

Institutional Overlaps in Water Management in the Eerste River Catchment

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KEY WORDS

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2. Water Governance
3. Water Institutions
4. Water Law
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10. South Africa



ABSTRACT

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In this minithesis I have investigated overlapping mandates as a source of management failure in water management in South Africa in general and Eerste River Catchment in particular. I analysed major legislation which deals with water management to find out how duties and responsibilities are apportioned in the various pieces of legislation. I also undertook an exercise of evaluating roles and responsibilities played by various organs of state in water management from national government, Provincial Government of the Western Cape through to local government, in this case the Municipality of Stellenbosch and the City of Cape Town. It emerged that there were a number of areas of overlap, ambiguously defined mandates, conflict and that these were impeding on decision making in water management. In order to test the framework built above, I then applied it in the Plankenbrug River, a tributary of the Eerste River. Through analysis of newspaper clippings over a period of 4 years I was able to reconstruct conflict over ill-defined mandates in the various aspects of the management of the catchment which showed that there were differences in roles of the different state organs operating in the catchment. Water management conflict emanated from lack of congruence in the various legislation and differences in the interpretation of legislation. The various state organs seem to be aware of the constitutional duty of cooperative government that engenders state organs to work co-operatively in order to meet their developmental mandates. It seems however that the state organs were merely interested to be seen to be in conformity with this duty more than actually solving the issue as this was seen as something to be tackled at a higher level

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I dedicate this work to the memory of my sisters, Nothando and Xolani, both whom have passed on and can not share the joy of my accomplishment.

DECLARATION

I declare that **Institutional Overlaps in Water Management in the Eerste River Catchment** is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

NDODANA NLEYA

NOVEMBER 2005

SIGNED _____



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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

South Africa and indeed most of the Southern African Development Community (SADC) is in the middle of transformation of the water sector guided by integrated water resources management (IWRM) principles. One of the challenges in this process is to create well co-ordinated and effective stakeholder driven institutions. This is especially important because the process of Catchment Management Agency formation has gathered pace across the country with several Catchment Management Agencies planned in 2006.

Water is a fundamental and irreplaceable component of life and human activity, making it an all-pervasive issue underpinning the social fabric of society (MacKay & Ashton, 2004). Critically the water sector affects agriculture, environment, urban and rural development, health, housing and economic development (MacKay & Ashton, 2004).



South Africa has engaged in a substantial policy and law reform process after 1994 in recognition of the need to correct the wrongs of the past and put the nation on a path to future prosperity that will be enjoyed by all its citizens. In the water sector, the major pieces of legislation driving water resources management and water services provision are the National Water Act (RSA, 1998c), the Water Services Act (RSA, 1997b) and to some extent the National Environmental Management Act (RSA, 1998b). These laws envisage a transformation in the institutional environment governing the sector by creating new institutions and in some cases disestablishing previously existing ones. The new institutions, it is envisaged, will be better able to respond to the needs of the entire country as opposed to those in the segregated past.

Many of these institutions are either still in their infancy or are yet to be established. Furthermore, these institutions lie in the ambit of different government departments and different spheres of government (national, provincial and local). The arising relationships therefore tend to be complex in nature. In addition to the above, several non-state actors including civil society organisations are involved either formally as per legislation or as

lobby groups. Since the different levels of government are constitutionally mandated to carry out certain functions in their jurisdiction, interaction may be constrained by this 'protection'. However, the Constitution of the Republic of South Africa (RSA, 1996) engenders the spirit of cooperative governance among all state actors. In fact the National Environmental Management Act (RSA, 1998b) and Water Services Act (RSA, 1997b) provide for cooperative governance in recognition of these constitutional obligations.

There are compelling reasons why systems to facilitate the interactions between institutions in the water sector need to be established. Firstly, many of the institutions envisaged in the new legislation are still in formative stages. Secondly, there are differences of hydrological and resource endowments of different catchments hence a single system may not be desirable or efficient. Thirdly, there are several areas where jurisdictions overlap, meaning respective duties need to be clarified in order to avoid duplication and lack of accountability. Mazibuko & Pegram (2004) argue that,

Co-operation is critical to effective and efficient development, management and implementation of policy, particularly where institutions have shared, interdependent or related responsibilities. A system of institutional arrangements needs to be developed without compromising any institutions mandate, function and powers.

Government departments in South Africa are constitutionally mandated to work collectively and avoid duplication, yet in practice, very often 'lines are still drawn between Departments and sometimes within departments....' (Van Koppen et al, undated). The Department of Water Affairs and Forestry is mandated to act on behalf of the state as the custodian of all water resources in the Republic. The Local Government: Municipal Structures Act (RSA, 1998a) provides for the provision of water services to be the responsibility of local governments in the long term. The Constitution (RSA, 1996) also designates local government as the provider of water and sanitation services as well as being responsible for storm water.

The level of play in the water sector transcends on one hand vertical fragmentation with national, provincial and local spheres of government actively involved in different aspects of water (Elazegui, 2004; Mazibuko & Pegram, 2004). On the other hand it cuts across horizontal fragmentation given the complicated nature of development planning and resource management. Different government departments thence handle sectoral components of water leading to inevitable jurisdictional overlaps in the interconnected line functions (Elazegui, 2004; MacKay & Ashton, 2004).

Judging from the seemingly large number of organisations involved in water management in the Eerste River Primary Catchment, it appears that there exists a fairly complex matrix of organisations tasked with managing water. The implementation of water legislation in South Africa seems to be stalled due to among other things, the complexity of the institutional arrangements (Mackay & Ashton, 2004). The concept 'integration' theoretically leads to enhanced systems including more efficient and co-ordinated institutions (Mody, 2004).



Mazibuko & Pegram (2004) state that for efficient and effective co-operation and dispute resolution to take place, appropriate policies and strategies must first be developed. However before South Africa embarks on a new round of policy development activities, it is imperative to understand the interrelationships amongst the current water management organisations.

1.2. OBJECTIVES

Overall Objective

The overall objective is to investigate whether the existence of ill-defined institutional roles and jurisdictional overlaps are impediments to successful implementation of integrated water resources management (GWP-TAC, 2002). In South Africa, many government policies and laws acknowledge the existence of overlapping jurisdictions and implore cooperative governance without providing a specific mechanism to resolve such overlaps (Mazibuko & Pegram, 2004).

Specific Objectives

1. To describe the structure of co-operative arrangements among water management institutions in the Eerste River primary catchment
2. To identify distinctive overlapping and/conflicting roles and responsibilities of water management
3. To validate the organisational framework derived in 1.2.2.1 and 1.2.2.2 above by applying it to instances of water management failure in the Eerste River primary catchment

1.3 RESEARCH FRAMEWORK

In order to analyse the overlapping mandates, hydro-institutional mapping, described in Thompson et al (2001) is adopted. Thompson et al (2001) describe hydro-institutional mapping as a system of analysing complex institutional interactions in water resources management through the analysis of policies, legislation, organisations and other stakeholders in the water sector. It is recognised that water management in South Africa is in a period of flux as a result of the changes in the democratic era.



Chapter 4 is dedicated as the analysis of legislative arrangements in the water management sector. The premise for this is that legislation is legally binding and as such it forms the foundation of management action in the sector. Consistent with the structure of government in South Africa, legislation analysed includes firstly national legislation, then provincial legislation of the Western Cape Province, and finally local level by-laws of the Municipality of Stellenbosch and the City of Cape Town through which the river flows.

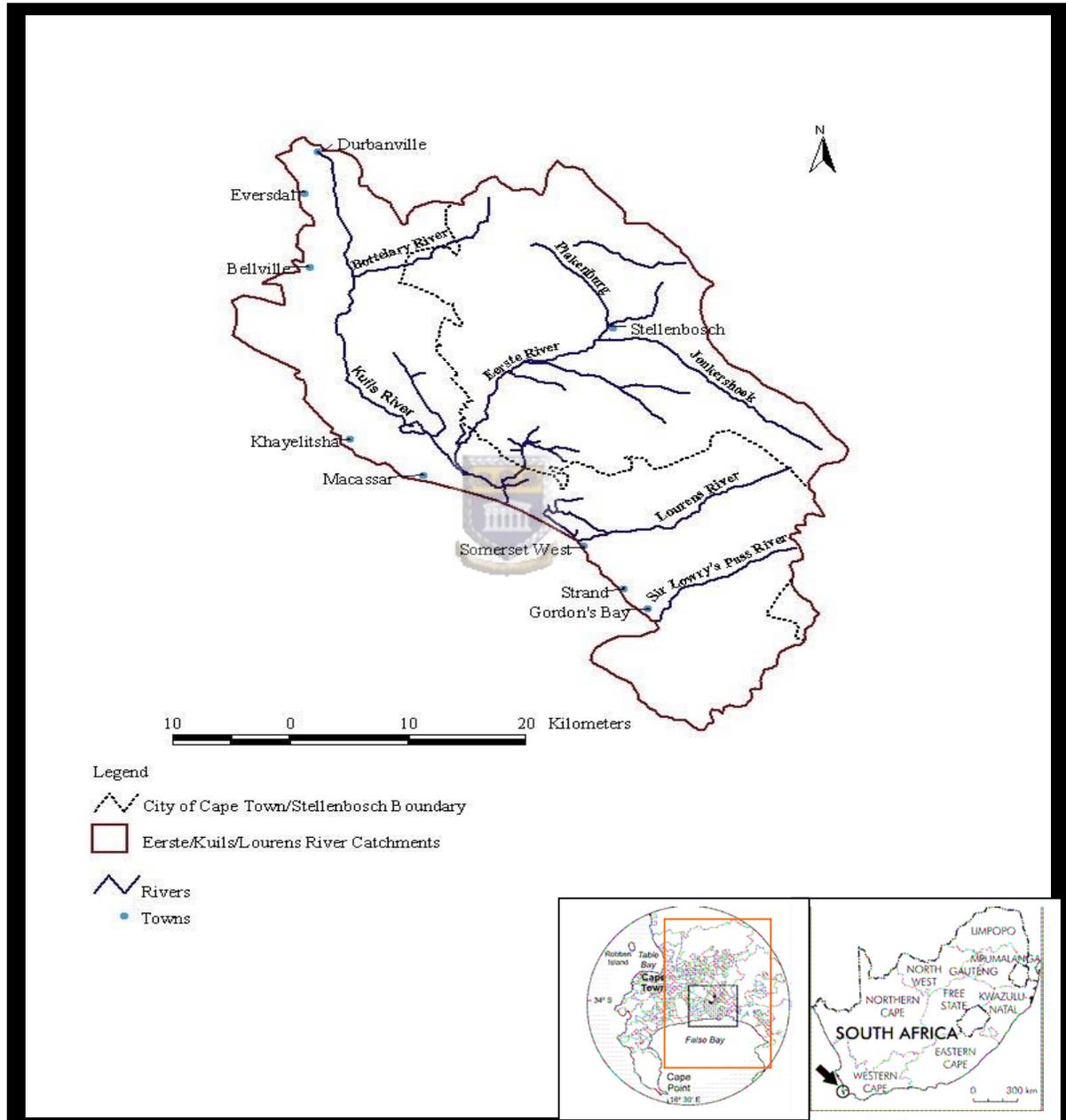
Study Design

The study will be comparative, focussing on similarities and differences in the roles and responsibilities of water management organisations in Eerste River primary catchment. Data sources will include: policy documents and legislation governing the activities of the different water management institutions; newspaper articles on issues of water management organisations and their roles and responsibilities (especially regarding role

failure or jurisdictional overlaps) and interviews with key informants in the different water management organisations.

1.4 THE EERSTE RIVER CATCHMENT

Figure 1.1 Location of the Eerste River



Source: RHP, 2005
Digitised by B Kleyn-Magolie

Rainfall

The major part of the catchment lies in a winter rainfall area. The Hottentots Holland Mountains receives up to 4000mm per annum, the country's highest, however, the catchment considerably drier to the west where the mean average about is 570mm (DWAF, 2004).

Location of the Eerste River

The Eerste River Catchment forms part of the Kuils/Eerste/Lourens & Sir Lowry's Pass Rivers management unit, one of the eight such units of the Berg Water Management Area (WMA) (DWAF, 2004). The Berg WMA is situated in the southwestern corner of the country in the Western Cape Province. The river runs through the Municipality of Stellenbosch for the major part of its course and only reaches the City of Cape Town towards the mouth. The Municipality of Stellenbosch falls under the Cape Winelands District Municipality.

The catchment falls under the Department of Water Affairs and Forestry regional office in Bellville, which will eventually delegate its duties in the catchment to the Berg Catchment Management Agency (CMA). The following national departments are also active in matters affecting water management in the catchment, the Department of Agriculture, Department of Environment and Tourism, Department of Land Affairs, Department of Housing, Department of Health, Department of Provincial and Local Government. Additionally, at provincial level the following departments are involved in water management, the Department of Environment and Development Planning, Department of Health, Department of Local Government and Housing, and the Office of the Premier. The Municipality of Stellenbosch, the Cape Winelands district Municipality and the City of Cape Town are the local governments transcended by the catchment. The specific roles these Departments play is analysed in Chapter 4.

The southerly flowing Eerste River is formed through the confluence in Stellenbosch of three major tributaries, the Plankenbrug River, the Kromme River, and the Jonkershoek River. The Plankenbrug River flows southeasterly, the Kromme southerly and the Jonkershoek north easterly. Subsequently three major tributaries join the river, firstly the

Blaauklippen River, then the Bonte River and finally the Kuils River near Macassar just before the river flows into the False Bay, Atlantic Ocean.

Land Use and Water Quality

The state of the river is largely explained to be the result of various land uses in the catchment. The Jonkershoek River rises in the Hottentots Holland Mountains, a protected area, which explains its largely natural state. The Plankenbrug River however, is heavily polluted due to the combined effect pollution in the poorly serviced Kayamandi ‘informal’ settlement outside Stellenbosch, pollution from wineries and agricultural activities in the upper levels of the catchment. Towards the mouth of the river the heavily polluted Kuils River, this rises on the Durbanville Hills and runs across a heavily urbanised zone, and is used as a conduit for treated wastewater, joins the Eerste River. Thus, in general terms, the Eerste River has good quality water upstream of Stellenbosch, after which it deteriorates rapidly (RHP, 2005; DWAF, 2004)

Irrigated agriculture forms by far the largest landuse in the catchment. Indigenous vegetation has made way for crops such as grapes and other fruits, mostly deciduous (RHP, 2005; DWAF, 2004). Alien vegetation has taken over the major part of the catchment and has resulted in modified riparian zone, banks and channel of the river (RHP, 2005). The wattle, poplars, Spanish reed, kikuyu and nasturtiums are the dominant species needing clearing in the catchment (RHP, 2005).

Two wastewater treatment works are sited on the Eerste River, that is, at Stellenbosch and at Macassar releasing over 23 000m³ and 36 000m³ per day respectively (RHP, 2005). Additionally three wastewater treatment works are located on the Kuils River with a combined volume of 92 000 m³ per day (RHP, 2005).

The major concerns in the catchment include pollution from Kayamandi in Stellenbosch and Khayelitsha in Cape Town due to the inadequate level of water services and sanitation in informal settlements. Another major threat is the unacceptable water quality discharged into the river at various wastewater treatments works (WWTW) on the river and its tributary, the Kuils River.

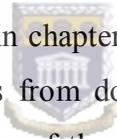
1.5 OUTLINE OF THESIS

Chapter 2 presents an analysis of key concepts and a description of institutions involved water management in selected countries. Lessons are drawn from water management in these countries in order to inform the institutional framework in South Africa.

Chapter 3 draws together the methods that have been used in this study. It describes the literature gathering stage and identification of the case study used. The focal interview questions are appended at the end of the thesis.

Chapter 4 analyses the administrative and legal framework of water management through identification of major legislation that has an impact in the water management. The purpose is to get a deeper understanding of the complexities. It is through this analysis that it is that responses from informants will be tested. Additionally, the analysis will identify legislative and administrative bottlenecks in water management.

Chapter 5 applies the framework built in chapter 2 and 4 in the Plankenburg River. The case study draws together the analysis from document analysis and interviews into a coherent set of findings. As a summary of the entire thesis, the chapter concludes the thesis by highlighting overlaps in responsibility responsible for water management failure in the catchment.



CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents an analysis of key concepts and a description of institutions involved with water management in selected countries, in order to inform the analysis of the institutional framework in South Africa. Water management has undergone major changes in the past two decades in which integrated water resources management and the adoption of catchment management as the appropriate level of water resources management have gained prominence across the world alongside other recommendations adopted at major international conferences like decentralisation and good governance.

Consideration is given to analysing water management in countries with a federal system of government and which have a similar arid climate given the semi-federal nature of government and aridity of climate in South Africa. It is hypothesised that more relevant lessons can be drawn from design of water management institutions in these countries. South Africa has a three-tier system of government, which has significant implications for water management. Governments across the world are generally organised as two tiered, three tiered or four-tiered structures with the last two structures generally prevalent in federal countries.

Environmental management (including water) is still fragmented despite the strong rhetoric towards integration since perhaps the 1980s, if not earlier. Governments across the world still have different departments (or ministries) responsible for environment, natural resources, water, land and a plethora of additional agencies dealing with various components of the environment (Cortner et al, 1998; Villanueva, 1996). As a way of discerning through this maze in water management, intergovernmental relationships and cooperative governance structures across the world will be presented.

2.2 WATER MANAGEMENT

Although the term management is subject to many interpretations it is often regarded as a process which directs efforts towards the achievement of aims and objectives of organisations using systems and procedures (Mullins, 1993). Famously though, it is known through Henry Fayol's, *General and Industrial Management*, the pioneering work published in 1949 in which he identified planning, leading, organising and control as the cornerstones of all management (Mullins, 1993). In other words water management is the management of water.

Water management consists of two distinguishable but closely related concepts that is, water resources management and water services. Thompson et al (2001) define water resources management on the one hand as entailing the protection, use, development, conservation, and control of water resources in order to achieve social equity, economic development and environmental sustainability. Water services on the other hand entail the provision of water supply to users (potable and commercial use) as well as sanitation.



The fragmentation and the ensuing complexity of coordination mechanisms are a key feature of water management (Ferragina et al, 2002). Government bureaucracies across the world were established in a piece-meal fashion resulting in multiple water agencies dealing with specific issues like agriculture, power, fisheries, wildlife, transport, environment, health and so on (Ferragina et al, 2002). Inevitably this leads to “mutual obstruction” (Cortner et al, 1998:162) in water management. Consequently, reducing fragmentation in water management has become a key objective of water reform.

Water Governance

Water governance refers to the political, social, economic and administrative systems that are in place to develop and manage water resources and the delivery of water services, at different levels of society (Rogers & Hall, 2003). Governance is a highly contested term however, whose malleability has resulted in its widespread use (from accounting to politics) and across levels of expertise (ordinary citizenry to specialists) all who lend their own meaning to the concept.

Bene & Neiland (2005) in their critique of the concept, equate its usage to such terms as sustainable development and bio-diversity, which have become meaningless buzzwords. Peters (2002), similarly argues the term in its present usage is one of the ‘faddish’ inventions in ‘dev-speak’ whose analytic context often leaves much to be desired. She adds however, that governance has advantages over management in that it embodies notions of power and authority in a way management does not.

Bene & Neiland (2005) trace the development of the usage of the term noting it earlier referred to the manner of governing and was thus mostly restricted to constitutional and legal issues. This is consistent with Rogers & Hall (2003) who see it as a broad system of governing, which includes but is not restricted to, the narrower perspective of government. Usage of the term however, now transcends this narrower focus to include processes, mechanisms and institutions for articulating diverse needs of individuals in a society. Systems of governance should include government organisations, non-governmental organisations and community or civil society organisations (Ashton et al, 2005).



Distinguishing between water management and water governance is important in understanding activities of different role players in the water sector. A key part of the distinction is accountability, which is nested in the concept of management. Governance entails more about power relations between role players without clearly making accountability a requirement whereas management always involves accountability and responsibility.

2.3 INSTITUTIONS AND ORGANISATIONS

Institutions

Defining institutions is riddled with hazards especially given the numerous definitions in the literature. Institutions can be understood as “regulatory systems” (Kambayazinthu et al, 2003), “regularised practices” (Giddens, 1984), “prescribed patterns” (Wandsneider, 1986), or perhaps popularly as the “rules of the game” (Bandaragoda, 2000, North, 1986). They are designed to standardise human activity and can take many forms from norms, laws, rules and policies. In other words institutions are that *normative factor* that evolves in society to regulate and standardise peoples conduct. Critically though, whilst a large body adopts the ‘rules’ approach to defining institutions, Peters (2002) disagrees with this reductionist approach which she argues fails to fully take into account that these ‘rules’ reside in a contested terrain.

Organisations

The definition of organisations also needs to be carefully cobbled up, so as not to perpetuate the mix between organisations and institutions. The following three elements are seen as fundamental to understanding of organisations that is the purpose, the structure and system. Essentially thus, organisations are a group of individuals or network with a set purpose to achieve, in a systematic manner (North, 1990; Bandaragoda 2000).

Distinguishing Institutions & Organisations

The terms institution and organisation are in common usage and are used interchangeably in everyday use to the extent that their sometimes distinct meanings is masked (Bandaragoda, 2000; McGill, 1995; Appendini & Nuijten, 2002). Uphoff (1986) in McGill (1995) identifies three classifications to unpack the concept, i.e. organisations that are not institutions, institutions that are not organisations and organisations that are institutions (and vice versa). For example, the Department of Water Affairs and Forestry is an organisation, the National Water Act of 1998 (RSA, 1998c) is an institution, and the Water Tribunal is both.

2.4 CONFLICT AND COOPERATION

Alliances are a virtual necessity in today's complex environment, be it in government or private sector. Uncertainty in the operating environment is perhaps the most compelling reason for the establishment of alliances in order to achieve stability, predictability and dependability in such relations (Williams, 2005). Whatever the motivation for entering into a collaborative arrangement in the first place, many such alliances seldom last long (Williams, 2005; Fadeeva, 2004).

Conflict in water resources management has generated considerable debate especially with regards to international river basins (Gleick, 1998; Meijerink, 1995). Catchment or river basin management continues to be seen by researchers of conflict over water as the repartee to such conflict. Catchment management bodies play a significant role in reducing conflict (and enhancing cooperation) in water resources management. These bodies assume the role of a broader resource management authority whose authority transcends institutional spaces, which are created in instances of multiple authorities.



Cooperation

Cooperation is the central theme in joint decision-making process. Huybers & Bennet (2003) argue that independent decision making in interdependent situations is a social problem that involves three interrelated concepts. Firstly, the tragedy of the commons occurs when individuals' failure to cooperate in resource use results in over-exploitation of common property resources. The second is the prisoner's dilemma where individuals, as a result of breakdown of communication channels, fail to cooperate even if they would be better off cooperating. The third concept shows that the pursuance of self-interest often overshadows collective effort leading to collective failure.

Cooperation often manifests itself "...as strategic alliances, partnerships, joint ventures, trade associations, marketing channels, interlocking directorates, cartels, outsourcing, resource sharing arrangements and intergovernmental programs" (Williams, 2005:228). Williams (2005) describes several reasons why organisations enter and remain in cooperative relationships, these being necessity, stability, efficiency, reciprocity. Barriers

to continuance of cooperation are identified as lack of trust among partners' insistence on individual autonomy, complexity of joint projects and different organisational capacities.

In defining levels of public involvement in environmental impact assessment, Saddler & McCabe (2002) identify four stages: informing, consulting, participating and negotiation. Mazibuko & Pegram (2004) do present a somewhat similar typology of degrees of cooperation, which includes independent decision-making, consultation, co-ordination and joint decision-making. If the two typologies are combined then independent decision-making, informing, consultation, co-ordination/ participating and joint decision making/negotiation form the resultant stages. Cooperation could be enhanced by lengthening the durability of interactions, promoting reciprocity for reinforcement and use of sanctions for deviant behaviour (Huybers & Bennet, 2003).

Conflict

Conflict results from having incompatible ideas and goals (Panteli & Sockalingam, 2005; Villanueva, 1996; Slabbert 2004). Slabbert (2004:83) highlights that “conflict appears to be an integral part of human functioning” which is inevitable but should be managed, whilst the rigid 1930s to 1940s approach maintained conflict was “dysfunctional and should be avoided at all costs.” Panteli & Sockalingam (2005) extend the same argument of presence of conflict and liken it to double-edged sword that can become both a friend and enemy of organisational efficiency and effectiveness.

Slabbert (2004) notes that the actual effect of conflict depends on how it is viewed by the parties involved. Organisations that view conflict as dysfunctional will generally display an inability to manage it, resulting in non-performance of organisational objectives. As a result, relations weaken and trust disintegrates (Panteli & Sockalingam, 2005). When well managed, however, conflict engenders stronger relationships and trust development (Panteli & Sockalingam, 2005).

Since conflict is a reality of everyday life, governments do face the same challenge in executing their mandates. The understanding of cooperation and conflict dynamics is essential in maneuvering in water management in South Africa littered as it is, with ill-

defined intergovernmental relations. The massive legislative and administrative overhaul in the last decade has yet to be consolidated to clearly delineate functions. Various new co-operative arrangements are underway signaling perhaps, that there are indeed exist areas of conflict. As recently as August 2005, the Intergovernmental Relations Framework Act (IGRF) (RSA, 2005) was signed into law in order to regulate the way government organs relate to each other. The IGRF Act attempts to shift government away from ad hoc dispute resolution to a systematic approach to conflict management.

2. 5 CATCHMENT MANAGEMENT

Integrated water resources management and catchment (or river basin) management have become catch phrases in the water management literature in the past decade or more (Blomquist et al, 2005). The concepts are rooted in making the management of water more economically efficient, socially equitable and environmentally sustainable (Mody, 2004). Fundamental institutional constraints continue to hamper the mushrooming of catchment institutions despite the rationally convincing win-win agenda that underscores them (Alaerts, 1999:1). Cameron (1997: 164) is even more critical of the concept arguing that its popularity "...backed up by government rhetoric in the face of persistent failure to turn it into a rational planning procedure" is rather surprising. Alaerts (1999) explains that the below par successes of catchment management are due to institutional constraints.

Catchment management, to its credit however, has a long history having been practiced in places around the world since medieval times. Some of the prominent examples are Bali's *subak*, Spain's *confederaciones hidrográficas*, 12th century Yemen *wadi's* and Holland's 12th-13th century water boards (Alaerts, 1999). The wisdom behind its long history is understandable to this day, put simply mutual interdependence of users of a river system.

A river basin is a drainage area of a river, and points of highest altitude in surrounding landscape demarcate its boundaries. Amakali & Shixwameni (2003:1056) sum up a persistent argument that catchments "... are the appropriate units for operational management". Other terminology includes the notion that catchments are 'natural' units

and therefore ‘logical’ units for management (Wester et al, 2003). Since rivers show no respect for political boundaries, catchment management then calls for the integration across all these boundaries (Rogers & Hall, 2003). Creating a fit between biogeographical attributes of catchments and the politico-administrative arena is a very complex issue, involving multiple reorganisations in the political arena (Moss, 2004).

Catchment Management in Australia

Australia is a large island continent of 4.7 million square kilometres, which makes it the sixth largest country in the world (Pigram & Musgrave, 1998). It is also the driest inhabited continental landmass (Pigram & Musgrave, 1998; Blomquist et al, 2005; Powell, 2002), consequently it has the least runoff and river water (Pigram & Musgrave, 1998; Blomquist et al, 2005). Irrigation accounts for 70% of all water used and the bulk of this is used in the Murray Darling Basin in southeastern Australia (Pigram & Musgrave, 1998). Politically, Australia is a federation, with the federal government having no constitutional jurisdiction over water. However, due to its financial leverage the federal government does influence state policies over water (Saleth & Dinar, 2004; Pigram & Musgrave, 1998; Blomquist et al, 2005).



Although the Murray Darling Basin is often hailed as the “paragon of modern-day river basin management” (Mody, 2004:9), the basin has a chequered history of environmental scandals and conflict between riparian states spanning over 80 years (Blomquist et al, 2005; Mody, 2004; Pigram & Musgrave, 1998; Powell, 2002; Alaerts, 1999). The Murray Commission as it was initially known, was focussed in resolving competing claims of navigation and irrigation rights between South Australia, Victoria and Queensland (Powel, 2002)

Figure 2.1 below identifies the location of water management roles in Australia with particular emphasis to the Murray-Darling Basin. The federal government retains influence in water management though water management functions are mostly located at state level. Local government operates water supplies. What is interesting is the number of intergovernmental and quasi-government bodies with water management roles most

notably the Murray Darling Ministerial Council and the Murray Darling Commission. The two bodies act as the policymaking and implementation bodies respectively.

Figure 2.1 Water Management Functions in the Murray Darling Basin

Body	Water Function
Commonwealth Government	<ul style="list-style-type: none"> • International agreements on environment • Navigation for interstate commerce • Partners states in policy formulation • Source of funds • Party to Murray Darling agreement • Precedence where commonwealth/state laws overlap
State Governments	<ul style="list-style-type: none"> • Full sovereign over land water and natural resources • State power vest in a ministry • Built and operate dams • Oversees water supply and sanitation of local governments
Territory Governments	<ul style="list-style-type: none"> • Territories 'surrendered' by states under direct control of commonwealth i.e. Australian Capital Territory, Norfolk Island and the northern territory
Local Governments	<ul style="list-style-type: none"> • Established by state legislation- provide and operate water supply and sanitation
Murray Darling Ministerial Council	<ul style="list-style-type: none"> • Composed of state and commonwealth ministers and a representative from Australian Capital territory- it is the policy making body and is backed by law. • Adopts a consensus approach to decision making
Murray Darling Commission	<ul style="list-style-type: none"> • Executive body for implementing Councils decision as and also advises Council on basin conditions • Consists of representatives from each basin government and is supported by staff • Funded participating governments
Murray Darling Basin Community Advisory Committee	<ul style="list-style-type: none"> • Advises Ministerial Council, represents local communities
River Murray Water Catchment Management Boards/Committees/authorities	<ul style="list-style-type: none"> • business operation of the MDBC, as bulk supplier • coordination and advisory roles in sub basin and sub state bodies for protection of water quality, riparian and floodplain conditions
Rural Water Authorities	<ul style="list-style-type: none"> • corporatised government bodies for managing bulk water provision in municipalities and irrigation schemes
Irrigation Companies	<ul style="list-style-type: none"> • Private companies to which irrigation infrastructure has been transferred.
Water User Groups	<ul style="list-style-type: none"> • Community participation bodies with varying influence

Adapted from Blomquist et al, 2005

Water Management in India

India is the second most populous country in the world (960 million) and the seventh largest (3.29 million square kilometres). Annual rainfall varies from 130mm in the Rajasthan dessert to 11000mm in the Assam Mountains (Saleth & Dinah, 2004).

India has a federal system of government, but jurisdiction over water lies with state governments (Saleth & Dinar, 1999; D’Souza, 2001). Significantly though, the federal government retains inter-state dispute resolution power in water affairs (Saleth & Dinar, 1999; D’Souza, 2001).

Figure 2.2 below identifies the location of water management functions in several federal ministries, which produces a rather complex management structure. Figure 2.3 below gives a summary of functions located at state level. The disjointed nature of water management in India trickles down to state level where a number of institutions are involved in water management.



Figure 2.2 Organisational structure of water management in India at federal level

Body	Function
Ministry of Water Resources	<ul style="list-style-type: none"> Developing, conserving and managing water as a national resource Central Water Commission: surface water Central Ground Water Board: ground water National Water Development Agency: inter-basin transfers
Ministry of Environment and Forests	<ul style="list-style-type: none"> Water quality and environmental matters
Ministry of Urban Affairs and Development	<ul style="list-style-type: none"> Urban water supply and sanitation
Ministry of Rural Affairs and Employment	<ul style="list-style-type: none"> Rural water supply and sanitation
Ministry of Power	<ul style="list-style-type: none"> Water for power generation
Ministry of Agriculture	<ul style="list-style-type: none"> Irrigation
Ministry of Transport	<ul style="list-style-type: none"> inland water ways

Adapted From Narain, 2000

Figure 2.3 State level functions

Body	Function
State Irrigation Departments	<ul style="list-style-type: none"> • creation and maintenance of irrigation works
Command area Development Authorities	<ul style="list-style-type: none"> • water utilisation
State Pollution Boards	<ul style="list-style-type: none"> • water quality
State Ground water Organisations	<ul style="list-style-type: none"> • ground water
Municipal Authorities	<ul style="list-style-type: none"> • Water supply and sanitation

Adapted from Narain, 2000

An interesting feature of water resources management in India is the presence of water management at federal level when water is supposed to be a state jurisdiction. Consequently, federal level coordination is weak due to the lack of constitutional power (Saleth & Dinar, 1999). Also the fragmentation of water management across several ministries hampers effective formulation and coordination of policy and often results in duplication, unclear responsibility and non-accountability (Narain, 2000)



Catchment Management in Mexico

Mexico's land area is approximately 2 million square kilometres and rainfall varies from 150mm in deserts to 1700mm in the south with a mean of 780mm (Saleth & Dinar, 1999). Politically, Mexico has a strong centralised government. Following the macro economic crisis of the 1980s, Mexico embarked on a round of institutional reform which included the transfer of irrigation management to water user associations (WUAs) (Wester et al, 2003; Saleth & Dinar, 1999). The Comisión Nacional del Agua (CNA) is charged with defining water policy, granting water concessions, waste water discharge permits, norms for water use and quality as well as national water management plans (Wester et al, 2003).

Figure 2.4 below identifies the location of roles in water management of various bodies in Mexico. An interesting feature of the management of water resources in Mexico is the adoption of a catchment management model. Water resources are nationalised. The national water commission (Comisión Nacional del Agua (CNA)) is the federal body that

manages water at a national level. At regional and local levels are river basin councils and water user associations respectively.

Figure 2.4 Organisational structure and water functions in Mexico

Body	Function
Federal government	<ul style="list-style-type: none"> Constitutionally (surface) water is a national property held in trust by federal government. Curiously though ground water has only been brought under federal control through a court judgment.
Comisión Nacional del Agua (CNA) (National Water Commission)	Federal agency for: <ul style="list-style-type: none"> defining water policy granting water concessions, waste water discharge permits norms for water use and quality as well as national water management plans
River Basin Councils	<ul style="list-style-type: none"> composition in flux, broadly: some federal ministers, governors of states in basin, director general of CNA, federal oil and electricity companies, user representatives from six sectors (agriculture, fisheries, services, industry, livestock, and urban) foster integrated water management develop infrastructure and services preserve water resources
Water User Associations	<ul style="list-style-type: none"> stakeholder group representatives

Adapted from Wester et al, 2003

Catchment Management in Zimbabwe

Zimbabwe has two-tier system with a strong centralised government and a weak local government system. Zimbabwe is currently undergoing water reforms, which like South Africa, are guided by among other things, the correction of historical imbalances and the achievement of integrated water resource management. Unlike South Africa domestic water supplies are not a source of conflict. Contestations in water bedevil industrial and agricultural sectors, which are seen as part of the broader liberation context. The new Water Act was passed in 1998 to replace the 1976 Act, which had centralised powers in a water court and through the riparian principle denied the majority of (black) people adequate access to the resource for beneficial use.

Perhaps the most debated issue in the Zimbabwean model is the position of the Catchment Manager who oversees the administration of the Catchment Council. The

incumbent reports to Zimbabwe National Water Authority (ZINWA), raising fears of non-accountability to the Catchment Council (Chikozho, 2002; Tapela, 2002; Mody, 2004). Furthermore, the water supply function in rural areas is not well defined between the local authority and the District Development Fund with both generally performing the same role of borehole and dam construction. In large urban areas however, the local authorities take over the water supply role. The Zimbabwe National Water Authority is generally active in water provision in smaller centers servicing government institutions and water supply. Figure 3.5 below identifies major players and their roles in water management in Zimbabwe.

Figure 2.5 Water Management Roles in Zimbabwe

Body	Function
Ministry of Rural Resources and Water Development	<ul style="list-style-type: none"> ● Parent ministry responsible for overall direction of water policy in the country
Department of Water Development	<ul style="list-style-type: none"> ● policy making ● regulatory function
Ministry of Environment and Tourism	<ul style="list-style-type: none"> ● related ministry with similar functions ● environmental conservation activities in terms of Natural Resources Act of 1996
Zimbabwe National Water Authority	<ul style="list-style-type: none"> ● a parastatal body which oversees catchment and sub-catchment councils ● water resources planning, management and development to ensure equity, efficiency and sustainability
District Development Fund	<ul style="list-style-type: none"> ● Development of rural water supplies (borehole and dam construction and maintenance)
Local Authorities	<ul style="list-style-type: none"> ● Provide water supply and sanitation ● Own water supply infrastructure
Catchment Councils	<ul style="list-style-type: none"> ● Stakeholder body ● Planning and overall management of the catchment ● Manager reports to ZINWA
Sub-Catchment Councils	<ul style="list-style-type: none"> ● Water allocation, issue of permits and assisting ZINWA

Adapted from Chikozho, 2002; Mody, 2004; Tapela, 2002

Water Management in USA

Water management in the USA can be viewed to consist of two systems of water law, a riparian principle in the eastern states whereas the western states use the prior appropriation doctrine (Deason et al, 2001). The two systems reflect the relative abundance of water in eastern states and scarcity in the western states. As expected the two systems have come under heavy criticism. On the one hand the prior appropriation doctrine neglects junior water rights and fails to protect the resource. On the other hand the riparian principle neither is responsive to economic values uses nor the protection of the resource. As a result eastern states have been moving away from riparian system while at the same time the western states have been moving away from the prior appropriation system. Water policy in the US exists in federal-state framework with states having subsidiary rights not assumed by the federal government or allocated to citizenry (Davis, 2001).

Contrary to widely held assertion that environmental management (and water management) in USA is integrated, there are in fact numerous federal and state agencies operating in water management.



Jurisdiction over water resources policy is fragmented among at least 13 congressional committees, 23 congressional subcommittees, eight cabinet level departments, six independent agencies and two White House offices. To further complicate water resource policy issues, those federal entities with authority over water resource planning are not the same entities that have jurisdiction over water-related projects... it has been argued that the states have been left out of federal water resource planning process

(Deason et al, 2001:188)

It is often mistakenly assumed that the Environmental Protection Agency as the implementation organ of the Clean Water Act operates in a highly integrated system. As the statement above shows, the system is highly fragmented often resulting in serious squabbles between government bodies over boundaries of jurisdiction (Villanueva, 1996)

2.6 CONCLUSION

The adoption of catchment management of water resources in South Africa is already having profound consequences on public administration and water management given the mismatch of catchment and administrative boundaries. Despite its lukewarm successes, catchment management has well documented strengths in water resources literature. South Africa however should benefit from being a late implementer of the concept by avoiding pitfalls experienced in other countries.

Given that overlapping mandates occur in water management, understanding conflict and cooperation is essential to resolving these issues. Conflict on the one hand, was described as a reality of everyday life it ought to be managed. Co-operation on the other hand can be seen as an essential ingredient to overcoming overlaps.

There seems to be a lack of agreement on what the most appropriate level of location of water management. Water resource management is either located at national (or federal) government level or state (or provincial) level. India and Australia for example both have water authority resting at state level whilst Mexico and Zimbabwe have national government control of water resources. This is rooted in the nature of government and history of these countries.

Water management is also fragmented in terms of separation of water resources and water services in all the countries. Water services are an area that is designated to local authority level with the department (or ministry) responsible for local authorities having a supervisory role. Some confusion exists in so far as provision of water supply in rural areas in Zimbabwe, with roles of the District Development Fund, the Zimbabwe National Water Authority and local authorities not clearly spelt out. In order to avoid this problem, South Africa will therefore need to draw clear lines of responsibility for the Department of Water Affairs and Forestry, Department of Provincial and Local Government, provincial governments and municipalities.

Zimbabwe and South Africa share a common history, and perhaps importantly the type of land dispossession and loss of water rights by the indigenous peoples of both countries

mirrored each other. The institutional successes (or failures) in Zimbabwe need to be replicated (or avoided) in South Africa. Appreciably both countries have undertaken water sector reform aimed at achieving catchment management at around the same time though the catchment bodies are designed in a different way.

The USA experience is important for a number of reasons. Firstly it reflects that water law needs to adapt to realities on the ground in terms of increasing water scarcity which is reflected in changing water regimes both in the west and east. Secondly, it shows that the creation of a ‘unified’ environment agency does not necessarily lead to the dis-establishment or agglomeration of disjoint roles in the new organ. This may be a result of the need to protect turfs by bureaucrats on the one hand. On the other hand it reflects the lack of political will at higher levels of government to reduce the size of the bureaucracy.



CHAPTER 3

METHODOLOGY

3.1 SELECTION OF THE CASE STUDY AREA

The study area was selected for the three prime reasons; firstly I was alerted of a conflictual relationship between governments organs involved in water management in the area. Regular reports detailing the existence of this conflictual relationship had appeared in the Eikestadnuus, a local newspaper. Secondly, the European Union has threatened to cancel fruit orders from the area due to high pollution levels. This would result in a loss of foreign exchange earnings for the country as well as loss of employment for farm workers. Thirdly, constitutional rights to water and a clean environment are being violated by the continuous non-attendance of the pollution problem in the river by the relevant authorities.

Rationale for the Case Study Approach

The case study approach to examine jurisdictional overlaps in water management was chosen in order to examine in detail an actual example of such overlaps and their effect on management of water.

3.2 DATA SEARCH

Websites

Data about roles of government organs in water management were found from their departmental websites. The websites detail the mission, vision and organisational responsibilities of each of the organs. Furthermore documents from the organs concerned were scrutinised to shed light on each department's role. Another useful source was analysis of legislation as duties are apportioned in the various Acts.

Newspaper articles

A search for newspaper articles detailing the nature of the problem in the Eerste River catchment was undertaken. I visited the offices of the Eikestadnuus to request to peruse their publications from 2000. The Eikestadnuus is a weekly community newspaper with

wide readership in Stellenbosch and its environs. The Eikestadnuus is a dual medium (Afrikaans and English) paper. The search yielded articles written in both Afrikaans and English. The Afrikaans articles were then translated into English.

The articles in the Eikestadnuus provided a detailed account of events as they played out in the pollution of the Plankenburg River citing useful statements from the responsible officials in government bodies that were used in the analysis or provided further avenues for investigation in the interviews. An online search for newspaper articles in Cape Argus, Cape Times, Business Day, and the Mail and Guardian yielded only two articles.

Interviews

A background paper on the situation in the catchment regarding water management was developed before interviews were carried out so as to illuminate the issues involved.

Interviews were conducted with key informants from organs deemed key in the resolution of the overlapping jurisdictions. The interviewees selected were key personnel in the respective organisations and were knowledgeable experts. The newspaper articles provided a number of people who I then did a courteous background check before I arranged an interview at their offices.

I administered a semi-structured interview to allow for the interviewees to bring their own perspective on the topic. To confirm quotes in the newspaper articles I asked direct questions requiring a yes or no answer. I recognised that given the contentious nature of the matter under investigation, in some instances officials would not want to be definitive but remain ambiguous. In such instances I immediately followed up with a question to clear the ambiguity.

Case analysis

Case analysis was undertaken to find the relationships between spheres of government as interpreted by the courts. The cases were heard in the superior courts, that is, the High Courts, the Supreme Courts of Appeal and the Constitutional Court as reported in various law reports.

... also known as judge-made law, is the law developed by the courts. Judges' decisions in legal disputes, including the facts and the legal principles on which the decisions were made, are recorded in law reports... Not all cases are reported; only those cases that raise significant points of law or expand on the understanding of the law are published. Law reports are published for the purpose of being used as precedent. They ensure that like cases are decided alike. (University of Queensland, Online:

<http://www.library.uq.edu.au/law/research/lawreports.html>)

3.3 ETHICAL CONSIDERATIONS

The issue of overlapping jurisdictions is a very sensitive issue in government circles so assurance was given to all interviewees that the purpose of this investigation was for academic purposes only. I also undertook to maintain an ethical demeanour that would honour accuracy of statements I received. Permission to append their names as source information at the end of the analysis was granted by the interviewees.



3.4 LIMITATIONS OF THE STUDY

The interviews were focussed on governmental organs so as to gain knowledge on their relationships. Other stakeholders like non-governmental organisations (NGOs), community based organisations (CBOs), and communities in the catchment were excluded from interviews because of time considerations and the need to focus on the key players. The inclusion of their views and experiences in the interviews would probably have shed more light on consequences of overlapping jurisdictions and institutional hierarchy from their experiences.

Document analysis focussed on legislation. Policy documents (white papers) might have shed more light on the intentions of legislation. However it was deemed that policy documents have limited legal significance and was therefore not analysed.

CHAPTER 4

ORGANISATIONAL AND LEGISLATIVE CONTEXT

4.1 INTRODUCTION

In this chapter an organisational description and analysis of national and provincial departments and then the City of Cape Town and the Municipality of Stellenbosch are presented. Water management in South Africa is characterised by complex, often delicately balanced relationships between different organs of government. Broadly these organs can be grouped into regulators, water service providers, facilitators, water users, conflict resolvers and interested groups (Thompson et al, 2001).

An analysis of the main legislation governing water management is given in the order of firstly national legislation, then provincial legislation and lastly by-laws. Water management in South Africa is managed through a rather complex web of legislation administered by different departments at all spheres of government. This fragmentation of management along autonomous line functions and spheres of government leads to fragmented policies and subsequent implementation (Nel, et al 2004).

4.2 NATIONAL GOVERNMENT

Department of Water Affairs and Forestry

The Department of Water Affairs and Forestry is the custodian of water and forestry resources in the republic with primary responsibility for the formulation and implementation of policy governing water affairs and forestry. Water management is divided into two broad areas of water resource management and water services. The water resources management role entails *inter-alia* resource monitoring, protection, infrastructure planning and allocation between competing uses. Local government provides water services as stipulated in the Constitution with Department of Water Affairs playing a monitoring and support role.

National Department of Agriculture (NDA)

The National Department of Agriculture aims to lead agriculture and rural development in South Africa. Among its other functions is sustainable resource management, which falls under the branch of agricultural production and resource management. This role entails the following: water, irrigation development, scientific research, land use and soil management. Since irrigation and pollution management resulting from fertiliser use interface with the Department of Water Affairs and Forestry's functions, there is need for a cooperative arrangement between the two departments.

National Department of Housing

The department is aimed at facilitating access to adequate and affordable housing, which has adequate services and amenities. The right to adequate housing is enshrined in section 26 of the Constitution (RSA, 1996). As can be seen from the above, housing is a complex function as it includes provision of services beyond mere houses, but also includes social amenities as well as adequate services like water supply, sanitation, electricity and transport facilities.



Department of Health

The core aim of the department is affording all South Africans affordable and good quality health services including preventative health care. The directorate of environmental health monitors municipal environmental health services, formulates the regulatory framework for living conditions, co-operates with other departments on air quality, water treatment, healthcare waste, water and sanitation, chemical safety programmes, and liaises with the Department of Environmental Affairs and Tourism on multi lateral environmental agreements

Department of Environment and Tourism (DEAT)

The department aims to achieve a prosperous society living in harmony with natural resources. This, the department envisages, will be achieved through sustainable development and conservation of natural resources and creating conditions for a growth in sustainable tourism. The branch of environmental quality and protection, whose role is to promote sustainable use and protection of the environment, is of particular interest to

water resources as it interfaces with the water resource protection function of the Department of Water Affairs and Forestry.

Department of Provincial and Local Government (DPLG)

The department's role is developing policies and legislation regarding provincial and local government spheres so that these spheres are able fulfil their constitutional and legal mandates. Being a young democracy, South Africa is still in the building phase of its governance systems, thus ensuring stability, efficiency, accountability and integration of each of provincial and local government spheres with other spheres is a real concern. In water management the Department of Provincial and Local Government is facilitating the delineation of functions between provinces and local authorities on one hand and the district and local municipalities on the other.

4.3 PROVINCIAL GOVERNMENT OF THE WESTERN CAPE

Legislative & Executive Authority

The Western Cape Provincial Government consists of the provincial parliament and the executive. In the analysis of water management at provincial level it is important to take cognisance of the fact that water resource management is a national function, which currently falls mostly under the Department of Water Affairs and Forestry. However through interfaces between water and environment, health and housing as well as water services (which is a local government competence) the provincial government still exercises major influence. The following departments play a significant role in water management: the Office of the Premier, Department of Environmental Affairs and Development Planning, Department of Health, Department of Local Government and Housing, Department of Agriculture. Each of these departments' main functions especially with regards to water management is discussed below.

Office of the Premier

The Chief Directorate: Intergovernmental Relations, Planning and Coordination, has a coordinating and support role in the province to ensure effective, efficient and coherent planning and management of the environment. It operates a secretariat for cooperative

governance structures. Water management being a cross cutting issue, is also coordinated in this secretariat.

Department of Environmental Affairs and Development Planning

The Chief Directorate of Environmental Affairs within the Department of Environmental Affairs and Development Planning aims to preserve and promote natural and cultural heritage of the province through integrated pollution and waste management, environmental impact management and nature conservation. The Development Planning Chief Directorate manages landuse and associated environmental impacts and this is especially relevant to conservation of water bodies like rivers and sensitive ecosystems like vleis. The Western Cape Nature Conservation Board is an independent organ of state reporting to the Minister of Environmental Affairs and Development Planning and is discussed separately below.

The Western Cape Nature Conservation Board

The aim of the Board is to conserve Western Cape's unique natural heritage for the enjoyment of present and future generations through sustainable utilisation of natural resources and application of legislation. The Board has a primary interest in protecting ecosystems, flora and fauna. Destruction of aquatic ecosystems mainly stems from over extraction and pollution of water resources.

Department of Local Government and Housing

The department's main functions are the promotion of effective local government and the development of acceptable housing. The Chief Directorate of Local Government monitors and supports local government structures in the province and it also monitors provision of water services and sanitation, pollution and waste management.

The Chief Directorate of Housing has as its core function housing provision, infrastructure promotion, orderly settlement and rendering of technical services related to bulk infrastructure (including water). Its water management roles include the monitoring of water consumption, sanitation, waste management and control of housing in flood plains.

Department of Health

Primary health care and environmental health are the central functions of the department. The environmental health function is aimed at promoting a suitable environment for all people in Western Cape. The key health legislation affecting water management are the National Health Act (RSA, 2003) and the Hazardous Substances Act 15 (RSA, 1973). The transfer of environmental health function to the Department of Environmental Affairs and Development Planning is being considered (PWC, 2002).

Department of Agriculture

The main functions of the department are development of agricultural technology for farmers; support programmes for farmers, sustainable utilisation of agricultural resources the protection of environment, and promotion of animal production. Its water management responsibilities include the prevention of water and land pollution due to the use of fertilisers and other chemicals, over extraction of surface and ground water and the destruction of sensitive ecosystems like vleis and sponges for agricultural purposes.



4.4 LOCAL GOVERNMENT

Local government is a distinct sphere of government with executive authority in the area of jurisdiction (section 40, Constitution) (RSA, 1996) Local government has water services roles derived from schedule 5 of the Constitution (RSA, 1996), the Water Services Act (RSA, 1997b), the Local Government: Municipal Structures Act (RSA, 1998b) and the Housing Act (RSA, 1997a). Furthermore water use as defined by the National Water Act is significant in so far as water abstraction, wastewater return flows and the alteration of watercourses is concerned.

Municipality of Stellenbosch

The Municipality of Stellenbosch is a local municipality falling under the Cape Winelands District Municipality. The Municipality of Stellenbosch covers Stellenbosch, Franschhoek, Pniel, Simondium, Kylemore, and Jamestown.

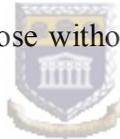
The engineering and technical services and community service departments play significant roles in water management. The community services department consists of

housing, health services, library services, and forestry and nature conservation. The engineering and technical services roles include water, sewage, and waste removal, roads and storm water.

As with other local municipalities, Stellenbosch faces the problem of undoing the legacy of apartheid in service delivery. Water and sanitation provision in the previously black 'townships' is rudimentary at best and non-existent in many areas, consequently impairing water resources in the Plankenbrug River.

City of Cape Town

Cape Town is situated in the southwestern tip of Africa. The City of Cape Town replaced the Cape Metropolitan Council and six Metropolitan Local Councils (Jaglin, 2004). The combined administrative area is roughly 2200 km². Wilkinson (2000) claims that 94% of the populations have got access to on site water supply while 89% have access to on site flush toilets. Without doubt this is a figure subject to much contestation, but given the estimated population of 3.2 million, those without access easily reach between 200 000 and 350 000.



As an inherent consequence of the previous separate development policies, water and sanitation services are world class in previously white areas and dilapidated to non-existent in black so called townships and informal settlements (Jaglin, 2004; Smith, 2004). The city health department aims to achieve its objective of improving the health for all by providing, promotive, preventive, curative, and environmental and specialised health services. The environmental management department protects and enhances the natural and cultural environment so as to realise sustainable development in the city.

The City of Cape Town has a Catchment Management Branch whose role is to manage the water resources (rivers) in the city whilst the Department of Water Affairs and Forestry plays a monitoring role (Mazibuko & Pegram, 2004; Khan & McConkey, 2003). Water and sanitation, housing, waste management are functions, which are critical in water management in the city.

4.5 NATIONAL LEGISLATION

The post 1994 water policies and laws in South Africa are designed to deal with the effects of the racially skewed development practices of the apartheid regime. A lot has been said about the apartheid policies, thus, the post 1994 institutional arrangements will receive the most attention in this analysis. Figure 4.2 below identifies legislation that is analysed as well as the lead organ of implementation. The concept of lead organ is understood in this case to mean the government department in charge of implementing provisions of a piece of legislation for example the National Water Act, 1997 is under the Department of Water Affairs and Forestry. The Figure is subdivided into two subsections, water resources management and water services respectively. This distinction is artificial however as both subsections are mutually dependent on each other.

Figure 4.1 National Legislation for Water Resource Management

Water Function	Legislation	Lead Department
Water Resources	Constitution	
	National Water Act	Water Affairs & Forestry
	National Environmental Management Act, Environmental Conservation Act,	Environmental Affairs & Tourism
	Conservation of Agricultural Resources Act, 1983	Agriculture
	National Health Act	Health
Water Services	Constitution	
	WATER SERVICES ACT	Water Affairs & Forestry
	NATIONAL WATER ACT	
	Municipal Systems Act	Provincial & Local Government
	Municipal Structures Act	
	National Housing Act	Housing
National Health Act	Health	

Constitution Act No. 108 of 1996

Cooperative Government

Chapter 3 of the Constitution of the Republic of South Africa (RSA, 1996) outlines a framework of cooperative government in the country. Section 40 defines government in SA as being “constituted as national, provincial and local spheres of government which are distinctive, interdependent and interrelated.” Mazibuko & Pegram (2004) describe the relationship between the different spheres of government as being vertical, meaning there is a hierarchy of order. However, Nel et al, (2004) identify the same relationships as being horizontal asserting that the use of ‘spheres’ instead of ‘levels’ of government is an attempt to move away from the notion that there exists distinct hierarchy of order between the different spheres of government. Crucially, this means that autonomy of each sphere is guaranteed, as long as mutual interdependence and interrelation with other spheres is built in. However it important to note section 100 provide for supervision of provincial government by national government in case where the former fails to fulfil its obligations in terms of legislation and the constitution. Section 100 is given below.



Box 4.1

Section 100(2) of the Constitution

100. National intervention in provincial administration

2. When a province cannot or does not fulfil an executive obligation in terms of the Constitution or legislation, the national executive may intervene by taking any appropriate steps to ensure fulfilment (sic) of that obligation, including -
 - a. issuing a directive to the provincial executive, describing the extent of the failure to fulfil its obligations and stating any steps required to meet its obligations; and
 - b. assuming responsibility for the relevant obligation in that province to the extent necessary to
 - i. maintain essential national standards or meet established minimum standards for the rendering of a service;
 - ii. maintain economic unity;
 - iii. maintain national security; or
 - iv. prevent that province from taking unreasonable action that is whole.

Source: RSA,1996

Box 4.2
Section 139 of the Constitution

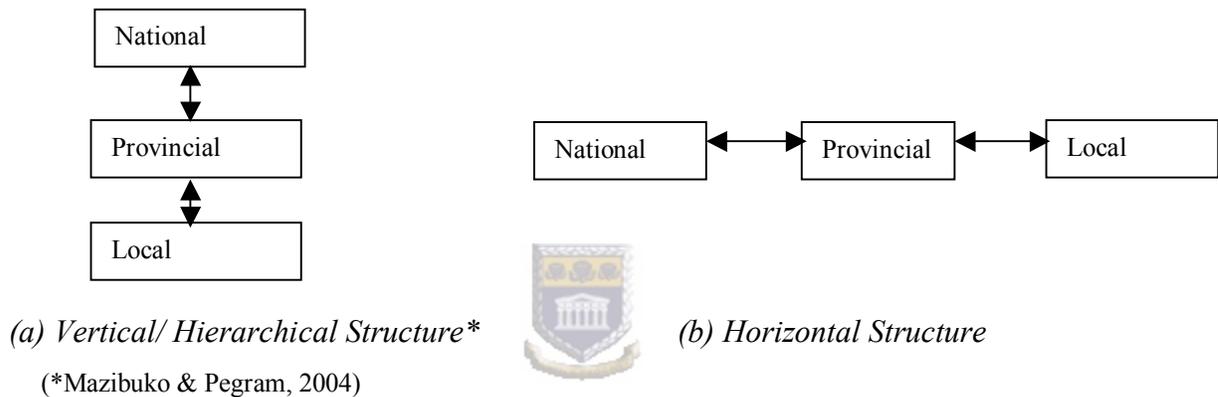
139 Provincial intervention in local government

1. When a municipality cannot or does not fulfil an executive obligation in terms of the Constitution or legislation, the relevant provincial executive may intervene by taking any appropriate steps to ensure fulfilment (sic) of that obligation, including-
 - a) issuing a directive to the Municipal Council, describing the extent of the failure to fulfil its obligations and stating any steps required to meet its obligations;
 - b) assuming responsibility for the relevant obligation in that municipality to the extent necessary to-
 - i. maintain essential national standards or meet established minimum standards for the rendering of a service;
 - ii. prevent that Municipal Council from taking unreasonable action that is prejudicial to the interests of another municipality or to the province as a whole; or
 - iii. maintain economic unity; or
 - c) dissolving the Municipal Council and appointing an administrator until a newly elected Municipal Council has been declared elected, if exceptional circumstances warrant such a step.
4. If a municipality cannot or does not fulfil an obligation in terms of the Constitution or legislation to approve a budget or any revenue-raising measures to give effect to the budget, the relevant provincial executive must intervene by taking any appropriate steps to ensure that the budget or those revenue-raising measures are approved, including dissolving the Municipal Council and-
 - a) appointing an administrator until a newly elected Municipal Council has been declared elected; and
 - b) approving a temporary budget or revenue-raising measures to provide for the continued functioning of the municipality.
5. If a municipality, as result of a crisis in its financial affairs, is in serious or persistent material breach of its obligations to provide basic services or to meet its financial commitments, or admits that it is unable to meet its obligations or financial commitments, the relevant provincial executive must-
 - a. impose a recovery plan aimed at securing the municipality's ability to meet its obligations to provide basic services or its financial commitments, which-
 - i. is to be prepared in accordance with national legislation; and
 - ii. binds the municipality in the exercise of its legislative and executive authority, but only to the extent necessary to solve the crisis in its financial affairs; and
 - b. dissolve the Municipal Council, if the municipality cannot or does not approve legislative measures, including a budget or any revenue-raising measures, necessary to give effect to the recovery plan, and-
 - i. appoint an administrator until a newly elected Municipal Council has been declared elected; and
 - ii. approve a temporary budget or revenue-raising measures or any other measures giving effect to the recovery plan to provide for the continued functioning of the municipality; or
 - c. if the Municipal Council is not dissolved in terms of paragraph (b) , assume responsibility for the implementation of the recovery plan to the extent that the municipality cannot or does not otherwise implement the recovery plan.

Source: RSA, 1996

Furthermore section 155(7) of the Constitution (RSA, 1996) provides for provincial governments to ensure “the effective performance by municipalities of their functions in respect of Schedule 4 and 5, regulating the exercise by municipalities of their executive authority referred to in section 156(1).” The relationships between spheres of government are represented in the figure 4.2 below. Figure 4.2(a) relates to sections 100 and 139 of the Constitution (RSA, 1996) which both provide for supervision of provincial and local government by national and provincial governments respectively. Figure 4.2(b) shows an implied meaning from section 40.

Figure 4.2 Relationships between spheres of government



Whilst section 41 of the Constitution (RSA, 1996) explicitly provides for cooperative governance, inherent fragmentation in the bureaucracy assigns environmental management among different departments i.e. water affairs and forestry, environmental affairs and tourism, minerals and energy, agriculture, and land affairs thus providing a fertile ground for ‘turf wars’ (Du Plessis, undated). Thus, it becomes clear that cooperative governance needs to be operationalised on the ground (Mackay & Ashton, 2004) beyond the current ‘talk or politick’. Mackay & Ashton (2004) add however that government departments often work in direct opposition to each other due to lack of effective co-ordination. Such conflict may arise also from misinterpretation of legislation.

Section 27 of the Constitution (RSA, 1996) provides for a right to water whilst section 24 provides for a right to an environment conducive to well being and a right to have the environment protected for present and future generations.

National Water Act No. 36 of 1998

The purpose of the National Water Act (RSA, 1998c) is defined in Section 2 as to ensure that the nation's water resources are protected, used, developed, conserved, managed, and controlled taking into account amongst other factors sustainability, equitable access and enhancement of economic development. Section 3 provides for public trusteeship of the nation's water, vested in the Minister of Water Affairs and Forestry.

National Water Resources Strategy

The development of a National Water Resources Strategy (NWRS) is provided for in section 5-7. The NWRS provides a framework for the fulfilment of the aims of the National Water Act. Furthermore it provides for catchment level management of water resources. The first edition of the NWRS was published in 2004 after wide consultations and divides the country into 19 Water Management Areas that eventually will be managed by Catchment Management Agencies.

Water Resources Protection

Chapter 3 of the National Water Act (RSA, 1998c) prescribes ways of protecting water resources in South Africa. Section 12 establishes a classification system for water resources and provides for instream and land based water uses. The reserve is defined to include water for basic human needs and ecological needs and enjoys priority over all uses. Section 19 provides for measures for prevention and remedying effects of pollution and provides for use of the polluter pays principle in remedying such effects.

Water Use

Chapter 4 provides measures for regulating water use. Water use includes abstraction, storage, impeding water flow, stream reduction activities, and discharge of waste into water resources, waste disposal, altering watercourses characteristics, removing or disposing water found underground, and recreational use. Furthermore permissible uses,

licensing requirements and procedures, regulation of uses regarded streamflow reduction activities and controlled activities are all defined. Chapter 5 deals with measures required to finance water provision and protection including water charges and financial assistance to ensure equitable access.

Chapter 7 provides for the establishment of Catchment Management Agencies (CMAs) in order to enable progressive decentralisation of water management to local communities. A CMA is a body corporate under stewardship of a governing board. Initial functions of CMAs include the following:

- Investigation and advising on protection, use, development, conservation, management and control of water resources in WMA
- Development of a catchment management strategy
- Co-ordinate water users and water management institutions in WMA
- Promote the co-ordination of its implementation with the implementation of the Water Services Development Plans
- Promote community development in protection, use, development, conservation, management and control of water resources in WMA

Chapter 8 provides for the establishment of Water User Associations (WUAs). A WUA is a body corporate and are formed primarily to undertake water related activities of members, but may assume water management duties if assigned by the CMAs or if assigned the Minister of Water Affairs and Forestry

National Environmental Management Act, 1998

The National Environmental Management Act (NEMA) (RSA, 1998b) seeks to bring cohesion to a highly fragmented area of environmental management and promote environmentally sustainable development. The definition of the term 'environment' in the National Environmental Management Act is so wide that it seems that its functions cut across several departments of government. Section 1(xi):

‘environment’ means the surroundings within which humans exist and that are made up of–

- (i) the land, water and the atmosphere of the earth;
- (ii) micro-organisms, plant and animal life
- (iii) any part or combination of (i) and (ii) and the relationships among and between them; and
- (iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well being.

Importantly though, the National Environmental Management Act (RSA, 1996) introduces environmental governance tools for co-operation. The Department of Environmental Affairs and Tourism has leverage in determining environmental policy direction of individual organs of state through for example the committee for environmental co-ordination and the environmental implementation plans and environmental management plans which certain organs are required to submit to the Department of Environmental Affairs and Tourism.

The Committee of Environmental Coordination is established in terms of section 7 of NEMA to promote the integration and coordination of environmental composed of the director generals of:



- Department of Environmental Affairs and Tourism, who acts as chairperson,
- Department of Water Affairs and Forestry,
- Department of Minerals and Energy,
- Department of Land Affairs,
- Department of Constitutional Development,
- Department of Housing
- National Department of Agriculture,
- Department of Health,
- Department of Labour,
- Department of Arts Culture, Science and Technology,
- Provincial Heads of Departments appointed by Minister with concurrence of Members of Executive Councils,
- a representative of the national organisation recognised under s2 of Organised Local Government Act,

- and any other Director General appointed by the Minister.

Organs of state listed in schedule I and 2 of National Environmental Management Act, are further required to produce environmental management plans and environmental implementation plans respectively for submission to the Minister of Environmental Affairs and Tourism. For organs that appear in both schedules a consolidated environmental management and implementation plan can be submitted.

The purpose of the environmental management plans is to co-ordinate and harmonise the environmental policies, plans, programmes and decisions of organs of state that exercise functions which may affect the environment, in order to:

- minimise duplication of procedures and functions; and
- promote consistency in the exercise of functions that may affect the environment
- give effect to the principle of co-operative government in Chapter 3 of the Constitution
- secure the protection of the environment across the country as a whole
- prevent unreasonable actions by provinces in respect of the environment that are prejudicial to the economy health of the country as a whole; and
- enable the Minister to monitor the achievement, promotion, and protection of a sustainable environment



The National Environmental Management Act, Du Plessis (undated) notes, ‘... is so widely formulated that certain departments ‘usurp’ environmental decision making, taking it away from the Department of Environmental Affairs and Tourism.’ The Department of Environmental Affairs and Tourism is also trying to reclaim its decision making role in environmental matters (Du Plessis, undated)

Environmental Conservation Act No 73 of 1989

The Environmental Conservation Act (RSA, 1989) is aimed at effective protection and controlled utilisation of the environment. Section 20 of the Act requires a licence to be issued by the Minister of Environmental Affairs and Tourism in concurrence with the

Minister of Water Affairs and Forestry before any waste disposal site may be established. The concurrence is to protect water quality in fulfilment of requirements of the National Water Act. A mechanism is built in for cases where concurrence of the Minister of Water Affairs and Forestry is not obtained whence the matter would then be referred to Fair Decision.

Conservation of Agricultural Resources Act No. 43 of 1983

Section 3 of the Conservation of Agricultural Resources Act (CARA) (RSA, 1983) is aimed to control the use of natural agricultural resources in the republic so as to promote conservation of soil, water and the vegetation and the combating of weeds and invader plants. Accordingly, control measures are declared to achieve objects of the act in section 6 and includes (of interest) irrigation of land, control of waterlogging, protection of vleis, marshes, water sponges, watercourses and water sources, regulation of flow pattern of runoff water, and protection of water sources against pollution. Section 18 of CARA (RSA, 1983) further gives the executive officer or a designate, powers to enter property among other things to determine the extent of pollution of water sources arising from farming practices.



Mountain Catchment Areas Act No. 63 of 1970

The purpose of the Mountain Catchment Areas Act (RSA, 1970) is to provide for the conservation, use, management and control of land situated in mountain catchment areas. The principal value of mountain catchment areas is their value in maintaining water yields and quality whilst secondary values include nature conservation, recreation and agriculture (Glazewski, 2000). Mountain catchments yield over 50% of water resources even though they cover only 10% of total land area (Glazewski, 2000). Administration of the Act has been transferred to the provinces from DWAF. The implementation of the Act has been assigned to the provinces (Glazewski, 2002).

National Health Act No. 61 of 2003

The National Health Act (RSA, 2003) among its other purposes seeks to provide for measures for the promotion of health for the inhabitants of the republic in fulfillment of the requirements of the Constitution. Section 1 defines municipal health services to

include among other things water quality monitoring, waste management and environmental pollution control. The inclusion of environmental pollution control is significant considering environment's definition is referred to the one in the National Environmental Management Act (RSA, 1998b), which includes water. Section 21(2) (b) (ii) directs the Director-General of national health department to issue and promote adherence to norms and standards on health matters including environmental conditions that constitute a health hazard. Furthermore, according to section 21(2)(j) the Director General ought to facilitate the provision of indoor and outdoor environmental pollution control services. Section 32 requires metropolitan and district municipalities to ensure appropriate municipal health services are effectively and equitably provided. What is important to note here is that the Act is silent on duties of local municipalities. Section 83 provides health officers with powers of investigation in cases of violation of section 24(a) of the Constitution, pollution detrimental to health and in the existence of public nuisances.

Water Services Act No. 108 of 1997



The main objects of the Water Services Act (RSA, 1997b), are defined in section 2 as follows:

- fulfilment of rights to basic water supply and sanitation
- setting of standards for tariffs for water services
- preparation of Water Services Development Plans
- provision of a regulatory framework for water service institutions
- establishment of water boards
- provisions for monitoring and intervention by provinces or the Minister
- financial assistance to water service institutions
- accountability of water service providers
- promotion of effective water resources management

Chapter 3 of the Water Services Act requires water service authorities to provide access to water services in their areas of jurisdiction. Water service authorities are municipal councils. Furthermore, water service authorities are required to produce water services

development plans which detail area of jurisdiction, population attributes, existing water services and uses in the area, people not currently being serviced, proposed development plan towards realisation of water service rights and environmental protection measures for water resources.

Chapter 4 and 5 detail aspects about water service providers and water service intermediaries respectively. Chapter 6 details the establishment of water boards, their functions and powers amongst other things.

Housing Act No. 107 of 1997

The Housing Act (RSA, 1997a) is aimed at facilitation of provision of sustainable housing by defining principles of housing for national, provincial and local spheres of government. Section 9 of the Housing Act provides for integrated development planning and also seeks to ensure that conditions not conducive to health are prevented. Furthermore, the Act provides for among other things, water, sanitation and stormwater services. This is in line with provisions of schedule 2 of the Constitution in so far as these are municipal competencies. However it brings into being multiple regulators as these provisions also exist in the Water Services Act (RSA, 1997b), section 84 of the Local Government Act: Municipal Structures Act (RSA, 1998a) and section 9 of the Local Government Act: Municipal Systems Act (RSA, 2000)

Local Government: Municipal Structures Act No. 117 of 1998

The Municipal Structures Act (RSA, 1998a) (hereafter Structures Act) provides for the establishment of different categories of municipalities. It defines the formula for determining categories of municipalities and division of functions of the municipalities and seeks to provide formula for regulating internal systems and structures. Three types of municipalities are established, that is categories A, B and C.

All municipalities have functions assigned in terms of sections 156 and 229 of the Constitution. Section 156 of the Constitution (RSA, 1996) states that matters listed in Part B of schedule 4 of the constitution and any matters assigned by national and provincial government are executive functions of local government. Furthermore section

229 of the Constitution (RSA, 1996) provides powers to municipalities to impose rates on property and surcharges for services rendered and if authorised by national legislation to levy other taxes.

With regards to water management section 84 of the Structures Act, (RSA, 1998) requires district municipalities to exercise the following among other functions: integrated development planning, bulk supply of water, bulk sewage purification works and solid waste disposal

Local Government: Municipal Systems Act No 32 of 2000

The Local Government: Municipal Systems Act 9 (RSA, 2000) (Systems Act) seeks to broadly define legal nature of municipalities, to provide manner for exercise of municipal powers and functions and to provide for a framework of support and monitoring by other spheres of government

Given the historical imbalances brought by apartheid in water services, universal access of services by residents of municipalities is at the core of all development planning in South Africa. This is a departure from previous policies that saw black residents of cities as subjects resulting from 'influx' who needed to be evicted back to 'homelands'.

The establishment of the local sphere as a distinct organ of state is constitutionally enshrined as envisaged in section 40 of the Constitution. Thus section 3 of the Systems Act is in line with provisions of section 41 of the Constitution and requires national and provincial organs of state to exercise their functions in a manner that that does not compromise the municipality's executive and legislative mandates.

Chapter 5 of Systems Act provides for integrated development planning in order to align with development plans of municipalities and other organs of state to give effect to principles of cooperative government. The integrated development plans seek to address most critical development needs of the municipality by highlighting priorities needing to be addressed. The water services development plans required in the Water Services Act

(RSA 2000) form part of the integrated development plans as sectoral dedicated to resolving water sector development needs.

Intergovernmental Relations Framework Act No. 13 of 2005

The Intergovernmental Relations Framework Act 2005 (RSA, 2005) (IGRF Act) is in fulfilment of the requirements of section 41(2) of the Constitution of Republic of South Africa (RSA, 1996) that requires an act of parliament to provide a framework for intergovernmental relations and to provide dispute settlement mechanisms in intergovernmental relations.

Section 4 of IGRF Act requires all organs of state in all spheres of government to co-operate when exercising their statutory powers or functions by consulting affected organs and co-ordinating their actions, avoiding unnecessary duplication and to participate in intergovernmental forums.

The IGRF Act establishes a number of intergovernmental structures. The following structures are established, the Presidents Co-ordinating Council, national intergovernmental forums, provincial intergovernmental forums, and municipal intergovernmental forums.

Chapter 4 provides for settlement of intergovernmental disputes. All state organs are required to avoid disputes as far as possible with each other. Where these arise, they should be settled without resorting to judicial recourse. In the case of a declaration of a dispute, it specifies mechanisms for resolving this dispute through a facilitator, Minister or MEC as the case may require. Judicial proceedings may only be instituted if all other mechanisms at arriving at solutions have failed.

The IGRF Act provides a framework for the resolution of disputes between state organs and will play an important role in the negotiations over overlapping jurisdictions in the water sector.

4.6 PROVINCE OF THE WESTERN CAPE LEGISLATION

The Western Cape Provincial Constitution of 1998

Section 4 of Constitution of the Western Cape (PWC, 1998) purports that it is the supreme law in the Western Cape, subject only to the Constitution of the Republic of South Africa. Chapter 2 of the Constitution of the Western Cape (PWC, 1998) deals with intergovernmental relations. It outlines that as part of the provincial sphere of government of the Republic of South Africa, the province has an obligation in terms of the Constitution of Republic of South Africa (RSA, 1996) in its dealings with the national and local spheres. Section 49 of the Constitution of the Western Cape (PWC, 1998) provides for supervision of local government. The provincial cabinet may take appropriate measures to ensure fulfillment of municipal obligations in cases of failure or inability to fulfill these obligations by a municipality. The intervention may take form of issuing of directives or assumption of such responsibilities under certain conditions.

The local sphere of government is dealt with in section 52-54 of the provincial constitution (PWC, 1998). The local sphere of government is established in accordance with the Constitution of Republic of South Africa and the ability of municipalities to perform their functions may not be compromised. Provincial legislation provides for the establishment of three categories of municipalities. The Western Cape government must provide for the monitoring and support of local government and promote the development of capacity in order for municipalities to effectively perform their functions.

In his analysis of development of sub-national constitutions in South Africa, Lawrence (1999), notes that there are only two constitutions developed in South Africa by the provinces. These were by Western Cape and KwaZulu-Natal, which were the two provinces in which the ANC failed to win a majority in the 1994 elections. The other provinces, Lawrence (1999) argues, found no need to develop constitutions as they felt the national constitution offered them ‘...adequate political framework. In order to consolidate its power base in the Western Cape, the National Party hypothesized, a provincial constitution was going to protect it (and the province) from ANC influence.

Drawing from its behaviour in the provinces it has always controlled, the ANC it seems, regards provincial constitutions as superfluous and perhaps destructive. Maybe it is worth noting that it is in the two provinces above that constitutional litigation regarding cooperative governance and intergovernmental relations has been referred to the courts. The aftermath of the 2004 elections was the ascendance to power of the ANC as the largest party in the provinces of KwaZulu Natal and the Western Cape though without outright majorities. With the ANC in power in the Western Cape, the provincial constitution is unlikely to be evoked. It is also unlikely that the now ANC dominated province will resort to judicial interpretation of disputes between organs of state.

The Nature Conservation Ordinance, 2000

The purpose of the ordinance (PWC, 2000b) is to provide for nature (and environmental) conservation in the Western Cape Province. Broadly the areas covered are nature reserves, conservation measures, protection of wild animals, rhinoceros, fish in inland waters, and flora. The Act establishes the Department of Nature and Environmental Conservation under a director, who may exercise, delegate any powers conferred or imposed in the ordinance. Of particular interest is section 48, which provides that:

No person shall deposit or cause or allow to be deposited-

- a) in any inland waters, or
- b) in any place from where it is likely to percolate into any other manner enter any inland waters,
- c) anything, whether solid, liquid or gaseous, which is or is likely to be injurious to any fish or fish food or which, if it were so deposited in large quantities or number, would be so injurious.

The above section, though coined in language of protecting fish from pollution of inland waters, is wide ranging in theory. In addition to imposing the duty to stop direct harm on fish it also imposes the duty to protect food for the fish and given the varied nature of such food, which amounts to very broad powers. Pollution by definition alters physical and chemical properties of the water body and thus reduces its biological carrying capacity. Armed with this piece of legislation the department has at its disposal a potent mechanism to stop pollution of inland waters.

Understandably, the ordinance deals with only protection of fish in inland waters. Water and marine resources fall under the jurisdiction of the national government. However, the mere fact that the piece of legislation purports to deal with matters other than water resources management, it does not distract from the possible additional uses the legislation may be applied to.

Western Cape Development and Planning Act No. 7 of 1999

Of interest to water management in the Western Cape Development and Planning Act (PWC, 1999) are provisions to impose zones for certain developments throughout the province with special reference to the following: environmentally sensitive areas, cultural, architectural, historic and developed environment. Protective measures in respect of areas of the natural environment and environmental sensitive areas such as wetlands, flood plains, dunes, steep slopes and the environment in general.

Western Cape Determination of Municipalities Act No. 9 of 2000

The Western Cape Determination of Municipalities Act (PWC, 2000a) aims to determine the types of municipalities to be established in the Western Cape as provided in section 155 of the constitution and section 11 of the provincial Constitution and section 11 of the Municipal Structures Act. The Act establishes the Category A municipalities, Category B municipalities and category C municipality

4.7 LOCAL GOVERNMENT BY LAWS

City of Cape Town By-Laws

The City of Cape Town has a comprehensive set of by-laws for the management of water within its boundaries. The following are by-laws currently being applied within the city's boundaries:

1. The dumping and Littering By-Law of 2003
2. The Environmental By-Law of 2003
3. The Cape Metropolitan Council Waste Water and Industrial Effluent By-Law of 2000

The first two by-laws above are discussed below.

Dumping and Littering By-Law

The Dumping and Littering By-Law (CCT, 2003b) is aimed at prevention of uncontrolled dumping and littering in the City of Cape Town. Section 2 gives the following duties:

No person may –

- (a) litter or cause littering of waste;
- (b) dump or cause dumping of waste

Section 3 provides the following:

a person who owns land or premises, or who is in control of or has right to use land or premises, may not use or permit the use of land or premises for unlawful dumping of waste and must take reasonable steps to prevent use of land

The by-law is wide ranging in matters under regulation because of the wide definitions of ‘dump’ and ‘waste’

“**dump**” means to dispose of waste –in any manner other than a manner permitted by law and includes, without derogating from the generality of the foregoing, to deposit, discharge, spill, or else release waste, whether or not the waste is in a container or receptacle, or in any place whatsoever, whether publicly or privately owned, including but not limited to vacant land, rivers, waterways, catchments and sewage and storm water systems.

“**Waste**” means any matter, whether liquid or solid or a combination thereof, which is a by-product, emission, residue or remainder of any product, process or activity and which has been discarded but excludes any radioactive matter.

Environmental By Law

The Environmental By-Law (CCT, 2003a) adopts a rather long and inclusive definition of nuisances as given below.

“**health nuisances**” means any activity, condition, premises or thing which on account of effluent, vapours, chemical effluvia, odours, noise, vibration, radiation, refuse, waste products, dirt, chemical or biochemical material, microbial infection, vermin, vegetation, overcrowding, lack of proper general hygiene,

ventilation, lighting, design, situation, or on account of any other cause or practice whatsoever, is/are in the opinion of director: City health or a duly authorised council employee potentially injurious or dangerous to health or which is/are offensive, including, without affecting the generality of the foregoing, any facility for the storage, distribution or handling of water that is likely to be used by man for domestic purposes or consumption including such water itself, which is contaminated or polluted;

Section 2 seeks to prevent property owners to use or cause the use of their properties for the purposes of causing health nuisances. With reference to water no owner or occupier of any shop or business premises or vacant may:

- fail to maintain sewers, drains, water fittings, waste fittings, waste water fittings, water closet fittings, and all other sanitary accessories forming part of or attached to any building or structure in good or sound repair
- cause or permit any stream, pool, ditch, drain, gutter, water course, sink, bath, cistern, water closet, privy or urinal on any land to that owned or occupied by him or which he is in charge to become so foul or in such state or to be constructed so as to be a health nuisance
- cause or permit any foul or polluted water or any foul liquid or objectionable material to run or flow from any premises to that owned by another person, whether occupied for trade, business, manufacturing, dwelling or any other purposes, onto any land stormwater river or canal system.
- commit, cause or permit to be committed an act, which may pollute any water to which inhabitants of the area of jurisdiction of the council have right of use or access.

It appears therefore, that the City of Cape Town has a potent arsenal in above by laws in preventing pollution of water resources within its boundaries.

Municipality of Stellenbosch By Laws

The Municipality of Stellenbosch currently is in the process of developing a set of by-laws to ensure the effective management of water within the boundaries of the municipality. Given the historical circumstances that the previous set of by-laws were

created the municipality is effectively currently using the relevant national legislation in lieu of its own as an interim arrangement (Mogus, 2005)

4.8 CONCLUSION

Water management in South Africa is characterised by multiplicity of legislation governing its protection and use. Much as it has been the intention of the post apartheid governments to speed up delivery of both water services and ensure the continued sustainability of water resources in the republic, many problems continue to be faced in both pursuits. Perhaps one of the most obvious weak points continues to be the fragmentation of water management both in terms of the legislation and administration.

Water policy and legislation in South Africa recognises water as a national asset whose management is to be centralised under the national government with the Department of Water Affairs and Forestry acting as a custodian of this national asset. The fact that water is at the core of developmental agenda explains its presence in various line functions of three government spheres as well as the three spheres of government.



Indications are that there are jurisdictional overlaps between the National Water Act (RSA, 1998c), the National Environmental Management Act (RSA, 1998b), the Environmental Conservation Act (RSA, 1989), the Conservation of Agricultural Resources Act (RSA, 1983), the National Health Act (RSA, 2003), the Cape Nature Conservation Act (PWC, 1974) in pollution management. Given the constitutional designation of pollution control as an area of concurrent competence between national and provincial governments this sets the scene for a possible conflict between the different spheres and between different line functions within each of the three spheres.

The establishment of waste sites is an example is an area of executive local government authority, which is subject to legislative and executive authority of the national and provincial governments. The regulation of waste sites is a very complicated matter that involves municipalities, the provincial government and in the national government the Department of Water Affairs and Forestry and the Department of Environmental Affairs and Tourism. In many instances what is in dispute is not whether powers exist but to what extent the power of each organ extends.

In the matters of concurrent competence it is not always clear which organ has got a primary jurisdiction over an aspect. Pollution management for example is an area of concurrent national and provincial competence. A question arises as to which of say the Department of Environmental Affairs and Tourism (national) and the Department of Environmental Affairs and Development Planning (provincial) has a duty to act first. Should the two departments duplicate their respective roles? This question could easily be answered by referring to the duty to cooperate placed on the departments by the constitution. However, such an approach fails to tackle the need for clear delineation of roles. The Department of Water Affairs and Forestry equally has pollution control duties derived from the National Water Act (RSA, 1998c). The departments of agriculture (national and provincial) similarly have water resources protection duties imposed by the Conservation of Agricultural Resources Act (RSA, 1983).

The Conservation of Agricultural Resources Act (RSA, 1983) seems to contain significant water resources management provisions to the extent that water, rivers, vleis, sponges are agricultural resources. There is an implied conflict with provisions of the National Water Act (RSA, 1998c), which seek to make the Department of Water Affairs and Forestry the custodian of water resources. However to the extent that both Acts seek to protect the water resources, there seems to be some congruence. The problem would arise if the departments have separate standards of enforcement and if each department assumed the other carrying out the monitoring.

In water services management there is a possibility of misunderstandings in so far as who is defined as water services authority. The Water Services Act (RSA, 1997b) seems to define every municipality as a water services authority. The Local Government: Municipal Structures Act (RSA, 1998a) defines district municipalities as the bulk water services and sanitation providers in the whole district municipality. A question arises therefore as to which of the two Acts should apply. In addition, which of the Department of Water Affairs and Forestry and the Department of Provincial and Local Government at the national sphere has a primary duty to regulate water services? In the Western Cape, the Member of Executive Council for Local Government and Housing has declared all local municipalities in the province as Water Service Authorities in terms of Section 85

of the Structures Act (Enright, 2006). Another question arises on the role of the province in monitoring water services provision. The inclusion of water and sanitation as requirements of the Housing Act adds to a long list of possible regulators.

In addition to the Department of Water Affairs and Forestry the following national departments find themselves having different and sometimes similar roles in water management: Department of Environment and Tourism, Department of Minerals and Energy, Department of Agriculture, Department of Housing, Department of Provincial and Local Government, Department of Agriculture and the Department of Health. At provincial level Department of Environmental Affairs and Development Planning, Department of Agriculture, Office of the Premier, Department of Local Government and Housing, Department of Agriculture and the Department of Health all play one role or the other. It is possible that one organ of state assumes that another organ will perform a function where two or more organs have the same defined task. Within that context, the following chapter examines a case study of management failure in the Plankenbrug River, a tributary of the Eerste River Catchment to test the hypothesis.



CHAPTER 5

PLANKENBRUG RIVER CASE STUDY

5.1 INTRODUCTION

The Plankenbrug River flows southeasterly before joining the Eerste River at Die Boord. The river is heavily polluted mainly through the combined effects of agricultural activities upstream, contamination from the poorly serviced Kayamandi 'informal' settlement outside Stellenbosch and pollution from wineries (RHP, 2005; Gosling, 2004, DWAF, 2004). Farming practices have removed indigenous riparian vegetation and straightened upper reaches of the river and have severely impacted on ecosystems (RHP, 2005). Kayamandi is an under-serviced residential settlement created for black workers during the apartheid era and has grown rapidly since the advent of democratic transition.

Reports in the Eikestadnuus (a local newspaper) indicate that apportionment of responsibility for pollution management among state organs remains unresolved. The organs being the Department of Water Affairs and Forestry, Department of Environment Affairs and Development Planning (Western Cape), Department of Health (Western Cape), and the Department of Local Government and Housing (Western Cape) (Eikestadnuus, 29 October 2004), the Municipality of Stellenbosch and the Cape Winelands District Municipality (Eikestadnuus, 29 October 2004). Additionally, the Cape Nature Conservation Board and the Department of Agriculture, the Department of Environment and Tourism could be added to the list.

Box 5.1 below provides a summary of some of the reports detailing the extent of pollution in the river and the conflict arising from the apportionment of responsibility. It is clear from the reports that the organs involved in the dispute each believe that the responsibility for the clean up of the river lies somewhere else. It is unfortunate that whilst officials continue their squabbles the pollution in the river continues to have negative effects on the affected people, especially those living in the proximity of the river as well as the resource quality for ecosystem and beneficial use.

BOX 5.1
POLLUTION IN THE PLANKENBRUG RIVER

Pollution in the Plankenbrug River has been a problem for a long time. In October 2002, the Municipality of Stellenbosch appointed a consultant, SRK Consulting to investigate options for controlling polluted stormwater entering the river. In addition, feasibility studies into viability of constructing a system to prevent debris from entering the river were commissioned and were being financed through the municipality's capital budget. At the inception of these studies, the municipality called for the involvement of the Department of Water Affairs and Forestry, the departments of environmental affairs and the departments of health at national and provincial level

In February 2003, an emergency clean up of the river was completed, and the continued clean up of the river would be carried out by a group of 19 unemployed youth from Kayamandi. The clean up was funded through a grant of R150 000 from the Western Cape Clean Up Fund under the Department of Environment and Cultural Affairs. In addition the Provincial Government allocated a further R575 000 for the construction of emergency cut off drains to prevent stormwater reaching the river. For its part the municipality provided R500 000 for the cut off drains and a further R800 000 for the upgrade of toilet facilities in Kayamandi. Additionally the municipality applied for further funding from Department of Water Affairs and Forestry for the construction of more toilets.



In May 2003, Klomp Consult and Tempo Construction were awarded a contract for the construction of four storm water diversion channels to direct storm water into the sewerage system and prevent it from reaching the river. In addition litter traps and artificial wetlands on storm water channels were constructed to filter off refuse

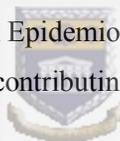
Despite the above efforts, the pollution levels in the Plankenbrug were still a cause for concern in March 2004. Dr. Jo Barnes, an epidemiologist at the University of Stellenbosch, presented results of her study to a parliamentary caucus showing *E-Coli* counts up to 560 million per 100ml of water. It is estimated that R37.5 million is needed to provide 3000 toilets at a cost of R12500 each. The spokesperson of the municipality, Mr. Peter Loftus, claimed that the municipality is "exceeding the borders of legal and constitutional responsibilities". However, Mr. Rashid Khan the Regional Director of Department of Water Affairs and Forestry countered the view and said cleaning up of the Plankenbrug is the responsibility of the municipality

*Source: Various (Eikestadnuus, Cape Times, Cape Argus)

In July 2004, Mr. Eddie Delpont pointed that the municipality was not singularly responsible for the clean up of the river but other stakeholders needed come up on board as well to which the DWAF Regional Director Mr. Rashid Khan responded that it was the municipality's duty as water services provider to clean up the river. Mr. Khan conceded the ultimate solution would be the construction of adequately serviced housing in Kayamandi that would solve the pollution of the river. This would involve the provincial department of housing. In the meantime cleanup of the river would need to continue and the municipality was responsible

In October 2004, the parties to the dispute resolved that instead of assigning responsibility for the cleanup of the river, priority areas needed to be identified for inclusion in the Integrated Development Plan. The priorities identified were improving sanitation, monitoring and coordination of water quality, and the management of stormwater.

In February 2005, the Eikestadnuus reported the discovery of a broken sewer pipe from which sewage flowed into the river. Eyewitness accounts stated that the pipe lay broken for a long time. Dr Jo Barnes, the University of Stellenbosch Epidemiologist had long suspected that there probably was a sewage leakage, which was contributing to the high E-coli counts she regularly reported.



5.2 RESPONSIBILITY FOR MANAGING POLLUTION IN RIVERS AND WATER SERVICE PROVISION

The responsibility to clean up the Plankenbrug River is an issue that has been raging for some time. Despite efforts by the Municipality of Stellenbosch to attend to the problem the pollution continues. At a workshop held at Spier to discuss the Plankenbrug River on Monday 26 July 2004, the Director of Engineering Services at Stellenbosch Municipality, Mr. Eddie Delpont implored those stakeholders present to agree that they were "... jointly responsible for the Plankenbrug River" (Eikestadnuus, 30/07/2004). Rashid Khan, the Regional Director of Department of Water Affairs and Forestry, countered this view.

Stellenbosch is a water services authority. It is responsible for the rivers that run through it. DWAF cannot come to Stellenbosch to look after the river. There is no staying away or shirking from responsibility. By saying we are not clear about

who is responsible for the river, we are wasting time, we are killing the river.
(Eikestadnuus, 30/07/2004)

Unconvinced, Mr. Delpont retorted, “I do not interpret the legislation the same way as he does. We are responsible for potable water and not raw water.” Mr. Khan responded “Whoever puts something in the river must clean it up.” It is clear the problem lies in the interpretation of the complex cocktail of legislation dealing with water management.

The Constitution is the supreme law of the country. The rights to clean water and to an environment not harmful to health are entrenched in the Constitution as previously described in Chapter 4. Water resource management is a “residual competence” (Glazewski, 2000) in that national government has competence in all matters not expressly stated in schedule 4 and 5. Box 5.2 and Box 5.3 below present relevant extracts from both schedule 4 and 5. Pollution control and environment are included concurrent competencies of national and provincial legislatures. The question is whether water pollution is included as part of pollution control. Since pollution is stated as a concurrent competency area it would seem this would cover water pollution. In this case the Department of Water Affairs and Forestry, the Department of Environmental Affairs and Tourism, and the Provincial Government’s Department of Environmental Affairs and Development Planning would have a responsibility to prevent pollution of the river.

It seems plausible therefore, to argue that the national government departments (Department of Water Affairs and Forestry and Department of Environmental Affairs and Tourism) should in applying monitoring and administrative powers derived from the legislation they administer to ensure pollution is prevented. The National Water Act No. 36 of 1998 states that the Department of Water Affairs and Forestry holds the nations water resources in trust for the state. Section 19 of the National Water Act (RSA, 1998c) outlines pollution prevention measures. The person who owns, occupies or uses land where water resource pollution occurs or might occur is responsible for the prevention and remedying of pollution. In case of failure to meet the aforementioned the Catchment Management Agency may take measures for preventing and remedying the pollution and recover these costs jointly or severally from the polluter, the owner of the land, person in

control of the land, or any person negligently failing to prevent the pollution from occurring

BOX 5.2 EXTRACTS FROM SCHEDULE 4
<u>Functional Areas of Concurrent National and Provincial Legislative Competence</u>
Part A
<ul style="list-style-type: none">● Pollution Control● Environment● Disaster management● Health services● Industrial promotion● Nature conservation, excluding national parks, botanical gardens and marine resources● Road traffic regulation● Soil conservation
Part B
<u>Local Government functional Areas Excepts as Limited in Section 155(6) and (7)</u>
<ul style="list-style-type: none">● Air pollution● Building regulations● Electricity and gas reticulation● Municipal health services● Stormwater management systems in built up areas● Water and sanitation services limited to potable water supply systems and domestic waste water and sewage disposal systems

Source: RSA,1996

BOX 5.3 EXTRACTS FROM SCHEDULE 5
<u>Functional Areas of Exclusive Provincial Legislative Competence</u>
Part A
<ul style="list-style-type: none">● Provincial planning● Provincial roads and traffic
Part B
<u>Local Government functional Areas Excepts as Limited in Section 155(6) and (7)</u>
<ul style="list-style-type: none">● Cleansing● Control of public nuisances● Fencing and fences● Municipal roads● Noise pollution● Refuse removal● Refuse dumps● Solid waste disposal

Source: RSA,1996

Water and sanitation services limited to potable water supply, domestic wastewater, and sewage disposal systems and storm water management in built up areas are local government functional areas in accordance with Part B of Schedule 4 of the Constitution (RSA, 1996). The Constitution does not however specify whether local or district municipalities will carry these functions thus leaving scope to legislation to define these. The Water Services Act (RSA, 1997b) defines every municipality as a water services

authority whereas the Municipal Structures Act assigns water services and sanitation services to district municipalities.

The liability of the municipality comes from its ownership and or control of the area under its jurisdiction as well as the duties of the municipality as defined in Parts B of Schedule 4 and 5 of the Constitution. If the pollution is a result of inadequate water service and sanitation provision, lack of cleansing, inadequate refuse removal and dumping and improper solid waste disposal then the municipality would be liable under this section. Indications are that pollution in the Eerste and Plankenbrug Rivers is a result of the aforementioned.

However, a question that could be raised is why the Department of Water Affairs and Forestry has not cleaned the river and recovered the costs from the municipality. For its part the municipality has made several attempts at rectifying the problem for instance the construction of litter traps and the diversion of stormwater from Kayamandi to the Waste Water Treatment Works (Eikestadnuus, 24/10/2002). An amount of R800 000 was approved for the municipality for the upgrading of toilet facilities in Kayamandi in the 2002/3 financial year (Eikestadnuus, 21/02/2003). Further the council has constructed litter traps on stormwater water channels and an artificial wetland to remove litter. It is significant however to note that the official line at the Municipality of Stellenbosch, in a statement by the spokesperson Mr. Peter Loftus is that "...Stellenbosch has far exceeded the borders of its legal and constitutional liabilities...." (Eikestadnuus, 5/03/2004). Officials at the Department of Water Affairs and Forestry Regional Office equally maintained a tough line on the municipality's liability. Wilna Kloppers an official at the Department of Water Affairs and Forestry indicated that in addition to investigating other measures her department was prepared to follow "the legal route".

Rashid Khan, the Regional Director of the Department of Water Affairs and Forestry argues that "if anybody pollutes a river in an urban area, they must clean it up..." to maintain quality water in rivers. He agrees that the municipality has done a lot of good work but maintains it still has to do more. "It is not the National or provincial Government that is polluting the river but people in Stellenbosch area. We must make

sure the Stellenbosch Municipality continues to address this problem.” (Eikestadnuus, 2/04/2004).

The argument above is important in that it is people in Stellenbosch who are causing pollution and perhaps establishing liability of the municipality. However, if the argument is extended, it is not the municipality that is polluting but the people in Stellenbosch. A critical part of this is that some people are occupying stands in Kayamandi ‘illegally’ and thus are technically ‘unknown’ to the municipality.

Part A of Schedule 4 of the Constitution of Republic of South Africa (RSA, 1996) outlines that pollution control and environment are areas of concurrent national and provincial competencies. Since national laws and provincial laws are applicable in municipal areas then they would not have legal standing in the whole country since municipalities cover the whole area of the republic. This seems to show that there is lack of political will in both national and provincial government to monitor the enforcement of legislation.



In case of the municipality’s failure to adequately resolve pollution in the river, the Provincial Government must be brought in, Mr. Khan argues. Importantly, Mr. Khan acknowledged that water pollution was a secondary issue resulting from poor urban planning and lack of service provision in informal settlements, which leads to water pollution in rivers. Ultimately, the problem can only be solved through new housing developments that have adequate water supply and sanitation services.

Furthermore section 28 of the National Environmental Management Act (RSA, 1998b) provides for the duty to prevent environmental damage and is worded in a similar fashion as section 19 of the National Water Act (RSA, 1998c). Powers of enforcement are given to the Minister of Environmental Affairs and Tourism or the provincial head of department, in this case Department of Environmental Affairs and Development Planning of the Western Cape Provincial Administration. The provincial administration has already acceded to its responsibility by providing funds for the clean up of the river as reported in the Eikestadnuus. On February 23, 2003 the Eikestadnuus reported that the

Department of Environmental Affairs through the Western Cape Clean-up Fund for an emergency had extended a grant of R150 000 to the municipality clean up. A further R575 000 was provided for construction of emergency cut-off drains to prevent polluted water reaching the Plankenbrug River. The department is willing to play a role in pollution management especially in cleanup of solid waste pollution.

Section 2 and 3 of the Water Services Act (RSA, 1997b) reinforces the right to water supply and basic sanitation and an environment not harmful to health. However a limiting clause in section 3(2) that “every water services institution must take *reasonable measures* to realise these rights” and section 3 (4) that rights mentioned in Section 3 “...are subject to limitations contained in this Act” (my emphasis). Section 11 of the Water Services Act requires all water service authorities to “...*progressively* ensure efficient, affordable and sustainable access to water services” (my emphasis). The idea of progressive realisation of water rights was made after the realisation that there existed a large backlog that needed several years to clear. On the same, water services authorities may claim they need the same protection should water pollution occur as a result of the failure to provide services. Whereas the Water Services Act (RSA, 1997b) does not distinguish between district and local municipalities, it is reasonable to assume that every municipality is a water services authority under the Act.

According to the Local Government: Municipal Structures Act 117 of 1998 (RSA, 1998a) district municipalities have bulk supply and bulk sewage purification duties as stated in section 84. This provides the Cape Winelands District Municipality with powers of water supply and sanitation. If this were the position, then the Cape Winelands District Municipality would be liable for pollution prevention under the National Water Act (RSA, 1998c). The issue of division of functions between district and local municipalities is one of the challenges facing local government. In order to maintain uninterrupted services the status quo was maintained in the run up to the municipal elections in 2000 for the newly established district and local municipalities (SAGRC, 2001). However, the maintenance of the status quo has resulted in uncertainty as to the division of powers. It would seem however, that where capacity exists, local municipalities should be responsible for service delivery. However in the situation where

health of inhabitants is endangered the district municipality ought to intervene as the health authority even if it is not the water service authority (SAGRC, 2001). An interesting situation exists when a local municipality has more ‘capacity’ than its corresponding district municipality and has been providing services in an urban area. However it needs to be noted that capacity may not be the real issue in poor service delivery.

Sanitation and waste removal services in Kayamandi like many poor settlements in South Africa are not commensurate with population in the area. Toilet facilities for example are shared between five households on average making it difficult to maintain them in a clean state. It would seem there is no intention by the authorities to install household toilet units. DWAF (2000:2) states that pollution in poorly serviced areas may be addressed without necessarily increasing service levels, arguing that addressing sanitation and pollution should not be about the “...preconceived idea of what services should be in place.” The argument is invalid and because it assumes people in poorly serviced areas have to accept making do with services available; a situation that does not obtain in highly serviced areas wherein a continuous improvement of service levels is seen as a basic right. Pollution results from the lack of capacity in municipalities, interestingly capacity suddenly surfaces in servicing up-market areas. DWAF (2002) cites vandalism and misuse of toilet facilities as sources of pollution in Kayamandi. It seems this is more of lack of political wills, perhaps a continuation of previous policies of separate development, and this time in the pretext of or based on, income levels. Misuse of toilet facilities is a direct result of use of communal facilities and can only be averted by the construction of household units.

Box 3 below gives statutes, which address liability of local government directly. It is compelling to note that it would seem local government is compelled to provide a majority of services relating to prevention of pollution of the river.

BOX 5.4

Sections of legislation establishing liability to Municipalities

Section 152(1)(d) Constitution Act No 108 of 1996

The object of the local government is to ensure a safe and healthy environment

Section 9(1)(a)(ii) Housing Act No107 of 1997

Every municipality must, as part of the municipality's process of integrated development planning, take all reasonable and necessary steps, to ensure that conditions not conducive to the health and safety of the inhabitants of its area are prevented or removed

Section 9(1)(a)(iii) Housing Act No107 of 1997

Every municipality must, as part of the municipality's process of integrated development planning, take all reasonable and necessary steps, within the framework of national and provincial housing legislation and policy to ensure that services in respect of water are provided, sanitation, electricity, roads, stormwater drainage and transport are provided for in a manner which is economically efficient

Section 32(1)(a) Health Act No. 61 of 2003

Every metropolitan and district municipality must ensure that appropriate municipal health services are effectively and equitably provided in their respective areas.



Section 1 National Health Act No. 61 of 2003

“**municipal health services**”, for the purposes of this Act, includes

- (a) Water quality monitoring
- (c) Waste management
- (g) Environmental pollution

Source RSA, 1996, RSA, 1997a and RSA, 2003

It is worth noting that provisions of the National Health Act (RSA, 2003) place burden of environmental monitoring on metropolitan and district municipalities. It is persuasive to argue therefore that the Cape Winelands District Municipality ought to play as significant role in the provision of ‘municipal services’. However, the provisions of the act ought to be read with Section 152(1)(d) Constitution, which requires local government to ensure a safe environment.

Despite having pollution management duties, the Cape Nature Conservation Board and the Departments of Agriculture (both national and provincial) are conspicuous in its absence in the debates around the pollution of the Plankenbrug River

5.3 HIERACHY OF WATER MANAGEMENT

Key requisites of successful implementation of pollution management and service provision are a clear definition of policy, adequate support during learning phase, joint formulation of targets, deterrent measures for failure to meet targets as well as adequate monitoring and regulation of polluters. In the case of industrial polluters municipal councils are able to function as regulators and through the use of by-laws, are able to 'force' polluters to clean their act. A problem arises when the alleged perpetrator of the pollution is the municipality itself. In the case of water supply and sanitation there appears to be a multiplicity of regulators. It appears that the Municipality of Stellenbosch finds itself facing the following state organs as regulators in various facets of water services:



1. The Cape Winelands District Municipality
2. Department Water Affairs and Forestry in terms of the Water Services Act
3. Department of Health (national and provincial) in terms of the Health Act
4. Department of Housing in terms of the Housing Act
5. Department Provincial and Local Government in terms of the Municipal Structures Act
6. Department of Local Government and Housing (Western Cape) in terms of the Municipal Structure Act, Systems Act and Housing Act

The number of regulators for the municipality in the pollution management side is also numerous and includes:

1. Department of Environmental Affairs and Tourism in terms of the National Environmental Management Act and the Environmental Conservation Act
2. Department Water Affairs and Forestry in terms of the National Water Act and Water Services Act
3. Department of Health (national and provincial) in terms of the National Health Act

4. Department of Environmental Affairs and Development Planning (province) in terms of the National Environmental Management Act and the Environmental Conservation Act
5. The Cape Winelands District Municipality in terms of the National Health Act

In water resources management, shown in Figure 5.1, the Department of Environmental Affairs and Tourism as the lead agent in environment is at the top of the hierarchy. The Department of Environment and Tourism plays a monitoring role over all organs of state listed schedule I and II of the National Environmental Management Act (RSA, 1998a), whose functions impact on the environment through oversight on environment management plans and environment implementation plans. The Department of Water Affairs and Forestry occupies a strategic role as the lead agent on water affairs. Other departments play lesser roles including the Departments of Health, Department of Agriculture and the Department of Minerals and Energy.

At provincial level the Department of Environmental Affairs and Development Planning can be regarded the lead agent in environment. The Department of Agriculture also plays an important role through the Conservation of Agricultural Resources Act (RSA, 1983). At municipal level the Cape Winelands District Municipality administers the whole area covered under the district including Stellenbosch. However it is important to note that all local municipalities in the Western Cape are water service authorities in their own right (Khan, 2005). The Cape Winelands District Municipality's role of bulk services provider as provided in the Local Government: Municipal Structures Act has been overtaken by the declaration of the Municipality of Stellenbosch as a water services authority under the Water Services Act. It is still plausible to argue that the Cape Winelands District Municipality now retains regulatory functions in bulk service delivery.

Overlapping functions and unclear mandates between state organs lead to lack of accountability, duplication of services, ineffective service delivery and overload of local government as the sphere of government closest to the people (Steytler & Fessha, 2005). In absence of negotiated allocation of powers and responsibilities the following structure of responsibility is proposed for the catchment.

Figure and 5.2 below shows the hierarchy of government operating in the Eerste River Catchment as interpreted in this study. At the top are national government departments. Section 100 of the Constitution (RSA, 1996) provided for supervision of provincial government by national government, which is shown by the down ward-pointing arrow connecting the two. Provincial government also supervises local government as shown by the downward arrow connecting the two. District municipalities may supervise local municipalities as shown in the arrow connecting the Cape Winelands District and Stellenbosch municipalities in terms of section 83 of the Local Government: Municipal Structures Act (RSA, 1998a).

The most striking feature of the analysis is the arrangement by way of hierarchy of line functions of government. This is contrary to the accepted norm that line functions are horizontally ‘equivalent’. The basis of this arrangement is that by way of function government department play leading roles in certain functions and thus would then become ‘senior partners’ when the function concerned is analysed separately.



Figure 5.1 Interpreted Water Resources Management Hierarchy

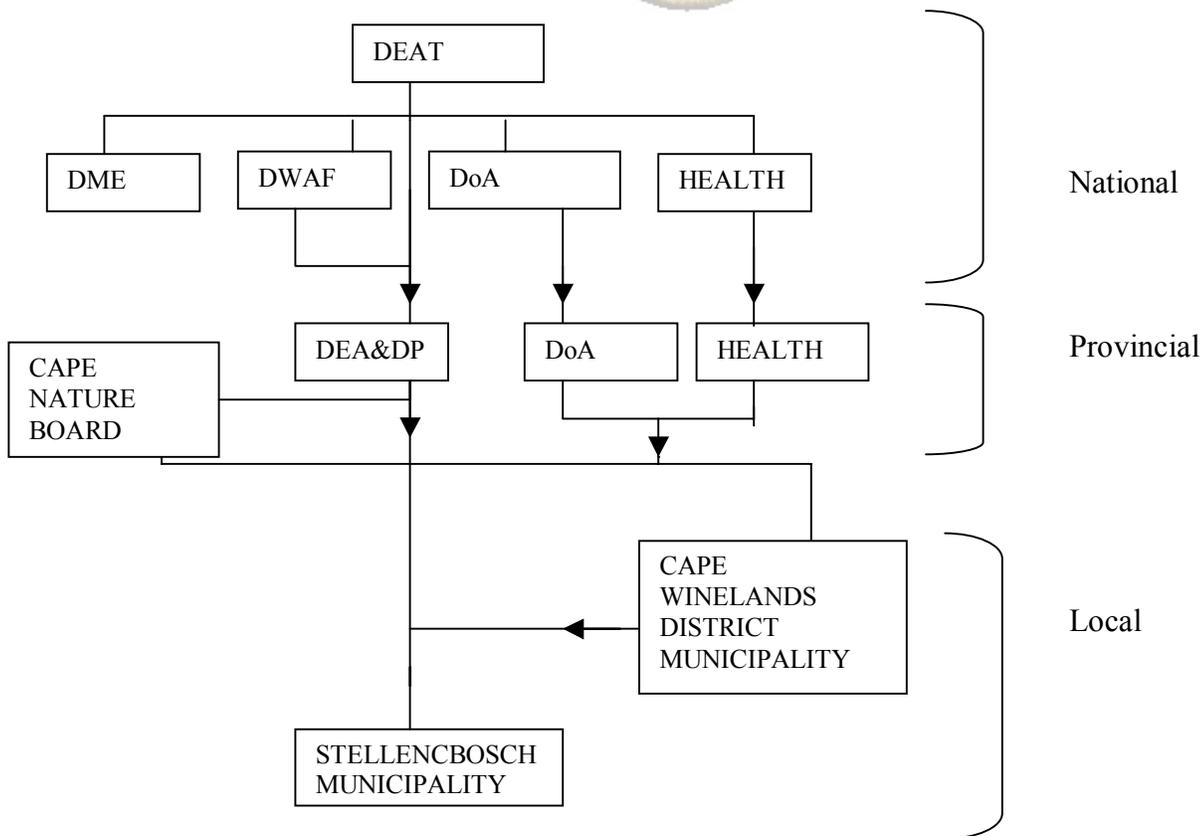
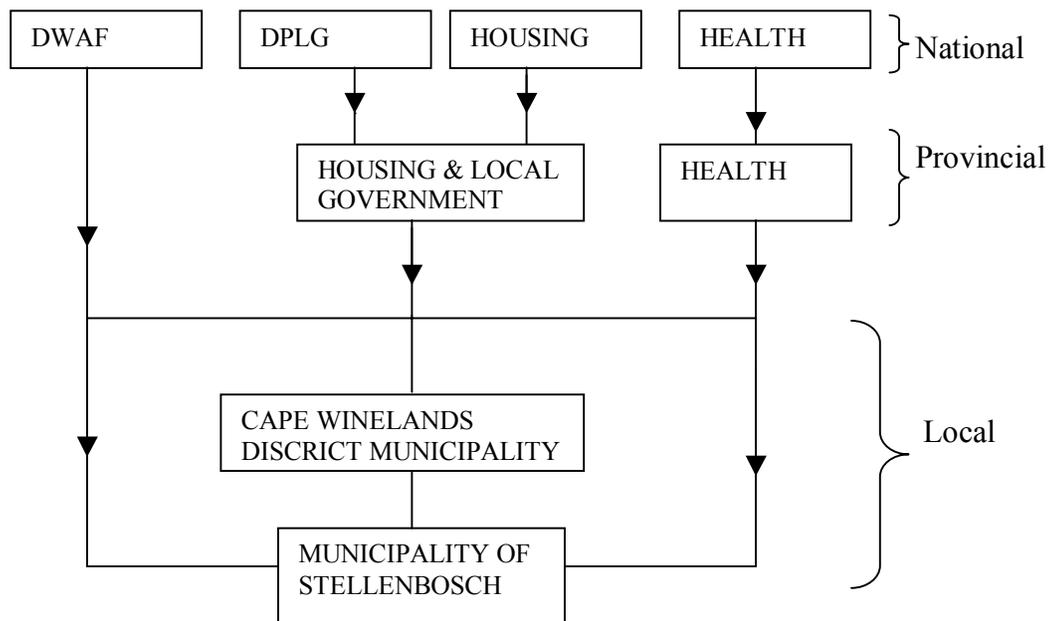


Figure 5.2 Interpreted Water Services Hierarchy



Whilst organs of state continue the debate on responsibility, the state of the Plankenbrug River continues to decline with attendant effects on the Eerste River downstream. As one of the rivers in the Berg Water Management Area with reasonable water quality along most of its course, as such the Eerste River seems sufficiently important to be conserved in a reasonable state. From my interpretation of the legislation the Department of Water Affairs and Forestry as primary custodian of water resources should assume responsibility for the condition of the Plankenbrug River. The Department of Water Affairs and Forestry is responsible for the implementation of the National Water Act and the Water Services Act, and should therefore enforce these Acts.

In the analysis of overlapping jurisdictions one other key issue is the relationship between the three spheres of government. One of the most difficult questions has been the interpretation of the phrase “distinctive, interdependent and interrelated”. In fact the Constitution is explicit in that all spheres of government must exercise their functions in a manner that does not encroach on the geographical, functional or institutional integrity of government in another sphere. This principle was considered in *The Premier of the Province of the Western Cape v The President of RSA*, where Judge Chaskalson ruled that a section of the Public Service Act 103 of 1994 was invalid. “[T]he purpose of the

section seems to prevent one sphere of government using its powers in ways which would undermine other spheres of government, and prevent them from functioning effectively”.

In the *Executive Council of the Western Cape v Minister for Provincial Affairs and Constitutional Development of the Republic of South Africa and Others*, Judge Ngcobo pointed out that whilst Chapter 7 of the Constitution allocates powers to provinces and municipalities it does not deprive parliament of legislating on the same. He pointed out that section 44(1) (a) (ii) of the Constitution grants parliament legislative capacity in all fields. He pointed out however, that a number of sections constrain the concurrency provision and ruled that in this case section 155(1) of the Constitution pointed out that provincial legislation must determine the different types of municipality to be established in the province. Thus national legislation inconsistent with this provision would also be inconsistent with the constitution and invalid to the extent of the inconsistency. On powers of municipalities Judge Ngcobo ruled on sections 155(7) and 151(3) that municipal powers are subject to national and provincial supervision. However, national and provincial governments needed to exercise their powers in a manner that does not “compromise or impede a municipality’s ability or *right* to exercise its powers or perform its functions” (emphasis supplied by Judge Ngcobo). The judgement is useful in determining the extent the national and provincial spheres can influence the local sphere.

In the *National Gambling Board v Premier of KwaZulu-Natal and Others* a unanimous judgement per Judge Du Plessis the court refused to grant the applicant direct access to the court. Judge Du Plessis pointed to the fact that the parties had made little effort to comply with constitutional obligation of cooperative government.

The dispute primarily raises the question of interpretation. Such disputes can be resolved amicably however. Moreover, organs of state’ obligation to avoid litigation entails much more than an effort to settle a pending case. It requires of each organ of state to re-evaluate its position fundamentally.

Judge Du Plessis

It seems therefore that the statements by Mr. Delpport of the Municipality of Stellenbosch that role players were jointly responsible for the pollution of the Plankenbrug is more in tune with requirements of the constitutional obligation of cooperative governance. By making that statement he seemed to be imploring on parties to facilitate a dialogue that would lead to an amicable solution. The heavy hand tactics of going the legal route as implored by the Department of Water Affairs and Forestry officials are unlikely to be useful but counterproductive. What is needed is the drawing up of boundaries of responsibility rather than whether there is such responsibility.

5.5 THE WAY FORWARD

In an article in the Business Day, Friday September 16, 2005, Mr. Trevor Manuel, the Minister of Finance called for a review of constitutional allocation of powers to accelerate service delivery. Questioning the fact that 97% of revenue available for use by municipalities was raised by another sphere of government he suggested service delivery function should be allocated to a sphere best able to fulfil that mandate. “We should not be afraid of having a discussion about these matters. There is nothing preordained about allocation of responsibilities between different spheres of government” (Ensor, 2005) Mr. Manuel speech was made in the aftermath of the confusion of roles in the New Orleans clean up after the devastation resulting from Hurricane Katrina. Clearly, increased intergovernmental coordination to resolve policy mal-alignments and improve service delivery is also needed in South Africa. Whilst constitutional amendments as suggested by Minister Manuel may go a long way in resolving power relations between spheres of government, it is perhaps easier to amend subsidiary legislation in order to harmonise functionality of government.

In light of Mr. Manuel’s speech, could this be a signal that government is prepared to use the ANC majority to amend the Constitution? This route seems likely to be opposed by opposition parties who may claim ANC is abusing parliamentary majority. Moreover, the existence of other measures implies it should really be the last option.

In light of judge Du Plessis's judgement in the *National Gambling Board v Premier of KwaZulu-Natal and Others* case, it seems cooperative government is the method of choice for the feuding organs of state to resolve their differences. The Constitutional Court frowns upon haste legal proceedings between government departments. The question therefore is when do proceedings become necessary? The Department of Water Affairs and Forestry has threatened to use the courts to resolve the dispute. The issue would be whether or not the current efforts to find a solution would be deemed to have been adequate in pursuance of requirement of cooperative government in section 41(3) that:

“An organ of state involved in an intergovernmental dispute must make every reasonable effort to settle the dispute by means of mechanisms and procedure provided for that purpose, and must exhaust all other remedies before it approaches a court to resolve the dispute.”

Judge Du Plessis ruled that cooperative government goes beyond mere avoidance of litigation but “[i]t requires of each organ of state to re-evaluate its position fundamentally.”

Procedures for intergovernmental dispute resolution are outlined in the newly passed Intergovernmental Relations Framework Act (RSA, 2005). Where organs of state exhausted all avenues of out of court dispute resolution, the courts should decide responsibilities. The question is of which court to proceed to is also relevant here. The Constitutional Court frowns upon being used as a court of first and final instance unless the issue is deemed to be fundamental. It follows that the organs of state need to approach the High Court in the first instance.

5.6 CONCLUSION

The structure of cooperative arrangements in water management in the Eerste River has been described through an analysis of the state organs operating in the catchment as well as a legislative analysis. The institutional analysis was applied to the Plankenbrug River pollution management conflict in order to identify the overlapping jurisdictions.

Overlapping functions and unclear mandates between state organs have been demonstrated to lead to lack of accountability, duplication of services, ineffective service delivery and overload of local government as the sphere of government closest to the people

It emerged that there are ill-defined responsibilities and that distrust and acrimony define relationships. It would seem there is divergence of interpretation of legislation among different water management bodies. This is expected given the large number of laws that will need to be harmonised into coherent water management practice. There is the need to harmonize water services legislation in particular to synchronise the requirements of the Water Services Act (RSA, 1997b) and the Local Government: Municipal Structures Act (RSA, 1998a) to clearly delineate functions of local municipalities and district municipalities.

As a first stop there is need for an agreement that pollution of water resources is a complex issue that requires a multi sectoral approach. Pollution moves across media (land, water and air) and political boundaries. The issue that should be tackled in the first instance is pollution 'production'. Waste minimisation is one such strategy. Adequate policing of pollution is a very important strategy too and requires concerted effort to enforce pollution laws by all spheres of government without any denial of responsibilities. This is a major area of concern that has emerged in the study. Organs of state in the three spheres of government seemed content on playing a blame game without acknowledging they had to their disposal, legislation that could ensure adequate protection of water resources.

I am inclined to question the existence of the Department of Environmental Affairs and Tourism and the Department of Water Affairs and Forestry as separate departments. The current environmental immobilisation in South Africa results mainly as a result of ill-defined roles played by the two departments. Coordination of the two principal environmental departments is rudimentary at best, and in most instance task driven. Given the fact that the two departments are the principal environmental pollution

managers in the country with endless overlaps, I propose that the two departments should merge into one comprehensive department of Environment, Water and Tourism.

Alternatively the country should pursue the creation of a comprehensive environmental management body modelled around the experiences of the erstwhile Environmental Protection Agency in the United States of America. However, the country would do well with consolidating functions located in other departments that deal with water and environment so as avoid unnecessary duplication reminiscent with the United States model.

The formation of an ANC led provincial government in the Western Cape in 2004 will possibly contain the number of cases of overlapping jurisdictions being sent for determination in the courts of law as had been in the previous administrations. Organs in dispute are likely to be whipped to the discussion table so as to give a semblance harmony and synergy in the ANC led government structures. The following issues need further research in order to resolve the issues of overlapping jurisdiction in water resources: Is local government adequately resourced to perform its functions? Which sphere of government is best placed to deliver services given service backlogs that currently exist? To what extent does inter-party political debate escalate of problems related to overlapping mandates in government?

The study has provided evidence of overlapping mandates in water management through an analysis of legislation, government organs and highlighted how these play up through a case study. It is saddening to note that whilst government organs continue wrangling, the pollution of water resources and failure to deliver water and sanitation services continue. There is a compelling need for departments to put up interim working arrangements whilst they struggle to come up with long term solutions so as to alleviate adverse effects in the interim. It is important for government organs to appreciate that their sole existence is premised on providing service to citizens. The passing of the Intergovernmental Relations Framework Act (RSA, 2005) facilitate intergovernmental relations in water management.

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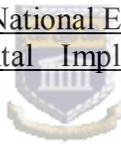
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Interviews

Ms Cathy Bill, Department of Environmental Affairs and Development Planning. 11:00-11:30 Telephone Interview

Mr Rashid Khan, Department of Water Affairs and Forestry, Bellville. 24 October 2005; 16:30-17:15

Mr. Shawn Moorgas, Chief Engineering and Technical Services, Municipality of Stellenbosch, 14 October 2005

Mr. Kobus Fourie, Chief of Water Services, Municipality of Stellenbosch, 14 October 2005

Mr. Sabelo Mkhize, Chief of Sanitation, Municipality of Stellenbosch, 14 October 2005

