

35: WATER AFFAIRS AND FORESTRY

AIM

The aim of the Department of Water Affairs and Forestry is to ensure the availability and supply of water on a national level and promote development of forestry.

EXPENDITURE ESTIMATES

Table 35.1 Expenditure by programme

R million	Expenditure outcomes			Preliminary outcome 1998/99	Medium term expenditure estimates		
	1995/96	1996/97	1997/98		1999/00	2000/01	2001/02
Administration ²	79,2	96,1	126,9	119,4	122,4	130,2	135,1
Water resource assessment ¹	52,8	41,4	47,0	56,7	70,7	74,6	77,9
Water resource planning	53,2	68,7	72,5	86,0	101,4	103,0	106,9
Water resource development ¹	264,9	279,7	264,8	240,4	319,1	325,9	342,8
Regional implementation ¹	251,4	533,2	1 415,8	1 895,8	1 353,0	1 403,8	1 468,7
Integrated water resource management	19,3	67,4	38,1	72,7	82,9	84,8	88,7
Water services ¹	424,2	892,6	537,0	86,6	81,3	82,9	84,8
Forestry	55,3	378,4	318,0	362,3	366,9	391,8	394,5
Total	1 200,3	2 357,5	2 820,1	2 919,9	2 497,7	2 597,0	2 699,4

¹ Spending by programme has been reclassified where possible to correspond to the current programme structure.

² Authorised losses added: 1995/96 R0,2 million; 1996/97 R0,4 million; 1997/98 R0,4 million.

In 1998/99 the departmental programmes were restructured as follows:

- ◆ *Administration* is responsible for policy formulation and general departmental administration.

- ◆ *Water resource assessment* deals with the availability and quality of surface and underground water resources.
- ◆ *Water resource planning* assesses water needs and determines the optimal development of water resources.
- ◆ *Water resource development* establishes water schemes and construction projects. This now includes the former *International projects* programme which is responsible for constructing hydraulic structures and related works in neighbouring countries.
- ◆ *Regional implementation* creates and maintains water services infrastructure, including government water schemes.
- ◆ *Integrated water resource management* is responsible for policy development, regulation, facilitation and monitoring to ensure the equitable allocation, beneficial use and sustainability of water resources.
- ◆ *Water services* provides sustainable and affordable water and sanitation services through policy development, regulation, facilitation, evaluation and monitoring.
- ◆ *Forestry* promotes the optimal development of conservation, commercial, industrial and community forestry.

Table 35.2 Economic classification of expenditure

R million	Expenditure outcomes			Preliminary outcome 1998/99	Medium term expenditure estimates		
	1995/96	1996/97	1997/98		1999/00	2000/01	2001/02
Current							
Personnel ² expenditure	220,2	973,3	372,3	291,7	325,3	347,9	368,9
Other current expenditure	72,5	372,3	255,3	264,7	303,2	321,1	307,4
Transfer ³ payments	1,1	110,1	891,0	321,6	350,8	362,1	346,6
Capital							
Capital transfers ⁴	83,1	91,5	88,3	76,4	657,2	673,3	720,9
Acquisition of capital assets	823,4	810,2	1 213,2	1 279,5	861,2	892,5	955,6
Total	1 200,3	2 357,5	2 820,1	2 919,9	2 497,7	2 597,0	2 699,4

¹ Departmental personnel expenditure includes employer's contributions to pension funds at a rate of 17 per cent of basic salary in 1998/99 and 15 per cent of basic salary in subsequent years.

² Personnel expenditure increased in 1996/97 as the outstanding claims of the former administrations were taken over. It decreased in 1997/98 as some functions were shifted to the Water Resources Trading Account, which is augmented under the Standard item transfer payment.

³ Transfer payments increased in 1996/97 after the implementation of the Industrial Plantations Trading Account, which is augmented on this Standard item.

⁴ Capital transfer payments increased when the augmentation of the Water Resources Trading Account was re-classified into this category.

Donor-financed expenditure

Government spending on Water Affairs and Forestry included R150,6 million in 1998/99 funded by donor support. It is expected that donor-financed spending will also supplement this vote during the MTEF period.

OUTPUTS AND SERVICE DELIVERY TRENDS

Community water supplies

Over 500 000 households were supplied with safe, clean water between April 1994 and September 1998, creating over 57 000 person-years of jobs through the former Community Water Supply and Sanitation Programme. Over 55 per cent of these jobs went to women, and more than 25 per cent to work-seekers between 16 and 25 years. This programme involved 1 025 projects bringing basic water services to 4,9 million people.

Table 35.3 Jobs created in person-years, on the Department's water supply programmes: April 1994 to September 1998

Province	Person-years
Eastern Cape	5 840
Free State	1 880
KwaZulu-Natal	13 820
Mpumalanga	7 250
North West	11 310
Northern Cape	1 380
Northern Province	15 200
Western Cape	450
Total	57 130

Major water resource projects

Several major development projects are in progress and will be financed through cost-recovery over time.

Phase 1A of the Lesotho Highlands Water Project was successfully implemented in January 1998. The first water from Phase 1B is scheduled for delivery in January 2003. About 9000 job opportunities have been created during Phase 1B and 23 000 person-years during Phase 1A.

With the exception of the Tugela-Mhlathuze Government Water Scheme that will be financed and implemented by the Mhlathuze Water Board, all the targets originally set in April 1994 have been met. Six dams and other water impoundment structures have been initiated since April 1994.

Creation of agricultural opportunities

Through assistance to irrigation boards and allocation negotiations with private farmers in projects such as the Paris Dam in KwaZulu-Natal and the Koekedouw Dam near Ceres in the Western Cape, hundreds of rural households can now farm for themselves. Many jobs were created in agriculture through projects such as the Komati Basin Development. Farming with Orange River water in the Eastern and Northern Cape could also create another 7 000 job opportunities.

Capital expenditure on key development projects has steadily increased from R144,2 million in 1995/96 to R999 million in 1998/99.

Working for Water

The Working for Water programme was initiated in 1995, using labour-intensive methods to remove alien vegetation that reduces the water available for use. It promotes bio-diversity and sound land management. The programme is designed to maximise job creation and environmental awareness. In 1997/98 it was allocated R150 million of which R135 million was spent in approximately four months, generating temporary employment for 40 000 people and demonstrating the existing programme capacity.

The Working for Water programme has consistently targeted women. It has provided child-care where required and has included family planning, and information about HIV/Aids and related issues in the training offered to workers.

Table 35.4 Average number of jobs created per quarter in the Working for Water Programme

	4 th 95	1 st 96	2 nd 96	3 rd 96	4 th 96	1 st 97	2 nd 97	3 rd 97	4 th 97	1 st 98
All	4 053	6 027	6 092	5 440	6 637	8 386	7 737	8 139	14 286	40 781
Women	2 084	3 030	2 911	2 706	3 364	4 483	3 991	4 441	6 379	20 455
Percentage females	51	50	48	50	51	53	52	55	45	50

Working for Water addresses the needs of marginalised groups through the following commitments:

- ◆ At least 60 per cent of salaries and wages should be paid to women, 20 per cent to young people and 2 per cent to those who are physically or mentally disabled.
- ◆ About 67 per cent of the work should be undertaken by people living in rural communities.
- ◆ Half of management salaries in 1999/00 should accrue to black people, and this percentage should increase to 67 per cent in 2000/01 and 75 per cent in 2001/02.
- ◆ Single parents should be targeted and a policy of flexible time be applied where feasible for those with additional responsibilities.
- ◆ Not more than one person per household is to be employed in communities with households without any employed members.

POLICY DEVELOPMENTS

The Department of Water Affairs and Forestry has overhauled the policy and legislation governing water resources, water services and forestry in South Africa.

Water Services Act

The Water Services Act of 1997 provides a framework for local government, with support from national government, to provide affordable, efficient and sustainable water services.

The aim is to ensure that both basic and higher levels of service are economical and sustainable. This requires training, organisational development and financial management in addition to providing infrastructure.

The Department is operating over 600 water schemes in the former homelands. Considerable work is needed on refurbishment, cost recovery, institutional arrangements and capacity building before the operations can be transferred to local governments. In 1998, 51 water schemes were in

the process of being transferred. The plan is to transfer all schemes to local government, or operators nominated by them, by 2004.

Water Affairs has created water boards which can provide a variety of water services to local governments. Two new water boards were established in 1997, and one in 1998 with three more to be investigated in 1999.

National Water Act

The National Water Act of 1998 provides the legal framework for implementing the goals of the White Paper on National Water Policy. It emphasises the use of water in supporting and promoting social, economic and environmental development. This resulted in a shift in focus from water development, which essentially involves dam building, to water resource management. For example, local authorities have to implement conservation management programmes before obtaining approval for additional water supply projects.

Over the next five years the Department will focus on implementing other provisions of the Act, in particular, establishing new catchment management agencies and water user associations.

Sustainable forest management

The 1996 White Paper on Sustainable Forest Management emphasises that forests are a national asset with economic, environmental and community values. The National Forest Act of 1998 also makes provision for community forestry agreements which will involve local communities in the management of especially indigenous forests.

National Veld and Forest Fire Act

The Associated National Veld and Forest Fire Act of 1998 provides a national framework for managing fires. These remain a major cause of damage to land and loss of income in rural areas and forests. The Act requires close co-operation between all spheres of government and the private sector.

Commercial forestry

Following the decision that the government should not directly manage a forestry business, the restructuring of state forest assets has become a major development initiative involving the Department and stakeholders. It was agreed not to sell the state-owned enterprise, the South African Forestry Company Limited (Safcol) by itself, but to invite investors to present proposals for managing and developing all state forests, including those in the former homelands.

In terms of the restructuring policy, state forestland will be leased rather than sold and investors are encouraged to propose new downstream developments. The Department is working closely with the Office for Public Enterprises in the restructuring of these assets, which should be completed during 1999/00.

Community forestry

Community forestry enables communities to use forests to contribute towards their livelihoods. The Department supports this by planning to transfer eighty of its community woodlots to community ownership by 2004, following the successful pilot transfer of three woodlots (Dwesa-Cwebe, Dukuduku and Ngome). Urban greening, in turn, was the focus of the highly successful annual Arbor Week held in the first week of September.

DISCUSSION OF PROGRAMMES

Programme 1: Administration

	Budget estimate	Adjusted appropriation	Preliminary outcome	Medium term expenditure estimates		
R million		1998/99		1999/00	2000/01	2001/02
1998 Budget	106,1	120,2	119,4	117,1	122,0	–
1999 Budget	–	–	–	122,4	130,2	135,1

The *Administration* programme is responsible for policy formulation by the Minister, Director-General and other members of the Department's management as well as organising the Department, providing centralised administrative, legal and office support services, managing departmental personnel and financial administration, determining working methods and procedures and exercising control through head office and regional offices.

Programme 2: Water resource assessment

	Budget estimate	Adjusted appropriation	Preliminary outcome	Medium term expenditure estimates		
R million		1998/99		1999/00	2000/01	2001/02
1998 Budget	51,9	57,1	56,7	59,4	62,1	–
1999 Budget	–	–	–	70,7	74,6	77,9

In addition to assessing surface and underground water, *Water resource assessment* provides survey and mapping services and socio-ecological and geo-technical information on the impact of water and forestry development on the population and environment.

Programme 3: Water resource planning

	Budget estimate	Adjusted appropriation	Preliminary outcome	Medium term expenditure estimates		
R million		1998/99		1999/00	2000/01	2001/02
1998 Budget	86,4	86,6	86,0	93,2	95,1	–
1999 Budget	–	–	–	101,4	103,0	106,9

The *Water resource planning* programme identifies the water needs of all consumer sectors and determines how that demand will be met, while liaising with neighbouring countries regarding joint water resources. The programme also provides an integrated corporate information system.

Programme 4: Water resource development

R million	Budget estimate	Adjusted appropriation 1998/99	Preliminary outcome	Medium term expenditure estimates		
				1999/00	2000/01	2001/02
1998 Budget	252,0	242,0	240,4	283,7	293,1	–
1999 Budget	–	–	–	319,1	325,9	342,8

The *Water resource development* programme is responsible for establishing water schemes according to approved priorities, and focuses on:

- ◆ Construction projects, from rights of access and occupation to construction.
- ◆ Water-related disaster relief.
- ◆ Specialised advisory services for developing ground water resources.
- ◆ Civil and mechanical designs and specifications for safe and economical structures and relevant works for the storage and/or supply of water, including dam safety control.
- ◆ Participation in international projects to construct hydraulic structures and related works in terms of treaties with neighbouring countries.

Programme 5: Regional implementation

R million	Budget estimate	Adjusted appropriation 1998/99	Preliminary outcome	Medium term expenditure estimates		
				1999/00	2000/01	2001/02
1998 Budget	1 247,0	1 908,8	1 895,8	1 324,6	1 517,3	–
1999 Budget	–	–	–	1 353,0	1 403,8	1 468,7

The *Regional implementation* programme provides technical services and financial support to ensure the proper management of water resources in various catchment areas. Other activities of this program include:

- ◆ Advising statutory bodies on the management, establishment and utilisation of water works.
- ◆ Supporting integrated planning of water and sanitation services.
- ◆ Co-ordinating and supporting community capacity building and training and facilitating the transfer of water supply and sanitation schemes to local government and other institutions.
- ◆ Augmenting the Water Trading Account.

Programme 6: Integrated water resource management

	Budget estimate	Adjusted appropriation	Preliminary outcome	Medium term expenditure estimates		
R million		1998/99		1999/00	2000/01	2001/02
1998 Budget	80,3	73,2	72,7	83,8	86,8	–
1999 Budget	–	–	–	82,9	84,8	88,7

The *Integrated water resource management* programme promotes the equitable allocation, beneficial use and sustainability of water resources through policy development and regulation by:

- ◆ Promoting solid waste and water quality management strategies for surface and underground water resources.
- ◆ Promoting the development of integrated catchment management plans and agencies.
- ◆ Managing water demand through enhancing water conservation.

Programme 7: Water services

	Budget estimate	Adjusted appropriation	Preliminary outcome	Medium term expenditure estimates		
R million		1998/99		1999/00	2000/01	2001/02
1998 Budget	143,8	87,2	86,6	146,7	153,0	–
1999 Budget	–	–	–	81,3	82,9	84,8

The *Water services* programme aims to ensure sustainable and affordable water and sanitation services to all communities through:

- ◆ Policies and strategies to support the integrated and participatory planning of water and sanitation services to communities.
- ◆ Policies and strategies for institutional and social development through the water services programme and financial assistance for the construction of capital works.

Programme 8: Forestry

	Budget estimate	Adjusted appropriation	Preliminary outcome	Medium term expenditure estimates		
R million		1998/99		1999/00	2000/01	2001/02
1998 Budget	354,6	364,8	362,3	370,4	310,5	–
1999 Budget	–	–	–	366,9	391,8	394,5

The *Forestry* programme manages some 350 000 hectares of indigenous forests and assists provinces and private owners in managing other portions of land. At least half the indigenous forests are likely to be managed under community management agreements in future. The aim is

to promote the optimal development, conservation and commercial use of industrial and community forestry.

DEPARTMENTAL TRADING ACCOUNTS

Water Resources Trading Account

The aim of the Water Resource Trading Account is to develop and implement catchment management plans and to manage, operate and maintain government water schemes, regional bulk water supply and water services infrastructure.

Table 35.5 Income and expenditure of the Water Resource Trading Account (R million)

Financial year	Income	Expenditure	Surplus/ shortage
1995/96	440,0	276,6	163,4
1996/97	480,7	323,2	157,5
1997/98	617,9	853,2	(235,3)
1998/99 ¹	1 425,8	2 058,7	(632,9)
1999/00 ¹	1 640,6	2 291,1	(650,5)
2000/01 ¹	1 789,1	2 318,4	(529,3)
2001/02 ¹	1 812,8	2 323,4	(510,6)

¹ These are estimated figures.

Industrial Plantations Trading Account

The activities of the Industrial Plantations Trading Account include the purchase, building, maintenance and operation of capital works and equipment; the production of high quality timber products; and the management and operation of treatment plants and sawmills.

Table 35.6 Income and expenditure of the Industrial Plantations Trading Account (R million)

Financial year	Income	Expenditure	Surplus/ shortage
1997/98	56,4	320,4	(264,0)
1998/99 ¹	68,0	361,1	(293,1)
1999/00 ¹	71,0	344,4	(273,4)
2000/01 ¹	75,0	347,6	(272,6)
2001/02 ¹	80,0	355,5	(275,5)

¹ These are estimated figures. The Industrial Plantations Trading Account was started in 1997/98.

Sources of revenue

- ◆ All expenditures related to the activities of water schemes and industrial plantations are funded from the trading accounts. The

revenue received on the Water Trading Account consists of the sale of irrigation, domestic and industrial water. The plantations receive revenue from the sale of wood and wood products. Any shortfall is voted annually on the budget of the Department while profits or surpluses are paid into the National Revenue Account.

- ◆ Over the last three years the following amounts were received as donor funding:

Table 35.7 Donor funding received (R million)

Projects	1996/97	1997/98	1998/99
Water projects	6,0	29,3	147,6
Water Law Review	3,1	—	1,7
Community forestry project	4,5	—	—
Catchment area management plan	—	4,5	—
Working for water, Elim project	—	—	1,3
Total	13,6	33,8	150,6

ASSOCIATED ENTERPRISES, AGENCIES AND FUNDS

Komati River Basin Water Authority

The Komati River Basin Development project is a joint development between South Africa and Swaziland under the Treaty on the Development and Utilisation of the Water Resources of the Komati River Basin, ratified in 1992.

Promotion of agriculture

The purpose of the project is to promote rural development and alleviate poverty in the lower Komati Valley by increasing the productivity of the land through irrigated agriculture. Water flows are to be regulated to meet existing and future water demands in the Komati valley in both Swaziland and South Africa while recognising the right of downstream users in Mozambique to a reasonable and equitable share.

In terms of the Treaty, the Komati Basin Water Authority (Kobwa) is the executive body charged with managing and financing the project.

Maguga Dam

Kobwa has sought financing to fund the projected cash outflows of the Maguga Dam project. The site of the proposed dam is approximately 12 km south of Piggs Peak and about 8 km downstream of the Mbabane/Piggs Peak road over the Komati River in Swaziland.

Joint Water Commission

The Joint Water Commission was established in terms of the Treaty, to act as technical adviser to both Governments on all matters of common interest relating to the development and utilisation of water resources.

Loans outstanding

The loans in place by December 1998 are shown in the following table.

Table 35.8 Loans outstanding – 31 December 1998 (R million)

Source	Amount of loan	Drawn down
DBSA		
Access roads	55,8	52,8
Dam construction	190,0	–
Civil works	38,1	19,8
Fixed asset – building	75,9	25,8
Environment and social	17,5	11,7
Piggs Peak SIA	0,1	0,1
Access roads design	1,5	1,5
Furniture, vehicles, equipment	3,3	3,2
Subtotal	382,2	114,7
Hambros Bond Issue	340,9	340,9
Public Service Pensions Fund	20,0	20,0
Total	743,1	475,6

The project is expected to cost about R900 million to complete and the Kobwa programme provides for the Maguga Dam to be operational by November 2000, and completed by February 2001.

Trans-Caledon Tunnel Authority

The Trans-Caledon Tunnel Authority (TCTA) was established in 1986 to fund all costs incurred on the water delivery component of the Lesotho Highlands Water Project (LHWP). In addition the TCTA was directed by the Department to undertake the financial risk management of this component on behalf of South Africa.

Lesotho Highlands Development Authority

The administrative, technical and financial activities of the Lesotho Highlands Development Authority are monitored by the Joint Permanent Technical Commission on which both governments are represented.

First phased completed

About 90 per cent of the construction works are on the LHWP in Lesotho. The aim is to supplement the Vaal Dam and to generate hydroelectric power in Lesotho. Construction of Phase 1A has been completed and the first delivery of water to South Africa started in January 1998. Infrastructure development on Phase 1B, which started in 1994, has been completed and the main construction contracts awarded.

Income from water levies

The LHWP is funded by water levies of R25,9 million in 1997, increasing to R58,0 million in 1998. Water delivery started on 8 January 1998. From 1 April 1998, the levy on water sales was changed to a tariff, based on the quality of water sold from the Vaal River system.

Rand Water

Rand Water supplies bulk potable water to municipal reticulators, sanitation and other ancillary activities. It purchases its water from the Department Of Water Affairs and Forestry.

Group structure

Rand Water is a single entity under the Water Services Act of 1997. It consists of seven divisions: community support services, corporate services, engineering, finance, human resources, operations and scientific services.

Key financial information

The gross revenue of Rand Water increased from R932 million in 1995 to R1 900 million in 1998, while its net profit on activities amounted to R115 million in 1995, R114 million in 1996, R190 million in 1997 and R258 million in 1998. Rand Water is not a taxpaying entity. The total assets of Rand Water have increased from R2 001 million in 1995 to R3 213 million in 1998.

Capital expenditure

Rand Water's projected capital expenditure for 1999 is R440 million, R490 million for 2000 and R380 million for 2001.

Umgeni Water

Umgeni Water was established as a water authority which reports to the Minister of Water Affairs and Forestry. It manages water resources within its catchment area and supplies potable water to residents at cost-effective prices.

Group structure

Umgeni Water operates as an integrated water utility. No subsidiaries exist, but strategic investments have been made in Bombamanzi (Pty) Ltd, which specialises in prepaid water, and Biochlor (Pty) Ltd, which markets and installs portable chlorine generators.

Key financial information

The gross revenue of Umgeni increased from R292 million in 1995 to R331 million in 1998. The net profit on activities amounted to R1 million in 1995, R2 million in 1996, R10 million in 1997 and R11 million in 1998. The total assets of Umgeni increased from R2 527 million in 1995 to R3 059 million in 1998.

South African Forestry Company Ltd

The South African Forestry Company Ltd (Safcol) is a state-owned company charged with the management and development of the State's investment in forestry.

Group structure

The company has two active subsidiaries, Valgrace Investments (Pty) Ltd and Abacus Forestries (Pty) Ltd (a property holding company for forestry purposes).

Key financial information

The total assets of Safcol have increased from R694 million in 1995 to R809 million in 1998. The gross revenue has also increased from R450 million in 1995 to R569 million in 1998. The net profit has however decreased from R29,9 million in 1995 to R5,6 million in 1998.

Restructuring

The Government has approved the restructuring of Safcol, which will be finalised at the end of 1999.