Shell Environmental Management Award 1996 Winner

Department of Water Affairs: Omdel Dam

The Omdel (Omaruru River Delta) dam project was formulated to recharge the alluvium in the Omaruru aquifer, augmenting the water resources in the Central Namib region. This project is of vital importance to development at the coast, supporting the fishing, and uranium production industries.

All the alluvial aquifers depend on throughflow and recharge which occurs during flood events. There was inadequate recharge in recent years and a decline in the water level had been observed at boreholes. Silty clay impedes water penetration in the Omaruru River and flood waters pass over the river bed into the sea. Temporary storage of ephemeral flood waters in a large reservoir, upstream of the aquifer allows silting of the fine sediment which clogs the pores under normal river flow conditions. The relatively clear water is then released in a controlled manner and conveyed to infiltration basins over the Omdel aquifer.

A sound environmental impact assessment was done together with the Environmental Evaluation Unit of the University of Cape Town, and the conclusion was that if mitigatory action was taken, the identified impacts of the Omdel Dam and infiltration basin would have a minor effect on the environment.

The most outstanding points of excellence of this project are:

- A full environmental impact assessment had been made, indicative of a growing environmental awareness among policy makers in the public service
- Ingenious use was made of a technology that overcame one of Namibia's major water consumers: being evaporation from dams
- Great effort had been invested in conservation of the Earth's capacity, vitality and diversity
- The project made an exceptional contribution to minimizing the depletion of a non renewable resource. In an arid country such as Namibia, the fresh water in aquifers must be considered a virtually non-renewable resource. This is specifically so in the case of the Omdel aquifer, which once it is penetrated by sea water due to the depletion of fresh water, could never be regenerated.

From left: The Right Honourable Hage Geingob, Prime Minister; A Walkden-Davies, MD Shell Namibia; Dr C Brown, Award Judge; G Seydack, EPA President

Mr P Heyns receiving the Award on behalf of the Department of Water Affairs, from the Right Hon. Hage Geingob