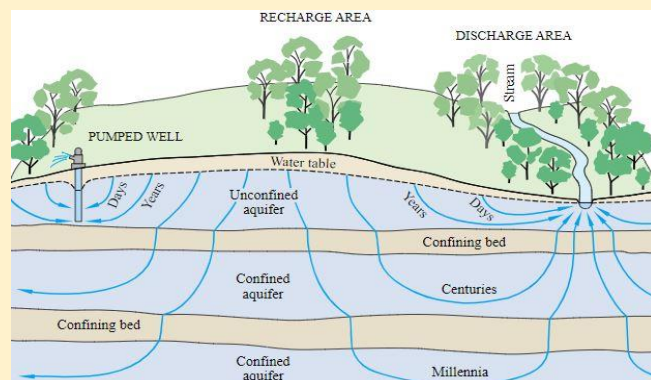


Image of ground water.

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