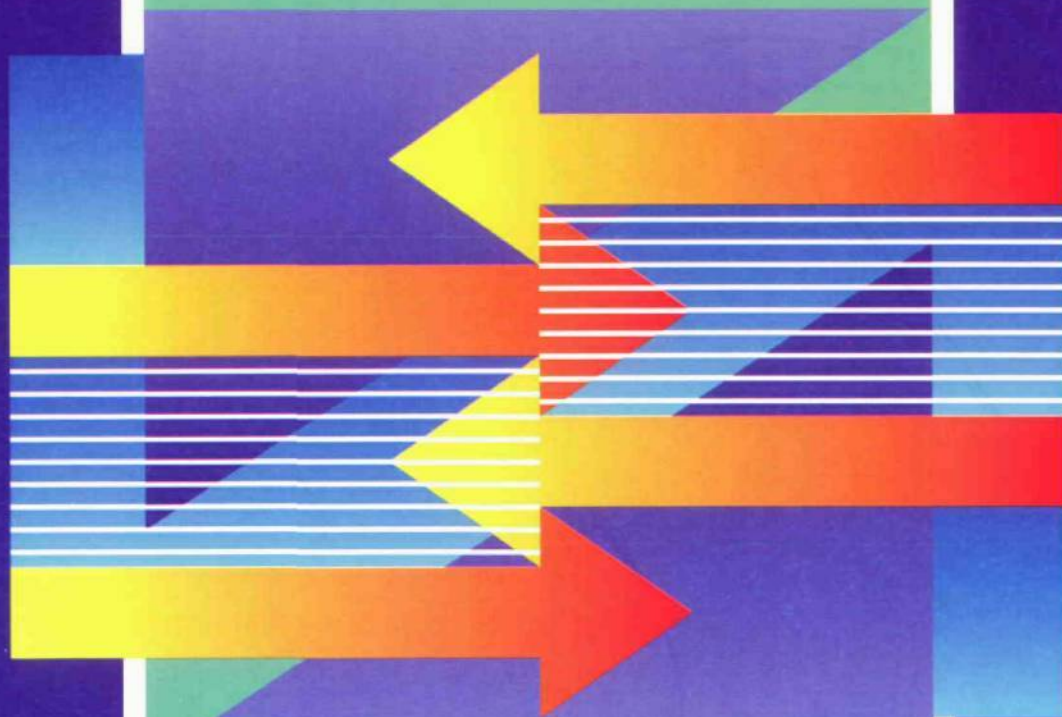


**PRELIMINARY GUIDELINES  
FOR  
PRIVATE SECTOR  
PARTICIPATION IN  
WATER SUPPLY  
AND  
SANITATION  
SERVICES**



**KV 81/96**

# **WATER RESEARCH COMMISSION**

## **PRELIMINARY GUIDELINES FOR PRIVATE SECTOR PARTICIPATION IN WATER SUPPLY AND SANITATION SERVICES**

PREPARED BY P.J. PYBUS  
UNDER THE DIRECTION OF A  
PROJECT STEERING COMMITTEE

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Mr L Abrams	Department of Water Affairs and Forestry
Mr W V Alexander	Stewart Scott Inc
Mr J C Ambert	Lyonnaise Water Southern Africa
Mr H C Chapman	Water Research Commission
Mr A Davis	Rand Water
Mr B Hollingworth	Development Bank of Southern Africa
Mr B Jackson	Development Bank of Southern Africa
Mr W Johannes	Africon
Mr A La Grange	Nedbank
Dr L H Lötter	Chemical and Allied Industries Association
Mr P McCall	Erwat
Mr P McMurray	Engineering and Management Services
Mr N Macleod	Durban Water and Waste
Mr Y Makda	Aquafund (Pty) Ltd
Mr B V Monteith	Reconstruction and Development Programme Office
Mr J Pansegrouw	North West Water Supply Authority
Mr M J Pienaar	Rand Water
Mr A R Pitman	Greater Johannesburg Transitional Metropolitan Council (Chair)
Mr P J Pybus	Philip Pybus Consulting Engineer (Author)
Mr P D Pyke	Department of Water Affairs and Forestry
Mr D Saunders	Aquafund (Pty) Ltd
Mr B Walford	Umgeni Water
Mr J W Wilken	Erwat

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The following served on the Editorial Committee:

Dr L H Lötter	Chemical and Allied Industries Association
Mr A R Pitman	Greater Johannesburg Transitional Metropolitan Council
Mr B V Monteith	Reconstruction and Development Programme Office
Mr D Saunders	Aquafund (Pty) Ltd
Mr P D Pyke	Department of Water Affairs and Forestry
Mr J C Ambert	Lyonnaise Water Southern Africa



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# EXECUTIVE SUMMARY

## 1 INTRODUCTION

The task of reconstruction and development is one that requires the active partnership of Government and civil society for success. The need for the active involvement of the private sector is set out clearly in the "Municipal Infrastructure Investment Framework" prepared by the Department of Housing and the Ministry of the Office of the President. The White Paper on Water Supply and Sanitation Policy states that "the private sector represents a vast resource which must be harnessed to contribute to the implementation of the this policy." There is thus a clear mandate to harness the resources of the private sector in the provision of water supply and sanitation.

## 2 SCOPE AND PURPOSE

The purpose of this document is to alert the institutions that are currently responsible for the delivery of water and sanitation services to the variety of services available from the private sector, as well the options that are available to them in the improvement and upgrading of these services.

It provides guidelines for the assessment of the quality of the service being provided, the alternatives that are available to remedy any deficiencies as well as the steps that could be followed should it be deemed advantageous to engage the private sector. In order to reap the greatest benefit from such a course of action it is necessary to engage the private sector in a positive and meaningful manner, thereby ensuring enhanced delivery and improved service.

The scope of the document excludes the sale of publicly owned assets.

## 3 BACKGROUND AND CONTEXT

There is currently a vast backlog in the provision of water and sanitation services to the urban and rural areas of South Africa. Approximately 11 000 000 people lack adequate water supplies while 19 000 000 lack proper sanitation facilities. The estimated capital cost of remedying these deficiencies varies between R 4,4 billion and R 13 billion over the next 10 years. These figures exclude the expenditure to refurbish much of the infrastructure that has suffered from inadequate maintenance. Funding for this cannot be supplied from Government sources alone but it will not come from the financial markets unless the water supply and sanitation services are efficient and cost effective and the ability to recover costs is demonstrated.

Reasons for engaging the private sector stem from:

- rapid expansion of the areas of supply and responsibility
- too great a demand on existing resources
- a desire to improve the levels of service
- the need to reduce the cost of the service
- the need to find additional sources of funding.

## **4 PRESENT INSTITUTIONAL FRAMEWORK**

Private sector participation needs to be considered within the framework of existing public sector institutional arrangements where the concepts of regulation, authority and responsibility are often confused with those of actual delivery of water supply and sanitation services.

Central Government responsibilities include policy and strategy formulation, legislation, allocation of funds, grants and assistance, the setting of minimum standards, the preparation of guidelines, monitoring and evaluation and in the case of the Department of Water Affairs and Forestry to act as the supply authority of last resort.

Provincial government responsibilities include legislative and administrative competence in respect of local authorities, technical assistance, environmental management, regional planning, the allocation of provincial funding and monitoring.

Local government has the responsibility for ensuring that everyone within its area of jurisdiction has access to water and sanitation services, that the necessary bulk services are available for new housing developments and that in the absence of a regional authority the basic bulk services are provided.

Water boards have the function of providing bulk water supplies to local authorities. In addition they have been given the additional responsibility of providing water and sanitation services where contracted to do so by the local authority.

## **5 ALTERNATIVE DELIVERY OPTIONS**

The local authority may use a variety of options to improve the service being rendered or to engage the private sector in the delivery of the services. "Ring fencing" and "corporatisation" are also options that the local authority can use to improve its service without involving the private sector. These options are not dealt with in detail in this document.

### **5.1 Service Contracts**

Where there is a shortage of particular skills or personnel or a short term crisis has developed or for a specific project, for which the local authority has obtained the finance, it may be prudent of the local authority to enter into a short term service contract for some particular service that is required. The type of service which could be rendered ranges from meter reading, design, construction of new projects, sewer cleaning and maintenance or the provision of staff for a short period to perform some particular function.

Such contracts generally involve low risks, have only a short term commitment, leaves managerial control with the local authority. The contracts are simple to administer and payment is work related. Training can be made a condition or focus of the contract. The need for the contract can be periodically reviewed. Funding for the contract must come directly from the local authority.



## **5.2 Management Contracts**

The management contract is similar to the service contract except that it passes certain managerial responsibilities to the contractor. The services could for example involve the operation of a water care works, the training of staff or the management of water leakage control programmes. Although the local authority retains ownership of the assets, the responsibility for obtaining finance may be shared with the private sector company. The duration of such a contract could range from 2 to 20 years.

Management contracts can contribute to improved efficiency and can provide a route for increased investment in the service.

## **5.3 Renting of Assets**

The rental (or lease, as it is known overseas) contract enables the local authority to transfer the responsibility of operating a water or sewerage system to the private sector. Responsibility may include the full operation and maintenance of a water care works right down to the billing of the end consumers. The contracts are of a long duration and provide the contractor with the incentive to improve efficiency.

The rental contract, which is a proven form of contract, transfers the risk of operation to the private sector. Improvements in efficiency can be shared between the local authority, the contractor and the end users. It does not remove the burden of new investment from the local authority. This form of contract should not be entered into without a detailed study beforehand based on a good knowledge of the system.

## **5.4 Investment Linked Contracts**

The investment linked contract (or concession) provides a mechanism through which local authorities can obtain investment in infrastructure without providing the funds from their own budgets or through loans secured on the capital market. Under this arrangement a local authority grants a concession to a private entity to finance, build, and operate a facility for a pre-agreed period of time. This type of contract must be distinguished from the situation where in order to make use of the financial engineering techniques which are available to the private sector and not the public sector, a special purpose company is formed by a (usually) a financial institution to optimise financial instruments like depreciation allowances and tax incentives. With this type of arrangement no technical input to the operation of the service is provided by the private sector company involved.

## **5.5 Privatisation**

Privatisation, or the sale of public assets, does not form part of these guidelines.

# **6 POLICY PRINCIPLES**

The following principles have been followed in the framing of the guidelines.

- The procedures for the engagement of the private sector must be transparent.
- The performance of the service providers must be monitored.

- The engagement of the private sector should provide for technology transfer and capacity building.
- The service providers must follow sound environmental principles.
- Local authority personnel are not to be prejudiced by the engagement of the private sector.
- The service providers must be accountable to the people that they serve.
- There should be free access to the market for all whilst ensuring that only contractors which have the competence, capacity and availability of the right personnel are entrusted with the work.
- The service provider should be responsive to the needs and problems of the end users.
- The provision of the infrastructure must be done in manner that is sustainable.

## **7 OUTLINE OF STEPS TO BE TAKEN**

### **7.1 Preliminary Assessment**

The first step to be taken is for the local authority to examine, with an internal task team, its own situation and capabilities in relation to the tasks with which it is faced. The examination should cover the full costs of service delivery, comparing these to other similar local authority costs, as well as the unit cost of the service, the rate of water losses etc. The means of addressing the problem areas thus identified should be investigated, including the possibility of engaging the private sector.

This analysis of the present situation need not be exhaustive, but it should be sufficient to indicate the course of action that would be in the best interests of all.

### **7.2 Creation of a Project Team**

In that the preparation of a tender document and the draft contract are complex it is strongly advisable for the local authority to appoint a project team including experienced and competent individual specialists from outside firms in the disciplines of law, management, finance and technical matters.

### **7.3 Evaluation of the Status Quo**

Having determined the need to involve the private sector and prepare a tender document, it will be necessary to refine and repeat in greater detail and accuracy the earlier assessment of the status quo. This assessment should cover:

- financial issues such as the debt situation, the actual costs of service provision, the level of cost recovery and the tariffs being charged
- technical issues such as the provision of an inventory of the local authority assets, the standard of service being provided, levels of staffing and adherence to standards

- legal and administrative issues such as the area of jurisdiction, the effectiveness of administrative procedures and the use of staff and compliance with the relevant Acts and Ordinances.

#### **7.4 Involvement of Stakeholders**

It is important to include all the stakeholders in the discussions leading up to the final preparation of the tender documents in order to inform them and resolve matters that may be the cause of disagreement at a later stage. The stakeholders should cover the representative bodies of the end users, Councillors, employees of the local authority, the trade union representatives, suppliers of bulk water, if not the local authority and Services Councils if relevant.

Issues needing to be discussed and resolved include the reasons for engaging the private sector, the benefits that are expected, the duration of contract that is envisaged, the levels and standards of service, the tariffs and charges that would be applied, accountability and matters affecting the employment of the local authority officials.

In the interests of all, the agreements that are reached with the different stakeholders should be recorded and published.

#### **7.5 Investigation of Alternative Delivery Mechanisms**

A feasibility study, involving assessment of the life cycle costs of operating the scheme under different forms of contract as well as conditions should be undertaken. Evaluation of the costs should indicate the course that it would be the best for the authority to follow.

#### **7.6 Risk and Risk Management**

If finance is to be sought on the commercial markets it will be necessary to minimise the level of risk. This can only follow from a thorough study of all the identifiable risks, the description and allocation of responsibility for these risks to the different parties to the contract and determination of the ability of the parties to absorb or lay off the risk through appropriate insurance mechanisms.

The risks to be guarded against include construction risks, delays, performance and operational risks, commercial risks, political, legal and financial risks in various forms.

#### **7.7 Preparation of Tender Documents**

Very great care needs to be exercised in the preparation of the tender documents for management, rental and investment linked contracts. The document should state clearly the nature of the contract that is envisaged and the objectives that it is intended to achieve. The document should cover points such as:

- the performance standards that are to be achieved as well as the time frame within which they are to be accomplished
- the system of reporting that is to be adopted by the contractor



- the terms under which officials of the local authority are to be engaged
- the apportionment of the risk between the parties of the contract
- the training and capacity building of the local staff that is to take place

#### **7.8 Evaluation of Tenders**

The evaluation of the tenders that are received should be done in an equitable and transparent manner. Any deviations from the specified requirements should be established and evaluated so that the final comparison is made of tenders that comply fully with the specification.

#### **7.9 Monitoring**

Once the contract is let, it will be the responsibility of the local authority to monitor the performance of the contractor to ensure compliance with the contract and keep the end users informed of how well the contractor is performing. If it is necessary to apply penalties for poor performance, this should only be done in accordance with the contract.

#### **7.10 Ongoing Relationship**

The contractor should establish a sound relationship with the end users through good performance, keeping them informed of problems and above all in fulfilling all promises made.

#### **7.11 Concluding remarks**

The applicability of the information presented in this document will depend on the circumstances of each specific local authority. Each local authority seeking assistance from the private sector should study its own circumstances and objectives and then select the course and procedures it will use using these guidelines as the starting point.

It is recognised that these guidelines are preliminary in nature and can certainly not be considered to be the last word on the matter. The engagement of the private sector in the provision of water and sanitation services on a large scale in South Africa is relatively new and there is a lot to be learnt. It is therefore anticipated that readers of this document will have a number of comments that they wish to make. Any comments on the document can be forwarded to Dr L H Lotter at Chemical and Allied Industries, P. O. Box 91415, Auckland Park, 2006.



The Government of National Unity is committed, through the Reconstruction and Development Programme and the policies of the Department of Water Affairs and Forestry, to the goal of providing access to basic water supply and sanitation services for all South Africans. Good progress is being made with this, in both rural and urban areas. Over 300 water supply projects are underway of which some are already complete. An essential feature of the programme is that communities should take ownership of the systems and be responsible for their operation and maintenance. Small systems may be run by volunteer Local Water Committees, but the larger ones require properly run, efficient organisations to ensure a reliable supply of this essential commodity at a cost-effective price.

There are signs that many water supply and sanitation services in South Africa are not being run as effectively and efficiently as one would like. Failures are becoming apparent in the form of major water losses and disruptions of service due to the bursting of ageing pipes. The effluent from many wastewater treatment plants does not comply with the discharge standards prescribed by law. Customer care may be totally absent and consumer dissatisfaction is manifested through non-payment for services. This lack of income, in turn, hinders the service supplier's ability to maintain the infrastructure and to respond to the demand for improved or extended services.

In the Preamble to the White Paper on Reconstruction and Development, the State President said: "To succeed ... the Government will need active partnership with civil society, and with business and labour in particular." This sentiment is repeated at the conclusion of the same white paper: "The responsibility for the renewal and transformation of our nation is, however, not the responsibility only of the Government nor of particular officials. It is a joint responsibility of all sections of our nation, and calls on all to put their energy and creativity into finding ways of doing things better and differently. The constraints and obstacles which can prevent delivery of a better life for all of our people can be solved if those constituencies most involved in a sector apply their minds to the problem jointly."

In June 1995, Government convened the "RDP Infrastructure Investment Workshop" with a view to creating a partnership for infrastructure development. In his keynote address, Minister Without Portfolio, Jay Naidoo, said: "The principal question South Africa faces today is not whether but how best to introduce greater private and community participation in meeting the demand for infrastructure services. In answering this question we are not guided by an ideological fixation on one or other delivery approach. Rather, we must search objectively for the best service for local residents, and the maximum boost to jobs and working conditions." This was confirmed in the Joint Statement of Intent issued after the workshop, which included: "Government and the private sector are committed to exploring partnerships in financing and delivery mechanisms to meet these objectives [of the RDP]."

The Cabinet recently approved the "Municipal Infrastructure Investment Framework"<sup>(1)</sup> prepared by the Department of Housing and the Ministry in the Office of the President. Among many recommendations, it stresses the need for improving efficiency and effectiveness in service delivery and proposes that communities, through their elected representatives, consider a choice of delivery mechanisms. On providing delivery choices, the framework report states: "The focus on local governments as the structure to oversee the delivery and financing of services does not imply that local governments must necessarily be the delivery agent. To ensure that communities have choice in respect of the suppliers of urban services, local governments will need to explore various options. These may include contracting services to the private sector using, for example, concessions, privatisation of selected services, and utilisation of national utilities where appropriate. A spectrum of choices facilitates competition and offers consumers greater scope for receiving quality services."<sup>(2)</sup>

The White Paper on Water Supply and Sanitation Policy<sup>(2)</sup> acknowledges that: "The private sector represents a vast resource which must be harnessed to contribute to the implementation of this policy." In the sub-section on Operation and Maintenance it states: "Given the growth of the private sector in this area, the Department will develop a more detailed policy both for its own use as a contractor and regulator and in order to fulfill its role as adviser to other agencies."

The above quotations spell out a mandate for this document. The challenges of improving the delivery of services and enhancing access to sources of finance is not confined to water supply and sanitation but applies to all services rendered by the public sector. These preliminary guidelines focus only on water and sanitation services, but could be useful to other sectors. They may be used, with appropriate modification, by any water-related service supplier, national or regional agency, water board or local authority, but for the sake of brevity the document refers only to local authorities from here on.

These guidelines are not new untested ideas. They draw from considerable experience in South Africa and internationally. It is acknowledged that water and sanitation services in South Africa are largely seen as public goods which have traditionally been rendered by the public sector, but this has not in itself produced either a better or a worse service. As in most service industries, the quality and value-for-money received are directly related to the clarity with which the product or service is specified and the way in which quality control is applied. The preliminary guidelines address these very issues.



The objective of this document is to broaden the horizons of the institutions currently responsible for the provision of water and sanitation services and to alert them to the variety of alternative service provision strategies that exist. For the purposes of this document, sanitation is taken to mean all aspects of sewage management including on-site domestic sanitation and sewage sludge disposal. It does not include the collection and disposal of solid waste.

In the White Paper on Water Supply and Sanitation Policy the essential role that could be played by the private sector in the delivery of these services was recognised. The publication of this document is intended to promote the establishment of partnerships between the private and public sector in order to exploit all available resources to the benefit of the country.

This document is not intended to present detailed guidelines of various aspects of private sector engagement but is aimed at highlighting the issues that are pertinent when considering the engagement of the private sector in the supply of basic and essential services. The emphasis of this document is on partnerships. The privatisation of the water sector in the sense of the outright sale of public assets is not envisaged.

There is a range of services that are available from the private sector. The service most suitable to the needs of the communities being served by the local authority should be selected after a proper study of the objectives that are to be achieved as the result of introducing private sector participation into water supply and sanitation. A clear articulation and understanding of the objectives is vital to achieve the best interactions and results from private sector participation.

While it can be shown that the private sector can provide an efficient and cost effective service, enhanced delivery and improved service must be measured against predetermined performance standards it must be engaged in a manner that will meet the aims of the local authority and provide a sustainable operation in which the user of the service can benefit from the provision of an improved and more cost effective service.

It is the purpose of this document to ensure that the issues involved in such engagement are fully understood and that any ensuing decisions will benefit all the parties involved.

Private Sector Participation does not mean the privatisation or sale of public assets, but implies rather a mutually beneficial partnership of public and private sectors to ensure that consumers ultimately get the best service possible within the means available. The form of such a partnership, and the nature of the contracts that may be entered into, may range from the straightforward rendering of a specific service right through to a long term engagement involving not only the complete management and operation of the system but also the financing of refurbishment or extensions as well. The exact arrangements will depend on the local circumstances, the needs of the people being served, and the particular needs of the agency responsible for water supply and sanitation services.

### 3.1 Estimate of Backlog

There is a vast backlog to be overcome in the provision of water supply and sanitation services within the urban areas of South Africa. Estimates made by Palmer <sup>(3)</sup> indicate the shortfall to be as follows:

**Table 1**      **Distribution of population without adequate water or sanitation (million)**

Area	Total Population	Population without adequate water	Population without adequate sanitation
Metropolitan	17,4	3,1	3,8
Towns	4,9	0,27	1,6
Dense settlements	2,2	1,3	2,0
<b>TOTAL URBAN</b>	<b>24,5</b>	<b>4,7</b>	<b>7,4</b>
Rural	13,0	6,1	11,2
<b>TOTAL</b>	<b>37,5</b>	<b>10,8</b>	<b>18,6</b>

In order to estimate the magnitude of the investment that would be needed, Palmer defined the different levels of service that could be provided as follows:

**Table 2:**      **Level of service definitions**

Level	Water	Sanitation
Minimal	Communal standpipe > 100 m, other	Pit, shared toilet
Basic	Communal standpipe > 100 m <sup>1</sup>	VIP latrine / on-site "aqua privy"
Intermediate	Yard tap	Intermediate sanitation <sup>2</sup>
Full	Metered house connection	Conventional waterborne sewerage

Note: 1. More than one standpipe per 25 households  
 2. Intermediate sanitation includes an aqua-privy linked to a solids-free sewer reticulation system. Various intermediate systems exist in South Africa.

The total investment required to provide basic services over a period of 10 years is given in Table 3 below together with the costs to improve the standard of service to intermediate or full over the same period. It is probable that better than the minimum



will in fact be installed and the expenditure could therefore lie in between the figures quoted.

**Table 3:Capital investment requirements : Water** (all figures in 1993 R million)

	Internal	Bulk	Total
<i>Upgrading existing backlog (total)</i>			
to BASIC	406	1 041	1 447
to INTERMEDIATE	874	2 695	3 569
to FULL	1 249	4 460	5 719
Rehabilitation to FULL	310	516	826
<i>Catering for new "low-income" * demand (per annum)</i>			
at BASIC	86	212	298
at INTERMEDIATE	137	400	537
at FULL	159	557	716
<i>Total investment requirements** over 10 years</i>			
BASIC	1 270	3 160	4 430
INTERMEDIATE	2 250	6 700	8 950
FULL	2 840	10 040	12 880
Rehabilitation of FULL	310	520	830

Notes: \* "low-income" equated to new black household formation

\*\* Investment requirements for proclaimed urban areas, excluding "dense settlements"

Meeting such large capital requirements over the next ten years would place an enormous strain on the fiscus and prove impossible to attain if this is the only source of finance available. An alternative mechanism must therefore be found to achieve this level of funding.

Funding must therefore come from the financial markets. It will not be forthcoming unless the water supply and sanitation operations are efficient and cost effective and an ability to recover costs is demonstrated.

Apart from the backlog in the provision of services much urban infrastructure for water supply and sanitation is in need of refurbishment due to past neglect of maintenance. Losses from reticulation systems are probably far larger than are reported, due to inaccurate meters and incorrect reading and recording. Water and wastewater treatment works are often incorrectly operated as a result of inadequate operator training and supervision.

### 3.2

#### The Local Authorities in Transition

The challenges facing local government currently and as it continues into the next century in respect of water supply and sanitation include the:

- rehabilitation of neglected infrastructure
- extension of customer care including efficient billing and payment collection to all consumers
- provision of additional infrastructure
- integration of service provision with planning for housing projects.

Due to the large numbers of people that are poorly served now falling within the area of a local authority, many authorities are finding it increasingly difficult to manage the additional responsibilities resulting therefrom as manifested in:

- the increased workload of the officials
- added capital requirements of the local authority
- the additional responsibility of maintaining reticulation systems that have been neglected for many years due to lack of funds
- large numbers of end-users who have developed a culture of non-payment for the services being introduced.

In consequence the local authority may find itself with a severe skills and personnel shortage, a shortage of capital in the light of the competition for limited funds from other sectors and with an increased area of responsibility.

There is a need in these areas to rehabilitate existing water care works and reticulation networks. In the latter case this is vital to conserve water which is otherwise being wasted. Customer care needs to be restored and accurate metering and billing provided to facilitate payment for the services provided.

An overview of local authorities shows that present knowledge and capacity will need to be supported and supplemented in order to allow sustainable service delivery. This can be done by means of the acquisition of additional experienced staff and/or engagement of the private sector at different levels of involvement. These options will need to be supported externally by the provision of guidelines as minimum or by promoting partnerships between informed public sector role-players and local authorities.

### 3.3

#### Reasons for engaging the Private Sector

There are thus many reasons for engaging the private sector. The list below centres around the three basic reasons:

- outgrowing the capacity to manage;
- the need to access capital markets; and
- reaching for greater effectiveness and efficiency in the delivery of services.

The reasons are:

- too rapid an expansion of areas of supply and responsibility

With the redefinition of boundaries a number of local authorities have had their boundaries extended to include additional areas which they cannot service adequately. The incorporated areas may have services and facilities that need upgrading due to poor initial design standards, lack of maintenance or lack of coverage across the entire area.

- too great a demand on existing resources

The urgent need to overcome deficiencies in service may place too great a burden on the staff of the local authorities. Recruitment of additional staff may be hampered by the grading system of local authorities limiting salaries that can be paid. The upsurge in the South African economy is aggravating this situation. Additionally there may be a need to augment bulk supplies, treatment works, both for potable and wastewater, and the bulk distribution and collection systems.

- desire to improve the levels of service

The service standards may have fallen below acceptable levels, which may have resulted in a culture of non-payment for services, too high a value of unaccounted for water, or poor coverage of the area as well as poor administration and accounting procedures. In these instances it is necessary to take a very hard look at the quality of the service being provided and establish just how this compares with other local authorities. There does not appear to be any formal system of benchmarking between the different local authorities, although certain of them do exchange reports regarding their performance.

In this regard it would be advantageous to all concerned if a formal system of



performance monitoring were to be established against a standard set of benchmarked performance indicators with self applied and external audit checks built in.

- the need to reduce the costs of the service

A system of performance auditing would indicate where the costs of service provision were too high. Where this is the case the engagement of the private sector could possibly bring about savings. This could possibly be achieved by one service provider being responsible for service provision in a number of local authorities thereby introducing the effects of scale into its operations with consequent cost savings.

- the need to find additional sources of funding

Capital will be required for the expansion of water supply and sanitation systems. There are private firms which are capable of raising the capital, designing the required facility, building and operating it on behalf of the local authority.

The necessary resources for addressing the shortage of infrastructure are unevenly distributed and relatively scarce. The best way to marshal the available resources is by providing efficient service delivery run on business-like lines in accordance with commercial principles. Such an operation requires the organisation or business unit concerned to have clear and consistent goals, the organisation's management to be autonomous, all concerned should be accountable for their actions and the organisation should be financially independent. The service provider also needs to be exposed to competitive pressures.

The local authority must aim to provide an effective service i.e. one that meets the needs and expectations of the consumer. An avenue for direct communication with the consumer needs to be open to monitor this goal. Political accountability is required. In satisfying the needs of the consumer the peculiar situation of South Africa where service provision has so far been inequitable must also be addressed. Despite the tremendous demands the service provider has still to provide a sustainable service.

A need exists for innovation to help solve the tremendous backlog in services. Innovations have been taking place. A number of town councils have already placed their water and sanitation services in the hands of private service providers and there are many firms with a good track record that are capable of providing this service.



## **4 CURRENT INSTITUTIONAL FRAMEWORK**

Private sector participation needs to be considered within the framework of existing public sector institutional arrangements where the concepts of regulation, authority and responsibility are often confused with those of actual delivery of water supply and sanitation services. A brief overview of the current situation is provided below.

### **4.1 *The Role of Central Government***

National responsibilities include:

- Policy and strategy
- Legislation and changes to regulatory framework
- Allocation of national funds (funding criteria)
- Framework for grants, loans and technical assistance
- Setting basic minimum standards and levels of service
- Preparation of guidelines
- Monitoring and evaluation
- Supply authority "of last resort" (short-term involvement following the demise of the homelands).

### **4.2 *The Role of Provincial Governments***

Provincial responsibilities include:

- Legislative and administrative competence in respect of local authorities
- Environmental management
- Regional planning
- Allocation of provincial funding

### **4.3 *The Role of Water Boards***

In the interim, provision has been made in the Water Act to extend to water boards, acting as agents for the Department of Water Affairs and Forestry, the responsibility for providing water and sanitation services to consumers in areas where the local authority does not have the necessary capacity. Water boards may also be contracted by local authorities to assist them in the provision of these services.

### **4.4 *The Role of Local Government***

The Interim Constitution makes provision for the whole of South Africa to be served by local authorities. These local authorities have the responsibility for ensuring that all inhabitants within their area of jurisdiction have access to adequate water supply and sanitation services on a sustainable basis. In terms of national housing policy the local authority also has responsibility for

ensuring that the necessary bulk infrastructure is available to service new housing developments. In some cases larger local authorities are responsible for the bulk water supplies as well as distribution to consumers. Where another institution such as a water board supplies water in both the local authority is responsible for the purchase of water from the bulk supplier and for its distribution within its area of jurisdiction. In other instances the responsibility for both wastewater treatment, which was with the regional services councils has been retained by them. In some areas it is the responsibility of local government.

#### 4.4.1 *Water Supply*

Local authorities are responsible for the provision of a water supply to individual property boundaries, although some water boards do supply to individuals, with local government consent. Certain larger municipalities supply water in bulk to smaller authorities. Many local authorities operate their own bulk water supply schemes.

#### 4.4.2 *Sanitation*

Local authorities are responsible for the supply of sanitation services, including treatment to regulated standards. This takes place for individual authorities, on a combined basis, where one authority accepts the wastewater of one or more other local authorities or on a collective basis where a number of local authorities have created a single wastewater treatment unit. In informally settled and rural areas there has most frequently been no authority responsible for delivery of this service.

There is a wide variation in the managerial, financial and technical capacity of local authorities to deliver infrastructure services. The internal organisation has largely been along departmental lines with the services being operated through one or more departments.

Local government is under considerable pressure to deliver affordable and appropriate services. It needs to consider alternative ways of delivering these to as many residents as possible over the short term whilst maintaining viable systems in the medium and long term.

## 5 ALTERNATIVE DELIVERY OPTIONS

A wide variety of strategies for public sector engagement in the provision of water supply and sanitation is already available in South Africa. In this Section a brief overview of the possible range of service options is provided. This overview is not intended to be exhaustive and should be seen as a basis for formulating further options which may be more suited to individual requirements. No two private sector service providers operate in exactly the same way. It is therefore essential that any local authority service provider contemplating the engagement of the private sector be aware that operating contracts should be adaptable to any particular organisation.

A local authority may use a variety of options to improve the service being rendered or to engage the private sector for the delivery of water and sanitation services. These options are summarised below and described in greater detail thereafter.

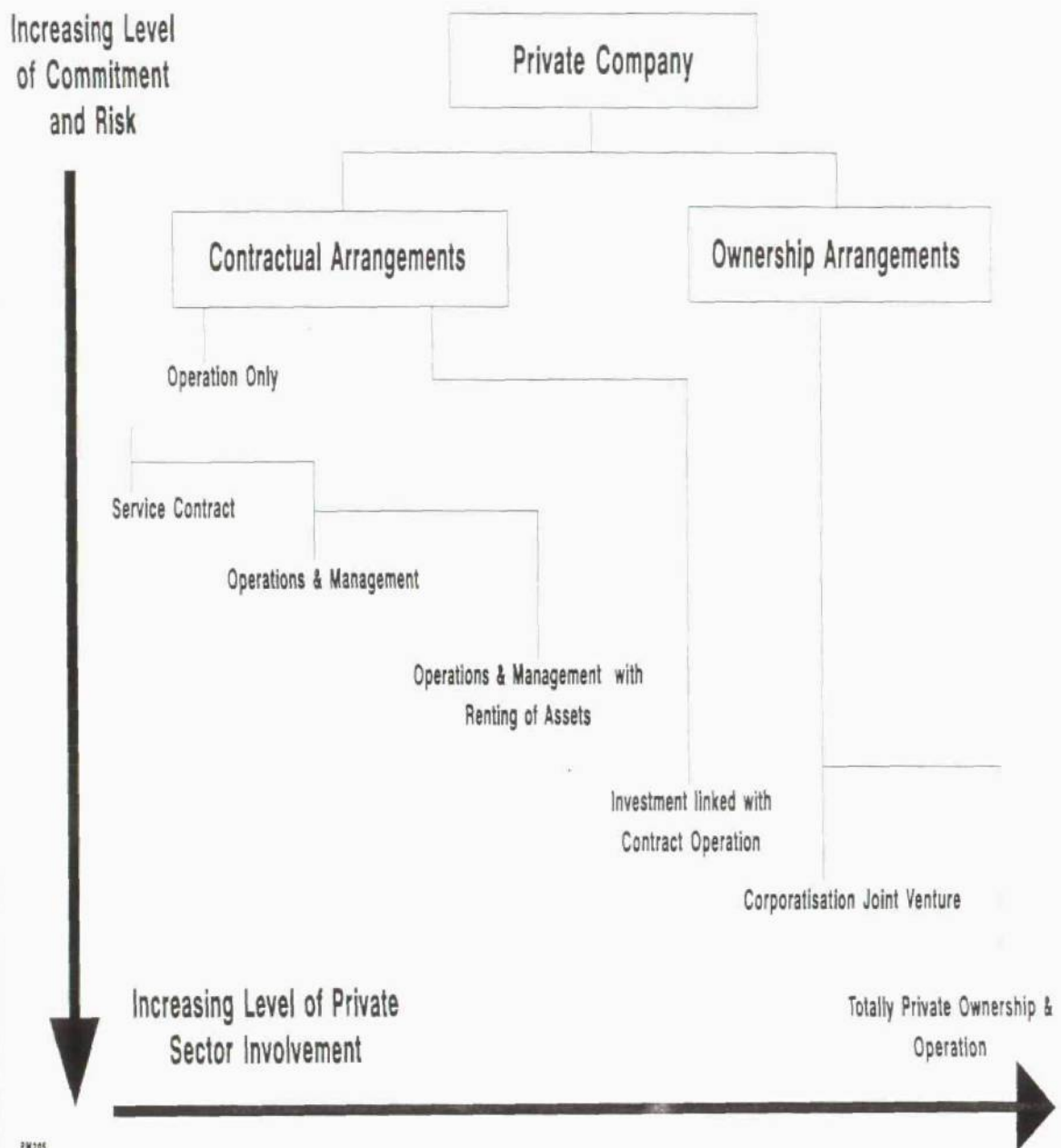
The options that can increase the efficiency and effectiveness of water supply and sanitation by local authorities include:

- the ring-fencing of the service into distinct business units with independent financial flows. This is an option that is available to local authorities to improve efficiency and effectiveness. As it does not involve the private sector it is not considered further in this document.
- the corporatisation of local business units for service delivery.
- involvement of parastatals or private sector companies in service delivery through:
  - service contracts
  - management contracts
  - renting of assets (known internationally as concession contracts or leasing of assets)
  - investment linked contracts and
  - full privatisation of service delivery.

Contractual arrangements vary over a range of options commencing with the contracting out of specific operations and extending to total transfer of the assets to the private sector. The level of commitment and risk increases commensurate with the degree of participation by the private sector as depicted diagrammatically in figure 1.



Figure 1: Range of Contractual Options



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## 5.1 *Commercialisation, Joint Ownership or Corporatisation*

"When the public sector, and more specifically, a local authority, endeavours to commercialise a function or activity, it experiences various constraints such as:

- an inhibiting legal environment
- a lack of knowledge and expertise in this field
- a fear of the unknown and especially the perceived risks involved
- the lack of support from other departments or divisions merely because the commercialised activity or function is singled out.

"In view of the stumbling blocks encountered by local authorities en route to full privatisation, the Legislator deemed it advisable to provide enabling legislation. This was done through an amendment in 1991 to the Promotion of Local Government Affairs Act No 91 of 1983. The gist of this amendment (Sections 17 (D) and (E) of the amended Act) is that a local authority is now empowered to either establish a company or acquire shares in a company registered in terms of Section 1 of the Companies Act No 61 of 1973.

"The main proviso is that the objects of such a company shall be the performance of a function or a service which is typically and legally rendered by a local authority. In terms of the memorandum of such company, the local authority must systematically reduce its share holding in the company in accordance with the programme contained in the memorandum. The support and concurrence of a management body within the area of jurisdiction of the local authority is also necessary."

"In order to prevent a company from changing its functions and especially where a local authority is required by law to perform such functions, the memorandum of the company must irrevocably grant a determining vote to the local authority to prevent the discontinuation of such functions by the company."

"In terms of Section 17E of the Act the local authority may, with the consent of its employees, transfer or second such employees to the company provided that the conditions of service shall not be less favourable than those applicable to him at the date of such transfer."

One example of corporatisation has been the creation of a Section 21 Association in Gauteng which was formed to operate the wastewater treatment works serving 22 local authorities. Considerable benefits resulting from the scale of the enterprise have accrued.

## 5.2 *Service Contracts*

Service contracts are the simplest form of private sector participation, whereby the local authority retains overall responsibility for the operation and maintenance of the system, except for specific, limited scope services that are contracted out or out sourced. The local authority also bears all the commercial risk and must finance fixed assets as well as working capital. The responsibility of the private contractor is limited to managing its own personnel and services efficiently.

The range of services covered by this form of contract is typically confined to emergency operations, design of new works, construction of new works, meter reading, billing and debt collection, specific refurbishment items and operation of works for a fixed period and specific maintenance contracts.

A local authority may consider such an option when there is a shortage of technical skills and/or manpower, whether over a particular short term crisis or specific project. Examples of these would be the expansion of the system, the call for the operation of a treatment works due to the sudden loss of a key staff member, or on the assumption of responsibility for new areas of supply, the delegation of meter reading to the private sector or the placing of a contract for the regular cleaning of the sewers on a preventative maintenance programme with a 'when and if' clause for the clearing of blockages. There are many more possibilities for the involvement of the private sector in this type of contract.

The duration of a service contract is generally short and may be as little as a few months for overcoming some unique problem, or if it involves the contractor mobilising and employing significant resources, or where local knowledge and experience will lead to greater efficiency then the period may extend to up to five years.

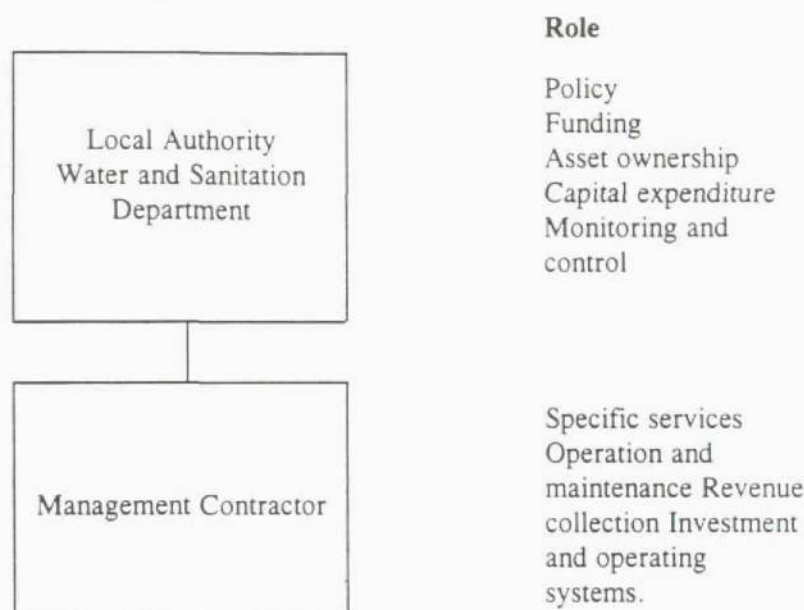
### 5.2.1 *Features*

- the exposure to risk of either of the parties is low
- the local authority can overcome any particular problem relatively easily and does not have any long term commitment
- the local authority does not relinquish any of its managerial functions and remains in full control
- the contracts are straightforward and in consequence are relatively easy to administer
- payment is related to the work performed
- allows a regular review of the need for any changes in the work that is being undertaken
- the contracts can allow for the training and capacity building of local authority personnel
- must be funded directly by the local authority.



### 5.3 *Management Contracts*

A management contract allows local authorities to obtain assistance from the private sector for the provision of specific services. The services might involve the operation of a water care works, the training of staff or the management of a water leakage control programme. The key feature of the contract is that the contractor is required to provide clearly specified services for which he is paid directly. The basic responsibilities of the parties to the contract is shown diagrammatically below:



The local authority retains ownership of the infrastructure and is also responsible for capital expenditure. The local authority water and sanitation department monitors and controls the management contractor in accordance with the terms of the contract.

This form of contract may be short or long term with a duration of between 2 and 20 years. The emphasis within the document is in specifying the outputs that are required from the contractor and the timescale within which they should be delivered.

Contracts of this type comprise a continuum of options ranging from short term contracts where the local authority retains most of the responsibility and the contractor carries out specific tasks without any requirement to improve the way the service is offered to longer term contracts where the specialised skills of the contractor are used to improve the way the service is rendered. In other words in the short term contracts the contractor only carries out the instructions of the local authority. At the other end of the spectrum is the type of contract where the local authority requires the contractor to make significant improvements to the way the service is rendered. In order to achieve this the contractor may invest in different systems to improve operation and improve the sustainability of the service. Examples of both type are described below:

### 5.3.1 *Examples*

#### Contract A: short term

Local Authority A has a wastewater treatment plant that is not producing effluent to the required standard. It has lost the skilled personnel that used to operate the plant and is facing prosecution by the Department of Water Affairs and Forestry. The local authority issues a tender which requires that a private sector company provides the necessary skilled manpower and operates the plant to the required standard and over a contract period of five years trains the lower skilled employees of the local authority to take over the operation by the end of the contract. Prospective tenders tender on the basis of a monthly fee which will be paid to them by the local authority.

#### Contract B: longer term

Local Authority B is experiencing huge water losses from its reticulation system and has difficulty collecting the revenue due to it for the water supply service it is rendering. In addition it has to extend the supply of reticulated water to underserved areas. In this case the local authority issues a tender requiring the contractor to take over the management of the water supply service including the collection of revenue. The tender requires that the unaccounted water must be reduced; that the revenue collection must be improved and the service extended within certain specified time frames. Prospective tenderers will tender on a different basis than the example above. The contract will be for a longer period in the order of twenty years and the contractor will invest money in new computer systems to manage the billing; will introduce new techniques to measure and deal with unaccounted for water. The extension of the service will require investment in the early part of the contract which will later be offset by the increased revenue. In other words the investment that the contractor makes to improve and extend the service at the start of the contract will be offset during the latter part of the contract by the increased revenue. The tenderer is thus able to tender on a unit price for the delivery of water based on his specific knowledge and the investment that he knows he will make during the term of the contract.

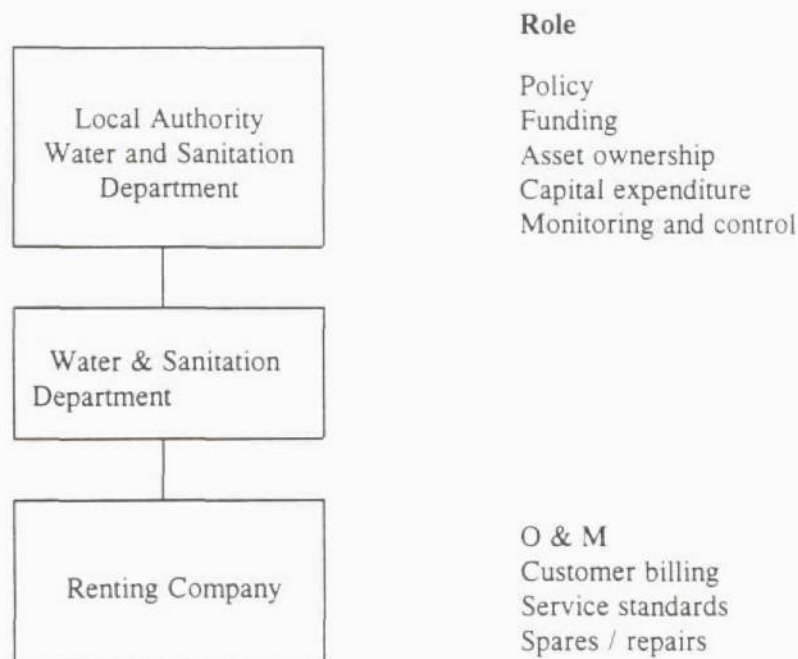
The management contract has been used extensively by multilateral lending agencies who wish to see special management skills introduced to installations whose construction they have funded or by water and sanitation departments who recognise specific shortfalls in their in-house skills.

### 5.3.2 *Features*

- The management contract is simple and straightforward and can be let within a short timescale.
- This form of contract is ideal when a rapid response is required to specific problems.
- The management contract represents a minimum level of involvement by the private sector in infrastructure services. Whilst the contract may contribute to the efficiency of the operations it does not address the problems of under investment.
- The risk or cost of operating the water system is not necessarily transferred to the private sector.

## 5.4 *Renting of Assets\**

A rental contract provides local authorities with a mechanism of transferring the responsibility for operating a water or sewage system to the private sector whilst retaining control over investment and expansion of the system. The normal form of the contract requires a contractor to assume complete management responsibility for all system operations. In a water system this responsibility may extend from water treatment and distribution to billing and revenue collection. The diagram below illustrates the basic responsibilities of each party.



The diagram shows that the local authority retains ownership of the assets which are needed to provide the service and that it also responsible for capital investment. This type of contract usually has a duration in excess of ten years. The contract specifies service standards and reporting requirements and the period within which they are to be achieved but leaves the contractor freedom to manage the water supply or sewage services in the most efficient way to achieve the quantity and quality standards agreed. Payment is related to the volume of water or wastewater that is handled.

### 5.4.1 *Example*

An example of a rental contract would be where a contractor is invited to take over the operation of a raw water borehole system, water treatment plants and a water distribution network. The contractor would bill and receive revenue from customers. The revenue would be used to meet all of the operating costs for the system. The link between revenue collection and operating costs provides the contractor with a continual incentive to increase the efficiency of the water supply

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\* This is normally known outside of South Africa as "Leasing of Assets".



system. The tariffs which the contractor is allowed to charge for the water supplied is controlled by the water and sanitation department through a periodic review process. The review provides an opportunity for the water and sanitation department to share with the contractor some of the efficiency gains that have been made by controlling tariff rises at less than the rate of inflation and in this way the benefits of improvements in efficiency are shared between contractor and customers. During the contract the contractor is required to maintain in good operating condition, the assets which he uses, with allowances made for wear and tear. The water and sanitation department may decide to extend or improve the water supply assets during the term of the lease contract. Provision can be made within the contract for the scope of the contractor's responsibilities to be increased.

The rental contract is widely used in Europe and has also been introduced to South Africa where its application has been linked to the completion of investment programmes.

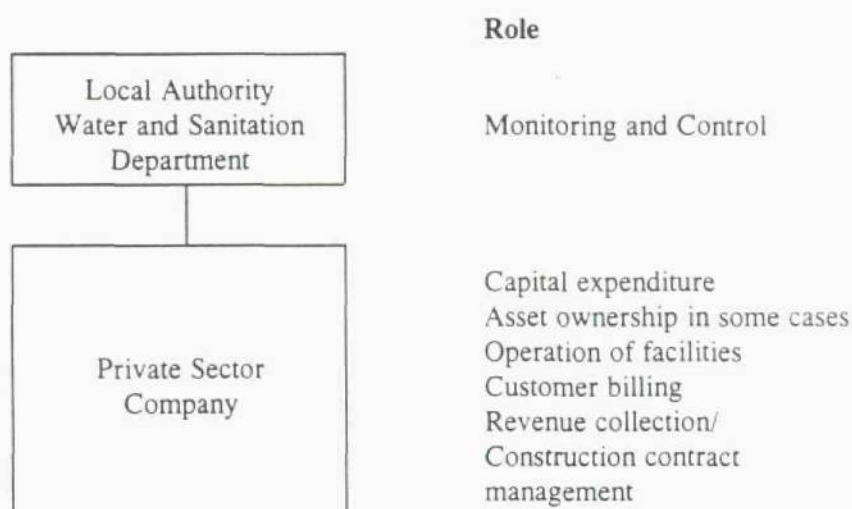
#### 5.4.2 *Features*

- The rental contract is a straightforward method of transferring the risk and responsibility of operating a water or sewage system to the private sector.
- The form of contract is proven and exists in standard forms which can be readily adapted to specific circumstances.
- The introduction of the private sector can provide a continual drive for efficiency which can be shared between contractor, the end users and the local authority.
- The local authority department retains ownership of the assets used for the water supply.
- The rental contract represents a major transfer of operating responsibility to the private sector.
- The form of contract does not remove the burden of new investment from the local authority.
- It is important that there should be good quality information about the water system that is going to be operated before a rental contract proceeds.
- A detailed study is required before a project can be initiated.

## 5.5 *Investment Linked Contracts\*\**

The investment linked contract (or concession) provides a mechanism through which local authorities can obtain investment in infrastructure without providing the funds from their own budgets or through loans secured on the capital market. Under this arrangement a local authority grants a concession to a private entity to finance, build, and operate a facility for a pre-agreed period of time. This type of contract must be distinguished from the situation where in order to make use of the financial engineering techniques which are available to the private sector and not the public sector, a special purpose company is formed by a (usually) a financial institution to optimise financial instruments like depreciation allowances and tax incentives. With this type of arrangement no technical input to the operation of the service is provided by the private sector company involved.

The infrastructure which is provided by the private sector may accommodate a specific or complete service within the area served by a particular local authority. A diagram showing the allocation of responsibilities is provided below:



The diagram shows that the water and sanitation department continues to monitor and control the water supply or wastewater collection system but that it calls upon the private sector for specific investment and service requirements such as a bulk supply of treated water or the treatment of

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\*\* Also known under different variations to the form of contract as:

- Build, Own, Transfer (BOT)
- Build, Own, Operate (BOO)
- Build, Own Operate, Transfer (BOOT)
- Delegated Management
- Commission Contract.

The company structure would differ according to the particular option adopted.

wastewater which it has collected. The concession normally has a duration of between 15 and 30 years. This length of contract is required to provide the private sector with time to repay the lenders and investors who have funded the original investment. The water and sanitation department retains the responsibility for monitoring the performance of the concession but does not intervene in detail about how the concession is operated from day to day.

#### 5.5.1 *Example*

A typical investment linked contract may involve the award of a contract to a contractor within which he is required to construct a water or wastewater treatment plant with a specified treatment capacity. The contractor will be required to establish a local special purpose company which has the responsibility for executing the contract. The company attracts investment and borrowing which enables it to finance the construction of the facilities which are required by the concession. The local company has no specific design or construction expertise and as a consequence it is normal for the company to let sub-contracts for this. When the construction phase of the project has been completed the concession company provides the treatment service and is paid directly by the water and sanitation department from revenues which it has collected from its customers. The payment is normally based upon a charge for each cubic metre of water or wastewater treated although there are likely to be fixed charges or minimum off take requirements to ensure that the company's fixed costs can be met in all circumstances. The concession company has a long term responsibility for the services and as a result is vulnerable to the effects of inflation, of interest charges and in some cases exchange rates. It is normal for the tariff which it charges the water and sanitation department to be adjusted annually using indices which reflect the movements in its costs such as labour, power, chemicals and finance.

Investment linked contracts have become an established way of securing private sector investment. The mechanism has been used extensively in the power sector and is now being used to provide water and sewage treatment facilities worldwide.

#### 5.5.2 *Features*

- The investment linked contract is an effective mechanism through which local authorities can secure investment in infrastructure without providing direct financial guarantees or public funds.
- It removes the risk of design, construction, cost overruns and construction management from the local authority.
- At the end of the period a fully operational and well maintained installation is transferred back, at no additional cost to the water and sanitation department.
- Investment linked contracts represent a transfer of financial and operating responsibility to the private sector which can have major benefits for the public sector in its quest for greater efficiency whilst allowing it to retain control of strategy and planning.
- The investment linked contract transfers a water and sanitation department's responsibilities to the private sector except those for which it is legally liable.



- The responsibility for revenue collection from customers is retained by the water and sanitation department as well as the responsibility for staff employment and the investment associated with services not covered by the contract.

## **5.6**    *Privatisation*

Privatisation means the complete ownership of the infrastructure required for the delivery of service by the private contractor. The contractor is thereafter entirely responsible for the operation, maintenance and extensions to the facilities as well as the metering, billing and debt collection for the financing of the operations.

Government policy on privatisation is still being formulated and this option is therefore not considered further in this document.

## **5.7**    *Concluding remarks*

The discussion of alternative service options provided above is not intended to be an exhaustive exposition of what is available. This section must be seen as an introduction to an extremely complex range of options which allows each local authority which is contemplating the engagement of the private sector to develop an option which is tailored to its specific circumstances. In general terms the longer the contract which is envisaged the more preparatory work is needed to prepare the tender documents.

## **6 POLICY PRINCIPLES**

The following principles have been used as the basis for the procedural guidelines for the engagement of the private sector in water and sanitation services.

### **6.1 *Procedures for the Engagement of the Private Sector must be Transparent***

The steps to engage the private sector should be taken in such a way that all the stakeholders are aware of what is being done and why. Most importantly they need to be aware of how it is being done and thereafter to know what the benefits will be. Tender procedures must be strictly observed in the interests of good governance and transparency. The unit cost of the service should be published.

### **6.2 *Performance of Service Providers to be Monitored***

The standards of the service that is being provided should be maintained at an acceptable level. The required standard must be defined and monitored. The results of the performance evaluation must be published whether the service is provided provider is a private or public sector entity.

### **6.3 *Technology Transfer and Capacity Building***

Adequate measures must be incorporated to ensure that skills developed during the execution of the contract are transferred to individuals where applicable. This is particularly so in the case of short term contracts. In cases where employees have to be recruited, preference must be given to applicants from the communities to be served. The capacity of new employees to undertake the relevant tasks must be built up to create competency.

### **6.4 *Service Providers must adhere to Sound Environmental Principles***

The services need to be provided in a manner that does not cause the degradation of the natural or man made environment.

### **6.5 *Local Authority Personnel***

Personnel affected by any engagement of the private sector should not be disadvantaged in respect of their conditions of employment as a result of such engagement.

### **6.6 *Service Providers must be Accountable to the People Served***

Whether it is the public or the private sector, the organisation that is providing the service must be accountable to the people that are being served. Mechanisms that enhance accountability to the end user must be developed.

The engagement of the private sector in service provision does not relieve the local authority of responsibility for service provision. The local authority remains ultimately responsible for the provision of the service, whether this has been delegated to a third party or not.

#### **6.7 Access to the Market**

While it is not intended that these policy guidelines should be in any way be considered exclusive, it is important to ensure that contenders in the field have the necessary background and support base to fulfil contractual obligations. Local authorities may wish to consider a phased approach to the issuing of contracts in order to promote development of new entrants to the market.

#### **6.8 The Service Provider must be responsive to the Needs and Problems of the Customers**

Mechanisms that allow rapid response to customer needs must be developed and introduced. The extension of existing infrastructure networks, for example, is going to place considerable pressure on customer complaint handling systems. The introduction of the necessary support systems to accommodate these needs will be an essential prerequisite for any service provider.

It is in the interests of the end-users to make known what they require from the service industry and for the service providers to respond in a manner that fully meets these requirements.

#### **6.9 Provision of Infrastructure must be Sustainable**

The provision of infrastructure must be undertaken in such a way that the service will be provided in a sustainable manner. This means that the service must be extended in an equitable manner to all sectors of the population, that one area is not favoured over another, that the revenues obtained will allow for the continued operation and maintenance of the service at an agreed level and standard.



## 7 OUTLINE OF STEPS TO BE TAKEN

The guidelines that follow are provided to assist local authorities which are contemplating the engagement of the private sector, to do so in a meaningful and positive manner. It does not purport to be a manual of practice covering every possible contractual permutation, but seeks rather to guide the local authority through a series of processes, each adapted to the local circumstances. Nor is it a substitute for obtaining competent professional advice through a team of advisers in the managerial, financial and technical disciplines.

### 7.1 *Preliminary Assessment*

It is recommended that a local authority considering Private Sector Participation should set up an internal task team to investigate the need for and form of such participation. The task team should include officials from the Treasurer's Department and the Water and Sanitation department, and could be expanded to include members of the Council and Union Representatives.

The initial investigations would be a review of the status quo, with identification of major problems and priority areas for improvement. The investigations should include items such as the following:

- identify and analyse the full costs of service delivery, as if the service were a separate self-financing organisation (a notional "ring-fencing" exercise) and compare with the current income
- from the above estimate the unit cost of the service (eg cu.metre of water supplied, or sewerage point served) and compare with the current tariff
- assess current water "losses" by comparing the amounts treated (or purchased in bulk) with the amount billed/invoiced/collected, or compare the quality of the wastewater effluent with Gazetted Standards
- identify major problems with 1,2 and 3 above and consider ways of addressing them
- evaluate and discuss the complaints received about the service over the last year
- evaluate how well the service has achieved its own service and quality objectives
- assess the adequacy (numbers, skills, competencies etc) of present staff to meet its objectives
- estimate future service needs for rehabilitation, extensions, and the level of investment needed to achieve this.

The above analysis will provide a very rough indication of the state of the service operation. It is not meant to be a major study but should be done by in-house staff with or without external assistance which would stimulate staff to think about the total operation, and not just their immediate responsibilities.

Armed with this analysis, task team members could then look at the various actions and options that could improve the service, such as in-house reorganisation, engaging the community, co-operation with a water board or the possibility of private sector participation. All these actions and options should be directed to achieving specifically determined gains in efficiency and cost savings as well as improved levels and standards of service.

The task team may, at this point, consider calling on other local authorities to observe and discuss their experiences with different forms of private sector participation. (It is intended to compile a directory of organisations and people who could help with this.) It could also begin to expand the task team with an external expert or two. This might be the time to expand the debate within the council to increase the number of people who learn about the options and to allay any fears from the end users.

When a local authority reaches the point where the engagement of the private sector in service delivery is being seriously considered, a Project Team should be created.

## **7.2     *Creation of a Project Team***

The complexity and nature of long term contracts makes it imperative for the local authority to appoint a multi-disciplinary team of professional advisers. The nature of the contract that is envisaged will determine the composition of the team. It should be noted that very few firms in South Africa have all the expertise that is likely to be required and the experts will have to be drawn from different firms. The disciplines needed will cover business and financial management, legal as well as the engineering and technical fields.

The financial expertise required, includes a knowledge and understanding of local authority accounting procedures and regulations, experience of commercial accounting methods and approaches as well tax law and financial engineering.

The managerial expertise must cover such facets as company formation, strategic planning, policy formulation, labour practices and trade union negotiations, and organisational aspects.

The legal side involves knowledge of the various acts and ordinances governing the duties and powers of local authorities, contract law, labour law and commercial law.

The technical expertise must encompass knowledge of bulk water supply, storage and distribution, the management of networks and the treatment of water and wastewater, as well as alternative sanitation systems. Specialist experience in rural and informal settlement areas may well be needed in some areas.

The local authority may wish to select the team from its regular panel of advisers and consultants. Where this is absent or lacks the necessary specialist expertise the appropriate professional association(s) should be approached if advice is needed on the appointment of the members of the project team.

### 7.3 *Evaluation of the Status Quo*

It may be necessary to expand on the in-house investigation referred to above in order to further define the status quo of the local authority. The results of this investigation will form the basis of the tender specification if the local authority should decide to proceed with the engagement of the private sector.

#### 7.3.1 *Financial*

The financial examination must cover:

- the debt situation, i.e. the number, value, terms and period of repayment of all outstanding loans that have been raised in the past for the provision of infrastructure. This will affect the position of the local authority in raising future loans to finance water and sanitation investment as well as other non revenue earning infrastructural requirements.
- the actual costs of service provision, taking into reckoning all the overheads that are incurred and may be charged to outside accounts, all the inter-departmental charges that are not raised against any specific undertaking as well as the provisions for the maintenance and replacement of equipment.
- the level of cost recovery that is being achieved, the number and amount of the bad debts and the probability of these being paid, together with an analysis of the reasons for default in payment.
- the tariffs being charged and the appropriateness of these, whether these are being used to cross-subsidise particular consumer categories or other services.

#### 7.3.2 *Technical*

The technical evaluation must cover aspects such as:

- a preliminary and broad inventory of the infrastructure assets, including an estimate of condition of the components to assess the need and time of replacement and to indicate to tenderers the extent and condition of the infrastructure.
- an evaluation of the standard of service being provided and compared with available benchmark values, covering such aspects as:
  - unmetered water connections, the extent of metering coverage and reading, accuracy of metres and the readings
  - adherence to standards
  - response times
- levels of staffing, job specifications and utilisation of all the personnel.

**Note:** If benchmarks and standards have not already been established, this is the opportunity to do so.



### 7.3.3 *Legal and Administrative*

The context within which this evaluation is made will be dependent on the nature of the involvement of the private sector that is being contemplated after the financial and technical evaluations have been made. The following could need assessment:

- jurisdiction and proclaimed area of the local authority
- effectiveness of the administrative procedures and the use of staff.
- compliance with applicable Acts and Ordinances

## 7.4 *Involvement of Stakeholders*

The procedures that are outlined below are not intended to be exhaustive but to stimulate service providers in formulating their own customised approach.

It is essential when making a fundamental change to the structure of the operating methods to encourage the participation of the public and other stakeholders. The first step in this process is to identify the stakeholders and their legitimate interests and concerns. Thereafter resolve any conflict of interests that may have arisen, record the decisions that are finally taken and publicise these so that there can be no subsequent differences arising from misunderstanding.

### 7.4.1 *Identification of stakeholders*

It is important to identify all the stakeholders at an early stage and it may be advisable to advertise publicly the intention to consider the engagement of the private sector, particularly where a long term contract is contemplated. Stakeholders may include:

- ratepayers and residents associations
- civics associations
- development committees
- the officials who would be responsible for the administration of any ensuing contract
- members appointed by the local authority
- the officials whose jobs would be directly affected by the intervention
- the trade union representatives
- the suppliers of bulk water, if not the local authority

- adjacent Water Board (if relevant)
- Services Councils (where relevant).

#### 7.4.2 *Identification of issues facing the stakeholders.*

The role of the parties and their interest in the proposed changes need to be defined in order to confine the discussions to the relevant issues. They should be agreed at the outset of the discussions and not departed from unless any really important matter arises during the subsequent debate. These issues could cover:

- the purpose in engaging the private sector
- the benefits that will accrue as a consequence of engaging the private sector
- the proposed duration of the contract
- the level of service
- the standard of service
- the influence of these on the tariffs and charges;
- the accountability of the parties to the contract;
- redress in the event of poor delivery
- continuity of employment for the officials who will be directly affected by any change of management
- terms and conditions of employment, if they are going to change
- possibilities of alternative employment with the local authority
- retirement packages, if there can be no continuity of employment.

#### 7.4.3 *Resolution of stakeholder conflicts of interests, final record of agreements.*

All the opposing points should be resolved by consensus after taking into account the arguments in favour and against.

In the interests of transparency it will be necessary to communicate to all the parties concerned the outcome of all discussions, not held in plenary sessions..

At the conclusion of the discussions it is essential that all agreements and resolutions are correctly recorded and disseminated for confirmation of the agreements. These should be clearly spelt out and unambiguous.

## 7.5 *Investigation of Alternative Delivery Mechanisms*

### 7.5.1 *Determination of feasibility and repayment costs*

This Section applies mainly to managerial-type contracts of the longer term where an expansion of the capacity of the system is contemplated and covers the detail work of quantifying the benefits that are likely to accrue as a result of using the private sector. It involves the preliminary design of the works being considered in order to establish the real capital cost under normal competitive conditions as well as calculating the complete life cycle costs for the projected works. These life cycle costs should include all the normal maintenance and replacement costs for the existing plant and equipment. The feasibility study will form part of the tender document and provide the tool for the evaluation of the tenders when they are received.

### 7.5.2 *Evaluation of the effects of different options available*

As in most feasibility studies a number of options needs to be considered before the best course of action can be selected. In a feasibility study such as this the options cover not only the best technical possibility, but also the alternative forms of contract and the estimated effect of each on the price of the service. This is a complex task.

The factors that will have to be considered include, but are not limited to:

- the period of the contract and the effect of extending and reducing the period of loan repayment. Clearly future extensions of the scheme need to be taken into account at the same time
- the asset replacement policy and the consequences of allowing for increased maintenance costs to keep old equipment in working condition
- the effect of a partnership-type of agreement versus concession or leasing agreement.

### 7.5.3 *Final selection of the course of action to follow*

The final selection of which course to follow will depend on the feasibility analysis. It should also have made the local authority aware of its own capabilities and costs and whether if cost saving is the sole reason for engaging the private sector it can better the costs that are likely to be received from a private contractor.



## 7.6 *Risk and Risk Management*

In order to make the project more favourable to the investor it will be necessary to secure the risks so far as this is possible. This may be done in a variety of ways according to the type of risk. It is important though to clarify certain aspects:

- There must be a thorough understanding of the risks involved. This can only result from an exhaustive analysis of the project to identify the risks covering the full duration of the contract.
- The risks so identified should be well defined and accurately described so that there can be no dispute should the circumstances identified actually arise.
- All the risks must be allocated to the various parties to the contract and the responsibilities for the risks set out.
- Be sure of the ability of all the parties to carry the risk allocated to them or to set off the risk through appropriate financial instruments.

The risks are categorised below.

### 7.6.1 *Construction risks*

The risks arising from construction activities are generally well known and understood. These can come in the form of:

- delayed completion resulting in the operating contractor being unable to provide the service that is required in terms of the contract either in regards to quantity or quality or both. This type of risk can be minimised by good project management of the construction activity with early warning systems and by taking effective action should delays manifest themselves
- failure to complete the works at all resulting from the default of the construction contractor. This type of risk is usually secured through a performance guarantee by a surety
- cost overruns resulting in costs that are too high in relation to the income that can be generated through the project. The risk may be offset by ensuring that the construction component of the project is fully defined with guaranteed fixed costs by the construction contractor or with a target-price contract.

### 7.6.2 *Risk resulting from delayed start*

This is the risk that delay may prevent the contractor from being able to start delivering the service on due date, resulting in lost revenue, and higher interest costs. As this type of risk could be allocated to more than one of the parties involved in the contract, there

must be very clear definition of which party carries the responsibility under the different possible causes of the delay

#### 7.6.3 *Performance risks*

These are the risks of being unable to deliver the required quantity or quality as a result of some problem with the new works. There are many possible reasons for such breaches and these need to be defined and the responsibilities allocated. The allocation must be done prior to drawing up the contract. It is also wise to allow a period for commissioning and running in before full capacity and defined quality are due to be delivered.

#### 7.6.4 *Commercial risks*

These are the risks that are linked to the consumers and result from a deviation of the projected demand which could affect the cash flows negatively. For example, where water is being supplied directly to the end user, this risk is normally taken by the operating contractor whereas if it is a bulk supply, then the risk can be accepted by the local authority as well as the operating contractor.

Another risk results from the failure of the end user to pay for the service as a result of incorrectly applied and calculated tariffs. There must be provision in the contract for the revision of the tariff by the local authority under such circumstances.

The other form of payment risk is when the end user does not pay the tariff or delays payment significantly. In these circumstances it is usual for the local authority to have to accept the risk and pay the necessary subsidies for the service.

#### 7.6.5 *Operational risks*

These are the risks resulting from changed operating conditions affecting output or causing increased costs in order to overcome the problem. Such risks are more commonly borne by the operating contractor.

#### 7.6.6 *Political risks*

Certain of these can be insured, for example, war, terrorism, nationalisation and exchange control regulations. Other types of political risks are not insurable, such as strikes, change of fiscal or environmental legal frameworks. If the local authority is unwilling to accept any of these types of risk, it could mean that the contract must be discontinued. In such circumstances the responsibilities of the parties needs to be clearly defined in regard to the acceptance of the costs of debt service, the responsibilities to staff, etc.

#### 7.6.7 *Legal risks*

The legislation that will be applicable should be defined in the contract as well as the procedures that will be followed in the event of a dispute. An additional risk that the contractor may face, although unlikely under South African conditions, is the legal status

of the local authority with which it is entering the contract. There have been instances overseas where contracts have been declared invalid as a result of the status of the local authority being in dispute.

Other risks of a legal nature concern the ownership of the plant and equipment that is being used by the local authority. For example, is it fully owned, or the subject of a lease agreement? Are any immaterial property rights applicable, e.g. copyright or patents.

#### **7.6.8 *Currency Exchange***

This is only relevant where the contract is with an overseas firm which wishes to be paid in the currency of its own country. In this case the contractor should take all the risks resulting from exchange rate variations.

#### **7.6.9 *Interest Rates***

Interest rates have fluctuated over a remarkable range over the past 25 years, from as low as 7% to as high as 20%. Similar changes can happen in the future and a mechanism needs to be established defining the range within which there would be no variation of the contract. Should interest rates move out of the agreed range, then there should be procedures for negotiation of variations to the contract.

#### **7.6.10 *Financial risk***

It is usual for the contract to be signed before the financiers have given final approval to the financial arrangements and therefore there is the risk that the promised finance may not materialise. The risk of this happening is reduced by ensuring that all the other risks are minimised, apportioned in a satisfactory manner between all the parties involved in the contract and where possible underwritten by another party.

### **7.7 *Preparation of Tender Documents***

The type of contract that is envisaged will determine the nature of the document and the effort that will be required to prepare it. A clear statement should be made of the objectives that are to be achieved and the nature of the contract to provide tenderers with a clear understanding of what they are tendering for.

The preparation of a tender for the private sector involvement in the provision of water and sanitation services is expensive for the tenderers. It is equally time consuming for the local authority and its representatives to evaluate all the tenders received. The internationally accepted method in these circumstances is to allow prospective tenderers to submit details of their organisations, previous experience in similar or related contracts, technical abilities, human and financial resources and availability in order to pre-qualify.

In terms of the Ordinances presently applicable it is not possible to pre-qualify tenderers. This applies to all the provinces except KwaZulu/Natal where, in terms of the Local Government Ordinance (No 25 of 1974), Clause 187(30), the local authority Council may adopt a resolution



authorising the pre-qualification of tenderers. It is intended to recommend to the relevant minister that this aspect of the provincial ordinances be reviewed.

The tender document may indicate certain expectations of the local authority in regard to the size of the organisation, experience, staffing and availability of staff that it expects for the contract envisaged.

#### *7.7.1 Performance Standards*

The tender documents for private sector services need to define the requirements of the local authority in regards to performance in simple, clear and precise terms, particularly if intended for emergent contractors. The key performance indicators of satisfactory service must be defined and quantified so that they can be monitored and controlled. The time within which the system is to be brought into compliance with these standards should also be stated. Some indicators which may need to be used include:

- water distribution

Unaccounted for water needs to be accurately measured in relation to the quantities metered and from this an acceptable and realistic plan be established in order to reduce it to acceptable proportions. Accuracy of metering is to be specified together with the methods that will be adopted to check this.

The service pressures need to lie between defined values in all parts of the area of supply and under all conditions of draw-off. The maximum design draw-off should be specified.

- water supply

Storage requirements should be specified together with the minimum acceptable draw down for emergency storage.

- on-site sanitation

The extent of the coverage, the quality of the facility together with any requirements for maintenance and removal of accumulated solids should be stated.

- sewer networks

The contractor should be required to carry out maintenance cleaning over a pre-determined length of sewer within the required timeframe.

- equipment maintenance

Equipment needs to be maintained to specific standards, generally as covered in the suppliers' manuals. In addition there can be clauses laying down preventive maintenance procedures to be undertaken by the contractor.

- replacement of assets and the provision of new assets

A definite plan of action is required in regard to the replacement of assets that have either reached the end of their economic life, are becoming obsolete, or lack the efficiency of modern equipment. The plan that the contractor should follow should be laid down in the initial enquiry document. Such a plan should include for the financial provision to be made each year to cover the replacement of the asset at the planned period.

- customer response by contractor

Customer response is measured by the time the contractor takes to respond to requests and complaints, etc from the end-users. It can relate to the time taken to reply to a letter, to correct errors in the billing of accounts, or to the time taken to restore service when this is disconnected during a planned maintenance shut-down.

- failure response times and containment

Should there be a failure, a street blockage of a sewer or a burst pipe, the contractor should respond to the emergency within a specified time. A range of required times should be laid down in the enquiry document to which the tenderers should respond and lay down the times that they expect to be able to meet.

- quality standards

The quality of the water to be put into supply or the effluent to be discharged must be clearly specified. Tenderers should also be furnished with data on the quality of the raw water and the raw sewage, where applicable.

- extension of service

The extent to which backlogs, in the service delivery must be addressed and over what time period must be specified.

#### 7.7.2 *Reporting, Monitoring and Penalties*

The contractor should report on the operations that have been carried out and the results achieved. The reports that will be required must be stated in the document, together with frequency, content and format.

For each of the performance standards that are specified, the tender document must contain clear descriptions of how performance will be monitored by the local authority. This will cover the frequency, methods of measurement and the manner in which the results will be reported.

The penalties that will be applied in the event of deviations from the specified standards must be scheduled. The amount of the penalty should be commensurate with the damage that would be suffered by the local authority as a result of the non-compliance. A provision should also be made in long term contracts to adjust the amount of the penalty to take into account the effects of inflation.

#### *7.7.3 Engagement of Officials*

It is a fundamental principle that no one should become disadvantaged as the result of private sector involvement in the water and sanitation industry. Arrangements need to be made in terms of the original contract for all employees of the local authority either to be:

- re-employed by the private contractor
- transferred to another department of the local authority

The terms on which local authority employees are re-employed should be no less favourable than those on which they are employed by the local authority and take into account pension rights, the quality of the pension scheme, normal and sick leave, maternity benefits, housing and other allowances, and all matters in the current employment contract.

#### *7.7.4 Risk Allocation*

In any enquiry document, and the subsequent contract resulting from the enquiry, should allocate risk to the various parties in clear and precise terms.

The type of risks that must be catered for are typically:

- non payment by the end-user for the service
- failure of the primary source of water
- premature failure of plant and equipment due to latent defects
- inaccurate predictions of future demand and hence revenue in order to secure finance
- failure of the local authority to prevent illegal discharges into the sewer system
- foreign exchange fluctuations.

#### *7.7.5 Training and Capacity Building*

The tender document should set out the training the contractor must provide for the local authority staff. This is most pertinent in service contracts of short duration. The specification should describe the course or curriculum to be followed, the on-site training to be provided as well as the standards and competencies that should be achieved.



## **7.8 *Evaluation of Tenders Received***

### **7.8.1 *Determination of local authority benchmarks in terms of the enquiry document.***

The work done by the project team in preparing the initial feasibility study will have served to indicate the costs of operating, maintaining, upgrading, refurbishing and extending the scheme if done by the local authority. The local authority and its engineers must be quite certain of its own costs in relation to those tendered by the private sector. The study therefore should cover all the operations needed, in particular those giving direct service to the end-users and involving public response.

### **7.8.2 *Removal of inequalities in the submissions to ensure that the offers are compared on an equal basis.***

At the commencement of the evaluation the tenderers that do not comply with the expectations laid down by the local authority in regards to size of organisation, experience, staffing and availability of staff should be rejected and not considered further as low prices will not compensate for lack of ability, capacity and experience.

It seldom happens that tenders of this nature can be directly compared without first ensuring that the tenderer has complied with all the terms and conditions of the enquiry document. Every tenderer is seeking to find advantage within what is specified so that the tender they submit is, or appears to be, more favourable.

Each tender therefore needs to be very carefully scrutinised for variations and in the initial comparison these should be evaluated and the amounts added to or subtracted from the tendered amounts in order to compare the tenders on as equal a basis as possible. In many cases the adjudicating team will be called upon to make subjective decisions. These should in all cases be made fairly and in a consistent manner, irrespective of the tender being evaluated.

### **7.8.3 *Financial evaluation of proposals.***

After the elimination of the inequalities in the tenders it becomes necessary to compare the overall effect of the pricing strategies adopted by the tenderer on a life-cycle costing system in exactly the same manner and making the same assumptions in regard to growth, expansion and levels of service as was done for the feasibility study. This will entail using the factors provided by the tenderer to cover such items as escalation, constants to be used, etc. In this way a valid financial comparison can be made of the tenders on as equal a basis as is possible. The result should indicate which of the tenders is most favourable from the financial point of view.

## **7.9 *Performance Monitoring***

### **7.9.1 *Performance Reporting***

The contractor will need to measure record and report to the local authority the operating results, i.e. the quantities handled, qualities achieved, reductions made in the unaccounted for water,

sewers cleaned, etc on a routine and regular basis. According to the subject matter, the reports may be daily, weekly or of longer intervals. Deviations from specified standards should be highlighted.

#### *7.9.2 Monitoring*

The monitoring of the contractor's performance will be the task of the local authority. The criteria that will be monitored and the method of doing so should have been laid down in the contract. It therefore becomes a contractual requirement of the local authority to carry out its obligations in the manner set out. The methods should be strictly adhered to and the results of measurements should be reported impartially.

#### *7.9.3 Transparency*

The results should also be published so that the public and the communities can see how well the provider is delivering the service for which they are being asked to pay. Good performance should be outlined and praise given where it is due. Poor performance should be accompanied by an explanation, if available, with a comment as to the steps that are being taken to correct the deviation.

#### *7.9.4 Penalties*

Where the contract prescribes penalties for deviations from the prescribed performance standards these should be applied as laid down in the contract.

#### *7.9.5 Establishing end-user relationships*

One of the more important tasks of the service provider is to establish a good working relationship with the end-users, who are the ultimate customers. This will come about through improved service, dissemination of information on the activities of the contractor and the purpose of these activities and most importantly fulfilment of promises made to the end-users, particularly in respect to the tariffs as well as the reliability and quality of the service.

As this end-user relationship is all important, it would assist the contractor to be responsible for the submission of the monthly accounts, thus bringing the name of the contractor to the fore and enabling it to communicate directly with the end-users.

### **7.10**    *Concluding Comments*

Not all that is presented above will be applicable in every instance nor has every circumstance that may arise been covered. Each local authority seeking assistance from the private sector should study its own circumstances and objectives and then select the course and procedures it will using these guidelines as the starting point.

It is recognised that these guidelines are preliminary in nature and can certainly not be considered to be the last word on the matter. The engagement of the private sector in the provision of water and sanitation services on a large scale in South Africa is relatively new and there is a lot to be learnt. It is therefore anticipated that readers of this document will have a number of comments that they wish to make. Any comments on the document can be forwarded to Dr L H Lotter at Chemical and Allied Industries, PO. Box 91415, Auckland Park, 2006.



## 8 REFERENCES

1. Municipal Infrastructure Investment Framework. Ministry in the Office of the President and the Department of National Housing. 12 June 1995.
2. White Paper on Water Supply and Sanitation Policy. Department of Water Affairs and Forestry. November 1994.
3. Water and Sanitation in Urban Areas: Financial and Institutional Review. 6 Summary Report. Report to the Water Research Commission by the Palmer Development Group. WRC Report No 571/6/94.

**EXAMPLE OF SERVICE TYPE CONTRACT****1 CONDITIONS OF TENDER (GOODS/SERVICES)**

The document for a service type contract will typically contain the following clauses relating to the tender conditions as well as the General Conditions that will apply to the contract.

**1.1 TENDER FORM AND CLOSING DATE**

Description of tender form to be completed and the time, date and place at which to lodge the tenders.

**1.2 ACCEPTANCE OF TENDER**

Typically states that the lowest or any tender will not necessarily be accepted.

**1.3 PRICING**

Sets out the manner in which the tender is to be priced, that the rates will supersede the amounts (or vice versa)

**1.4 WITHDRAWAL OF TENDERS**

Sets out the conditions under which a tender may be withdrawn after the closing time and what the penalties would be in such a circumstance, if any.

**1.5 DIFFERENCES OR DISCREPANCIES**

Defines the order of precedence should there be any discrepancies in the tender document.

**1.6 BRIBERY AND COMMUNICATION WITH MEMBERS OF TENDER BOARD, COUNCILLORS AND OFFICERS**

Disqualifies the tenderer should there be any attempt on the part of the tenderer or his agents to influence the award of the tender.

**1.7 IMPORT PERMITS**

Places the onus of obtaining any necessary import permits onto the tenderer.

**2 GENERAL CONDITIONS OF CONTRACT (GOODS/SERVICES)**

**2.1 LAW TO APPLY**

Defines that applicable law, i.e. South Africa

**2.2 DISCREPANCIES**

Defines the order of precedence should there be any discrepancies in the tender document.

**2.3 SPECIAL CONDITIONS OF CONTRACT**

Sets out any special conditions of the contract that are a variation from the standard printed general conditions in use by any particular local authority.

**2.4 ASSIGNMENT**

Prevents the assignment of the contract to a third party.

**2.5 PURCHASE OF GOODS FROM OTHER SOURCES**

Prevents the purchase of goods from a source other than that stated in the tender.

**2.6 PATENT RIGHTS**

Places the responsibility for complying with any patent rights onto the contractor.

**2.7 MASS, QUALITY, QUANTITY ETC.**

Places the responsibility for complying with statements as to mass delivered, quality of the goods delivered and the quantity onto the contractor.

**2.8 DELIVERY, RISK, PACKAGES ETC.**

Places the responsibility for delivering the goods in good order, including the packaging, cartage etc.

**2.9 SECURITY AND FORMAL CONTRACT OF SURETYSHIP**

The contractor is to provide security or a surety for the due fulfilment of the contract.

**2.10 SEQUESTRATION OR SURRENDER OF CONTRACTOR'S ESTATE**

Provides for the sequestration or surrender of the contractors estate in the event of insolvency.

**2.11 CONTRACT TO BE IN CONFORMITY WITH BY-LAWS AND OTHER APPLICABLE LAWS**

The contract is to be executed in conformity with the applicable By-Laws as well as the Provincial Ordinances and the laws of the country.



**2.12 DEFAULT**

Sets out the action that the local authority could take in the event of default in the performance of the contract.

**2.13 LIQUIDATED DAMAGES**

Sets out the liquidated damages that would be payable by the contractor in the event of late delivery or other default in the execution of the contract.

**2.14 PAYMENT**

Sets out the terms of payment, i.e. any tests that will be made prior to certifying the work, any retentions that may be applicable and the period within which payment will be made.

**2.15 RATES OF EXCHANGE**

Sets out the responsibility of the contractor in regard to variations in the rates of exchange should there be any equipment that must be imported.

**2.16 SHIPMENT OF GOODS**

Places the responsibility of complying with all the formalities in shipping goods onto the contractor.

**2.17 VARIATION IN COSTS OF PERFORMANCE**

Sets out any variations that may be applied to the contract price in accordance with a defined formula

**2.18 VALUE ADDED TAX**

Defines the responsibility for charging the Value Added Tax at the applicable rate.

### **3 SPECIFICATION**

#### **READING OF WATER METERS**

##### **3.1 SCOPE OF CONTRACT**

This clause will define in general terms the extent of the contract, the service to be provided.

##### **3.2 METER READING AREA**

This will define the area within which the meter reading is to take place and the number of meters.

##### **3.3 METERS TO BE READ**

This will define the type of meter to be read, the general location of the meters, whether buried, wall mounted etc.

##### **3.4 HIDDEN METERS**

Defines the action to be taken in the event that the meter is hidden or cannot be located by the meter reader.

##### **3.5 FREQUENCY OF READINGS**

Defines the frequency with which each meter is to be read.

##### **3.6 ACCURACY OF READINGS**

Defines the accuracy with which each meter is to be read, i.e. fractions of a kilolitre or whole, as well as the recording of the reading.

##### **3.7 ENTRY OF DATA**

Defines how the data is to be entered into the central ledgers of the local authority.

##### **3.8 RECORDING OF ANOMALOUS READINGS**

Defines the analysis that is to be performed on the data, to identify meters that do not move, that indicate consumption that deviates from the norm, either under or over consumption.

3.9 **NIL READINGS**

Describes the action that must be taken to establish the reason for nil readings and identification of empty stands etc.

3.10 **CHECKS TO CARRIED OUT BY COUNCIL OFFICIALS**

Describes the checks that will be made by the local authority officials to ensure compliance with the specified requirements of the contract.

3.11 **PENALTIES**

Defines specifically the penalties that will become payable in the event of non-compliance with the performance.



**EXAMPLE OF FINANCE LINKED TYPE OF CONTRACT****DOCUMENT CONTENTS**

The document for an investment linked contract will typically contain the following clauses and types of clause:

**1 INSTRUCTIONS TO BE OBSERVED IN TENDERING.**

This covers the standard type of information that will not form part of the final contract document to be given to the tenderer, concerning the data sheets to be completed, the tender deposit, if any, the time and place at which the tenders are to close etc.

**2 PRE-TENDER INFORMATION AND DATA TO BE FURNISHED BY THE TENDERER**

This will cover all the information that would have been requested in a pre-qualifying document and including *inter alia*:

- details of the tendering organisation;
- information concerning the tenderer's financial stability
- information on the proposed sources of finance
- a schedule of previous experience in work of a similar nature
- details of the personnel that would initially be responsible for the execution of the contract and the current availability of such people.

**3 DEFINITIONS**

Standard definition of terms, as to the employer, the contractor, the site of the works, system, commencement of contract, contract period etc.

**4 GENERAL CONDITIONS**

This clause will set out the general legal conditions with which the contractor is to comply, the local regulations, the general quality of the performance of the works, etc.

**5 SCOPE OF CONTRACT**

This clause will define the service that the contractor is to provide, the works for which it will be responsible, and the tasks the contractor is to undertake including operation, upgrading, implementation of new works, and implementation of works to accommodate population growth and expansion etc.

**6 OWNERSHIP AND CONDITIONS PRECEDENT**

The purpose of this clause is to establish the right of the local authority to enter into the contract

contemplated, its right to the water that it proposes to use, its commitment to the contract and the financing thereof, and the ownership of the works that the contractor will be required to operate and maintain.

**7 HANDING OVER AT COMMENCEMENT AND CONCLUSION**

Definition of the handover period and the inspections that will take place to ascertain the condition of all the plant and equipment specified in the document, the age and whether the equipment is under guarantee etc.

**8 MANAGEMENT, OPERATIONS AND MAINTENANCE OF WORKS**

Defines the standards that are to be observed in the operation of the works, the maintenance that is to be undertaken, the required condition of the plant at the end of the contract period, the exclusivity of the service, the abstraction costs of the raw water supply and by which party these should be carried etc.

**9 REHABILITATION AND UPGRADING**

Defines the work that is to be undertaken to bring the standard of the system to the standards specified for the contract. This can mean refurbishment, replacement, the construction of new works and the periods within which these works must be completed.

**10 AUGMENTATION OF WORKS**

Defines the works that must be undertaken and the time frame to augment the capacity of the works, the quality standards to which such works must comply, the budget cost, the financial responsibilities of both parties to the contract and the handing over to the local authority at due time, etc.

**11 REPLACEMENT**

Defines the contractor's responsibilities to replace equipment to comply with the quality standards that have been specified.

**12 DOCUMENTATION AND RECORDS**

Defines the local authority's obligation to hand over all documentation and data relating to the system, the contractor's responsibility for the safe keeping of the documentation, updating and correcting, etc. as well as the contractor's obligations to document its activities, keep accounts of all financial transactions, etc.

**13 HOUSE CONNECTIONS**

Defines the responsibilities and duties of both the end users and the contractor in relation to the water service, the implementation of new connections, the time within which they are to be effected, and the areas within which such conditions apply. The accuracy of the water meters, the

responsibility for maintaining these and the rights to verify the accuracy of the meters.

**14 MUNICIPAL CONNECTIONS**

Covers the connections owned by the local authority i.e. fire hydrants, the metering of these, and the assistance to be given in the event of a fire or other emergency involving the water distribution system.

**13 FINANCIAL PROVISIONS**

Sets out the financial obligations of the contractor in regard to the payment of operational expenses, rehabilitation and upgrading, expansion, and replacement of assets.

**14 PRICE OF WATER AND TARIFFS**

Defines the basis on which the price of water will be calculated and set out the provisions that are to be made for escalation in relation to published indices. The clause will further define the circumstances under which a change can be made to the basic tariff as a consequence of changes involving the service area, changes to the treatment processes, changes to the tax structure, e.g. VAT, changes in regulatory standards. The clause will further define the procedures to be followed to change the tariff.

**15 COMMENCEMENT AND DURATION OF CONTRACT**

The clause defines the starting date and the duration of the contract.

**16 TERMINATION OF CONTRACT**

Defines the rights of the local authority to cancel the contract, the circumstances under which this can be done, and the calculation of the premium that would become due to the contractor in the event that it has not defaulted in the performance of the contract.

**17 PERSONNEL AND CONDITIONS OF SERVICE**

Sets out the conditions under which employees of the local authority would be employed by the contractor after the commencement of the contract, including such aspects as pension rights, medical aid and other benefits that might be due. It may further give the employees the right to remain in the employment of the local authority.

**18 FUNDING BY CLIENT**

Sets out the circumstances and conditions under which the client may finance any portion of the works, whether for new works, refurbishment or replacement.



19     **REHABILITATION**

Defines the extent of any rehabilitation work that may be required and the standards to which the work rehabilitated.

20     **NON-PERFORMANCE AND PENALTIES**

Defines the standards of performance in all the key performance areas that the contractor is to achieve and the penalties that would become due in the event of noncompliance.

21     **MONITORING**

The document needs to set out the monitoring of performance that will take place and how the contractor's performance will be measured. The exact means will depend on the actual performance area.

22     **RESOLUTION OF DISPUTES**

This is a standard type of clause setting out the procedures to be followed for the resolution of disputes should they arise, involving either mediation, arbitration and/or reference to the courts.