

# **CAN WE MANAGE OUR WATER BETTER?**

## ***PROSPECTS AND PROCESSES FOR THE ESTABLISHMENT OF STAKEHOLDER-INITIATED CATCHMENT MANAGEMENT AGENCIES***

Report to the  
**Water Research Commission**

by

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## EXECUTIVE SUMMARY

Water is an important resource for economic and social development in South Africa. Its limited and uncertain availability imposes serious constraints on development. In global terms, South Africa is categorised as a water-stressed country.

To date, these constraints have been overcome by building infrastructure to store and transport water, increasingly often from one river catchment to another. Such infrastructure can supply more water, more reliably than undeveloped rivers but the country is now approaching a physical limit to the amount of water that can be made available for use.

In the future, water users will therefore have to cooperate more closely with each other to maintain reliable access to what is becoming an increasingly contested resource. They can do this indirectly, by supporting and complying with the decisions and directions of government or, more directly, by working together to manage the available resources.

Water management is a difficult and complex business that needs appropriate institutional arrangements. While government can give broad guidance and support, as water resource constraints become more acute it is often unable to act effectively to address day-to-day details. And there is evidence that national government's ability to control pollution and keep discipline over water use is slipping.

Many water resource management functions are best carried out at local level, often within the boundaries of river catchments themselves, since this is the geographical unit within which water flows and where one user's actions affect others. At this level, it is helpful to involve water users and other stakeholders since they have detailed and up-to-date local knowledge as well as an interest in ensuring effective management to share water equitably between different users and to control pollution.

This approach is supported by South Africa's National Water Act (NWA), which provides for the establishment of "Catchment Management Agencies" (CMAs) to perform a range of water resource management activities within the framework of a national water resource strategy. However, since the NWA was passed in 1998, only two of the proposed nineteen CMAs have been established.

According to the NWA, "a catchment management agency may be established for a specific Water Management Area (WMA), after public consultation, on the initiative of the community and stakeholders concerned. In the absence of such a proposal the Minister may establish a catchment management agency on the Minister's own initiative."

To date, this provision has not been successfully used. So the immediate objective of this study is to determine why water users and other stakeholders have not taken advantage of the opportunity to lead the establishment of CMAs in the absence of action by government.

To do this, it sought to identify the concerns of a diverse group of water resource stakeholders about the benefits and disadvantages of establishing a CMA. The wider purpose was to understand better stakeholders' attitudes to institutions such as CMAs as interventions to improve water resource management in South Africa.

At the start of the study it was considered that the reason for stakeholders not taking the initiative might include:-

- ignorance of the enabling provisions of the NWA (**knowledge**)
- lack of compelling incentives to establish a CMA (**satisfaction with status quo**)
- concern over ability to defend their interests in a CMA (**capacity and uncertainty**)
- fear that a CMA might be detrimental to their interests (**negative evaluation of the management concept**); and
- fear that a CMA would be ineffective in achieving its goals (**lack of confidence in the management model**).

Focusing on the Upper Vaal and Olifants river catchments, two “water management areas” that extend from the Free State to Gauteng, Mpumalanga and Limpopo provinces, the knowledge and views of more than 50 water users and other stakeholders were surveyed.

The key findings were that:-

- Ignorance about the provisions of the National Water Act was not the main reason for stakeholders not taking the initiative;
- stakeholders were not satisfied with the status quo and many were frustrated by government’s weak administration of water matters and its failure to deal with serious water management issues;
- many were seeking ways in which they could become more involved in the management of water resources;
- there were however concerns about whether a CMA would protect their interests and support their objectives or undermine them;
- some stakeholders felt that the CMA model was too complex and would not solve the underlying lack of capacity and leadership that were at the root of their problems; and
- most respondents looked to national government to lead in establishing effective water resource management arrangements but were pessimistic about its capacity to do this.

Extensive evidence was presented of failures in the present management of water resources. These included administrative failures to issue licences and incoherent licence conditions, which were hampering economic activity; uncontrolled illegal water use, which undermined other activities; as well as widespread pollution of rivers, especially by municipalities and the mining industry, that damaged the natural environment and imposed costs on other water users.

It was also evident from the pilot areas studied that each WMA has its own local characteristics and challenges, which must be reflected in the approach taken to establishing management arrangements.

On the basis of these findings, recommendations are made for actions to improve water resource management. These include:

- Action must be taken to address water resource management problems which, if not attended to, will impact severely on economic and social life and damage the natural environment.
- The majority of water users and other stakeholders support the establishment of a more local level of water management and this support should be recognised and built upon.
- No serious impediments were identified to the implementation of the basic structure proposed for CMAs.
- Individual stakeholders can contribute best through institutions that represent their views and interests. Such institutions should be identified and organised or strengthened so that they can participate effectively in water resource management.
- While day-to-day water resource management activities should be supported from water resource management charges, funding support will be needed to support the initial establishment of CMAs.
- New management arrangements must make effective use of limited human resources with clear delegation of functions and management systems designed to allow functions to be transferred and/or shared between CMAs and DWA regional offices.
- Where there is no immediate crisis, the development of catchment management strategies will help to identify initial priorities for CMA action and the process of producing municipal water services development plans could provide a helpful focal point for initial discussions and actions.
- Current proposals to reduce the number of CMAs and enlarge the WMAs may weaken the relationships between stakeholders and could affect the performance of the CMAs.

## Acronyms and abbreviations

CMA	Catchment Management Agency
COSATU	Congress of South African Trade Unions
DM	District Municipality
DWA	Department of Water Affairs
DWAF	Department of Water Affairs & Forestry
HDI	Historically disadvantaged individuals
ICMA	Inkomati CMA
IDP	Integrated Development Plans
IMATU	Independent Municipal and Allied Trade Union
LM	Local Municipality
NGO	Non-Governmental Organisation
NWA	National Water Act
NWRS	National Water Resource Strategy
ORF	Olifants River Forum
SAMWU	South African Municipal Workers Union
TARWR	Total Actual Renewable Water Resources
WMA	Water Management Area
WRM	Water Resource Management
WSDP	Water Services Development Plan
WSP	Water services provider
WUA	Water Users Association
WWTW	Waste water treatment works

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## INTRODUCTION

Water is an important resource for economic and social development in South Africa. While the provision of piped water supplies and sanitation is the immediate priority for most people, neither can be achieved if there is not enough water available, of acceptable quality, from water resources such as rivers, lakes or groundwater.

The limited availability and the unreliability of these natural water resources imposes serious constraints on development. In South Africa, the variability in rainfall from one year to the next is high compared to world averages and it is unevenly distributed across the country. The freshwater resources (the water found in rivers, lakes and underground) follow this pattern. In global terms, South Africa is categorised as a water-stressed country.<sup>1</sup>

The constraints imposed by limited water availability and high variability have been addressed, to some extent, by building infrastructure such as dams, canals and pipelines to store and transport water. Such infrastructure can make more water available, more reliably. But the “intensity” of water use in South Africa, the proportion of the available water that is used annually, is already relatively high (estimated at 31%). This indicates that the country is approaching a physical limit to the amount of water that can be utilised since there are not many places where new dams can economically be built.

While at a national level, there is still some scope for increased water use, this is not true in many localities. In river basins or “catchments” such as the Vaal and the Crocodile West, water use is already much greater than available supply. The balance between demand and supply is only maintained by bringing water from other catchments by means of large and costly water transfer schemes. In other places (such as the Olifants river catchment in Mpumalanga and Limpopo provinces), water use is already approaching the maximum possible since there are few sources elsewhere from which water can economically be transferred.

Catchments where no additional water is available are described as “closed”. In these catchments, new demands for water can only be met by reducing existing water uses, by accepting lower levels of reliability of supply or by engaging in increasingly expensive and complex schemes to augment their supplies from increasingly distant sources.

In all cases, current and future water users will have to cooperate with each other. They can do this indirectly, by supporting and complying with the decisions and actions of public organisations such as the national Department of Water Affairs (DWA), or more directly, by reaching agreements between themselves. At this point, as water resource constraints become more acute, water users are discovering that water management is a difficult and complex business that cannot just be left to government and that they need organisational arrangements within which they can find out what needs to be done and organise its implementation.

For both physical and institutional reasons, it is generally agreed that water resources should be managed on a catchment-related basis. Further, because water is so fundamental to different activities, the involvement of water users and other stakeholders in its management is increasingly encouraged.

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<sup>1</sup> Countries with available water or TARWR (Total Actual Renewable Water Resources) of less than 1 700 m<sup>3</sup>/person annually are generally considered to be water-stressed. South Africa currently has a TARWR of approximately 1 100 m<sup>3</sup>/person annually but, if population growth continues at present rates, its will be classified as “water-scarce” (TARWR of less than 1 000 m<sup>3</sup>/person annually) within the next decade or two.

South Africa's water resource policy and law (the 1997 White Paper on a National Water Policy and the 1998 National Water Act) reflected this consensus. They provide for the establishment of "Catchment Management Agencies" (CMA's) to perform a range of water resource management activities within the framework of a national water resource strategy. However, only limited progress has been made in establishing the proposed CMAs. Among the reasons for this has been an acknowledged lack of capacity in government as well, it is suggested, as a reluctance on the part of officials to give powers and responsibilities for water management functions to organisations outside of government.

It is not widely known that the National Water Act (NWA) specifically states that: "a catchment management agency may be established for a specific Water Management Area (WMA), after public consultation, on the initiative of the community and stakeholders concerned. In the absence of such a proposal the Minister may establish a catchment management agency on the Ministers own initiative."

To date, this provision has not been successfully used. So one objective of this study is to determine why no water users have taken advantage of the opportunity to become more involved in water management. It has also investigated the potential for the establishment of CMAs by water users and stakeholders. Specifically, it has sought to identify the issues that will be raised by such an approach as well as to characterise the perceptions of diverse stakeholders about its benefits and disadvantages.

To do this, the knowledge and perceptions of the different stakeholders has been surveyed with a focus on:-

- their rights, in terms of the NWA to undertake the functions of a CMA;
- the potential advantages and disadvantages of initiating the establishment of a CMA;
- what would motivate them, once informed about the potential opportunity, to initiate and participate in (or oppose) a process to establish a CMA;
- what measures would be needed to ensure that such a process effectively addressed the important policy objectives of equity and social transformation.

While the research focused on determining in what circumstances, and why, stakeholders might initiate (or oppose) the establishment of a CMA to undertake specific water resource management activities, it had a wider purpose. It will also contribute to a better understanding of stakeholders' attitudes to greater participation in water resource management. The recommendations made help to identify the further administrative, communication or policy work that may be needed in order to encourage more, and more effective, participation.

This is important because effective participation has proved difficult to achieve and the establishment of institutions for collective action, such as CMAs, is often seen as a logical starting point to mobilise such participation. By addressing this specific challenge, the study aimed to contribute more generally to the overall improvement of water resource management in South Africa. In particular, since the institutional arrangements for water resource management are currently being reviewed by government and proposals are being developed for the 2<sup>nd</sup> edition of the National Water Resource Strategy, it is hoped that this study will contribute to the understanding of the issues and to the decisions that will eventually be taken.

## BACKGROUND

The management of water resources is a complex business that involves many different activities and people with a wide variety of interests. One consequence of this complexity is that the very objectives of water resource management (WRM) are often not generally understood. Neither are the activities that, together, constitute WRM always recognised as such. An initial focus of this study was to clarify these activities and their objectives.

### **The objectives of water resource management**

Before 1994, the major goal of water resource management in South Africa was simply “to ensure the ongoing equitable provision of adequate quantities and qualities of water to all competing users at acceptable degrees of risk and cost under changing conditions” (DWAF 1986). Even then, as the limits of water availability were understood, management of the resources would seek to “maximize their collective utility”.

This was formalised in the democratic South Africa’s national water policy (DWAF1997) which states that

“The objective of managing the quantity, quality and reliability of the nation’s water resources is to achieve optimum, long-term, environmentally sustainable social and economic benefit for society from their use”.

Given South Africa’s history, the policy makes it clear that that objective specifically includes the achievement of greater equity and social transformation in the society.

### **The nature of water use**

Water resources are not simply a commodity whose consumption must be rationed when they are scarce but a system with multiple values and uses which interact and sometimes conflict with each other. Many important water “uses” do not involve the actual taking or consumption of water but may affect other uses.

Water uses include taking water for household and commercial purposes, with some of it returned to the system as wastewater. The largest volumes of water are taken for agricultural purposes. These are usually “consumptive”, in that most of the water is evaporated from crops and only a very limited amount flows back directly to the system.

There is a wide range of other more or less consumptive uses in industry and electricity generation, which include using water for cooling purposes. “Non-consumptive” uses, in which water is used where it is found and not removed from the system, also have to be considered. These include activities such as recreation which is important in many parts of South Africa as well as the generation of hydropower and the use of waterways for navigation. In addition, there are environmental “uses” as well as “ecosystem services” (such as water purification and fishing opportunities) that may be derived from the water resource. In addition, some rivers and lakes have special spiritual and cultural value.

### **The nature of water resource management**

An understanding of the activities that constitute water resource management is essential to any discussion of how it should be organised. These activities include:

#### *Planning*

Water availability and water use varies throughout the year as well as from one year and one decade to the next and planning is needed to ensure that water will be available when it is needed. Planning is also needed to keep water quality at acceptable levels. Since some management interventions, such as the design and construction of large infrastructure to store,

transport and treat water may take more than ten years to complete, the management of the resource requires careful, long-term planning to achieve the objectives that have been set.

#### *Monitoring*

Planning must be based on information about both the availability of water as well as trends in its use. While traditionally monitoring focused on the quantity of water available, there is increasing emphasis on monitoring water quality as well as activities that impact on its quality since water can only be used if it is of an acceptable quality. The systematic monitoring of these dimensions is a key activity underpinning effective water resource management.

#### *Infrastructure Development*

The construction of infrastructure to store and transport water as well as to protect vulnerable areas from flooding has always been an important dimension of water resource management. As available water resources are fully utilised, the scope for useful infrastructure development is reduced but there will continue to be opportunities and requirements for infrastructure.

#### *Operation*

The operation of available infrastructure enables water managers to achieve their goals. Routine operation ensures that water is stored and transported to where it is needed. Effective infrastructure operation, guided by good understanding of hydrology (the science of water resources and their circulation), helps to maintain reliable supplies during droughts and to protect communities during floods.

#### *Regulation*

As available water resources are more fully utilised, the regulation of its use and the protection of the resource (both to maintain its usability as well as for environmental purposes) becomes more important. Rules have to be established for the protection of water, including setting standards for the disposal of wastes, as well as for the sharing of water between different users.

#### *Allocation, administration and conflict resolution*

Regulations are only effective if there is a system in place to implement them. An administrative system is required to control the discharge of waste into rivers and other potentially harmful activities. Once water becomes scarce, a system is needed to allocate it between users in a manner that is fair, predictable and meets the needs of society although such a system is best put in place before conflicts arise. An effective water administration system must manage, regulate and enforce rules about water use as well as resolve conflicts between users. Administrative systems must take into account the fact that the amount of water available can vary widely during the year and from one year to the next. The administrative systems should also help to provide information about trends in water use.

#### *Institutional development and facilitation*

The final set of functions that constitute water resource management is the establishment of organisations that can undertake all these activities. In some cases, this can be done directly by an agency of government. Often, some water resource management functions can usefully be decentralised to more local levels if there are effective arrangements in place for this. Another role for government is to encourage the establishment of local organisations that manage water in an area and promote cooperation between different water users and different kinds of water use.

### **The boundaries of water resource management**

The range of water uses and the activities associated with the resources' management are already complicated. But the management complexities are increased by the boundaries within which the management is undertaken.

From the perspective of the water resource itself, the logical boundaries of management are the natural ones, the catchments from which water drains into rivers, since activities upstream affect what can be done downstream. However, the boundaries of river catchments seldom coincide with political jurisdictions. Because the natural boundaries cross political boundaries, special arrangements are often needed to coordinate and align the physical and administrative dimensions of water management.<sup>2</sup>

The institutional arrangements outlined for South Africa's water resource management by the 1997 National Water Policy (DWAF 1997) and the 1998 National Water Act (NWA) (South Africa 1998) are consistent with this approach. The NWA set out a framework within which national guidance would be provided on overarching strategic issues while operational water resource management (WRM) responsibilities would progressively be delegated to organisations involving users and other stakeholders at a more local level.

The 19 proposed CMAs were intended to be the main building blocks in this arrangement.

### **The approach to CMA establishment**

The National Water Policy outlined the functions of CMAs and the way in which a national framework will be established for their operation and the 1998 NWA explicitly set out a "progressive" approach to the establishment of CMAs, making it clear that this would occur gradually, when the conditions for effective functioning had been established:

"Whilst the ultimate aim is to establish catchment management agencies for all water management areas, the Minister acts as the catchment management agency where one has not been established. Where the necessary capacity does not exist to establish a catchment management agency, an advisory committee may be appointed under Chapter 9 to develop the necessary capacity as a first step towards establishing an agency." (NWA Ch7 preamble).

The 2004 National Water Resource Strategy (NWRS), (DWAF 2004) set out a more detailed programme for CMA establishment. This recognised that CMA establishment would be a lengthy process and stated that:-

Establishment and full empowerment of catchment management agencies in all water management areas will take some time to achieve. In the meantime the Department will manage the areas on the Minister's behalf.  
(NWRS 3.5.2.5)

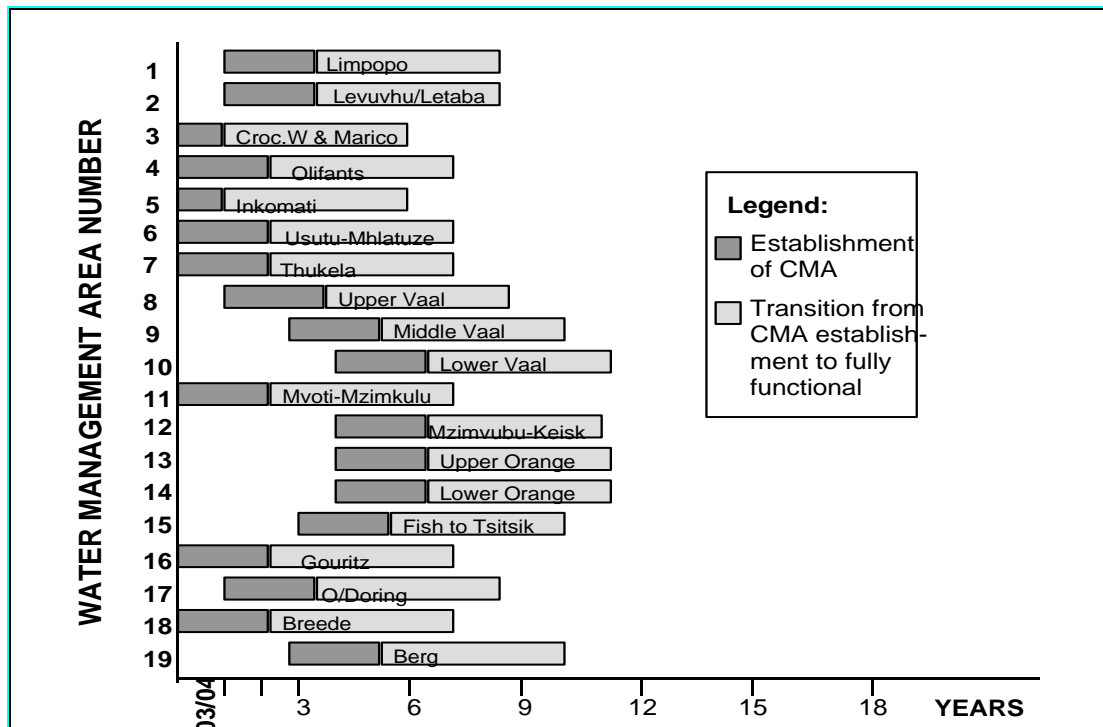
"Five water management areas have been identified where the establishment of catchment management agencies is urgent. These are the Inkomati, Olifants, Breede, Crocodile West and Marico, and Mvoti to Mzimkulu. The process of preparing an establishment proposal to the Minister is farthest advanced in the Inkomati water management area.

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<sup>2</sup> Elinor Ostrom won a Nobel Prize for addressing this problem. She focused on water resources as an example of the difficult challenge of managing what she called a "common pool resource". Her finding was that such resources were best managed by recognising their complexity rather than trying to simplify it. She suggested that this could best be done through "polycentric systems". In this, user-focused institutions brought the directly interested parties together to manage local issues at river basin level and coordinated their activities with local and provincial political institutions. The role of national government institutions is then to provide an overarching framework for these arrangements as well as specialist support. (Ostrom 2009)

Depending on the complexity of the water management area, a period of two to three years has been allowed for the process of establishing the agency and appointing the governing board. A further five years will most likely be required for developing and establishing the executive structure of the agency. (NWRS 3.8.2.2)

In terms of the programme set out in the NWRS, the CMA family would only be fully functional by 2016, as shown in the Diagram below.



### Progress and problems with the establishment of CMAs

A number of difficulties have been encountered in the establishment of the CMAs. This has led to concern that the approach may be impractical and, in 2008, the Department indicated that it was reconsidering the approach:

“The introduction of Catchment Management Agencies (CMAs) has been a difficult and protracted process which has prompted a re-evaluation of these institutions.” (DWA 2008)

However, in the final version of the document, the view was more positive and reflected the initial approach with the Departmental offices acting as CMAs until they were established:

“The Department has embarked on a process of institutional re-alignment to ensure that the Catchment Management Agencies and, in their absence, the DWAF Regional Offices, are able to fulfil the role of implementing agents tasked with an array of water resource management functions.” (DWA 2009)

Commenting on this process, some commentators (Schreiner et al 2009) have remarked that:-

“...Continual institutional flux has made it difficult for staff to deliver both on their core programmes and on the requirements of the restructuring. This has created a situation of uncertainty and confusion within the DWAF. The current institutional realignment programme needs to reach finality on the future shape of the sector within the next two months. Implementation of that vision should be driven hard and within strict timeframes,

and no further institutional restructuring should take place for at least 10 years. This will enable the delivery of programmes within a stable and supportive environment.”

It was in this context that the present study was conceived. The institutional review is still underway at time of writing and the future of the CMAs is being discussed as part of the preparation by DWA of the country’s next National Water Resource Strategy. One likely outcome is that it will be suggested that, because of the difficulty and cost of establishing CMAs, the number may be reduced and their areas of operation increased.

### **Possible reasons for the lack of progress**

Aside from the costs of establishment, one possible reason for the lack of progress is that administrative weaknesses (which have been manifested in a number of areas of water management) may have led to the slow pace of implementation. Another reason may be the reluctance of officials to hand over their powers to decentralised organisations, controlled by users and other stakeholders. However, the main beneficiaries of better management and control of water resources should be the users themselves. Since the NWA provides a channel for them to lead the establishment of CMAs, the question is why they have not taken advantage of this opportunity?

The reasons could include:-

- ignorance of the enabling provisions of the NWA (knowledge)
- lack of compelling incentives to establish a CMA (satisfaction with status quo)
- concern over ability to defend their interests in a CMA (capacity and uncertainty)
- fear that a CMA might be detrimental to their interests (negative evaluation of management concept); and
- fear that a CMA would be ineffective in achieving its goals (lack of confidence in the management model)

It is these issues that have been investigated with the aim of contributing to the debate about the future direction of institutional development in the sector.

### **The role of informal water forums**

While there continues to be uncertainty about the approach to the establishment of CMAs, it has been noted that in some areas, informal forums have been established at which different stakeholders come together to discuss water management issues of common interest.

There is no official list of all the forums. Some were established to address specific issues (a proposed project or the need for drought restrictions, for instance) and stop meeting once this is dealt with. In other cases, groups have met on a regular basis to assess the current water situation (annually, a Vaal operating group meets to discuss the outlook for supplies in the next water season). In addition, the DWA has established “strategy committees” to enable its planners to engage with stakeholders as they develop plans for different catchments.

It has been suggested that the existence of these forums may be a further reason for lack of progress in CMA establishment since, if the forums are already providing an adequate channel for water users and other stakeholders to address their most important concerns, they may feel that no further action is required.

## METHODOLOGY

The study aimed to survey the views of water users and other stakeholders in two pilot Water Management Areas, to analyse the results of those surveys and, on the basis of the survey results, to draw conclusions and make recommendations. The process followed was:

### 1. To initiate activities,

- the legal and regulatory situation was reviewed and documented
- the potential generic water users and other stakeholders were identified
- proposed criteria for the selection of pilot WMAs were developed
- an initial list of key issues was produced
- a project plan was drawn up for the remainder of the project, including a programme of stakeholder consultation and consultative workshops

### 2. Consultation of key stakeholders

- An initial round of bilateral consultation was held with key stakeholder groups at national level to determine degree of interest and knowledge about the project issues
- At the same time, a review was made of potential pilot CMAs against the criteria that had been established
- An initial discussion document was drafted to provide a focus for the initial consultative workshop, including recommendations on pilot WMA/s in which to focus
- The initial consultative workshop was organised with representatives of key stakeholder groups to consider the issues raised in the discussion document and contribute perspectives to guide the next phase of the project, including the choice of pilot water management area/s

### 3. Detailed investigation

- Key stakeholders in the pilot WMA/s were identified and contacted
- Bilateral consultations were held with key WMA stakeholders to determine knowledge of, interest in and opinions and perspectives on the possibility of establishing stakeholder-based CMAs or related arrangements
- Based on these inputs, as well as contributions from 1st consultative workshop, a draft final report was produced outlining key issues, options and preliminary recommendations
- A second consultative workshop was held with representatives of key stakeholder groups in the two pilot WMAs as well as the initial national stakeholder group to consider the draft final report, to contribute further perspectives and to identify issues that still require attention or amendment.

### 4. Production of final report and policy brief

- On the basis of the inputs received at the second consultative workshop, the draft final report has been revised to produce this final report
- A policy brief, summarising the key findings and recommendations has also been produced to inform decision makers in government and other organisations
- The findings will be disseminated through presentations to seminars and conferences as well as in popular media

The methodology used to select interviewees sought to ensure that all major sectors were represented and that interviewees were identified who could give a reasonable perspective on the issues in that sector. In some cases, the interview was conducted with more than one respondent.

Interviews with national stakeholders sought to obtain an organisational perspective of the issues while interviews with regional respondents sought to obtain the practical perspectives of users or other stakeholders.

The interviews were based on interview guides rather than formally structured questionnaires. This reflected both the very different circumstances of respondents from individual sectors while the open design allowed respondents to focus on issue that they felt were important, thus ensuring that their views could be expressed without constraint.



## CONSULTATION WITH KEY NATIONAL STAKEHOLDERS<sup>3</sup>

In the initial phase of the project, sector leaders and representatives of national players from a variety of interest groups, sectors and businesses were consulted (a list is attached in Annexure D). The objective of the consultation was to gain an insight into both the degree of knowledge about water management issues and options as well as to ask the participants for their views on an appropriate way forward. A further aim was to recruit participants to the national workshop and to gain their support and guidance for the next phase of detailed work.

### - **Interviews held**

#### - **Questionnaire design and application**

A questionnaire was developed for the national-level consultation (copy appended). This provided an introduction to the study and an explanation of the methodology and the objectives of the national-level consultation. While the intention was to apply the questionnaire through direct interviews, in a number of cases, respondents requested a copy and filled it in directly. In these cases, there were no queries about the questions and the answers provided did not provide any indication of misunderstandings. Similarly, during the direct interviews, there was general clarity about the questions raised and only limited clarification was required. In addition to the formal interviews, there was a range of informal consultations on specific issues as well as on the overall process, which helped to guide the study.

#### - **Sectors surveyed**

While there was no difficulty in recruiting participants from the major economic, governmental and environmental sectors, difficulty was experienced in finding respondents in organised labour, social sectors and organisations representing disadvantaged communities who felt competent or were willing to participate. Specifically, the National African Farmers Union (NAFU) initially declined to participate and it proved difficult to identify a willing respondent for organised labour from COSATU although representatives of IMATU and SAMWU did respond.

NAFU complained that their organisation was burdened by such engagements that brought no benefit to them. For the past fifteen years they were 'sacked' for information by researchers, their representative said, and in the long run nothing happened to improve their situation. However, after further engagement, they agreed to make a representative available who also participated in the initial workshop.

The COSATU official responsible for social and environmental issues advised that she focused primarily on health related issues and did not have the expertise to engage on the topic of the study but was not able to provide an alternative interviewee. The respondents from organised labour

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<sup>3</sup> "Stakeholder" here refers both to individuals and organisations who are direct users of water resources as well as to others who, while not direct users, have an interest in the management of the resource. They include environmental NGOs as well as community organisations who have a strong interest in the services provided using water resources as well as trades unions whose members are affected by the way in which water resource management is organised. In some contexts, it is important to distinguish between the formal users and the broader stakeholders since they may have very different interests.

(individual trades unions) focused primarily on municipal water supply issues in their normal duties rather than on the management of the water resource but were interested in participating.

Attempts to obtain a perspective from PLAAS, a research institution that focuses on land and agricultural reform and has addressed the water resource related challenges facing poor farmers, were not successful since they had limited capacity. However, inputs were provided by an expert who had previously dealt with water-related issues at PLAAS.

Aside from these difficulties, most interviewees expressed general interest in the topic and were happy to participate. This reflected the fact that, in most cases, they came from sectors that had an interest in water resource matters and individuals had been identified with specific responsibility for dealing with water matters. But the difficulty in obtaining formal responses from sectors involving poor communities, farmers and workers provided an early insight into some of the concerns that were raised during the course of the study.

- **Key issues raised**

The key issues raised naturally reflected the perspectives of the sectors concerned.

In engagements with community focused groups, it was clear that the major concern was about **water supply and sanitation services**, which are not the subject of the study, although effective water resource management is essential to ensure that services can be provided. They were concerned to ensure that the way that water resources are managed should support and not constrain service provision.

Business oriented respondents were particularly concerned about water management from a general **risk management** perspective, reflecting growing concerns that “water may prove to be the next ESKOM”. Aside from direct threats to production and costs, they were concerned about the reputational risks of being associated with water problems or conflicts.

With respect to water **supply**, two different sets of considerations were identified. First, there was concern about the **availability** of sufficient water for the sector concerned over the life time of its activities. Second, a related but separate concern was about the **reliability** of the supply and the probability that it may face significant interruptions or reductions. Then there were some more complex challenges as in the case of some mines which, as well as depending on water for their processing activities, have to remove water to enable production; this is costly, may require treatment of the water extracted and can cause land subsidence.

A distinction could be drawn between those stakeholders who are large abstractors of water (agriculture and some of the industrial concerns) and those that normally rely on municipal supplies. The large water users already have formal interactions with DWA while many smaller users struggle to establish effective communication.

For many of the respondents, while the **price of water** was important, it was not a dominant concern, indeed there were concerns that prices may not be high enough to ensure adequate maintenance and upgrades. Far more important was the **reliability of supply**. So sectors that were accustomed to operating with an excellent 99.5% reliability (in terms of which they should only experience a water supply failure one year in 200) were recognising that it might be a challenge to maintain that level. Other operations had historically relied on the public suppliers (DWA, water

boards and municipalities) to achieve that reliability but recognised that they could no longer count on them to do so.

**Water quality** was of far greater concern to some respondents than others. In particular, a significant consideration was the extent to which changing water **quality trends** would impact on municipal or industrial operations. In industry, if input water quality changes during the life of a water treatment plant, it is often more difficult to adjust the existing plant to cope with changes beyond initial design parameters than it is to select and build a plant with the required flexibility in the first place. From an environmental perspective, quality issues were perceived by some to be less important outside the urban and industrial areas.

Commercial agriculture was also extremely conscious of a different set of risks related both to the **competition** between agricultural water use and other uses as well as to **contestation** about water allocation between different groups of beneficiaries in terms of government's water allocation reform process.

Environmental concerns were raised about the competition between the environment and other uses and about the challenges of implementing the **environmental reserve** which is intended to ensure the protection of the water environment. Environmentally focused civil society organisations raised the need to ensure that freshwater was recognised as a key contributor to healthy ecosystems generally. But other sectors also recognised the environmental issues. The mining industry, for instance, is well aware of the downstream impact that its activities can have but also that, if it does not act with other parties to address the challenges, solutions will be imposed on it.

Some civil society respondents highlighted the particular issue of **equity in access** to water resources for small scale production and indicated concern that a system that allowed large users to dominate could be problematic in this regard.

The concerns raised by NAFU about this study and the impact of policy research generally is important. The response, that the **study is not relevant** to the organisation or its members, highlights a degree of frustration that even when issues are identified, they are not effectively addressed. On the other hand, the difficulty in getting a substantive response from organised labour is indicative of a broader challenge for water resource management namely the development of an understanding of issues through the broader society. Indeed, one of the concerns identified at the outset was that it would be difficult to accommodate the interests of **economically and socially marginal groups** and that this was likely to influence the choice of institutional approaches to water management.

It was suggested that one approach that may address this would be to **build the CMAs from the "bottom up"** on the basis of local sub-catchment forums. However, other respondents reported that participation in **local forums** depended heavily on whether the activity of the forums was sufficiently relevant to their activities to justify involvement. There was also concern expressed about **putting licensed water users and more general "stakeholders"** on the same level when management arrangements were designed.

For some large water users, one incentive to adopt a more cooperative approach was the recognition that relatively cheap **investments made beyond the factory fence** could yield far greater benefits than increased process efficiency inside the factory. So water conservation in a community, for example by fixing leaks, might yield as much as expensive new water-saving equipment installed in a factory.

- **Participation in current processes**

Most of the larger water users already have structured bilateral relationships with the DWA to address their specific concerns such as infrastructure to support new developments. In addition, many respondents were aware of the activities at a more local level of voluntary catchment forums. Some also participated in planning activities such as the annual Vaal system review and the Vaal Strategy Committee or were engaged in specific programmes such as efforts to augment the capacity of the upper Olifants River system.

At another level, local government has participated actively with DWA through fora such as the Water Sector Leadership Group in which water resource management issues have been systematically addressed. As both key users as well as institutions of governance, municipalities have a variety of roles to play in the process.

In addition, many of the stakeholders had participated in one or more of the current CMA establishment processes and/or are involved in the ongoing operations of the CMA. These were not always moving smoothly and in some cases, interviewees were not clear about their status or about what blockages were occurring.

- **Knowledge of issues**

While the group selected had significant knowledge of the basic structure of water resource administration, there was some confusion about the nature of the CMAs and their potential role in comparison with the voluntary catchment forums that exist in some parts of the country.

It was not clear to a number of respondents exactly what the function of a CMA was, nor what decision-making powers CMAs would have. This is an important issue, indicating that there is a lack of basic knowledge about the original concept of the CMAs; the current legislation provides a significant degree of flexibility, allowing a wide range of functions to be delegated to CMAs according to their specific circumstances and priorities rather than specifying their exact tasks.

- **Interest in participating**

With the initial exception of NAFU, there was a very encouraging interest from all those contacted in continuing their involvement in the study.

- **Considerations about pilot areas**

The choice of pilot areas was discussed and there was some diversity among the interviewees in the areas of interest for detailed study. However, once the qualification was raised that the study should not work in WMAs where decisions had already been taken about the establishment of CMAs, the focus of most respondents fell on the Upper Vaal and Olifants although, as detailed below, some other options were suggested.

A number of respondents commented on the option of choosing an area with limited problems as against one where there is extensive competition and many different problems. On balance, it was felt that it would be best to choose the latter. These are areas in which there is the greatest interest in water matters. Water users in these areas also face the risk that, in the absence of a CMA, decisions about key water resource issues may simply be imposed on them by national government.

A concern was expressed by some national organisations that they sometimes had problems in local engagements where their sector representatives took advantage of the opportunity presented to promote their own interests rather than sector approaches. It was also noted that there would always be a difference in approach between the high level strategic managers who engaged at a policy level and the more operational managers who had specific targets to achieve. For this reason,

in the pilot-area consultations, it would be important to engage with people who worked at the local operational level rather than with a “head office” focus.

## PILOT WATER MANAGEMENT AREA SELECTION

An important objective of the initial discussions was to inform the selection of pilot areas in which the detailed work will be conducted. From the consultation as well as the background issues already outlined, a structured approach was developed. Three key dimensions were identified for consideration:

- The current status of water resource and water use
- The current status of administrative processes
- Considerations of, and about, the stakeholder community

In addition, practical and logistical considerations were identified although these were not used to determine the recommended pilot areas. These criteria were further broken down and, for each WMA, values were attributed or judgements made about the different criteria to enable an assessment to be made as outlined below.

### - **Criteria for Pilot WMAs**

#### • **Water resource and resource use context**

- The extent of water resource use in relation to overall water availability (the “intensity” of water use) will be a key criterion. Stakeholders are more likely to be concerned about water resource management issues in areas that are already under stress than those in which water is plentiful and there is limited need for cooperation either to make water available or to protect its quality;
- The diversity of water use in a water management area is a further criterion. It is more complex to regulate a range of different water uses with different objectives and requirements than water use in a single sector, even where there is competition between users. In situations of diversity, there will be a greater need for effective institutional arrangements;
- Pilot areas with different patterns of water resource development and use should be considered to maximise learning. This will , it will be desirable to include WMAs which have arrange of different water uses including in particular a combination of significant agricultural and urban and water uses as well as “stand-alone industrial (including mining) and environmental uses.

#### • **Administrative and Process issues**

- If a CMA is already established, that CMA cannot be considered as a pilot area;
- If a process to prepare for CMA establishment has been undertaken or is underway, the status and impact of the process will be reviewed to determine whether it may be considered as a pilot area. While prior processes introduce some stakeholders to the issues, they may also contribute to both positive and negative views which could make it difficult to obtain objective responses to the issues under review in this study.

#### • **Stakeholder considerations**

- A key criterion is that stakeholder recommendations and motivations as to the most appropriate areas should be considered;
- The presence of organised stakeholders who are willing to participate in sectors such as agriculture, industry, mining and local government is important;
- The existence of informal cooperation arrangements between stakeholders through such mechanisms as catchment forums is a further indication of potential interest in the issues.

#### • **Practical considerations**

- Once all the criteria have been evaluated, logistical and cost considerations should also be taken into account in the selection of pilot areas both to facilitate access for researchers and to enable stakeholders to participate in the consultation process.

- **Review process**

These criteria were systematically reviewed for each WMA. Scores were attributed for the current state of the administrative processes as well as for water use intensity and water use diversity on the basis of available information from sources such as the NWRS, DWA Internal Strategic Perspectives and recent Parliamentary Answers, supplemented by direct confirmation from DWAF. The results are presented in Annexure E.

In addition, the views of the stakeholders were considered. Many of those consulted felt that, if an area with many pressures and complex challenges was sought, the Upper Vaal or Crocodile West would be appropriate. Because the process of establishing a CMA in the latter may complicate matters, it was not considered by some respondents who also omitted the Breede and Berg for the same reason. The Olifants was mentioned by a number of respondents as a complex area with significant agricultural involvement as an additional factor although the difficulty of finding effective rural stakeholders was a concern for some. Agricultural priorities were however different, focusing primarily on the Orange River and Lower Vaal. When the stakeholder recommendations were included, the ranking of Upper Vaal and Olifants did not change.

○ **Options for pilot WMAs**

This review suggested that the strongest options for pilot areas were the Upper Vaal and the Olifants. The Middle Vaal and the Berg were in a second group while the Lower Vaal, Lower Orange and Fish Tsitsikamma constituted the final set of possible pilots.

- **Pilot WMAs proposed**

On the basis of this evaluation, taken together with the comments received from stakeholders, as well as logistical considerations, it was proposed that the pilot WMAs should be the Upper Vaal and the Olifants WMAs. While these catchments are adjacent, they offered an interesting mix of circumstances. The Upper Vaal is heavily dependent on external transfers, although it is also a substantial donor catchment, thanks to its extensive wastewater discharges. It contains a concentration of major urban centres although some of these fall outside the physical WMA area, with extensive industry, mining and energy production but limited irrigated agriculture or low income communities. There is also an extensive network of local water management forums in the catchment. The Olifants catchment does not have major urban centres or manufacturing industry but has extensive mining and related activities, substantial irrigated agriculture and a large very poor semi-rural population as well as important environmental “users” and direct connection to a neighbouring country with a claim to its water. There are already important transfers to some urban centres just outside the WMA which are relying on the Olifants for future water supplies. The proposed choice was also logistically efficient since the researchers were based in Johannesburg.

○ **Discussion at First Consultative meeting**

The proposal was discussed at the first consultative meeting in March 2011. Since many of the participants had contributed to the survey, the issues raised were not materially different. It was recognised that there was no single “right answer” and the researchers were encouraged to make a decision based on the views that had been expressed as well as on practical considerations of logistics, etc.

○ **Decision: Upper Vaal and Olifants**

On the basis of these considerations, it was decided to undertake the detailed consultations in the Upper Vaal and the Olifants water management areas.

## CONSULTATIONS IN PILOT WATER MANAGEMENT AREA

### Selection of respondents and interviews conducted

Given the large areas and substantial population of the two pilot WMAs, the wide range of water uses as well as the number of interested stakeholders, the research could not engage all potentially interested parties. The approach adopted was to identify key categories of stakeholder and then to identify potential candidates to be interviewed. To do this, candidate organisations in different user sectors were identified and contact made to arrange interviews. The aim was to ensure that there were sufficient responses from each user/stakeholder category with a balance between different types of situation – thus in mining, contact was made with both underground hard rock miners as well as open cast coal miners since they have different production processes and face different problems with water management. Similarly, perspectives were sought from both (primarily white) commercial farmers and black small-scale farmers.

While in the national survey, it was important to engage with officials who understood the policy position of their organisations, in the regional survey, the primary objective was to engage with operational water users and advocacy groups and other individuals who had experience of and views about the issues based on their own knowledge and experience. While most of the interviews were conducted face-to-face in the WMA areas, a few respondents were interviewed telephonically.

On this basis, a total of 28 people were interviewed in the two pilot catchments. The interviewees covered a range of water users and other stakeholders. They included municipal and water utility officials, farmers and representatives of agricultural organisations, managers responsible for environmental matters in mining and industrial companies as well as civil society representatives including environmental organisations and groups associated with trade unions.

While the interviewees were divided approximately equally between the two pilot CMAs, some, notably provincial and municipal officials but also civil society organisations and some industries, were involved in both. After the initial experience at national level where difficulties were experienced in engaging with representatives of organised labour and small-scale African farmer, a particular concern was to ensure that these groups were effectively engaged and their views adequately captured. To do this, interviews were also held with a number of researchers and professionals who had worked with these communities and their local organisations and reference was made to some previous research reports.

While some difficulties had been anticipated in engaging with local government because there might be differences of opinion and approach between the political leadership and officials, this did not prove to be a problem and both were engaged.

The same process was followed as initially adopted with national stakeholders. Stakeholders were engaged bilaterally to assess their interest, knowledge and opinions. Given the diversity of people to be engaged, it was not considered appropriate to use a formal questionnaire. However, an interview plan was drawn up to guide the discussion and ensure that all key issues were addressed. To ensure that the views of interviewees were correctly captured, a draft record of the interview was shared with the interviewee for comment and then finalised. In the analysis below, some of the records are quoted directly. As will be seen, they included both direct quotations as well as a summary of interviewees' views. The individuals and their organisations have not been identified except in general terms because of the potential sensitivity of some of the views expressed.



## Key issues raised

The interviewees were chosen because they had a direct or potential interest in water and its management. When asked what their main water management concerns were, they identified a wide range of different concerns. For example,

- Farmers were concerned both about the security of their existing access to water which they feared could be undermined by other farmers who were abstracting water without authorisation but without any response from government;
- Industry officials, including those from the energy and mining sectors, worried about their security of supply as well as about the quality of regulatory control over their activities;
- Municipal officials were interested in the proposals and believed that municipalities themselves should have greater powers over the use of water in their areas but at the same time noted their lack of capacity to engage fully.
- Some water utility officials felt that they already played an important role in water management and could be given greater responsibilities
- Members of some environmental organisations wanted to focus on pollution and were keen to get involved. Others, notably from poorer communities, shared these concerns but expressed reservations about the possibility of managing water jointly with the industries, which they perceived to be causing the problems and were powerful and self-interested.
- Respondents with trade union affiliations were concerned about the implications of institutional reform in water resource management for the jobs of their members.

The different responses were analysed in detail below under the following headings:

- Background
  - o Water resource issues of concern
  - o Knowledge and experience of water resource management functions
  - o Previous involvement in water resource management processes.
- Should stakeholders take the lead in establishing CMAs? Should there be CMAs?!
  - o Attitudes towards the establishment of CMAs
  - o Experience in other areas with CMAs
  - o Engagement of marginalised groups
  - o Human and financial capacities
  - o Advantages and disadvantages of CMAs
- Way forward
  - o Building blocks? The role of Forums and Water User Associations
  - o But what are we building and who will lead?
- **Background**
  - o **Water resource issues of concern**

Asked about their current water management concerns, many respondents raised the current state of water administration and enforcement of the National Water Act (NWA) although they had

different explanations for the problems they faced. One utility official listed a range of problems. His organisation:

“... has tried to regularise its licensing issues and be compliant. It seems however that many municipalities operate without a licence and contravene the discharge regulations and standards. There is unlawful abstraction and polluting discharges and land practices but very little enforcement of the NWA. Implementing the waste discharge charge system would be helpful.”

Small farmers reported similar concerns but interpreted them as unwillingness to act against existing interest groups. One respondent in a related research project (Hollingworth 2007) is reported as saying that he

“is not convinced things have changed or will ever change. He still has to see a water licence issued to a previously disadvantaged farmer. It is more than six years since they filled the DWAF forms applying for water licences yet not even one licence has been granted or any indication that the applications are being attended to. For the local white commercial farmers, it seems it is business as usual.”

Yet (white) commercial farmers had the same problem. They also identified many issues but high on their agenda were the unsuccessful efforts that they had made to ensure that their water use was compliant with legislation since this was affecting their ability to finance their activities:

“Farmers have applied to DWA for the transfer of water rights but the department has not responded. This has resulted in uncertainty regarding the transfer of water rights.

“The uncertainty about water rights impacts on our finance. The banks ask us to produce a water licence and if we cannot do that the Banks decrease the value of the land for collateral purposes (from R40 000/ha for land with water rights to R6000 for land without). - This also has an impact on credit for inputs.”

In the Upper Vaal, one concern was that there was no longer any local office where they could raise their problems and that they were no longer visited by DWA officials, for instance, to check on meter readings. As a result, they complained, little was done to control illegal water users and they were concerned that all users might be subject to punitive measures:

“There is uncertainty amongst the irrigation farmers about what will happen during the times of drought. Will legal and illegal farmers be treated in the same way?”

Although both pilot WMAs are in very stressed areas, in which it is generally agreed that existing resources are fully used, this was one of the few comments that recognised that the areas might have to cope with water shortages in the near future. This perhaps reflected the fact that over the previous few years, the WMAs have generally enjoyed normal rainfall while, in the Upper Vaal, the transfers from Lesotho have created the impression that there is no danger of shortages

Many respondents focused on problems of water quality. A few of these related to their direct experience of water quality problems that impacted on their operations:

“Due to spillage of sewage into the dam, we had to switch from river to borehole water for stock watering.”

And, for a water supply utility, the poor water quality has a direct financial impact:

“As a result of water pollution, Rand Water is losing lot of money to purify water (because of the additional cost of water treatment.”

Water quality issues were the main concern of environmental groups but they took a more general view and concentrated on what they saw as lack of control over pollution:

“The fact is that the NWA is not being applied. Lots of water is affected by mining, agriculture and industries. There is also lack of action in enforcing Water Act. Sewage leaks into rivers.”

However, mining officials said that they recognised – and had long been working on - these issues:

“The ORF (Olifants River Forum) predates the 1998 NWA. It was formed by mining interests together with the Mpumalanga Parks Board and DWA in the recognition that collective action was needed to deal with water quality issues.”

Only a few respondents mentioned the overarching challenge of water availability, notably a provincial agriculture official whose concern was the availability and access of water for food production.

“DWA is trying to provide access to water for land reform beneficiaries. There is a problem of over abstraction of water.”

It was also surprising that very few of the respondents mentioned planning of future supplies and the development and management of water infrastructure as concerns, which perhaps indicated that these activities were not considered to be problems in these two CMAs. However, another reason that supply constraints were not perceived to be important was that

“Development is approved without water being made available”..

This was considered to be a systemic problem, reflecting a lack of national leadership. As one industry respondent put it:

The complexity of the problems is increasing all the time. There was decision taken by Cabinet to erect bio- fuel plants in Eastern Cape and DWA responded in horror that there is no water where the plants are supposed to be situated... How can we expect a junior official to take a decision if the question of water being a limitation is not considered in terms of Cabinet decision making processes? When people decide on development plans they consult national treasury to see if budgetary provision has been made and the same principles should be applied in water.

Finally, underlying many of the responses was a concern that the establishment of new water institutions might have a hidden reform agenda, as highlighted by one group of commercial farmers:

“Our position on the redress objectives in the NWA is that any process should be transparent and fair. The question of expropriation, particularly surreptitious expropriation, remains sensitive. Consensus could be reached but there must be a reasonable and fair approach to issues. Commercial farmers have been ignored before so they do not have much trust in such processes.”

○ **Knowledge and experience of water resource management functions**

It was evident during the national consultations that many respondents were not clear about what functions constituted water resource management. This issue was probed in more detail to determine what respondents knew about the activities involved in water resource management and who is currently responsible for them. Most had only partial knowledge and focused on what was relevant to themselves. Many mentioned the enforcement of the provisions of the NWA about unlawful abstraction and polluting discharges as key functions. Others, such as farmers and large industries, were concerned about administration and ensuring that their activities were properly licensed. Similarly, environmental organisations were concerned about actions to protect the resource against pollution and to enforce the licence conditions of municipalities. Few mentioned planning and the development and operation of infrastructure.

In general, municipalities did not pay much attention to water resource management. However, they recognised its importance and understood that some of their activities had to be licensed and were amongst the few to recognise that planning to ensure adequate future water supplies was an important function:

“The district council is the water services authority but as the water services provider, Ba-Phalaborwa LM, deals with most of the issues. They need to be confident that there will be enough water and therefore take an interest in water resources management.”

However, another local municipality reported that there was little engagement with DWA about water resources and its focus was on water supply and sanitation services although they did have a local job creation project that focused on the removal of alien plants and river protection.

“The main engagement has been about water services (Blue Drop). However, the municipality does have a licence to operate the Waste Water Treatment Works and were involved in Green Drop.”

In some cases, mention was made of the DWA’s role in the monitoring of water use. Commercial farmers reported that

“There were water meters installed on some of the farms but in the last six years no one has come to read them. On another farm, meters are no longer working while a third never had meters.”

There were also some misconceptions. Thus a member of an environmental organisation which is affiliated with trade unions believed that the

“NWA controls the usage and distribution of water and embodies the rights of citizens and the Constitution also guarantees these rights. It also governs water use licensing but

unfortunately the quantity of water that goes to industries and the pollution of water is beyond the licence.”

(In fact, licences set the conditions for how much water can be used and under what conditions waste can be discharged into rivers. )

Some large water users had a different perspective. They understood that the NWA enabled the DWA to impose very detailed and strict conditions on their operations. However they reported that the Department’s capacity to do this was limited. As a result, it was stated that

“The quality of some licences is worthless. They are so poor technically that they don’t make any sense and are unenforceable.”

In part, this was because the administrative systems were too complicated and old systems were still being used in parallel with the introduction of new approaches:

“Systems are too complicated and we are still using the old system while we try to introduce a new system so there are two things running at the same time.”

- **Previous involvement in water resource management initiatives**

Since 1994, there have been a number of water management initiatives in both of the pilot WMAs, and respondents were asked whether they had been involved and whether they had found these to be useful. It was important to understand these issues since previous engagement will have contributed to forming interviewees’ opinions on many of the issues. This was certainly the case in one report about experience in the Upper Vaal:

“Rand Water has been involved in the Vaal since 1996 and it was a driving force in the formation of forums with the involvement of the community and stakeholders. Rand Water was a driving force to take the forums further. The forums were combined to establish the catchment executive committee to form a CMA. Industries, mining and agriculture had representatives in the committee. Thus all the stakeholders in the Upper Vaal looked to Rand Water to lead the process. But the Department of Water Affairs did not take the process forward. As a result Rand Water gave up under mutual agreement with stakeholders that this was a waste of time. The lack of funds also contributed to the initiative failing. The general feeling was that there was lack of political will from the Department of Water Affairs.

This was confirmed by an environmental organisation that had also been involved in the Forums:

“The CMA has always been discussed in forums and DWA has indicated that it was going to group all catchments forums into a CMA. However the Department is slow in giving us documentation about how it is going fast track CMA establishment; it also talked about public participation process but has not provided any documents”

The extent to which interviewees had been involved in water user associations or local forums was investigated to find out whether they felt that these were sufficiently well structured and trusted to represent their views at a higher level. In general, their experience had not been encouraging:

“The forums are ineffective because they are voluntary and lack statutory recognition and the role players are wary of getting nowhere – it is not enough. The Minister should establish the CMA so that the governing body can be appointed from interested parties. If it was formalised it would get more support and effort from stakeholders.”

One representative from a large industry complained that the process of discussing a CMA in a special committee on the Vaal had been slow and ineffective:

“As a result NGOs and mines lost interest. They did not get feedback about CMA establishment at the place where the CMA was discussed.”

Aside from the forums, water user associations (WUAs) were also identified as potentially important partners in both pilot WMAs. They were considered by some respondents to be useful because they brought together groups of users with common interests and distinguished between licenced users and other stakeholders. However, WUAs were not in place in many of the areas in which they were needed.

“A viable CMA could be built on / created from a number of WUAs although for example the irrigators upstream of Loskop and those in the old Lebowa are not in a WUA.”

There were initiatives underway to establish new WUAs in some critical areas but these were not always linked to other activities underway:

“There is also an initiative from organised agriculture about establishing a water user association on the Wilge and Liebenbergsvlei to manage water properly and deal with unauthorised abstractions. The farmers have heard about the idea of CMAs since the NWA was passed but have not been directly involved although one farmer (who is not a member of the WUA group) had just received an invitation to a CMA discussion.”

Similarly, forums were considered to have an important role to play, but, as is discussed below in more detail, they are seen to have a number of defects

“The ORF executive committee could lead the process as a champion but there will need to be a transformation of their approaches.”

Indeed, this problem was seen to have stalled the process of establishing a CMA in the Olifants:

“Although the ORF was ready to take the lead in the Olifants CMA (and had established itself when the concept of CMAs was raised in the early 1990s), their bias towards only part of all water users in the Olifants was the reason why DWA decided to take the lead itself in formulating a proposal.”

**- Should stakeholders take the lead in establishing CMAs? Should there be CMAs?!**

When asked directly, few respondents were even aware that stakeholders may propose the establishment of a CMA to the Minister. However, once the issue was raised, many were quick to give their views about such an approach:

“It is lovely idea to propose to the Minister but there is a need to understand the purpose of the CMA and what it is going to do and how is it going to be funded.”

An official of a WUA who serves mainly industrial users did not think there would be great enthusiasm for the idea:

“There are no incentives for the WUA to initiate or lobby for CMA formation. The members do not even think about CMAs. There are no “champions” for the formation of CMAs and the disparate interests work against any coming to the fore.

“The state will have to lead the process through consolidating the representative structures of stakeholders such as mining. There will be not broadly based agreement without state intervention. Nothing will happen unless the state pushes the process.”

Another reason for the state to take leadership rather than stakeholders themselves is that some water users are nervous about being expected to exercise control over the activities of others

“The current ineffectual control of unauthorised abstraction and pollution lessens any incentive. Potential participants would avoid being placed in a position where they would have to control their fellow users.”

A strong view was expressed by a community researcher who had worked in the Olifants CMA:

“... there can be no purely stakeholder-led initiative to form a CMA in such a heterogeneous society. The “playing fields are not level”. The emerging farmers and other HDIs do not have the resources that would allow them to negotiate their interests in CMA context unless DWA facilitates more level playing fields.”

However, based on previous experience, an interviewee from the mining sector was cautious about DWA’s potential role:

“Any sector initiative that pushed for a CMA would be accused of seeking an advantage. In short, the social, political and economic environment is not conducive to intra sub-sectoral cooperation. The water sector is politicised. A neutral and unbiased facilitator would be needed but this could not be DWA.”

This, in part, reflected the history of early attempts to investigate the feasibility of establishing a CMA in the Olifants in which the efforts of the Olifants River Forum demonstrated the sensitivities about balance between different interests.

“The CMA should be the regulatory tool and should focus on the issue of equity and social transformation. Equity in participation was also an important issue in the Inkomati CMA establishment, from which the Olifants CMA was going to learn. Although the ORF was ready

to take the lead in the Olifants CMA (and had established itself when the option of CMAs was raised in the early 1990s), their bias towards only part of all water users in the Olifants was the reason why DWA decided to take the lead itself in formulating a proposal.”

It was also not obvious that local and provincial governments would be in a position to support a stakeholder-led establishment of a CMA, in part because their jurisdictions did not coincide with that of the WMAs. One Local Municipality commented that:

“Provincial government is not well placed to initiate a CMA. The Olifants transverses three provinces. DWA would have to take the lead.”

In another case, a local municipality reported that parts of three WMAs fell within its boundaries. Nevertheless, its officials felt that the CMAs offered an opportunity:

“We would sit together for common interest with groups such as farmers.”

#### o **Attitudes towards the establishment of CMAs**

Once the issue of CMAs had been raised, it became evident that many of the interviewees had firm views on the subject. Although problems had been experienced in the past, there was still considerable enthusiasm for the establishment of CMAs in both pilot WMAs. Environmental groups have been amongst those calling for progress on the establishment of CMAs:

“We have been discussing CMAs for eight years. We have told the DWA to push the establishment of CMAs.”

An official from a large utility organisation was equally positive

“The advantage of the CMA is the direct participation of the interested parties. DWA is too remote and have a backlog of cases in the catchments. Their ability to be effective at catchment level is also constrained by high staff turnover and loss of institutional memory. The forums should then work through the CMA and be more directed. The CMA would be able to regularise water use. The disadvantage is finance.”

Not all the reasons given for the establishment of a CMA were consistent since different stakeholders saw them as an opportunity to address their specific concerns. So environmentalists were enthusiastic:

“A CMA could make a difference if it had people who are passionate about changing the state of water because industries and mines are not passionate about the state of water. Also a CMA must have people who have innovative ideas about how to improve water quality.”

However, from a municipal perspective, the motivation was different:

“The idea is of interest because revenue generation from municipality is small and devolution of water resources would create revenue generation opportunities for the



municipality The municipality would support another group of stakeholders if they want to establish a CMA.”

Another municipality said that they would not actively promote CMAs but would nevertheless participate in their work if they were established

“The Municipality would not have the mandate or capacity to participate effectively in any initiation of a catchment-wide CMA. Its core focus is on local matters. But this is not to say that where there is an established CMA it could not or would not participate as it does have a responsibility to advocate for its interests.”

But an important motivation was that a CMA would have formal power. So one reason for stakeholders to come together to initiate a CMA was simply the experience of :

“...participating in a river forum that does not have a legal standing whereas a CMA does.”

Some were also interested in a decentralised CMA arrangement because CMA finances would be under the oversight of the users. So one group of commercial farmers responded that:

“It would be good if the CMA was accountable to the water users.”

For an environmental group, financial independence would help to ensure that government did not dominate the CMA through its financial leverage and suggested that

“An independent fund be established where industries contribute. If the finances are controlled by government it would dominate the CMA and it would be a burden to the tax payers.”

And another environmental NGO had further specific ideas about how this would work:

“They should be section 21 companies and their books should be audited.”

Such arrangements could address a more general lack of trust, expressed by some agricultural representatives:

“Farmers have an inherent distrust of legislation and statutory institutions. This is because the objectives can often not be fulfilled on their level. Members are prepared to be managed but only if the process is open and everyone knows what is required. They would like the ideals in the NWA to be achieved but are distrustful of the process. Communication is the key.”

“All stakeholders would need to be involved in management. There are concerns firstly over who will take control over water entitlements and secondly that agricultural land must remain productive.”

### ○ Experience in other areas with CMAs

One factor that could have influenced peoples' opinions was knowledge of the experience and performance of the two CMAs that have been established although both are relatively new. Few of the respondents had such information. Even though the Inkomati CMA (ICMA), one of the two existing CMAs, is neighbour to both the Upper Vaal and the Olifants, there was little knowledge about its experience. However, one civil society respondent reported that:

“Nkomati CMA is running reasonably well but do not know about Breede. The perception is that it is behind Nkomati but it is getting its act together.”

The other respondent to comment on this issue had been involved in the establishment of the ICMA and he helped to put their experience in context, saying that:-

“In the case of the Komati the water resources had always been managed effectively, the farmers were effectively organised and there was a conducive climate. The farmers consequently showed greater initiative and indeed led the process.

“In the Olifants and Upper Vaal there is a much lower level of organisation and local and immediate issues dominate. There is not much concern about water resource management issues at catchment scale.”

But one community-based professional suggested that perhaps there were lessons that had been learnt from the ICMA experience and that they might indeed be influencing opinions towards CMAs, not always favourably:

“The Komati CMA was initiated at a time of uncertainty and distrust so there was an incentive for commercial agriculture to drive the process with the objective of gaining certainty. DWA pursued a strategy of diluting the voice of organised agriculture so as to create more equal power relations. The consequent disillusionment means that such an opportunity is unlikely to reoccur.”

### ○ Engagement of marginalised groups

Whether CMAs are to be initiated by stakeholders or the DWA, as this comment made clear, a central problem that is faced in both pilot WMAs is the effective engagement of small farmers specifically and poor communities and other marginalised groups more generally – even within poor communities, women are often further marginalised, particularly in agriculture. The challenge is to involve such groups in water resource management in a way that is relevant and contributes to better outcomes for them. For them to engage effectively, issues of language and technical understanding as well as practical issues such as travel and subsistence costs have to be addressed. This was highlighted by a conservation official:

“There is no community activism around CMAs. Communities should come into the process but they lack knowledge, capacity and funds. They are not part of the existing process. They will need to be capacitated with finance and knowledge.”

This was confirmed by a WUA respondent, who reported that small farmers relied on the provincial agricultural authorities to address their needs:

“Farmers from the previous homeland areas such as those downstream of Flag Boshielo Dam are not mobilised into organisations. It appears individuals mostly look to the provincial agricultural department for support.”

But it is important to establish appropriate channels if the views of such communities are going to be heard. A community researcher who had worked closely with emerging farmers in the Olifants WMA remembered that, during initial public participation processes in 1999,

“There was a contest about what a CMA should do. It was perceived by emerging farmers as a white male led process for the vested interests that had all the resources. When explaining about the importance of the Ecological Reserve for fishes, people wondered whether officials found fishes more important than their lives. There were also issues around representation of a constituency, information sharing and language.

“DWA adequately responded to those concerns by initiating a parallel process of consultations on a small-scale water users forum. But from later debates, it appeared that the vested users saw CMAs as an opportunity to consolidate entitlements and for greater autonomy.”

When asked whether a CMA could be a positive or negative force for equity and social transformation, answers were ambivalent. As one industry representative put it:

“It could be positive- with the right representatives but also negative:- there is a risk that in a CMA certain role players would dominate and others would be neglected.”

Others highlighted the potentially positive role that a CMA could play, given the right conditions:

“A CMA with adequate resources could improve equity. This is based on the resource. Emerging farmers need additional funding and support. There is a lot to do on the strategy for making a difference. The mandate is within the law but getting water to allocate is tricky.”

Whether described as “transformation”, “equity” or “capacitation”, the very topic of engaging marginalised groups was sensitive for some respondents. As one commercial farmers’ representative stated:

“The “redress” objective in NWA is a barrier to CMA initiation as it creates concern for existing entitlement holders that their entitlement may be reduced during any re-allocation.”

But there were positive views, with one group of municipal officials even suggesting that working together on water issues could help to bridge the divides in their community:

“It is a powerful force for social transformation. It can be a focus for cooperation. The problem that the municipality has is communication and water resource management can help.”

## ○ **Human and financial capacities**

Given the challenges of even seating people at a common table on a more or less equal basis to discuss common problems, it was clear that the inter-linked issues of resources and capacity would also be important.

From the start, many respondents emphasised that even formal local organisations such as municipalities would not necessarily have sufficient internal capacity to engage effectively. In one area, the district municipality was the water services authority but:

“... because the DM as WSA (water services authority) lacks technical water capacity, it is unable to address water resource management issues.”

And some commercial farmers were concerned about their own ability to engage:

“The farmers do not have the capacity to initiate a water user association so it would be difficult to launch a CMA which is much more complicated. We would need extensive technical support even to be able to participate.”

These concerns extended to government arrangements where, some parties said, there was a lack of coordination:

“State departments are in silos and this hampers multi-sectoral approaches.”

Similarly, administrative arrangements at local government level are not always clear:

“Responsibility for water is an issue. The separation of water services authority from water services provider (WSP) confuses who is responsible. As WSP we would like more involvement in water resource management but this is more the function of the WSA.”

Beyond these internal problems, a key concern of many respondents was whether there was adequate human and financial capacity in their region to establish a CMA:

“The question that is raised is “if government institutions are not working how is the CMA going to work? The stakeholder complains that if government cannot solve problems for them, how can a CMA be able to do that? Thus where are the skills going to be found that will make a CMA to be different?”

Even national government’s capacity was called into question:

“Can the country afford CMAs? Human capacity is a serious issue in both existing institutions as well as those envisaged. Based on its representation that comes to forums, DWA seems to have a serious staff retention problem. What is required to protect the resource is strong leadership from national government.”

Some felt that, if the resources of all the partners could be tapped, there would be adequate resources:

“There is sufficient capacity among the stakeholders to initiate a CMA but this is skewed towards the mining and agricultural interests. Finance is an issue. Often the community

representatives need support through small payments for remuneration, travel and the like.”

A major conservation group agreed that a CMA might provide a solution to the capacity challenges of government:

“The DWA manages the river but lots needs to be done because the water resources are over allocated. DWA does not have sufficient “hands-on” to manage effectively. We need a public private partnership approach.”

However, they could also see that, unless carefully managed, the establishment of CMAs could aggravate capacity challenges:

“The disadvantage is the need for human capacity. There is potential for duplication and roles will have to be carefully defined. It does not seem the officials of DWA are really prepared to relinquish authority.”

And another respondent simply questioned whether there were adequate technical skills in the country for the extra levels of governance that the CMA model required.

Aside from the human resources challenges, it was also evident to most stakeholders that finances would be important and that clear financial arrangements would be needed to avoid misunderstandings and to deal with the expectation that some parties could provide financial support to others. An industry participant commented that, in the Olifants WMA:

“The ORF had examined whether it could lead the formation of a CMA. This proved impossible as the ORF was not representative across all water interests. It had tried to draw in other interests but was unsuccessful. It appeared that other interests had the expectation that the forum would be a source of financial resources. When they found this was not the case their interest waned.”

Some stakeholders distinguished between the resources needed first for CMA establishment and then for ongoing operations and suggested that these funds should come from different sources:

“The funds for establishment of a CMA should come from Treasury. There are no stakeholder funds and participation for many stakeholders using own resources is not sustainable. Rand Water in the Upper Vaal put a lot of money into the forums but it was not sustainable.

“In the long term an Olifants CMA would be financially viable but it would need an extended establishment phase of at least 5 years to get organised and stand on its own feet without national financial support. Skills are an issue.”

In terms of ongoing costs, a community-based professional believed that stakeholder willingness to contribute financially to the CMAs would depend on the value that they were seen to add and that this was not going to be clear:

“Users will pay for an organisation that works for them. How is it functioning, what is it doing for the user. The irrigation boards were an example where the operational

management of the water delivery process was an imperative. The functions of a CMA are too remote from emerging farmers for them to willingly pay for the CMA.”

While many interviewees felt that there would have to be financial support from government to make a CMA work, few realised that CMAs would receive funds from the water resource management charge that is part of the raw water tariffs collected by the DWA. In some cases, this changed their opinions. When it was pointed out that this component of the water tariff was specifically intended to cover local management costs, there was a more positive response, as for example, from commercial farmers:

“Perhaps it would be possible if the users were able to control its activities and costs. Farmers are paying, e.g. R3000/month for water for 100 ha. That would be enough to hire a manager and some staff.”

A similar sentiment was shared by a mining official:

“There is a chance that if catchment management levies and other measures such as the proposed waste discharge charge were to be implemented that a CMA would become operationally viable.”

However, there was no consensus about this, even within the same sector. So the representative of another grouping of commercial farmers commented that:

“Part of the cost of a CMA will have to be recovered from users but the full cost would be too burdensome particularly to the agricultural sector. AgriSA regards the raw water tariff strategy as confusing.”

#### o **Advantages and disadvantages of CMAs**

This last comment highlighted that, in some cases, interviewees were not yet convinced about the role of CMAs. In many cases, this was because they were still trying to get to grips with what the organisations would do and how they would be organised. So the same commercial farmers complained that:

“The CMA structure is too complicated. But if farmers understood they would be happier with the catchment structure. They need communication and a summary.”

And other interviewees were also critical of the details of the approach:

“The DWA guidelines on CMAs are too prescriptive and constrain CMA establishment. There need to be more options.”

Some had given the matter considerable thought and recognised both the positive and negative issues:

“A CMA would be closer to stakeholders but “the devil is in the detail”. It occurred to me that when I grew up in Holland how many political fights there were between the “Rhine” states about the quality and otherwise of the water coming down the river. I think the

Olifants River is of a similar complexity, not nearly as big as the Rhine, but also with mining, agriculture, tourism, etc. The point I am trying to make is that in the case of the Olifants, only a national entity will be able to bridge the different regional and sectoral interests.

“There has to be a balance of interests and the Olifants WMA is geographically large. It would be impossible for a board to represent all of these interests. Moreover in one CMA it would be impossible to marry the divergent interest of the upper, middle and lower Olifants because they are so different. Moreover the sectors are differently capacitated and the empowered would dominate. A CMA could work for the upper catchment because there are collective interests, capacity and money.”

These considerations were typical of some of the more practical concerns about the potential functionality of CMAs:

“There is a danger of disjoint between CMAs and DWA through communication, delegation and lack powers, also of domination of other stakeholders in the CMA. In addition, there are dangers of lack of community participation, financial security and lack of transparency.”

Others, with experience of working with some of the large industries in the area said that:

“Theoretically the idea of having a CMA is good but there would be conflicting interests and if one entity sees that there is no gain, they would lose interest.”

And one was simply worried about the performance of many newly created agencies:

“The financial management of some of the newer institutions is not encouraging.”

Beyond these pragmatic issues, there were also some principled concerns about the concept. When asked about the general assumption that aspects of water resource management should be devolved from national government, the representative of a trade union linked environmental NGO, reflecting on experience with local government, commented that:

“Centralising management is good, decentralisation tends to lead to the collapse of service. There should be devolution but the responsibility must lie with the DWA.”

This was related to concerns about the ways agencies were focused.

“Experience with some government agencies which take over from departments is that they tend to commodify a service, e.g. Johannesburg Water as an agency has commodified the service.”

Some respondents thought that the potential contribution of CMAs was simply exaggerated:

“There is no reason to think that a CMA with so many diverse interests would be able to enforce discipline in adherence to legislation. A CMA could not assume the role of enforcing compliance. This would have to remain with DWA.”

And one professional with a long history of working in the community sector was not convinced that they were needed at all:

“A separate institution is not needed to manage at catchment scale. It would merely be a duplication of the centre. The structure envisaged in the legislation is too complicated, too expensive and not commensurate with cost. There are insufficient technical skills nationally to enable the new structures to function effectively.”

In most of the interviews, although pollution control and illegal abstraction were frequently mentioned, surprisingly few respondents mentioned that, to provide for the “environmental reserve”, existing users might have to reduce their water use substantially. This is a particular challenge in the Olifants WMA. One of those was a former DWA official who commented that:

“A CMA could never enforce control through legal means. There is already a deficit in supply – who will address this? Compulsory licensing would remove many of the barriers.”

This highlights the importance of government providing leadership since a compulsory licencing process would either have to be initiated and led by government or formally delegated by the Minister to a CMA. But it also raises the fundamental question of whether it is reasonable to expect a very diverse group of users and other stakeholders with very different backgrounds, interests and resources, to come to an agreement about water use, sharing and protection.

## - **Way forward**

### o **Building blocks?:The role of Forums and Water User Associations**

Despite these reservations, the majority of participants were still interested in moving forward to improve water management in their water management areas and had practical proposals about how to do so. Many began with the local water forums that had been established in the Upper Vaal and the Olifants. The view from a DWA official was upbeat:

“The DWA regional office in the Upper Vaal is working in the parts of Free State, parts of Mpumalanga, parts of North-West Province. The office is managing the Vaal River system. It has divided the Upper Vaal Catchment into small catchments. All the Catchments have forums that hold quarterly meetings. In these meetings different stakeholders are represented. Environmental issues are being discussed in these meetings. DWA is the convenor of these meetings. In these meetings DWA reports on the status of water quality and discuss about what and where is the problem.”

Others saw the forums as valuable but having very clear drawbacks:

“Forums are a mixture of information session, influencing body and discussion group. The forum has made good progress over the last 10 years or so. This notwithstanding, it is not a statutory body. Unfortunately representatives change frequently and institutional memory is lost. This is particularly the case with the efforts the forum has made to have community representatives. The forum has brought people in by assisting with travel and other costs but they struggle to participate and engage with the issues due to capacity and resource constraints. He does not see any incentive or purpose for community representatives to engage with water resource management issues. There is no activism around the issue.



Most communities are concerned with potable water supply issues. NGOs on the other hand do engage but promote their often specific agendas.”

Similarly, water user associations are also considered to be important building blocks which should be established where they don't already exist. The advantage of both forums and water user associations is that they provide a local focus for people to come together which can, in turn, enable them to contribute to water management at the WMA level. Asked about the one action that government could take to help improve water resource management in the Upper Vaal, one commercial farmer responded:

“It should help to establish water user associations, create capacity in the catchment, complete verification and validation process so that uncertainty should end and we could get politics out of water usage. If there is no pressure from government, it will be difficult for organised agriculture and a WUA to control illegal abstractions.”

Some participants felt that the Forums were the natural point from which to start the process of improving water management and that this route should be further developed:

“We should continue using forums because they are already established with role players and stakeholders. Thus current forums need to be expanded upon to constitute a CMA - We feel that the current water forums need to be expanded on rather than establish separate catchment management agencies as this will be a duplication. The forum must be controlled by the Department of Water Affairs to prevent people from using the forum for their own agendas. The forum should be open to all who have a concern for our water courses or have issues to address relating to water use or water pollution.”

For that reason, they would be reluctant to contribute towards a proposal to establish a CMA saying simply that:

“There are forums in place and they should be expanded upon.”

However, one problem was that the forums did not completely cover either of the WMAs. One respondent from the Olifants reported that:

“He participates in the Olifants River Forum. This is in the upper region of the water management area. They are supposed to have regional forums in the middle and lower reaches but these are less active and there is talk of revising the regions.”

For a number of other participants, a more serious limitation of the Forums was the fact that participation is voluntary and that was an important reason to move towards a CMA:

“The forums are ineffective because they are voluntary and lack statutory recognition and the role-players are wary of getting nowhere – it is not enough. The Minister should establish the CMA so that the governing body can be appointed from interested parties. If it was formalised it would get more support and effort from stakeholders.”

And,

“Companies are supposed to come to forums to bring the state of their water quality but those that come do not give the reports. DWA writes to companies requesting reports but

mines did not report on how their operations impacts on water resources and how they would address that.. “Thus some of them do not treat the forums with respect because there is no stick to punish”. Also municipalities do not come to give reports because they would be reproached.”

One response to this was to demand that attendance at forums should be made compulsory although it was not clear how this could be done:

“The non-attendance at the forums by the municipalities is unacceptable and should be made compulsory. Most of the WWTW plants effluent is not compliant. It must be made compulsory for the relevant persons from the municipality to attend. These issues need to be addressed at these forums so that it can be established what solutions can be found to remedy these problems.

“The mines have gotten away with non compliance for years with no real enforcement of compliance of their effluent and rehabilitation once these mines have been closed. The environmental managers of all the mines in the catchment area must be made to attend these forums. Their effluent discharge quality should also be made known at these forums. Furthermore all mining companies that affect the groundwater basin in the Upper Vaal Catchment area should also attend these forums.

“It should also be made compulsory that copies of all applications for mining rights that have been made that will affect the quality of water in the Upper Vaal Catchment area be made available at the forum meetings as well. This will enable all stakeholders to comment and make objections where necessary. (An advert in the newspaper is not sufficient.) The Department of Mining should also have representatives at these forums.”

Unlike the forums, water user associations do have a formal basis since they are established in terms of the NWA. For groups of users with common interests, they offer a structured way to get involved in larger catchment issues:

“Individual farmers are busy with their farming. They don’t know what’s happening in other parts of the catchment and don’t have the time to find out. If there was a WUA with its own management, that could represent them in a CMA.”

So another respondent suggested that WUAs could be used as the basis for a progressive process that would lead to the establishment of CMAs:

“A viable CMA could be built on / created from a number of WUAs although for example the irrigators upstream of Loskop and those in the old Lebowa are not in a WUA.”

This point was repeatedly emphasised, about both commercial and emerging farmers:

“Most users do not understand enough about how water is managed. Generally emerging farmers have not organised egg into water user associations. ... they do not have the time or energy to become involved in broader issues of management. Difficulties and conflict on the irrigation canal below Flag Boshielo Dam suggest that emerging farmers have not been able to organise at scheme level – what then are the prospects of a contribution at catchment scale?”

This led one group of commercial farmers to the positive conclusion that

“One of the most important contributions that we could make would be to organise ourselves in water user associations so that we could play our part.”

It was even suggested that membership of such “3<sup>rd</sup> tier” organisations could be made compulsory for licenced water users; if this was not done, membership could be encouraged since it would provide incentives for self-regulation.

“The arrangement could be like for the Fire Protection Associations [which administer regulations to control the spread of veld fires]. If there was a problem, members would be considered to be innocent until proven guilty while non-members would be guilty until proven innocent.”

○ **But what are we building and who will lead?**

What began as an interrogation of users’ interest in taking the initiative to form a catchment management agency often ended in a much wider discussion about possible strategies to improve water management. Many doubts remained about the usefulness of establishing CMAs at this stage:

“I am not convinced the CMA is the way to go. There are too many systemic issues and it may not be able to add value.”

There were other models that have worked in practice:

“Joint ventures and bilateral actions egg Eskom and the mines on the decant problem, are also a model for other compacts and memorandums. These initiatives show that people can work together.”

More fundamentally, it was questioned whether the need for CMAs and the contribution they could make had been demonstrated:

“Institutional theory suggests that people will organise to address a crisis of an immediate nature. Water resource management at catchment scale does not affect the immediate difficulties of emerging farmers and they are therefore unlikely to respond to initiatives to form a CMA. Access is paramount and emerging farmers will organise and take action at local level where a crisis trigger arises such as a deficit in supply.

“The DWA needs to frame any CMA proposals in a way that it will respond to problems. The initial powers in the NWA are at a level not helpful to emerging farmers.”

Some commercial farmers felt that if political issues about water reform had to be addressed, this should be put on the table at a national level:

“There needs to be cooperative bargaining to find viable solutions. The state will have to stimulate this. Local initiative is unlikely and DWA will have to work with AgriSA to develop a national plan. There is insecurity over water rights/entitlements and this is aggravated by poor knowledge about what is available.”

But if it was decided that CMAs should be established, there were some clear conclusions about the issues to be addressed and the process to be followed:

- support would be needed to ensure that weaker parties could participate
- many of the other water users and stakeholders would themselves have to be better organised if they were to participate effectively
  - “The ORF executive committee could lead the process as a champion but there will need to be a transformation of their approaches.”)
- an approach that did not first address these other issues would not work
  - “a “big bang” approach is unlikely to work without prior work to organise the weaker participants so that they can engage effectively.”
- There would have to be a structured approach and national government, specifically the DWA, would have to take the lead to maintain balance between the different interests
  - “The establishment of a CMA is too big a step. It should be built up progressively. The DWA should get existing groups together and discuss how these groups could go about CMA formation. There is the problem that DWA lacks the skills to do this. There is potential because of shortages and the need for new-comers to negotiate.”
- In this context, leadership would be the key issue:
  - “Conceptually, DWA has the ideas, the structure and the backing of the NWA but the capacity for execution is low. It is a leadership question and apparently DWA lacks the skills to drive the process.”

Many interviewees were pessimistic about the likelihood that this leadership would be generated, their views summarised in a final comment from a conservation organisation that felt that Government initiative would be crucial:

“Government appears undecided on whether it wants to proceed with CMAs. If it does it will need to get its act together and excite the stakeholders out of the stakeholder fatigue that has set in due to the lack of progress. Without government commitment and drive the initiative will not succeed.”

## DISCUSSION AND CONCLUSIONS

### - Background : the aims of the project

The initial aims of the project were to:

- Establish the potential for stakeholder initiated catchment management agencies and related arrangements.
- Determine the knowledge and perceptions of stakeholders about their opportunities to establish catchment management agencies and related arrangements
- Determine the factors that would influence stakeholders to initiate the formation of a CMA or to oppose such a process
- Identify interventions that could address obstacles that may be identified to the establishment of stakeholder based catchment management agencies, specifically measures to ensure that the interests of disadvantaged communities are adequately addressed
- Produce recommendations to guide decisions of different stakeholders and regulatory authorities about the establishment of stakeholder initiated CMAs.

These specific aims have been achieved. In addition, valuable insights have been gained from the interaction with water users and other stakeholders about the more general challenge of organising water resource management in Water Management Areas at river catchment or sub-catchment level. On this basis, some general conclusions have been drawn which are the basis for the recommendations made in the final section of the report.

### - Stakeholder initiated CMAs

#### ○ *The potential for stakeholder initiated catchment management agencies*

*The evidence collected suggests that there is no potential for stakeholders to take the lead in establishing CMAs. There was no strong support from any respondent for this approach although a number indicated that they would consider joining such an initiative, if it was led by others.*

At a practical level, many respondents believed that the task was simply too onerous; while they were willing to participate in an organisation to discuss matters that concerned them directly, they were not able or were not willing to devote the time needed to establish and run a full time organisation that dealt with all water matters. Some explicitly stated that this was a role for government.

But there were also substantial concerns raised about political and power dynamics and who would control a user initiated CMA. In both catchments, there are commercial organisations with substantial resources coexisting with weakly resourced municipalities and individual users such as farmers as well as large, poor communities. The concern was that any organisation would inevitably be dominated by the more powerful interests.

The **environmental organisations** are one group of stakeholders which is generally supportive of the establishment of CMAs and **might, in principle, be willing to initiate** such an activity, preferably by using existing sub-catchment forums as building blocks. However, this reflects their desire to establish channels through which they can participate in and influence decisions about water related matters. Thus they too can be seen as a group that seeks to use the CMA process as a vehicle to promote their interests and any initiative led by them would be likely to be challenged by other users.

The position of the respondents was, in many cases, **also a response to previous experience**. From the interviews and other evidence, it is clear that, immediately after the National Water Act was passed, some key water users had indeed sought to promote the establishment of CMAs.

In the Upper Vaal WMA, Rand Water was reported to have led a process that gained a degree of momentum but then stalled when the DWA did not respond and participants lost interest.

In the Olifants WMA, the initiative of the Olifants River Forum was highlighted but it was noted that, because the ORF represented mainly the large industrial interests in the upper catchment, it did not gain general support.

In part of the basis of these experiences, although the **majority of respondents were in favour of the establishment of CMAs**, the consensus was that any initiative would have to be **led by government**, specifically the DWA. This was because it was seen to be the only organisation that could bring together and ensure balance between the very different groups of stakeholders. In addition, it was felt that external resources would be required to support the establishment process and that the DWA would be the appropriate source of such support. In addition, since DWA, in particular the regional offices, are currently responsible for WRM activities they would have to be involved.

- **Knowledge of stakeholders about their mandate to establish CMAs**

There was only limited knowledge amongst the respondents about the statutory processes for the establishment of CMAs.

There was greater awareness about the process amongst the national level respondents because some of the organisations had already participated in attempts to establish CMAs in other catchments. Thus they were aware that, although the process to establish a CMA could be initiated by stakeholders, a vital step would be the **appointment of a governing board taking into account the recommendations of an advisory committee appointed by the Minister**. This they felt meant that an independent process to establish a CMA initiated by stakeholders had limited chances of success without the Minister's prior approval.

The regional respondents had little information about the processes for establishing a CMA or about the process by which CMAs could develop their catchment strategies and have functions delegated to them. From their perspective, this was an issue where government should take the lead.

- **Factors that would influence stakeholders to initiate or oppose CMA formation**

The factors that would influence stakeholders to initiate the formation of a CMA or to oppose such a process ranged from the pragmatic to the principled. Not surprisingly, it was clear from the

interviews that the **main driver** that would influence stakeholders to initiate a CMA was the expectation that it would assist them to **achieve their individual objectives**. Behind this simple and obvious statement is the reality that the objectives of the stakeholders are very different. They range from securing their water use allocations and effective enforcement of pollution control to hopes that a more local management arrangement might provide local government with a new source of revenue. Some of these objectives are in conflict with each other; most notably, some black farmers believed that a CMA would assist them in achieving access to a greater proportion of the water that was currently allocated to white commercial farmers.

A similarly diverse set of factors would lead stakeholders to oppose the formation of a CMA. These would include **fears that a CMA might become a vehicle for compulsory redistribution** or, on the other hand, **a vehicle through which existing interests could retain their control** over the resource.

On a more pragmatic level, the fear that **a CMA would not be able to function effectively** because of human resource and financial constraints was specifically cited as one reason to oppose the formation of CMAs. This too had its positive corollary:- some respondents believed that a stakeholder based organisation would find it easier to mobilise the human resources required from its organisational bases than is currently the case for government. And, if funds from water tariffs were to be made available to CMAs, this might ensure their viability, if properly managed since it was believed by some that government is not using available funds effectively.

A final set of concerns related to the extent to which a local initiative could actually be successful. Thus it was noted by some respondents that, in terms of legislation, while stakeholders could initiate the process, the Minister has to agree and to appoint the CMA's governing board and thus determine the outcome. Without her/his buy-in from the beginning, there was a real risk that any effort made would be fruitless.

○ **Interventions that could address obstacles**

With this background, some conclusions can be drawn on the question of what interventions could address some of the obstacles that were identified to the establishment of stakeholder based catchment management agencies. There was general agreement that **a priority must be to ensure that disadvantaged communities are engaged** in the process and that their interests are adequately addressed.

To be successful, it was recognised that any effort at collective management of water in these pilot areas would have to help poor and marginalised groups to participate. But it was also notable that, amongst apparently "empowered" groups, **some users recognised their own weaknesses**. The response of the commercial farmers from the Upper Vaal, which indicated that they would need to organise themselves into a Water Users Association before they could effectively participate in a larger arrangement, was one example of this although the municipalities interviewed had similar concerns.

Perhaps the **most important intervention** to address obstacles that have been identified would be **the provision of more complete information** in simplified form about:-

- The aims of CMAs;
- the processes for their establishment;
- how their governance arrangements ensure a balance between different interests
- the water resource management functions that a CMA might undertake;

- how these functions would be decided upon and delegated; and
- the human and financial resources available for their operation.

This would help to address the concerns about the balance of power within the CMA structure as well as providing some guidance as to the feasibility of its operation.

The other important intervention would be to undertake **broader capacity building** amongst groups that are currently not able to engage effectively in the process. This would have to include:-

- poor water users (for instance, small-scale black farmers) and their organisations;
- other relevant civil society organisations;
- municipalities which do not have WRM capacity; and
- other local water user groups that are not adequately organised.

The aim of such capacity building would be to ensure that there was a broad understanding of what water resource management entailed and what specific functions a catchment management agency might undertake.

However, given the specialised nature of water resource management, many stakeholders and even individual users have only a limited interest in its operational details. An important specific intervention would thus be to **identify the organisational channels through which the views and interests of the different users and other stakeholders could best be represented**. The aim would be to address the limited ability of individual parties to devote enough time and resources to the project. Thus it is suggested that:-

- The interests of water services users should be represented by their municipalities since there are well established accountability mechanisms and this is already a core function;
- commercial farmers should use the local structures of their agricultural organisations, such as AGRISA, which have clear representative structures and possess the relevant knowledge and experience;
- small-scale farmers should continue to be supported by Provincial Departments of Agriculture, for whom this is already an important function although structures and capacity for this support may need to be developed and/or strengthened;
- stakeholders with environmental concerns already work through existing agencies of civil society and this channel should be formally recognised;
- where specific groups of water-users are already organised in Water User Associations, these would be an obvious channel of representation, although more WUAs may need to be developed; and
- where sub-catchment forums have been established, these may be another channel for engagement although concerns about their governance and the extent to which they represent clear constituencies may need to be resolved to make this possible.

Finally, a useful specific focus of any capacity building exercise would be on the requirement that, as one of the initial functions of a CMA, a Catchment Management Strategy must be prepared. It would be useful to be guided in this by the NWA's explanation, namely that:-

“In the process of developing this strategy, a catchment management agency must seek co-operation and agreement on water-related matters from the various stakeholders and interested persons. The catchment management strategy, which must be reviewed from time to time, will include a water allocation plan. A catchment management strategy must set principles for allocating water to existing and prospective users, taking into account all



matters relevant to the protection, use, development, conservation, management and control of water resources.

This might give comfort to all parties about the intention and processes to be followed. And the **preparation of a catchment management strategy would in itself be a useful intervention** as part of the process of CMA establishment.

- ***Recommendations about stakeholder initiated CMA establishment***

Specific recommendations to both stakeholders and regulators have been developed but are, in most cases, equally applicable to the general considerations about the establishment of CMAs, which are dealt with below.

- **General findings in respect of catchment management arrangements**

The positions outlined above, reflect, in summary, the findings of the research about the principal question of whether stakeholders could initiate the establishment of CMAs in the two pilot water management areas.

However, in the process of interrogating this question, many insights were gained into the broader water resource management problems that respondents had to deal with as well as about their perceptions of the more general efforts to improve water management in their areas. Some of the respondents had very clear views about the challenges of organising water resource management and these rich responses have been included and analysed since they can contribute to addressing the wider challenges.

While few respondents gave priority to the overall arrangements for water resource management, many raised very specific water related issues that were of direct concern to them. Many of these related to the **failure to implement existing provisions of the NWA** relating to water licensing, environmental protection and support to emerging farmers.

A feature of both pilot WMAs was the extent to which there was already informal engagement in WRM issues. In the Upper Vaal, this was demonstrated by the **extent and role of the local catchment forums**. While these do not extend across the entire WMA, they do cover the main “hot spots” of activity. Similarly, in the Olifants WMA, there have been extensive interactions around specific themes, notably the augmentation of water supplies in the Upper Olifants and environmental protection and quality control focusing particularly on the lower reaches.

There has been **significant cooperation** between different interest groups **in ad-hoc forums and committees**, although it has been limited by the voluntary nature of the arrangements. The role of the Forums has also been limited by the need for external support. It is significant that they were either initiated by an external agency (DWA and Rand Water) or by the need to respond to a particular set of problems (Olifants River Forum).

Based on their practical experience, many users and other stakeholders believed that the **performance of national government was weak and that there was an absence of leadership**. While they recognised that collective, cooperative management of water resources was necessary, they believed that this would only happen if national government took the lead.

In many of the interviews, there was an acknowledgement that the details of water resource **management at catchment level might not be of great interest to many water users** and other stakeholders. While it was mentioned that poor communities were usually more focused on immediate questions of water services, other user groups, notably commercial farmers and municipal officials admitted that they did not have the resources, time or knowledge to engage with these more general issues.

This raised the question of **what entities could best represent their interests**. In the case of commercial farmers, their agricultural unions offered an active, capable and willing channel. It was therefore interesting that it was suggested that small farmers relied on provincial departments of agriculture to play that role. In related contexts, the role and responsibilities of municipalities for WRM has been highlighted, and concern raised about their failure to exercise this role effectively:

“District and Local Municipalities are responsible for their Integrated Development Plans (IDPs). An important part of every IDP is the Water Services Development Plan (WSDP), and the Department’s Regional Offices provide support for developing both the IDPs and WSDPs. Giving attention to the water resources required has, however, proved to be an unfortunate gap in most IDP planning and it is one of the objectives of the Department to put information and strategies in place that can be assimilated into IDPs to address this gap. The water resource reconciliation strategies for large systems and metropolitan areas, and for all other towns should go a long way towards achieving this.” (van Rooyen DWA 2010)

When broader social or economic issues were raised it was clear that municipalities, which have formal local economic development mandates in addition to service delivery responsibilities, might be the most appropriate channel to address issues such as employment.

#### - **Conclusions**

The conclusions to the specific question about stakeholder initiated CMAs are equally applicable to the more general challenges that have delayed their establishment. At the start of the study, it was considered that the reasons for stakeholders not taking the initiative might include:-

- ignorance of the enabling provisions of the NWA (**knowledge**)
- lack of compelling incentives to establish a CMA (**satisfaction with status quo**)
- concern over ability to defend their interests in a CMA (**capacity and uncertainty**)
- fear that a CMA might be detrimental to their interests (**negative evaluation of management concept**); and
- fear that a CMA would be ineffective in achieving its goals (**lack of confidence in the management model**).

In summary, it can be concluded that:-

- While there was a degree of ignorance about the detailed provisions of the National Water Act, this was not the main factor leading to an absence of initiative from stakeholders;
- there was certainly no satisfaction with the status quo. Many users and other stakeholders were frustrated by the existing state of affairs both in terms of the administration of water

matters as well as in terms of the results in terms of the impact on water quantity and quality. Indeed, there was substantial evidence that many stakeholders were seeking ways in which to become more involved in the management of water resources;

- however, there were concerns amongst many users and other stakeholders about the way in which a CMA would work and whether it would protect their interests and support their objectives or undermine and marginalise them;
- concerns were raised about the proposed CMA model with some respondents feeling that it was too complex and would not solve the underlying problems of lack of capacity and leadership that they felt were at the root of the problems they faced; and, finally
- almost all respondents looked to national government to take the lead in establishing effective water resource management arrangements but were pessimistic about its capacity to do this.

These findings provide an important framework for the achievement of the overarching goal that underlies this study, which is to contribute to the larger challenge of achieving better institutional arrangements to support effective water resource management.

## RECOMMENDATIONS

On the basis of the results of the survey findings and analysis, the following recommendations are made for actions to improve water resource management in the two pilot water management areas specifically as well as in similar situations elsewhere in the country.

1. Action must be taken to address a range of water resource management problems which, if not attended to, will develop into more serious and systemic problems affecting the economic and social life of the area and damaging the natural environment. These problems include the apparent breakdown of the licensing system (both in terms of formal administration as well as in terms of the quality of licenses issued) and systemic failure to enforce regulations which is leading to significant environmental deterioration and unauthorised use of water, which undermines the credibility of the regulatory system.
2. Although they have some practical concerns, the majority of water users and other stakeholders support, and are willing to engage in, the establishment of a more local level of water management. This support should be recognised and built upon.
3. The exact form of that local level of water management and the strategy for achieving it still needs to be determined but no serious impediments were identified to the implementation of the basic structure proposed for CMAs.
4. A structured approach should be used to identify and engage appropriate institutions that can represent the views and interests of water users and other stakeholders since this will help to create the conditions for the successful establishment of CMAs. This may need to go beyond the existing provisions of the NWA which focuses on municipalities and provincial governments.
5. Some water users need to be organised at a local and/or sector level (for instance in local forums, water user associations or industry groups) if they are to participate effectively in water resource management.
6. For the establishment of a CMA to be successful, it will be necessary to strengthen the capacity of different interest groups to participate. While emerging farmers and other poor and marginalised communities must be a focus for this activity, the needs of other groups, such as municipalities and commercial farmers should also be recognised and addressed.
7. While the aim should be for the day-to-day running of water resource management activities to be supported from water resource management charges and related sources, public funds will be needed to support the initial establishment process and specifically the capacitation of weaker groups.
8. The general shortage of competent professionals and practitioners must be recognised and new structures should be designed to avoid the duplication of structures and roles and make the most effective use possible of limited human resources while training new incumbents.
9. While reducing the number of CMAs may reduce their overhead costs, it must be recognised that the enlargement of WMAs will mean that the water users and other stakeholders will often have weaker relationships and fewer common interests and that this could weaken the performance of the CMAs.

10. A detailed analysis of the different functions that could be undertaken by the CMAs needs to be undertaken and analysed so that CMA stakeholders can be advised of the implications of undertaking different functions
11. A clear framework should be outlined for the identification and progressive delegation of functions to CMAs so that both stakeholders and the Department can understand the process and evaluate its progress. This should include an analysis of the changing role and functions of the regional and national offices of the Department.
12. Clear and robust management systems need to be designed that enable functions to be transferred and/or shared between CMAs and DWA. These systems should make the most effective use of human resources but also reduce the complexity of water management functions which was observed to cause some confusion even amongst empowered users.
13. Although there are many pressures in the water management areas concerned, it should be recognised that, as in the pilot WMAs, there is often no immediate crisis serious enough to serve as a catalyst for reorganising water resource management functions. Appropriate focus points will need to be identified to mobilise and motivate engagement.
14. The need to develop a catchment management strategy, which may reveal the areas of greatest stress and strategies to address them may be presented as a precautionary intervention to reduce the danger of a crisis emerging and therefore an important motivation for establishing a CMA.
15. In some areas, the process of producing municipal water services development plans, which identify both water supply needs as well as wastewater treatment requirements could provide a helpful focal point for initial discussions and actions.

## WAY FORWARD

### **Final report, policy brief and dissemination of the research**

This report has been revised on the basis of the recommendations received at the 2nd consultation workshop and from members of the Project Reference Group. It provides the basic record of the project and the methodology used as well as the conclusions and recommendations for approaches that could promote more effective engagement of stakeholders in water resource management at the WMA level.

In order to ensure that the findings and recommendations of the study are captured and disseminated as widely as possible, a summary will be prepared and distributed as a “policy brief”. The policy brief will be distributed to relevant political leaders as well as to sector leaders and will be used as the basis for articles in the popular media.

Finally, the results of the work will also be presented at water and related conferences, as well as in appropriate policy meetings.

All these documents will be publicly available and copies will be provided to all individuals and organisations that took part and supported the investigation.

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## **ANNEXURES**

- A. National Water Act (1998) Chapter 7 Catchment Management Agencies; Schedule 3
- B. Parliamentary questions: Progress about the establishment of Catchment Management Agencies
- C. Introductory letter and questionnaire
- D. First round national interviewees
- E. Pilot water management area selection, evaluation table
- F. WMA interviewees



NATIONAL WATER ACT (Number 36 of 1998)

CHAPTER 7

CATCHMENT MANAGEMENT AGENCIES

*This Chapter provides for the progressive establishment by the Minister of catchment management agencies. The purpose of establishing these agencies is to delegate water resource management to the regional or catchment level and to involve local communities, within the framework of the national water resource strategy established in terms of Chapter 2. Whilst the ultimate aim is to establish catchment management agencies for all water management areas, the Minister acts as the catchment management agency where one has not been established. Where the necessary capacity does not exist to establish a catchment management agency, an advisory committee may be appointed under Chapter 9 to develop the necessary capacity as a first step towards establishing an agency.*

***Part 1: Establishment and powers of catchment management agencies***

*Under Part 1 a catchment management agency may be established for a specific water management area, after public consultation, on the initiative of the community and stakeholders concerned. In the absence of such a proposal the Minister may establish a catchment management agency on the Minister's own initiative. The provisions of Schedule 4, on institutional and management planning, apply to a catchment management agency.*

**Proposal for establishment of catchment management agency**

**77.** (1) A proposal to establish a catchment management agency must contain at least -

- (a) a proposed name and a description of the proposed water management area of the agency;
- (b) a description of the significant water resources in the proposed water management area, and information about the existing protection, use, development, conservation, management and control of those resources;
- (c) the proposed functions of the catchment management agency, including functions to be assigned and delegated to it;
- (d) how the proposed catchment management agency will be funded;
- (e) the feasibility of the proposed catchment management agency in respect of technical, financial and administrative matters; and
- (f) an indication whether there has been consultation in developing the proposal and the results of the consultation.

(2) The Director-General may assist a person to develop such a proposal.

### **Procedure for establishment of catchment management agencies**

**78.** (1) The Minister may, subject to section 6(1)(c), on his or her own initiative or after receiving a proposal containing the information required in terms of section 77(1), by notice in the *Gazette* -

(a) establish a catchment management agency, give it a name and identify and determine its water management area; or

(b) amend the name or water management area of an established catchment management agency.

(2) The Minister may -

(a) require a person who has submitted a proposal contemplated in subsection (1), to provide the Minister with information additional to that required by section 77(1); and

(b) instruct the Director-General to conduct an investigation regarding -

(i) the establishment of a catchment management agency; or

(ii) a proposal submitted in terms of subsection (1).

(3) Before the establishment of a catchment management agency the Minister must -

(a) publish a notice in the *Gazette* -

(i) setting out the proposed establishment of the catchment management agency, the proposed name and the proposed water management area; and

(ii) inviting written comments to be submitted on the proposal specifying an address to which and a date before which the comments are to be submitted, which date may not be earlier than 60 days after publication of the notice;

(b) consider what further steps, if any, are appropriate to bring the contents of the notice to the attention of interested persons, and take those steps which the Minister considers to be appropriate; and

(c) consider all comments received on or before the date specified in paragraph (a)(ii).

(4) If the Minister wants to amend the name of a catchment management agency or the water management area of a catchment management agency, the procedure set out in subsection (3) must be followed with any necessary changes: Provided that where an amendment does not affect the rights of any person the procedure set out in subsection (3) need not be followed.

### **General powers and duties of catchment management agencies**

**79.** (1) A catchment management agency is a body corporate, and has the powers of a natural person of full capacity, except those powers which -

(a) by nature can only attach to natural persons; or

(b) are inconsistent with this Act.

(2) Schedule 4 applies to a catchment management agency, its governing board and committees and the members of the board and committees.

(3) A catchment management agency may perform -

(a) any of

its functions; or

(b) any function which is reasonably incidental to any of its functions, outside its water management area, if this does not -

(i) limit its capacity to perform its functions in its water management area; or

(ii) detrimentally affect another water management institution.

(4) In performing its functions a catchment management agency must -

(a) be mindful of the constitutional imperative to redress the results of past racial and gender discrimination and to achieve equitable access for all to the water resources under its control;

(b) strive towards achieving co-operation and consensus in managing the water resources under its control; and

(c) act prudently in financial matters.

#### **Initial functions of catchment management agencies**

**80.** Subject to Chapter 2 and section 79, upon the establishment of a catchment management agency, the initial functions of a catchment management agency are -

(a) to investigate and advise interested persons on the protection, use, development, conservation, management and control of the water resources in its water management area;

(b) to develop a catchment management strategy;

(c) to co-ordinate the related activities of water users and of the water management institutions within its water management area;

(d) to promote the co-ordination of its implementation with the implementation of any applicable development plan established in terms of the Water Services Act, 1997 (Act No. 108 of 1997); and

(e) to promote community participation in the protection, use, development, conservation, management and control of the water resources in its water management area.

#### ***Part 2: Governing board of catchment management agencies***

***Part 2 describes the appointment of members of the governing board of a catchment management agency. The board of a catchment management agency will be constituted in such a way that interests of the various stakeholders are represented or reflected in a balanced manner, and the necessary expertise to operate effectively is provided. Members of the governing board can be elected or nominated by the different water user groups for appointment by the Minister, and the Minister may of his or her own accord appoint further members. The Minister may also remove board members for good reason.***

## **Appointment of governing board of catchment management agency**

**81.** (1) The members of a governing board of a catchment management agency must be appointed by the Minister who, in making such appointment, must do so with the object of achieving a balance among the interests of water users, potential water users, local and provincial government and environmental interest groups.

(2) Notwithstanding subsections (3) to (9) the Minister must, from time to time, determine the extent to which relevant local governments should be represented on the governing board of each catchment management agency.

(3) Before appointing members to the governing board, the Minister must establish an advisory committee contemplated in Chapter 9, to recommend to the Minister -

(a) which organs of state and bodies representing different sectors and other interests within the water management area of the catchment management agency should be represented or reflected on the governing board; and

(b) the number of persons which each of them should be invited to nominate.

(4) The committee must consult with the relevant organs of state and interest groups before making its recommendations.

(5) After receiving the committee's recommendations, the Minister must decide which organs of state and bodies will be invited to nominate representatives for appointment to the governing board, and the number of representatives each may nominate.

(6) The Minister's decision must be communicated to the organs of state and bodies concerned and the Minister must take the necessary steps to obtain nominations from them by a date specified by the Minister.

(7) The Minister must appoint the persons nominated by the organs of state and the bodies concerned in accordance with the invitation, unless -

(a) any such person is not a fit and proper person to serve on the governing board; or

(b) any such organ of state or body has not followed its own internal procedures in making the nomination.

(8) If the Minister does not appoint a nominee, the Minister must -

(a) inform the organ of state or body concerned and state the reasons for not appointing that nominee; and

(b) invite a further nomination from that organ of state or body.

(9) If one or more nominations are still outstanding on the date specified under subsection (6), the Minister may appoint members of the board and fill any vacancy later.

(10) After appointing members to the board the Minister may appoint additional members selected by the Minister in order to -

(a) represent or reflect the interests identified by the advisory committee;

(b) achieve sufficient gender representation;

(c) achieve sufficient demographic representation;

(d) achieve representation of the Department;

(e) achieve representation of disadvantaged persons or communities which have been prejudiced by past racial and gender discrimination in relation to access to water; and

(f) obtain the expertise necessary for the efficient exercise of the board's, powers and performance of its duties.

(11) A member must be appointed for a specified term of office.

(12) The Minister may extend the term of office of a member.

(13) If the term of office of a member expires before the first meeting of a new board takes place, the existing member remains in office until that first meeting takes place.

(14) A member nominated for appointment to the board by an organ of state or body is accountable to that organ of state or body.

### **Chairperson, deputy chairperson, chief executive officer and committees of catchment management agency**

**82.** (1) The Minister must convene the first meeting of the governing board of a catchment management agency, which must be chaired by an official of the Department or a member of the committee.

(2) At the first meeting of the governing board, the members may recommend one of them for appointment as chairperson and another as deputy chairperson.

(3) The Minister must -

(a) with due regard to any recommendation made by the governing board at its first meeting, appoint one of the members as chairperson; and

(b) appoint any other member as deputy chairperson.

(4) The chief executive officer provided for in Schedule 4 may be a member of the governing board, but may not be its chairperson or deputy chairperson.

(5) A catchment management agency may establish committees, including an executive committee and consultative bodies, to perform any of its functions within a particular area or generally or to advise it, and must determine how they must function.

### **Removal of members from governing board**

**83.** (1) The Minister may remove a member from a governing board, or remove the chairperson or deputy chairperson from office, if -

(a) there is good reason for doing so;

(b) the person concerned has had an opportunity of making representations to the Minister; and

(c) the Minister has consulted with the governing board.

(2) The Minister must remove a member nominated by an organ of state or body from a governing board if that organ of state or body requests the Minister to do so.

(3) If a person ceases for any reason to be a member of a governing board before that person's term of office expires, the Minister may, for the remainder of the term of office -

(a) if that person was nominated by any organ of state or body, appoint another person nominated by that organ or body; or

(b) if that person was selected by the Minister, appoint another person.

### ***Part 3: Operation of catchment management agencies***

***Part 3 deals with the functions and operation of catchment management agencies. Initial functions, dealt with in Part 2, include the investigation of and advice on water resources, the co-ordination of the related activities of other water management institutions within its water management area, the development of a catchment management strategy and the promotion of community participation in water resource management within its water management area. Additional powers and duties described in Schedule 3 may be assigned or delegated to agencies such as to establish water use rules and management systems, to direct users to terminate illegal uses of water, and to temporarily limit the use of water during periods of shortage.***

***A catchment management agency may be financed by the state from water use charges made in its water management area or from any other source.***

#### **Funding of catchment management agencies**

**84.** (1) A catchment management agency may raise any funds required by it for the purpose of exercising any of its powers and carrying out any of its duties in terms of this Act.

(2) A catchment management agency must be funded by -

(a) money appropriated by Parliament;

(b) water use charges; and

(c) money obtained from any other lawful source for the purpose of exercising its powers and carrying out its duties in terms of this Act.

#### **Documents relating to litigation**

**85.** A catchment management agency must provide the Director-General with copies of all pleadings, affidavits and other documents in the possession of the catchment management agency relating to any proceedings instituted against that catchment management agency.

#### **Delegation of powers by catchment management agency**

**86.** (1) Subject to subsections (2) and (3), a catchment management agency may delegate any power to -

(a) a member of its governing board;

(b) an employee of any water management institution (including itself), by name, or to the holder of an office in that institution; or

(c) any committee established by the catchment management agency which consists only of members of the governing board or employees of the catchment management agency; and

(d) any other person or body only with the written consent of the Minister.

(2) A catchment management agency may not delegate -

(a) the power of delegation; or

(b) any power to make water use charges.

(3) A catchment management agency may only delegate a power to authorise the use of water, if this power is delegated to a committee consisting of three or more members of its governing board.

#### ***Part 4: Intervention, disestablishment or change of water management areas of catchment management agencies***

***Part 4 enables the Minister to disestablish a catchment management agency or make changes to its water management area, for reasons which include the need to reorganise water management institutions for more effective water resource management. An agency may also be disestablished if it does not operate effectively.***

#### **Intervention by Minister**

**87.** (1) If a catchment management agency -

(a) is in financial difficulties or is being otherwise mismanaged;

(b) has acted unfairly or in a discriminatory or inequitable way towards any person within its water management area;

(c) has failed to comply with any directive given by the Minister under this Act;

(d) has obstructed the Minister or any other water management institution in exercising a power or performing a duty in terms of this Act;

(e) is unable to exercise its powers or perform its duties effectively due to dissension among the members of the board or water users within its water management area;

(f) has failed to comply with this Act; or

(g) has become redundant or ineffective, the Minister may -

(i) direct the catchment management agency to take any action specified by the Minister;  
and

(ii) withhold any financial assistance which might otherwise be available to the catchment management agency, until the catchment management agency has complied with such directive.

(2) A directive contemplated in subsection (1)(i) must state -

(a) the nature of the deficiency;

(b) the steps which must be taken to remedy the situation; and

(c) a reasonable period within which those steps must be taken.

(3) If the catchment management agency fails to remedy the situation within the given period, the Minister may -

(a) after having given that catchment management agency a reasonable opportunity to be heard; and

(b) after having afforded the catchment management agency a hearing on any submissions received, take over the relevant power or duty of the catchment management agency.

(4) If the Minister takes over a power or duty of a catchment management agency -

(a) the Minister may do anything which the catchment management agency might otherwise be empowered or required to do by or under this Act, to the exclusion of the catchment management agency;

(b) the board of the catchment management agency may not, while the Minister is responsible for that power or duty, exercise any of its powers or perform any of its duties relating to that power or duty;

(c) an employee or a contractor of the catchment management agency must comply with a directive given by the Minister;

(d) as soon as the Minister is satisfied that the catchment management agency is once more able to exercise its powers or perform its duties effectively, the Minister must cease exercising any such powers and performing any such duties; and

(e) the Minister may recover from the catchment management agency all reasonable costs incurred, including any losses suffered as a result of lawful and reasonable action taken under this section, except to the extent that the loss is caused or contributed to by the negligence of the Minister, or any person under the control of the Minister.

### **Disestablishment of catchment management agency**

**88.** (1) The Minister may, by notice in the *Gazette*, disestablish a catchment management agency if it is desirable -

(a) for purposes of re-organising water management institutions in that area in the interests of effective water resource management;

(b) because the catchment management agency cannot or does not operate effectively; or

(c) because there is no longer a need for the catchment management agency.

(2) Before disestablishing a catchment management agency the Minister must -

(a) publish a notice in the *Gazette* -

(i) stating the intention to disestablish the catchment management agency and the reasons therefore; and

(ii) inviting written comments on the proposed disestablishment and giving a specified address to which and a date before which the comments are to be submitted, which date may not be earlier than 60 days after publication of the notice;

(b) consider what further steps, if any, are appropriate to bring the contents of the notice to the attention of interested persons, and take those steps which the Minister considers to be appropriate; and



(c) consider all comments received on or before the specified date.

### **Transfer of assets and liabilities after change of water management area or disestablishment**

**89.** (1) If the Minister changes the water management area of a catchment management agency under section 78 or disestablishes a catchment management agency under section 88, the Minister may direct the catchment management agency to transfer some or all of its assets and liabilities to another water management institution.

(2) A catchment management agency must do everything in its power to give effect to a directive under subsection (1).

(3) In issuing a directive under subsection (1) the Minister must consider -

(a) the interests of creditors and users of water; and

(b) any financial contributions directly or indirectly made by the users of water resources towards the infrastructure of the catchment management agency.

(4) Where a catchment management agency is disestablished and its assets and liabilities are not transferred to another water management institution its assets and liabilities vest in the Minister and the Minister must wind up its affairs and assume the powers and duties of the catchment management agency for the period of winding up.

(5) No transfer duty, other tax or duty is payable in respect of the transfer of any assets in terms of this section.

### **Regulations on catchment management agencies**

**90.** (1) Subject to subsection (2), the Minister may make regulations -

(a) prescribing a maximum and a minimum number of members of a governing board;

(b) requiring the establishment of consultative forums and determining their composition and functions;

(c) determining, in consultation with the Minister of Finance, the basis and extent of remuneration and payment of expenses of members of governing boards and committees; and

(d) on any other matter which is necessary or desirable for the efficient functioning of catchment management agencies and their governing boards and committees.

(2) In making regulations, the Minister must take into account all relevant considerations, including the need to -

(a) achieve adequate representation of and consultation with organs of state, bodies representing different sectors and other interests within the areas of jurisdiction of catchment management agencies; and

(b) secure the efficient and cost effective functioning of catchment management agencies and their management structures.

**In addition, the Minister may delegate extensive powers and functions to CMAs:**

NWA Assignment of CMA Powers

***Part 3: Powers relating to catchment management agencies***

***The Minister has the responsibility to manage and authorise the use of the nation's water resources. This means that the Minister fulfils the functions of a catchment management agency in a water management area for which no catchment management agency is established, or where such an agency has been established but is not functional. The Minister may dispense with certain requirements of this Act for as long as is necessary to deal with an urgent situation or an emergency.***

**Powers and duties of catchment management agencies vest in Minister in certain circumstances**

**72.** (1) In areas for which a catchment management agency is not established or, if established, is not functional, all powers and duties of a catchment management agency, including those powers and duties described in sections 79 and 80 and in Schedule 3, vest in the Minister.

(2) In areas for which a catchment management agency is established, those powers and duties described in Schedule 3 which have not been assigned by the Minister to the catchment management agency, vest in the Minister.

**Assignment of powers and duties to catchment management agencies**

**s73.** (1) The Minister may, after consultation with the catchment management agency concerned, by notice in the *Gazette*, assign to that catchment management agency -

- (a) a power or duty of a responsible authority; and
- (b) any power or duty listed in Schedule 3.

(2) In assigning any power or duty under subsection (1), the Minister may -

- (a) limit the area within which an assigned power may be exercised or duty may be performed; and
- (b) attach conditions to that assignment.

(3) Before assigning a power or duty to a catchment management agency under subsection (1), the Minister must consider -

- (a) the capacity of the catchment management agency to exercise the power or perform the duty; and
- (b) the desirability of assigning that power or duty.

(4) The Minister must promote the management of water resources at the catchment management level by assigning powers and duties to catchment management agencies when it is desirable to do so.

**Schedule 3**

**POWERS WHICH MAY BE EXERCISED AND DUTIES TO BE PERFORMED BY CATCHMENT  
MANAGEMENT AGENCIES ON ASSIGNMENT OR DELEGATION**

**[Sections 72, 73 and 151(1)(l)]**

**General**

1. Subject to Chapter 2 and sections 72 and 73 of this Act a catchment management agency may exercise any of the powers or perform any of the duties set out in this Schedule and any other powers or duties necessary or desirable in order to ensure compliance with the Act, to the extent that such powers and duties have been assigned or delegated to it, and within the constraints of the assignment or delegation.

**Power to manage, monitor, conserve and protect water resources and to implement catchment management strategies**

2. A catchment management agency may -

(a) manage and monitor permitted water use within its water management area;

(b) conserve and protect the water resources and resource quality within its water management area;

(c) subject to the provisions of the Act, develop and operate a waterwork in furtherance of its catchment management strategy;

(d) do anything necessary to implement catchment management strategies within its water management area; and

(e) by notice to a person taking water, and after having given that person a reasonable opportunity to be heard, limit the taking of water in terms of Schedule 1.

**Catchment management agencies may make rules to regulate water use**

3. (1) A catchment management agency may make rules to regulate water use.

(2) The rules made under subitem (1) may relate, amongst other things, to -

(a) the times when;

(b) the places where;

(c) the manner in which; and

(d) the waterwork through which, water may be used.

(3) A water user must adhere to any such rules which apply to that user.

(4) A rule made under subitem (1) prevails over a conflicting distribution condition contained in any authorisation.

(5) Before making rules a catchment management agency must -

(a) publish a notice in the *Gazette* -

(i) setting out the proposed rules;

(ii).inviting written comments to be submitted on the proposed rules, specifying an address to which and a date before which the comments are to be submitted, which date may not be earlier than 60 days after publication of the notice;

(b) consider what further steps, if any, are appropriate to bring the contents of the notice to the attention of interested persons, and take those steps which the catchment management agency considers to be appropriate;

(c) consider all comments received on or before the date specified in paragraph (a)(ii); and

(d) consider all applicable conditions for provision of services and bylaws made under the Water Services Act, 1997 (Act No. 108 of 1997), by water services institutions having jurisdiction in the area in question.

(6) After complying with subitem (5), a catchment management agency must -

(a) finalise the rules; and

(b) make it known, in an appropriate manner, that the rules have been finalised and where they may be

read; or

(c) deliver or send a copy of the rules to each water user to whom the rules apply.

#### **Catchment management agencies may require establishment of management systems**

4. (1) A catchment management agency may require in writing that a water user -

(a) install a recording or monitoring device to monitor storing, abstraction and use of water;

(b) establish links with any monitoring or management system to monitor storing, abstraction and use of water; and

(c) keep records on the storing, abstraction and use of water and submit the records to the catchment management agency.

(2) If the water user fails to comply with a requirement of subitem (1)(a) or (b), a catchment management agency may undertake the installation or establishment of such links and recover any reasonable cost from that water user.

#### **Catchment management agencies may require alterations to waterworks**

5. (1) A catchment management agency may, by written notice to the owner or person in control of a waterwork, require that person to collect and submit particular information within a period specified to enable the catchment management agency to determine whether that waterwork is constructed, maintained and operated in accordance with the Act.

(2) A catchment management agency may direct the owner or person in control of a waterwork at the owner's own cost and within a specified period, to -

(a) undertake specific alterations to the waterwork;

(b) install a specific device; or

(c) demolish, remove or alter the waterwork or render the waterwork inoperable in a manner specified

in the directive.

(3) A catchment agency may only issue such a directive if it is reasonably necessary in order to -

- (i) protect authorised uses of other persons;
- (ii) facilitate monitoring and inspection of the water use; or
- (iii) protect public safety, property or the resource quality.

(4) If the owner fails to comply with a directive, the catchment management agency may -

- (a) undertake the alterations;
- (b) install the device; or
- (c) demolish, remove or alter the waterwork or render the waterwork inoperable, and recover any reasonable costs from the person to whom the directive was issued.

#### **Catchment management agencies may temporarily control, limit or prohibit use of water during periods of water shortage**

6. (1) If a catchment management agency on reasonable grounds believes that a water shortage exists or is about to occur within an area it may, despite anything to the contrary in any authorisation, by notice in the *Gazette* or by written notice to each of the water users in the area who are likely to be affected -

- (i) limit or prohibit the use of water;
- (ii) require any person to release stored water under that person's control;
- (iii) prohibit the use of any waterwork; and
- (iv) require specified water conservation measures to be taken.

(2) A notice contemplated in subitem (1) must -

- (a) specify the geographical area or water resource to which the notice relates;
- (b) set out the reason for the notice; and
- (c) specify the date of commencement of the measures.

(3) In exercising the powers under subitem (1), the catchment management agency must -

- (a) give preference to the maintenance of the Reserve;
- (b) treat all water users on a basis that is fair and reasonable; and
- (c) consider -
  - (i) the actual extent of the water shortage;
  - (ii) the likely effects of the shortage on the water users;

(iii) the strategic importance of any water use; and

(iv) any water rationing or water use limitations by a water services institution having jurisdiction in the area in question under the Water Services Act, 1997 (Act No. 108 of 1997).

(4) If the owner or person in control of a waterwork contravenes a notice issued under subitem (1), the catchment management agency may -

(a) modify, or require the owner of the waterwork to modify the waterwork so that it cannot be used to take more water than that allowed for in the notice; or

(b) remove the waterwork or require the owner to remove the waterwork if the notice contains a prohibition on the use of that waterwork.

(5) A catchment management agency may recover from the owner any reasonable costs incurred by it in acting under subitem (4).

ANNEXURE B

**QUESTION NO 486**

**DATE OF PUBLICATION IN INTERNAL QUESTION PAPER: 26 MAY 2006**

**(INTERNAL QUESTION PAPER NO 13)**

486. Ms C C September (ANC) to ask the Minister of Water Affairs and Forestry:

(a) What progress has been made in the establishment of catchment management agencies around the country and (b) what impact has the shifting of the target date for the establishment of such agencies brought about on transformation in the water sector?

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**REPLY:**

- (a) To date the Department of Water Affairs and Forestry has established four Catchment Management Agencies (CMAs), namely the Inkomati, the Mvoti to Umzimkulu, the Breede, and the Crocodile West Marico.

Four processes are at the point where the Agencies are close to being established after having completed a period of public comment on the establishment proposals. These four are the Thukela, the Usutu to Mhlatauze, the Gouritz and the Olifants/De Doorn. They will be established later this year and the Advisory Committee processes and appointment of the Governing Boards will be completed in 2007.

Proposal development processes have been initiated in the Berg and the Catchment Management unit is looking to revitalise processes in the Upper Vaal and Olifants where historically much work has been done towards Agency establishment.

- (b) There have been delays in the establishment and organisational development of the Catchment Management Agencies. These delays have contributed towards improved legitimacy, stakeholder empowerment to participate in these processes, improved organisational sustainability and these developments firmly support improved transformation in the Water Sector.

It is largely recognised that processes to establish Catchment Management Agencies would not be rapid processes. However, these processes have shown to take longer than originally surmised, but there is a need to ensure that these institutions are recognised, supported and, more importantly sustainable.

**QUESTION NO 1575**

**DATE OF PUBLICATION IN INTERNAL QUESTION PAPER: 21 MAY 2010**  
**(INTERNAL QUESTION PAPER NO. 14)**

**1575. Dr L L Bosman (DA) to ask the Minister of Water and Environmental Affairs:**

Whether catchment management agencies (CMAs) have been established at all water management agencies (WMAs) in terms of the National Water Act, Act 36 of 1998; if not, (a) why not, (b) which WMAs do not have CMAs and (c) when is it envisaged that CMAs will be established by these WMAs; if so, what are the relevant details?

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**REPLY:**

(a) No, not all the CMAs have been established at all WMAs, the only CMAs established and operational are the Inkomati and Breede-Overberg CMA. The Mvoti to Umzimkulu, Crocodile West Marico, Olifants-Doorn, Gouritz, Thukela and Usutu to Mhlatuze CMAs have been gazetted for establishment and have finalised their advisory committee processes. We are currently in the process of recommending which sectors should be represented on the board. The Berg has finalised the proposal for establishment and gazetted it for comment. The Olifants, Upper Vaal water management areas have done extensive work towards establishment through public participation processes. Public participation initiatives have been initiated in the Limpopo and in Levuvhu-Letaba water management areas and a draft establishment proposal has been submitted.

The lessons learned from the establishment process of the two functional CMAs indicated the following challenges:

- The limitation around financial availability: it cost about R22 million to run a CMA and currently CMAs are not self sufficient and are still dependent on my Department;
- The inability to attract the right level of expertise: CMAs are located in remote rural areas and experienced staff are hesitant to relocate to these areas;
- Delegation of functions: the process to delegate functions to CMAs has been slow due to their incapacity to take over all functions; and
- Society's perception of CMAs: most of the users are poor and see water as a social good and therefore cannot contribute much in the economic activities of the CMA.

The Institutional Realignment Project will enable us to re-examine the approach and financial viability of the proposed new CMAs

(b) The WMA which do not have CMAs gazetted for establishment are the Upper Vaal, Middle Vaal, Lower Vaal, Lower Orange, Upper Orange, Fish to Tsitsikamma, Mzimvubu to Keiskamma, Olifants, Limpopo and in Levuvhu-Letaba and Berg WMAs

(c) There is no definite date as the process of establishing new CMAs is dependent on the outcomes and options to be recommended by the institutional realignment project. This project will conduct a business case for each proposed CMA and look at various options of aligning the CMAs and also the implications for broader stakeholder participation at local level. The process will be participatory and key sector stakeholders will be invited to state their views.



## ANNEXURE C

### PROSPECTS AND PROCESSES FOR STAKEHOLDER INVOLVEMENT IN STRENGTHENING WATER RESOURCE MANAGEMENT ARRANGEMENTS (WRC PROJECT K5-1972)

#### *Preliminary Stakeholder Questionnaire*

#### Introduction

- **Description of project**

Water is essential for every human activity, so its management concerns us all. It is generally agreed that water users should be involved in water resource management and South Africa's water policy reflect this. However, to date, this involvement has often been limited. The purpose of this study is to consider approaches through which water users can get involved in the management of their water resources. Specifically, it will seek to identify the issues that will be raised by such approaches as well as to understand the benefits and disadvantages that they may offer to different stakeholders

- **Reason for this consultation**

Before we start detailed research, we want to find out what people think about the issues that we are concerned with. We also need to select appropriate areas in which to work and are seeking guidance from people with an interest in the issues and a knowledge of different areas and water users.

#### Your interest in, and priority given to, water resources in business or sector

- In what sector are you involved? In what capacity (for instance, as a representative of an industry or civic association, or a municipality or municipal association)
- Do you believe that the availability of water resources (that is water in rivers, dams and underground, not piped water services in towns and cities) is an important issue
  - o for yourself?
  - o for the sector concerned

#### What do you know about water issues/constraints in your sector?

- Do you know of any water problems that affect your sector?
- Are they to do with the quality or the quantity of water or other considerations?
- Have you or your sector had to take special action to address water resource issues?

### **Knowledge of water management arrangements in their area**

- Do you know how water is managed in your area or in the areas in which your sector is active?
- Have you participated in any consultations about water management or other activities in support of water management? Which were the most important?
- Has your sector participated in any consultations about water management or other activities in support of water management? Again, which were the most important?

### **Knowledge of the NWA and its provisions for management arrangements**

- Are you aware of the National Water Act (of 1998) and its most important provisions?
- Do you know about any other water policy instruments?

### **Knowledge of Catchment Management Agencies (CMAs)**

- **Concept of the CMA**  
Are you familiar with the concept of the Catchment Management Agency (CMA)?
- **Role of CMAs**  
Are you aware of the role they are supposed to play in water resource management?
- **Areas of operation of CMA**  
Do you know in which areas they are supposed to operate and why those areas were selected?

### **Experience with the establishment of CMAs**

- **Nature of process**  
Do you know how CMAs are supposed to be established?
- **Involvement**  
Have you, or your sector, ever been involved in the establishment of a CMA?
- **Location**  
If so, where? And what has happened with that process and your involvement?

**We are interested in the possibility that you, your sector, or other stakeholders could take the lead in the establishment of CMAs in those areas where they have not yet been established. Can you make any recommendations for an area where we could test the feasibility and practicality of this idea?**

- Area recommended
- Reasons for recommendation

### **Way forward**

**The process that we will be following, as we proceed, will be as follows:**

- Preparation of a draft report on the findings of this national survey and of the approaches that could be taken by stakeholders to establish a CMA
- Workshop to discuss findings from national survey and the draft report with national stakeholders and project steering committee
- Finalisation of the initial report and detailed research in the pilot areas
- Production of a draft report
- Workshop to discuss findings with interested local and national stakeholders and the project steering committee
- Final report and Recommendations

**Would you like to stay involved with this project, to receive copies of the draft reports and to be invited to attend the workshops (depending on budget and other constraints)?**

Thank you for your help

## ANNEXURE D

### **WATER RESOURCE MANAGEMENT STUDY: FIRST ROUND INTERVIEWEES**

Stakeholders at national level included:-

- Local government
  - o SALGA
- Agriculture through
  - o AGRISA
  - o NAFU
- Business organisations
  - o SASOL
  - o SAB Miller
  - o Chamber of Mines
- Environmental conservation
  - o WWF
- Labour, civil society, community-based and research networks
  - o Organised labour, including
    - SAMWU
    - IMATU
  - o SANGOCO
  - o Mvula Trust
  - o ACWR

### **Organisations contacted that did not respond substantively by time of printing:**

- Local government,
  - o Cities Network
- Organised business
  - o BUSA
- Labour, civil society and community-based networks such as
  - o COSATU
  - o Solidarity
  - o SANCO

## ANNEXURE E

### PILOT WATER MANAGEMENT AREA SELECTION: EVALUATION TABLE

Selection criteria and combined scores

POSSIBLEs	WMAS	SUMMARY	current status	water use intensity	water use diversity
	Limpopo	9	5 initial	2	2
	Levhuvu	8	5 initial	1	2
	Croc West	12	2 proposal	5	5
1	Olifants	14	4 consultation	5	5
	Inkomati	11	1 established	5	5
	Usutu	5	2 gazetted	1	2
	Thukela	5	2 gazetted	1	2
1	Vaal upper	14	4 consultation	5	5
2	Vaal Middle	13	5 initial	5	3
3	Vaal Lower	9	5 initial	2	2
	Mvoti				
	Mzimkulu	10	2 proposal	3	5
	Mzimvubu				
	Keis	7	5 initial	1	1
	Orange Upper	8	5 initial	2	1
3	Orange Lower	9	5 initial	2	2
3	Fish to Ts	9	5 initial	2	2
	Gouritz	7	2 gazetted	3	2
	Olifants - doring	6	2 gazetted	3	1
	Breede				
	Overberg	7	1 established	3	3
1	Berg	13	3 proposal	5	5

## ANNEXURE F

### **WATER RESOURCE MANAGEMENT STUDY: WMA INTERVIEWEES**

Stakeholders at regional level included officials from:-

- Local government
  - o Mafube LM
  - o BaPhalaborwa LM
- Provincial and National Government
  - o DAFF
  - o DWA-Mpumalanga
- Water related organisations
  - o Rand Water
  - o Lebalelo WUA
- Agriculture
  - o Commercial farmers through
    - AGRISA – Mp
    - AGRISA – FS
  - o Emerging farmers through\*
    - Water for Food
    - IWMI
- Businesses
  - o SASOL
  - o ESKOM
  - o Arcelor Mittal
  - o AmPlats
  - o Amcoal
- Conservation
  - o Sanparks
- Civil society, community-based and research networks
  - o VEJA
  - o Green Revolution
  - o SAVE
  - o WESSA

The interviews were not requested to represent the official views of the organisation but rather the personal experience and perspectives of the interviewee. For that reason, only general indications are given of the source of individual comments. Unless otherwise indicated, statements should not be interpreted as the official views of the organisation concerned

(\*Also through reference to studies of the Hereford Water User Association in the Olifants WMA.)