LIMPOPO WATER STRATEGY and 5-YEAR WORKPLAN

11 DECEMBER 06 DRAFT

‘Water, which belongs to the people, is a rare basic commodity of life and should be used sparingly’
Premier: Limpopo Water Summit February 2005
FOREWARD BY THE PREMIER  ABSOLUTE INITIAL DRAFT

Limpopo as a province faces extreme if not unique water issues. The extent of over-utilization of the little water available as well as the very limited ability to expand sources of this resource leaves the water authorities and as such the water users themselves facing problems that hinder delivery – especially to the provinces large community of poor people – if enduring measures are not taken for sustainable, efficient and effective use.

The Water Summit accorded the goal of the reallocation of water wisely used to Limpopo and as such the Department as well as the Water Authorities are determined to find strategies to make the above aim a reality.

Limpopo Province has a clear vision and commitment to appropriately allocating water resources which are applied and well-managed to the economic and social benefit of the province’s population and the natural environment for present and future generations.

Limpopo welcomes the national Water Policies that confirm water belongs to the people and that the Department of Water Affairs and Forestry as the National custodian of water is responsible for the sustainability of water use; the protection, development and utilization of water. We affirm too, that the planning, development and operation of water services which include both water supply and sanitation is the responsibility of our local governments.

To achieve these objectives Limpopo has set out strategic goals including the socio-economic development and alignment of strategic planning and projects; water resource allocation and development to meet the needs of the province; addressing the water services backlog and the finalization of transfers in the province; the development of institutional and sector skills to ensure the long-term operational stability of water services provision; the development of systems for disaster management as well as collaboration and communication to achieve as efficient a service as possible dedicated to the people of Limpopo Province.

I as the Premier call on all government spheres to cooperate and where appropriate collaborate so as to fulfill the governments promise of free basic water services to all South Africans as a basic right as well as to ensure the delivery of these services in such as way that the resources are allocated fairly and in a sustainable manner with a view to securing this resource and its benefits for citizens today and in the future.

There is no compromise as to the level of dedication required in this mission as we are faced with the needs of the poorest of the poor. This process will be monitored and evaluated rigorously to gauge whether these goals have been achieved to the satisfaction of the department and in line with international standards.

With these milestones accomplished Limpopo may build a platform from where to rise as a champion of rights for the poor and the needy.

Honourable S Moloto: Premier Limpopo
EXECUTIVE SUMMARY

In order to consider the status quo of water services, associated water resource issues and define a strategic way forward to deal with highlighted constraints the Limpopo Provincial Water Summit, of all sector stakeholders in the province, held on 21 February 2005 it was agreed that:

- The Water Services Strategy is also to focus on forward growth, based on priorities of the Limpopo Growth and Development Strategy. The strategy should also include the role of business i.e. mining, agriculture and tourism,
- Ensure an integrated approach pertaining to the Water Resource and Water Services strategies i.e. to address issues of water retention, and
- That a coherent provincial water strategy be developed.

The need is to articulate a single, high level, integrated water strategy for Limpopo to guide the development of implementation strategies at local government and individual departmental levels.

The purpose of this document is to convey the vision for water in Limpopo as well as the high-level strategic objectives for the provincial water strategy.

VISION

That Limpopo has appropriately allocated water resources which are applied and well-managed to the economic and social benefit of the province’s population and the natural environment for present and future generations.

The strategic issues and challenges that were raised during the water summit, district workshops and provincial stakeholders meetings were identified, refined and prioritised and grouped into Strategic Goals as follows.

Strategic Goal 1: Promote socio-economic development and poverty alleviation through the strategic alignment of planning and projects.

Strategic Goal 2: Ensure Water Resource Allocation and Development to meet the needs of the province.

Strategic Goal 3: Delivery to overcome Water Services Backlogs.

Strategic goal 4: Ensure the sustainability of water provision through institutional and sector skills development.

Strategic Goal 5: Ensure disaster management systems are in place to deal with the regular floods and droughts faced.

Strategic Goal 6: Ensure effective collaboration and communication in the sector.

These objectives have been further translated into interventions which will contribute to the attainment of objectives of the Limpopo Growth and Development Strategy, the National Water Resources Strategy and the Strategic Framework for Water Services. Each intervention has been prioritised and allocated to a responsible stakeholder. Furthermore issues, challenges and risks have been listed.
1. PURPOSE

The purpose of this document is to convey the vision for water in Limpopo as well as the high-level strategic objectives for the provincial water strategy.

2. BACKGROUND

At the Limpopo Provincial Water Summit of all sector stakeholders in the province, to consider the status quo of water services, associated water resource issues and define a strategic way forward to deal with highlighted constraints, held on 21 February 2005 it was agreed that:

- The Water Services Strategy is also to focus on forward growth, based on priorities of the Limpopo Growth and Development Strategy. The strategy should also include the role of business i.e. mining, agriculture and tourism,
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The need is to articulate a single, high level, integrated water strategy for Limpopo to guide the development of implementation strategies at local government and individual departmental levels.

3. PROCESS

The goals of this integrated water strategy development for Limpopo are two-fold:

- To lay out the way forward, and
- To achieve consensus and buy-in of all stakeholders to ensure implementation.

A broadly participative approach was followed; lead by the MEC for Local Government and the top management of the Department of Water Affairs and Forestry, Department of local Government and Housing and the South Africa Local Government Association and including local government (Water Services Authorities), provincial government (Education, Health, Agriculture), non-governmental organisations and the private sector.

In terms of the progressive approximation approach it is not necessary to expend considerable time and effort at this stage to collate precise data and information. The approach is to use the best available information to quickly define the strategic issues. The information can then be progressively improved, as necessary, during the strategy development process.
The task team consisting of representatives of SALGA Limpopo, Department of Local Government and Housing and Department of Water Affairs and Forestry along with supporting Masibambane programme management and sector strategy consultants ensured the following occurred:

- Approach and process for agreement (draft, to Collacom, strategy leadership, MEC)
- Collate existing data and diverse strategies for DM workshop presentations
- Support and record 6 DM strategy sessions
- Collation of high level draft strategy based on DM sessions' outcomes
- Distribute draft to stakeholders for review
- Facilitate stakeholders review for inputs to strategy

The outstanding programme milestones are:

- Arrange provincial workshop to approve strategy
- Finalise strategy document
- Deliver document to leadership team to present to MEC and Minister

The Provincial Water Sector Plan process followed is:
4. STRATEGIC CONTEXT

The fundamental departure point for considering strategic issues and way forward for Limpopo must be the categorical acknowledgement that the province is water scarce – to the point where existing sources are, in many cases, already over-extended – and as such the framework for future activities must depart from the need for greater efficiency, effectiveness and equitable use of water as a supplement to increasing overall supply.

The strategic approach to deal with the constraints and opportunities facing the water sector in Limpopo and must be considered within the government’s National Water Policy for South Africa. Identified strategic issues were refined and prioritised as the strategy unfolded.

4.1 Introduction

Limpopo is South Africa’s northernmost province which shares borders with the countries of Botswana, Zimbabwe and Mozambique as well as the North West, Gauteng and Mpumalanga provinces.

Limpopo is blessed with a rich diversity of cultures, unsurpassed natural beauty and biological diversity and a rich mineral endowment. It also has the widest diversity of agricultural resources, tourism destinations and mineral reserves in South Africa.

The population of Limpopo is 5.5m with an age distribution showing a larger portion of the population in the younger age groups than the national average as well as the highest female/male ratio in the country with females constituting 55%.

The province is made up of 5 District Municipalities and 17 Local Municipalities. The Vhembe, Mopani, Sekhukhune and Capricorn DMs are all Water Services Authorities with Polokwane (in Capricorn) and all the 6 LMs in the Waterberg district also WSAs.

4.2 Limpopo Growth and Development Strategy (LGDS)

The purpose of the LGDS is to provide a vision for development that reflects the development priorities in terms of social needs and competitive economic growth potential of the Province, but that is also consistent with national development imperatives. The approach followed was consistent with the intergovernmental relations focus of a dynamic planning method, which aligns the national, provincial and local government policies, strategies and plans in an interactive way. Capacity building to promote developmental local government is recognized a major priority for interventions from the provincial level.

The Limpopo Economic Development Strategy analysis included recommendations for both the supply and demand sides. On the supply side the competitive advantage of the province due to its resource base was identified in the sectors of mining, agriculture and tourism. From the demand side the criteria that were decided upon to guide the allocation of public funds were project impact, unemployment, skills-development and population density. Furthermore this strategy identified the major challenges to the implementation of development projects as infrastructure and the lack of development management capacity. Mining support focuses on developing the mining potential of the province, associated support infrastructure, BEE and linkages into the local economies. Agricultural priorities include a focus on high-value and export-orientated commodities, agro-processing, promoting competitive supply chains and providing support programmes for
emerging farmers. Tourism is founded upon the commercialisation of government nature reserves, the promotion of tourism clusters with routes between them and targeted marketing.

The Spatial Rationale identified 106 settlement clusters, comprising 29 growth points (places with high levels of economic activity or economic potential) and 77 population concentrations (groups of settlements with large populations but usually without a strong economic base) and cover 53% of the population. Provincial government departments have approved it and municipalities to guide the allocation of development capital expenditure, as these clusters are where most people would benefit. Based on spatial distribution of the flagship projects from the economic development strategy and the settlement clusters from Spatial Rationale three other development corridors in the province were revealed viz. the Trans-Limpopo Corridor along the N1 national road bisecting the province, the Dilokong Corridor from Polokwane to Sekhukhune district and the East-West Corridor from Polokwane via Lephalale to Botswana.

A key objective of the growth and development strategy is to improve the impact of poverty alleviation projects in Limpopo. Data and information on the poverty situation has been collated and the Local Economic Development (LED) initiatives of local government are seen as the poverty alleviation delivery mechanism. The LGDS confirms the provision of water and sanitation services as key enabling infrastructure for both economic and social (which enhance the quality of life and productivity of the workforce) development.
The map shows the District Municipality boundaries, economic and spatial corridors and clusters in Limpopo:
4.3 The National Water Resource Strategy (NWRS)

Government policy since 1994 has focused strongly on equitable and sustainable social and economic development for the benefit of all South Africa’s people. The National Water Policy for South Africa (NWP), adopted by Cabinet in 1997, was introduced with the objective of managing the quantity, quality and reliability of the Nation’s water resources is to achieve optimum, long-term, environmentally sustainable social and economic benefit for society from their use.

Three fundamental objectives for managing South Africa’s water resources are:

- **To achieve equitable access to water**, that is, equity of access to water services, to the use of water resources, and to the benefits from the use of water resources.

- **To achieve sustainable use of water** by making progressive adjustments to water use with the objective of striking a balance between water availability and legitimate water requirements, and by implementing measures to protect water resources.

- **To achieve efficient and effective water use** for optimum social and economic benefit.

To realise the achievement of the NWP objectives the following apply:

- Water will be regarded as an indivisible national asset. National government will act as the custodian of the nation’s water resources and its powers in this regard will be exercised as a public trust.

- Water required to meet basic human needs and to maintain environmental sustainability will be guaranteed as a right, whilst water use for all other purposes will be subject to a system of administrative authorisations.

- The responsibility and authority for water resource management will be progressively decentralised by the establishment of suitable regional and local institutions.

The National Water Act is the principal legal instrument relating to water resources management in South Africa and contains comprehensive provisions for the protection, use, development, conservation, management and control of South Africa’s water resources. It is these legal provisions that enable the proposals in the NWP to be implemented.

An important provision by the Act, which is key to the achievement of Policy objectives, is the establishment of national government, acting through the Minister of Water Affairs and Forestry as the public trustee of the nation’s water resources. Public trusteeship does not mean that government owns the water, since the Preamble to the Act recognises that "water is a natural resource that belongs to all people", but it does mean that the Minister has overall responsibility and, importantly, the authority to ensure that all water everywhere in the country is managed for the benefit of all persons.
The purposes of the National Water Resource Strategy

- **The national framework for managing water resources**

South Africa’s water resources must be protected, used, developed, conserved, managed and controlled in accordance with the NWRS.

- **The framework for the preparation of catchment management strategies**

A catchment management strategy is the framework for water resources management in a water management area. In this regard an important component of the NWRS is to quantify water availability and water requirements in each water management area.

- **Provision of information**

The Act requires the Minister to ensure that all aspects of water resource management that will affect other organs of State, water users and the public in general are brought to their attention.

- **Identification of development opportunities and constraints**

There is increasing understanding internationally that water resources can be successfully managed only if the natural, social, economic and political environments in which water occurs and is used are taken fully into consideration. Integrated water resources management (IWRM) may be defined as a process, which promotes the co-ordinated development and management of water, land and related resources in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems. IWRM therefore aims to strike a balance between the use of resources for livelihoods and conservation of the resource to sustain its functions for future generations, and promotes social equity, environmental sustainability and economic efficiency.

- **The dimensions of integrated water resources management**

Freshwater is a complex ecological system that has a number of dimensions. Surface water, groundwater, quantity and quality are all linked in a continuous cycle - the hydrological cycle - of rainfall, runoff from the land and infiltration into the ground, and evaporation from the surface back into the atmosphere. Each component may influence the other components and each must therefore be managed with regard to its inter-relationships with the others.

Water as a system also interacts with other systems. Human activities such as land use, waste disposal and air pollution can have major impacts on the quantity and quality of water available for human use, while the abstraction and storage of water and the discharge of waste into water resources can impact on the quality of the natural environment. These interactions must be considered and addressed by water resource managers.

Taking an even broader view, water must also be managed in the full understanding of its importance for social and economic development.
4.4 Strategic Framework for Water Services (SFfWS)

Sector vision: Water is life, sanitation is dignity

All people living in South Africa have access to adequate, safe, appropriate and affordable water and sanitation services use water wisely and practice safe sanitation.

Water supply and sanitation services are provided by effective, efficient and sustainable institutions that are accountable and responsive to those whom they serve. Water services institutions reflect the cultural, gender and racial diversity in South Africa.

Water is used effectively, efficiently and sustainably in order to reduce poverty, improve human health and promote economic development. Water and wastewater are managed in an environmentally responsible and sustainable manner.

The SFfWS Strategic has set out the following targets to be achieved:

<table>
<thead>
<tr>
<th>Target</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access to services</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>All people in South Africa have access to a functioning basic water supply facility by 2008</td>
</tr>
<tr>
<td>2</td>
<td>All people in South Africa have access to a functioning basic sanitation facility by 2010</td>
</tr>
<tr>
<td>3</td>
<td>All schools have adequate and safe water supply and sanitation services by 2005</td>
</tr>
<tr>
<td>4</td>
<td>All clinics have adequate and safe water supply and sanitation services by 2007</td>
</tr>
<tr>
<td>5</td>
<td>All bucket systems are eradicated by 2006</td>
</tr>
<tr>
<td>6</td>
<td>Investment in water services infrastructure totals at least 0.75% of GDP</td>
</tr>
<tr>
<td><strong>Education and health</strong></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Hygiene education and the wise use of water are taught in all schools by 2005</td>
</tr>
<tr>
<td>8</td>
<td>70% of households with access to at least a basic sanitation facility know how to practice safe sanitation by 2005 (100% by 2010)</td>
</tr>
<tr>
<td><strong>Free basic services</strong></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Free basic water policy implemented in all WSA by 2005</td>
</tr>
<tr>
<td>10</td>
<td>Free basic sanitation policy is implemented in all WSA by 2010</td>
</tr>
<tr>
<td><strong>Institutional development and performance</strong></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>By-laws are promulgated in every WSA area by 2005</td>
</tr>
<tr>
<td>12</td>
<td>All WSAs report annually on progress against their WSDPs by 2005</td>
</tr>
<tr>
<td>13</td>
<td>All WSAs have adopted a set of key performance indicators by 2005 and report on these annually</td>
</tr>
</tbody>
</table>

1 Strategic Framework for Water Services
4.5 Inter-governmental Relations Framework Act 2005 (IGR)

Noting that, in terms of the constitution, national, provincial and local spheres of government are distinctive, interdependent and interrelated the IGR establishes a framework for these spheres of government in order to promote and facilitate intergovernmental relations, including the settlement of disputes.

As a developmental state it is required of all the spheres of government to provide effective, efficient, transparent, accountable and coherent government to secure the well being of the people and to redress poverty, underdevelopment and marginalisation of communities. These challenges can best be addressed through all spheres working together and integrating activities in the provision of services, poverty alleviation and development.

The IGR calls for cooperative government to achieve:

- Coherent government,
- Effective provision of services,
- Monitoring implementation of policy and legislation, and
- Realisation of national priorities.

The IGR allows for provincial intergovernmental structures to be created by the Premier in which participation, consultation and cooperation by all governments is required.

4.6 Limpopo Water Summit

Limpopo Water Summit held at the Meropa Casino Hotel on 21st February it was resolved that focussed attention be given to:

- Free Basic Services
- Integrated Planning and Monitoring
- Disaster Recovery Mechanisms
- Support to Small Farmers
- Water Resource Development
- Institutional Reform
- Scheme Transfers
- Capacity Building/Research/Support
- Coherent Provincial Water Strategy

The detailed resolutions of the summit have been included into this strategy and the interventions described in the 5-year implementation plan.
5. STATUS OF THE SECTOR IN LIMPOPO

5.1 Population Spread and Socio-economic Status

The following categories of information have been assembled to convey the status quo regarding the environment in which water resource management and water services delivery occur in Limpopo as well as specific water related data.

This table has been produced purely to indicate clearly the relative population size in the 11 Limpopo WSAs. This is useful in identifying potential focus areas for further analysis, prioritization and support.

<table>
<thead>
<tr>
<th>Water Services Authority (WSA)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capricorn District Municipality</td>
<td>671 000</td>
</tr>
<tr>
<td>Polokwane Local Municipality</td>
<td>546 000</td>
</tr>
<tr>
<td>Mopani District Municipality</td>
<td>1 024 000</td>
</tr>
<tr>
<td>Sekhukhune District Municipality</td>
<td>1 017 000</td>
</tr>
<tr>
<td>Vhembe District Municipality</td>
<td>1 274 000</td>
</tr>
<tr>
<td>BelaBela Local Municipality</td>
<td>56 000</td>
</tr>
<tr>
<td>Lephalale Local Municipality</td>
<td>103 000</td>
</tr>
<tr>
<td>Modimolle Local Municipality</td>
<td>82 000</td>
</tr>
<tr>
<td>Mogalakwena Local Municipality</td>
<td>316 000</td>
</tr>
<tr>
<td>Mookgobong Local Municipality</td>
<td>37 000</td>
</tr>
<tr>
<td>Thabazimbi Local Municipality</td>
<td>68 000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5 194 000</strong></td>
</tr>
</tbody>
</table>

*These figures are indicative, extracted from the census, DWAF Reference Framework and other sources and are currently subject to a process of agreement between each WSA and DWAF to arrive at a single agreed total for planning purposes.

Socio-economic

Limpopo remains one of South Africa’s poorest provinces with high unemployment rates, approximately 50% in 2003 for the province as a whole, and low incomes. Approximately 60% of the province’s population live “in poverty” with a provincial Human Development Index of 0.49 compared to the national average of 0.59. This data can usefully indicate the potential of households to pay for water services, thus supporting sustainable operations and maintenance, and the priority to allocate water resources for poverty alleviation and socio-economic development initiatives.

Employment

<table>
<thead>
<tr>
<th>Year</th>
<th>Economically Active</th>
<th>Employment</th>
<th>Unemployment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>1 161 565</td>
<td>580 457</td>
<td>46.6%</td>
</tr>
<tr>
<td>2003</td>
<td>1 468 098</td>
<td>675 092</td>
<td>49.3%</td>
</tr>
</tbody>
</table>

*These figures have been extracted from the Limpopo Provincial Growth and Development Strategy 2004 - 2014
5.2 A broad perspective on the Limpopo water situation

Water resource development and management in Limpopo have continuously evolved over the years to meet the needs of a growing population and a vibrant economy. Considering the constraints imposed by nature these developments have largely been made possible by recognising water as a national asset, which permits its transfer from where it is available to where the greatest overall benefits for the nation can be achieved.

Sufficient water resources have been developed to ensure that all current requirements for water can reasonably be met without impairing the socio-economic development of Limpopo in most areas with the exceptions of the Crocodile West and Marico (southern Waterberg district) and Olifants water management areas (Sekhukhune district) subject to existing water use being efficiently reallocated and properly managed to the province’s overall benefit. Generally the environmental reserve cannot be adequately provided for – which creates a serious sustainability issue.

An inheritance from the previous water act, which linked access to water resources to land ownership, is the current inequity in water use among the province’s population groups. Situations also occur where people do not have access to a reliable source of potable water. This is largely due to a lack of infrastructure and funding for its provision and operation, since sufficient water resources are mostly available, especially groundwater resources in rural areas. Rectifying both of these situations right is of exceptional priority.

Water of naturally poor quality, which limits its utilisation, also occurs in some areas. This applies to both surface and groundwater. In order to improve water quality to appropriate standards for particular use special management techniques may be feasible. With the present high level of water resource utilisation in the province, water use efficiency must be substantially improved. An extensive programme for water conservation and water demand management has been developed.

In addition, measures are to be introduced to ensure the most beneficial utilisation of water in the province, both from a social and an economic perspective. These measures will include the re-allocation of some water from low benefit uses to higher benefit uses over time.

Limpopo is a water scarce province with the available major water resources already over-allocated thus requiring some form of water transfers into the province as well as water conservation and demand management strategies to conserve existing water sources. (Note the Table 5 on page 14 which details the current water availability and use). Provided that the water resources of Limpopo are judiciously managed and wisely allocated and utilised, sufficient water of appropriate quality will be available to sustain a strong economy, high social standards and healthy aquatic ecosystems for many generations.
The province’s water resources are managed by means of 4 Water Management Areas (WMAs) viz. the Limpopo, Olifants, Luvuvhu-Letaba and Crocodile West Marico WMAs. The map on page 12 shows these Water Management Areas as well as an indication of where transfers are occurring. The WMAs have been structured to allow efficient management of water catchments and thus 3 of the 4 WMAs cross provincial boundaries. Furthermore rivers are managed in terms of international agreements, resulting in international obligations, which must also be taken into account in managing the provinces water resources.

Current water use allocation is skewed towards previously advantaged groups and adjustments are required to achieve equity and sustainability. In terms of the current water distribution, the irrigation sector accounts for over 50% of available water whilst water services in rural areas account for less than 5% of water use.

Over 10% of the total water utilisation in the province is lost through wastage and system losses. Effective and efficient water conservation and water demand management strategies thus need to be implemented. The provincial growth and development strategy prioritises economic development through industry, mining and agriculture as well as urbanisation all of which will require increased water provision.

Current water use per sector in Limpopo Province is:

- Agricultural sector - 53%
- Mining sector - 8%
- Rural - 5%
- Power generation - 8%
- Afforestation - 1%
- Urban - 24%
- International obligations - 1%

Limpopo depends mainly on surface water resources for most of its urban, industrial and irrigation requirements. In general, surface water resources are highly developed over most of the province. Groundwater, while also extensively utilised, particularly in the rural and more arid areas, is limited due to the geology of the province, much of which is hard rock. Large porous aquifers occur only in a few areas.

Table 5.4.1: Water requirements for the year 2000 (million m³/a)

<table>
<thead>
<tr>
<th>Water management area</th>
<th>Irrigation</th>
<th>Urban (1)</th>
<th>Rural (1)</th>
<th>Mining and bulk industrial (2)</th>
<th>Power generation</th>
<th>Afforestation</th>
<th>Total local requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Limpopo</td>
<td>238</td>
<td>34</td>
<td>28</td>
<td>14</td>
<td>7</td>
<td>1</td>
<td>322</td>
</tr>
<tr>
<td>2 Luvuvhu/Letaba</td>
<td>248</td>
<td>10</td>
<td>31</td>
<td>1</td>
<td>0</td>
<td>43</td>
<td>333</td>
</tr>
<tr>
<td>3 Crocodile West and Marico</td>
<td>445</td>
<td>547</td>
<td>37</td>
<td>127</td>
<td>28</td>
<td>0</td>
<td>1 184</td>
</tr>
<tr>
<td>4 Olifants</td>
<td>557</td>
<td>88</td>
<td>44</td>
<td>94</td>
<td>181</td>
<td>3</td>
<td>967</td>
</tr>
<tr>
<td>Total for province</td>
<td>1 488</td>
<td>679</td>
<td>140</td>
<td>376</td>
<td>216</td>
<td>47</td>
<td>2 806</td>
</tr>
</tbody>
</table>

1) Includes the component of the Reserve for basic human needs at 25 litres/person/day.
2) Mining and bulk industrial that are not part of urban systems.
Future water requirements

There are many factors that influence the requirements for water in Limpopo. These include climate, the nature of the economy (i.e. irrigated agriculture, industrialisation) and standards of living. Of these, climate has in the past been a relatively stable factor while in most cases control can be exercised over the growth in demand for irrigation water. However, population, standards of living and economic activity have their own inherent growth rates and each is dependent on a wide spectrum of external influences. Population and economic growth relate to socio-economic standards, and are therefore regarded as the primary determinants with respect to future water requirements.

The PGDS has identified a number of priority developments – all of which require enhanced water provision. Water resource management interventions are urgently required to provide these plans.
## Table 5: Water Availability and Water Use (measured in million m$^3$ per annum)

<table>
<thead>
<tr>
<th>WMA</th>
<th>LIMPOPO</th>
<th>CROCODILE</th>
<th>LUVUVHU/OLIFANTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(WEST)</td>
<td>MARICO</td>
<td>LETABA</td>
<td></td>
</tr>
<tr>
<td><strong>YEAR 2000</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water available</td>
<td>281</td>
<td>716</td>
<td>310</td>
<td>609</td>
</tr>
<tr>
<td>Utilisation</td>
<td>322</td>
<td>1184</td>
<td>333</td>
<td>967</td>
</tr>
<tr>
<td>Balance</td>
<td>-41</td>
<td>-468</td>
<td>-23</td>
<td>-358</td>
</tr>
<tr>
<td>Transfers in</td>
<td>18</td>
<td>519</td>
<td>0</td>
<td>172</td>
</tr>
<tr>
<td>Transfers out</td>
<td>0</td>
<td>10</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Balance</td>
<td>-23</td>
<td>41</td>
<td>-36</td>
<td>-194</td>
</tr>
<tr>
<td><strong>Year 2025</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water available</td>
<td>281</td>
<td>846</td>
<td>404</td>
<td>630</td>
</tr>
<tr>
<td>Utilisation</td>
<td>347</td>
<td>1438</td>
<td>349</td>
<td>1075</td>
</tr>
<tr>
<td>Balance</td>
<td>-66</td>
<td>-592</td>
<td>55</td>
<td>-445</td>
</tr>
<tr>
<td>Transfers in</td>
<td>18</td>
<td>727</td>
<td>0</td>
<td>210</td>
</tr>
<tr>
<td>Transfers out</td>
<td>0</td>
<td>10</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Balance</td>
<td>-48</td>
<td>125</td>
<td>42</td>
<td>-242</td>
</tr>
<tr>
<td><strong>Available MAR</strong></td>
<td>986</td>
<td>855</td>
<td>1185</td>
<td>2040</td>
</tr>
<tr>
<td><strong>Ecological Reserve</strong></td>
<td>156</td>
<td>164</td>
<td>224</td>
<td>460</td>
</tr>
</tbody>
</table>
6.6 Water Services

Free Basic Water

The free basic water provision situation as at November 2006 is as follows:

<table>
<thead>
<tr>
<th>Municipality</th>
<th>% Total Population Served</th>
<th>% Poor Population Served</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capricorn DM</td>
<td>87%</td>
<td>75%</td>
</tr>
<tr>
<td>Polokwane LM</td>
<td>48%</td>
<td>81%</td>
</tr>
<tr>
<td>Mopani DM</td>
<td>76%</td>
<td>57%</td>
</tr>
<tr>
<td>Sekhukhune DM</td>
<td>45%</td>
<td>52%</td>
</tr>
<tr>
<td>Vhembe DM</td>
<td>78%</td>
<td>67%</td>
</tr>
<tr>
<td>Waterberg DM district</td>
<td>75%</td>
<td>91%</td>
</tr>
<tr>
<td>Total</td>
<td>71%</td>
<td>69%</td>
</tr>
</tbody>
</table>

Water Services Backlogs

The SFIWS targets to address the backlogs in water services provision have been determined and approved by cabinet. The current levels of funding, delivery and capacity to implement projects indicates that the targets in the SFIWS are unlikely to be met in Limpopo unless significant new delivery methodologies are urgently applied.

Household Water Supply (Provincial level data reviewed during December 2006)

<table>
<thead>
<tr>
<th>Water Services Authority (WSA)</th>
<th>Population</th>
<th>Number below Basic Service</th>
<th>% below Basic Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capricorn District Municipality</td>
<td>710 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polokwane Local Municipality</td>
<td>560 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mopani District Municipality</td>
<td>1 098 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sekhukhune District Municipality</td>
<td>1 137 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vhembe District Municipality</td>
<td>1 371 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BelaBela Local Municipality</td>
<td>62 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lephalale Local Municipality</td>
<td>101 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modimolle Local Municipality</td>
<td>62 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mogalakwena Local Municipality</td>
<td>350 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mookgobong Local Municipality</td>
<td>26 000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thabazimbi Local Municipality</td>
<td>69 000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Total**                                        | **5 546 000**|                           | **1 078 864**         | **19%**
Household Sanitation (Data reviewed during December 2006)

<table>
<thead>
<tr>
<th>Water Services Authority (WSA)</th>
<th>Population</th>
<th>Number below Basic Service</th>
<th>% below Basic Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capricorn District Municipality</td>
<td>710 000</td>
<td>503 222</td>
<td>71%</td>
</tr>
<tr>
<td>Polokwane Local Municipality</td>
<td>560 000</td>
<td>307 391</td>
<td>55%</td>
</tr>
<tr>
<td>Mopani District Municipality</td>
<td>1 098 000</td>
<td>937 675</td>
<td>85%</td>
</tr>
<tr>
<td>Sekhukhune District Municipality</td>
<td>1 137 000</td>
<td>1 087 380</td>
<td>96%</td>
</tr>
<tr>
<td>Vhembe District Municipality</td>
<td>1 371 000</td>
<td>865 079</td>
<td>63%</td>
</tr>
<tr>
<td>BelaBela Local Municipality</td>
<td>62 000</td>
<td>9 120</td>
<td>15%</td>
</tr>
<tr>
<td>Lephalale Local Municipality</td>
<td>101 000</td>
<td>52 321</td>
<td>52%</td>
</tr>
<tr>
<td>Modimolle Local Municipality</td>
<td>62 000</td>
<td>1 000</td>
<td>2%</td>
</tr>
<tr>
<td>Mogalakwena Local Municipality</td>
<td>350 000</td>
<td>237 270</td>
<td>68%</td>
</tr>
<tr>
<td>Mookgopong Local Municipality</td>
<td>26 000</td>
<td>5 000</td>
<td>19%</td>
</tr>
<tr>
<td>Thabazimbi Local Municipality</td>
<td>69 000</td>
<td>1 250</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>5 546 000</td>
<td>4 004 708</td>
<td>72%</td>
</tr>
</tbody>
</table>

Transfers

The current status of transfers can be summarized as follows:

<table>
<thead>
<tr>
<th>WSA</th>
<th>Asset Value</th>
<th>No. of Staff</th>
<th>Progress/Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capricorn</td>
<td>R 486m</td>
<td>500</td>
<td>Human resources</td>
</tr>
<tr>
<td>Polokwane</td>
<td>R 118m</td>
<td>200</td>
<td>Human resources</td>
</tr>
<tr>
<td>Mopani</td>
<td>R 572m</td>
<td>1 091</td>
<td>WSP arrangements</td>
</tr>
<tr>
<td>Sekhukhune</td>
<td>R 420m</td>
<td>704</td>
<td>Transfer occurred</td>
</tr>
<tr>
<td>Vhembe</td>
<td>R 611m</td>
<td>2 236</td>
<td>WSP arrangements</td>
</tr>
<tr>
<td>Lephalale</td>
<td>R 24m</td>
<td>44</td>
<td>Transfer complete</td>
</tr>
<tr>
<td>Mogalakwena</td>
<td>R 92m</td>
<td>191</td>
<td>Human resources</td>
</tr>
</tbody>
</table>
6. PROPOSED STRATEGIES

The strategic issues and challenges that were raised during the water summit, district workshops and provincial stakeholders meetings were, identified refined and prioritised and grouped into Strategic Goals as follows.

Strategic Goal 1: Promote socio-economic development and poverty alleviation through the strategic alignment of planning and projects.

Strategic Goal 2: Ensure Water Resource Allocation and Development to meet the needs of the province.

Strategic Goal 3: Delivery to overcome Water Services Backlogs.

Strategic Goal 4: Ensure the sustainability of water provision through institutional and sector skills development.

Strategic Goal 5: Ensure disaster management systems are in place to deal with the regular floods and droughts faced.

Strategic Goal 6: Ensure effective collaboration and communication in the sector.

6.6 Strategic Goal 1: Promote socio-economic development and poverty alleviation through the strategic alignment of planning and projects.

The provincial growth and development strategy prioritises major economy development, through industries, mines and agriculture as well as urbanization; all of which require improved water provision. The sector requires engagement with the planning of development projects to ensure the needs for and capacity of water provision is adequately integrated into project development.

To enable programmes and projects to support the objectives and goals of the LGDS and other Limpopo economic and social development strategies to promote socio-economic development and poverty alleviation in Limpopo Province alignment of these strategies, municipal plans and projects with water resource availability is required as shown in the following diagram. At present this alignment is not fully in place and sector projects are often implemented outside of plans.

The complexity of managing water as a system and its interactions with other systems is further compounded by the large number of institutions and organisations - domestic and international - involved in the administration and management of the various systems.

DWAF is responsible for water resources management. It is required that DWAF ensures that its programmes are in accordance with government policy and are coordinated with relevant programmes of other departments. Similarly, other departments have a responsibility to ensure that, where relevant, their programmes take account of the realities of South Africa's water situation. This is particularly important when it comes to planning developments that depend on water for their success. In these instances the availability of water must be factored into plans at the beginning of the development process.
Development Planning Alignment

The success of integrated water management will therefore depend heavily on the development of a framework of co-operation among all relevant institutions, organisations and individuals. This co-operative framework must facilitate planning at all geographic scales ranging from international projects to activities on individual smallholdings, and the co-ordination of programmes.

Successful water resources management will therefore depend on co-operation among all spheres of government, and the active involvement of water users and other organisations and stakeholders.
6.6 Strategic Goal 2: Ensure Water Resource Allocation and Development to meet the needs of the province.

Apart from the requirements for water in the established user sectors, which can be calculated with relative ease, the quantities of water required for redressing inequities and poverty eradication will depend strongly on the specific requirements of local and regional development strategies. Given the general trends in the province towards urbanisation and continued economic growth, future growth in water requirements is expected to occur in the economically more favourably located urban areas. Relatively strong growth is also foreseen in the mining sector, with water demand for mineral exploitation anticipated.

Reconciliation to balance supply and demand

A reconciliation of the available water and total requirements for the year 2000, including transfers between water management areas and to neighbouring countries, shows deficits exist in more than half of the water management areas. This demonstrates the regional differences in the province, and highlights the potential risks of generalisation. Similarly, a surplus or a deficit shown in a particular water management area is unlikely to be representative of the area as a whole, and anomalies are most likely to occur in some catchments or smaller areas within the water management area. In addition, it should be noted that in many cases the deficits shown do not imply that present actual use exceeds the amount of water reckoned to be available, but that the allowances made for the implementation of the ecological component of the Reserve cannot be met fully at present levels of use.

Table 6.2.2.1 gives a perspective on the possible future requirements for water, as well as the water that will potentially be available under the base and high scenarios respectively. (The growth in surplus for the Crocodile West and Marico water management area is the result of growing wastewater return flows in the area - see also discussion below). It is expected that future growth in water requirements will largely be in the main metropolitan centres. Apart from catchments already under stress, particular attention will therefore have to be given to ensuring adequate future water supplies to these areas, as well as ensuring equitable access to existing supplies.

Table 6.2.2.1: Reconciliation of requirements for and availability of water for the year 2025 base scenario (million m³/a)

<table>
<thead>
<tr>
<th>Water management area</th>
<th>Reliable local yield</th>
<th>Transfers in</th>
<th>Local requirements</th>
<th>Transfers out</th>
<th>Balance</th>
<th>Potential for development</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Limpopo</td>
<td>281</td>
<td>18</td>
<td>347</td>
<td>0</td>
<td>(48)</td>
<td>8</td>
</tr>
<tr>
<td>2 Luvuvhu/Letaba</td>
<td>404</td>
<td>0</td>
<td>349</td>
<td>13</td>
<td>42</td>
<td>102</td>
</tr>
<tr>
<td>3 Crocodile West and Marico</td>
<td>846</td>
<td>727</td>
<td>1 438</td>
<td>10</td>
<td>125</td>
<td>0</td>
</tr>
<tr>
<td>4 Olifants</td>
<td>630</td>
<td>210</td>
<td>1 075</td>
<td>7</td>
<td>(242)</td>
<td>239</td>
</tr>
<tr>
<td>Total for province</td>
<td>2 161</td>
<td>955</td>
<td>3 209</td>
<td>30</td>
<td>(123)</td>
<td>349</td>
</tr>
</tbody>
</table>
While issues of importance have been identified with respect to each of the water management areas, the following areas are of specific note from a provincial and national perspective:

- **Crocodile West and Marico water management area**: Large additional transfers of water to the Pretoria-Johannesburg area in the upper reaches of the Crocodile catchment will be required in future from the Upper Vaal WMA. This will result in growing quantities of return flows becoming available downstream of these centres, and specific attention will need to be given to the optimal balance between the transfer of water and re-use of return flows.

- **Olifants water management area**: Deficits that will result from implementation of the Reserve and the provision of water supplies for future power generation and mining in the Olifants area, and also to support mining in the Limpopo water management area, will have to be addressed. Possible impacts on Mozambique will have to be managed.

Interventions for water resources management

- **Water conservation and water demand management**

  Water conservation and water demand management relate to the efficient and effective use of water and to the minimisation of loss and wastage of water. For many years the tendency has been to resort to constructing additional infrastructure where the demand for water has exceeded the supply. As water use approaches its full potential however, the cost of resource development increases and the environmental impacts become more pronounced. Management of the demand for water is an obvious option for reconciling imbalances between requirements and availability, and has been applied with great success by some users.

  Compared with supply-side management, the management of demand in South Africa is relatively under-developed, although there are world-class examples of water use efficiency in some areas of industry and agriculture that will help to set benchmarks.

- **Managing groundwater resources**

  A systematic approach to groundwater was neglected in the past as a result of its "private water" status under previous legislation. With a focus on the development of local resources groundwater’s role in reconciling future demand and supply could rise significantly, and meeting relatively small water requirements from groundwater would be especially beneficial.

- **Re-use of water**

  In the interior of the country most of the water used in a non-consumptive manner is directly recycled for re-use, or is returned to the rivers after treatment, thereby becoming available for re-use.

- **Control of invasive alien vegetation**

  Provisional estimates show that annually about 3 per cent of the national mean annual runoff, is intercepted by invading alien vegetation. If the spread of such vegetation is not controlled, the impact is likely to increase. Through government’s inter-departmental Working for Water Programme, large areas are being cleared of alien vegetation.
- **Re-allocation of water**
  
  Differential benefits are derived from water use by different user sectors and by users in different parts of the country. Water should ideally be applied to best advantage to achieve the greatest overall benefit for the province from a social, economic and environmental perspective. The re-allocation of water between user sectors is an obvious and powerful option for realising this goal.

- **Development of surface water resources**
  
  Opportunities for increased water use other than those that arise from urban, industrial and mining growth are also addressed as part of the analysis of the respective water management areas. Opportunities include the following:
  
  - Expansion of irrigation in the north-eastern part of Limpopo Province from the Nandoni Dam in the Luvuvhu River.
  - The De Hoop Dam
  - Raising the wall at Flag Boshello
  - Dam at Rooipoort
  - Raising the Tzaneen Dam and construction of nWamitwa Dam

- **Inter-catchment transfers**
  
  Due to the spatial imbalances in the availability of and requirements for water in the country, as demonstrated by the preceding information and statistics, inter-catchment transfer of water is a necessary reality in South Africa. Opportunity exists for transfers from Gauteng to the Waterberg district to support new tourism and mining ventures in the western parts of the province.

- **Water quality**
  
  Although not a reconciliation intervention in itself, water quality is a fundamental element of water resource management and is a primary consideration in all the options for the reconciliation of water requirements and availability. In addition to making sufficient quantities of water available for use at specific locations and times as required, it is essential that water also be of appropriate quality for the intended use, whether it be for abstraction or for the purposes of the ecological reserve.

- **Environmental considerations**
  
  Similar to water quality, environmental considerations are also integral to all reconciliation interventions. The impacts on both the social and natural environment need to be taken into account, and assessed together with the technical, economic and other factors.

  Social impacts broadly refer to how people's lives and livelihoods may be affected, and relate to social networks and ways of life, economic activities, and gender, cultural and religious issues.

  All water resource developments also impact on the functioning of aquatic ecosystems, typically by changing habitat conditions as a result of changed flow and water quality regimes. **Limpopo is generally unable to meet these requirements at this stage.**
6.6 Strategic Goal 3: Delivery to overcome Water Services Backlogs.

The SFIWS targets to address the backlogs in water services provision have been determined and approved by cabinet. The current levels of funding and capacity to implement projects indicates that the targets in the SFIWS are unlikely to be met in Limpopo unless significant new delivery methodologies are urgently applied. A number of strategic initiatives to overcome the water services backlogs are required including:

- There is the enormous backlog in water services facing WSAs in Limpopo...
- These backlogs need to be assessed to differentiate between service delivery problem areas and those where insufficient infrastructure exists.
- The backlog numbers need to be agreed at each WSA level and confirmed provincially allowing funding requirements finalised. Improvements in the backlog information by data gathering and analysis is urgently required.
- Other infrastructure provision organisations such as Eskom need to be brought into the backlog problem assessment process.
- Alternative technologies and approaches need to be considered when determining methods of backlog reduction.
- O&M requirements need to be included into project planning along with life cycle costing.
- Free basic water (FBW) and sanitation (FBS) provision must be prioritised.
- Funding allocations and expenditures require assessment to determine constraints. Further funding requirements need to be determined and a collaborative approach made for extra resources.
- The project delivery capacities the WSAs also require assessment and new and innovative project delivery methods need to be urgently developed.

Water Services Backlog

Household Water Supply (Provincial level data reviewed during December 2006)

<table>
<thead>
<tr>
<th>Water Services Authority (WSA)</th>
<th>Population</th>
<th>Number below Basic Service</th>
<th>% below Basic Service</th>
<th>*Cost to Eradicate Backlog</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capricorn District Municipality</td>
<td>710 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polokwane Local Municipality</td>
<td>560 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mopani District Municipality</td>
<td>1 098 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sekhukhune District Municipality</td>
<td>1 137 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vhembe District Municipality</td>
<td>1 371 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BelaBela Local Municipality</td>
<td>62 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lephalale Local Municipality</td>
<td>101 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modimolle Local Municipality</td>
<td>62 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mogalakwena Local Municipality</td>
<td>350 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mookgобong Local Municipality</td>
<td>26 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thabazimbi Local Municipality</td>
<td>69 000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5 546 000</strong></td>
<td><strong>1 078 864</strong></td>
<td><strong>19%</strong></td>
<td><strong>R 1 400m</strong></td>
</tr>
</tbody>
</table>

* Water Supply estimated to cost R 1300 per person. The population with water delivery backlogs includes both those with severe supply problems due to operational and maintenance deficits as well as those requiring improved service delivery infrastructure.
Republic of South Africa

Household Sanitation (Data currently being reviewed during December 2006)

<table>
<thead>
<tr>
<th>Water Services Authority (WSA)</th>
<th>Households</th>
<th>Households below Basic Service</th>
<th>Households below Basic Service %</th>
<th>*Cost to Eradicate Backlog</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capricorn District Municipality</td>
<td>145 257</td>
<td>111 827</td>
<td>77%</td>
<td>R 352m</td>
</tr>
<tr>
<td>Polokwane Local Municipality</td>
<td>124 979</td>
<td>75 092</td>
<td>60%</td>
<td>R 237m</td>
</tr>
<tr>
<td>Mopani District Municipality</td>
<td>204 135</td>
<td>187 535</td>
<td>92%</td>
<td>R 591m</td>
</tr>
<tr>
<td>Sekhukhune District Municipality</td>
<td>222 570</td>
<td>217 476</td>
<td>98%</td>
<td>R 685m</td>
</tr>
<tr>
<td>Vhembe District Municipality</td>
<td>196 411</td>
<td>157 287</td>
<td>80%</td>
<td>R 495m</td>
</tr>
<tr>
<td>BelaBela Local Municipality</td>
<td>9 721</td>
<td>1 520</td>
<td>16%</td>
<td>R 5m</td>
</tr>
<tr>
<td>Lephalele Local Municipality</td>
<td>21 496</td>
<td>11 627</td>
<td>54%</td>
<td>R 37m</td>
</tr>
<tr>
<td>Modimolle Local Municipality</td>
<td>2 000</td>
<td>200</td>
<td>10%</td>
<td>R 1m</td>
</tr>
<tr>
<td>Mogalakwena Local Municipality</td>
<td>68 011</td>
<td>47 454</td>
<td>70%</td>
<td>R 149m</td>
</tr>
<tr>
<td>Mookgopong Local Municipality</td>
<td>5 012</td>
<td>1 000</td>
<td>20%</td>
<td>R 3m</td>
</tr>
<tr>
<td>Thabazimbi Local Municipality</td>
<td>14 469</td>
<td>250</td>
<td>2%</td>
<td>R 1m</td>
</tr>
<tr>
<td>Total</td>
<td>1 014 061</td>
<td>811 268</td>
<td>72%</td>
<td>R 2 555m</td>
</tr>
</tbody>
</table>

* Sanitation estimated to cost R 3 150 per household.

In terms of other institutions: 1 542 schools require water services at an estimated cost of R 320m (sanitation: 648 schools at R 84m) and 217 Health Facilities at a cost of approximately R31m (sanitation: 141 clinics at R 24m).

Transfers

The transfer process has a human resource deadline of March 2007 to complete the transfers of all DWAF-operated schemes to the appropriate WSAs. At current progress this is unlikely to be met in all cases and an alternative programme supported by the provincial sector stakeholders and the Provincial Joint Response Team needs to be developed and implemented.

The following needs to be done:

- The roles of parties to transfers should be clearly defined.
- The WSAs should procure their own their own advisors, where necessary.
- The s78 assessments to result in appropriate Water Services Provider (WSP) arrangements must be finalised and implemented.
- The Memorandum of Agreement regarding human resource transfers must be implemented.
- The extent of operations and maintenance subsidies needs to be resolved.
- Financial sustainability actions, particularly cost-recovery, are required.
- Joint-departmental support in terms of Project Consolidate should address municipal capacity constraints.
6.6 Strategic goal 4: Ensure the sustainability of water provision through institutional and sector skills development.

Water management institutions

DWAF is in the process of establishing catchment management agencies, each operating in a defined water management area, to manage water resources at a regional level. These agencies will be responsible, among other things, for ensuring that there is consonance between their water-related plans and programmes and the plans and programmes of all other role players in the catchments they manage. The agencies will therefore have to establish co-operative relationships with a range of stakeholders, including other water management institutions, water services institutions, provincial and local government authorities, communities, water users ranging from large industries to individual irrigators, and other interested parties.

These institutions include Catchment Management Agencies (CMAs), Water User Associations (WUAs) etc.

Water services institutions

These consist of:

- Water Supply Authority (WSA)
- Water Services Provider (WSP)

WSA Institutional Capacity

During the first half of 2005 a WSA checklist process has been undertaken to determine WSA existing capacities measured against the legislative WSA functions of ensuring access, regulating, planning and water services provider (WSP) arrangements.

The WSA functional areas on which the information was collected were:

- Policy and bylaws
- Financial
- WSDP
- Infrastructure
- WSP arrangements
- Performance management
- Health & hygiene promotion
- Asset management
- Transfer

This information can be used to define the WSA institutional support requirements and priorities.
Water Services Provider (WSP) Arrangements and Institutional Capacity

The WSP arrangements must be created through the s78 Assessments. Not all WSAs have completed these. Priority must be given to their completion and implementation. The Institutional Reform process should later follow to look at sub-regional efficiencies and economies of scale with regard to water services provision arrangements.

Municipal Capacity Building and Project Consolidate

The key mandate of the Provincial Department of Local Government and Housing is the establishment, capacitating and monitoring of the third sphere of government. The Department should develop appropriate strategies, and co-ordinate all efforts aimed at achieving optimal performance of local government.

All municipalities are faced with the following challenges:

- The need to deliver services.
- The need to extend services to new areas.
- The need to perform new functions which were previously not theirs.

To address current deficiencies within municipalities, a comprehensive strategy to expedite capacity development, has therefore been developed.

Project Consolidate

Project Consolidate is a “hands-on local government engagement programme” and is as a result of “the urgent need to refine the system of governance and address immediate challenges of service delivery and local government transformation”. The need is to optimise the impact of the new local government system, implement the local government transformation phases simultaneously and refine the governance systems. The implementation of the National Capacity Building Framework cannot progress as “business as usual” and must directly support all areas of project consolidate with provincial capacity building initiatives aligned to provincial Project Consolidate programmes of action.

To achieve these aims the following should occur:

- National and provincial spheres to identify and implement immediate and ongoing support to local government where required.
- Intervene in an activist manner in engagement with local government.
- Establish trouble-shooting capacity to identify and unblock bottlenecks in local government service delivery and transformation.
- Give targeted support to areas neglected by apartheid.
- Interact directly with municipalities, communities and key local stakeholders.
- Support the Office of the Premiers as “coordinating centres of development.
- Assist in finalising Provincial Growth and Development Strategies.
- Forge a common vision regarding the role of local government in service delivery.
As part of the lead up to implementing Project Consolidate 14 local municipalities have been identified by the province as requiring priority support/intervention. None of the District Municipal WSAs in Limpopo have been identified as requiring priority Project Consolidate assistance.

5-Year Local Government Strategic Agenda

As an initiative to follow-up Project Consolidate the 5-Year Local Government Strategic Agenda process has been developed to provide:

- Mainstreaming hands-on support to Local Government to improve municipal governance, performance and accountability;
- Addressing the structure and governance arrangements of the State in order to better strengthen, support and monitor Local Government; and
- Refining and strengthening the policy, regulatory and fiscal environment for Local Government and giving greater attention to the enforcement measures.

- Department of Water Affairs & Forestry (DWAF)

Responsibility for water management in South Africa has been placed within different government spheres to allow efficient and responsive attention to the issues at hand.

The management of the country’s water resources lies with the national Department of Water Affairs and Forestry whilst the responsibility to ensure the delivery of water services, both water supply and sanitation, rests with local government or municipalities.

This places the following responsibilities on the Department of Water Affairs and Forestry:

- Water Resources: as custodian responsible for the management of South Africa’s water resources, and
- Water Services: as sector leader responsible to provide leadership, support and regulation to this sub-sector.

DWAF requires Technical Assistance support to deal with this transformation.
Cross cutting issues of appropriate technology, gender, the environment, civil society and HIV/AIDS

Strategies for poverty eradication must include strategies for managing water. The provision of basic water and sanitation services is an essential element of water's contribution to poverty eradication, because it addresses issues of health and hygiene. Basic water services do not however make adequate provision for productive livelihoods. The rural poor, many of whom do not yet have access to reliable water supplies or sanitation services, often rely for their livelihoods on cultivating food, gathering natural products and other water-dependent activities. But their water sources are often unreliable and insufficient, threatened by droughts and floods, and eroded or degraded by developments over which they have no control. Thus all implementation must contribute to the EPWP.

Appropriate technology is an essential component of sustainable water service provision. Appropriate technologies for water extraction, storage, distribution and use (e.g. household water retention and modified farming methods) should be researched, piloted and applied in Limpopo. These will result in the application of technologies more applicable to the natural rainfall cycles of the province and assist in easier management and conservation of scarce water during drought times. Environmental public works (within the Expanded Public Works Programme) to provide ground water recharge facilities with appropriate berms and the re-establishment of ground cover will assist in directing floodwaters underground for later use (extensive international experience with these approaches exists). This can also be income generating to support the local economy during drought times. Water conservation training and health and hygiene education can be included into the public works approach.

Issues of equity must also consider gender - that is, the implications for men and women of legislation, policies, and implementation strategies and programmes, and the measures required to enable them to participate in water resources management on an equal footing. It has also been shown by international and local experience that poverty eradication initiatives are greatly enhanced by the involvement of women in all aspects of water resources management at all levels.

In some instances a severe degradation of the quality of water and the integrity of aquatic life in rivers has occurred. There are indications that, during the last three decades, the use of groundwater for intensive irrigation schemes has substantially increased in some areas. This has lead to localised depletion of groundwater resources and in some cases deterioration of water quality.

The appropriate role of Civil Society to support the sustainability is critical to success. CSOs can bring considerable expertise and collaborative capacity to the programmes of government. Local level arrangements to deal with water allocation and management will be needed to overcome the many problems the sector faces. CSOs have a fundamental role in resolving these problems.

The need to deal with HIV/AIDS must be included in any workplans. The needs of the very sick must be considered when designing project solutions as well as the impact of these diseases on the human resource capacity to operate and maintain the water infrastructure.
Sector Skills Requirements

An estimate of the water services skills requirements at municipal level is approximately 400 – 800 staff per District Municipality as Water Services Authority, also allowing for the Water Services Provider skill requirements, made up as follows:

- **Operation and Maintenance Funding.**

  Current DWAF operational subsidies, refurbishment (expected to increase as the refurbishment studies by the WSAs revise these requirements) and equitable share allocations (of which approximately 36% is allocated for water services) are:

<table>
<thead>
<tr>
<th>Subsidy</th>
<th>2007/8</th>
<th>2008/9</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWAF Ops Subsidy</td>
<td>R 540m</td>
<td>R 611m</td>
</tr>
<tr>
<td>Refurbishment</td>
<td>R 70m</td>
<td>R 40m</td>
</tr>
<tr>
<td>Equitable share WS portion At 36% of total to WSAs</td>
<td>R 627m</td>
<td>R 711m</td>
</tr>
<tr>
<td>Total</td>
<td>R 1 237m</td>
<td>R 1 362m</td>
</tr>
</tbody>
</table>
6.6 Strategic Goal 5: Ensure disaster management systems are in place to deal with the regular floods and droughts faced.

Water resources management activities can contribute to preventing the occurrence of water-related disasters and emergencies, and mitigating their effects when they do occur. Water-related disasters must be managed within the broad framework of national disaster management policy and legislation.

Floods occur naturally as a result of Limpopo’s highly variable climate, but they may also be caused by dam failures. They often cause loss of life and destruction of dwellings in communities living in the flood plains of rivers, and disrupt the provision of water by damaging dams, water and sewage treatment works, and water distribution systems.

Droughts can occur at any time, anywhere in the country, and often last for a number of years. They reduce the availability of water to all sectors of society, but their effects are particularly severe where people do not have access to piped potable water, or where they rely on run-of-river flows for their water supplies.

Another threat is the pollution of water resources from spills of hazardous or toxic materials. These can render water unfit for use and damage the ecological functioning of water resources. Bacteriological pollution can cause outbreaks of diseases such as cholera.

**Drought Strategy**

Any drought strategy must focus on 2 aspects:

- Relief: emergency assistance to areas severely impacted, and
- Prevention: mitigation of future drought impacts.

**Emergency relief** is often necessary to relieve the impact of drought on:

- People,
- Natural environment, and the
- Local Economy. (Loss of income and jobs.)

Emergency water supply must be provided to people living in areas where water supplies have dried up. This can involve emergency piped water arrangements (water supply through emergency connections etc), borehole refurbishment and emergency maintenance through to tankered water provided to outlying areas. Peoples’ health needs to be ensured during drought by providing sufficient water for drinking and washing and reducing reliance on polluted water sources. Water provision to critical facilities e.g. hospitals must be provided.

Where water supplies can continue these must be protected and misuse limited through restrictions and price disincentives applied in terms of municipal water services bylaws and raw water supply agreements. Ongoing monitoring and evaluation by the Water Services Authorities is required to manage the effectiveness of these measures. Policing may also be necessary to ensure compliance, but this is often less effective than price disincentives and community pressure.
Sufficient water must be retained and utilised to ensure the survival of our essential natural environmental systems. These must be protected to ensure the survival of the human inhabitants of the province and surrounding countries.

Food supplies, particularly those of subsistence farmers who have little food security, are often critically reduced due to crop failure. Emergency relief can include food provision until the new harvests are brought in (Note: the support must not be terminated when the rains fall as still no food supplies are yet available) or the provision of emergency public work opportunities, through local governments, thus providing cash for food purchases. The provision seeds for planting when rains eventually come is also often necessary.

In the case of commercial crops the impact of drought is more severe in areas of normally higher rainfall as the input costs into failed crops is higher than the type of crops planted in drier areas. Many years of much reduced production can result as in the case of fruit trees. Support to farmers must be designed to improve farming management and not maximise cash relief opportunities. Many farm workers may lose their jobs during drought cycles and relief can be provided by public works opportunities similar to those recommended for subsistence farmers above.

Livestock such as cattle, goats, donkeys and commercial wildlife may require feed and water. This support must however be provided with care so as not to support unsustainable carrying levels. The opportunity also exists to facilitate the reduction of less valuable livestock (such as donkeys) in a carefully planned programme. Wildlife protection is necessary to ensure the sustainability of tourism but similarly support measures must be carefully designed to promote sustainable wildlife activities.

**Drought Impact Prevention**

Drought is part of the natural cycle of varying rainfall. The severity of this cycle is very marked in Limpopo. Thus well-planned preventive measures are necessary to reduce the impact of future drought occurrences.

Water management and institutional arrangements should be implemented, as these will facilitate proper management of water and disaster management systems. Water management systems need to be introduced and monitored. Proper management of water supply and provision is required during the good rainfall periods.
6.6 Strategic Goal 6: Ensure effective collaboration and communication in the sector.

Institutional Arrangements

AIMS:
(i) To ensure effective formal communication and liaison between the Department of Water Affairs and Forestry, various appropriate Provincial Departments and organised Local Government.
(ii) To ensure the integration of water sector activities within provincial and local government development policies and programmes.
(iii) To reach agreement at the official's level on priorities and matters of concern to provincial and local government related to water affairs and forestry.
(iv) To identify and refer matters that require political involvement to the MEC.

FUNCTIONS: The functions of Collacom include:
* Liaison related to the policy planning, development and management of water. Including water quality management, dam safety control, water allocations and abstraction control.
* Co-ordination of priorities for water resource management and the provision of associated physical infrastructure.
* Liaison on other water resource matters of common interest.
* Liaison on linkages between water resource management and water services requirements and planning and sufficient information exchange about water resources to facilitate coherent and holistic planning, informed interactions between water resource managers and development planners in other sectors.
* To liaise on matters regarding waste management.
* To propose and advise on policy items to be discussed with the MEC with respect to water resource management and water services.

Since 2002 collaborative arrangements for the alignment of water services have been in place in Limpopo. These arrangements have resulted in improved alignment of water services programmes and projects but still face considerable constraints in terms of full and active sector stakeholder participation, collaborative planning, sector reporting and political support. Communication and lesson learning activities must be included.
5-YEAR PROVINCIAL WATER SECTOR PLAN (2007 – 2012)

Attached