

# Vote 33

## Water Affairs and Forestry

To be appropriated by Vote	R3 279 030 000
Statutory appropriations	–
Responsible Minister	Minister for Water Affairs and Forestry
Administering Department	Department of Water Affairs and Forestry
Accounting Officer	Director-General of 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 to promote the development of forestry.*

### Key objectives and programmes

Access to clean, safe water and sanitation services is essential for a healthy population and a growing economy. Water is a limited resource, and its accessibility is essential for ensuring sustainable social, economic and environmental benefits for all. The key objectives of the Department of Water Affairs and Forestry cover its four major functional areas of work – corporate services, water resource management, water services and forestry. These objectives relate not only to the policy, strategy and regulatory work undertaken at the head office at national level, but also to the delivery of services at the regional level.

In corporate services, the Department has prioritised the departmental transformation process. Water resource management includes resource assessment, planning, development and integrated management. The Department is restructuring to position itself as the institution for policy development, regulation, monitoring and support on national water resource management. This includes the possible establishment of a National Water Utility in terms of the National Water Policy White Paper (no effect in the current year).

The Department has a similar position in water services and intends undertaking direct investment interventions to support water services authorities in providing basic water services (potable water and sanitation) to people without access to such services. It also intends to promote the transfer of water services schemes, which it currently operates, to appropriate water services institutions, in consultation with the relevant water services authorities.

As a national forestry institution, the Department has prioritised the sustainable management of South Africa's forestry resources over the medium term. It will facilitate the leasing of government commercial forests to private operators to promote investment, employment, competition and black empowerment. The Department intends establishing a Forest Land Management Unit to manage the leases of commercial plantations transferred to private operators. It will develop appropriate management systems for community plantations and devolve these to community control wherever possible.

These key objectives are met through the activities of the following eight programmes:

- *Administration* provides financial, human resource, information, management services and support; as well as general departmental administration.
- *Water resource assessment* monitors the availability and quality of surface and underground water resources, and provides information services and technical support.

- *Integrated water resource planning* assesses water needs and determines the optimal development of water resources.
- *Water resources development* designs and constructs water schemes and relevant projects.
- *Regional implementation* oversees water programmes and operates water schemes, and is responsible for the establishment of infrastructure for water and sanitation.
- *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* support the provision of sustainable and affordable water and sanitation services through policy development, regulation, coordination, support, facilitation, evaluation and monitoring.
- *Forestry* promotes the optimal development of conservation, commercial, industrial and community forestry.

### **Strategic overview and key policy developments: 1997/98 – 2003/04**

The policy developments over the last four years have transformed the Department from being only a creator, owner and operator of water infrastructure to that of an institution providing national water and forestry policy development, regulating, monitoring and support. Consequently, it is transferring commercial forestry functions to the private sector and community-owned structures. The focus of the *Water services* programme is shifting to providing support to local government in performing their functions as water service authorities. This includes the transfer of departmental water service schemes to local governments, as well as the continued provision of basic water services infrastructure (as a conditional grant to local government), technical assistance and other support.

In terms of the Water Services Act of 1997, the Department published draft norms and standards for the provision, operational efficiency and economic viability of water services and the quality of water. Draft norms and standards for tariffs have also been published to ensure the viability of water services, provide for affordable tariffs and promote water demand management. Regulatory frameworks for model contracts, and guidance in respect of water services in general will soon be published.

The other provisions of the National Water Act of 1998 will be implemented over the next three years, in particular the establishment of new catchment management agencies and water user associations. The determination of the basic needs and ecological reserve has been initiated and a system to classify water resources to determine the levels of protection to apply is being developed. The registration of water use is under way, which will provide the basis for the allocation of the resource. These initiatives, the conservation of national resources and the cooperative utilisation of shared regional resources will be guided by the National Water Resource Strategy, the first public draft of which will be released during 2001. Strategies to ensure free basic water services are being considered by Cabinet. An integrated interdepartmental approach to sanitation under the leadership of the Department of Water Affairs and Forestry has already been approved.

The Department is making human and financial resources available to district councils for water and sanitation infrastructure, as they will eventually be responsible for implementing the sanitation programme. It has established an awareness campaign aimed at combating cholera, with the cooperation of the Department of Health.

## Expenditure estimates

Table 33.1: Water Affairs and Forestry

Programme	Expenditure outcome			Adjusted appropriation 2000/01	Revised estimate	Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00			2001/02	2002/03	2003/04
R thousand								
Administration <sup>1</sup>	169 582	147 306	182 965	199 662	195 962	202 758	206 204	209 650
Water resource assessment	44 799	52 344	58 621	78 404	72 204	72 868	74 381	86 894
Integrated water resource planning	27 275	40 455	36 146	47 645	40 945	47 025	47 386	53 247
Water resource development	266 260	224 499	302 935	329 609	327 609	358 971	346 637	353 590
Regional implementation	1 822 308	1 935 649	1 613 893	1 932 462	1 955 379	2 109 414	2 046 052	2 230 688
Integrated water resource management	67 274	49 328	68 930	89 654	83 907	87 027	87 768	99 509
Water services	104 367	54 027	61 809	97 146	89 446	65 020	65 453	71 386
Forestry	318 472	361 058	350 998	402 748	402 748	335 947	232 335	203 989
<b>Total</b>	<b>2 820 337</b>	<b>2 864 666</b>	<b>2 676 297</b>	<b>3 177 330</b>	<b>3 168 200</b>	<b>3 279 030</b>	<b>3 106 216</b>	<b>3 308 953</b>
Change to 2000 Budget Estimate				303 901	294 771	580 318	341 024	

<sup>1</sup> Authorised losses of R240 000 in 1998/99 included

### Economic classification

<b>Current</b>	<b>598 650</b>	<b>772 543</b>	<b>764 255</b>	<b>942 053</b>	<b>887 236</b>	<b>1 953 090</b>	<b>1 817 928</b>	<b>1 990 241</b>
Personnel	171 218	239 549	228 436	342 287	342 287	332 297	345 525	358 754
Transfer payments	264 011	306 075	284 144	262 530	262 530	1 238 985	1 092 482	1 219 766
Other current	163 421	226 919	251 675	337 236	282 419	381 808	379 921	411 721
<b>Capital</b>	<b>2 221 687</b>	<b>2 092 123</b>	<b>1 912 042</b>	<b>2 235 277</b>	<b>2 280 964</b>	<b>1 325 940</b>	<b>1 288 288</b>	<b>1 318 712</b>
Transfer payments	924 331	742 536	909 031	1 079 728	1 125 415	124 774	111 919	115 851
Acquisition of capital assets	1 297 356	1 349 587	1 003 011	1 155 549	1 155 549	1 201 166	1 176 369	1 202 861
<b>Total</b>	<b>2 820 337</b>	<b>2 864 666</b>	<b>2 676 297</b>	<b>3 177 330</b>	<b>3 168 200</b>	<b>3 279 030</b>	<b>3 106 216</b>	<b>3 308 953</b>

### Standard items of expenditure

Personnel	237 832	305 688	304 533	429 421	429 421	422 703	439 680	456 657
Administrative	64 495	83 749	96 176	101 710	104 975	121 637	121 697	121 737
Inventories	54 531	51 534	66 090	75 819	75 819	62 002	62 002	62 022
Equipment	75 055	56 476	60 615	66 044	66 044	55 011	55 021	55 041
Land and buildings	1 692	8 988	3 732	14 652	14 652	3 095	3 095	3 095
Professional and special services	1 194 472	1 304 508	946 989	1 141 091	1 086 274	1 250 568	1 222 565	1 277 029
Transfer payments	1 188 342	1 048 611	1 193 175	1 342 258	1 387 945	1 363 759	1 204 401	1 335 617
Miscellaneous	3 918	5 112	4 987	6 335	3 070	255	255	255
<b>Total</b>	<b>2 820 337</b>	<b>2 864 666</b>	<b>2 676 297</b>	<b>3 177 330</b>	<b>3 168 200</b>	<b>3 279 030</b>	<b>3 106 216</b>	<b>3 308 953</b>

## Departmental receipts

Receipts, consisting mainly of the sale of water and of wood and wood products, are paid into the Water Trading Account and Industrial Plantations Trading Account respectively. Other receipts include the repayment of loans to Water Boards, Irrigation Boards and local governments, interest on these loans and other miscellaneous income. The total value of loans outstanding is estimated at R164,8 million. The Department anticipates that receipts will amount to R82,5 million in 2000/01, rising to R83,4 million in 2001/02, R84 million in 2002/03 and R85 million in 2003/04.

Income on the Water Trading Account was R617,7 million, R1,5 billion and R1,6 billion in the years up to 1999/00 respectively. Income is estimated at R1,6 billion in 2000/01, and R1,7 billion, R1,8 billion and R2 billion respectively over the medium term.

Income on the Industrial Plantations Trading Account was R56,4 million, R80 million and R79,5 million in 1997/98, 1998/99 and 1999/00 respectively. Income is estimated at R10 million and R7 million for 2000/01 and 2001/02. No income is expected from 2002/03 onwards due to the completion of the forestry restructuring process.

### **Expenditure trends**

The only major programme structure change is the shift of Information services from the *Integrated water resources planning* programme to the *Administration* programme in the 2001 Budget. Of the eight programmes, *Regional implementation* dominates spending on the Vote. This programme accounts for an average of 64,4 per cent of the total over the seven-year period, highlighting the importance of regional provision of water services. *Forestry's* share declines from 12,7 per cent in 2000/01 to 6,2 per cent in 2003/04, owing to the restructuring of state forestry assets. Overall, the Vote is projected to grow at an average rate of 1,4 per cent a year over the next three years, as against 4 per cent a year in the earlier period.

Baseline medium-term allocations are increased in the 2001 Budget by R135,3 million in 2001/02 and R111 million in 2002/03. These allocations will fund:

- Continued forestry activities due to delays in the forestry restructuring process
- Provision for loan repayments regarding the Maguga Dam and the Komati River project according to the terms of the Komati Basin Treaty between South Africa and Swaziland
- Improved departmental financial management, legal and information services

These allocations are supported by R380 million in 2001/02, R350 million in 2002/03 and R350 million from the poverty relief allocation for the following:

- Continuation of the Working for Water programme allocation
- Sanitation projects under the Community Water Supply and Sanitation Programme (an additional R30 million was allocated for 2001/02 for the provision of water and sanitation infrastructure in cholera-affected areas)
- Water and sanitation projects in the Lubombo and Wild Coast Spatial Development Initiatives

Additional allocations in 2001/02 from the *Infrastructure allocations* are provided for the transfer of forests and forestry staff to the private sector (R40 million) and for repairs to flood damaged infrastructure (R115 million).

### **Programme 1: Administration**

The programme conducts the overall management of the Department. It includes policy formulation by the Minister, Director-General and other members of the Department's management. Other activities comprise organising the Department; rendering 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. The programme also provides for an integrated corporate information system.

## Expenditure estimates

**Table 33.2: Administration**

Subprogramme	Expenditure outcome			Adjusted appropriation 2000/01	Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00		2001/02	2002/03	2003/04
R thousand							
Minister <sup>1</sup>	600	682	498	518	605	639	670
Management	9 055	8 144	7 845	7 962	12 273	12 536	12 802
Corporate Services	114 265	99 659	113 084	129 789	131 095	134 134	137 173
Information Services	45 662	38 821	61 538	61 393	58 785	58 895	59 005
<b>Total</b>	<b>169 582</b>	<b>147 306</b>	<b>182 965</b>	<b>199 662</b>	<b>202 758</b>	<b>206 204</b>	<b>209 650</b>
Change to 2000 Budget Estimate				67 352	76 875	79 115	

<sup>1</sup> Payable as from 1 April 2000: salary: R456 778, car allowance: R114 195

### Economic classification

<b>Current</b>	<b>120 905</b>	<b>127 605</b>	<b>163 034</b>	<b>179 747</b>	<b>192 171</b>	<b>195 617</b>	<b>199 063</b>
Personnel	53 169	62 477	68 356	80 908	86 194	89 640	93 086
Transfer payments	–	–	–	–	–	–	–
Other current	67 736	65 128	94 678	98 839	105 977	105 977	105 977
<b>Capital</b>	<b>48 677</b>	<b>19 701</b>	<b>19 931</b>	<b>19 915</b>	<b>10 587</b>	<b>10 587</b>	<b>10 587</b>
Transfer payments	3 203	–	–	–	–	–	–
Acquisition of capital assets	45 474	19 701	19 931	19 915	10 587	10 587	10 587
<b>Total</b>	<b>169 582</b>	<b>147 306</b>	<b>182 965</b>	<b>199 662</b>	<b>202 758</b>	<b>206 204</b>	<b>209 650</b>

### Standard items of expenditure

Personnel	53 169	62 477	68 356	80 908	86 194	89 640	93 086
Administrative	20 145	20 217	27 348	30 663	33 286	33 286	33 286
Inventories	5 111	4 556	5 151	8 354	4 551	4 551	4 551
Equipment	45 474	19 701	19 931	18 917	10 587	10 587	10 587
Land and buildings	5	149	–	–	–	–	–
Professional and special services	41 335	38 962	60 810	59 593	67 885	67 885	67 885
Transfer payments	3 203	–	–	–	–	–	–
Miscellaneous							
Civil Pensions Stabilisation Fund	1 140	1 244	1 369	1 227			
Bank charges	–	–	–	–	225	225	225
Tracing fees	–	–	–	–	30	30	30
<b>Total</b>	<b>169 582</b>	<b>147 306</b>	<b>182 965</b>	<b>199 662</b>	<b>202 758</b>	<b>206 204</b>	<b>209 650</b>

## Expenditure trends

Administration grew by an average of 4,9 per cent a year between 1997/98 and 2000/01, owing to additional allocations for the payment of leave gratuities, the extension of the transformation function for proper management, and provision for the introduction of the new Information Service Governance Model. Growth declines somewhat over the medium term.

## Programme 2: Water resource assessment

The programme assesses the quantity and quality of the country's surface and underground water resources, and provides information services and technical support for the efficient and sustainable development and utilisation thereof. Activities are grouped into the following subprogrammes:

- Management is responsible for the overall guidance, planning, management and control of the programme.
- Hydrology assesses the availability of surface water resources.
- Geohydrology assesses the availability and quality of underground water resources.

- Water quality services assess the surface water resource quality.
- Geomatics provides surveys and mapping services, and manages spatial data.
- Social and ecological studies undertake environmental and social impact assessment of water resource development.

## Expenditure estimates

Table 33.3: Water resource assessment

Subprogramme	Expenditure outcome			Adjusted appropriation 2000/01	Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00		2001/02	2002/03	2003/04
R thousand							
Management	683	396	402	519	7 842	7 861	7 880
Hydrology	14 628	14 685	17 318	19 741	20 086	20 565	26 544
Geohydrology	11 102	10 309	10 208	14 465	13 229	13 465	13 701
Water quality services	11 801	15 232	17 335	19 945	15 929	16 352	22 275
Geomatics	6 585	10 050	10 770	17 503	12 998	13 274	13 550
Social and ecological studies	–	1 672	2 588	6 231	2 784	2 864	2 944
<b>Total</b>	<b>44 799</b>	<b>52 344</b>	<b>58 621</b>	<b>78 404</b>	<b>72 868</b>	<b>74 381</b>	<b>86 894</b>
Change to 2000 Budget Estimate				449	(3 484)	(3 415)	

### Economic classification

<b>Current</b>	<b>41 462</b>	<b>48 003</b>	<b>53 072</b>	<b>71 276</b>	<b>66 963</b>	<b>68 466</b>	<b>80 959</b>
Personnel	24 079	28 285	28 848	36 987	37 794	39 307	40 820
Transfer payments	–	–	–	–	–	–	–
Other current	17 383	19 718	24 224	34 289	29 169	29 159	40 139
<b>Capital</b>	<b>3 337</b>	<b>4 341</b>	<b>5 549</b>	<b>7 128</b>	<b>5 905</b>	<b>5 915</b>	<b>5 935</b>
Transfer payments	–	–	–	–	–	–	–
Acquisition of capital assets	3 337	4 341	5 549	7 128	5 905	5 915	5 935
<b>Total</b>	<b>44 799</b>	<b>52 344</b>	<b>58 621</b>	<b>78 404</b>	<b>72 868</b>	<b>74 381</b>	<b>86 894</b>

### Standard items of expenditure

Personnel	24 079	28 285	28 848	36 987	37 794	39 307	40 820
Administrative	5 908	4 458	4 608	5 231	7 124	7 184	7 224
Inventories	1 193	1 737	1 885	2 438	2 101	2 101	2 121
Equipment	3 337	4 341	5 549	7 128	5 905	5 915	5 935
Land and buildings	–	–	–	–	–	–	–
Professional and special services	9 867	13 088	17 277	26 095	19 944	19 874	30 794
Transfer payments	–	–	–	–	–	–	–
Miscellaneous							
Civil Pensions Stabilisation Fund	415	435	454	525	–	–	–
<b>Total</b>	<b>44 799</b>	<b>52 344</b>	<b>58 621</b>	<b>78 404</b>	<b>72 868</b>	<b>74 381</b>	<b>86 894</b>

## Policy developments

Policies for measuring, quantifying, assessing and reporting on factors that affect water resources and are related to the sustainability of the water environment, are essential in terms of the National Water Act. *Water resource assessment* collects information on a range of parameters that are not directly linked to the sustainability of resource use. Consequently, existing water resource information systems may fall short of the requirements for measuring sustainability. This can affect the success of the implementation process, and policy to address the matter must be formulated urgently.

Water resource assessment involves the collection of information on a range of parameters that are linked to sustainability of resource use. Some existing water resource information systems fall short of the requirements for measuring sustainability. This may severely limit the Government's

ability to meet its commitments to protect the environment and the sustainability of water resource utilisation.

Once information systems have been developed for monitoring sustainability, policy must be formulated to audit the reliability and accuracy of the information. With this information, the Department will be able to report on the status of water resources in terms of sustainable utilisation, to identify areas where unsustainable uses are occurring, and to highlight areas where such uses have been reduced. An overall assessment based on this information will give an indication of the successful implementation of the resource protection provisions of the National Water Act.

In addition, the programme has a key role in supporting water resource management activities both inside and outside the Department.

### Expenditure trends

Spending on *Water resource assessment* rose significantly at an average rate of 11,7 per cent a year between 1997/98 and 2000/01. Limited growth, averaging 6,4 per cent a year, is anticipated over the next three years. Higher growth in the earlier period was due to an increase in the Water quality services, the restructuring of Geomatics, and the establishment of Social and ecological studies. Programme activities are largely research and information-based, and are therefore labour intensive. This accounts for the high share of personnel spending, which is projected to average 50,6 per cent of the total over the medium term. Higher growth in the earlier period was due to the development of information systems and the increased collection of information.

### Outputs and service delivery trends

Table 33.4: Water resource assessment: Key outputs and indicators

Subprogramme	Outputs	Service delivery indicators
Water quality services	Information on water quality for basic human needs	Provision of information to 50 per cent of the population at a national level and 100 per cent of the population affected by applications for water use authorisations
	Information on water quality	Information for water quality assessment of 50 per cent of surface water resources according to major user groups
	Information on the health of rivers	Provision of 5 per cent of the information needed to determine the status of river health
Hydrology	Information on the availability of surface water	Provision of 80 per cent of the information needed to quantify surface water – including the reliability and spatial distribution of surface water resources
	Information on floods	Provision of 100 per cent of the information necessary to manage flood events in the Orange-Vaal river system and 50 per cent of the information necessary to manage flood events in the remainder of the country and in international systems
Geohydrology	Information on the availability and quality of groundwater	Provision of 60 per cent of the information needed to quantify groundwater distribution and 20 per cent of the information needed to assess groundwater quality
Geomatics	Information on dams	Provision of 80 per cent of the information necessary to assess deformation of large dam structures
Social and ecological services	Environmental impact assessments and monitoring	Provision of environmental impact assessments on 100 per cent of new water development schemes implemented by the Department
		Monitoring environmental impacts at 10 per cent of all water development schemes already established by the Department
	Guidelines for impact management	Draft guidelines for environmental impact amelioration, rehabilitation and minimisation at water development schemes completed by 2002
	Social impacts	Provision of social impact assessments on 100 per cent of new water development schemes implemented by the Department
	Dam zoning	Completion of 10 per cent of dam zone plans for state dams

This year has seen a significant boost in the capacity of the Department to implement and operationalise sustainable water resource utilisation, through providing information on ecological

requirements and requirements for meeting basic human needs. The National River Health Programme was implemented in all nine provinces, in partnership with the national Department of Environmental Affairs and Tourism and the provincial government structures.

A significant achievement was the provision of information on flow and dam levels during the floods in early 2000, which assisted in minimising damage to property and risk to human life within South Africa and Mozambique. A flood office maintains a web site for real-time data from hydrological stations. The data can readily be accessed locally and internationally, for amelioration of flood damage and disaster management.

A milestone in implementation of the National Water Act was the development of a computerised system for managing the registration and authorisation of water use. This system will form the basis of cost recovery for water use. It is intended that billing for priority water uses, which are currently being registered, will take place in the second half of 2001.

### Programme 3: Integrated water resource planning

*Integrated water resource planning* aims to provide planning support for the implementation of the National Water Act. This necessitates the examination of policy options that affect the future availability of the nation's water resources to ensure water availability for sustainable social and economical development. Core activities are funded through three subprogrammes:

- Management is responsible for overall guidance, planning, management and control of the programme.
- Strategic water resource planning develops policies and strategies for water resource management.
- Planning of water resources determines the availability of water resources, projects future water requirements, and identifies options to reconcile water requirements with available resources.

### Expenditure estimates

Table 33.5: Integrated water resource planning

Subprogramme	Expenditure outcome				Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00	Adjusted appropriation 2000/01	2001/02	2002/03	2003/04
R thousand							
Management	404	450	581	630	604	624	644
Strategic planning	3 297	6 114	3 745	6 211	6 423	6 499	6 575
Planning of water resources	23 574	33 891	31 820	40 804	39 998	40 263	46 028
<b>Total</b>	<b>27 275</b>	<b>40 455</b>	<b>36 146</b>	<b>47 645</b>	<b>47 025</b>	<b>47 386</b>	<b>53 247</b>
Change to 2000 Budget Estimate				(59 569)	(62 970)	(66 231)	
<b>Economic classification</b>							
<b>Current</b>	<b>3 647</b>	<b>6 102</b>	<b>4 275</b>	<b>6 729</b>	<b>6 915</b>	<b>7 011</b>	<b>7 107</b>
Personnel	1 363	1 466	1 528	2 171	2 397	2 493	2 589
Transfer payments	-	-	-	-	-	-	-
Other current	2 284	4 636	2 747	4 558	4 518	4 518	4 518
<b>Capital</b>	<b>23 628</b>	<b>34 353</b>	<b>31 871</b>	<b>40 916</b>	<b>40 110</b>	<b>40 375</b>	<b>46 140</b>
Transfer payments	-	-	-	-	-	-	-
Acquisition of capital assets	23 628	34 353	31 871	40 916	40 110	40 375	46 140
<b>Total</b>	<b>27 275</b>	<b>40 455</b>	<b>36 146</b>	<b>47 645</b>	<b>47 025</b>	<b>47 386</b>	<b>53 247</b>



**Standard items of expenditure**

Personnel	5 408	6 139	5 948	10 112	8 994	9 355	9 716
Administrative	928	1 081	1 072	1 434	1 434	1 434	1 434
Inventories	31	28	66	279	256	256	256
Equipment	253	646	159	368	368	368	368
Land and buildings	-	-	-	-	-	-	-
Professional and special services	20 579	32 464	28 810	35 298	35 973	35 973	41 473
Transfer payments							
Miscellaneous							
Civil Pensions Stabilisation Fund	76	97	91	154	-	-	-
<b>Total</b>	<b>27 275</b>	<b>40 455</b>	<b>36 146</b>	<b>47 645</b>	<b>47 025</b>	<b>40 375</b>	<b>53 247</b>

**Policy developments**

The Department focuses on the development of the National Water Resource Strategy, which will inform water management institutions, water users and the public of the Minister's intentions for water resource management. Much of the initial effort will be a collation of water resource information, which will also form the water resource information base for Catchment Management Strategies.

**Expenditure trends**

*Integrated water resource planning* grows moderately at an average rate of 9,2 per cent a year over the medium term, after significant growth of 14,5 per cent a year over the previous three years. Higher growth in these years was due to additional studies undertaken under the Planning of the water resources subprogramme.

**Outputs and service delivery trends****Table 33.6: Integrated water resource planning: Key outputs and indicators**

Subprogramme	Outputs	Service delivery indicators
Management	Policy advice to the Minister on water-sharing agreements with neighbouring states Informing deliberations with neighbouring states on international water-sharing arrangements	Technical advice provided within given time-frames Contributions in accordance with the National Water Act and in the context of the SADC Water Sharing Protocol, within set time-frames
Strategic water resource planning	National Water Resource Strategy: Informs water management institutions, water users and the public of the Minister's intentions for water resource management for five years  Services to the National Disaster Management Centre  Services to the Command Centre of the Emergency Reconstruction Committee: coordination of all repair and remediation works for the water sector, arising from the February/March 2000 floods  Policy advice on operationalising weather modification in South Africa  Policy advice on implementing the United Nations Convention on Combating Desertification in South Africa	Published for public comment by end-July 2001, established in terms of the law by end-March 2002 Comprehensive, coherent and integrated account of all strategies, objectives, plans, guidelines, procedures and institutional arrangements for water resource management Services delivered on time against deadlines specified by the lead agent (Department of Provincial and Local Government) and to its satisfaction Comprehensive project business plans provided to the Centre's satisfaction. Funds expended in accordance with all rules and procedures: no unauthorised, irregular or unlawful expenditure; no audit queries Joint Cabinet Memorandum submitted by mid-2001, following completion of seeding operations during the 2000/01 rainfall season, which will enable Cabinet to make an informed decision about the future of weather modification in South Africa Contributions delivered on time against deadlines specified by the lead agent (Department of Environmental Affairs and Tourism) and to its satisfaction

Subprogramme	Outputs	Service delivery indicators
Planning of water resources	Ad hoc services to the Minister of Water Affairs and Forestry Water resource information to the National Water Resource Strategy Water resource information to Catchment Management Strategies Information on water resources of rivers shared with neighbouring countries, to facilitate water-sharing agreements regarding these rivers Plans for the development of water resource infrastructure	Responses delivered on time against specified deadlines, and to the Minister's satisfaction Quality information to facilitate the development of a National Water Resource Strategy for five years, until the next compulsory review Quality information for the development of first order catchment strategies for all 19 Water Management Areas Quality information to facilitate the development of water-sharing agreements Quality information to allow confident decisions on the development of water resource infrastructure can be made with confidence

Good progress was made on the preparatory work for the establishment of the National Water Resource Strategy. The Water Balance Model was completed; the framework for the National Water Resource Strategy agreed upon; the study on demographic and economic trends, as well as resultant water requirements was completed; and water situation assessments for all 19 Water Management Areas were substantially completed.

Several important investigations were completed and decisions were made regarding the development of new water resources. These included the first phase of the Mooi-Mgeni scheme to augment the water supplies to the Durban-Pietermaritzburg region and the Skuifraam Dam, and supplement schemes to augment the supplies to the Cape metropolitan area.

#### Programme 4: Water resource development

The programme aims to effect the establishment of water schemes in accordance with approved priorities in the most efficient manner at the lowest possible cost. Programme objectives are met through the following subprogrammes:

- Management is responsible for the overall guidance, planning, management and control of the programme.
- Construction of projects implements and coordinates projects, personnel, and plant, including obtaining rights and rights of access and occupation, construction of hydraulic structures and related works. The subprogramme is also responsible for the construction of works for other departments where these contribute to the achievement of the Department's aims. Other functions include safeguarding dams against failure, the completion of works previously erected, overhead costs of workshops for maintaining machinery and vehicles, relief of distress resulting from disasters caused by water or water supply, and the provision of specialised advisory service.
- Civil design is responsible for the design and specification of safe and economic structures and appurtenant works for the storage or supply of water, and for providing a professional dam surveillance service in respect of all state-owned dams in terms of the National Water Act of 1998.
- Mechanical and electrical engineering undertakes design specifications for mechanical and electrical installations required for the storage and supply of water.
- Dam safety control develops policies and guidelines and is responsible for the safety of dams.
- Welfare and recreation provide special facilities, such as sport facilities, to maintain a satisfactory standard of living of employees on government schemes.
- Capital augmentation provides for capital equipment and augmentation of the capital account.
- International projects participate in projects in accordance with the provisions of treaties with neighbouring states for the construction of hydraulic structures and related works.

## Expenditure estimates

**Table 33.7: Water resource development**

Programme	Expenditure outcome			Adjusted appropriation 2000/01	Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00		2001/02	2002/03	2003/04
R thousand							
Management	486	467	885	973	999	1 036	1 073
Construction of projects	174 901	179 938	212 472	218 020	212 498	214 243	215 988
Civil design	15 753	15 930	18 804	20 525	20 996	21 657	22 318
Mechanical/electrical engineering	5 787	14 805	19 400	18 581	18 918	19 400	19 882
Dam safety control	776	1 527	1 475	2 057	2 090	2 148	2 206
Welfare and recreation <sup>1</sup>	32	49	47	52	52	52	52
Capital augmentation	9 797	1 969	2 800	5 000	2 500	2 500	2 500
International projects	58 728	9 814	47 052	64 401	100 918	85 601	89 571
<b>Total</b>	<b>266 260</b>	<b>224 499</b>	<b>302 935</b>	<b>329 609</b>	<b>358 971</b>	<b>346 637</b>	<b>353 590</b>
Change to 2000 Budget Estimate				3 148	29 837	16 844	

<sup>1</sup> Includes an amount specifically and exclusively appropriated as contribution to Welfare at construction schemes: R52 000

### Economic classification

<b>Current</b>	<b>789</b>	<b>1 549</b>	<b>1 445</b>	<b>2 023</b>	<b>2 056</b>	<b>2 114</b>	<b>2 172</b>
Personnel	648	936	1 003	1 263	1 443	1 501	1 559
Transfer payments	–	–	–	–	–	–	–
Other current	141	613	442	760	613	613	613
<b>Capital</b>	<b>265 471</b>	<b>222 950</b>	<b>301 490</b>	<b>327 586</b>	<b>356 915</b>	<b>344 523</b>	<b>351 418</b>
Transfer payments	68 525	11 716	48 975	68 164	102 153	86 798	90 730
Acquisition of capital assets	196 946	211 234	252 515	259 422	254 762	257 725	260 688
<b>Total</b>	<b>266 260</b>	<b>224 499</b>	<b>302 935</b>	<b>329 609</b>	<b>358 971</b>	<b>346 637</b>	<b>353 590</b>

### Standard items of expenditure

Personnel	50 212	50 527	56 901	68 878	75 092	78 113	81 134
Administrative	8 746	9 301	10 660	8 929	10 596	10 596	10 596
Inventories	19 842	19 440	41 922	43 452	35 044	35 044	35 044
Equipment	8 286	14 670	17 751	19 671	20 284	20 284	20 284
Land and buildings	1 446	8 077	3 450	14 052	2 684	2 684	2 684
Professional and special services	108 448	109 975	122 482	105 708	113 118	113 118	113 118
Transfer payments	68 525	11 716	48 975	68 164	102 153	86 798	90 730
Miscellaneous							
Civil Pensions Stabilisation Fund	755	793	794	755	–	–	–
<b>Total</b>	<b>266 260</b>	<b>224 499</b>	<b>302 935</b>	<b>329 609</b>	<b>358 971</b>	<b>346 637</b>	<b>353 590</b>

## Policy developments

*Water resources development* strives to implement approved priority schemes in the most cost-effective way. Its emphasis has moved towards upgrading and maintenance, and towards smaller community schemes. Different funding mechanisms, such as public-private partnerships, are being examined in the context of efficient water resource development.

In August 2000, the Minister agreed that the implementation of the Skuifraam scheme should proceed, after considering the risk of water supply failure faced by the greater Cape Town area and the progress with the establishment of a water conservation and demand management programme. The Department is currently investigating the most cost-effective means of implementing the scheme. Projects are built under this programme and, once completed, are transferred to the *Regional implementation* programme for operations and maintenance.

## Expenditure trends

The programme grows at an average rate of 4,8 per cent a year owing to increased interest cost payable to the Development Bank of Southern Africa as the construction of the Maguga Dam progresses. The increase for 2001/02 funds the servicing of these loans.

## Outputs and service delivery trends

Table 33.8: Water resources development: Key outputs and indicators

Subprogramme	Outputs	Service delivery indicators
Construction of projects	Maintain and administer personnel, finance and machines	
<ul style="list-style-type: none"> <li>• Management</li> <li>• Safeguarding of dams</li> <li>• Completion of works</li> <li>• Workshop services</li> <li>• Geotechnical and water drilling advisory services</li> </ul>	<ul style="list-style-type: none"> <li>Coordinate with design directorates</li> <li>Implementation of design to make established structures safe</li> <li>The payment of retention monies and servitude costs</li> <li>The specialised repair to drilling equipment used by the regions</li> <li>The supply of machines and specialist advice for drilling</li> </ul>	<ul style="list-style-type: none"> <li>Satisfactory scheme audits</li> <li>The completion of structures on time and within budget</li> <li>The satisfactory finalisation of completed schemes</li> <li>An availability of over 80 per cent</li> <li>Continuous production of machines in regions</li> </ul>
Construction schemes	The construction of water structures	The supply of water on time and within budget
Civil design	The design, supervision and contract administration, preliminary designs and cost estimates, technical assistance to the regions and evaluations in terms of dam safety regulations	Ongoing, as per strategic business plan
Mechanical and electrical engineering	Design and implement new and betterment projects Provide advisory and maintenance services	Ongoing, as per strategic business plan
Dam safety control	Administration of dam safety legislation and regulation on behalf of Government	Licence applications dealt with within a month
Welfare and recreation	Assist with employee needs as to welfare and recreation	Minimising complaints from site-based employees
Capital augmentation	Augment the supply of equipment to the equipment pool	Minimising complaints from production sections on unavailability of equipment
International projects	Complete construction of Maguga Dam Operations system implemented to operate Driekoppies Dam jointly and optimally	Completed by September 2001 Joint operation systems in use by February 2002

*Mechanical and electrical engineering* activities have shifted from the design of new water supply schemes to the maintenance and betterment of existing schemes, including maintenance and upgrading of Reconstruction and Development Programme projects mainly in the Northern Province and Mpumalanga. The Department is also repairing flood damage to mechanical and electrical installations at Nondweni Weir on the Letaba River in the Northern Province. The Department participated in supplying pumping equipment to assist Mozambique. It is re-establishing damaged water resources, services and hydrological measuring stations in the Northern Province after the February 2000 floods.

## Programme 5: Regional implementation

The programme provides services, functions and financial support to ensure that the management of water resources in the various catchment areas within a region is effective and efficient. It promotes and manages the implementation and maintenance of efficient water services infrastructure. It also coordinates and supports local government to promote a development process that ensures equitable and sustainable water supply and sanitation services. Programme activities are organised into the following subprogrammes:

- Management is responsible for overall guidance, planning, management and control, as well as a corporate support service regarding all the functions in a region.
- Regional coordination ensures a uniform approach to the implementation of policy, on water resource management, water services and corporate services in the regions.

- Hydrometry determines the quality and quantity of surface and groundwater available for the utilisation within a catchment.
- Geotechnical drilling services provide drilling services for the planning and design of structures, as well as for dam safety.
- Geotechnical services assess the availability of underground water resources and the identification of borehole sites.
- Regional water services planning facilitates integrated planning of water and sanitation services at regional and project level.
- Implementation of water services projects implements approved water supply and sanitation projects in communities.
- Sustainable development and management undertakes community development, capacity building and training of communities for water supply and sanitation projects, facilitates the transfer of water supply and sanitation schemes to other spheres of government, and monitors and evaluates water service institutions.
- Operation of water resources provides for augmentation of the Water Trading Account.

## Expenditure estimates

**Table 33.9: Regional implementation**

Programme	Expenditure outcome			Adjusted appropriation 2000/01	Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00		2001/02	2002/03	2003/04
R thousand							
Management	1 891	66 794	32 352	49 648	45 880	46 846	47 812
Regional coordination	–	2 299	4 412	4 502	4 556	4 635	4 714
Survey services	6 588	8 316	9 770	12 824	11 632	11 844	12 056
Hydrometry	33 135	39 433	42 039	67 230	81 276	59 971	61 032
Water drilling services	17 134	17 748	19 744	21 568	21 793	22 122	22 451
Geotechnical drilling services	6 064	6 294	7 387	6 828	7 302	7 439	7 576
Geotechnical services	3 460	6 620	9 234	13 135	11 644	11 896	12 148
Advisory services	5 322	2 117	3 460	5 054	5 032	5 142	5 252
Regional water services planning	–	41 047	11 342	40 702	42 033	40 557	45 278
Implementation of Water services projects	918 840	1 016 447	625 938	730 151	821 753	818 063	835 287
Sustainable development and management	–	8 711	8 932	13 877	10 864	11 090	11 316
Operations of water resources	829 874	719 823	839 283	966 943	1 045 649	1 006 447	1 165 766
<b>Total</b>	<b>1 822 308</b>	<b>1 935 649</b>	<b>1 613 893</b>	<b>1 932 462</b>	<b>2 109 414</b>	<b>2 046 052</b>	<b>2 230 688</b>
Change to 2000 Budget Estimate				173 581	410 675	233 078	

### Economic classification

<b>Current</b>	51 511	169 307	115 798	183 622	1 232 928	1 195 184	1 362 159
Personnel	32 938	94 926	64 113	84 815	85 277	88 612	91 948
Transfer payments	–	–	–	–	1 045 649	1 006 447	1 165 766
Other current	18 573	74 381	51 685	98 807	102 002	100 125	104 445
<b>Capital</b>	1 770 797	1 766 342	1 498 095	1 748 840	876 486	850 868	868 529
Transfer payments	829 874	719 823	839 283	966 943	–	–	–
Acquisition of capital assets	940 923	1 046 519	658 812	781 897	876 486	850 868	868 529
<b>Total</b>	<b>1 822 308</b>	<b>1 935 649</b>	<b>1 613 893</b>	<b>1 932 462</b>	<b>2 109 414</b>	<b>2 046 052</b>	<b>2 230 688</b>

Standard items of expenditure							
Personnel	39 226	105 960	77 894	92 508	93 794	97 567	101 340
Administrative	13 513	37 646	35 636	36 754	45 398	45 398	45 398
Inventories	8 365	21 293	12 094	11 779	11 722	11 722	11 722
Equipment	6 886	13 196	12 197	13 462	13 194	13 194	13 194
Land and buildings	5	725	282	384	411	411	411
Professional and special services	923 881	1 035 264	635 267	808 962	899 246	871 313	892 857
Transfer payments	829 874	719 823	839 283	966 943	1 045 649	1 006 447	1 165 766
Miscellaneous							
Civil Pensions Stabilisation Fund	558	1 742	1 240	1 670	-	-	-
<b>Total</b>	<b>1 822 308</b>	<b>1 935 649</b>	<b>1 613 893</b>	<b>1 932 462</b>	<b>2 109 414</b>	<b>2 046 052</b>	<b>2 230 688</b>

## Policy developments

The persistent shortfall in the Water Trading Account has led the Department to promote new policy approaches to the provision of services, including the application of available funds to basic service provision and the transfer of schemes to local governments and water services providers. The services are directed towards the development of new infrastructure, refurbishment of schemes, physical and feasibility planning, and capacity building. Particular attention is given to capacity building at local government level. Steps taken to limit the spread of cholera and prevent future outbreaks include an undertaking to increase the number of boreholes as a temporary measure to provide water. The Department will also accelerate and intensify the sanitation portion of its capital projects.

## Expenditure trends

The *Implementation of water services* projects and *Operations of water resources* subprogrammes account for 89 per cent of the total programme over the medium term. Expenditure on Water services implementation decreased from 1998/99 to 1999/00 as a result of the changed process of fund allocations and a reduction in the allocation of special funds. The medium-term allocation is based on the relatively low actual expenditure results of 1999/00.

The allocation to the Working for Water programme which is transferred through the subprogramme: Operations of water resources to the Water Trading Account, is higher from 2001/02 to 2003/04 than over the previous period. This results from an increased allocation for poverty relief and operations and maintenance costs.

## Outputs and service delivery trends

Table 33.10: Regional implementation: Key outputs and indicators

Subprogramme	Outputs	Service delivery indicators
Management	Strategic plans, service contracts, corporate guidance and support service to all functions in a region	One plan per region, one pro forma per functional area
Regional coordination	Updated and accurate data base	Well-guided regional offices
	Compliance with Public Finance Management Act and Treasury Regulations	Improved quality of information of each financial year since 1998/99
		Improved financial control
Survey services	Specialised surveys	More efficient use of water
Hydrometry	Provide a hydrological information system	More equitable distribution of water
Water drilling services	Establish a national groundwater database	Better planning and utilisation of groundwater

Subprogramme	Outputs	Service delivery indicators
Geotechnical drilling services Geotechnical services	Information on geological formations Information database on underground water resources	Improved knowledge on groundwater potential Reliability of the assessment in terms of: adequacy, timeliness, and accessibility
Advisory services Regional water services planning	Information sessions and recommendations Water services development plans	Improved capacity within other sectors Coordinated planning and implementation of water use
Sustainable development and management	Trained local government and communities to operate and maintain water supply and sanitation projects Transferred water supply and sanitation schemes to local government	Improved knowledge and skills at local government and community level Successful transfer of ten schemes in a sustainable manner
Implementation of water services projects	Bulk water supply, reservoirs, reticulation and standpipes Sanitation facilities and health awareness programmes	Implement about 500 projects in order to serve about 1,3 million people Improved health standards through sanitation and hygiene awareness programmes
Operations of water resources	Augmentation of Water Trading Account	Reduced deficit in Trading Account

Since 1994, approximately 6,5 million people have been provided with basic water supply, at an average per capita cost of R607. Construction has been completed on 323 water supply projects, creating 73 000 temporary jobs, and 42 water schemes have been transferred. Based on the current trend, more than 7 million people may receive water services before the end of 2000/01. In sanitation, 178 000 people benefited from the first phase of 182 projects. Only 13 projects have completed the second phase, providing a total of 17 991 toilets since 1997. The recent outbreak of cholera has underlined the need for rapid delivery of basic sanitation services, which currently receive only 10 per cent of the total capital budget.

There has been significant progress in the establishment of catchment management agencies. These will play an important role in the execution of policy on water resource management. The country has been divided into 19 Water Management Areas. Registration of water users to establish a client base is progressing, and approximately 30 per cent of water users have already been registered. This will have a positive impact on future revenue collection.

## Programme 6: Integrated water resource management

The programme promotes the equitable allocation, beneficial use and sustainability (in terms of both quantity and quality) of water resources on an integrated basis through policy development, regulation, facilitation and monitoring. The programme comprises six subprogrammes:

- Management provides overall guidance, planning, management and control.
- Water quality management promotes solid waste and water quality management strategies for surface and groundwater resources to ensure the sustainable fitness and use thereof.
- Catchment management promotes strategies to facilitate and support the development of integrated catchment management plans and the formation of Catchment Management Agencies.
- Working for Water promotes strategies for controlling alien vegetation to optimise water security and the potential use of natural resources through a process of economic empowerment.
- Water utilisation promotes equitable water use allocation and the efficient, beneficial and sustainable distribution and utilisation of water resources. It grants financial assistance to statutory bodies to promote the construction of efficient waterworks.
- Water conservation implements water demand management strategies and provides financial support to special programmes.

## Expenditure estimates

**Table 33.11: Integrated water resource management**

Subprogramme	Expenditure outcome			Adjusted appropriation 2000/01	Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00		2001/02	2002/03	2003/04
R thousand							
Management	109	603	627	642	657	678	699
Water quality Management	41 599	11 228	14 775	23 047	20 548	20 782	21 016
Catchment management	–	395	3 339	6 127	5 959	6 006	11 553
Working for Water	–	15 237	14 877	15 780	9 510	9 641	9 772
Water utilisation	25 566	18 980	26 813	35 080	35 225	35 442	35 659
Water conservation	–	2 885	8 499	8 978	15 128	15 219	20 810
<b>Total</b>	<b>67 274</b>	<b>49 328</b>	<b>68 930</b>	<b>89 654</b>	<b>87 027</b>	<b>87 768</b>	<b>99 509</b>
Change to 2000 Budget Estimate				(159)	(7 046)	(11 592)	
<b>Economic classification</b>							
<b>Current</b>	42 344	35 355	45 684	58 697	56 023	56 681	68 339
Personnel	19 901	10 607	11 977	18 775	16 775	17 433	18 091
Transfer payments	–	–	–	–	–	–	–
Other current	22 443	24 748	33 707	39 922	39 248	39 248	50 248
<b>Capital</b>	24 930	13 973	23 246	30 957	31 004	31 087	31 170
Transfer payments	19 715	9 946	15 200	21 468	21 468	21 468	21 468
Acquisition of capital assets	5 215	4 027	8 046	9 489	9 536	9 619	9 702
<b>Total</b>	<b>67 274</b>	<b>49 328</b>	<b>68 930</b>	<b>89 654</b>	<b>87 027</b>	<b>87 768</b>	<b>99 509</b>
<b>Standard items of expenditure</b>							
Personnel	20 623	10 627	12 877	20 240	18 418	19 159	19 900
Administrative	5 066	2 814	4 541	4 591	5 445	5 445	5 445
Inventories	2 303	643	973	587	1 218	1 218	1 218
Equipment	2 427	1 444	3 007	1 019	893	893	893
Land and buildings	27	36	–	–	–	–	–
Professional and special services	16 801	23 689	32 079	41 563	39 585	39 585	50 585
Transfer payments	19 715	9 946	15 200	21 468	21 468	21 468	21 468
Miscellaneous							
Civil Pensions Stabilisation Fund	312	129	253	186	–	–	–
<b>Total</b>	<b>67 274</b>	<b>49 328</b>	<b>68 930</b>	<b>89 654</b>	<b>87 027</b>	<b>87 768</b>	<b>99 509</b>

## Policy developments

Water conservation and demand management strategies are being developed, as are policies on the transfer of government water schemes to water user associations, pricing for water discharges and the eradication of alien vegetation.

## Expenditure trends

The programme grows by an average of 6 per cent a year between 1997/98 and 2000/01, owing to the establishment of three new subprogrammes – Catchment management, Working for Water and Water conservation. Over the next three years, the programme shows moderate growth.



## Outputs and service delivery trends

**Table 33.12: Integrated water resource management: Key outputs and indicators**

Subprogramme	Outputs	Service delivery indicators
Water quality management	Levels of fitness for use	Comply with the water quality objectives contained in the National Water Resource Strategy by auditing the water quality system through compliance monitoring of the resource
Catchment management	Facilitate establishment of Water Management Institutions	Regional plans for the development of Water Management Institutions and established Water Management Institutions
Working for Water	Effective control of the current extent of Invasive Alien Plants, coordinated policy environment, increased public awareness, coordinated research programme, subject to peer review	220 hectares cleared, bio-control on 30 species released and effective, coordinated strategy and legislation in place by 2010 Alienplant Buster hotline successful, increased level of public awareness, four functional review panels providing peer review, 30 papers produced and published in relevant journals
Water utilisation	Control the allocation of water for abstraction, storage and stream flow reduction activities, through policy development, training and auditing  Implementation of the raw water pricing strategy of the Department  Financial assistance to emerging farmers of designated groups in respect of water works	A streamlined licensing process, consistently implemented in the regions  Raw water charges determined and announced annually for all Water Management Areas and Government water scheme  Number of emerging farmers subsidised per million rand spent (target of 20)
Water conservation	Increased awareness through schools outreach programmes and distribution of resource materials produced	Expansion of 2020 to encompass 50 per cent of all South African schools by 2005 (14 500 schools)

This year has seen a number of achievements in the management of water resources in South Africa and the implementation of the internationally acclaimed National Water Act. Key achievements include:

- Development, with stakeholders, of water conservation and demand management strategies for the industrial, agricultural and domestic sectors
- A drive to register all significant users of raw water for the proper management of scarce water resources and for the implementation of the national pricing strategy as promulgated in 1999
- The introduction of the new licensing system, under the National Water Act, for abstraction and effluent discharge
- The initiation of a project to develop a pricing strategy for waste discharges
- The completion of a strategic environmental assessment for water use for the Mhlathuze catchment, as a pilot in the development of as strategic environmental assessment a tool in decision-making support for water resources management
- The development of policy and guidelines for the establishment of Catchment Management Agencies, and the initiation of consultative processes for the establishment of such agencies a in a range of Water Management Areas
- The creation of work opportunities for 20 000 people under the poverty relief programme of the Working for Water programme, and the further development of progressive approaches to the control of alien invasive species
- The establishment of an interdepartmental coordinating committee focusing on the provision of general and financial support to small-scale and emerging farmers.

## Programme 7: Water services

The programme aims to ensure the provision of sustainable and affordable water and sanitation services to all communities through policy development, regulation, coordination, support, facilitation, evaluation and monitoring. The subprogrammes comprise:

- Management provides overall guidance, planning and control.

- Macro planning and information systems support ensure effective and sustained water services to consumers and the maintenance of a macro water services management information system.
- Intervention and operations support manage the regulatory intervention process, and develop policies and strategies to support and ensure the sustainable operation of water services.
- Local institutional development support provides relevant support services for capacity building of water service institutions, the granting of financial assistance for the construction of capital works, and granting of financial assistance by way of seed funding to water services institutions to promote longer term financial independence.
- Project development support assists with the implementation of sustainable capital projects through the development of policies and strategies to support the water services capital programme.
- Policy coordination and communication support assists with the development, coordination and refinement of policies and communication strategies.

## Expenditure estimates

Table 33.13: Water services

Subprogramme	Expenditure outcome			Adjusted appropriation 2000/01	Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00		2001/02	2002/03	2003/04
R thousand							
Management	2 623	4 133	1 986	3 181	3 204	3 233	3 262
Macro planning and information systems support	73 608	26 983	24 414	31 423	21 071	21 148	21 225
Intervention and operations support	3 241	4 408	9 039	11 027	11 092	11 192	11 292
Local institutional development support	10 678	6 887	14 264	38 297	16 353	16 451	22 049
Project development support	14 217	10 868	11 375	11 157	11 221	11 319	11 417
Policy coordination and communication support	–	748	731	2 061	2 079	2 110	2 141
<b>Total</b>	<b>104 367</b>	<b>54 027</b>	<b>61 809</b>	<b>97 146</b>	<b>65 020</b>	<b>65 453</b>	<b>71 386</b>
Change to 2000 Budget Estimate				22 159	(9 282)	(7 244)	
<b>Economic classification</b>							
<b>Current</b>	<b>22 215</b>	<b>25 805</b>	<b>31 547</b>	<b>42 104</b>	<b>63 086</b>	<b>63 519</b>	<b>69 452</b>
Personnel	8 497	5 889	7 904	10 662	10 754	11 187	11 620
Transfer payments	–	–	2 683	4 000	4 000	4 000	4 000
Other current	13 718	19 916	20 960	27 442	48 332	48 332	53 832
<b>Capital</b>	<b>82 152</b>	<b>28 222</b>	<b>30 262</b>	<b>55 042</b>	<b>1 934</b>	<b>1 934</b>	<b>1 934</b>
Transfer payments	3 014	1 051	5 573	23 153	1 153	1 153	1 153
Acquisition of capital assets	79 138	27 171	24 689	31 889	781	781	781
<b>Total</b>	<b>104 367</b>	<b>54 027</b>	<b>61 809</b>	<b>97 146</b>	<b>65 020</b>	<b>65 453</b>	<b>71 386</b>
<b>Standard items of expenditure</b>							
Personnel	14 492	6 710	9 002	13 082	10 754	11 187	11 620
Administrative	4 384	2 312	2 586	3 870	3 591	3 591	3 591
Inventories	11 688	123	267	369	369	369	369
Equipment	5 697	237	423	586	781	781	781
Land and buildings	151	–	–	–	–	–	–
Professional and special services	64 684	43 502	41 151	51 886	44 372	44 372	49 872
Transfer payments	3 014	1 051	8 256	27 153	5 153	5 153	5 153
Miscellaneous							
Civil Pensions Stabilisation Fund	257	92	124	200	–	–	–
<b>Total</b>	<b>104 367</b>	<b>54 027</b>	<b>61 809</b>	<b>97 146</b>	<b>65 020</b>	<b>65 453</b>	<b>71 386</b>

## Policy developments

Water services are responsible for the framework to implement the transfer of water services schemes to local government. The Department supports local governments in implementing free basic services to ensure that all can have access to these services. An asset register was developed to identify the infrastructure of the pre-1994 departmental schemes. Based on this register, various transfers have been initiated. Cost recovery programmes are being developed and a scheme management improvement system has been initiated.

Further policy developments are the generation and implementation of a regulatory framework requiring classification of the role, structure and function of the regulator; development and implementation of regulations; development of a regulatory system; and monitoring and auditing of the water service institutions.

## Expenditure trends

The decrease in spending from 1997/98 to 1998/99 was due to the completion of planning activities. The allocation for the 2000/01 rises sharply to R97,1 million, owing to additional funds allocated for subsidies to Water Boards and Irrigation Boards regarding flood damages.

## Outputs and service delivery trends

Table 33.14: Water services: Key outputs and indicators

Subprogramme	Outputs	Service delivery indicators
Macro planning and information systems support	National, provincial and regional strategy	Deliver products in a progressive manner on a national, provincial and local level in terms of themes, functions and ad hoc requests
Intervention and operations support	Develop various guides, strategies and policies on tariff regulations, cost recovery, free water, standards and quality, intervention, operating procedures, operations and maintenance support, and transfer of assets	Simple documents produced in good time and distributed widely
Local institutional development support	Capacity building and training for local government Financial assistance to local authorities	Roll-out of training courses and workshops Quantum of support
Project development support	Support the provision of basic water supply countrywide Support the provision of basic sanitation nationwide	Number of schemes constructed and transferred Number of households provided with sanitation
Policy coordination and communication support	Develop documents on rural water supply and sanitation programme, and implications of the Water Services Act Support in terms of coordinating policy development	Documents developed according to needs expressed by individual Directorates within the Chief Director: Water Services

The original estimate in 1994 was that 12 million rural people did not have appropriate water supply in South Africa. Since 1994, approximately 6,5 million people have benefited from the departmental programme, of which 200 000 have benefited this year.

Major progress has been made with the following subprogrammes:

- 451 Water Services Development Plans have been produced nationally, of which 68 have been funded in 49 local authorities
- Model contracts have been developed to serve as a guideline to local authorities.
- The Transfer of Water Services Schemes system is now in place.
- Alternative delivery mechanisms will be implemented the capital programme, including involving non-governmental organisations in small schemes in rural areas; using emerging contractors and labour-intensive construction; and delivering water supply to small villages.
- Specific policies, such as on free water, will be developed.

## Programme 8: Forestry

The programme aims to promote the optimal development of conservation, commercial or industrial and community forestry through policy development, regulation, facilitation, evaluation and monitoring, along with the effective management of state forest timber production and conservation areas. Activities are funded through five subprogrammes:

- Management provides overall guidance, planning and control.
- Forestry policy ensures the sustainable development of conservation, community and commercial forestry through continuous updating of policy, monitoring of implementation, keeping of resource databases, research contracts and international liaison.
- Indigenous forest management ensures the conservation, optimal utilisation and scientific management of state forest conservation areas, and participates in related conservation matters.
- Community forestry ensures the initiation and development of tree planting schemes in the interest of communities, including seed supply and general advice.
- Augmentation of the Industrial Plantations Trading Account provides state support for commercial forestry activities.

### Expenditure estimates

Table 33.16: Forestry

Subprogramme	Expenditure outcome				Adjusted appropriation 2000/01	Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00			2001/02	2002/03	2003/04
R thousand								
Management	465	682	462	419	631	650	669	
Forestry policy	12 734	11 840	8 549	11 598	11 476	11 589	11 702	
Indigenous forest management	17 360	17 111	28 840	59 954	60 545	61 679	62 813	
Community forestry	23 902	25 350	31 686	72 247	73 959	76 382	78 805	
Augmentation of Industrial Plantations Trading Account	264 011	306 075	281 461	258 530	189 336	82 035	50 000	
<b>Total</b>	<b>318 472</b>	<b>361 058</b>	<b>350 998</b>	<b>402 748</b>	<b>335 947</b>	<b>232 335</b>	<b>203 989</b>	
Change to 2000 Budget Estimate				96 967	145 713	100 469		

### Economic classification

<b>Current</b>	315 777	358 817	349 400	397 855	332 948	229 336	200 990
Personnel	30 623	34 963	44 707	106 706	91 663	95 352	99 041
Transfer payments	264 011	306 075	281 461	258 530	189 336	82 035	50 000
Other current	21 143	17 779	23 232	32 619	51 949	51 949	51 949
<b>Capital</b>	2 695	2 241	1 598	4 893	2 999	2 999	2 999
Transfer payments	–	–	–	–	–	–	–
Acquisition of capital assets	2 695	2 241	1 598	4 893	2 999	2 999	2 999
<b>Total</b>	<b>318 472</b>	<b>361 058</b>	<b>350 998</b>	<b>402 748</b>	<b>335 947</b>	<b>232 335</b>	<b>203 989</b>

### Standard items of expenditure

Personnel	30 623	34 963	44 707	106 706	91 663	95 352	99 041
Administrative	5 805	5 920	9 725	10 238	14 763	14 763	14 763
Inventories	5 998	3 714	3 732	8 561	6 741	6 741	6 741
Equipment	2 695	2 241	1 598	4 893	2 999	2 999	2 999
Land and buildings	58	1	–	216	–	–	–
Professional and special services	8 877	7 564	9 113	11 986	30 445	30 445	30 445
Transfer payments	264 011	306 075	281 461	258 530	189 336	82 035	50 000
Miscellaneous							
Civil Pensions Stabilisation Fund	405	580	662	1 618	–	–	–
<b>Total</b>	<b>318 472</b>	<b>361 058</b>	<b>350 998</b>	<b>402 748</b>	<b>335 947</b>	<b>232 335</b>	<b>203 989</b>

## Policy developments

The Department's policy on forestry is to transfer commercial forestry operations to private and communal operators (and, where appropriate, to facilitate alternative land use). It has entered into a restructuring process, along with the Department of Public Enterprises and the South African Forestry Company Limited. The Department will manage these assets effectively for as long as they remain under its control. It is consolidating the management of all indigenous forests by transferring these to other conservation agencies, where appropriate. It will also regulate forestry activities in line with the National Forests Act of 1998 and the National Veld and Forest Fire Act of 1998.

The Department will develop and update forest policy and information with the involvement of local and international stakeholders, and will advise communities on the use of trees and forest resources for sustainable livelihoods.

## Expenditure trends

Due to the restructuring of the *Forestry* function, expenditure on the programme declined during 1999/00. An amount of R97 million was rolled over to 2000/01 to augment the Industrial Plantations Trading Account in terms of the restructuring. This involves a large number of voluntary severance packages, as well as the transfer of staff to private companies.

Baseline medium-term estimates increase by R145,7 million in 2001/02 and R100,5 million in 2002/03 to continue the restructuring, after delays experienced during 2000/01.

## Outputs and service delivery trends

Table 33.16: Forestry: Key outputs and indicators

Subprogramme	Outputs	Service delivery indicators
Management	Effective management of Government's forest assets	Effective implementation of forest policy
Forestry policy	The formulation of criteria, indicators and standards for sustainable forest management	Agreement achieved with all role players regarding this process
Indigenous forest management	A participatory forest management policy, programme and guidelines developed and implemented	All indigenous forests management to incorporate broad community participation
Community forestry	Transfer of ownership, management and control of wood lots to empowered communities	Legal entities established on behalf of beneficiary communities
	Use of community public-private partnerships where appropriate	Embark on rural and urban greening interventions
	Improve the environment and quality of life of people in rural and urban areas	Information and advice provided through Arbour Week
	Ensure systems and mechanisms in place for implementation of National Veld and Forests Fire Act	Establish and pilot fire danger rating system (FDRS), design monitoring system for guiding revision of FDRS, guidelines established for formation of fire protection areas

Forestry is moving away from being an operational function towards policy and regulation. Policy and regulatory divisions have now been established. Significant progress has been made in transferring part of the commercial forestry function to other agencies. Cabinet has approved the transfer of a large portion of commercial forests to Safcol and private companies. In addition, a pilot project on the transfer of small plantations to communities is nearing completion. Excellent progress has also been made in improving the management of indigenous forests with the active involvement of local communities.

## Trading Accounts

### Water Trading Account

The Water Trading Account funds the implementation of catchment management activities, and manages, operates and maintains government water schemes, regional bulk water supply and water services infrastructure.

**Table 33.17: Water Trading Account**

Subprogramme	Expenditure outcome				Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00	Adjusted appropriation 2000/01	2001/02	2002/03	2003/04
R thousand							
Integrated catchment management	224 131	252 859	242 133	378 243	554 158	594 158	594 158
Integrated systems	154 975	989 030	1 138 771	1 149 834	1 183 178	1 308 863	1 590 192
Bulk water supply	224 022	280 504	290 853	312 784	312 144	279 909	279 909
Water services	844 606	654 986	727 254	746 551	691 989	644 140	662 032
<b>Total estimated expenditure</b>	<b>1 447 734</b>	<b>2 177 379</b>	<b>2 399 011</b>	<b>2 587 412</b>	<b>2 741 469</b>	<b>2 827 070</b>	<b>3 126 291</b>
Less: estimated revenue	617 860	1 457 556	1 559 728	1 620 469	1 695 820	1 820 623	1 960 525
<b>Deficit to be voted</b>	<b>829 874</b>	<b>719 823</b>	<b>839 283</b>	<b>966 943</b>	<b>1 045 649</b>	<b>1 006 447</b>	<b>1 165 766</b>
<b>Economic classification</b>							
Current	1 358 778	1 167 869	1 240 715	1 354 232	1 524 714	1 631 934	1 647 068
Capital	88 956	1 009 510	1 158 296	1 233 180	1 216 755	1 195 136	1 479 223
<b>Total estimated expenditure</b>	<b>1 447 734</b>	<b>2 177 379</b>	<b>2 399 011</b>	<b>2 587 412</b>	<b>2 741 469</b>	<b>2 827 070</b>	<b>3 126 291</b>
Less: estimated revenue	617 860	1 457 556	1 559 728	1 620 469	1 695 820	1 820 623	1 960 525
<b>Deficit to be voted</b>	<b>829 874</b>	<b>719 823</b>	<b>839 283</b>	<b>966 943</b>	<b>1 045 649</b>	<b>1 006 447</b>	<b>1 165 766</b>
<b>Standard items of expenditure</b>							
Personnel	558 710	540 474	564 737	557 254	585 418	585 498	585 584
Administrative	217 312	153 836	205 250	200 595	299 967	300 608	302 173
Inventories	132 852	153 881	121 679	74 960	87 842	88 009	88 459
Equipment	32 706	41 440	23 093	20 630	28 754	29 082	29 164
Land and buildings	1 387	314	1 194	6	1 600	1 600	1 600
Professional and special services	367 699	1 102 793	1 279 131	1 531 136	1 551 260	1 635 645	1 932 683
Transfer payments	128 650	175 681	194 216	191 628	186 628	186 628	186 628
Miscellaneous expenditure							
Civil Pensions Stabilisation Fund	8 418	8 960	9 711	11 203	-	-	-
<b>Total estimated expenditure</b>	<b>1 447 734</b>	<b>2 177 379</b>	<b>2 399 011</b>	<b>2 587 412</b>	<b>2 741 469</b>	<b>2 827 070</b>	<b>3 126 291</b>
Less: estimated revenue	617 860	1 457 556	1 559 728	1 620 469	1 695 820	1 820 623	1 960 525
<b>Deficit to be voted</b>	<b>829 874</b>	<b>719 823</b>	<b>839 283</b>	<b>966 943</b>	<b>1 045 649</b>	<b>1 006 447</b>	<b>1 165 766</b>

The persistent shortfall in the Water Trading Account will be addressed by transferring water services schemes to local governments and water service providers, and billing those who have not yet taken transfers for the service provided to them. This programme will be finalised this year in consultation with the National Treasury, the Department of Provincial and Local Government and the South African Local Government Association. The services are directed towards the development of new infrastructure, the refurbishment of schemes, physical and feasibility planning, and capacity building. The transfer of schemes under water resource management will take approximately three years, while transferring schemes to water services will take no less than five years.

The implementation of the national water pricing strategy for water resource use will further improve in the state of the Water Trading Account. Tariffs on some schemes already cover costs, therefore it will not be efficient to increase tariffs further. Increasing those tariffs that are not

recovering costs fully will lead to non-payment for services, as most of these schemes supply water to rural areas.

Bulk and reticulated water has been supplied to more than 12,2 million people through the operation and maintenance of 353 schemes (mostly inherited from the ex-homeland dispensation). Heavy rains had interrupted these services during February and March 2000. Flood repair works are in progressing well and 50 per cent of the work should be completed by the end of 2000/01. Flood damage to water resource management infrastructure (Hydro) is in progress, but has been hampered by high water levels in the rivers.

### Industrial Plantations Trading Account

The Industrial Plantations Trading Account is responsible for:

- Management and lease of industrial plantations based on sound scientific and business practices
- Production of high-quality timber products through the application of correct silviculture protection and harvesting techniques
- Management and operation of treatment plants and sawmills to produce quality products
- Management of conservation areas and state forests to the benefit of all people

**Table 33.18: Industrial Plantations Trading Account**

Subprogramme	Expenditure outcome				Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00	Adjusted appropriation 2000/01	2001/02	2002/03	2003/04
R thousand							
Management	23 307	16 446	22 710	9 273	9 142	9 142	9 142
Production	26 528	66 770	97 952	246 723	177 342	72 277	40 242
Processing	1 098	1 160	597	8 586	6 297	-	-
Environment	14 389	6 292	1 452	2 198	2 149	415	415
Administration	255 081	295 346	238 282	1 765	1 406	201	201
<b>Total estimated expenditure</b>	<b>320 403</b>	<b>386 014</b>	<b>360 993</b>	<b>268 545</b>	<b>196 336</b>	<b>82 035</b>	<b>50 000</b>
Less: estimated revenue	56 392	79 939	79 532	10 015	7 000	-	-
<b>Deficit to be voted</b>	<b>264 011</b>	<b>306 075</b>	<b>281 461</b>	<b>258 530</b>	<b>189 336</b>	<b>82 035</b>	<b>50 000</b>
Change to 2000 Budget Estimate							
<b>Economic classification</b>							
Current	315 159	377 494	357 569	263 743	193 993	81 792	49 857
Capital	5 244	8 520	3 424	4 802	2 343	243	143
<b>Total estimated expenditure</b>	<b>320 403</b>	<b>386 014</b>	<b>360 993</b>	<b>268 545</b>	<b>196 336</b>	<b>82 035</b>	<b>50 000</b>
Less: estimated revenue	56 392	79 939	79 532	10 015	7 000	-	-
<b>Deficit to be voted</b>	<b>264 011</b>	<b>306 075</b>	<b>281 461</b>	<b>258 530</b>	<b>189 336</b>	<b>82 035</b>	<b>50 000</b>
<b>Standard items of expenditure</b>							
Personnel	247 468	300 378	265 120	215 178	139 122	76 543	44 708
Administrative	16 503	13 128	20 977	14 070	21 136	953	1 053
Inventories	12 386	17 592	12 311	9 523	10 244	896	796
Equipment	3 121	3 516	3 350	4 792	2 333	233	133
Land and buildings	424	633	276	841	310	-	0
Professional and special services	36 259	45 843	54 243	20 992	23 191	3 410	3 310
Transfer payments	-	-	-	-	-	-	-
Miscellaneous expenditure							
Civil Pensions Stabilisation Fund	4 242	4 924	4 716	3 149	-	-	-
<b>Total estimated expenditure</b>	<b>320 403</b>	<b>386 014</b>	<b>360 993</b>	<b>268 545</b>	<b>196 336</b>	<b>82 035</b>	<b>50 000</b>
Less: estimated revenue	56 392	79 939	79 532	10 015	7 000	-	-
<b>Deficit to be voted</b>	<b>264 011</b>	<b>306 075</b>	<b>281 461</b>	<b>258 530</b>	<b>189 336</b>	<b>82 035</b>	<b>50 000</b>

Government is reducing its role in the management of commercial forestry activities, and is restructuring the sector in favour of private sector management. This section met its contractual obligations by supplying to its customers the required volumes while meeting all the quality requirements. Two new contracts were also concluded, while one was cancelled as a result of the customer not meeting its obligations. The prices of all goods are revised annually, and increased by 6,7 per cent from July 2001. The fire protection measures contributed to a low number of fire incidents.

### Equipment Trading Account

The Equipment Trading Account provides equipment for construction and maintenance of government water schemes.

**Table 33.19: Equipment Trading Account**

Subprogramme	Expenditure outcome				Adjusted appropriation 2000/01	Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00			2001/02	2002/03	2003/04
R thousand								
New equipment	30 076	28 242	27 567	23 512	23 512	23 512	23 512	
Rebuilt equipment	12 552	7 376	8 925	7 892	7 892	7 892	7 892	
Maintenance cost	3 378	5 905	9 333	6 145	6 145	6 145	6 145	
<b>Total estimated expenditure</b>	<b>46 006</b>	<b>41 523</b>	<b>45 825</b>	<b>37 549</b>	<b>37 549</b>	<b>37 549</b>	<b>37 549</b>	
Less: estimated revenue	36 210	39 554	43 025	32 549	35 049	35 049	35 049	
<b>Deficit to be voted</b>	<b>9 796</b>	<b>1 969</b>	<b>2 800</b>	<b>5 000</b>	<b>2 500</b>	<b>2 500</b>	<b>2 500</b>	
<b>Economic classification</b>								
Current	-	-	-	-	-	-	-	
Capital	46 006	41 523	45 825	37 549	37 549	37 549	37 549	
<b>Total estimated expenditure</b>	<b>46 006</b>	<b>41 523</b>	<b>45 825</b>	<b>37 549</b>	<b>37 549</b>	<b>37 549</b>	<b>37 549</b>	
Less: estimated revenue	36 210	39 554	43 025	32 549	35 049	35 049	35 049	
<b>Deficit to be voted</b>	<b>9 796</b>	<b>1 969</b>	<b>2 800</b>	<b>5 000</b>	<b>2 500</b>	<b>2 500</b>	<b>2 500</b>	
<b>Standard items of expenditure</b>								
Personnel	-	-	-	-	-	-	-	
Administrative	-	-	-	-	-	-	-	
Inventories	-	-	-	-	-	-	-	
Equipment	30 076	28 242	27 567	23 512	23 512	23 512	23 512	
Land and buildings	-	-	-	-	-	-	-	
Professional and special services	15 930	13 281	18 258	14 037	14 037	14 037	14 037	
Transfer payments	-	-	-	-	-	-	-	
Miscellaneous expenditure	-	-	-	-	-	-	-	
Civil Pensions Stabilisation Fund	-	-	-	-	-	-	-	
<b>Total estimated expenditure</b>	<b>46 006</b>	<b>41 523</b>	<b>45 825</b>	<b>37 549</b>	<b>37 549</b>	<b>37 549</b>	<b>37 549</b>	
Less: estimated revenue	36 210	39 554	43 025	32 549	35 049	35 049	35 049	
<b>Deficit to be voted</b>	<b>9 796</b>	<b>1 969</b>	<b>2 800</b>	<b>5 000</b>	<b>2 500</b>	<b>2 500</b>	<b>2 500</b>	

## Public entities reporting to the Minister responsible for the Department of Water Affairs and Forestry

### Komati River Basin Water Authority

The Komati River Basin development project is a joint development between South Africa and Swaziland in terms of the Treaty on the Development and Utilisation of the Water Resources of the Komati River Basin, ratified in 1992. 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. In terms of the Treaty, a special purpose vehicle, the Komati Basin Water Authority is the executive body charged with managing and financing the project. The main focus of the project is the construction of the Maguga Dam in Swaziland to be operational by November 2000 and completed by February 2001.

Transfers for 2000/01 amount to R63,2 million. Over the next three years, transfers will amount to R99,5 million, R84,3 million and R88,2 million respectively.

### **Trans-Caledon Tunnel Authority**

The Trans-Caledon Tunnel Authority was established in 1986 to fund all costs incurred in the water delivery component of the Lesotho Highlands Water Project. The project aims to augment water supply to the Vaal system and to generate hydro-electric power in Lesotho. The Authority was directed by the Department to undertake financial risk management on behalf of South Africa. The Lesotho Highlands Water Commission, on which both governments are represented, monitors the administrative, technical and financial activities of the Lesotho Highland Development Authority. Following revisions to the protocol governing the implementation of the project, new governance arrangements are being introduced to improve operational efficiency. In terms of its revised establishment agreement, the Authority may be required to perform additional responsibilities in other areas. These need not be related to the Lesotho project only – the Department of Water Affairs and Forestry may require specific expertise on other projects as well. No grants are made to the Authority as it is funded from income on tariffs levied on the sale of water and other loans.

### **Water Boards**

The Water Boards were established as water authorities that report to the Minister of Water Affairs and Forestry. These Boards manage water resources within their catchment areas and supply potable water to residents at cost-effective prices. The Boards are as follows:

**Table 33.20: Water Boards**

Albany Coast Water Board	Amatola Water Board	Bloem Water
Bushbuckridge Water Board	Goudveld Water	Ikangala Water
Kalahari-East Water Board	Kalahari West Water Board	Karos-Geelkoppan Water Board
Lepelle Northern Water	Magalies Water	Mhlathuze Water
Namakwa Water	North West Water Supply Authority	Overberg Water
Pelladrift Water	Rand Water	Umgeni Water

The role and function of the Boards will be evaluated, and a reconfiguration may be proposed. Transfers in 2000/01 are estimated at R184,9 million. Over the medium term, transfers are expected to total R137,7 million in 2000/01, R136,6 million in 2002/03 and R135,1 million in 2003/04.

### **Water Research Commission**

The Commission's terms of reference are to promote coordination, communication and cooperation in the field of water research; establish water research needs and priorities from a national perspective; fund research on a priority basis; and promote the effective transfer dissemination and application of research findings. No grants are made to the Commission, as its work is funded by a levy on water users.

**Annexure: Vote 33: Water Affairs and Forestry**

Table 33.21: Summary of expenditure trends and estimates per programme

Table 33.22: Summary of expenditure trends and estimates per economic classification

Table 33.23: Summary of expenditure trends and estimates per standard item

Table 33.24: Summary of transfers and subsidies per programme

Table 33.25: Summary of personnel numbers and costs

Table 33.26: Summary of expenditure on training

Table 33.27: Summary of grants to local government

Table 33.21: Summary of expenditure trends and estimates per programme

	Expenditure outcome			Main appropriation	Adjustments appropriation			Revised estimate	Medium-term expenditure estimate				
	Audited	Audited	Preliminary outcome		Rollovers for 1999/00	Other adjustments	Adjusted appropriation		Current	Capital	Total	2002/03	2003/04
R thousand	1997/98	1998/99	1999/00		2000/01				2001/02				
Administration	169 582	147 306	182 965	193 682	1 900	4 080	199 662	195 962	192 171	10 587	202 758	206 204	209 650
Water resource assessment	44 799	52 344	58 621	77 955	-	449	78 404	72 204	66 963	5 905	72 868	74 381	86 894
Integrated water resource planning	27 275	40 455	36 146	45 869	1 653	123	47 645	40 945	6 915	40 110	47 025	47 386	53 247
Water resource development	266 260	224 499	302 935	326 461	8 046	(4 898)	329 609	327 609	2 056	356 915	358 971	346 637	353 590
Regional implementation	1 822 308	1 935 649	1 613 893	1 758 881	-	173 581	1 932 462	1 955 379	1 232 928	879 486	2 109 414	2 046 052	2 230 688
Integrated water resource management	67 274	49 328	68 930	89 813	-	(159)	89 654	83 907	56 023	31 004	87 027	87 768	99 509
Water services	104 367	54 027	61 809	74 987	-	22 159	97 146	89 446	63 086	1 934	65 020	65 453	71 386
Forestry	318 472	361 058	350 998	305 781	90 000	6 967	402 748	402 748	332 948	2 999	335 947	232 335	203 989
<b>Total</b>	<b>2 820 337</b>	<b>2 864 666</b>	<b>2 676 297</b>	<b>2 873 429</b>	<b>101 599</b>	<b>202 302</b>	<b>3 177 330</b>	<b>3 168 200</b>	<b>1 953 090</b>	<b>1 325 940</b>	<b>3 279 030</b>	<b>3 106 216</b>	<b>3 308 953</b>
Change to 2000 Budget Estimate							303 901	294 771			580 318	341 024	

Table 33.22: Summary of expenditure trends and estimates per economic classification

	Expenditure outcome			Main appropriation	Adjustments appropriation			Revised estimate	Medium-term expenditure estimate				
	Audited	Audited	Preliminary outcome		Rollovers for 1999/00	Other adjustments 2000/01	Adjusted appropriation		Current	Capital	Total	2002/03	2003/04
	1997/98	1998/99	1999/00										
R thousand													
<b>Current</b>	<b>598 650</b>	<b>772 543</b>	<b>764 255</b>	<b>845 410</b>	<b>90 000</b>	<b>6 643</b>	<b>942 053</b>	<b>887 236</b>	<b>1 953 090</b>	<b>-</b>	<b>1 953 090</b>	<b>1 817 928</b>	<b>1 990 241</b>
Personnel	171 218	239 549	228 436	334 910	-	7 377	342 287	342 287	332 297	-	332 297	345 525	358 754
Salaries and wages	113 416	163 211	160 658	242 059	-	4 218	246 277	246 277	245 951	-	245 951	254 297	262 873
Other	57 802	76 338	67 778	92 851	-	3 159	96 010	96 010	86 346	-	86 346	91 228	95 881
Transfer payments	264 011	306 075	284 144	166 859	90 000	5 671	262 530	262 530	1 238 985	-	1 238 985	1 092 482	1 219 766
Other levels of Government	-	-	2 683	4 000	-	-	4 000	4 000	4 000	-	4 000	4 000	4 000
Households and non-profit institutions	-	-	-	-	-	-	-	-	-	-	-	-	-
Foreign countries and international credit institutions	-	-	-	-	-	-	-	-	-	-	-	-	-
Other current transfers	264 011	306 075	281 461	162 859	90 000	5 671	258 530	258 530	1 234 985	-	1 234 985	1 088 482	1 215 766
Other current expenditure	163 421	226 919	251 675	343 641	-	(6 405)	337 236	282 419	381 808	-	381 808	379 291	411 721
<b>Capital</b>	<b>2 221 687</b>	<b>2 092 123</b>	<b>1 912 042</b>	<b>2 028 019</b>	<b>11 599</b>	<b>195 659</b>	<b>2 235 277</b>	<b>2 280 964</b>	<b>-</b>	<b>1 325 940</b>	<b>1 325 940</b>	<b>1 288 288</b>	<b>1 318 712</b>
Capital transfers	924 331	742 536	909 031	903 671	-	176 057	1 079 728	1 125 415	-	124 774	124 774	109 419	113 351
Other levels of Government	-	-	-	-	-	-	-	-	-	-	-	-	-
Other capital transfers	-	-	-	-	-	176 057	1 079 728	1 125 415	-	124 774	124 774	109 419	113 351
Movable capital	101 666	90 089	108 400	113 965	902	-	114 867	114 867	-	95 037	95 037	95 047	95 067
Motor vehicles	25 557	11 861	3 012	5 818	-	-	5 818	5 818	-	63	63	95	-
Equipment	7 259	4 283	2 351	5 075	902	-	5 977	5 977	-	4 302	4 302	3 938	3 916
Computers	23 289	12 163	20 154	17 722	-	-	17 722	17 722	-	16 175	16 175	15 705	16 626
Other office equipment	45 561	61 782	82 883	85 350	-	-	85 350	85 350	-	74 497	74 497	75 309	74 525
Fixed capital	1 195 690	1 259 498	894 611	1 010 383	10 697	19 602	1 040 682	1 040 682	-	1 106 129	1 106 129	1 083 822	1 110 294
Land	200	635	87	6 752	8 046	(735)	14 063	14 063	-	2 684	2 684	2 684	2 684
Buildings	1 272	4 677	215	-	-	-	-	-	-	-	-	-	-
Infrastructure	1 194 218	1 254 186	894 309	1 003 631	2 651	20 337	1 026 619	1 026 619	-	1 103 445	1 103 445	1 081 138	1 107 610
Other	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total</b>	<b>2 820 337</b>	<b>2 864 666</b>	<b>2 676 297</b>	<b>2 873 429</b>	<b>101 599</b>	<b>202 302</b>	<b>3 177 330</b>	<b>3 168 200</b>	<b>1 953 090</b>	<b>1 325 940</b>	<b>3 279 030</b>	<b>3 106 216</b>	<b>3 308 953</b>

Table 33.23: Summary of expenditure trends and estimates per standard item

	Expenditure outcome			Main appropriation	Adjustments appropriation			Revised estimate	Medium-term expenditure estimate				
	Audited	Audited	Preliminary outcome		Rollovers for 1999/00	Other adjustments 2000/01	Adjusted appropriation		Current	Capital	Total	2002/03	2003/04
	1997/98	1998/99	1999/00										
R thousand													
Personnel	237 832	305 688	304 533	421 107	-	8 314	429 421	429 421	332 297	90 406	422 703	439 680	456 657
Administrative expenditure	64 495	83 749	96 176	101 710	-	-	101 710	104 975	105 489	16 148	121 637	121 697	121 737
Inventories	54 531	51 534	66 090	75 819	-	-	75 819	75 819	21 976	40 026	62 002	62 002	62 022
Equipment	75 055	56 476	60 615	65 142	902	-	66 044	66 044	-	55 011	55 011	55 021	55 041
Land and buildings	1 692	8 988	3 732	7 341	8 046	(735)	14 652	14 652	411	2 684	3 095	3 095	3 095
Professional and special services	1 194 472	1 304 508	946 989	1 125 445	2 651	12 995	1 141 091	1 086 274	253 677	996 891	1 250 568	1 222 565	1 277 029
Transfer payments	1 188 342	1 048 611	1 193 175	1 070 530	90 000	181 728	1 342 258	1 387 945	1 238 985	124 774	1 363 759	1 201 901	1 333 117
Miscellaneous	3 918	5 112	4 987	6 335	-	-	6 335	3 070	255	-	255	255	255
<b>Total</b>	<b>2 820 337</b>	<b>2 864 666</b>	<b>2 676 297</b>	<b>2 873 429</b>	<b>101 599</b>	<b>202 302</b>	<b>3 177 330</b>	<b>3 168 200</b>	<b>1 953 090</b>	<b>1 325 940</b>	<b>3 279 030</b>	<b>3 106 216</b>	<b>3 308 953</b>

Table 33.24: Summary of transfers and subsidies per programme

	Expenditure outcome			Main appropriation	Adjustments appropriation			Revised estimate	Medium-term expenditure estimate				
	Audited	Audited	Preliminary outcome		Rollovers for 1999/00	Other adjustments 2000/01	Adjusted appropriation		Current	Capital 2001/02	Total	2002/03	2003/04
	1997/98	1998/99	1999/00										
R thousand													
<b>Administration</b>	3 203	-	-	-	-	-	-	-	-	-	-	-	-
Subsidised vehicles	3 203	-	-	-	-	-	-	-	-	-	-	-	-
<b>Water resource development</b>	68 525	11 716	48 975	73 164	-	(5 000)	68 164	68 164	-	102 153	102 153	86 798	90 730
Capital augmentation – Equipment Trading Account	9 797	1 969	2 800	5 000	-	-	5 000	5 000	-	2 500	2 500	2 500	2 500
International projects – Neighbouring States	58 728	9 747	46 175	68 164	-	(5 000)	63 164	63 164	-	99 653	99 653	84 298	88 230
<b>Regional implementation</b>	829 874	719 823	839 283	813 886	-	153 057	966 943	966 943	1 045 649	-	1 045 649	1 006 447	1 165 766
Operations of water resources – Augmentation of the water trading account	829 874	719 823	839 283	813 886	-	153 057	966 943	966 943	1 045 649	-	1 045 649	1 006 447	1 165 766
<b>Integrated water resource management</b>	19 715	9 946	15 200	15 468	-	6 000	21 468	21 468	-	21 468	21 468	21 468	21 468
Water utilisation – Financial assistance to statutory bodies	19 715	9 946	15 200	15 468	-	6 000	21 468	21 468	-	21 468	21 468	21 468	21 468
<b>Water services</b>	3 014	1 051	8 256	5 153	-	22 000	27 153	27 153	4 000	1 153	5 153	5 153	5 153
Local institutional development support – seed funding	3 014	1 051	8 256	5 153	-	22 000	27 153	27 153	4 000	1 153	5 153	5 153	5 153
<b>Forestry</b>	264 011	306 075	281 461	162 859	90 000	5 671	258 530	258 530	189 336	-	189 336	82 035	50 000
Augmentation of industrial plantation trading account	264 011	306 075	281 461	162 859	90 000	5 671	258 530	258 530	189 336	-	189 336	82 035	50 000
<b>Total</b>	<b>1 188 342</b>	<b>1 048 611</b>	<b>1 193 175</b>	<b>1 070 530</b>	<b>90 000</b>	<b>181 728</b>	<b>1 342 258</b>	<b>1 342 258</b>	<b>1 238 985</b>	<b>124 774</b>	<b>1 363 759</b>	<b>1 201 901</b>	<b>1 333 117</b>

**Table 33.25: Summary of personnel numbers and costs<sup>1</sup>**

<b>Personnel numbers</b>	<b>1997/98</b>	<b>1998/99</b>	<b>1999/00</b>	<b>2000/01</b>	<b>2001/02</b>
Administration	445	622	650	730	730
Water resource assessment	251	263	266	319	319
Integrated water resource planning	34	34	33	49	49
Water resource development	1 989	1 955	1 946	2 075	2 075
Regional implementation	1 256	1 343	1 045	1 326	1 328
Integrated water resource management	58	61	74	97	97
Water services	37	37	54	76	76
Forestry	692	731	935	1 978	1 814
<b>Total</b>	<b>4 762</b>	<b>5 046</b>	<b>5 003</b>	<b>6 650</b>	<b>6 488</b>
Total personnel cost (R thousand)	171 218	239 549	228 436	342 287	332 297
Unit cost (R thousand)	36,0	47,5	45,7	51,5	51,2

<sup>1</sup> Full-time equivalent

**Table 33.26: Summary of expenditure on training**

	Preliminary outcome	Revised estimate	Medium-term expenditure estimate		
	1999/00	2000/01	2001/02	2002/03	2003/04
R thousand					
Administration	10 207	12 401	13 652	13 652	13 652
<b>Total</b>	<b>404</b>	<b>1 754</b>	<b>1 813</b>	<b>1 926</b>	<b>2 020</b>

**Table 33.27: Summary of grants to local government**

Programme	Expenditure outcome					Medium-term expenditure estimate		
	Audited 1997/98	Audited 1998/99	Preliminary outcome 1999/00	Adjusted appropriation 2000/01	Revised estimate	2001/02	2002/03	2003/04
R thousand								
<b>Regional implementation</b>								
Implementation of water services projects	918 840	1 016 447	625 938	609 151	609 151	821 753	818 063	835 287
Operations of water Resources	844 606	654 986	727 254	746 551	746 551	691 849	644 000	662 000
<b>Total</b>	<b>1 763 446</b>	<b>1 671 433</b>	<b>1 353 192</b>	<b>1 355 702</b>	<b>1 355 702</b>	<b>1 513 602</b>	<b>1 462 063</b>	<b>1 497 287</b>