Olifants River Water Resource Development Project2

In order to meet the social and economic development needs of the region, the Department of Water Affairs and Forestry is currently assessing the feasibility of various water resource development options in the Olifants and Mogalakwena/Sand Catchments of the Limpopo and Mpumalanga Provinces.

The project is driven by the social and economic circumstances of these areas, the urgent need for socio-economic upliftment and development, and planned mining expansion.

Over the past decade, the Department of Water Affairs and Forestry has investigated various options within the Middle Olifants River Catchment to meet the projected water
demands in the area and, in particular, to secure bulk water for domestic supply purposes.

Recently, the projected water demands have increased significantly due to the anticipated development of the mining sector. A key objective of the Limpopo and Mpumalanga provincial and the National Governments is to seek ways to stimulate this mining growth and associated economic activity, in a sustainable way, for the socio-economic benefit of the residents of the area and the national economy as a whole. In this regard, increasing the longer-term assurance of water supplies is one key aspect required to facilitate the growth In the mining sector. A concurrent opportunity arising from the securing of bulk water supplies is the ability of Government to meet one of its key policy objectives to provide potable domestic water to all residents of the country, in this case the rural, peri-urban and urban communities of this part of the Limpopo Province, in an economically affordable and sustainable manner.

Phase 2 of the project commenced in early 2004, with a Screening exercise to investigate the most suitable development alternatives with which to proceed in order to further develop the water resources of the Middle Olifants River Catchment. The Screening Phase concluded that the most feasible option from technical, environmental and economical perspectives was the construction of a dam on the Steelpoort River at the farm De Hoop (the proposed De Hoop Dam) and associated bulk water distribution infrastructure. The bulk water distribution infrastructure includes pipelines from an abstraction weir near the town of Steelpoort or from the proposed De Hoop Dam to the Olifantspoort Weir, with a branch pipeline to Jane Furse; and a pipeline from Flag Boshielo Dam to Mokopane. For each pipeline, bulk infrastructure includes associated pump stations, balancing dams, off-takes and reservoirs.

The CSIR is investigating the opportunities for the project to address the sustainability pillars of HIV and AIDS, gender, environmental management, appropriate technology and Water for Growth and Development. The team will look at these issues both in terms of internal mainstreaming on the dam and road construction itself as well as the links to the surrounding communities in terms of external mainstreaming.

Water for growth and development will be used as the arching framework to consider how the dam can promote development in the area and support the sustainability pillars for example through women's empowerment and creating income generation for households affected by HIV and AIDS.

This project falls under a larger contract that the CSIR has to support DWAF in implementing the Masibambane programme. Masibambane – meaning *let's work together* is a water sector support programme led by the Department: Water Affairs and Forestry.

The programme is a partnership between the Department of Provincial and Local Government (dplg), the South African Local Government Association (SALGA), the European Union and its member states; the Swiss Government and Ireland Aid. The Masibambane Sector Wide Support Approach works from the premise of coordinated strategies and joint implementation involving all players in water sector: national and provincial government, municipalities, civil society, donors, water utilities and the private sector.

Through this process Masibambane has created a platform for addressing "soft issues" related to the quality and sustainability of delivery, which are commonly noted, but frequently fall by the wayside.

These include:

- appropriate technology
- environmental impact management
- gender mainstreaming
- greater civil society engagement

Lesson sharing is key to best practice and good governance and therefore the CSIR are looking at real-life projects to learn lessons that can be shared across DWAF.

Description of the local community:

- Dam located in the Sekhukhune District Municipality in the Greater Tubatse LM
- Poorest part of the Limpopo Province
- Socio-Economic Characteristics:
  - Lack of access to RDP level of water services
  - Easy access to the R555 road
  - Practicing subsistence agriculture (livestock and crop)
  - Informal trading in the marula beer common
  - Housing stock – cement bricks and corrugated irons; shacks; face bricks and corrugated irons
- Community Development Forum – consisting of local stakeholders, including the municipality – inability to deliver services by the municipality is still a major challenge
- Most people in the neighbouring community seem to rely on a few standpipes and the river for water. Tapped water is not available in the area.
- According to the project proposal, bulk water distribution will be made available to the Neubau Plateau and Greater Tubatse area as well as mining
- Concern regarding actual water infrastructure to deliver water to households
- The dam's role in growth and development in the community doesn't seem to have been a consideration
- Whether the local WSA, Sekhukhune Municipality will be able to access the bulk distribution to provide tapped water to people still has to be investigated
- Concern that dense vegetation in the dam area may lead to eutrophication rendering the water no longer potable

Findings of the De Hoop Dam Site Visit:

A. Physical Characteristics of the Dam

- Dam located close to the town of Roossenekal in the Tubatse Municipality
- Dam wall = 1 km in length
- Dam height = 100m at tallest point
- The dam will flood an area of 12km upstream from the dam wall
- Dam construction requires the relocation of the R555 road
- Current land use in the area includes private residential land, farms, & private nature reserves
- Dense vegetation covers most of the site of the dam
- Expect dam completion by 2013 but partial supply by 2011 to mines

B. Labour Challenges

- Labour Number and Gender (as at 31/12/2009): 440 males + 129 Females = 569; Work force less than 35 years old = 302 (221 Males + 81 Females)
- Ensuring equitable representation from the various communities was difficult. Tended to employ more people from the nearest communities Maseven
- Difficulty in meeting gender targets. Most jobs involve hard physical labour which the contractor felt most women were unable to provide
- Major problem of skills and experience shortage in the area. Most people had never had formal employment previously and lacked basic skills – DWAF have initiated an extensive training programme
- The employment contracts make no provision for housing or transport – currently providing buses to transport workers from the villages but cause of conflict in the community
- One complaint of sexual harassment recorded
- Sites have been provided for eating, ablutions and resting for the workforce however people do not always use them. Instead some workers buy food from informal stalls and choose to use the bush for ablutions

C. Environmental Management Challenges

- There is no licensed landfill site in the area. General waste from the site goes to Roossenekal and DWAF have committed to upgrading the site in the long term
- Seepage water on site is pumped to settlement dams. Some of the water from the dams is re-used and ultimately it is all released into the river.
- Dust pollution a problem at the construction site and batch plant
- Trees cut from the site are given to the community
- Problem of cattle wandering onto the site
- Regular environmental monitoring and audits

- Note: There are significant broader environmental issues associated with the project that have been ignored in the EIA

D. Community-related Challenges

- There was be resettlement of people due to the dam
- Community has raised concerns on a number of issues and led marches to the site
  - Not following labour recruitment procedure
  - Pollution of the water in the Steelpoort River
  - Construction vehicles damaging local roads & power lines
- Mr van Niekerk concerns about community misinformation on the above issues. Community has not been made fully aware of what is taking place

- Difficulty in managing people's expectations. The dam has become a political tool which has raised expectations of job creation & poverty alleviation.
- With the temporary relocation of the R555 on-site, there are people coming onto site looking for jobs and selling food – concern relates to road safety, health, and potentially HIV/AIDS

Photographs of the site visit available on request from the CSIR