

No. 209

16 March 2007

## ANNEXURE A

## WATER RESEARCH COMMISSION

WATER RESEARCH ACT (Act No. 34 of 1971)

**ESTABLISHMENT OF A COLLECTION STRATEGY FOR WATER-RESEARCH CHARGES IN TERMS OF SECTION 11 OF THE WATER RESEARCH ACT, 1971**

I, Lindiwe Benedicta Hendricks, MP, Minister of Water Affairs and Forestry, with the concurrence of the Minister of Finance, hereby in terms of Section 11 of the Water Research Act (Act No. 34 of 1971), establish a collection strategy for water-research charges, as contained in the schedule hereto.

## SCHEDULE

**A COLLECTION STRATEGY FOR WATER-RESEARCH CHARGES****PREFACE**

The Water Research Act (WRA), Act No. 34 of 1971, gives power to the Minister, with the concurrence of the Ministry of Finance, from time to time by notice in the Gazette, to set tariffs in respect of water research charges levied on quantities of water supplied, or made available for use, for various purposes. The charges are paid into a national Water Research Fund and used by the Water Research Commission (WRC) to fund water-centred Research and Development (R&D) on behalf of the nation.

Historically, tariffs relating to water research charges have been reviewed on an annual basis, and adjusted, when necessary, taking into account the R&D needs of the water sector and the rate of inflation. It was accepted that, as from 2004, the 2003/04 tariffs would form a baseline for the ensuing five years and annual tariff increases would be in accordance with the rate of inflation, by notice in the Gazette. Charges are currently based on volumes of water supplied and on irrigated land area. In terms of the WRA, the Department of Water Affairs and Forestry (DWAF) is obliged to collect water research charges on behalf of the WRC, unless the Minister approves otherwise.

Owing to various developments, the WRC has been required to review current practice and develop a new collection strategy, as presented here. The main developments that necessitate the change include:

- The establishment of a pricing strategy for water use charges in terms of Section 56(1) of the National Water Act (Act No 36 of 1998)
- Definitions of water use in Section 21 of the National Water Act
- The implementation of the Municipal Finance Management Act
- Developments to DWAF's computer-based system (SAP/WARMS) for registration and licensing of water use
- Arrangements for the collection of water use charges by DWAF.

Although none of the above-mentioned developments refer directly to water research charges levied in terms of the WRA, they all strongly affect the collection of water research charges by DWAF. DWAF's obligation to continue to collect such charges on behalf of the WRC necessitates a close link to the pricing strategy for water use charges in the interests of efficiency and effectiveness. In practice this means that a common user base will have to be identified and uniform-billing arrangements adopted. However, it should be noted that the setting of water research charges remains independent of changes in water use charges governed by the NWA pricing strategy.

This document sets the strategy for linking the collection of water research charges to the pricing strategy for water use charges, whilst maintaining compliance with the requirements of the Water Research Act.



**Lindiwe Benedicta Hendricks, MP**  
Minister of Water Affairs and Forestry

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## ABBREVIATIONS

<b>CMA</b>	=	Catchment Management Agencies
<b>DWAF</b>	=	Department of Water Affairs and Forestry
<b>NWA</b>	=	National Water Act, <b>1998</b>
<b>WMA</b>	-	Water Management Area
<b>WRA</b>	=	Water Research Act, <b>1971</b>
<b>WRC</b>	=	Water Research Commission

## 1. INTRODUCTION

This Collection Strategy contains the objectives, methodology and implementation strategy for setting and collection of water research charges for purposes of funding water-centred Research and Development (R&D) on behalf of the South African water sector and the nation.

One of the key objectives of the collection strategy is to maintain levels of charges consistent with efficient and effective generation, dissemination and use of knowledge products required to sustainably manage South Africa's water resources, effectively deliver water services to all citizens and efficiently and beneficially use our limited water supplies.

DWAF has the obligation to continue to collect water-research charges on behalf of the WRC. In the interests of efficiency and effectiveness with regard to the collection of these charges, revision of the mode of collection is necessary to build a close link to the collection of water use charges as determined by the NWA pricing strategy. In practice this means that a common user base will have to be identified and uniform-billing arrangements adopted.

This document sets the strategy for linking the collection of water research charges to the pricing strategy for water use charges, whilst maintaining compliance with the requirements of the Water Research Act.

## 2. LEGAL MANDATE TO THE PRICING STRATEGY

In terms of Section 11 of the WRA, the Minister may with the concurrence of the Minister of Finance, from time to time by notice in the Gazette, establish tariffs for water research charges on the basis of water supplied or made available for domestic, industrial or agricultural uses.

## 3. IMPLEMENTATION OF THE WATER-RESEARCH CHARGE COLLECTION STRATEGY

### 3.1 Definition of Water Use

Section 11 of the WRA empowers the Minister of Water Affairs and Forestry to levy charges on water supplied or made available for use for agricultural purposes, urban purposes, industrial purposes or any other purposes by any water management institution. At the same time, the Minister may, in respect of the tariff pertaining to such charges, differentiate between different classes of use or user, and may absolve any particular use or user from liability for payment. The Act therefore gives the Minister wide discretionary powers to determine the user base liable for payment of water research charges.

In selecting the user base for the levying of water research charges, **and** bearing in mind the need to ensure compatibility with the user base liable for payment of water use charges, consideration is given *to* the definition of water **use** contained in Section 21 of the **NWA**. These water uses are given **as**:

- (a) taking water from a water resource;
- (b) storing water
- (c) impeding or diverting the flow in a watercourse;
- (d) engaging in steam flow reduction activity;
- (e) engaging in controlled activity which has a detrimental impact on water resources;
- (f) discharging waste or water containing waste into a water resource;
- (g) disposing of waste in a manner which may detrimentally impact on a water resource;
- (h) disposing of water which contains waste from any industrial or power generation process;
- (i) altering the bed, banks, course or characteristics of a watercourse;
- (j) removing, discharging or disposing of water found underground for continuation of an activity;
- (k) using water for recreational purposes.

The above-mentioned water uses can be broadly grouped under three categories in the **NWA**:

**Abstraction-related uses**

- Section 21 (a), Section 21 (b) and Section 21 (d)

**Waste discharge-related uses**

- Section 21 (e), Section 21 (f), Section 21 (g), Section 21 (h) and Section 21 (j)

**Non-coasumptive uses**

- Section 21 (c), Section 21 (e), Section 21 (i), Section 21 (j) and Section 21 (k)

The broad definition of water use **in** the **NWA** creates the option of including most, if not **all**, of the above-mentioned uses in the group which is liable for payment of water-research charges in terms of the **WRA**.

### 3.2 Collection Strategy for Water-Research Charges

Although the **WRA** allows for the inclusion of most of the above user categories in the group liable for payment of water-research charges, the collection strategy for water-research charges will initially focus on the **same** user group currently (in 2004) contributing towards water-research charges, i.e. those falling in the abstraction-related use category. This includes users of water for domestic, municipal, industrial and irrigation purposes. **If** need be, the levying of charges on any water use that is not addressed by the current **WRA** will be subject to an appropriate amendment of the Act.

Payment **of** water research charges in the case of urban, domestic and industrial uses is currently based on quantities of water supplied. However, in the case of irrigation, where much of the water supplied has not been metered, the **WRA** allows charges (rates) to be

levied on the area (hectares) of scheduled irrigation land on Government water schemes and schemes falling under Irrigation Boards. The WRA also makes provision for the levying of charges for water made available for all abstraction-related uses, thus providing for the change in the basis of collection of water-research charges, which will allow a simple link to the collection of water use charges under the NWA pricing strategy.

**A fundamental aspect of this water-research charge collection strategy is therefore the phasing out of payment of water research rates and charges on the basis of water supplied (for domestic and industrial purposes) and for irrigated land, and the simultaneous phasing-in, for all water uses (irrigation included), of payment on the basis of registered or licensed water use.**

Although the basis for levying of water-research charges will be changed, the new collection strategy aims to avoid any increase in charges for the various user groups. The underpinning principle is that in converting from 'water supplied' to 'water made available' as the basis for payment, every effort will be made to ensure that equivalent prices (tariffs) apply. This includes the land-area-based to water-volume-based conversion in the case of the water-research charge for which irrigation is liable.

It should be noted that a previous decision to accept 2003/04 tariffs as a baseline and to link annual tariff increases to the rate of inflation for the ensuing five years will be honoured, provided that national policy does not require a broadening of scope, or intensification, of water research, in which case an amendment of this strategy will be required.

### **3.3 Determination of Sectoral Water-Research Charges**

#### **3.3.1 Water use sectors**

The user sectors for which unit sectoral water research charges will initially be levied are:

- Domestic/industrial (water services authorities, industrial, mining/energy)
- Agriculture (irrigation and intensive stock watering) on Government water schemes and Irrigation Boards/WUA schemes.

In time, other users and user sectors will be included, but not without prior consultation with user groups and other interested and affected parties.

#### **3.3.2 Determination of registered water use volumes per sector for pricing purposes**

The registered water use in the various sectors must reflect average volumes annually available as determined by using the following methodologies for the water uses as defined:

<b>Domestic/Industrial</b>	Water allocations as reflected on a lawful permit, general authorisation or licence and/or verified as
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existing lawful use, and amended for assurance of supply.

**Irrigation** Irrigation quotas, amended for assurance of supply.

Adjustments to the volumes as determined above may be deemed necessary according to the level of under- or over-utilisation of water in a particular WMA. Should this apply, all adjustments will be done in strict compliance with rules laid down in the NWA.

### 3.3.3 Assurance of supply

Registered water use of various users takes into account the assurance of water availability or supply, according to rules laid down in the pricing strategy for water use charges.

### 3.3.4 Water-research charges for resource-poor irrigators

Resource-poor irrigation farmers will be exempt from the payment of water-research charges for an initial introductory period of five years or as otherwise negotiated.

### 3.3.5 Phasing in of water-research charges

The phasing-in of water-research charges based on registered water use will take place concurrently with the phasing-in, in terms of the NWA pricing strategy, of water-use charges in the various WMAs by the relevant water management institutions. Prior to that, the current practice, of levying charges on water provided and rates on listed irrigation land, will remain in force.

### 3.3.6 Tariffs relating to water-research charges

The Minister from time to time sets tariffs applicable to water-research charges by notice in the Gazette. (The most recent such notice was No. 249 in the Government Gazette of 24 March 2005)

### 3.3.7 Differentiation and temporary relief with respect to payment of water-research charges

Section 56 of the National Water Act, 1998 provides for the pricing strategy for water-use charges to differentiate on an equitable basis between

- different types of geographic areas
- different categories of water use
- different water users,

or for some elements of the charges to be waived in respect of specific users for a specified period of time.

In terms of the WRA, the Minister has similar powers, which allow the pricing strategy for water-research charges to be consistent with the NWA pricing strategy in this regard.

#### **4. COMMISSION FOR COLLECTION OF WATER-RESEARCH CHARGES**

DWAF shall continue to be responsible for collecting charges from the relevant water management institutions and for paying these over to the WRC in accordance to the **WRA**, for which service the WRC will pay DWAF a commission.

#### **5. BUDGETARY AND FINANCIAL CONTROL**

In implementing the water-research collection strategy, every attempt will be made to collect revenue efficiently and maintain strict financial control. In terms of this principle, a budgetary process will be applied in each water management area. Budgets will be forwarded to regional offices for dissemination and discussion with interested parties. **Full** disclosure of the accounts of the WRC will be made **and** outcomes of the R&D funding process will be communicated to water users.

## ANNEXURE B

### GLOSSARY OF TERMS

**Social equity:** In the context of water resources, social equity implies that all user groups have fair and reasonable access to the nation's scarce water resources, and that the allocation of water resources facilitates universal and affordable access to a basic water supply.

**Ecological sustainability:** This concept captures the view that there is a need to treat ecological protection and continuing economic growth as mutually compatible rather than as necessarily conflicting objectives.

**Economic efficiency:** A condition that is achieved when resources are used over a given period of time in such a way as to make it impossible to increase the welfare of any person without harming another.

**Economic value:** The cost that represents the scarcity value of a good that would prevail in competitive markets.

**Externalities:** are essentially activities whose full cost or benefit is not incorporated into an economic decision; hence they lead to sub-optimal social allocation.

**Market approach:** This is an accepted means through which buyers and sellers can communicate and trade at mutually agreed terms.

**Market clearance:** A condition that is attained when the price of the good traded adjusts so that the quantity buyers wish to buy is equal to the quantity which sellers wish to supply.

**Opportunity costs:** The costs of alternatives forgone by using scarce resources in a particular manner.

**Polluter pays principle:** A principle that ensures that a charge per unit of pollution emitted into the ecosystem is charged to those responsible for such pollution in order to internalise the cost thereof.

**Resource Poor Farmers/Forest growers:** Entry-level water users who are citizens of South Africa and who are members of the historically disadvantaged population groups.

**Scarcity:** The situation which arises when demand for any given good outstrips the supply of that good.

**SAPWAT.** A software program providing a crop water requirement model for South Africa.