

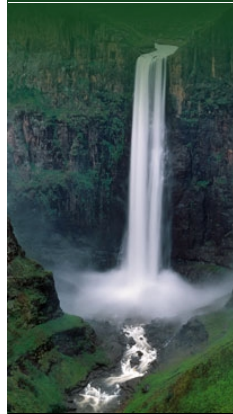
# Orange-Senqu

## River Awareness Kit


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Water Demand in the Basin: Urban and Rural Consumption:

### Lower Orange River Basin

#### South Africa

The coastal areas of the Lower Orange Water Management Area are characterised by low water requirements, mainly from towns such as Springbok, Steinkopf and Port Nolloth. The total demand of 14,8 Mm<sup>3</sup>/a (2000) is just below the allocation of 15,6 Mm<sup>3</sup>/a. To put the total urban, industrial and mining demand of this Water Management Area into perspective, it is important to note that this demand represents less than 0,4% of the total Orange River System demand (Vaal System excluded).

Rural water requirements in the Lower Orange WMA account for 2 % of the total.

**Table 1: Year 2000 urban water requirements in the Lower Orange River Water Management Area.**

Sub-Area	Urban Population	Domestic (direct)	Indirect	Urban losses	Total	Urban per capita (domestic)	Urban return flow
		Mm <sup>3</sup> /a				l/c/d	%
Mainstream Orange	109 926	5,7	3,3	3,0	12,0	142	4
Tributaries	90 810	3,9	1,8	1,9	7,7	119	0
Coastal	50 402	2,5	1,0	1,2	4,7	138	0
Total	251 138	12,1	6,1	6,1	24,4	133	2

Source: DWAF 2003b

**Table 2: Year 2000 rural water requirements in the Lower Orange River Water Management Area.**

Sub-Area	Rural Population	Domestic	Stock watering	Total	Rural human per capita
		Mm <sup>3</sup> /a			l/c/d
Mainstream Orange	77 421	1,3	8,0	9,3	46
Tributaries	20 295	0,4	6,3	6,7	50
Coastal	8 944	0,2	1,2	1,4	56
Total	106 660	1,9	15,5	17,4	48

Source: DWAF 2003b



**The Lower Orange River.**

Source: Vogel 2009  
(click to enlarge)

#### Botswana

Water requirements are minimal within the Orange-Senqu River basin in Botswana, as no mining or major irrigation activities occur there. Rural water demand is mainly for rural domestic use and stock watering, and generally supplied by small-scale groundwater abstraction or private boreholes.

Water demands for settlements in the Molopo Basin are expected to increase by 11% from 2001 to 2020, from about 3 600 to about 4 000 m<sup>3</sup>/d. The Botswana National Water Master Plan (BNWMP) projects that infrastructural developments at the rural level will continue into the future to accommodate the increasing water demands nationwide.

#### Namibia

Namwater supplies bulk water to Mariental and Keetmanshoop, the two major urban centers in the Fish River Basin and the only towns that abstract water directly from the Fish River (Hardap and Naute Dam). Other towns located in the Fish River Basin abstract groundwater through boreholes. Domestic (urban) and industrial demand in the Fish River catchment accounts for 3,5 Mm<sup>3</sup>/a or 7 % of the total demand. Only 0,9 Mm<sup>3</sup>/a is supplied from surface water sources, with the remainder (2,6 Mm<sup>3</sup>/a) from groundwater. The urban water consumption in the Fish River Basin (year 2002) is shown in Table 3.

**Table 3: Urban water consumption in the Fish River Catchment (Mm<sup>3</sup>/a).**

Area	Urban Demand
Keetmanshoop	1,79
Mariental	0,93

## Interactive

#### Basin Map



Explore the sub-basins of the Orange-Senqu River

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#### Water Management



Explore the water management systems around the basin - including intra-basin transfers and sectoral water requirements

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#### Dams



Investigate the dams and water infrastructure in the Orange-Senqu basin

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#### Video Tour



Tour video scenes along the Orange-Senqu River related to Meeting the Water Challenge

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#### Panel Discussion



Listen to a panel discussion about the history and challenges in the Orange-Senqu basin

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Rural water demand in the part of the Orange-Senqu Basin which falls inside Namibia is minimal, estimated at 0,32 Mm<sup>3</sup>/a for 2005, and is mostly satisfied by groundwater.

[Next: Mining and Industry](#) ►

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