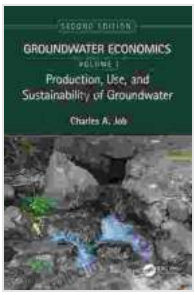
Production Use and Sustainability of Groundwater | Protecting a Vital Resource



Production, Use, and Sustainability of Groundwater: Groundwater Economics, Volume 1 by Charles A. Job

★★★★★ 5 out of 5

Language	: English
File size	: 12926 KB
Screen Reader	: Supported
Print length	: 435 pages

Groundwater is a critical resource for human consumption, agriculture, and industry. It accounts for about one-quarter of the world's freshwater supply and is the primary source of drinking water for more than two billion people. However, overexploitation and contamination are threatening the sustainability of this vital resource.

This book provides a comprehensive overview of the production use and sustainability of groundwater. It offers insights and solutions for managing this precious resource and ensuring its availability for future generations.

Groundwater Production

Groundwater is produced through wells, which are drilled into the ground to access the water table. The depth of the well and the pumping rate determine the amount of groundwater that can be produced. Overexploitation of groundwater can lead to a decline in the water table and can result in the drying up of wells.

Groundwater Use

Groundwater is used for a variety of purposes, including:

- Drinking water
- Agriculture
- Industry
- Power generation
- Recreation

The largest user of groundwater is agriculture, which accounts for about 70% of global groundwater use. Overexploitation of groundwater for agriculture can lead to a decline in water quality and can result in the contamination of surface water sources.

Groundwater Sustainability

Groundwater sustainability is the ability to meet the current and future needs for groundwater without compromising the resource for future generations. To achieve groundwater sustainability, it is important to balance groundwater production with recharge. Recharge occurs when water from the land surface infiltrates the ground and replenishes the water table.

There are a number of ways to promote groundwater recharge, including:

- Rainwater harvesting
- Infiltration basins

- Recharge ponds
- Reduced irrigation

In addition to promoting recharge, it is also important to reduce groundwater contamination. Contamination can occur from a variety of sources, including:

- Septic tanks
- Landfills
- Industrial activities
- Agricultural practices

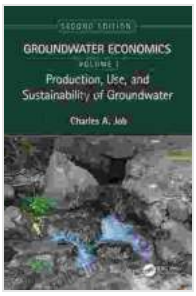
Groundwater contamination can have a number of negative consequences, including:

- Health problems
- Environmental damage
- Economic losses

It is important to take steps to prevent groundwater contamination and to clean up contaminated groundwater.

Groundwater is a vital resource that is essential for human survival. However, overexploitation and contamination are threatening the sustainability of this resource. It is important to take steps to protect and manage groundwater resources to ensure their availability for future generations.

This book provides a comprehensive overview of the production use and sustainability of groundwater. It offers insights and solutions for managing this precious resource and ensuring its availability for future generations.



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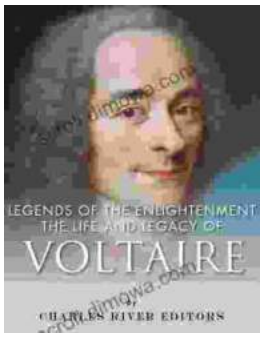

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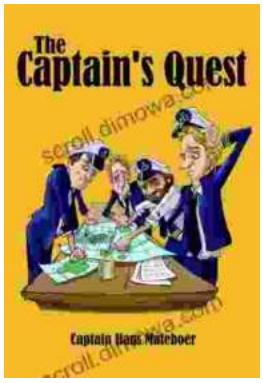

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