

**RURAL WATER AND SANITATION SERVICES IN
KWAZULU-NATAL : AN INVESTIGATION INTO
ADDRESSING OF BACKLOGS IN
BASIC SERVICES**

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EXECUTIVE SUMMARY

The water sector in South Africa is in the delivery phase of its transformation process, with transformation having commenced in 1994. This transformation is not unlike developments in this sector in other developing countries.

South Africa is facing huge backlogs in the provision of basic rural water and sanitation services (DWAF, 2002a, p.3), typical of the scenario facing international developing countries. The SA Government has committed itself to eliminate the basic water supply backlogs by 2008, and the basic sanitation backlogs by 2010 (DWAF, 2002b, p.ii). These targets are more ambitious than the international Millennium Development Goals of halving the world's population without adequate or safe drinking water, or access to basic sanitation by 2015 (WSSCC, 2002a, p.1).

The research investigates whether the targets set by Government are achievable in the Province of Kwazulu-Natal (KZN). The South African targets were set ahead of the completion of the Water Services Development Plans or the planning required of the Water Services Authorities (WSAs) in KZN. Although some Municipalities, in their capacity as Water Services Authority, have completed their Water Services Development Plans, others are still in the process of doing so.

The deficiency in the provision of basic water and sanitation services in KZN, has been ascertained in this investigation. Also ascertained are the costs and financial resources needed to address the backlogs in service provision and the constraints to delivery of the needed services.

The research findings have shown that the backlog in basic water supply in KZN is approximately 3,66 million people, representing 38,2% of the KZN population, whilst the backlog in basic sanitation services is 4,94 million persons, representing some 51,4% of the KZN population. In a rural context only, these figures are appreciably higher.

This investigation has shown that the targets set by Government to address rural backlogs in basic services in KZN are ambitious. In terms of planned programmes at Water Services Authority level, it will take an estimated average of 12 years to eliminate the basic water supply and sanitation backlog. The earliest and longest water supply delivery programme ranges from 5 years to 20 years, whilst that for sanitation delivery, ranges from 6 years to 33 years. These programmes far exceed Government's target dates.

In terms of the research findings, the backlogs in basic water services in KwaZulu-Natal will require financial resources of R4,87 billion to totally eradicate all basic water backlogs. Similarly, to address the basic sanitation backlog has been estimated at R1,44 billion.

It has been recommended in this report that with relatively little additional annual funding that it will be easier to achieve the government target of 2010 (DWAF, 2002b, p.ii) for sanitation delivery than it would for water supply. The planned level of sanitation service has been ascertained to be the VIP latrine in all cases, which does not require a water supply, and thus water and sanitation delivery programmes can be implemented separately.

The investigation has revealed that there is sufficient grant funding available in South Africa to meet the planned basic water services delivery programmes of the WSAs, but their programmes exceed the target dates set by Government by many years. If the delivery programmes are accelerated to meet the Government's target dates, the current budget allocations of both the Department of Water Affairs & Forestry (DWAF) and the Consolidated Municipal Infrastructure Programme (CMIP) are insufficient.

In the short-term, the WSAs are not expected to have sourced donor funding to assist with their planned delivery programmes. Thus funding sources within South Africa will initially have to be relied upon.

Whilst planned programmes have been developed for the alleviation of water services backlogs in KZN, it has been recommended in the report that they need to be monitored to ensure delivery of services in terms of these programmes. This monitoring and certification of the implementation of planned programmes are essential management tools, as the current planned programmes of the WSAs do not meet the Government's targets of 2008 and 2010 respectively for the elimination of the basic water and sanitation backlogs (DWAF, 2002b, .ii).

Financial budgets have been cited as being a problem area by most, but a higher priority problem appears to be the lack of institutional capacity at WSA level to ensure sustainability of projects/schemes in the post-construction phase. Should the projects/schemes not be adequately operated or maintained, it could lead to the implemented projects/schemes becoming defunct, which would negate the national initiatives aimed at backlog alleviation. It is fortunate that legislation such as the Municipal Systems Act (Act N° 32 of 2000) enables Local Government to implement a range of public and private water service provider options that can assist with the needed institutional capacity building, and to also render operations and maintenance services on a contract basis.

It is evident from this investigation that a number of major obstacles may delay the achievement of either the planned delivery programmes of the WSAs, or the even greater challenges to meet the Government's targets. The successful, sustainable implementation of these programmes will be dependent on both sufficient funding being available and on solving the lack of institutional capacity.

PREFACE

The author, Arthur Patrick Gombert, hereby states that all the research work in this dissertation, unless otherwise stated, was initiated by him and that he was solely responsible for the planning, analysis and reporting of the findings and conclusions. This work has not been submitted in part or in whole to any other University.

The research was carried out in KwaZulu-Natal, under the supervision of Mr William Nigel Richards, Pietermaritzburg.

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GLOSSARY OF TERMS

BACKLOG : This is taken to be where water and sanitation levels are less than the basic levels of service, as defined, or where no service is provided at all.

BASIC SANITATION SERVICE : A basic sanitation level of service as defined by DWAF (1996, p.3) means a Ventilated Improved Pit (VIP) toilet in a variety of forms, or its equivalent, as long as it meets minimum requirements in terms of cost, sturdiness, health benefits and environmental impact.

BASIC WATER SERVICE : A basic water supply is defined by DWAF (2002b, p.8) as a minimum of 25 litres of potable water per person per day (or 6 000 litres per household per month) within 200m of a household. This level of service is commonly referred to as the RDP level of service.

INTEGRATED DEVELOPMENT PLAN (IDP): The Municipal Structures Amendment Act (Act No. 33 of 2000) (DPLG, 2000, S6(a)) requires that a District Municipality takes responsibility for integrated development planning for the district as a whole, inclusive of all municipalities, in its district. The IDP essentially integrates the different sector requirements, and thus the IDP must link to, integrate and co-ordinate with the WSDP of the municipality (DWAF, 2001c, p.14).

WATER SECTOR : Includes both water and sanitation sector.

WATER SERVICES : Includes both water supply and sanitation services.

WATER SERVICES AUTHORITY (WSA) : A Water Services Authority means any Municipality, including a district or rural council, as defined in the Local Government Transition Act (Act No. 209 of 1993), responsible for ensuring access to water services (DWAF, 1977, s1 (xx)).

Every water services authority has a duty to all consumers or potential consumers in its area of jurisdiction to progressively ensure efficient, affordable, economical and sustainable access to water services (DWAF, 1997, s11(i)).

WATER SERVICES DEVELOPMENT PLAN (WSDP)

A WSDP is a plan to progressively ensure efficient, affordable, economical and sustainable access to water services (DWAF, 2001c, p.7). The requirement for this WSDP to be prepared by the WSA is in terms of section 13 of the Water Services Act (DWAF, 1997c).

Essentially, this WSDP proposes the projects and actions necessary to achieve efficient and sustainable provision of water and sanitation services. WSDP's are planning approaches that translate the water and sanitation Land Development Objectives and IDP proposals into integrated water and sanitation plans at a detailed sector level (UMKDM, 2002, p.7)

ABBREVIATIONS

ADM	Amajuba District Municipality
ANC	African National Congress
CMIP	Consolidated Municipal Infrastructure Programme
CSS	Central Statistics
DMA	Durban Metropolitan Area
DPLG	Department of Provincial and Local Government
DWAF	Department of Water Affairs and Forestry
EA&T	Environmental Affairs and Tourism
ESA	External Support Agent
eTHM	eThekweni Municipality
FBW	Free Basic Water
GDP	Gross Domestic Product
IDM	Ilembe District Municipality
IDP	Integrated Development Plan
IFP	Inkatha Freedom Party
ISRDS	Integrated Sustainable Rural Development Strategy
KZN	KwaZulu-Natal
LM	Local Municipality
LOS	Level of Service
MDG	Millennium Development Goals
MPLG	Ministry of Provincial and Local Government
NLM	Newcastle Local Municipality

NW	Natal Witness
RDP	Reconstruction and Development Programme
RSA	Republic of South Africa
SA	South Africa
SDM	Sisonke District Municipality
UDM	Ugu District Municipality
UMHLM	uMhlatuze Local Municipality
UMDM	uMgungundlovu District Municipality
UMKDM	uMkhanyakude District Municipality
UMSLM	uMsunduzi Local Municipality
UMZDM	uMzinyathi District Municipality
UN	United Nations
UTDM	uThungulu District Municipality
UTKDM	uThukela District Municipality
UW	Umgenti Water
VIP	Ventilated Improved Pit Latrine
WASAI	Water and Sanitation African Initiative
WSA	Water Services Authority
WSDP	Water Services Development Plan
WSP	Water Services Provider
WSS	Water Supply and Sanitation
WSSCC	Water Supply and Sanitation Collaborative Council
ZDM	Zululand District Municipality

CHAPTER 1: INTRODUCTION

1.1 BACKGROUND AND PROBLEM STATEMENT

In South Africa there has been much transformation in the water sector since 1994, when a new democratic Government was elected. This transformation is evident in new water policy and legislation in compliance with the new Constitution of South Africa (Act No. 108 of 1996).

Transformation in the water sector in South Africa is similar to international developments elsewhere, arising particularly from Agenda 21 (UN, 2003) and subsequent goals to halve the world's population without adequate quantities of safe drinking water or access to basic sanitation by 2015 (WSSCC, 2002b, p.1).

South Africa (S.A.) has committed itself to more ambitious targets to eradicate the backlogs in access to basic water and basic sanitation services. These are to eradicate backlogs in access to basic water and sanitation services by 2008 and 2010 respectively (DWAF, 2002b, p.ii).

Progress has been made in SA to reduce these water and sanitation backlogs since 1994, but it is estimated that approximately 18 million people still lack access to basic sanitation services, and that in excess of 7 million people lack access to basic water supply (DWAF, 2002a, p.10).

The Water Services Act (Act No. 108 of 1997) provides for a Water Services Development Plan (WSDP) to be prepared by Water Services Authorities (WSAs) where plans are detailed to address the backlogs in water services. This Water Services Act provided for WSDP's to be compiled within a year of commencement of this new Act (DWAF, 1997c, S12(1)), but progress has been slower than anticipated. Whilst some municipalities have attempted to draft these WSDP's, some municipalities are still in the process of compiling them.

Whilst these WSDP's are still being compiled or at best being finalised by Municipalities (as WSAs), the Government has set targets to eradicate water services backlogs. Without completed WSDP's or clearly defined targets by the Municipal Water Services Authorities (WSAs), questions are raised as to the feasibility of achieving the Government's targets. Additional questions also arise as to the financial implications of these targets.

1.2 SUMMARY DISCUSSION ON DEVELOPMENTS IN WATER AND SANITATION BACKLOGS

Much of the literature review focussed on International and South African developments in the need for provision of basic water services, and of transformation made in South Africa since 1994 in the provision of water services.

The year 1994 is significant since immediately after election of the African National Congress (ANC) as the new democratic Government of South Africa, new water policy and legislation was drafted and implemented, and is seen as clear evidence of transformation of the water sector.

The need for transformation was reinforced by huge backlogs in rural water services, primarily to the poor and those historically disadvantaged. In 1994 it was estimated that approximately 21 million people in South Africa did not have access to a basic level of sanitation, and that between 12-14 million people lacked access to basic water supply (DWAF, 1997b, p.15).

South Africa is not alone in its focus on water and sanitation delivery. It has been reported that globally 1,2 billion people globally do not have access to potable water and that approximately 2,4 billion have inadequate sanitation services (WSSCC, 2002c, p.1). A similar scenario is found in Africa where it is estimated that 350 million people have no access to safe drinking water and 500 million persons lack access to basic sanitation services (Garnet, 2002, p.2).

The need to conserve the environment and thus essential water resources, has received increased International focus for more than a decade. This is illustrated by the Agenda 21 document (UN, 2003) that emerged from the UN Conference on the Environment and Development in Rio de Janeiro in 1992. Agenda 21 is a global plan of action for sustainable development adopted by 174 heads of states that attended the 1992 Earth Summit in Rio de Janeiro.

Arising from Agenda 21, a people-centred approach, termed Vision 21, was put forward at the Second World Water Forum in The Hague in March 2000 (WSSCC, 2001). This Vision 21 has target deadlines for water and sanitation delivery by the year 2015, these targets being to halve the proportion of those without those services by the target dates.

A new Constitution in South Africa (RSA, 1996) makes it imperative that Government address its backlogs in water and sanitation services. South Africa in committing itself to eliminating these services backlogs, has followed International practice where Millennium Development Goals (MDG's) have been adopted. But whereas the objective of the MDG's is to halve the proportion of the world's population without adequate water or sanitation services by 2015 (WSSCC, 2002a, p.1), South Africa's targets are more ambitious by committing to eliminate backlogs in basic water supply by 2008, and those in sanitation by 2010 (DWAF, 2002b, p.ii).

Progress in SA has been made in delivery of basic water and basic sanitation services, current estimates are that approximately 5-7 million people still lack access to basic water services, whereas 18-19 million are still without basic sanitation services (DWAF, 2002a, p.10).

Water Services Development Plans (WSDP's) currently being compiled to address backlogs in basic water and sanitation services, are in accordance with new legislation, the Water Services Act (Act No. 108 of 1997). These WSDP's will assist in identifying backlogs for each Municipal Water Services Authority.

Whilst the majority of backlogs appear to be in the rural areas, the Government has embarked upon an Integrated Sustainable Rural Development Strategy (ISRDS) through the office of the Deputy President, with its implementation goal coinciding with the sanitation target of 2010. This ISRDS is an economic objective to reduce poverty, in line with the Reconstruction and Development Programme (ANC, 1994) with water services being seen as a key element of both the Reconstruction and Development Plan (RDP) and ISRDS (RSA, 2000, p.19).

Water legislation is still under review, with a Draft White Paper on Water Services (DWA, 2002b) currently being circulated for public comment.

The Literature Review highlights the fact that transformation in the water sector has and is taking place, but that much has yet to be done to achieve the targets set by Government. Pressure is placed on the water sector to deliver, particularly by Government linking water targets to key Government policy such as the RDP and ISRDS, and also in ensuring compliance with the new Constitution of South Africa.

It is clear that the delivery of basic water and sanitation services to the rural poor is a priority. Government policy and legislation is aimed at addressing these backlogs, which are also seen as problematic from a health, and poverty perspective.

1.3 OBJECTIVES OF THE INVESTIGATION

The objectives of this investigation are to:

- Ascertain the extent of backlogs in basic water supply and sanitation services in KwaZulu-Natal.
- Estimate the costs to address these services backlogs.

- Ascertain the constraints, if any, in addressing the backlogs.
- Compare the Government's targets set to eradicate the services backlogs with plans of the District Municipalities.
- Ascertain whether the SA Government has made sufficient funding available in KZN for the elimination of the water services backlogs.

1.4 SCOPE OF THE INVESTIGATION

The investigation initially involved a review of the available WSDP's prepared by the Water Services Authorities in KwaZulu-Natal. The purpose of this review was to ascertain background to the respective approaches of the Municipalities to the issue of backlogs in basic water and basic sanitation services.

In KwaZulu-Natal, there were until 30 June 2003, 11 Water Services Authorities (WSAs) comprising 10 District Municipalities and one Metropolitan Municipality. Additionally, three Local Municipalities in KZN have been granted Water Services Authority status with effect from 1 July 2003 (MPLG, 2003, p.133).

All backlogs in KwaZulu-Natal are captured either from the completed and available WSDP's and/or through the questionnaire as discussed in Section 3.5 and shown in Annexure B.

1.5 APPROACH USED IN THE INVESTIGATION

The approach used in the investigation was to review the completed or near completed WSDP's of the Water Services Authorities in KwaZulu-Natal. This review served to provide background and initial information on the water services needs of the Municipalities.

Where the specific WSDP's were deficient in information sought or needed clarity, the respective Municipalities or their nominated representatives were contacted to derive the necessary information.

To answer further questions generic to all WSAs, a questionnaire (Annexure B) was drafted for completion by all WSAs. Personal interviews were conducted with senior staff of the Municipalities (as WSAs) and/or their designated representatives to complete the questionnaire.

The responses to the questionnaire were analysed to derive the results of the investigation, and formulate the recommendations and conclusions.

1.6 OVERVIEW OF THE CHAPTERS

A review of related literature is given in Chapter 2. Much of the literature related to South African developments and transformation of the water sector is from 1994 onwards. The transformation initiatives of the new South African Government are translated in new water policy and legislation. SA is faced with vast backlogs in basic water and basic sanitation services particularly in the rural areas, and there are thus huge challenges to eradicate services backlogs by the targets set by Government

.

The research methodology is explained in Chapter 3 and reflects the procedure adopted.

Chapter 4 outlines the backlogs in water and sanitation services, the costs and funding needed to address the backlogs in basic water and sanitation services in KZN by the WSAs, and constraints to delivery of these services.

The conclusions of the investigation are given in Chapter 5.

Chapter 6 outlines the recommendations

CHAPTER 2: REVIEW OF RELATED LITERATURE

The majority of the literature reviewed is from 1994 onwards. This is attributed to the reforms in the water and sanitation sector in South Africa by the new Government in South Africa since 1994, in response to the Reconstruction and Development Programme (ANC, 1994), and subsequent water policy and legislation.

2.1 A BACKGROUND OF WATER AND SANITATION IN SOUTH AFRICA

Water and Sanitation in South Africa (SA) should be considered in two periods, prior to 1994, and that after 1994. The year 1994 was significant in SA as a result of a newly elected democratic Government.

Prior to 1994, the Republic of South Africa was divided administratively as a result of its policy of eleven homelands, four independent TBVC states, six self-governing territories, and the rest of South Africa itself. This situation resulted in a fragmented approach to service provision, with limited or no services being available in the former “black” urban and rural areas, and even where provided, these were often in a bad state of disrepair. DWAF (2002, p.2) considers that these problems were in part symptomatic of a lack of co-ordination and responsibility due to the proliferation of institutional structures that existed at that time.

It was also put forward by DWAF (1997a, p.4) that these lack of services to “black” urban and rural areas could also be attributed to old Government policy where water services were developed in the interests of the dominant “white” class, which had privileged access to land and economic power. In 1995 it was estimated that in KwaZulu-Natal that only 27% of African households had running tap water, that including the urban areas. In non-urban areas, only approximately 8% had running water. With respect to the availability of appropriate sanitation, it was estimated that 51% of rural blacks made use of pit latrines, and 24% had no toilet facility at all (CSS, 1998, p.48).

The United Nations (UN, 2002, p.4) has a similar view to that expressed by DWAF, and placed South Africa 89th on the 1998 Human Development Index ranking. That low ranking was attributable to the apartheid system that favoured the white minority, whilst the majority of the black and non-white population lived in poverty, and were denied access to land, basic services, etc.

In the early 1990's, it was estimated that approximately 21 million people in SA did not have access to a basic level of sanitation (DWAF, 2002, p.2) and that between 12 – 14 million people were without access to safe water (DWAF, 1997b, p.15).

Post 1994, must be viewed in terms of initiatives planned and executed by the new Government in SA since being democratically elected in 1994. The new ANC Government in SA set a high priority on addressing the basic water and sanitation backlogs. On taking up Government, a coherent policy for water supply and sanitation did not exist, and thus DWAF compiled a White Paper on Water Supply and Sanitation Policy (DWAF, 1994) that set out the policy for water and sanitation development.

That the White Paper followed so soon after the election of the new Government was indicative of the high priority placed on an integrated implementation strategy by Government to address the backlogs in basic water and sanitation services. This strategy formed the basis of the Government's Community Water Supply and Sanitation (CWSS) programme, primarily focussed on services delivery in the poor rural areas, but essentially to extend access to basic water supply and sanitation services to all in SA.

The post-1994 commitment to re-dressing the past imbalances and the new approach to water policy is underpinned by the new Constitution of SA (Act No. 108 of 1996), which entitles every person the right to access to "...sufficient water and food..." and to "... health care services...".

The Constitution (RSA, 1996) is the highest law of the land, and all law, including water law, must be in accordance with the provisions of the Constitution of SA (Act No. 108 of 1996).

The Constitution (RSA, 1996) has had a major influence on the water policy and law in SA, and the need to address backlogs in water and sanitation services is seen in many principles of the new Constitution.

Water and sanitation reform in SA should and is based on key aspects of the new Constitution, and particularly the right to equality requires equitable access by all South Africans to benefit from the nation's water resources, and an end to discrimination with regard to access to water and sanitation services on the basis of race, class or gender (DWAF, 1997a, p.5).

The key challenge since 1994 has thus been to address the backlogs in basic water and sanitation services, whilst addressing also the needs of the new Constitution of SA. The Government of SA has committed itself not only to reform in respect of water legislation, but has committed itself to eradicate basic water supply backlogs by 2008, and sanitation backlogs by 2010 (DWAF, 2002 b, p.ii).

2.2 INTERNATIONAL DEVELOPMENTS IN WATER AND SANITATION

Since 1994, the water sector in SA has taken particular note of international developments and trends in water management. This is evident in new water policy in S.A., as outlined in Section 2.3.

Water management internationally is receiving particular attention, and as DWAF (1997b, p.1) highlighted, it has been speculated that the growing pressure on water resources could result in major international conflicts, especially from a water resource and scarcity perspective.

The need to conserve the environment, and thus essential water resources, has received increased international focus for more than a decade. The more significant international events that have influenced water management include:

- UN Conference on the Human Environment in Stockholm, 1972
- UN International Drinking Water Supply and Sanitation Decade launch, Mar del Plato, 1997
- World Conference on Water and the Environment, Dublin 1972
- UNCED Earth Summit – Agenda 21, Rio de Janeiro, 1992
- Drinking Water and Environmental Sanitation Conference on the Implementation of Agenda 21, Noordwijk, 1994
- Global Water Partnership Meeting, Stockholm, 1996
- First World Water Forum of the Global Water Council, Marrakech, 1997
- African Consultative Forum on Water Supply and Sanitation, Abidjan, 1998
- Second World Water Forum, The Hague, 2000
- World Summit on Sustainable Development, Johannesburg, 2002

One of the most notable of the aforementioned international events was the UN Conference on the Environment and Development (UNCED) that took place in Rio de Janeiro in 1992. At this Conference emerged the Agenda 21 document, which is seen to be the basis for sustainable development strategies, including strategies for sustainable resources management. A 10-year review of progress achieved was undertaken in 2002 at the World Summit on Sustainable Development held in Johannesburg, SA. At this latter summit the SA Government endorsed the principles of Agenda 21. The principle of sustainable development in South Africa is incorporated in its National Environmental Management Act (Act No. 107 of 1998) (EA&T, 1998).

Agenda 21 is significant in that it is a global plan of action for sustainable development adopted by 174 heads of state that attended the 1992 Earth Summit in Rio de Janeiro, Brazil. The document is a political commitment to achieving balance between economic, environmental and social needs of the world community. Chapter 18 of the Agenda, titled “Protection of the Quality and Supply of Freshwater Resources: Application of Integrated Approaches to the Development, Management and Use of Water Resources” is significant as it particularly highlights aspects critical to water and sanitation. This section of Agenda 21, particularly Section 18.47 outlines that “...safe water supplies and environmental sanitation are vital for protecting the environment, improving health and alleviating poverty” (UN, 2003).

The aforementioned international proceedings have reinforced that the principles of water and sanitation are vital for the lives of poor people, and that access to basic services is a fundamental need and a human right (WSSCC, 2001, p.1).

Arising from Agenda 21, a people-centred approach, termed Vision 21, was put forward at the Second World Water Forum in The Hague, in March 2000 (WSSCC, 2001). As put forward by the WSSCC (2001) “Vision 21’s main thrust is putting people first – to encourage and enable local communities and others to work in partnership to plan, initiate and manage improved water and sanitation systems as well as hygiene and education programmes”. These plans and initiatives are not unlike what is transpiring in South Africa, as outlined in Sections 2.1 and 2.3. Vision 21 has target deadlines for water and sanitation delivery by the year 2015, these targets being to halve the proportion of those without these services by the target dates.

It was reported by the WSSCC (2002 c, p.1) that approximately 1.2 billion people internationally do not have access to potable or improved water, and that approximately 2.4 billion people internationally do not have access to adequate sanitation services. A similar scenario is applicable in Africa where it is estimated that 350 million people have no access to safe drinking water and 500 million people lack access to basic sanitation facilities (Garnet, 2002, p.2).

The WSSCC plays an important role in water and sanitation internationally as a group of professionals from developing countries, external support agencies (ESA's) and non-Governmental and research organisations all working in the water, sanitation and waste management sector. Its mission is to “Enhance collaboration among developing countries and ESA's to accelerate the achievement of sustainable water, sanitation and waste management services to all people, with special attention to the poor” (Garnet, 2003, p.2).

An African Consultative Forum on Water Supply and Sanitation was held on 17th-20th November 1998, organised by the African Chapter of WSSCC. The aim of the African Chapter called the Water and Sanitation African Initiative (WASAI) is to formalise an African perspective on water supply and sanitation priorities, and it has in excess of 150 participants from policy makers, NGO's, ESA's, etc. Key themes for this African Chapter are:

- Water supply and sanitation services for the poor
- Community management of water supply and sanitation (WSS)
- Environmental health and sanitation
- Financing of the WSS sector
- Collaboration at country level
- Water quality

South Africa, being part of the African continent, could conceivably contribute and benefit from initiatives and agendas derived by this African Chapter of the WSSCC. This perceived benefit can be deduced from the mission of the WSSCC (Garnet, 2002, p.2):

“To accelerate the achievement of sustainable water, sanitation and waste management services to all people, with special attention to the poor, by enhancing collaboration among developing country and external support agencies and through concerted action programmes.”

The significance of Agenda 21 is reinforced in the UN Millennium Development Goals (MDGs) as adopted by the United Nations in September 2000. Water is featured as one of the seven MDG's with the goal being to halve the proportion of the world's population without adequate quantities of safe drinking water by 2015 (WSSCC, 2002 a, p.1).

The MDG did not make reference to sanitation but at the World Summit on Sustainable Development (2002) held in Johannesburg, South Africa, consensus was achieved on a global commitment to sanitation. This commitment, similar to the MDG goal for water, is to halve the proportion of people without access to basic sanitation by 2015 (WSSCC, 2002 b, p.1).

To illustrate its commitment to sanitation and water improvements, the SA Government has, in November 2001, joined the WSSCC to support the establishment of a South African Chapter of Vision 21, a shared vision for hygiene, sanitation and water supply (DWAF, 2001b, p.1).

The international developments outlined in this section illustrate the international initiatives directed at water and sanitation delivery, and the importance placed on it by the international community. It is further illustrated that Africa is included in these initiatives through organisations such as the African Chapter of the WSSCC and the Water and Sanitation African Initiative (WASAI). South Africa is linked to the WSSCC and global initiatives by its commitment to a South African Chapter of Vision 21, and its targets for water and sanitation by the year 2015. Its resolve is further illustrated by the South African Government setting even more stringent targets by committing to eradicate water and sanitation backlogs by 2008 and 2010 respectively (DWAF, 2002b, pii).

The linkages between the International community's objectives and goals, and the South African targets and commitments, is clear. All are committed to the eradication, or at least significant reduction in the backlogs in water and sanitation services, the basis being that of a fundamental human need and right.

2.3 DEVELOPMENTS IN WATER AND SANITATION IN SOUTH AFRICA

As outlined in section 2.1, post-1994 saw dramatic change in South Africa. This change can be attributed to the new democratic Government that was elected in April 1994.

Transformation in the water sector must be considered in parallel with legislative changes in Local Government. Prior to 1994, DWAF was responsible for water delivery projects, but subsequently full responsibility for water and sanitation services was conferred upon Local Government as provided for in the Constitution of the Republic of South Africa (Act No. 108 of 1996). This change is also clearly highlighted in the new Draft White Paper on Water Services (DWAF, 2002b, p.4). To give effect to the new Constitution in respect of Local Government responsibility for water and sanitation, a suite of Municipal legislation was enacted, these being the Local Government Municipal Demarcation Act (Act 27 of 1998), the Municipal Structures Act (Act No. 117 of 1998), and the Municipal Systems Act (Act No. 32 of 2000).

Post-1994 progress in transformation in the water sector is evident in new water legislation, and policy:

➤ **Reconstruction and Development Programme (RDP) (1994)**

The RDP is a programme designed to unite South Africans to build a country free of poverty and misery, and to be achieved in an integrated and principled manner. The provision of infrastructure for water supply and sanitation services was identified as a key element of the RDP (DWAF, 1994, p.6).

➤ **Water Supply and Sanitation White Paper (1994)**

This White Paper (DWAF, 1994) is seen as the first step in the process of reviewing old water legislation. The old 1956 Water Act of 1956 did not make any provision for water and sanitation services to individual householders, and specifically no provision for the equitable and sustainable access to these services.

➤ **National Sanitation Policy (1996)**

This policy highlighted the inter-linkages between water supply and sanitation in a broader development process. The implication of a lack of adequate sanitation on health was recognised. A backlog of 21 million persons was estimated, and a basic level of service was defined. Eight broad principles outlined in the 1994 Water Supply and Sanitation White Paper (DWAF, 1994, p.8) were extended to include two other principles, these being about health and community responsibilities with respect to sanitation (DWAF, 1996, p.4). Ultimately the National Sanitation Task Team was tasked with the development of an overall sanitation implementation strategy.

➤ **Water Services Act (Act No. 108 of 1997)**

As outlined in this Act (DWAF, 1997c) the purpose of this legislation is “To provide for the rights of access to basic water supply and basic sanitation; ...to provide for water services development plans; ...”.

The Preamble to this new Act (DWAF, 1997c) sets out key criteria of the Act inter alia to be, recognising the rights of access to basic water supply and basic sanitation; a duty on all spheres of Government to ensure that water supply services and sanitation services are provided in a manner which is efficient, equitable and sustainable; that all spheres of Government must strive to provide water supply services and sanitation services sufficient for subsistence and sustainable economic activity; and that although Municipalities have authority to administer water and sanitation services, all spheres of Government have a duty to work to this objective.

Of particular significance to the topic of this investigation is the requirement to produce a Water Services Development Plan (WSDP). The Water Services Act (Act No. 108 of 1997) provides for Water Services Authorities (WSAs) to prepare these WSDP's. Section 13 of the Act (DWAF, 1997c) sets out the requirements of these WSDP's, the most significant of these being

- the details of the number and location of persons who are not provided with basic water or sanitation
- a time frame for the plan, including the implementation programme for the following five years
- the number of and location of persons (communities) to whom water services cannot be provided within the next five years, and for reasons to be provided for this,
- a time frame within which it may reasonably be expected that a basic water supply and basic sanitation will be provided to all persons.

These WSDP's are seen as a critical element to the Government's policy to identify basic water and sanitation backlogs, to ensure that a plan exists to eliminate these backlogs, and to provide for a detailed implementation plan.

➤ **White Paper on a National Water Policy for South Africa (April 1997)**

This White Paper (DWAF, 1997b) builds on the initial White Paper of 1994 (DWAF, 1994)

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This 1997 White Paper in its summary of policy approaches, made it clear that the objective of the new water policy is not to just promote equity in access to and benefit from the nation's water resources for all South Africans, but to also make sure that the needs and challenges of South Africa in the 21st century can be addressed (DWAF, 1997b, pages un-numbered). This White Paper was the forerunner of the new Water Act in South Africa, Act No. 36 of 1998 (DWAF, 1998).

➤ **National Water Act (Act No. 36 of 1998)**

The Act (DWAF, 1998) in its preamble sets out its objectives, inter alia to be, the recognition that water is a scarce resource; that water belongs to all people; that Government has overall responsibility over the nation's water resources; and ultimately in Section 1 (xviii) provides for a Reserve and therein to firstly satisfy basic human needs by securing a basic water supply, and secondly an ecological reserve to protect aquatic ecosystems of water resources.

Section 27(1)(b) provides for the need to redress the results of past racial and gender discrimination.

➤ **White Paper on Basic Household Sanitation (2001)**

The White Paper (DWAF, 2002a), as endorsed by Parliament in September 2001, provides for a basic level of household sanitation to areas with the greatest need. Also emphasised is that the provision of these basic service levels should be demand driven and community based. It also outlines (p.1) that Government recognises that “...sustainable development can only be achieved through a focus on poverty eradication and economic development...” and “To this end, the Government’s sanitation programme is targeted towards the poorest of the poor thus ensuring that the benefits of the programme are delivered to those persons that are most in need”.

Of critical importance is that this White Paper commits the Government to improve on the Millennium Development Goals of the United Nations to halve the sanitation backlog by 2015, by completely removing the sanitation backlog in SA by the year 2010 (DWAF, 2002a, p.1; DWAF, 2001e, p.1).

It has been estimated by DWAF(2002a, p.3) that 18 million people or 3 million households, have inadequate or no sanitation facilities. The Government has committed, in its media statement in September 2001 by the Minister of DWAF, to provide financial resources to eradicate the sanitation backlog (DWAF, 2001e, p.1).

A further target set by Government is to eradicate the sewage bucket system (estimated at 428 000 households nationally) by 2007 (DWAF, 2002a, p.4).

It has been put forward by DWAF that 80% of the national backlogs in water supply and sanitation delivery are in the rural areas of Limpopo, KwaZulu-Natal and the Eastern Cape (DWAF, 2002a, p.9). The backlog in water services in KZN has been estimated by DWAF to be in the region of 40-60% of the KZN population (DWAF, 2002c, p.1).

It is worth noting that the delivery of basic sanitation services has lagged the delivery of basic water services, a situation not unlike the international scenario. This is illustrated by the estimate that since 1994 that in excess of 7 million people had been provided with access to water supply at a basic level, whereas only half a million people had been positively impacted on by DWAF's national sanitation programme which is to eradicate sanitation backlogs by 2010 (DWAF, 2002a, p.10). CMIP on the other hand, have also been instrumental in providing funding for the provision of basic sanitation services since 1994, and have facilitated basic sanitation services to approximately 1,5 million people (DWAF, 2002d, p.1).

➤ **Integrated Sustainable Rural Development Strategy (ISRDS) (2000)**

The strategic intent of the ISRDS is to "...transform rural South Africa into an economically viable and socially stable and harmonious sector that makes a significant contribution to the nation's Gross Domestic Product (GDP)" (RSA, 2000,p.19).

To achieve this strategy an objective will be to ensure the provision of key services in rural areas and towns. To this end, Government has set itself the targets of achieving the eradication of water and sanitation backlogs by 2008 and 2010 respectively. Water and sanitation needs for rural areas (to also support the ISRDS) are to be programmed and form part of the Integrated Development Plan (IDP) through the Water Services Development Plan at Water Services Authority level, thus assuring prioritisation and programming for implementation.

Responsibility for overall co-ordination and monitoring of the ISRDS has been assigned to the Deputy President, this being an indication of the importance of this programme. This increases the pressure on Government at all levels to deliver on its water and sanitation delivery targets.

A key strategic objective of the ISRDS is “To ensure that by the year 2010 the rural areas would attain the internal capacity for integrated and sustainable development” (RSA, 2000, p.1). This target coincides with the targets set by DWAF to eradicate water and sanitation backlogs in South Africa. Water and sanitation linkages between urban and rural developments are seen as one of the key aspects to ensure success of the ISRDS. This point was reinforced by DWAF in the Minister’s media statement of 19th September 2001 (DWAF, 2001e, p.1).

Agriculture is seen as critical to the ISRDS, with water supply being essential to agriculture.

The ISRDS illustrates that there is clear linkages between the Government’s economic goals for rural communities and the targets set for the water sector to eradicate water and sanitation backlogs.

➤ **Draft White Paper on Water Services (2002)**

This draft White Paper (DWAF, 2002b, p.ii) sets out Government’s objectives for water services, these include inter-alia, improving access to, and affordability and reliability of water and sanitation services; mobilising Government funds to focus on the pressing needs of the poor and increasing other investments by reducing risks associated with private sector financing; promoting community and user involvement. Government’s commitment to targets to reducing the backlogs in water supply by 2008 and for sanitation by 2010 is reaffirmed. Emphasis is placed on sustainability of the services, plus on assisting Local Government to develop capacity to ensure effective delivery. The importance of water supply and sanitation in poverty alleviation is recognised and suggests a link to the ISRDS, whilst also as an important aspect of the SA economy.

This White Paper emphasises that whilst the initial objectives since 1994 have been on policy, planning and delivery, greater emphasis will be placed on sustainability, and thus affordability.

DWAF have outlined that in 1994 that some 12 million people were estimated to be without adequate water, and that 20 million were without adequate sanitation services. Since then, it is estimated that more than 5 million people have been provided with basic water supplies. Progress on sanitation services, however, has been slower, whilst 38% of SA's estimated 46 million people still lack adequate sanitation services (DWAF, 2002b, p.1).

This White Paper suggests that the current estimated backlogs in water supply to be 7 million people, whilst 18-19 million people do not have adequate sanitation services (DWAF, 2002b, p.3).

To assist with sustainability of water services, it is suggested that at least 0,5% of GDP (R5 billion) be invested by Government on infrastructure for water resources and water services on an annual and ongoing basis. Reference to Government here is to all spheres of Government, being National, Provincial and Local government (DWAF, 2002b, p.12).

➤ **Free Basic Water**

DWAF have adopted a free basic water (FBW) policy where the first 6 kilolitres consumed by a household is free of charge. Municipalities are not obliged to apply this policy and have flexibility/discretion in application thereof. This free basic water policy was designed to facilitate access to basic water supply by the poor (DWAF, 2002b,p.43).

Funding for this FBW is through the Government's equitable share, which is an unconditional grant from Government intended to assist local Government in carrying out any obligations required by National Government. Each Province's equitable share is as set out in the Division of Revenue Act (National Treasury, 2002).

➤ **Basic Water and Sanitation Levels of Service**

The Government has defined basic water and sanitation levels of service in terms of its RDP and DWAF guidelines (CMIP, 2001, p.3). A basic sanitation level of service means a Ventilated Improved Pit (VIP) toilet (DWAF, 1996, p.3), whilst a basic water supply is defined as a minimum of 25 litres of potable water per person per day (or 6 000 litres per household per month) within 200m of a household.

Although a basic level of water supply has been defined, it is also clear that water supply below the basic level of service, termed a rudimentary service, may still be able to meet the needs of certain communities. Examples of rudimentary service options are run-of-river abstraction, spring protection, wind-driven pumps and hand pumps (DWAF, 2000, p.6).

These basic levels of service provision, both water and sanitation, are significant for the following reasons (DWAF, 1996, p.15):

- Grants for capital costs will be available to Municipalities where they are unable to meet the provision for national basic water and sanitation provision levels of service.
- Where households and/or communities wish to have access to services which are more expensive than the basic level, the extra capital and running costs will have to be borne from sources other than current or national sources.
- Subsidies, where applicable, will be based on the basic level of service.

Notwithstanding the above financial consideration applicable to basic levels of service, Government is supportive of water services authorities in striving to meet, and where possible, to exceed these minimum basic standards (DWAF, 2002b, p.57).

Whilst Government is committed to providing basic water and sanitation services to all by the set target dates, an additional target is the eradication of the sewage bucket system. In that respect, in terms of the new draft White Paper on Water Services (DWAF, 2002b, p.59), all Municipalities must identify programmes and targets for the eradication of the bucket system, even in unauthorised settlements (DWAF, 2002b, p.56).

Although basic levels of service are defined, local authorities still have some discretion over the amount, of say water, which is provided. DWAF (2001d, p.5) has clarified this in their statement that in cases in remote areas with scattered settlements, that a “basic” service level could relate to what is possible using the technology that best serves the area (as in hand pumps or boreholes). A question that needs to be answered is what then is the best-suited level of service? According to DWAF guidelines (DWAF, 2000, p.6), the level of service must be sustainable technically, financially, socially, environmentally and managerially.

The developments in the water sector in SA have highlighted the fact that transformation is taking place, and that urgent implementation of new water legislation and appropriate programmes are needed to address the backlogs in basic water and sanitation services. The transformation of the water sector is now clearly in the implementation stage, and thus the quantification of backlogs and programmes to address these backlogs is seen as a crucial step in this process.

CHAPTER 3 : RESEARCH METHODOLOGY

3.1 PROBLEM STATEMENT

The new Government in South Africa inherited vast backlogs in the provision of basic water and sanitation services. Since then, there has been much transformation in the water sector in SA, with concerted efforts by the Government to reduce these backlogs. The Government has recently committed itself to reduce these backlogs by 2008 and 2010 for basic water and sanitation services respectively (DWAF, 2002b, p.ii).

The targets set by Government are in advance of detailed planning at the Local Government Level to address the backlogs in basic water services, which raises the question whether the targets are achievable. The South African targets are even more ambitious than the Millennium Development Goals to halve the proportion of people without access to basic water and sanitation services by 2015 (WSSCC, 2002b, p.1).

3.2 RESEARCH OBJECTIVES

The research objectives are to :-

- Ascertain the extent of backlogs in basic water supply and sanitation services in KwaZulu-Natal.
- Estimate the costs to address these services backlogs.
- Ascertain the constraints, if any, in addressing the backlogs.
- Compare the Government's targets set to eradicate the services backlogs with plans of the District Municipalities.
- Ascertain whether the SA Government has made sufficient funding available in KZN for the elimination of the water services backlogs.

3.3 PROCEDURE ADOPTED

The procedure utilised was as follows:

- Related literature was reviewed, particularly focussing on the Government's transformation initiatives, plus the background to basic water and sanitation backlogs.
- Where completed WSDP's were available, these were reviewed to source background and initial information on the services backlogs.
- A structured questionnaire was compiled for completion by all the district and Metropolitan Municipalities and/or WSAs in KZN to provide the required key data.
- Responses to the questionnaire were analysed.
- Findings and conclusions were documented.

3.4 DATA ACCUMULATION AND SAMPLE

The completed WSDP's of the various Water Services Authorities in KZN, contained some of the data that was needed for this investigation. Additional data was sourced through the structured questionnaire as discussed in Section 3.5. Data that was of particular importance to this investigation are:

- Details of the numbers of backlogs in basic water and sanitation services.
- The time frames for delivery of the needed basic water services.
- The estimated costs of the programme for the delivery of the needed basic water services to eradicate the backlogs in these services.
- Government's budgets to address the backlogs in the water and sanitation services.
- The constraints to addressing the backlogs in basic rural water and sanitation services.

Contact was made with all WSAs in KZN to obtain their assistance and copies of their completed WSDP's where they were available. These WSDP's were reviewed for background information and base data needed for the investigation. However, they did not provide all the data needed for this investigation and additional data was sourced through the structured questionnaire (Annexure B).

A 100% sample was utilised in that all WSAs in KZN participated in the investigation.

3.5 RATIONALE FOR QUESTIONNAIRE

The questionnaire (Annexure B) was deemed necessary to complement information contained in the WSDP's of the WSAs. The WSDP's in itself did not provide all the data needed for this investigation. To achieve the objectives of the investigation it was necessary to question and obtain answers to various issues that would facilitate the analysis, findings and conclusions to this investigation. The questionnaire was designed to pose structured questions on issues pertinent to the investigation, and also to add to the information provided in the WSDP's.

A structured questionnaire (Annexure B) was developed (and completed by all the WSAs) to serve the following purpose:

- To complement information provided in the WSDP's, and to provide the necessary data needed for the investigation.
- To form the common basis for analysis of data.
- To arrive at answers to common questions posed to all the WSA's in KZN.
- To form the basis of comparison of answers to facilitate findings and conclusions.

To alleviate the need to wait for the completed WSDP's to outline the magnitude of the water services backlogs, the structured questionnaire, as shown in Annexure B, was compiled and eventually completed by all the WSAs in KZN. Questions 3, 4 and 5 were specifically structured to outline the backlogs, programmes and costs to eliminate the water services backlogs. The completion of the questionnaire was undertaken in personal interviews with the respective responders, those being outlined in Annexure A. (The time taken to complete the questionnaire was a lengthy, time consuming exercise involving numerous interactions and was done over a period of 3 months).

To ensure that the objectives of the research were met, specific questions were posed in the questionnaire in respect of these objectives as follows:

- **Extent of the backlogs in basic water supply and sanitation in KZN, and comparison of Government's targets against actual planned delivery programmes.**

Questions 3, 4 and 5 were posed to quantify the extent of basic water and sanitation backlogs, and to also outline the programmes at Local Government level to address these backlogs.

The Government had set targets for the elimination of water services backlogs ahead of the planned programmes at WSA level. The quantum of the total backlogs and programmes to address the backlogs in KZN would be ascertained by adding all the responses to this question. This would be compared with Government's targets for the elimination of backlogs in water services.

- **The costs to address the water services backlogs.**

Questions 4 and 5 were also posed to ascertain the estimated costs for the delivery programmes to eliminate the backlogs in basic water services. These costs would serve to compare that with available Government funding to evaluate the feasibility of achieving Government's targets for the elimination of the water services backlogs.

- **Constraints in addressing backlogs in water services.**

Questions 2 and 10 were posed to ascertain constraints that may be apparent in addressing water services backlogs?

Whilst the programmes to eliminate backlogs in water services may have been set by the WSA's, there may be constraints that could hinder these programmes which may need to be considered and addressed.

- **Are Government's annual budgeted funds sufficient to meet the planned delivery programmes of the WSA's?**

Questions 6, 7, 8 and 9 sought to ascertain whether the Government's financial budgets were sufficient to meet the planned budgeted needs of the WSA's, and whether they had considered the need to source funding from other funders as opposed to the traditional grant funders in South Africa. Answers to these questions would also assist with ascertaining the feasibility of achieving the Government's targets particularly from a funding perspective.

3.6 DATA ANALYSIS

Data in the WSDP's and responses to the questionnaire (Annexure B) were analysed with the objectives of the investigation, as outlined in Section 1.3, in mind.

The data obtained was analysed with respect to key issues on water and sanitation backlogs found in the literature review undertaken (Chapter 2) and focused on achieving the objectives of the investigation as outlined in section 1.3.

3.7 RESEARCH LIMITATIONS

The investigation was confined to the KwaZulu-Natal region of South Africa. It is one of the three areas of South Africa reported to have the highest backlogs in the rural areas (DWAF, 2002a, p.9).

The investigation did not focus on backlogs in water and sanitation services, if any, in urban areas. The rationale for this was that prior to 1994, the previous Government had focussed primarily on water services delivery in the urban “white” areas (DWAF, 1997a, p.4).

Similarly, it has also not focussed on whether there are sufficient water resources or bulk water infrastructure to support the water needs to address the provision of water and sanitation services needed. This is outside the scope of this investigation.

Excluded from the investigation is the need for adequate sanitation in schools. It has been estimated though that 11,7% of all schools in SA have no sanitation facilities at all, that translates into an estimated shortage of 217 339 toilets in schools (DWAF, 2001e, p.2).

The investigation focussed on backlogs at District and Metropolitan Municipality level and did not aim to quantify the backlogs at the Local Municipality level. All Local Municipal backlogs are consolidated into the WSDP’s of the District Municipality’s. The rationale for excluding the specific backlogs for the Local Municipalities is that data would do little or nothing to enhance the results of this investigation.

CHAPTER 4: FINDINGS ON BACKLOGS IN RURAL WATER SERVICES IN KZN

The KZN region consists of 14 Water Services Authorities (WSAs), made up of ten District Municipalities, the Durban Metropolitan Council, known as the eThekweni Municipality and three Local Municipalities, the latter only obtained this status from 01 July 2003 (MPLG, 2003, p.133). These Municipalities, in their capacity as Water Services Authorities (WSAs), have all participated in this investigation, and the findings outlined in this chapter are related to the following municipalities as WSAs:

- Amajuba District Municipality (ADM)
- eThekweni Municipality (eTHM)
- Ilembe District Municipality (IDM)
- Newcastle Local Municipality (NLM)
- Sisonke District Municipality (SDM)
- Ugu District Municipality (UDM)
- uMgungundlovu District Municipality (UMDM)
- uMhlatuze Local Municipality (UMHLM)
- uMkhanyakude District Municipality (UMKDM)
- uMsunduzi Local Municipality (UMSLM)
- uMzinyathi District Municipality (UMZDM)
- uThukela District Municipality (UTKDM)
- uThungulu District Municipality (UTDM)
- Zululand District Municipality (ZDM)

See Annexure C for an Area Map

In considering the need to address the water services backlogs, there are key issues pertinent to the topic. These include the planned programme, the financial resources needed, the current sources of funding and whether they are sufficient to meet the need, and the constraints to delivery of the water services programme.

This chapter sets out the findings of the investigation, with particular emphasis on achieving the objectives of the investigation, as outlined in Section 1.3.

4.1 BACKLOGS IN BASIC RURAL WATER AND SANITATION SERVICES

Whilst backlogs in basic water services may have been quantified from various sources, in particular DWAF, these appear to have been done in isolation from Local Government and Municipalities. This is evident in the fact that only now are Municipalities, in their capacity as Water Services Authorities (WSAs), busy with the compiling of Water Services Development Plans (WSDP's). In these WSDP's, the extent, costs and programmes to address the backlogs should be outlined, that being a requirement in terms of the Water Services Act (DWAF, 1997, s.13). Whilst some WSAs have completed their WSDP's, some are still in the process of doing so.

The magnitude of the basic rural water and sanitation services in KZN is outlined in Table 4.1.

Table 4.1: Basic Rural Water and Sanitation Backlogs in KZN

Municipality	Population	Population (Rural)	RURAL BACKLOGS (2002/03 AS BASIS)			
			Water		Sanitation	
			N° (Persons)	Population % (Rural)	N° (Persons)	Population % (Rural)
Amajuba DM	176 107	163 132	153 200	87,0 (93,9)	156 700	89,0 (96,1)
eThekweni	3 000 000	364 000	364 000	12,1 (100)	364 000	12,1 (100)
Ilembe DM	562 698	444 530	280 000	49,8 (63,0)	424 500	74,6 (95,5)
Newcastle LM	364 956	110 196	86 772	23,8 (78,7)	101 130	27,7 (91,8)
Sisonke DM	410 833	338 196	264 853	64,5 (783)	313 242	76,2 (92,3)
Ugu DM	645 107	549 760	336 240	52,1 (61,2)	425 331	65,9 (77,4)
uMgungundlovu DM	383 845	326 639	163 996	42,7 (50,2)	215 924	56,3 (66,1)
uMhlathuze LM	Included in Figures for uThungulu DM					
uMkanyakude DM	494 131	477 600	314 470	63,6 (65,8)	474 595	96,0 (99,4)
uMsunduzi LM	523 470	310 000	1 915	0,4 (0,6)	80 000	15,3 (25,8)
uMzinyathi DM	615 973	568 350	248 545	40,3 (43,7)	397 477	64,5 (69,9)
uThukela DM	629 853	554 270	244 400	38,8 (44,1)	504 000	80,0 (90,9)
uThungulu DM	762 791	623 300	516 850	67,8 (82,9)	580 290	76,1 (93,1)
Zululand DM	1 030 714	1 002 170	688 968	66,8 (68,7)	900 482	87,4 (89,9)
TOTAL	9 600 478	5 832 143	3 664 209	38,2 (62,8)	4 937 671	51,4 (84,7)

Of the total population of 9,6 million people in KZN, as derived from data in the WSDP's of the respective WSAs, it is evident that the backlogs in basic rural water supply is 3,66 million people, which is somewhat lower than the backlog in basic sanitation services of 4,94 million people.

It has been suggested by DWAF (DWAF, 2002a, p.10) that in excess of 7 million in SA lack access to basic water supply. If that figure is taken against the backlog of 3,66 million people without basic water supply in KZN (Table 4.1), then it would suggest that approximately 50% of all backlogs in water supply in SA is in KZN.

It is, however, necessary to consider each WSAs backlogs respectively in its own specific context to gain an understanding of their peculiarities and/or exigencies.

Discussion on each WSA follows:

- **Amajuba District Municipality**

The Amajuba DM is located in the North-West corner of KwaZulu-Natal. It has a total area of 5 055km² with a total population of 176 107, of which 163 132 are rural residents (ADM, 2003, Chapter 3, p.24).

The Town of Newcastle, whilst a part of the Amajuba DM is a WSA in its own right with effect from 1 July 2003 (MPLG, 2003, p.133), and its backlogs are excluded from the data for the Amajuba DM.

Backlogs in basic water and sanitation services is 153 200 persons and 156 700 persons respectively.

To alleviate the water and sanitation backlogs, two solutions have been proposed in the WSDP (ADM, 2003, Chapter 4, p.10), these being either a marginal or optimal solution. The marginal solution provides for a basic (RDP) level of water and sanitation service, whilst the optimal solution provides for yard connections in the case of water supply, and a higher sanitation level of service than the RDP

basic level of service. The higher level of sanitation service provides for either a basic, intermediate or full sanitation option, strictly depending on customer density (ADM, 2003, Chapter 4, p.10).

The rationale for proposing an alternative optimal solution for elimination of basic water services backlogs is based on the concept of total cost of ownership. The impact of different levels of service on the water services profile of the Amajuba DM was explored in the WSDP, and it has been recommended therein that the preferred option should be the optimal solution. This recommendation is based on the various advantages of which include, amongst others, long-term financial sustainability, a cost premium of only 8%, and the lowest cost of ownership to the community (ADM, 2003, Chapter 4, p.2). Customer density though is a key factor in determining the service level (ADM, 2003, Figure 4.1, p.11).

The costs and programmes outlined in this section is based on the marginal solution to ensure comparison with the other WSAs in KZN who have all planned for a RDP or similar level of basic service provision.

The programmes for alleviation of backlogs in basic water supply provides for elimination of the basic water backlogs in 5 years to 2007/08, and in 6 years for sanitation backlogs (ie to 2008/09).

- **eThekwini (Metropolitan) Municipality**

The eThekwini Municipality is situated within the Durban Metropolitan Area (DMA) and covers an area of 1 370km², with an estimated population of 3,0 million persons (eThM, 2000, p.15).

Backlogs in water and sanitation services was sourced from the Area Business Plan (eThM, 2002) as it contained more up to date information than that provided in the WSDP of October 2000. This Area Business Plan outlined that 63 000 households, approximately 364 000 persons, were in need of basic water and

sanitation services in the semi-rural areas of the DMA (eThM, 2002, p.3).

The provision of water and sanitation services within eThekweni Municipality are relatively high in comparison with the District Municipalities in KZN. The low percentage of backlogs can be attributed to the highly developed state of the Durban Metropolitan Area (DMA). It is the only Metropolitan Council in KZN.

The new Durban Unicity gained new boundaries on 6 March 2000 and as such, large areas of the previous Ilembe Regional Council were incorporated into the Durban Metropolitan Area (eThM, 2000, p.2). A fair proportion of the backlogs that is now the responsibility of the eThekweni Municipality, were inherited from the new areas incorporated in March 2000.

Within the DMA, there are urban informal settlements within the confines of the City itself where service levels may be below the RDP basic levels of service. These urban backlogs have not been considered for 2 reasons. One, informal settlements are deemed to be temporary in nature until the settlers are relocated to more permanent formal settlements and secondly, being urban in nature, fall outside the scope of this investigation, which is focused on the rural backlogs, where the majority of the problems are purported to exist.

- **Ilembe District Municipality**

The Ilembe District Municipality (IDM) situated on the East Coast is in KwaZulu-Natal District Council 29 (DC 29). It is the smallest District Municipality in KZN, is approximately 3 260km² in extent and has an estimated population of 562 698 persons (IDM, 2002, p.4).

It is estimated that 280 000 people, approximately 50% of the district's population, do not have access to adequate water supply facilities, whilst approximately 420 000 people (75% of the district's population) do not have access to adequate sanitation facilities (IDM, 2002, p.7).

The planned programmes for elimination of the water and sanitation services provides for periods of 20 and 26 years respectively. In comparison with other WSAs, these periods are rather long. The difference in this case comes from the conservative annual budget provision from the year 2008/09 onwards. Unlike most of the other WSAs who have escalated their annual services budget from 2008/09, the Ilembe DM's programme is based on a constant annual budget (See Tables 4.3.1 and 4.3.2).

- **Newcastle Local Municipality**

The Newcastle Local Municipality forms part of the Amajuba District Municipality and is located in the North-West corner of KwaZulu-Natal.

The Newcastle Local Municipality has since 1 July 2003, been granted WSA status (MPLG, 2003, p.133). It has a total population of 364 956 persons, of which only 110 196 are considered rural population, in an area of 1 856km².

To alleviate the water and sanitation backlogs, it had been proposed in the WSDP (NLM, 2003, Chapter 4, p.10) that either a marginal or optimal solution be implemented. The marginal solution provides for a basic (RDP) level of water and sanitation service, whilst the optimal solution provides for yard connections in the case of water supply, and a higher sanitation level of service than the RDP, basic level of service. The higher level of sanitation service comprises options of a small bore sewer to treatment works, or a full waterborne sewer system, although it is recognised that some areas would still have to be served with VIP's depending on density of the residents.

The costs and programmes for this WSA as outlined in this Chapter is based on the marginal solution to facilitate comparison with the other WSAs in KZN who have all planned for a RDP or similar level of basic service provision. Higher levels of service will require other sources of funding, other than from the South African grant funders.

The backlog in basic water supply is 86 772 persons, whilst the sanitation backlog is 101 130 persons. It is proposed to eliminate the water backlog by 2008/09, ie in 6 years, whilst the sanitation backlog is planned for alleviation by 2009/10, ie in 7 years.

- **Sisonke DM**

The Sisonke District Municipality (SDM) situated on the South-western corner of KwaZulu-Natal is in KwaZulu-Natal District Council 43 (DC 43). It has an area of approximately 10 109km², and an estimated population of 410 833 persons.

It has been estimated that 264 853 persons do not have access to basic water supply, and that 313 242 persons lack access to basic sanitation services. It is planned to be eliminate these backlogs in 10 years.

- **Ugu DM**

The Ugu District Municipality (UDM) situated on the South Coast is in KwaZulu-Natal District Council 21 (DC 21). It has an area of approximately 5 150km², and an estimated population of 645 107 persons (UDM, 2002, p.7).

It has been estimated that 336 240 people do not have access to basic water supply, and that 425 331 people lack access to basic sanitation services (UDM, 2002, p.ii).

It is planned to eliminate these backlogs in 11 and 13 years respectively for basic water and sanitation services.

- **uMgungungdlovu DM**

The uMgungungdlovu District Municipality is situated in the Pietermaritzburg area of KwaZulu-Natal. It has an area of 9 189km², with an estimated population of 273 541 persons.

Excluded from the backlogs for this District Municipality is that of the Msunduzi Municipality since it has been granted WSA status with effect from 1 July 2003.

Water supply backlogs have been estimated at 163 996 persons, whilst estimated sanitation backlogs are 215 924 persons. These backlogs are planned for elimination in 10 years.

- **uMhlatuze Local Municipality**

The uMhlatuze Local Municipality comprises a combination of small villages and the Town of Richards Bay. It has a total population of 196 183 persons, of which 87 143 are considered rural.

This Municipality has recently been granted WSA status with effect from 1 July 2003 (MPLG, 2003, p.13).

Whilst a WSDP is currently being drafted for this WSA, its backlogs have been included in the WSDP for the uThungulu DM.

Backlogs in basic water supply is estimated at 73 831 persons and 84 076 persons do not have access to adequate basic sanitation in accordance with Tables 3.12 and 3.13 in the draft WSDP for uThungulu DM (UTDM, 2001, p.16).

- **uMkanyakude DM**

This District Municipality (DC 27) is in the northern most part of KZN. It has an area of 12 884km², and a total population of 494 131 persons.

The backlog in basic rural water supply is 314 470 persons, whilst the backlog in access to sanitation services is 474 595 persons. These backlogs are planned for elimination in 7 years and 9 years respectively.

- **uMsunduzi Municipality**

The uMsunduzi Municipality is located on the N3 between Durban and Johannesburg. It has an area of 649km² and its population is approximately 523 470 persons (NW, 2003, p.9).

This Municipality has recently been granted WSA status with effect from 1 July 2003 (MPLG, 2003, p.133).

A WSDP is currently being considered as a result of this new WSA development and thus very little data is available on rural water services backlogs.

The main or at the least largest rural population within this Municipal area exists in the rural area of Vulindlela, and comprises a rural population of 185 000 persons (Burgess, 1998, p.313). Whilst not all the rural population in Vulindlela has potable water, it has been put forward by the Municipality that all at least have access to water. Access to water has been provided by protected springs, boreholes, in addition to individual household connections with potable water sourced from Umgeni Water.

Umgeni Water has provided household water connections to approximately 10 000 individual households (approximately 80 000 persons), whilst it has been estimated that in excess of 41 000 persons are served by the boreholes and springs (UW 2001, p.11).

The sanitation backlog in Vulindlela has been estimated at 10 000 households (approximately 80 000 persons).

In the absence of a WSDP for this Municipality, the backlogs in water supply has been estimated at approximately 1 900 persons, whilst sanitation backlogs have been estimated at 80 000 persons.

It is expected that it would take 5 years to eradicate basic water backlogs in uMsunduzi and as much as 15 years to eliminate the sanitation backlog.

The accuracy of the costs and programmes to eliminate the services backlogs has a higher level of uncertainty relative to data collected for the other WSAs in this investigation, primarily as a result of the absence of detailed investigations due to the newly acquired WSA status and the absence of a completed, or even a draft WSDP.

- **uMzinyathi DM**

The uMzinyathi District Municipality (DC 24) has a total population of 615 973 persons and has an area of 8 081km² (UMZDM, 2002, p.6).

The district's current basic water supply backlog is 248 545 persons, whilst the backlog in access to sanitation services is 397 477 persons. These backlogs, however, represent the current backlogs that will exist after the completion of current projects being implemented. These current projects aside, the backlogs would have been appreciably higher by an additional 162 545 persons lacking basic water supply, and an additional 158 400 persons needing basic sanitation.

Whilst the older/current projects, which commenced before the compilation of the WSDP, will only be completed by the 2006/07 financial year, the backlogs identified in the WSDP will be simultaneously addressed in parallel with the older/current projects.

It is planned to eliminate the basic water and sanitation backlogs in 13 years and 8 years respectively.

- **uThukela DM**

The uThukela DM forms part of the Tugela River Catchment and covers an area of 11 329km² and has an estimated population of approximately 630 000 persons.

Approximately 44% (244 400 persons) of the rural population have insufficient water supply, whilst approximately 91% (504 000 persons) rural persons have no access to a satisfactory (VIP) level of sanitation.

At expected funding levels, it is expected that it will take 20 years to alleviate the water backlog and 22 years to alleviate the sanitation backlog.

- **uThungulu DM**

The uThungulu District Municipality (DC 28) is located in the northern coastal part of KZN. The population of the district is 762 791 persons in accordance with an updated WSDP Table 3.12 as provided (Fourie, 2003). The backlogs in water services for the Local Municipality of uMhlatuze is included in the WSDP planning for the uThungulu DM. The uMhlatuze Municipality is one of three Local Municipalities whom recently have been granted WSA status, and their WSDP is yet to be drafted. The uMhlatuze Municipality essentially comprises the Town of Richards Bay, which has well developed water and sanitation services.

The backlog in rural basic water supply is 516 850 persons, whilst the backlog in rural sanitation services is 580 290 persons.

It is planned to eliminate the basic water and sanitation backlog in 15 years and 14 years respectively.

- **Zululand DM**

The Zululand District Municipality is primarily a rural district with a population of 1 030 714 people, and covers an area of 15 307km².

The backlog in basic water supply is 688 968 persons, whilst that for basic

sanitation is 900 482 persons, which is the largest sanitation backlog in KZN.

The WSDP is still being compiled, and as such there is still uncertainty over the long-term programme to implement the water services backlog. The overall programme for the first 5 years has however been compiled in draft form.

The annual delivery targets and budgets for the 1st 5 years has been extrapolated at constant values to arrive at the total duration to eliminate the water services backlogs. This gives an estimated 12 years to eliminate the water supply backlog, and 33 years to attend to the sanitation backlog (See Tables 4.3.1 and 4.3.2).

4.2 COST ESTIMATES TO ELIMINATE THE WATER SERVICES BACKLOGS

To arrive at a cost to eliminate the backlogs in basic services, an estimate of the level of service to be provided is needed. Whilst the Government has defined the basic levels of water and sanitation services, it may not always be possible to implement the RDP level of service, as discussed in Section 2.3, for a number of reasons peculiar to that district, community or project.

The WSDP's, where completed, outline the service levels to be achieved in delivery of water and sanitation services. However, to accommodate the unavailability of some WSDP's, which are still in the process of being compiled, the structured questionnaire, as shown in Annexure B, sought to clarify what specific service levels are intended. These specific planned service levels would assist with arriving at a total cost estimate to deliver the necessary services to eliminate the services backlogs.

Table 4.2.1 below summarises the planned service levels to be implemented by the WSAs in their efforts to alleviate the water services backlogs.

Table 4.2.1 : Planned Service Levels to Alleviate Water Services Backlogs in KZN

MUNICIPALITY	PLANNED SERVICE LEVEL	
	WATER	SANITATION
Amajuba DM *	RDP Level	VIP
EThekweni	RDP Level	VIP (double chamber)
Ilembe DM	Rudimentary) RDP)Both Applicable	VIP
Newcastle LM *	RDP Level	VIP
Sisonke DM	Survival (short-term) Rudimentary (medium-term) RDP (long-term)	VIP
Ugu DM	RDP Level	VIP
uMgungundlovu DM	RDP Level	VIP
uMhlatuze LM	RDP Level	VIP
uMkanyakude DM	Survival) All 3 levels Rudimentary) will be imple- RDP) mented	VIP
uMsunduzi LM	RDP Level	VIP
uMzinyathi DM	RDP Level	VIP
uThukela DM	Rudimentary) RDP) Both applicable	
uThungulu DM	Survival) All 3 levels Rudimentary) will be imple- RDP) mented	VIP
Zululand DM	Rudimentary) Both levels will RDP be implemented	VIP

* Higher levels of service, termed an optimal solution, have been proposed as an option in the WSDP's. See discussion in Section 4.1

As is evident from Table 4.2.1, the planned level of water supply varies between Municipalities from the RDP level of service and lower levels of service termed survival to rudimentary service levels. The RDP level of service is clear, as outlined in Section 2.3, but the lower levels of service, although varying slightly from Municipality to Municipality, can be summarised as follows:

- Survival level of service – Generally 1-5 litres per capita per day. Typical source

is generally a borehole or hand pump, usually within 500m of community settlements.

- Rudimentary level of service – Generally 5-15 litres per capita per day. Typical source is a standpipe at greater than 200m walking distance.

The rationale for the provision of water supply levels lower than the RDP standard is best described where the district is typified by scattered rural settlements, thus making an RDP level of service not feasible primarily from a cost perspective. An alternate reason could be that adequate natural or groundwater sources are available, making it unnecessary to implement piped water reticulation systems in the form of standpipes.

Although at least an RDP level of water supply is preferred, DWAF have recognised that in specific cases, particularly in remote areas with scattered settlements, that a lower level of service could be appropriate, especially where the use of boreholes and hand pumps are used (DWAF, 2000, p.6).

In all cases, the planned sanitation level to be provided is the RDP service level of a VIP latrine.

Having taken cognisance of the service levels outlined in Table 4.2.1, the estimated costs to provide the basic rural water and sanitation services in KZN is given in Table 4.2.2 below.

Table 4.2.2 : Estimated Costs to Address Backlogs in Water and Sanitation**Services in KZN**

MUNICIPALITY	SANITATION			
	Backlog (N° of Persons)	Cost to Address Backlog (Rx10 ⁶)	Backlog (N° of Persons)	Cost to Address Backlog (Rx10 ⁶)
Amajuba DM	153 200	211,0	156 700	58,0
eThekweni	364 000	126,0	364 000	176,0
Ilembe DM	280 000	560,0	424 500	117,9
Newcastle LM	86 772	112,0	101 130	27,0
Sisonke DM	264 853	569,5	313 242	78,3
Ugu DM	336 240	504,6	425 331	135,6
uMgungundlovu DM	163 996	350,7	215 924	69,0
UMhlatuze LM	Included in Figures for uThungulu DM			
uMkanyakude DM	314 470	260,5	474 595	108,2
uMsunduzi LM	1 915	3,0	80 000	25,5
uMzinyathi DM	248 545	369,3	397 477	83,4
uThukela DM	244,400	392,0	504 000	142,3
uThungulu DM	516 850	530,6	580,290	180,3
Zululand DM	688 968	888.2	900 482	236.6
TOTAL	3 664 209	4 877.4	4 937 671	1 438.1

The estimated cost to alleviate the basic water backlog of 3 664 209 persons is R4,87 billion (See Table 4.2.2) at an average cost of R1 300 per capita. This per capita cost provides mostly for RDP levels of water supply, and even lower in cases where survival and rudimentary levels of service are to be provided. To provide an RDP level of water supply to all persons in KZN, will raise the cost to R5,5 billion, at an average cost of R1 500 per capita. (This cost per capita as utilised is the average cost generally utilised in the WSDP's of the various WSAs). It needs to be considered though that it is probably not feasible to provide all with RDP levels of service in the medium-term, and thus the estimated cost of R4,87 billion (Table 4.3.3) can be taken as indicative of the estimated cost to alleviate the water backlog over the medium-term of approximately 12 years (refer to Table 4.3.3 for the average term to alleviate

water backlogs).

The cost to eliminate the basic sanitation backlog of persons is estimated at R1,44 billion (Table 4.3.4), which is only approximately 30% of the cost to eliminate the water supply backlog.

4.3 PLANNED PROGRAMMES TO ADDRESS THE BACKLOGS IN BASIC SERVICES

A key aspect of the investigation is to ascertain whether the Government's targets for elimination of the backlogs in basic water and sanitation services by the years 2008 and 2010 respectively, is achievable. This question arose considering that planned programmes at Local Government level had not yet been compiled at the time that Central Government set the targets as previously discussed.

In setting of the targets by Government, it is reasonable to suggest that a basic assessment of the quantum of the backlogs was determined and a ballpark budget estimate to eliminate the backlogs was done. Presumably this estimate was compared with planned future budgets to assess the feasibility of achieving the target dates, before committing to the aforementioned targets. The investigation at hand did not investigate the processes undertaken by Government in setting of the targets. It is sufficient for the purpose of this investigation to have taken note of the targets set by Government.

To ascertain the planned programmes for delivery of water services to eliminate the backlogs in KZN, the structured questionnaire (Annexure B) sought to obtain the planned programmes per WSA in KZN. The Tables 4.3.1, 4.3.2, 4.3.3 and 4.3.4 that follow set out the planned programmes for delivery of basic rural water and sanitation services.

The planned programme for the first 5 years to 2007/08 for delivery of water

services were derived from projects prioritised at Local Municipal level, and consolidated into a programme at District Municipality or WSA level. The programmes from the 2008/09 financial year are based on projected annual budgets, and as such, the accuracy of the programmes from the year 2008/09 and onwards is lower than for the 1st 5 years.

As is evident from Table 4.3.3, it will take a planned estimated average of 12 years to alleviate the water backlog in KZN. By the year 2007/08, only approximately 1,64 million persons (Table 4.3.1) currently without basic water supply are planned to be provided with a RDP level of water supply, or lower. That represents only approximately 45% of the total water backlog. It is thus clear that Government's target to alleviate all water backlogs by the year 2008, will in all likelihood not be met in KZN. The Amajuba DM is the only WSA with planned programmes to meet the Government's target for water provision. It should be noted that in the case of the Ilembe DM that it is expected that the water delivery programme could take as long as 20 years.

Similarly, as is evident from Table 4.3.4, it will take a planned estimated average of 12 years to alleviate the sanitation backlog in KZN. To the year 2010, the year that Government had set to eliminate basic sanitation backlogs, 54% (2,66 million people) of those currently not served are planned at Municipal level to have been provided with a basic sanitation service (Table 4.3.2). It is thus clear that Government's target for the provision of basic sanitation service to all currently not served by the year 2010 will not be met. Only the Amajuba DM and Newcastle LM have planned to meet Government's targets. In the case of the Zululand DM it is expected that it could take as much as 33 years to eliminate the sanitation backlog.

It is uncertain whether the Government will accept the planned programmes of Local Government, or if they will insist that the programmes be accelerated. The funding needed to provide the necessary water services to meet Government's targets is discussed in Section 4.5.

Table 4.3.1 : Programmes to Address Water Backlogs in KZN to 2008

MUNICIPALITY /WSA	TOTAL BACK- LOG	P R O G R A M M E										TOTAL		
		03 / 04		04 / 05		05 / 06		06 / 07		07 / 08		Nº	Cost	%
		Nº (pers)	R x 10 ⁶	Nº (pers)	R x 10 ⁶	Nº (pers)	R x 10 ⁶	Nº (pers)	R x 10 ⁶	Nº (pers)	R x 10 ⁶	Served (pers)	R x 10 ⁶	Backlog Eliminated
Amajuba DM	153 200	8 000	11,0	34 850	48,0	29 050	40,0	14 500	20,0	66 800	92,0	153 200	211,0	100
EThekweni	364 000	36 400	12,6	36 400	12,6	36 400	12,6	36 400	12,6	36 400	12,6	182 000	63,0	50
Ilembe DM	280 000	12 000	24,0	12 000	24,0	12 000	24,0	12 000	24,0	12 000	24,0	60 000	120,0	21
Newcastle LM	86 772	6 430	9,0	25 700	36,0	13 600	19,0	-	-	12 872	18,0	58 600	82,0	68
Sisonke DM	264 853	11 372	24,5	34 150	73,4	42 383	91,1	28 546	61,7	24 715	53,1	141 166	303,8	53
Ugu DM	336 240	34 733	52,1	25 933	38,9	14 800	22,2	14 800	22,2	29 900	44,0	120 166	179,4	36
UMgungundlovu DM	163 996	8 300	17,7	32 820	70,2	40 980	87,6	29 710	63,5	8 700	18,6	120 510	257,6	74
uMhlatuze LM	Included in Figures for uThungulu DM													
UMkanyakude DM	314 470	43 746	36,2	45 512	37,7	36 756	30,4	51 264	42,5	44 028	36,5	221 306	183,3	70
uMsunduzi LM	1 915	116	0,2	479	0,7	440	0,7	440	0,7	440	0,7	1 915	3,0	100
uMzinyathi DM	248 545	5 667	8,5	12 867	19,3	14 733	22,1	10 800	16,2	22 700	34,0	66 767	100,1	27
uThukela DM	244 400	22 000	35,3	14 200	22,8	12 500	20,1	12 900	20,7	13 530	21,6	75 130	120,5	31
uThungulu DM	516 850	33 826	50,7	26 051	39,1	27 984	42,0	32 548	48,8	32 548	48,8	152 957	229,4	30
Zululand DM	688 968	57550	74.2	57550	74.2	57550	74.2	57550	74.2	57550	74.2	287 750	371,0	42
TOTAL	3 664 209	280 140	356.0	358 512	496.9	339 176	486.0	301 458	407.1	362 183	478.1	1 641 467	2 224.1	45

Note: It needs to be noted that within the overall programme that not all will be served, primarily for practical, technical and cost reasons. That percentage is small though, estimated at approximately 1% of the backlog.

Table 4.3.2 : Programmes to Address Sanitation Backlogs in KZN to 2010

MUNICIPALITY / WSA	TOTAL BACK- LOG	P R O G R A M M E														T O T A L		
		03 / 04		04 / 05		05 / 06		06 / 07		07 / 08		08 / 09		09 / 10		N°	Cost	%
		N° (pers)	R x 10 ⁶	N° (pers)	R x 10 ⁶	N° (pers)	R x 10 ⁶	N° (pers)	R x 10 ⁶	N° (pers)	R x 10 ⁶	N° (pers)	R x 10 ⁶	N° (pers)	R x 10 ⁶	Served (pers)	R x 10 ⁶	Backlog Eliminated
Amajuba DM	156 700	21 600	8,0	24 300	9,0	16 200	6,0	8 100	3,0	18 900	7,0	67 600	25,0	-	-	156 700	58,0	100
eThekweni	364 000	36 400	17,6	36 400	17,6	36 400	17,6	36 400	17,6	36 400	17,6	36 400	17,6	36 400	17,6	254 800	123,2	70
Ilembe DM	424 500	16 200	4,5	16 200	4,5	16 200	4,5	16 200	4,5	16 200	4,5	16 200	4,5	16 200	4,5	113 400	31,5	27
Newcastle LM	101 130	11 238	3,0	52 440	14,0	7 494	2,0	-	-	-	-	29 958	8,0	-	-	101 130	27,0	100
Sisonke DM	313 242	46 000	11,5	61 500	15,4	60 900	15,2	31 200	7,8	18 900	4,7	18 900	4,7	18 900	4,7	256 300	64,0	82
Ugu DM	425 331	39 000	13,0	35 400	11,8	11 700	3,9	11 700	3,9	34 000	11,0	34 000	11,0	34 000	11,0	199 800	65,6	47
uMgungundlovu DM	215 924	16 000	5,0	12 000	3,7	15 800	4,9	19 300	6,0	14 323	4,5	28 646	9,0	28 646	9,0	134 715	42,1	62
uMhlatuze LM	Included in Figures for uThungulu DM																	
uMkanyakude DM	474 595	50 374	11,5	50 329	11,5	54 920	12,5	53 697	12,2	51 159	11,7	53 700	12,2	53 700	12,2	367 879	83,8	78
uMsunduzi LM	80 000	5 300	1,7	5 300	1,7	5 300	1,7	5 300	1,7	5 300	1,7	5 300	1,7	5 300	1,7	37 100	11,9	46
uMzinyathi DM	397 477	19 408	4,2	33 450	7,3	35 809	7,8	42 868	9,4	73 000	16,0	59 300	13,0	59 300	13,0	323 135	70,7	81
uThukela DM	504 000	35 000	6,9	25 200	5,0	28 000	5,5	28 000	5,5	24 800	5,4	33 750	6,7	33 750	6,7	208 500	41,7	41
uThungulu DM	580 290	53 584	16,7	45 616	14,2	42 816	13,4	51 256	16,0	51 200	16,0	37 400	11,7	37 400	11,7	319 272	99,7	55
Zululand DM	900 482	27560	7,2	27560	7,2	27560	7,2	27560	7,2	27560	7,2	27 560	7,2	27 560	7,2	192 920	50,4	21
TOTAL	4 937 671	377 664	110.8	425 695	122.9	359 099	102.2	331 851	94.8	371 742	107.3	448 714	132.3	351 156	132.3	2 665 651	769.6	54

Table 4.3.3 : Total Programme to Address Water Backlogs

MUNICIPALITY / WSA	TOTAL SERVED TO 2008		BALANCE UNSERVED (REMAINING BACKLOG) AFTER 2008		TOTAL COST OF BACKLOG	TO ELIMINATE REMAINING BACKLOG (AFTER 2008)		N° OF YRS TO ELIMINATE BACKLOG
	N° (Pers)	Rx10 ⁶	N° (Pers)	Rx10 ⁶	Rx10 ⁶	Budget pa Rx10 ⁶	N° of Years	
Amajuba DM	153 200	211,0	-	-	211,0	-	-	5
EThekweni	182 000	63,0	182 000	63,0	126,0	12,6	5	10
Ilembe DM	60 000	120,0	220 000	440,0	560,0	30,0	15	20
Newcastle LM	58 600	82,0	27 930	30,0	112,0	30,0	1	6
Sisonke DM	141 166	303,8	123 687	265,9	569,7	53,2	5	10
UgU DM	120 166	179,4	216 074	325,2	504,6	45,0	6	11
uMgungundlovu DM	120 510	257,6	43 486	93,0	350,6	18,6	5	10
UMhlatuze LM	Included in Figures for uThungulu DM							
uMkanyakude DM	221 306	183,3	93 164	77,2	260,5	38,6	2	7
UMsunduzi LM	1 915	3,0	-	-	3,0	-	-	4
uMzinyathi DM	66 767	100,1	179 445	269,2	369,3	34,0	8	13
uThukela DM	75 130	120,5	169 270	271,5	392,0	18,1	15	20
UThungulu DM	152 957	229,4	335 071	301,2	530,6	30,0	10	15
Zululand DM	287 750	371,0	401,208	517,2	888,2	74,2	7	12
TOTAL	1 641 467	2 224.1	1 954 602	2 598.1	4 877.5	384.3	7	12

Table 4.3.4 : Total Programme to Address Sanitation Backlogs

MUNICIPALITY / WSA	TOTAL SERVED TO 2010		BALANCE UNSERVED (REMAINING BACKLOG) AFTER 2008		TOTAL COST OF BACKLOG	TO ELIMINATE REMAINING BACKLOG (AFTER 2010)		N° OF YRS TO ELIMINATE BACKLOG
	N° (Pers)	Rx10 ⁶	N° (Pers)	Rx10 ⁶	Rx10 ⁶	Budget pa Rx10 ⁶	N° of Years	
Amajuba DM	156 700	58,0	-	-	58,0	-	-	6
EThekweni	254 800	123,2	109 200	52,8	176,0	17,6	3	10
Ilembe DM	113 400	31,5	311 100	86,4	117,9	4,5	19	26
Newcastle LM	101 130	27,0	-	-	27,0	-	-	6
Sisonke DM	256 300	64,0	56 942	14,3	78,3	4,7	3	10
UgU DM	199 800	65,6	225 531	70,0	135,6	11,0	6	13
uMgungundlovu DM	134 715	42,1	81 209	26,9	69,0	9,0	3	10
UMhlatuze LM	Included in Figures for uThungulu DM							
uMkanyakude DM	367 879	83,8	106 716	24,4	108,2	12,2	2	9
uMsunduzi LM	37 100	11,9	42 900	13,6	25,5	1,7	8	15
uMzinyathi DM	323 135	70,7	74 342	12,7	83,4	13,0	1	8
uThukela DM	208 500	41,7	295 500	100,6	142,3	6,7	15	22
UThungulu DM	319 272	99,7	261 018	80,6	180,3	11,7	7	14
Zululand DM	192 920	50,4	707 562	186,2	236,6	7,2	26	33
TOTAL	2 665 651	769.6	2 272 020	668.5	1 438.1	99.3	5	12

4.4 FUNDING REQUIREMENTS

This aspect of the investigation sought to ascertain the funding needed to fund the programmes for elimination of the services backlogs.

In considering the funding, key aspects of the rationale for this part of the investigation are:

- To ascertain whether the financial resources needed to implement the planned programmes of the WSAs are financially achievable within the Government's budgets.
- To ascertain whether other sources of funding have been or are being considered by the WSAs particularly focussed on the possible scenario that there may be insufficient funds budgeted to meet the programmes in the short-term.
- To form some conclusion on the need for other sources of funding, if appropriate.

Tables 4.3.1, 4.3.2, 4.3.3 and 4.3.4 set out the planned programmes to address the backlogs in basic services. The annual funds needed to implement the planned programmes of Local Government is summarised in Table 4.4.1 that follows.

Table 4.4.1: Annual Funds for Programmed Delivery of Services

FINANCIAL YEAR	ANNUAL PROGRAMME COST		TOTAL
	WATER (R X 10 ⁶)	SANITATION (R X 10 ⁶)	
2003/04	356.0	110.8	466.8
2004/05	496.9	122.9	619.8
2005/06	486.0	102.2	588.2
2006/07	407.1	94.8	501.9
2007/08	478.1	107.3	585.4
TOTAL	2 224.1	538.0	2 762.1
AVERAGE	444.8	107.6	552.4

NOTE: A 5-year view of the budgeted needs was considered as the budgets of Government sources of grant funding are similarly projected on a short planning horizon of 2-3 years hence.

To make a meaningful comparison of the sufficiency of the national sources of grant funding available to KZN, the budgets of the two grant funders in SA, namely DWAF and CMIP, was ascertained and is summarised as follows

Table 4.4.2 : Annual Budgeted Grant Funds for KZN

FINANCIAL YEAR	GRANT FUNDER ***				
	DWAF (R x 10 ⁶) *			CMIP ** (R x 10 ⁶)	TOTAL
	Total	Water	Sanitation		
2003/04	339,7	273,2	66,5	506,4	852,6
2004/05	204,8	158,7	46,1	607,2	812,0
2005/06	227,4	180,2	47,2	630,9	858,3
2006/07	Not available	-	-	Not available	-

Note: * DWAF funding is for both water and sanitation services (DWAF, 2003).

** CMIP budget is for Municipal infrastructure projects in general and is not specifically assigned to any project type, that responsibility for allocation is in terms of Local Government's specific planning and their assigned needs (CMIP, 2003). CMIP funds are also utilised for the provision of bulk water and sanitation infrastructure.

*** It needs to be noted that grant funds are for service levels up to the basic RDP levels of service. For service levels beyond the RDP level, other sources of funds will be required.

All WSAs were asked whether they had considered funding other than from South African Grant Funders such as DWAF and CMIP. Six of the WSAs indicated they had not considered donor funding, but the pursuit thereof could not be ruled out. The remaining WSAs were all considering donor funding, but most were unclear of what or who specifically would be pursued. No WSA had as yet secured donor funding for their planned delivery programmes.

The general impression was that with the current task of the WSDP, and accompanying planning and enormity of the task associated therewith, that donor funding has as yet, not been uppermost in the minds of the WSAs. With the urgency and pressure placed on delivery to eliminate water services backlogs, most were focused on implementation of projects as a matter of priority.

The uThukela, uMzinyathi, Amajuba and Newcastle Municipalities were all considering donor funding through the uThukela Water Partnership, which is the Water Services Provider for these Municipalities. Who is to be approached is not available at this stage, as is the quantum of the funding sought, not disclosed. As these WSAs are all contemplating service levels higher than RDP in some areas, it will be necessary to source donor funding to supplement SA sources of grant funding as the latter fund basic levels of water services only.

It would appear unlikely that significant donor funds on the initiatives of most WSAs would become available in the short-term to supplement the funds available from grant funders in SA. It could well develop that grant funding could come available, as happened a few years back with funding from the European Union, but these would be administered by DWAF.

To achieve delivery of the water supply backlog by the Government's target date of 2008, will require an average annual budget of approximately R975 million (ie R4,87 billion over 5 years). Similarly the annual budget for sanitation backlog alleviation by the year 2010 will require an average annual budget of approximately R205 million (ie R1,44 billion over 7 years).

The combined average annual budget of R1,18 billion to alleviate basic water and sanitation services backlogs in KZN by the Government target dates of 2008 and 2010 for water and sanitation respectively, far exceed the combined budgets of DWAF and CMIP, see Table 4.4.2. In fact, the combined budgets (Table 4.4.2) of approximately R840 million per annum on average of the latter two is insufficient to even provide the finances for the water supply backlog of R975 million per annum to the year 2008.

It is thus evident that additional funding on an annual basis will be required to meet Government's targets to eliminate water services backlogs.

4.5 CONSTRAINTS TO SERVICES DELIVERY

Whilst planned programmes to deliver water services have been developed, it is crucial to ensure that implementation of projects takes place in terms of these programmes. The criticality of delivery is clearly evident since the planned programmes for delivery of services far exceed the target dates of Government, as discussed in Section 4.3. To allow slippage in planned programmes will further exacerbate the plight of those persons currently unserved with basic water services. An added factor is that Government has made its targets known at international level.

All WSAs were requested to identify constraints to delivery of the basic water services. The responses were as follows:

Table 4.5 : Constraints to Service Delivery

PROBLEM	N° OF WSAs
Financial	13 (93%)
Capacity/Institutional	11 (79%)
Political	7 (50%)

- **Financial Constraint**

Thirteen of the fourteen WSAs indicated that finances were a constraint to delivery of water services.

The general problem was alleged to be with the grant funders who set the budgets and the WSAs are allocated budgets on grounds they are uniformed of, or in their opinion, are not equitably based on the need.

- **Capacity / Institutional**

Eleven of the fourteen WSAs cited this as being a problem. Whilst legislation such as the Municipal Structures Act (Act N° 33 of 2000) and the Municipal Systems Act (Act N° 32 of 2000) have placed the responsibility for water services delivery on Local Government, the accompanying lack of capacity at this level is reported to be an inhibiting factor internally within the Municipalities.

Whilst the physical implementation of projects is undertaken by the construction sector through tenders etc, it is the responsibility for operations and maintenance, and sustainability of projects that appears to be a major factor within Local Government.

- **Political**

Seven of the fourteen WSAs cited this to be a problem area.

The problem appears to be in the party politics in KZN between the African National Congress (ANC) and the Inkatha Freedom party (IFP). The party politics allegedly impacts on project prioritisation and funding allocations.

Other than the above, further detail and explanations were not forthcoming.

Of the aforementioned problems, although the financial problem got the most votes, (Table 4.5), the capacity/institutional problem would appear to be the major problem. Whilst it may be relatively easier to solve the financial allocation of funds, even between Regions in SA and between Districts etc, the capacity/institutional problem would appear to be a higher priority.

To not have capacity at Local Government level to operate, maintain and ensure sustainability can result in projects/schemes becoming defunct. To allow this to happen will appreciably negate the water services delivery programmes if projects/schemes become inoperable or defunct.

Section 8 of the Municipal Systems Act (Act N° 33 of 2000) does allow Municipalities to appoint external Water Services Providers to undertake the water services functions inclusive of operations and maintenance. To alleviate the problem of capacity at institutional level, it should be a high priority for these Municipalities to give urgent consideration to appointing competent Water Services Providers.

Twelve of the WSAs in KZN reported (in response to question 11 of the Questionnaire) that the necessity of an external Water Services Provider (WSP) in some form was being considered in terms of the Municipal Systems Act (Act No. 32 of 2000). The time scale to complete the investigation was indicated to be in the order of one year from July 2003.

Section 78 of the Municipal Systems Act (Act N° 32 of 2000) specifies the procedure to be followed in the case where Local Municipalities are considering Water Services Provider (WSP) options. The options available are for the WSA to be its own WSP or to delegate that function to a competent

Local Municipality as the case may be, or to enter into contracts with external parties in either Public-Public Contracts, or Public-Private Contracts.

CHAPTER 5 : CONCLUSIONS

The following conclusions have been derived from the findings:

- **BACKLOGS IN BASIC RURAL WATER AND SANITATION SERVICES IN KZN**

The backlogs in basic services (Table 4.1) can be taken as indicative of the situation in KZN, based on the data obtained in response to the questions contained in the Questionnaire (Annexure B). (Much of the data on the backlogs has been based on Census 96 figures moderated in many cases by on-site investigations. The latest Census figures were not available at the time of either drafting the WSDP's or during the investigation stage of this exercise).

The WSDP is an ongoing process, that will need to be updated, probably on an annual basis, and thus will afford the Municipalities the opportunity to refine and update the data and planned delivery programmes.

Whilst backlogs generally are viewed in terms of total population figures, it would perhaps be better to view rural water services backlogs in terms of the rural population figures. Water supply backlogs (Table 4.1), when viewed against the total KZN population, represents 38,2%, but when viewed against the 5.6 million rural population, is approximately 63%, nearly two thirds of all rural residents.

A similar situation is apparent (Table 4.1) with respect to basic sanitation services. The backlog in terms of total population is 51,4%, whilst in a rural sense it is 84,7%.

The comparison of backlogs in basic water services (Table 4.1) should be viewed in terms of the rural context, as it presents a far more realistic, or drastic, situation deemed worthy of appropriate action to alleviate the backlogs in as short a time as is possible.

The findings have shown that there are significant backlogs in basic water and sanitation services in KZN.

It had been stated by DWAF (2002c, p.1) that backlogs in basic water services in KZN was in the order of 40-60% of the KZN population. The findings (Table 4.1) have shown that the backlog in water supply is 38,2% and that of sanitation is 51,4% of the KZN population. The sanitation backlog is, however, significantly higher than the backlog in basic water supply. The findings thus concur with the broad based DWAF estimate of the backlogs in KZN.

- **COST ESTIMATES TO ELIMINATE THE WATER SERVICES BACKLOGS**

The estimated financial resources needed to eliminate the water supply backlogs is R4,87 billion (Table 4.3.3) in respect of the basic water supply backlog (Table 4.1) of 3,66 million rural persons in KZN. Similarly, an estimated amount of R1,44 billion (Table 4.3.4) is needed to eliminate the backlog in basic sanitation services to 4,94 million persons in rural KZN.

The cost of R4,87 billion (Table 4.3.3) for alleviation of water supply backlogs is, however, based at best on an RDP level of service or lower since some WSA's have planned to implement survival or rudimentary service levels due to various constraints (See Table 4.2.1). To provide all with a water supply to a RDP level of service will cost an estimated R5,5 billion, but this can be considered as academic in terms of particular feasibilities and/or constraints to deliver an RDP level of water service to all.

In the case of the provision of basic sanitation services, all WSAs have adopted the RDP standard in planning to provide at least a VIP latrine (See Table 4.2.1).

The programme, however, to alleviate the backlogs is, however, a more crucial issue than the quantum of the backlogs.

- **PLANNED PROGRAMMES TO ADDRESS THE BACKLOGS IN BASIC SERVICES**

Whilst the Government had set targets to eliminate basic water and sanitation backlogs by the years 2008 and 2010 respectively (DWAF, 2002b, p.ii), this investigation has revealed that the planned programmes to eliminate the backlogs is at best likely to occur on average by 2015 in respect of basic water supply, and similarly by 2015 for basic sanitation services provision. (Tables 4.3.3 and 4.3.4).

Government's targets will thus not be met.

The planned programmes as set by Local Government (Table 4.3.3 and Table 4.3.4) could in some cases be seen to be optimistic. This optimism is evident in that whilst many of the Municipalities have fairly realistic targets in the first 5 years of their programmes, based on currently available budgets and project priorities, some expect their budgets to increase from year 6 onwards, for unexplained reasons. Should the increased annual budgets not be realised from year 6 onwards, in line with expectations, then even these planned programmes, outlined in Tables 4.3.3 and 4.3.4, will not be met, thus delaying the elimination of water services backlogs even further.

Sanitation backlogs (Table 4.1) exceed the water backlogs quite appreciably, whilst the programmes (Tables 4.3.3 and 4.3.4) for elimination of both these backlogs are relatively similar in duration. It can be argued, however, that the funding needed (Table 4.4.1) to eliminate the sanitation backlog is far less than that of the water backlog, and with additional funding it could be relatively easier to meet the sanitation target of 2010 set by Government (DWAF, 2002b, p.ii). This argument is supported by the fact that with the basic sanitation service in all cases being the VIP latrine (Table 4.2.1), the sanitation programme is not dependent on the delivery programme for the water supply, other than from a health and hygiene perspective. There is thus little or no reason for the sanitation programme to lag the water supply programme.

- **FUNDING REQUIREMENTS**

Based on the planned programmes to eliminate all basic water services backlogs as outlined in Tables 4.3.3 and 4.3.4, the average annual cost of the programmes for both basic water and sanitation projects is R552 million (Table 4.4.1). These costs are not inordinate when compared to the budgets of South African grant funders as outlined in Table 4.4.2, which on average is R840 million annually. However, the latter budget also includes for bulk infrastructure.

The planned programmes of Local Government as outlined in Tables 4.3.3 and 4.3.4 far exceed the Government's target dates (DWAF, 2002b, p.ii) for elimination of basic water services backlogs. Should the planned programmes at local level be adjusted to accommodate Government's targets, the annual budget provision by SA's grant funders will not be sufficient to accommodate the average cost requirements of R1,18 billion per annum. The SA grant funders have an annual budget (Table 4.4.2) of R840 million on average. That would be insufficient to meet even the annual budget needs (R975 million) for basic water supply (excluding sanitation programmes) to accommodate the Government's target of 2008 (See Section 4.4).

It is evident that the financial budgets set by SA grant funders (Table 4.4.2) is insufficient for KZN to meet Government's targets. It may though well be that international donor funding is being sought by Government to supplement their budgeted funds.

- **CONSTRAINTS TO SERVICES DELIVERY**

The most serious constraint (Table 4.5) is seen to be that of a lack of institutional capacity in the majority of the WSAs to ensure sustainability of the schemes/projects from an operational and maintenance perspective. To not sustain completed projects for whatever reason will be counter-productive to the whole programme of elimination of the water services backlogs.

If projects are not sustained, they run the risk of becoming defunct, thus negating the backlog alleviation programme.

It is fortunate that legislation, such as the Municipal System Act (Act N° 32 of 2000) enables Local Government to explore various mechanisms/options in the case of Water Services Provider (WSP) arrangements. It is encouraging to note that virtually all of the WSAs who have cited institutional capacity to be problematic, are investigating or planning to investigate their WSP options.

If these institutional capacity problems are overcome, the other major obstacle of insufficient grant funding within South Africa also needs urgent attention, or else Government's targets will not be achieved (See Section 4.4).

CHAPTER 6: RECOMMENDATIONS

It is recommended that the water sector, particularly DWAF, the WSAs and the private sector in KZN, take cognisance of the following:

- **BACKLOGS IN BASIC RURAL WATER AND SANITATION SERVICES**

The backlogs in basic water and sanitation services as outlined in Table 4.1 should be considered as indicative of the situation facing KZN. Whilst both water and sanitation backlogs have been quoted by DWAF (DWAF, 2002c, p.1) as somewhere between 40-60% of the KZN population, it is recommended that the individual backlog figures, in respect of water and backlogs as outlined in Table 4.1 be quoted in rural population terms as it represents a far more realistic and drastic situation, and also particularly as the sanitation backlog is appreciably higher than the backlog in basic water services.

The magnitude of the backlogs as established in this research should be seen as a challenge and opportunity by all in the water sector to participate in the national initiative to alleviate the backlogs in as short a time as possible, even ahead of the Governments targets if possible.

- **COST ESTIMATES TO ELIMINATE THE WATER SERVICES BACKLOGS**

The cost to eliminate the basic sanitation backlog is appreciably lower than that for the water supply backlog as shown in Tables 4.3.3 and 4.3.4. The annual costs to eliminate the basic backlogs by Government's set target dates (DWAF, 2002b, p.ii) are considerably higher than current SA annual financial budgets as shown in Table 4.4.2. If grant funders are not in a position to increase the annual budgeted funds for both water and sanitation services, it is recommended that from a financial perspective it will be financially less onerous to accelerate the sanitation programmes. It is recommended that additional funding at least be given to the basic sanitation delivery programmes in KZN. With additional funding it is relatively easier to meet the Government's target of 2010 for elimination of basic

sanitation backlogs. It is added that with the basic sanitation service in all WSAs to be that of the VIP latrine, there is little or no need to couple the basic sanitation delivery programme to that of the water services programme. Sanitation programmes can thus proceed independently of the water supply programme and thus meet Government's target date of 2010, and simultaneously address health programmes that are so crucial in prevention of cholera in KZN.

- **PLANNED PROGRAMMES TO ADDRESS BACKLOGS IN BASIC SERVICES**

It needs to be noted that in terms of the findings of this investigation, it is unlikely that the Government's targets for elimination of basic water services backlogs in KZN will be met. The obstacles of insufficient funding to meet the targets set by Government (DWAF, 2002b, p.ii) and the lack of institutional capacity in KZN are seen as major challenges to delivery of water services. The latter problem should be treated as a priority by all spheres of Government, with assistance from the Public and Private sectors.

The planned programmes for elimination of backlogs in KZN exceed the aforementioned target dates set by Government. If these programmes are to be accelerated, additional funding will be required.

Additionally, it is further recommended that the planned, or adjusted, programmes for delivery of water services be monitored and controlled to ensure timeous delivery, or even these planned programmes, already years beyond Government's target dates, will in all likelihood not be achieved.

- **FUNDING REQUIREMENTS**

It has been ascertained in the findings of this investigation that additional annual funding will be needed to eliminate the backlogs by the target dates set by Government (DWAF, 2002b, p.ii). With the exception of the uThukela, uMzinyathi, Amajuba and Newcastle Municipalities, no other WSAs had given

serious attention to sourcing of international donor funding. In the short-term, funding from the South African grant funders (DWAF and CMIP) will have to be relied upon.

The SA grant funders will need to provide an amount of R4,87 billion over the next 5 years to eliminate the water supply backlog in KZN (See Table 4.3.3), and R1,44 billion over the next 7 years to eliminate the basic sanitation backlog (See Table 4.3.4).

The annual budgets provided by the grant funders for KZN needs to be increased by approximately R300 to R400 million per annum to meet the targets set by Government for elimination of basic water services backlogs.

- **CONSTRAINTS TO SERVICES DELIVERY**

It is recommended that the constraints to service delivery (Table 4.5), especially that of the lack of institutional capacity at Local Government level, be given urgent consideration by all levels of Government. National Government has delegated the responsibility for delivery of water services to Local Government (DWAF, 2002b, p.4), but all are accountable to make sure the backlogs in water services are alleviated in a short a time as possible. Prior to making additional funding available, Government needs to urgently ensure that the institutional capacity problem at Local Government level is addressed. Local Government should make use of various partnership options available to them as outlined in the Municipal Systems Act (Act N° 32 of 2000) to assist with the apparent lack of institutional capacity.

There is now a major role for the private sector to play in the alleviation, if not elimination of water services backlogs in KZN. The Municipal Systems Act (Act N° 32 of 2000) provides opportunity for the public and private sector to play a significant role in water services. Whilst the private sector has traditionally played a major role in the physical construction of water services projects, there is

now opportunity to assist in operations and maintenance, and sustainability aspects of projects/schemes, to assist Local Government with their institutional capacity building, and ultimately delivery of sustainable water services projects.

- **GENERAL**

It is further recommended that:

- The water services sector has the potential to contribute and develop significantly considering the challenges currently presented, particularly in terms of the large financial investment that is needed to eliminate the water services backlogs, and the opportunity to alleviate the lack of institutional capacity at Local Government level. The elimination of these backlogs is a priority by Government (DWAF, 2002b, p.ii), and all, nationally and internationally, are focussed on water. Water services are seen as the challenge for the future, especially when one considers the programme durations, the funding needed for delivery, and resultant opportunities to eliminate the backlogs in basic water services, all as outlined in the findings, conclusions and recommendations in this report. The private sector is advised to take advantage of the range of opportunities presented in the water sector. Local government needs to avail itself of available capacity, be it from the Public or private sector, to ensure delivery and sustainable water services schemes. Schemes should not be allowed to deteriorate for whatever reason.
- Water and sanitation projects are conducive to assisting the meeting of the ISRDS objectives (RSA, 2000, p.1) of poverty alleviation in the rural areas. It is recommended that community based project delivery models be implemented on the water and sanitation projects to assist with job creation in the communities, ultimately with the intent on retaining as much funds from these projects within the communities served by the projects. Local Government being responsible for water services delivery, should ensure that projects are implemented using community based project delivery models.

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ANNEXURE A

PARTICIPANTS IN THE INVESTIGATION

The questionnaire as shown in Annexure B was submitted to the 10 District Municipalities, the eThekweni Municipality, and the 3 Local Municipalities recently granted WSA status in KZN.

The following is a list of those who assisted in the investigation, by sharing their valuable time and experience:-

MUNICIPALITY	INDIVIDUAL	POSITION
Amajuba DM	Mr Sicelo Duma	WSA – Technical Advisor
eThekweni Municipality	Mr Reg Bailey	Acting Manager, R&D, Water
Ilembe DM	Mr Sandile Mbanjwa	Water Services Manager
	Mr Gordon Druce	WSDP Consultant, MultiConsultant Durban
Newcastle LM	Mr CJ Francis	Deputy Borough Engineer
Sisonke DM	Ms Nomonde Mnukwa	Water Services Manager
Ugu DM	Mr Peter Tanner	Water Services Authority Manager
uMgungundlovu DM	Mr Bongani Dumisa	Water Services Manager
uMhlatuze LM	Mr Thinus Potgieter	WSDP Consultant, Bigen Africa, Kloof
uMkanyakude DM	Mr Bheka Zondi	Water Services Manager
uMsunduzi LM	Mr M Greatwood	Deputy City Engineer (Water)
uMzinyathi DM	Mr Ulrich Vosloo	Head: Planning & Development
uThukula DM	Ms Leonie Berjak	WSDP Consultant, Jeffares & Green, Pietermaritzburg
uThungulu DM	Mr Leon Kruger Mr Johan Fourie	Water Services Manager WSDP Consultants, VGC Consulting Engineers, Richards Bay
Zululand DM	Mr A Wagenaar	Assisting WSDP Consultant

ANNEXURE B

MBA INVESTIGATION PROJECT

QUESTIONNAIRE

PARTICULARS OF WATER SERVICES AUTHORITY

NAME:

DISTRICT COUNCIL NO.

ADDRESS:

PHONE NO:

QUESTIONS

(Please answer YES or NO by ticking the appropriate answer, and provide the responses to questions requiring explanation as far as is possible)

1. The government has set targets to eliminate rural water and sanitation services backlogs by the years 2008 and 2010 respectively, do you believe these targets to be achievable for your WSA/Municipality? YES/NO

2. What do you consider to be obstacles or constraints to eradicate services backlogs in your WSA?

Possible Obstacle

Financial Constraints	YES/NO
Capacity/Institution Constraints	YES/NO
Political Constraints	YES/NO

Other (Please list) _____

3. How many years will it take to eradicate rural water and sanitation services backlogs in your WSA? (Base Year 2002/03)

Water : _____ years

Sanitation : _____ years

4. Please confirm the following information in respect of services backlogs in **basic water services:-**

- Total Current Backlog? No. _____ persons/households*
(at 2002/03 base year)

*If no. of households specified, no. of persons allowed per household?

- Programme for addressing of backlogs (with 2002/03 as base year)?

YEAR	N° OF PERSONS/ HOUSEHOLDS*	COST PER ANNUM (at 2002/03 basis)
2002/03		
2003/04		
2004/05		
2005/06		
2006/07		
2007/08		
	TOTAL:	TOTAL:

- No. of persons/households* **remaining unserved** at the end of the above programme? _____
- Annual programme for addressing the **remaining unserved** population with basic water services?

No. per annum* _____/persons/households Cost per Annum R_____

Total cost to address **remaining unserved** population R_____

(at 2002/03 price basis)

- What basic water service level is planned for?

RDP Standard (VIP's) YES / NO

Less than RDP standard YES / NO

If less than RDP standard, please specify:_____

5. Please confirm the following information in respect of services backlogs in **basic sanitation services**:-

- Total Current Backlog? No. _____ persons/households*

(at 2002/03 base year)

*If no. of households specified, no. of persons allowed per household?

- Programme for addressing of backlogs (with 2002/03 as base year)?

YEAR	N° OF PERSONS/ HOUSEHOLDS*	COST PER ANNUM (at 2002/03 basis)
2002/03		
2003/04		
2004/05		
2005/06		
2006/07		
2007/08		
	TOTAL:	TOTAL:

- No. of persons/households* **remaining unserved** at the end of the above programme? _____
- Annual programme for addressing the **remaining unserved** population with basic sanitation services?

No. per annum* _____/persons/households Cost per Annum R_____

Total cost to address **remaining unserved** population R_____

(at 2002/03 price basis)

- What basic sanitation service level is planned for?

RDP Standard YES / NO

Less than RDP standard YES / NO

If less than RDP standard, please specify:_____

6. Do you believe there is sufficient funding **in SA** for the eradication of the backlogs in rural water and sanitation services?

YES/NO.

Comments:-_____

7. What South African funding sources have been considered for basic rural water and sanitation services programmes to eliminate backlogs?

WATER		SANITATION	
Source	Value (R) or %	Source	Value (R) or %

8. If funding **other than from SA sources** is proposed and/or expected, please list these for either water or sanitation.

Source of Funding

Value

Water:_____

R_____

Sanitation:_____

R_____

9. Has funding been acquired for rural water and sanitation services **other than from SA sources?** YES/NO

If so, please provide details.

10. In setting of annual programmes for addressing backlogs of basic water and sanitation, what was the overriding criteria? (i.e. financial constraints, delivery constraints, institutional constraints or a combination of these, other etc.).

11. Is your WSA considering any other institutional delivery agent/model/partnership other than either the WSA or local municipality as a Water Services Provider (WSP)? YES/NO

If so, please provide details (if possible):-

12. What will be required to achieve or even accelerate the programme for addressing of backlogs in basic rural water & sanitation services?

13. Please provide any further comment you feel may be applicable to the topic of the investigation.

Details of Responder (optional):

Name:

Organisation:

Position:

Date completed:

ANNEXURE C