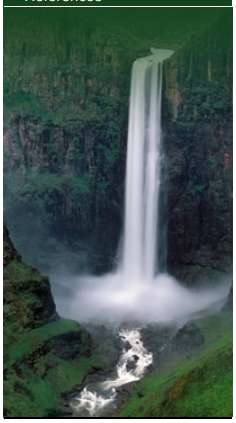

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Hydrology: Surface Water:

Lakes and Reservoirs

A **lake** is a body of standing water, shaped by the geography of an area. The flow of water may be reduced by low relief or by a narrowing of the channel, allowing the water to accumulate (Pidwirny 2006a).

A **reservoir** is a body or water that collects behind a man-made dam wall or weir. Reservoirs are built to gather water to supply for domestic, industrial or agricultural uses. The controlled release of water from a reservoir is also used to generate electricity. Dams vary in size; small dams are built by individual farmers to retain water for irrigation and livestock watering; while large dam walls are constructed by national authorities for large-scale uses such as irrigation schemes and hydropower generation.

Dreihuk Dam, Namibia.
Source:DRFN 2004
(click to enlarge)

The amount of time water stays in a reservoir or lake is known as the **residence time**; the time it takes to change all the water in a lake or reservoir is known as the **replacement rate**. Residence times and replacement rates range from years in large natural lakes, to weeks in large reservoirs, and days in run-of-the-river dams.

Next: Flooding

Interactive

Basin Map

Explore the sub-basins of the Orange-Senqu River
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Video Tour

Tour video scenes along the Orange-Senqu River related to the River Basin
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Geography Maps

Investigate land cover and terrestrial ecoregions in the basin
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Water Cycle

Examine how the hydrologic cycle moves water through and around the earth
enter

Food Web

Explore the interactions of living organisms in aquatic environments
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