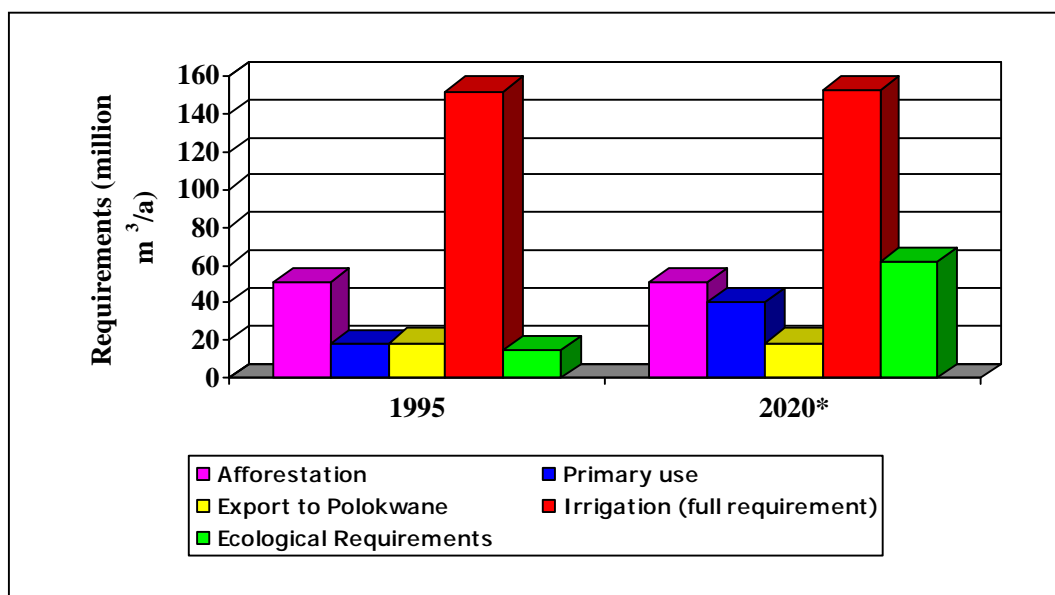


2. MOTIVATION FOR THE PROJECT

The Groot Letaba Valley falls within the Luvubu-Letaba Water Management Area (WMA), one of the 19 WMAs into which South Africa is divided. Human settlement, agricultural production and tourism between the Drakensberg escarpment and the Kruger National Park have placed demands on the water resources of the Groot Letaba River which can no longer be met within reasonable risks of shortages from the existing infrastructure.

Faced with water shortages of increasing severity and frequency, the main consumptive users of water (irrigation, forestry, domestic and industrial) have from time to time had to compete for limited supplies by taking extraordinary measures to survive. This has resulted in serious degradation of the riverine ecosystems. Historically the environment was not considered a water user and was not allocated any water from available resources. However, in the Letaba River catchment 14.8 million m³/annum was allocated, on an ad hoc basis, for release from Tzaneen Dam to the Kruger National Park but little if any of these releases reached the Park with real beneficial effect.

With the advent of the National Water Act (Act 36 of 1998 NWA), a water allocation or Reserve for basic human needs and for sustaining ecological functioning, has placed a new perspective on water resource management in the Groot Letaba River. The emphasis in the past has been on the augmentation of supplies to mitigate shortages in the Groot Letaba River. This approach must be complemented by a strategy for managing the water resources in a sustainable manner. Proposals for augmenting reliable water supplies from the Groot Letaba River include the construction of a dam on the Groot Letaba River at Nwamitwa just downstream of the Nwanedzi River as well as the possibility of the raising of Tzaneen Dam. Bulk infrastructure for the treatment, conveyance and storage of potable water for primary use forms an integral part of the development proposals. Attention is focused on water needs for the increasing human population, for downstream riverine ecosystems (including those in the Kruger National Park) as well as for stabilising commercial irrigation, including the settlement of resource-poor farmers (**Figure 2.1**).



Estimated in 1998 Feasibility Study

Figure 2.1: Water Utilization and Requirements

The catchment area of the proposed Nwamitwa Dam is 1 400 km² and the Mean Annual Runoff (MAR) is approximately 122,6 million m³ under natural undeveloped conditions. For a dam with a storage capacity of 143,8 million m³ the estimated increase in system yield is 47 million m³/a after providing for the instream flow requirements as was estimated at the time.

The agricultural sector (fruit orchards dependant on irrigation) and the associated agro-industries provide the majority of employment opportunities in the area. Competition for the limited jobs is fierce and unemployment in the area is high and many people rely on income from family members working in the cities. Many communities do not have reasonable access to safe reliable water supplies and the ecosystems which rely on flow in the river system are subject to increasing stress and degradation. Further socio-economic development, in which tourism is expected to play an important role, is hampered by the limited availability of adequate water supplies.

The Groot Letaba River Water Development Project (GLeWaP) is a major initiative by the Department of Water Affairs and Forestry in support of the Limpopo Provincial Government's development strategy for the province. The project will have a positive

impact on the regional economics and on alleviating poverty. This will mainly be achieved through:

- Increasing the safe, reliable water supplies for domestic and industrial use;
- Minimizing the frequency, intensity and duration of restriction on the use of water allocated for irrigation of high value crops;
- An increase in total household income through stabilising the job market; and
- Providing leverage for the equitable distribution of resources.

The proposed infrastructure will make it possible to improve the management of water resources so as to stop degradation of the conservation status of the riverine ecosystem.

The GLEWAP includes a number of infrastructure components, as well as a range of other initiatives as described in **Chapter 3**.