

Perspective

Groundwater: Importance and uses

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DESCRIPTION

Groundwater is generally cheaper, easier and more vulnerable to pollution than surface water. Therefore, it is often used for public water. For example, groundwater provides the largest source of usable water storage in the United States, and California annually produces a large amount of groundwater in all states. Underground dams contain much more water than the capacity of all US reservoirs and lakes, including large lakes. Most municipal water is available only in groundwater.

Groundwater is generally thought of as water flowing in shallow water, but, technically, it can contain soil moisture, permafrost (frozen soil), stagnant water at a very low inlet, and deep geothermal or oil-rich waters. Groundwater is thought to provide a softener that can affect the flow of defects. Most of the groundwater may contain water, which may be mixed with other liquids in some cases.

Uses of groundwater

- Many parts of the Earth have some form of aquifer under them, sometimes at great depths. In some cases, these underground structures are quickly eradicated by humans.

- Of all the natural resources, groundwater is the world's most abundant source. As of 2010, the top five countries for groundwater harvesting were India, China, US, Pakistan, and Iran. Most of the groundwater, 70%, is used for agricultural purposes. Groundwater is the most accessible source of clean water in the world, including drinking water, irrigation, and production. Groundwater makes up about half of the world's drinking water, 40% of its irrigation water, and one-third of its water for industrial purposes.

- Clean water sources, especially those that can be slightly recharged due to snow or rain, also known as meteoric water, may

be overused and depending on local hydrogeology, may draw fresh water or saltwater infiltration into submerged or surface water bodies. This can be a major problem, especially in coastal areas and in areas where aquifer pumping is excessive. In some areas, groundwater can be contaminated with arsenic and other mineral poisons.

- Aquifers are very important in human settlements and agriculture. Deep aquifers in arid regions have long been sources of irrigation water. Many cities and even large cities draw water from underground sources.

- Municipal, irrigation, and industrial water services are provided with large resources. Many wells for a single water supply are called "well fields", which may draw water from underground enclosures that are unconfined or confined. Using groundwater from deep, enclosed water provides additional protection from surface water pollution. Some wells, called "collection sources", are specially designed to cause the infiltration of excess water (river frequency).

- Aquifers provide clean groundwater in urban areas and agricultural irrigation systems are usually close to the ground (within a few hundred meters) and are also charged with clean water. This recharge comes from rivers or meteoric water (rain) flowing into the aquifer through unfilled material.

- Occasionally, groundwater or "residues" are used to provide irrigation and drinking water to urban areas. In Libya, for example, Muammar Gaddafi's Great Manmade River project pumps groundwater from sub-Saharan water to densely populated areas along the coast. Although this saves Libya money instead of removing salt from the water, groundwater is likely to run out in 60 to 100 years. Aquifer decline is cited as one of the reasons for the rise in food prices in 2011.

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