

# ORANGE RIVER PROJECT

## ORANGE-FISH TRANSFER TUNNEL

### LOCATION

The Orange-Fish Transfer Tunnel runs from Gariiep Dam on the Orange River to Grassridge Dam which is located in the upper reaches of the Great Fish River in the Eastern Cape Province.

### DESCRIPTION

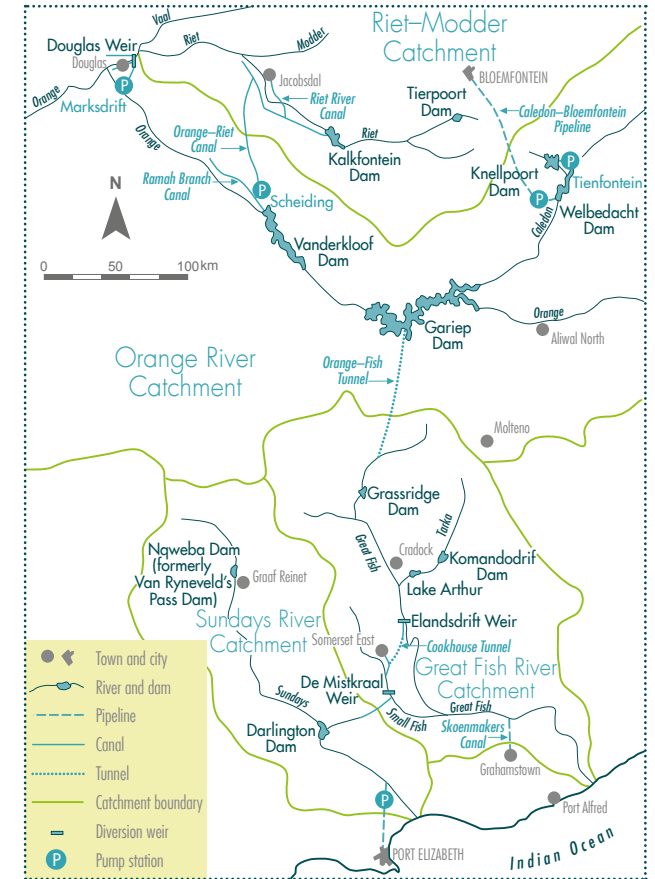
Due to severe stress the Eastern Cape underwent for many years, partly due to water shortages, and exacerbated by salinisation and siltation of the reservoirs, the Orange-Fish Transfer Tunnel was constructed, together with a network of canals, weirs and balancing dams. This restored and enabled thousands of hectares of irrigation. The Orange-Fish Transfer Tunnel was completed in 1975 and is the key structure by which water is delivered from the Gariiep Dam to the Teebus Spruit and the Great Brak River, and from there to the valleys of the Great Fish and the Sundays rivers. The tunnel has a length of 82.8 km, a diameter of 5.35 m and a maximum capacity of 54 m<sup>3</sup>/s. An intake tower in the lake some 20 km from Gariiep Dam heads the tunnel through the Suurberg plateau.

### PURPOSE

The purpose of the tunnel is to divert water to the Eastern Cape for irrigation, urban (including Grahamstown and Nelson Mandela Metropole) and industrial use. Due to siltation, the capacities of dams in these two river basins became greatly reduced and arable land had to be de-scheduled prior to construction of the tunnel.

### PHYSICAL INFORMATION

Canal name	Length (km)	Capacity (m <sup>3</sup> /s)
Orange-Fish Transfer Tunnel	83	54



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