

### 3.2.2. Structures for Co-ordination and Co-operation with International Partners

South Africa is a signatory of the Southern African Development Community (SADC) Revised Protocol on Shared Watercourses, which governs the management of shared rivers in SADC. In line with this, South Africa has entered into several agreements with regard to sharing international rivers and the establishment of international River Basin Organisations (RBOs). This approach is in line with the policy of Government that shared watercourses be managed according to the principles of customary international law. South Africa is one of the few countries that have ratified the United Nations Convention on the Non-navigational Uses of International Watercourses which sets out the international law principles on which the Revised SADC Protocol is based.

South Africa (SA) shares 4 major river basins with 6 countries, namely the Orange Senqu River Basin (Lesotho, South Africa, Botswana and Namibia), the Limpopo River Basin (Botswana, Zimbabwe, South Africa and Mozambique), the Incomati River Basin (South Africa, Swaziland and Mozambique) and the Maputo River Basin (South Africa, Swaziland and Mozambique). These four river basins are coordinated by the following three River Basin Commissions:

- The Orange Senqu River Commission (ORASECOM);
- The Limpopo River Basin Commission (LIMCO); and
- The Tripartite Permanent Technical Committee (TPTC) (for both the Incomati and Maputo Rivers).

The process to establish a secretariat for the ORASECOM started in 2007 and should be completed in 2008. The process to establish a secretariat for LIMCOM should start in 2008. The TPTC has not decided if it should transform itself to a more formal River Basin Commission with its own Secretariat.

Work will also continue in the existing international basin organisations and committees to advise the member states on water resource management issues of common interest. The SA government has also entered into the Incomaputo Agreement for Co-Operation on the Protection and Sustainable Utilisation of the Water Resources of the Incomati and Maputo Watercourses with the Government of Mozambique.

The Department also has bilateral commissions with the following countries related to water resource management and development:

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- RSA / Lesotho – Lesotho Highlands Water Commission (LHWC);
- RSA / Swaziland Joint Water Commission (JWC);
- RSA / Namibia Permanent Water Commission (PWC);
- RSA / Botswana Joint Permanent Technical Committee (JPTC); and
- RSA / Mozambique Joint Water Commission (JWC).

The Department remains committed to ensure proactive engagement with NEPAD and SADC water services initiatives. Work will also continue to ensure the alignment of the African Rivers Basins Organisation (ANBO) with the organizational structure and programmatic objectives of the African Minister's Council on Water (AMCOW), in which the Department has been playing a key role. The department will also work in support of AMCOW's efforts to build an effective multi-stakeholder platform, which so far includes the African Civil Society Network on Water and Sanitation (ANEWS), the Global Water Partnership (GWP) and ANBO. Post reconstruction support will be provided in the water sector to other African countries, such as Rwanda and the Democratic Republic of Congo. DWAf will encourage the development and strengthening of partnerships and lend support to water services programmes in Africa, in order to achieve millennium development and World Summit on Sustainable Development (WSSD) targets will continue.

The SADC forestry potential study will be integrated into the SADC and NEPAD processes.

SA has entered into an agreement with the Government of The Kingdom of Lesotho. The agreement is in the spirit of the Joint Bilateral Commission of Co-operation between South Africa and Lesotho entered into on the 19 April 2001. The aim of the agreement is to continuously explore best strategies for co-operation between SA and Lesotho in the following areas:

- Measures to facilitate the combating of cross border wild fires;
- Measures to facilitate Sustainable Forest Management and Development;
- Sharing of available resources; and
- Technical, scientific, educational and social information exchange in all forestry related matters.

DWAf is also involved in multi-lateral co-operation at a global level and this is achieved through international visits, meetings, statements, agreements as well as the exchange of information with developing and developed countries outside Africa. In addition, DWAf

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actively participates in Commission for Sustainable Development (CSD), World Water Forum, United Nations Forestry Forum (UNFF) and the Committee on Forestry (COFO).

The Danida IWRM II programme seeks to empower communities through their engagement in projects that serve to improve their livelihoods and the well-being of their communities. By adopting this approach, it is the belief that communities will understand a broad spectrum of water management issues and thus are able to engage in water issues with local water management institutions. Of course, it must be considered that when working with marginalised communities that environmental issues are of greater or 'closer' importance such that most projects have a 'sustainability' aspect.

An explicit rights-based approach has been adopted as it is widely recognized internationally that the Millenium Development Goals (MDGs) can only be achieved if communities are empowered to engage and inter-act effectively with rights-holders.

Communities have been actively engaged in the identification, design, implementation and management of their projects. In effect the communities take full ownership as they are contracted directly to implement the projects. This is a departure from the traditional "grant culture". Targeted capacity building is provided during each project phase to support the communities. They also have access to ad-hoc training, mentoring and technical support.

The projects cover, among others:

- Food security: sustainable food gardens particularly in scare water settings.
- Water awareness: improving awareness around water scarcity, water quality and environmental health.
- Water conservation: specific projects towards more sustainable usage of resources including water harvesting projects.
- Water and emerging farmers: largely support towards access to resources (land and water amongst others)
- Water and the environment: includes such initiatives as alien vegetation removal, eco-tourism initiatives, wetland rehabilitation and maintenance for sustainable use if reeds for productive uses, training of WUAs and support for environmental projects to be implemented by each WUA, training of Municipalities on water quality and improved management of waste water re-cycling, and a specific project to coordinate planning (PGDS, IDP & CMS) tools to ensure more sustainable development.

- Water and health: the development of Community Health Clubs that teach rural communities to improve community and environmental health.
- Climate change: groundwater monitoring and borehole maintenance

#### **4. RECOMMENDATIONS TO PROMOTE INTEGRATED ENVIRONMENTAL MANAGEMENT (IEM)**

Social and environmental responsibilities for infrastructure development will be done through Environmental Management Plans, resettlement plans and rehabilitation plans. In particular, the following will be done: social and environmental monitoring for system operations, resource management plan development and promotion of social justice and community beneficiation. The establishment and monitoring of PPPA for utilizing tourism and recreational opportunities at dams will also be done in accordance with the transformational objectives of government. Water Resources Management also has an enforcement protocol in order to ensure compliance with identified legislation and policies.

The IEM Series will be rolled out within DWAF. The series will be presented to National and Regional Offices and to sector role-players. Training will be provided to all stakeholders on the implementation of the series and the Sub-Directorate: Environment and Recreation will monitor and audit application and implementation of the Series on an ongoing basis to ensure integrated environmental management. DWAF will introduce a set of sustainable performance indicators to track and report its progress in the environmental field.

The DWAF SDMS provides effective guidance for DWAF to establish, develop and review its business practices towards environmental goals. The DWAF SDMS will strive for compliance with sustainability ideologies (i.e. balanced consideration of social, ecological and economic priorities). The first phase of the SDMS is completed and the next phase will entail the following:

- Piloting of environmental reporting framework at strategic and regional level;
- Pilot testing of proposed ERA methodology for the project life cycle in capacity as regulator and implementer as per findings in phase 1 close-out report;
- Investigate predetermined objectives to report against as per PFMA
- Finalise development of performance indicators;
- Investigate Environmental Management Accounting (EMA) concept; and

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- Finalising SDMS model.

Environmental reporting will be linked to the CFO reporting structures. In addition, all future DWAF produced document will be aligned to the principles of integrated resource management, sustainable environmental development and utilisation and sound environmental management practices.

The roles and responsibilities of EMCs, ACCs and ECO functions undertaken by TCTA and the NWRI Branch will be continued and strengthened.

Integrated Environmental Management principles and practices are an integral part of the department's business in each policy, plan or programme developed or implemented and promoted through line functions, e.g:

Water Abstraction and Instream Use;

Resource Protection and Waste;

Resource Directed Measures;

Resource Quality Services; and

National Water Resources Planning

## 5. ACTION PLAN FOR THE IMPLEMENTATION OF POLICIES, PLANS AND PROGRAMMES

Below is a summary of the key actions for each functional area. DWAF reports performance against sub-programmes. Implicit in each sub-programme is the aim of sustainable environmental implementation of the water and forestry sectors.

Where targets and budgets were not included in the tables the information was not available at the time when this document was printed and due to the fact that the submission date for the 2<sup>nd</sup> Edition CEIMP is not in line with government's 5-year strategic planning cycle and will thus be reported upon in the annual progress report.

### 5.1 Water Resource Management

Table 2-3: Compliance Key Action Areas for National Water Resource Infrastructure Branch

Sub Programme	Outputs	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
Sustainable Infrastructure Implementation	Implementation of new bulk-water infrastructure to facilitate economic growth and development	Percentage completion as per project programme	Implementation of new bulk-water infrastructure to facilitate economic growth and development	Deputy Director General: National Water Resource Infrastructure Branch	Vaal River Eastern Sub-System Augmentation Project (VRESAP) 100% commissioned		VRESAP: final acceptance after defects liability period					
					Mokolo River Water Resource Augmentation 7% Design in progress		Mokolo River Water Resource Augmentation 31% Construction to commence		Mokolo River Water Resource Augmentation 70% Construction continued			

Sub Programme	Outputs	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
	Implementation of new bulk-water infrastructure to facilitate social water needs and economic growth and development	Percentage completion as per project programme	Implementation of new bulk-water infrastructure to facilitate social water needs and economic growth and development		Komati Water Augmentation System 7% Design in progress		Komati Water Augmentation System 30% Construction to commence		Komati Water Augmentation System 100% Commissioned			
					Olifants River Water Resources Development Project (ORWRDP) 2A: De Hoop Dam 45% Construction continued		Olifants River Water Resources Development Project (ORWRDP) 2A: 68% Construction continued		Olifants River Water Resources Development Project (ORWRDP) 2A: 88% Construction continued			
					Olifants River Water Resources Development Project (ORWRDP) 2B, 2C, 2D, 2H: Bulk Distribution Works 6% Design in Progress		Olifants River Water Resources Development Project (ORWRDP) 2B, 2C, 2D, 2H: Bulk Distribution Works 50% Construction commenced		Olifants River Water Resources Development Project (ORWRDP) 2B, 2C, 2D, 2H: Bulk Distribution Works 80% Construction commenced			
					Mooi-Mgeni Transfer Scheme: Spring Grove Dam 6% Design in Progress		Mooi-Mgeni Transfer Scheme: Spring Grove Dam 25% Construction Commenced		Mooi-Mgeni Transfer Scheme: Spring Grove Dam 75% Construction Continued			
					Nandoni Water Treatment Works 100% commissioned		Nandoni Water Treatment Works 72% Construction Continued		Nandoni Water Treatment Works 81% Construction Continued			

Sub Programme	Outputs	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
					Nandoni Bulk Distribution Works 54% Construction Continued		Nandoni Bulk Distribution Works 88% Construction Continued		Nandoni Bulk Distribution Works Completed			
					Injaka Water Treatment works 54% Construction Continued		Injaka Water Treatment works 88% Construction Continued		Injaka Water Treatment works 95% complete Commission Phase III			
					Hluhluwe Regional Water Scheme 65% Commission Phase III		Hluhluwe Regional Water Scheme 81% Construction Continued		Hluhluwe Regional Water Scheme 100% Commission Phase IV			
					Mdloti River Development: Raising of Hazelmere Dam 61% Commission Phase III		Mdloti River Development: Raising of Hazelmere Dam 81% Construction		Mdloti River Development: Raising of Hazelmere Dam Completed			
					Mzimkulu River Off-Channel Storage Scheme 10% Design in Progress		Mzimkulu River Off-Channel Storage Scheme 10% Design in Progress		Mzimkulu River Off-Channel Storage Scheme 10% Design in Progress			



Sub Programme	Outputs	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
Operations, maintenance and management of water resource infrastructure for the equitable and sustainable supply	Water resource infrastructure operated optimally	Percent of bulk water supply agreements in place	Water resource infrastructure operated optimally		Betterment of the Olifants-Doorn River Water Resources Project: Raising of Clan William Dam 6% Design in Progress		Betterment of the Olifants-Doorn River Water Resources Project: Raising of Clan William Dam 30% Construction Commenced		Betterment of the Olifants-Doorn River Water Resources Project: Raising of Clan William Dam 75% Construction Continued			
					60%		80%		100%			
					100% delivery		100% delivery					
					90% of infrastructure have operating rules		100% of infrastructure have operating rules, update operating rules		Update & refine operating rules			
					75% O & M agreements in place; Compliance monitoring		100% O & M agreements in place; Compliance monitoring		Compliance monitoring			

Sub Programme	Outputs	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
		Operate infrastructure according to basic manuals			Update operating manuals; ensure compliance		100% compliant		100% compliant			
	Refurbish/rehabilitate the water resource infrastructure assets timeously	Vlakfontein Canal Rehabilitation	Refurbish/rehabilitate the water resource infrastructure assets timeously		Complete project scoping and appoint design and supervision engineer		Complete detailed design and Tender documents		Construction Phase			
		Gamtoos Government Water Scheme rehabilitation			Rehabilitation of the Hankey Siphon		Rehabilitation of the balance of the high risk siphons					
		Dam Safety Rehabilitation Programme			10 Dams Rehabilitated		13 Dams Rehabilitated		18 Dams Rehabilitated			
	Dam basin is managed to sustain environment values	Percent of RMPs implemented	Dam basin is managed to sustain environment values		100 % compliance		100 % compliance		100 % compliance			
	Risk to public safety reduced	Response time to dam safety incidents	Risk to public safety reduced		In accordance with EPP		In accordance with EPP		In accordance with EPP			
		Awareness and education programme			Develop awareness material		Roll out of programme		Update materials and maintain programme roll out			

Table 2-4: Compliance Key Action Areas for Monitoring Systems for Gauging Weirs and Fish Ways

Sub Programme	Outputs	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
Strategic Alignment and Stakeholder Empowerment	Adequate information system to manage water resources developed and implemented	Monitoring networks operated, maintained and expanded (gauging weirs constructed).	Operate, maintain and expand gauging weirs and monitoring networks	CD:WRTM D:HS	Northern Cape 5		6		3			
					Mpumalanga 3		3		6			
					Limpopo 2		8		2			
					KwaZulu-Natal 3		9		6			
					Gauteng & North-West 11		5		12			
					Free State 4		6		3			
					Eastern Cape 5		3		12			
					Western Cape 7		3		16			

Table 2-5: Compliance Key Action Areas for Remediation Measures to Protect Water Resources

b Programme	Outputs	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
Protection Policies and Measures	Water Resource Quality Managed	Resource Protection and Waste Policy Developed	Remediation of mercury contaminated sludge ponds in Hammarisdale  Site characterization report & risk assessment	CD:WU; D: Resource Protection and Waste	Inception Report & work plan for remediation of Hammarisdale approved		Phase 1 of remediation complete		Phase 2 of remediation complete			
			Pollution control measures at abandoned mines implemented	CD:WU; D: Resource Protection and Waste	Implementation of pollution control measures at Indumeni Mine, Kwa Zulu Natal Abandoned mines in Upper Olifants river monitored and report drafted	R5 100	Completion of pollution control measures at Indumeni Mine, Kwa Zulu Natal Abandoned mines in Upper Olifants river monitored, and report drafted	R 2 200	Abandoned mines in Upper Olifants river monitored, and report drafted	R 200		

Table 2-6: Compliance Key Action Areas for Water Resource Information Management Systems

Sub Programme	Output	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
Strategic planning and stakeholder empowerment	Adequate information to manage water resources	Effective and efficient Monitoring and Assessment of Water Resources (resource quality, ground water, drought etc.)	Artificial recharge of Langebaan aquifer	CD:WRIM; D:HS	Pilot scale injection in Langebaan aquifer Long term injection in Langebaan aquifer	R 800	Pilot scale injection in Langebaan aquifer Long term injection in Langebaan aquifer	R 800	Final operational and implementation of artificial recharge in primary aquifer at Langebaan		Final operational and implementation of artificial recharge in primary aquifer at Langebaan	

Table 2-7: Compliance Key Action Areas for Working for Water Programme

Sub Programme	Outputs	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
Equitable & Sustainable Supply	Available water used effectively and efficiently	Prioritised invasive alien plant species (terrestrial & aquatic) treated and cleared	Impact of existing IAPs reduced	Working for Water	218 000 ha cleared 632 000 ha followed up		244 000 ha cleared 708 000 ha followed up					

## 5.2 Forestry

Table 2-8: Compliance Key Action Areas for State Forests managed by DWAF

Sub Programme	Outputs	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
Forestry Development and Community Empowerment	Afforestation plans implemented	Whole country strategic environmental assessments maps completed	Support development of new afforestation for commercial and community needs	Deputy Director General: Forestry	Targets for current year new afforestation as defined in BBBEE Charter met		Targets for current year new afforestation as defined in BBBEE Charter met		Targets for current year new afforestation as defined in BBBEE Charter met		Targets for current year new afforestation as defined in BBBEE Charter met	
	Existing and potential economic opportunities on State forests developed to contribute to BBBEE	Number of opportunities taken up by communities and PDIs	Facilitating community forestation/small scale growers		At least one FED project initiated on every DWAF managed estate		At least one FED project initiated on every DWAF managed estate		At least one FED project initiated on every DWAF managed estate		At least one FED project initiated on every DWAF managed estate	
	DWAF's woodlands roll implemented according to DWAF policy	Extent of DWAF responsibilities executed according to policy	Managing DWAFs-owned woodlots		Staff and resources secured for implementation of woodlands strategy		Implementation of woodlands strategy		Implementation of woodlands strategy		Implementation of woodlands strategy	
State forest transfer, regulation, administration, oversight and management	Category B and C state owned plantations management programme implemented	Audited Progress Reports against C framework approved by FFMC	Managing state plantations		Management of state plantations using the CIs Targets as defined in annual plans of operations met		Management of state plantations using the CIs Targets as defined in annual plans of operations met		Management of state plantations using the CIs Targets as defined in annual plans of operations met		Management of state plantations using the CIs Targets as defined in annual plans of operations met	

Sub Programme	Outputs	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
Sustainable Forest Management and Forestry Support Services	Fire damage to the state forest estate decreased	Number of hectares damaged	Manage fire damage to state forest estate		Maintain fire damage to state forest estate to less than 1% per annum		Maintain fire damage to state forest estate to less than 1% per annum		Maintain fire damage to state forest estate to less than 1% per annum		Maintain fire damage to state forest estate to less than 1% per annum	



## **CHAPTER 3. ENVIRONMENTAL MANAGEMENT PLAN**

### **1. DESCRIPTION OF DWAF'S ENVIRONMENTAL FUNCTIONS**

This section examines the mechanisms implemented by DWAF to manage environmental impacts in the water and forestry sectors.

DWAF's environmental management function is discussed separately for each functional area namely WRM, WS and Forestry.

#### **1.1 Water Resource Management**

Ensure that water resources are allocated so that they promote social and economic development, maintain the reliable availability of water in sufficient quantities and of an appropriate quality to meet the needs of all consumers and meet international water-sharing agreements, while ensuring that water resources are protected to enable sustainable water use.

##### **1.1.1 National Water Resources Planning**

The role of Integrated Water Resource Planning is to ensure the availability of adequate water that is fit for use through holistic planning for the management and development of water resources and systems.

##### **1.1.2 Institutional Regulation and Development**

The role is to ensure an enabling environment for the establishment, development and auditing of Regional and Local Institutions for Water Resources and Water Services. It is to

focus on Water Management Institutional Governance and oversight of water boards, Water Research Commission and TCTA. Development of policies, strategies and procedures for public participation and stakeholder empowerment and the development of Raw Water Pricing Strategy and the development of tariff calculation procedures. The aim is also to manage subsidies to resource poor farmers and of state loans to Water User Associations.

The progressive establishment of catchment management agencies, the transformation of existing irrigation boards into water user associations and the establishment of new associations are intended to move the responsibility for managing water resources closer to the people who use the water and have a direct interest in managing water resources sustainably.

#### 1.1.3 Water Resource Protection

The protection of water resources is a key element of ensuring that the natural resource base is used sustainably. In this regard the Department will finalise the classification system which will enable the determination of levels of protection afforded to South African rivers. This will be aligned with an interdepartmental programme on the systematic conservation of South African rivers spearheaded by DEAT.

The role of the department is to develop and ensure implementation of water resource protection policies i.e. classification of water resources, setting Resource Quality Objectives and the determination of the Reserve. Protection through classification is not only for conservation and the future generations, but also for beneficial use such that all the water use sectors can still be able to use water of the applicable quality and quantity.

DWAF has put in place a programme of support to local government in particular to ensure the sustainable use of groundwater. Action will continue to be taken against overuse and illegal use of groundwater in vulnerable areas.

#### 1.1.4 Controlling and Regulating Water Use

The aim is to provide an enabling environment for the use, protection, conservation, management and control of water use through appropriate water use authorisations, regulations, policies and guidelines as well as initiatives and procedures for water conservation and demand management.

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The enforcement of compliance with licence conditions for abstraction and discharge by local government, agriculture, industry and instream activities are crucial to ensure the sustainable use of water resources. In this regard, the compliance and enforcement unit will continue to take action against those breaking the law in their use of water.

#### 1.1.5 Water Resource Information Management Systems

The aim is to develop and co-ordinate information programmes and systems on surface and groundwater and implement spatial and land information management. Data and information on raw water quality are also collected, assessed and evaluated for different water quality, biological, chemical and physical monitoring programmes.

#### 1.1.6 Working for Water Programme

Invasive alien plants (IAPs) pose a direct threat not only to South Africa's biological diversity, but also to water security, the ecological functioning of natural systems and the productive use of land. They intensify the impact of fires and floods and increase soil erosion. IAPs can divert enormous amounts of water from more productive uses and invasive aquatic plants, such as the water hyacinth, effect agriculture, fisheries, transport, recreation and water supply. The fight against invasive alien plants is spearheaded by the Working for Water (WfW) programme.

The Working for Water programme continue to provide jobs to the previously unemployed, while bringing a range of benefits in terms of managing the natural resource base of the country.

#### 1.1.7 African and International Co-operation

This function is that of co-ordination of international activities and administration of international visits and support to the Minister and Department on international matters

## **1.2 Water Services**

### **1.2.1 Water Sector Policies and Strategy Development**

As provided in Section 152 (1) of the Constitution, local government is responsible for ensuring the provision of water services to communities in an equitable and sustainable manner. National Government has legislative and executive authority to ensure that Local Government provides adequate and effective water services to communities.

Water Services is mandated to ensure the provision of effective, efficient and sustainable basic services, bulk infrastructure by local government and delegated water services institutions. Since the First Edition CEIMP, DWAF's WS functions have changed from an Implementer to a Regulator resulting in mainly a management function on the environment. The Policy and Strategy unit is responsible for developing policies and strategies to ensure that DWAF fulfil its regulatory function that is in line with national legislation.

### **1.2.2 Water Services Planning**

DWAF provides support to the water services sector to ensure adequate planning of services and that the targets set out in the Strategic Framework for Water Services are met by Sector Partners. The main water services planning tools include the Water Services Development Plans and the Provincial Water Sector Plans.

### **1.2.3 Water Services Regulation and Intervention**

DWAF main function is to regulate the sector. A draft Regulatory Strategy has been developed to outline DWAF's regulatory functions.

### **1.2.4 National Sanitation Programme**

The White Paper on Water Supply and Sanitation Policy, published in November 1994, indicated that more work had to be done to clarify many items of sanitation policy, and then to develop a national sanitation strategy. Accordingly, a draft National Sanitation White Paper was developed by the National Sanitation Task Team and published in 1996.

An initial two-year National Sanitation Programme was developed. The focus of the National Sanitation Programme was mainly on policy development, capacity building, establishment of

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co-ordination mechanisms, implementation support and development of monitoring and evaluation mechanisms for sanitation.

The recent and current cholera epidemic, as well as the slow pace of sanitation delivery, has urged government to look more closely at its sanitation implementation strategies and policies. It is vitally important that sanitation - as it impacts on public health - receives the necessary attention and priority to ensure the good health of all South Africans.

### **1.3 Forestry**

#### **1.3.1 National Oversight and Governance**

The aim is to develop policies to support sustainable forest management, oversees the sector and ensures that policy and law levels of government are coherent. This includes international liaison on sustainable forest management and governance. Forestry Governance supports sustainable forest management by monitoring forestry management and ensuring that there is sufficient capacity at a local level for the implementation of forestry legislation.

#### **1.3.2 Forestry Development and Community Empowerment**

Forestry Development develops strategies and forest enterprise development programmes that support BBBEE and support the implementation of programmes that enable communities to make use of tree and forest resources to improve their livelihoods.

#### **1.3.3 Sustainable Forest Management**

In terms of the National Forests Act of 1998 forest trees or protected tree species may not be cut, disturbed, damaged, destroyed and their products may not be possessed, collected, removed, transported, exported, donated, purchased or sold – except under license granted by the Department of Water Affairs and Forestry (or a delegated authority).

The Forestry unit is responsible for ensuring the sustainable management of all forests and plantations and enhancing the contribution of forest resources for economic development and poverty eradication. These encompass the fields of forest and woodland conservation, fire management, sustainable plantation management and forestry development.

#### 1.3.4 Fire Governance, Regulation and Oversight

At present the Working for Fire has 50 fire bases strategically located across the country in fire prone areas. The fire-fighting teams form part of a co-ordinated national network, whose immediate area of responsibility is within a 100km radius of their base. Teams can, however, be deployed anywhere in the country in the event of an emergency.

Uncontrolled veld fires are a major contributor to environmental degradation and as such, veldfire prevention and veldfire disaster mitigation are key functions of Forestry. Mitigation measures include the preparation and maintenance of fire breaks.

## 2. DESCRIPTION OF ENVIRONMENTAL NORMS AND STANDARDS

DWAF is mandated by the National Water Services Act (No. 108 of 1997) to develop national norms and standards for water tariffs in respect of water services. These norms and standards are still in the process of being developed.

Participatory Forest Management (PFM) under the Directorate of Forestry Development is aimed at supporting the sustainable use of forests and forest resources, as mandated by the National Forests Act (No. 84 of 1999). Part of achieving this is through the development of norms and standards, best practice guidelines and methods to ensure PFM.

## 3. DESCRIPTION OF THE POLICIES, PLANS AND PROGRAMMES DESIGNED TO ENSURE COMPLIANCE WITH DWAF'S POLICIES

Several management tools have been developed to ensure that DWAF fulfils its environmental management functions. These include:

- Integrated Environmental Management Framework (IEMF). The IEMF is near completion for the Water Sector functions within the Department. The IEMF's vision is to ensure that environmental considerations and the associated legal compliance requirements are efficiently and adequately addressed during all stages of the

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development processes undertaken through DWAF related functions, activities and projects. The next step would be to incorporate forestry and veld fire functions;

- **Environmental Policy Framework.** DWAF is in the process of developing an environmental policy framework which will provide a statement of intent on all decisions made affecting the environment and will bind all DWAF officials to ensuring environmental principals are taken into account into decision making;
- **Sustainable Development Management System (SDMS).** DWAF has developed phase 1 of the SDMS which ensures that all DWAF's functions that are both management and implementing are based on the principles of sustainable development. Phase 2 of the system will be rolled out within DWAF in the next four years;
- **The Water Services National Information System (WSNIS)** provides information to the public regarding water service issues such as basic services backlogs and progress, projects and free basic services;
- **Water Quality Management System (WQMS).** This system provides Water Service Authorities (local government), provincial and national government a mechanism for the management of water quality and provides information such as the monthly review of legislative compliance and the identification of areas requiring urgent attention for the effective and efficient allocation of resources;
- **Groundwater Protocol.** The Groundwater Protocol provides a risk assessment procedure to be applied on all on-site sanitation projects where a full EIA is not required. The Groundwater Protocol recommends measures to be taken to minimise risk of contamination of sensitive aquifers.
- **The National Veldfire Information System (NVIS),** in which veldfire incidences throughout the country are recorded. This system is essential in that through it one can establish where and when are veldfires occurring mostly in the country. The department is also in the process of developing an accurate National Fire Danger Rating System, which is a system that will alert the public of the dangerous conditions under which fires would be uncontrollable;
- **Assessment of consideration for water use approvals (ACWUA);**
- **Desktop visioning for Resource Directed Management of Water Quality;**
- **Spatial and Time Series Information Modelling Software (SPATISM)** for desktop and rapid reserve determination
- **Groundwater Resource Directed Measures Model** for desktop and rapid reserve determination;

- Resource Water Quality Objective Model for desktop and rapid reserve determination; and
- Principles of Criteria Indicators and Standards (PCI&S).

DWAF has developed a suite of policies, strategies, guidelines and programmes to support the implementation of the Acts administered by the Department. Below is a list of some of the key policies, strategies and guidelines developed by DWAF. The documents mentioned below incorporate the principles of sustainable management of the country's water and forestry resources.

Table 3-1 Policy/Strategy/Guideline/Programme in Each Functional

Functional Area	Management Function	Policy/Strategy/Guideline/Programme
WRM	1. National Water Resources Planning	National Water Policy for South Africa
		National Water Resource Strategy
		National Water Conservation and Water Demand Management Strategy, August 2004
		Water Resources Availability and Utilisation in South Africa
		Integrated Water Resource Planning – Water Management Area Documents
	2. Institutional Regulation and Development	An Overview to Water Management Institutions
		Guidelines for the development of Catchment Management Strategies: Towards equity, efficiency and sustainability
		Guidelines for Catchment Management to Achieve Integrated Water Resource Management in South Africa : Part 1,2,3
	3. Water Resource Protection	Policy and Strategy for Groundwater Quality Management in South Africa
		Resource Directed Measures for protection of Water Resources Policy



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Functional Area	Management Function	Policy/Strategy/Guideline/Programme
		A practical field procedure for identification and delineation of wetlands and riparian areas
		A Guideline for the Assessment, Planning and Management of Groundwater Resources within Dolomitic Areas in South Africa
		Development of a Waste Discharge Charge System Framework Document, Second Edition
		Best Practice Guidelines for Water Resource Protection in the SA Mining Industry:
		Guidelines for the Utilisation and Disposal of Wastewater Sludge
		Operational Policy for the disposal of land-derived water containing waste to the marine environment of South Africa
		An illustrated guide to basic sewage purification operations
		Permissible utilisation and disposal of sewage sludge: Addendum to Edition 1, 2002
		Managing water quality effects of settlements
		Guidelines for the utilisation and disposal of wastewater sludge, Volume 1 of 5: Selection of management options
		Guidelines for the utilisation and disposal of wastewater sludge, Volume 2 of 5: requirements for the agricultural use of wastewater sludge
		A guide to conduct water quality catchment assessment studies in support of the WQM component of a catchment management strategy

Functional Area	Management Function	Policy/Strategy/Guideline/Programme
		WQM Series
		Best Practise Guideline for Mining
		Guidelines for Resource Management Plans
		Nutrient Management Project: Development of a strategy to control eutrophication in South Africa: Phase 1
		IEM Series
	4. Controlling and Regulating Water Use	Artificial Recharge Strategy for South Africa
		Draft Position Paper for Water Allocation Reform in South Africa
		Water Conservation and Water Demand Management Strategy for the Industry, Mining and Power Generation Sector
		Water Conservation and Water Demand Management Strategy for the Agriculture Sector
		Guideline for Authorising the Use of Water for Aquaculture
		Implementation Guidelines for water Conservation and Demand Management for Agriculture sector regarding the development of Irrigation Water Development plans for the Agriculture Sector of South Africa
		National Guidelines for Integrated Agriculture Water Use
		Operational Policy: Use of Water for Aquaculture Purposes
		Authorisation Process for Individual Applications for Water Use Licences, Revision 3

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Functional Area	Management Function	Policy/Strategy/Guideline/Programme
		Guideline Document for the Implementation of Regulations on use of water for Mining and related activities aimed at the protection of Water Resources, Second Edition
		Aide Memoir for the preparation of water quality management report to support the application for licences of sewage treatment works, 1 <sup>st</sup> edition, 2003
		South African Water Quality Guidelines
		Procedures to assess effluent discharge impacts
	5. Water Resource Information Management Systems	WAMS
	6. Working for Water Programme	<p>Working for Water Programme</p> <ul style="list-style-type: none"> <li>• WFW Information Pamphlet, October 2006</li> <li>• A Guide to clearing Invasive Alien Plants, 2007</li> <li>• WFW Information Brochure, 2007</li> <li>• Invasive Alien Species: A Challenge to NEPAD, August 2004</li> <li>• EMP for WFW Activities</li> </ul>
	7. African and International Co-operation	SADC Protocols
WS	1. Water Sector Policies and Strategy Development	Water supply and Sanitation Policy - White Paper
		Draft White Paper on Water Services
		White Paper on Basic Household Sanitation

Functional Area	Management Function	Policy/Strategy/Guideline/Programme
		National Sanitation Policy - White Paper (August 1996)
		Policy on the Disposal of Sanitary Waste
		Strategic Framework for Water Services
		Ensuring Water Services to residents on Privately Owned Land: A Guide to Municipalities, Version 1
		Model Water Services Contract District Municipality (DM) and Local Municipality (LM) Version 1
		WSA Assessment Version 1
		Water Services Provider (WSP) options guideline
		Free Basic Water Implementation Guideline for local authorities, Version 2.3
		Free Basic Water Questions and Answers Brochure
		Water Conservation and Water Demand Management Strategy for the Water Services Sector
		Guidelines for Water Supply Systems Operation and Management Plans During Normal and Drought Conditions
		Free Basic Water Implementation Strategy, Version 2, August 2002
	2. Water Services Planning	WS Provider Status Quo Tool
		Users Guide to the Free Basic Water Services Planning Model
	3. Water Services Regulation and Intervention	Guidelines for Compulsory National Standards and Norms and Standards for Water Services Tariffs

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Functional Area	Management Function	Policy/Strategy/Guideline/Programme
		Model Credit Control and Debt Collection By-laws: Model Water Services By-laws
		Model Water Services Bylaws - A guide to Water Services Authorities
	4. National Sanitation Programme	Guidelines for the formulation of a strategy and implementation plan for the provision of sanitation services in informal settlements
		Guideline for pit emptying as a municipal service
		The Groundwater Protocol – the procedure to be followed to minimise the risks to the environment from on-site sanitation
Forestry	1. Forestry Oversight and Governance	Draft Water Conservation / Demand Management Strategy for the South African Forestry Sector
		Strategic Environmental Assessment for Afforestation in the Eastern Cape and KwaZulu-Natal
		Forestry Broad Based Black Economic Empowerment (BBBEE) Charter
		Draft Forest Sector Transformation Charter
		Draft National Forestry Action Plan
		Compliance and Enforcement Policy for the NFA and NVFFA
		Long-term Forest Growth Plot Monitoring Programme
		National Forest Conservation Planning
		National Woodland Conservation Planning
		Protected Tree Listing Criteria and Guidelines
		National Certification System for PCI&S

Functional Area	Management Function	Policy/Strategy/Guideline/Programme
		Participatory Forest Management Guideline Series
		Guidelines for Control of Development Affecting Natural Forests
		Greening Strategy
	2. Forestry Development and Community Empowerment	Forestry Enterprise Development (FED)
	3. Sustainable Forest Management	Sustainable Forest Development in South Africa - White Paper
		Refurbishment of Plantations
		Principles, Criteria, Indicators and Standards (PCI&S) for Sustainable Forestry
	4. Fire Governance, Regulation and Oversight	Fire Awareness Programme
		The Development of a National Fire Danger Rating System

Policies, strategies, guidelines and programmes are developed by the National office while the 9 Regional Offices are responsible for the implementation of the policies, strategies, guidelines and programmes.

#### 4. DESCRIPTION OF PRIORITIES REGARDING COMPLIANCE

The priorities for compliance are governed by the various legislation implemented by DWAF. For instance water quality management is as important as the water use licence protection process. Hence, the action plans identified in Section 8 of this report highlights the priority areas for compliance.

## **5. DESCRIPTION OF THE EXTENT OF COMPLIANCE**

As mentioned earlier in the report the 2006 AG report found that DWAF does not have sufficient processes in place to monitor compliance of key priority areas. The action plan identified in Section 8 of this report will be used to monitor future compliance both within DWAF and in the Sector.

The WARMS, the WSNIS, the NVIS, and the criteria and indicators of the Forestry sector are some tools currently in place to ensure compliance against the principles of the legislation. Although, these tools can be used for monitoring compliance, compliance monitoring is undertaken in various degrees within DWAF. DWAF will consider more comprehensive monitoring mechanism to assist the Regional Offices in their compliance functions.

## **6. DESCRIPTION OF THE ENVIRONMENTAL MANAGEMENT ARRANGEMENTS FOR CO-OPERATION**

### **6.1 Internal Relationships**

#### **6.1.1 Structures for Co-ordination and Co-operation within DWAF**

Each of the nine provinces has a regional office that manages water related issues (WRM and WS) and Forestry. Forestry is now organised in regional offices similar to WRM and WS, however, Forestry will no longer operate according to the matrix system.

Co-ordination and communication between Head Office and Regional Offices within the Water branch is achieved through the sharing of responsibility for regional activities with a structured matrix management system. This system centralizes specialist competencies (i.e. hydrologists etc.) at Head Office. Regional offices call upon these competencies as and when required facilitating optimal liaison between policy development and implementation strategies within DWAF.

### Management Committees

DWAF Head Office actively promotes the participation of Regional Offices in all of its projects through ensuring Regional Office representation on the Departmental Management Committee (MANCO) and project specific steering committees and workshops. Furthermore the Department has committed to allocating appropriate resources in order to provide continual and effective support to the Regional Offices.

Quarterly briefing meetings are arranged between Water Resource Management and Water Services Regulation to discuss cross-cutting issues between the departments, such as environmental issues, waterworks, etc.

The following internal management arrangements are in place [the relevant line function is indicated in square brackets]:

- The Executive Committee [General];
- Policy Board [General]
- OPSOM [General];
- Management Committee (MANCO) [General];
- Regional Directors Committee [General];
- Audit Committee [General];
- The Water Tribunal [WRM];
- Water Resource Management Functional Committee [WRMFC];
- Departmental Advisory Committees [WRM];
- Water Services Management Functional Committee (WSMFC) [WS];
- Forestry Functional Management Committee [Forestry]; and
- State Forest Land Management [Forestry].

The Fire Act provides for the formation of Fire Protection Associations, whereby land owners form an association for the purpose of preventing, managing and extinguishing of veldfires. DWAF is only managing the registration of these FPAs and is not necessarily involved in their day to day running and functioning. There is also a forum within DWAF (National Fire Coordinating Committee – NFCC), that deals with issues pertaining to veldfires.



## Technical Committees

The following internal management arrangements are in place, but not limited to [the relevant line function is indicated in square brackets]:

- DWAF Wetland Task Group [WRM]
- IEM Steering Committee [WRM]
- Water Use Licensing Authorisation Advisory Committee [WULAAC] [WRM]
- Working for Water technical committees [WfW];
- Regional Co-ordination Committees [WS];
- Provincial Water Sector Forums; [WS]
- Compliance and Enforcement Co-ordinating Committee [Forestry];
- Forestry Technical Information Services Co-ordinating Committee [Forestry]; and
- Participatory Forestry Management Co-ordinating Committee [Forestry].
- National Fire Coordinating Committee [Forestry]

## 6.2 External Relationships

### 6.2.1. Structures for Co-ordination and Co-operation with National, Provincial and Local Government

To provide support to national, provincial and local government to ensure sustainable management of water and forestry resources is considered a key priority of the Department. DWAF has recently developed a guideline for the implementation of the Intergovernmental Relations Framework Act (No 13 of 2005). The aim of the guideline is to ensure that DWAF liaises with all spheres of government at a local, provincial and national level in the spirit of co-operative governance.

At a national level, the Director General of DWAF meets other Director Generals to share information and co-ordinate sector programmes through the Director General Cluster. DWAF as Sector Leader, chairs the Water Sector Leadership Group. All sector partners are represented on this committee which meets quarterly. The main aim of the Water Sector Leadership Group (WSLG) is to ensure better co-ordination within the water sector. DWAF also chairs the Social Cluster. The main areas of focus of the Social Cluster are Health, Human Settlement and Social Cohesion and Basic Services - Water and Sanitation. Also,

during 2007/8 the Department and the national and provincial Departments of Environmental Affairs will finalise and implement a joint programme to permit landfill sites. In terms of sanitation, DWAF facilitates the National Sanitation Task Team, a collaborative structure meeting on a quarterly basis for the co-ordination of activities in the sanitation sector.

The WfW programme is also a national initiative, led by DWAF, DEAT and the DoA, and is run in partnership DTI. This programme is globally recognised as one of the most outstanding environmental conservation initiatives on the continent and it enjoys sustained political support for its job creation efforts and the fight against poverty.

At a provincial level, DWAF Regional offices are part of various provincial forums with the aim of information sharing and co-ordination of initiatives. Provincial Water Sector Development Plans have been developed. These plans are aligned to relevant provincial and key national programmes such as Provincial Growth and Development Strategies (PGDS), Accelerated and Shared Growth Initiative – South Africa (ASGISA), etc. Joint licensing of afforestation with the provincial departments of Agriculture and Environmental Affairs will continue. A particular challenge during 2007/8 and later years will be to ensure sufficient capacity in the Department and the provincial Departments to process large areas of afforestation in the Eastern Cape and KwaZulu-Natal. In addition, meeting national targets for water supply and sanitation service provision will require close collaboration at provincial level through structures such as the provincial water forums and the provincial sanitation task teams.

The Department has put effort into the function of supporting local government. This has resulted in the Department winning the 2006 National Municipal Performance excellence award (Vuna Award) for being “a national sector department providing exemplary support to local government”. The Department has developed a comprehensive support plan for the water sector that addresses its support requirements. This strategy is closely aligned to the Department of Provincial and Local Government's (DPLG) five year strategy plans. The introduction of project and programme management practices managed by the DWAF will enable a clear flow of information, which will ensure the alignment of planning, funding and budget prioritisation initiatives. These initiatives in turn will lead to an environmentally sound approach to planning service delivery. The Water Services Development Plans (WSDP) are aligned to the Integrated Development Plans (IDP) and the PGDSs and training programmes will be implemented to capacitate newly elected councillors and managers. Councillor training workshops on WS and WRM issues will be provided.

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The National Disaster Management Advisory Forum – Fire Working Group (NDMAF-FWG) is a forum established by DWAF for the purpose of linking all stakeholders directly affected by veldfires, such as ESKOM, TRANSNET, FORESTRY SOUTH AFRICA and FPAs to combine efforts in managing these fires.

DWAF and DPLG have a MoU, relevant, *inter alia* to veldfire disaster management. Both departments, together with other stakeholders, co-finance the Working on Fire programme, which was established with the main objective of fighting fires.

The Department will transfer the remaining plantation forests, comprising both commercial plantations and community woodlots, often referred to as Category B and C Plantation, to the private sector and communities and natural forests to other management agencies such as SANParks. The transfer of state forests will assist in poverty alleviation.

Finally, the Department currently liaises with other departments to enhance integrated planning and implementation with all relevant sectors. The principal strategic relationships at national levels are as follows:

Table 3-2 Strategic Relationships at National Level

Programmes	Strategic Partners
Social Cluster	DWAF chairs the Social Cluster. Cluster partners include: National Treasury, Department of Social Development, Department of Labour, Department of Health, Department of Provincial and Local Government, Department of Arts and Culture, Department of Home Affairs, Department of Education
Directors General Cluster	Directors General of all Government Departments
Corporate (Human Resources And Financial) Issues	Department of Public Service and Administration National Treasury
Poverty Reduction And Job Creation	Department of Labour, Department of Social Development Department of Agriculture Department of Public Works Restructuring Of Commercial Forestry Department of Public Enterprises Department of Land Affairs
Environmental Issues (including Water Quality Management, Water Resources	Department of Environmental Affairs and Tourism Department of Agriculture Department of Land Affairs Department of Trade and Industry

Programmes	Strategic Partners
Management and Management of Indigenous Forests)	Department of Mineral and Energy Department of Provincial and Local Government Department of Science and Technology
Development Issues (particularly Spatial Development Initiatives)	Department of Trade and Industry Department of Agriculture
Water Services (Water Supply And Sanitation) Issues	Departments of Provincial and Local Government Department of Health Department of Environmental Affairs and Tourism Department of Education Together with DWAF, these departments constitute the national Sanitation Task Team.

The Department intends to use the opportunity created by the observance of nationally recognised days and events such as Water, Arbor and Sanitation weeks to raise the awareness and education of stakeholders about critical resources, water and forestry and their integral role in achieving the twin goals of economic growth and social development. Future activities and events will serve to actively profile and involve the broader South African public about the management and conservation of these resources.

DWAF has entered into various Memorandums of Understanding (MoU) and agreements with key partners to ensure that it can perform its functions in an environmentally sustainable manner and in compliance with the principles and spirit of NEMA.

Below is a summary of the various **Memorandums of Agreements**.

Table 3-3 Agreements with Key Partners

Partners	Aims of the Agreement/MoU
CSIR and the Department of Water Affairs and Forestry	This MoU sets out the basis on which the Council for Scientific and Industrial Research (CSIR) and DWAF will work together on matter of common interest, particularly with respect to national priorities, research and development and capacity development in the water and forestry sector.
DWAF and Municipalities	<p>In Limpopo, DWAF has developed the guidelines that the Fire Protection Associations (FPAs) should follow the Municipal boundaries, and Fire management plans should as well follow the same. Financial assistance by the local government will be according to the Municipalities geographical situation – and we avoided the FPA overlapping to other Municipality to avoid all these challenges.</p> <p>DWAF is taking the lead in terms of interpretation of the Act, the establishment of the FPAs and the operational Plans, for instance, the establishment of Sector Fire Protection Associations. The Provincial Disaster Management Plans, that includes Fires, integrates the entire Province with the functions sub-divided according to the most affected department/s. To add, other previously operating fire associations are used to reinforce the newly established ones, at the same time consolidate them into the legislated FPAs, and / or use them / others as Sector FPAs. Thus the Business Plans and the Constitutions of the FPAs / Sector FPAs would have to be re-done in line with the requirements of the <i>National Veld and Forest Fire Act (NVFFA)</i>. Other legislation, like Disaster Management guides, to develop the understandable version of co-operative governance in terms of Fire regulation.</p>
DWAF and the Water Research Commission	The Department appointed the WRC as an Implementing Agent in order to extensively develop, refine and implement methods, which are scientifically defensible and recognised, for the Resource Directed Measures strategy as required through chapter 3 of the NWA. i.e the determination of the Reserve for the various resources (quantity and quality) through formalising and

Partners	Aims of the Agreement/MoU
	<p>modifying existing methodologies and approaches.</p> <p>The Research Programme will address the following priority projects:</p> <ul style="list-style-type: none"> <li>• The development and pilot testing of Reserve wetland protocols (at low and high confidence) and a Decision Support System;</li> <li>• The refinement of Resource Directed Measures (RDM) tools and studies (hydrology study for the Sundays River);</li> <li>• Development of methods for Buffer Zone Delineation of water resources; and</li> <li>• Productions of capacity building material.</li> </ul> <p>Projects within the Research Programme for which business plans are still to be developed include:</p> <ul style="list-style-type: none"> <li>• Review and updating of the current River methods (to include latest supporting tools developed);</li> <li>• Review and updating of the current Estuary methods (to include latest supporting tools developed);</li> <li>• The development and testing of the Reserve methods for water quality and the pilot testing of it (development of a Decision Support System (DSS) and a systems model);</li> <li>• Updating and revision of current groundwater Reserve methodologies;</li> <li>• Development of tools related to the classification of Resources;</li> <li>• Development and testing of Resource Quality Objectives (in particular for the habitat and biotic components);</li> <li>• Provide technical and financial support to current WRC projects to assist with the refinement of ROM tools and studies (for instance: Bathymetric survey and Hydrology for St Lucia etc.);</li> <li>• Development of monitoring programmes where Reserves have been conducted;</li> </ul>

Partners	Aims of the Agreement/MoU
	<ul style="list-style-type: none"> <li>• Develop capacity building and awareness material and programmes; and</li> <li>• Maintenance, updating and application of the abiotic components of the Reserve within the Spatial and Time Series Information Modelling Software (SPATSIM) program and other supporting tools.</li> </ul>
DWAF and Forestry South Africa and Limpopo Business Support Agency (LIBSA)	<p>The aim of the programme is to encourage and support the growth and development of emerging forestry enterprises in the Province.</p> <p>The objectives of the programme are:</p> <ul style="list-style-type: none"> <li>• To ensure that emerging entrepreneurs are aware of the potential opportunities offered by forest sector;</li> <li>• To build capacity of emerging entrepreneurs to develop and manage forest enterprises;</li> <li>• To ensure provision of extension services regarding technical forestry skills required to run the enterprise;</li> <li>• To link entrepreneurs to funding sources for their projects; and</li> <li>• To ensure that beneficiary communities are better organised into business and legal entities for the purpose of bargaining and other associated benefits.</li> </ul>
DWAF – KwaZulu- Natal and KwaZulu- Natal Department of Agriculture, and Environmental Affairs (DAEA) And	<p>The aim of MoU is as follows:</p> <ul style="list-style-type: none"> <li>• To assist the parties in implementing a collaborative and coordinated process in the control of development affecting natural forests;</li> <li>• To demonstrate a commitment between the parties to develop and apply consistent and complementary policies on control of development affecting natural forests;</li> </ul>

Partners	Aims of the Agreement/MoU
Ezemvelo KwaZulu-Natal Wildlife (EKZNW)	<ul style="list-style-type: none"> <li>• To foster the co-operative implementation of the policy principles and guidelines aimed at protecting the remaining forests as ecologically important and rare habitats, within the framework of national, provincial and local legislation, mandates and conservation planning;</li> <li>• To create a better understanding and integration of forest conservation needs in the planning processes; and</li> <li>• To create a platform of co-operation that will enable the parties to jointly address threats to the integrity of natural forests within KwaZulu-Natal.</li> </ul> <p>The aim of the guidelines supporting this co-operative agreement is as follows:</p> <ul style="list-style-type: none"> <li>• To ensure the effective protection and sustainability of natural forests through proper control over development and land use change affecting forests in KwaZulu Natal in a co-operative manner, by public agencies at all levels of government mandated to exercise such control;</li> <li>• The effective implementation of current environmental legislation pertaining to development affecting natural forests and associated ecosystems in KwaZulu Natal; and</li> </ul> <p>To serve as the basis for co-operative decision-making and ensure a uniform approach by decision-makers to the control of development affecting forests.</p>
DWAF and DPLG	The MoU is relevant to veldfire disaster management. These Departments co-finance the Working for Fire programme which was established with the main objective of fighting fires.
DWAF and The Department of	<p>The aims of the Agreement are to:</p> <ol style="list-style-type: none"> <li>1. Enable and support an enabling environment for Co-operative government imperatives;</li> </ol>



Partners	Aims of the Agreement/MoU
Science and Technology	<ol style="list-style-type: none"> <li>2. Pilot and demonstrate commercial grow-out of indigenous fish species, and to establish a community based SMME; where the grow-out pilot have been successful; and to establish business opportunities for the disadvantaged;</li> <li>3. Develop an expansion business plan for the community-based Small Medium and Micro Enterprises (SMME) to attract Black Economic Empowerment (BEE) and private sector funding towards establishment of a Public Private Partnership (PPPA) ventures in line with the National Treasury PPPA requirements;</li> <li>4. Promote equitable access to water and Government Waterworks for aquaculture purposes;</li> <li>5. Redress past imbalances;</li> <li>6. Promote efficient, sustainable and beneficial use of water and Government Waterworks;</li> <li>7. Facilitate social and economic development; and</li> <li>8. Protecting indigenous aquatic and associated ecosystems and their biophysical diversity.</li> </ol>
Swimming South Africa and DWAF	<p>The Swimming South Africa MoA is to:</p> <p>This Agreement is made and entered into by and between SSA and the DWAF and is effective from 1 October 2006 until 30 April 2009. Although the agreement is between DWAF and SSA, the National Departments of Education (DoE) and Sport and Recreation South Africa (SRSA) are key stakeholders in the implementation phase of the Rural Splash programme (an inland waters water safety programme, focussed on swimming safety). The roles of the stakeholders can be outlined as follows:</p> <ul style="list-style-type: none"> <li>• <b>Awareness</b>, referring to information, i.e. technical information regarding water resources. DWAF is the lead agent in this regard, meaning that DWAF will be responsible for providing technical information and support relating to water resource safety;</li> <li>• <b>Education</b>, referring to training, i.e. for educators and learners and DoE will be the lead agent in this regard, meaning that</li> </ul>

Partners	Aims of the Agreement/MoU
	<p>DoE will be responsible for providing access to their schools, educators and learner should the need arise; and</p> <ul style="list-style-type: none"> <li>• <b>Skills Development</b>, referring to swimming, i.e. the activity or development of the sport itself may it be through mechanisms such as swimming lessons. SRSA is the leading agent and in this regard will be responsible for ensuring that resources (e.g. equipment, instructors) for this purpose are availed.</li> </ul>
DWAF and DEAT	<p>The aim of this Waste Management MoU is to:</p> <ul style="list-style-type: none"> <li>• Integrate the disposal site procedure, resulting in one authorisation that contains both Parties' requirements, while each Party retains full control and responsibility for areas under their mandate;</li> <li>• Establish processes and procedures to be followed between the Parties in issuing permits in terms of legislation current at the time;</li> <li>• Establish a streamlines and clear administrative process that correctly allocates roles and responsibilities to each party, to the provinces and DWAF regional offices in relation to each authorities' area of competence and mandate;</li> <li>• Eliminate any duplication of work or public participation processes; and</li> <li>• Improve service delivery.</li> </ul>

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Below is a summary of the DWAF structures for co-ordination and co-operation within the Department and between all spheres of governments.

Table 3-4 Summary of DWAF Structures for Co-ordination and Co-operation

<b>Management Function</b>	<b>Internal Relationships</b>	<b>National, Provincial and Local Government and other external parties Relationships</b>
<b>Water Resource Management</b>		
National water resource planning	<ul style="list-style-type: none"> <li>• Water Use</li> <li>• Resource Directed Measures</li> <li>• National Water Resource Infrastructure Branch</li> <li>• Information Management</li> <li>• Legal Services</li> <li>• Forestry</li> <li>• Regions</li> </ul>	<ul style="list-style-type: none"> <li>• Mineral and Energy</li> <li>• Housing</li> <li>• Health</li> <li>• Transport</li> <li>• Environmental Affairs and Tourism (National, provincial)</li> <li>• Provincial and Local government</li> <li>• Land Affairs</li> <li>• Labour</li> <li>• Public Works</li> <li>• Agriculture</li> <li>• ESKOM</li> <li>• WRC</li> <li>• CSIR</li> <li>• Provincial DAEAs</li> </ul>
Institutional regulation and development	<ul style="list-style-type: none"> <li>• Water Use</li> <li>• Regions</li> <li>• Legal Services</li> <li>• National Water Resource Planning</li> <li>• Resource Directed Measures</li> <li>• Information Management</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and Local Government</li> <li>• Land Affairs</li> <li>• Labour</li> <li>• Environmental Affairs and Tourism (National, provincial)</li> <li>• Public Works</li> <li>• Health</li> <li>• Transport</li> <li>• Agriculture</li> <li>• SSA</li> <li>• SRSA</li> </ul>
Water resource protection	<ul style="list-style-type: none"> <li>• Water Use</li> <li>• Regions</li> <li>• Legal Services</li> <li>• National Water Resource Planning</li> <li>• Resource Directed</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and Local Government</li> <li>• Land Affairs</li> <li>• Environmental Affairs and Tourism (National, provincial)</li> </ul>

	<b>Measures</b> <ul style="list-style-type: none"> <li>• Information Management</li> <li>• Forestry</li> <li>• Water Services</li> <li>• Institutional Oversight</li> </ul>	<ul style="list-style-type: none"> <li>• Public Works</li> <li>• Health</li> <li>• Mondi</li> <li>• WESSA</li> <li>• Transport</li> <li>• Agriculture</li> <li>• Science and Technology</li> <li>• St Lucia Env Forum;</li> <li>• Wetland Forums;</li> <li>• WWF;</li> <li>• EKZNW</li> </ul>
Controlling and regulating water use	<ul style="list-style-type: none"> <li>• Water Use</li> <li>• National Water Resource Planning</li> <li>• Resource Directed Measures</li> <li>• Regions</li> <li>• Forestry</li> <li>• Legal Services</li> <li>• Information Management</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and Local Government</li> <li>• Land Affairs</li> <li>• Environmental Affairs and Tourism (National, provincial)</li> <li>• Public Works</li> <li>• Health</li> <li>• Transport</li> <li>• Agriculture</li> <li>• Science and Technology</li> <li>• Mineral and Energy</li> <li>• Provincial DAEAs</li> </ul>
Water Resource Information management systems	<ul style="list-style-type: none"> <li>• Water Use</li> <li>• National Water Resource Planning</li> <li>• Resource Directed Measures</li> <li>• Regions</li> <li>• Institutional Oversight</li> </ul>	<ul style="list-style-type: none"> <li>• Land Affairs</li> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> <li>• Minerals and Energy</li> <li>• Provincial and Local Government</li> <li>• WRC</li> <li>• ARC</li> </ul>
Working for Water programme	<ul style="list-style-type: none"> <li>• National Water Resources Planning</li> <li>• Water Use</li> <li>• Resource Directed Measures</li> <li>• Forestry</li> <li>• Regions</li> </ul>	<ul style="list-style-type: none"> <li>• Agriculture</li> <li>• South African National Roads Agency</li> <li>• South African National Biodiversity Institute</li> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> <li>• Provincial and Local Government</li> <li>• Trade and Industry</li> <li>• Science and Technology</li> <li>• Local Government</li> <li>(Other external partners)</li> </ul>

## DWAFF CEIMP

		include:)
		<ul style="list-style-type: none"> <li>• Airports Company of South Africa</li> <li>• South African Nursery Association</li> <li>• South African Pet Traders Association)</li> </ul>
African and international co-operation	<ul style="list-style-type: none"> <li>• Water Use</li> <li>• Institutional Oversight</li> <li>• National Water Resource Planning</li> <li>• Water Services</li> <li>• Forestry</li> </ul>	<ul style="list-style-type: none"> <li>• Land Affairs</li> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> <li>• Minerals and Energy</li> <li>• Provincial and Local Government</li> <li>• Agriculture</li> <li>• Science and Technology</li> <li>• Trade and Industry</li> <li>• RBO;</li> <li>• ORASECOM;</li> <li>• TPTC;</li> <li>• LHNC;</li> <li>• JWC;</li> <li>• PWC;</li> <li>• JPTC.</li> </ul>
<b>Water Services</b>		
Water services policies and strategic development	<ul style="list-style-type: none"> <li>• Water Resource Management</li> <li>• Legal Services</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and Local Government</li> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> <li>• Housing</li> <li>• Health</li> <li>• WSLG</li> </ul>
Water services planning	<ul style="list-style-type: none"> <li>• Water Resource Management</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and Local Government</li> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> <li>• Agriculture</li> <li>• Housing</li> <li>• Transport</li> <li>• WATSAN</li> <li>• Water Colloquium</li> </ul>
Water services	<ul style="list-style-type: none"> <li>• Water Resource Planning</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and Local Government</li> </ul>

regulation and intervention		<ul style="list-style-type: none"> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> <li>• Agriculture</li> </ul>
National sanitation programme	<ul style="list-style-type: none"> <li>• Water Services</li> </ul>	<ul style="list-style-type: none"> <li>• Health</li> <li>• Provincial and Local Government</li> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> </ul>
<b>Forestry</b>		
Forestry oversight and governance	<ul style="list-style-type: none"> <li>• Water Resource Management</li> <li>• Legal Services</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and Local Government</li> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> <li>• Agriculture</li> <li>• Labour</li> <li>• LIBSA</li> </ul>
Forestry development and community empowerment	<ul style="list-style-type: none"> <li>• Water Resource Management</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and Local Government</li> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> </ul>
Sustainable forest management	<ul style="list-style-type: none"> <li>• Water Resource Management</li> <li>• Legal Services</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and Local Government</li> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> <li>• Agriculture</li> </ul>
Fire governance, regulation and oversight	<ul style="list-style-type: none"> <li>• Water Resource Management</li> <li>• Forestry</li> <li>• Legal Services</li> </ul>	<ul style="list-style-type: none"> <li>• Provincial and local government</li> <li>• Environmental Affairs and Tourism (National and Provincial, including conservation agencies)</li> <li>• Agriculture</li> <li>• Labour</li> <li>• Health</li> <li>• Transport</li> <li>• ESKOM</li> <li>• Transnet</li> <li>• Forestry SA</li> <li>• NDMAF-FWG</li> </ul>

#### **6.2.2. Structures for Co-ordination and Co-operation with International Partners**

Engagements with international partners usually covers both impacting and management functions and as such, the structures for co-ordination and co-operation with international partners was covered under Section 3.2.1 of the Environmental Implementation Plan. Refer to page 49.

### **7. PROPOSAL FOR THE PROMOTION OF OBJECTIVES AND PLANS FOR INTEGRATED ENVIRONMENTAL MANAGEMENT (IEM)**

The IEM Series and IEM Steering Committee will be the main driving forces to promote integrated environmental management within the department and be rolled out through the IEM Series and CEIMP communication and implementation strategies.

## 8. ACTION PLAN FOR THE MANAGEMENT OF POLICIES, PLANS AND PROGRAMMES

Below is a summary of the key actions for each functional area. DWAF reports performance against sub-programmes. Implicit in each sub-programme is the aim of sustainable environmental management of the water and forestry sectors.

Where targets and budgets were not included in the tables the information was not available at the time when this document was printed and due to the fact that the submission date for the 2<sup>nd</sup> Edition CEIMP is not in line with government's 5-year strategic planning cycle and will thus be reported upon in the annual progress report.

### 8.1 Water Resource Management

Table 3-5 Compliance Key Action Areas for National Water Resource Planning

Sub Programme	Output	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
Equitable and sustainable supply	Water availability and water requirements balanced	Studies to balance water supply and requirements timeously undertaken and solutions developed	Water reconciliation strategies for various metropolitan areas, as well as for all other towns developed and maintained	Director: National Water Resource Planning	Water reconciliation strategies for remaining metropolitan areas and 25% of all other towns initiated, developed and maintained	R30 650	Water reconciliation strategies for remaining metropolitan areas and 25% of all other towns initiated, developed and maintained		Water reconciliation strategies for remaining metropolitan areas and 25% of all other towns initiated, developed and maintained		Water reconciliation strategies for remaining metropolitan areas and 25% of all other towns initiated, developed and maintained	



Sub Programme	Output	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
			Management and development strategies for various catchments developed		Management and development strategies for catchments developed		Management and development strategies for catchments developed		Management and development strategies for catchments developed		Management and development strategies for catchments developed	
			Water resource models developed for various catchments and use scenarios modelled		Water resource models developed for catchments and use scenarios modelled		Water resource models developed for catchments and use scenarios modelled		Water resource models developed for catchments and use scenarios modelled		Water resource models developed for catchments and use scenarios modelled	
			Joint studies on international river basis undertaken		Technical support provided to joint studies on international river basis		Technical support provided to joint studies on international river basis		Technical support provided to joint studies on international river basis		Technical support provided to joint studies on international river basis	
			Analyses of water resource development / management options conducted at either a pre-feasibility or a feasibility level of detail	Director: Options Analysis	Analyses of 6 water resource development/ management options conducted at either a pre-feasibility or a feasibility level of detail	R24,955 (Allocated Exchequer funds) R14,850 (Estimated Trading Account funds)	Analyses of 6 water resource development/ management options conducted at either a pre-feasibility or a feasibility level of detail		Analyses of 6 water resource development/ management options conducted at either a pre-feasibility or a feasibility level of detail		Analyses of 6 water resource development/ management options conducted at either a pre-feasibility or a feasibility level of detail	

Sub Programme	Output	Measure	High Priority Activities	Responsible Component	08/09		09/10		10/11		11/12	
					Target	Budget '000	Target	Budget '000	Target	Budget '000	Target	Budget '000
	Develop national strategies to balance water availability and use	Annual operating rules developed and final document approved and signed off	Annual river systems analysis and operating rules developed	Director: Water Resource Planning Systems	Annual river systems analysis and operating rules developed for: Orange River System; Vaal River System; Crocodile West System; and Algoa River System	Main account: R27 827 Trading account: R11 500	Review and update annual river systems analysis and operating rules.		Review and update annual river systems analysis and operating rules.		Review and update annual river systems analysis and operating rules.	
		Real-time systems operating tool and analysis developed	Real time operating decision support system (DSS) developed		Real time operating decision support system (DSS) developed: <ul style="list-style-type: none"> <li>o Crocodile East: to meet international obligations</li> <li>o Mhlat use: to minimise water losses</li> <li>o Lower Orange: to minimise water losses</li> </ul>		Revise and update real time operating decision support system (DSS): <ul style="list-style-type: none"> <li>o Crocodile East: to meet international obligations</li> <li>o Mhlat use: to minimise water losses</li> <li>o Lower Orange: to minimise water losses</li> </ul>		Revise and update real time operating decision support system (DSS): <ul style="list-style-type: none"> <li>o Crocodile East: to meet international obligations</li> <li>o Mhlat use: to minimise water losses</li> <li>o Lower Orange: to minimise water losses</li> <li>o Orange Fish river</li> </ul>		Revise and update real time operating decision support system (DSS): <ul style="list-style-type: none"> <li>o Crocodile East: to meet international obligations</li> <li>o Mhlat use: to minimise water losses</li> <li>o Lower Orange: to minimise water losses</li> <li>o Orange Fish river</li> </ul>	