



Department : Water Affairs  
and Forestry

# Integrated Water Resources Management



**Guidelines for Stakeholder Participation in IWRM**  
Summary



**DEPARTMENT OF WATER AFFAIRS AND FORESTRY**

**INTEGRATED WATER RESOURCES MANAGEMENT**

**GUIDELINES FOR STAKEHOLDER PARTICIPATION IN  
INTEGRATED WATER RESOURCES MANAGEMENT  
IN WATER MANAGEMENT AREAS  
IN SOUTH AFRICA**

**SUMMARY**

INTEGRATED WATER RESOURCE MANAGEMENT  
STRATEGIES, GUIDELINES AND PILOT IMPLEMENTATION  
IN THREE WATER MANAGEMENT AREAS, SOUTH AFRICA

**DANIDA**  
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**TITLE:** GUIDELINES FOR STAKEHOLDER PARTICIPATION  
IN INTEGRATED WATER RESOURCES  
MANAGEMENT IN WATER MANAGEMENT AREAS IN  
SOUTH AFRICA: SUMMARY

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**PURPOSE:** To propose a framework for stakeholder participation in IWRM, formulate a procedure to give effect to this at water management area level and identify the awareness and training material needs with respect to this procedure.

**TARGET GROUP:** DWAF, IWRM Project Consultants and implementers in three water management areas.

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## TABLE OF CONTENTS

	<b>PAGE</b>
<b>1 INTRODUCTION</b>	<b>1</b>
<b>2 THE CONTEXT OF STAKEHOLDER PARTICIPATION IN INTEGRATED WATER RESOURCE MANAGEMENT IN SOUTH AFRICA</b>	<b>1</b>
2.1 What is integrated water resource management?	1
2.2 What is an IWRM stakeholder?	1
2.3 Subsidiarity and IWRM	2
2.4 <i>Batho Pele</i> and IWRM	2
2.5 Ensuring equity	2
2.6 Resource directed measures and IWRM	3
2.7 Ensuring participation in IWRM	3
<b>3 A FRAMEWORK FOR IWRM</b>	<b>3</b>
3.1 Background	3
3.2 Establishing a process of change	4
3.3 Moving towards common ground	4
3.4 Gradual and progressive realisation of these goals	4
3.5 Contributing to catchment management strategies	4
<b>4 A PROCEDURE FOR STAKEHOLDER PARTICIPATION IN IWRM</b>	<b>5</b>
<b>5 CAPACITY AND AWARENESS BUILDING NEEDS</b>	<b>10</b>
5.1 Background	10
5.2 Capacity Building	10
5.3 Awareness Building	10
<b>6 RECOMMENDATIONS</b>	<b>11</b>
6.1 Further development of the process	11
6.2 Testing the process	11
6.3 The training programme	11

## 1 INTRODUCTION

The South African National Water Act (Act 36 of 1998) requires catchment management agencies, when establishing a catchment management strategy, to consult with any persons or organisations that may impact on the water resources. The Department of Water Affairs and Forestry (DWAF) has already developed generic public participation guidelines and a suite of models that provide the “rules of engagement” for interaction with stakeholders. This report, however, focuses on stakeholder participation in integrated water resource management (IWRM), while still remaining consistent with the generic approaches of the Department.

This report:

- Proposes a framework for stakeholder participation in IWRM;
- Formulates a procedure to give effect to this at a water management area level, and
- Identifies the awareness and training material needs with respect to this procedure.

The process outlined in this report will be just one of the water resource management activities within a water management area, and will run in parallel with several other processes. The process proposed in this document only focuses on stakeholders needs, over and above the institutional and routine requirements for water resources management. However, IWRM encompasses all of these issues.

## 2 THE CONTEXT OF STAKEHOLDER PARTICIPATION IN IWRM IN SOUTH AFRICA

### 2.1 What is IWRM?

Integrated water resource management (IWRM) is the process of meeting the needs for use of the water resource, as expressed by the stakeholders, in such a way as to ensure the equitable, beneficial and sustainable use of the water resource. It is based on the principle that, in order to maximise the benefits of the water resource and to ensure equitable use of water, you must balance the needs of all the water users (and discharges) in the catchment. From the stakeholders' perspective IWRM is not about dictating stakeholders' rights to live, mine or irrigate in an area, but is about ensuring the equitable, beneficial and sustainable use of the water resource. This use includes both consumptive use and the use of the resource to carry their waste, or for recreation. IWRM should also seek to maintain aquatic ecosystems as desired by the stakeholders.

### 2.2 What is an IWRM stakeholder?

A stakeholder is any individual or group who uses water. Water use, as defined in the National Water Act, includes consumptive use of water, the use of water to carry waste, or the recreational use of water. Stakeholders may also include, for example, groups with environmental concerns, DWAF with respect to the need to make provision for the Reserve, and land use activities that, by virtue of their placement, directly impact on the quality of the water resource. Stakeholders may also associate in water services institutions, catchment forums, or water users associations to strengthen their participation in IWRM. These groups may share a common use of the water resource, may share a common desire to maintain the resource in a particular state, or may represent users in a particular sub-catchment of the whole water management area.

All the potential stakeholders must be identified, made aware of the fact that they are stakeholders, and made aware of other stakeholders in the water management area. Stakeholders should be encouraged to associate in groups with similar uses or needs for use of the resource.

### **2.3 Subsidiarity and IWRM**

Subsidiarity is the process of devolving decision making down to the lowest possible level, and is becoming the increasingly accepted way of managing natural resources. It is based on the theory that local people can best identify their needs with respect to use of the resource, derive direct benefit from its sustainable use, and are placed at the point of use and can, therefore, best manage this use.

Subsidiarity in water resources management in South Africa is given effect by Chapters 2 and 7 of the National Water Act, which make provision for the establishment of catchment management agencies to manage the water resources at catchment level within water management areas. The responsibilities for IWRM at a local level will rest with the catchment management agencies (or DWAF where catchment management agencies have not yet been established).

South Africa has other special needs with respect to subsidiarity. The majority of South Africans have previously been denied any say in their own governance or the use of resources. This, together with a history of inequitable access to resources, has meant that the requirements for stakeholder participation are particularly high in South Africa. More importantly, there is an increasing demand from previously deprived communities for the more equitable use of resources. Unfortunately, many of these communities remain at a disadvantage due to their remote position and poor education. This means that the larger water users often dominate and subjugate poorer communities' needs. One of the greatest challenges facing IWRM in South Africa is to ensure that these stakeholders' needs are taken into account.

IWRM in any water management area secures stakeholders' needs for, and contributions to, management of the water resource. However, the differing needs expressed by stakeholders will have to be balanced with the management needs of the whole area.

### **2.4 Batho Pele and IWRM**

The South African Government has committed itself to people-orientated governance, as captured in the *Batho Pele* (people first) principles. These principles provide the ethical code that should guide IWRM and interactions with stakeholders in the water management areas.

Integrated water resource management is a complex task. The ability to recognise potential conflicts between the different stakeholders needs; to suggest management options to address these conflicts, and to balance these needs in an equitable way, requires technical expertise. Experts who are seen to be impartial, and who bound by the *Batho Pele* principles, should facilitate the IWRM process. These facilitators should have some experience with the various components of water resources management, but need not necessarily be experts in these components. However, it is recommended that these facilitators receive training specifically in the IWRM process.

### **2.5 Ensuring equity**

One of the most important IWRM issues in South Africa is that the use of the water resource still remains skewed towards people advantaged by the apartheid system. It is important that IWRM and stakeholders establish a process of change that will lead to the more equitable use of the water resource.

Stakeholders should, therefore, be made aware of the current inequitable use of water, and the inequities in the economic returns from water use. However, in order ensure the process does not create unrealistic expectations, stakeholders must recognise the need for gradual change. It is impractical to forcibly change the water use patterns in the short term by taking water away from the present users just to secure more equitable use.

## 2.6 Resource directed measures and IWRM

The National Water Act focuses attention on the protection of water resources via resource directed measures. These include establishment of the Reserve and the related water resources classification system, both of which have implications for stakeholder participation in IWRM.

The Reserve represents that volume and quality of water that is required for basic human needs (drinking, food preparation and hygiene), and for the functioning of the aquatic ecosystem. It is the only water use by right, and it is possible to expropriate existing water rights to meet these Reserve requirements. The concept of the Reserve secures stakeholders basic needs, but the IWRM process in the water management area must secure their needs over and above this.

The water resources classification system is intended to provide the framework to balance protection and use of the water resources in such a way as to ensure national uniformity. It will include procedures to classify both surface and groundwater resources, and will specify resource quality objectives for different classes of water resource. Classification of water resources must also be driven by stakeholder participation, although it is currently unclear as to what form this will take. Stakeholders need to be aware of the fact that the requirements of the Reserve and resource class may curtail or support the realisation of their goals.

## 2.7 Ensuring participation in IWRM

To avoid “stakeholder fatigue”, stakeholder participation in IWRM should be based on a well-defined process leading to clear benefits to participation. As such, stakeholders need to be able to express their needs, but also to see how these needs are going to be progressively realised by ongoing participation. The various needs and capacities of stakeholders must also be recognised to secure ongoing participation (e.g. transportation for poorer stakeholders; compensation for community representatives). Additionally, conflict resolution and consensus seeking processes should encourage ongoing participation.

# 3 A FRAMEWORK FOR IWRM

## 3.1 Background

Stakeholder participation in IWRM must accommodate the conflicting requirements of stakeholders that may be geographically distant, as well as provide a context within which stakeholders can *“think water management area (or catchment), but act locally”*. The IWRM process must also establish a process of change that will lead to the more equitable use of the water resource, but must be simple and focused on meeting stakeholders’ needs for use of the resource. This is only possible by providing a clear and understandable framework for IWRM, which must:

- Contribute to the development of the catchment management strategy in each water management area;
- Gain the advantages of local management, while maintaining a water management area perspective;

- Remain focused on managing the water resource;
- Include all the water users in the water management area in a representative way;
- Serve the needs of these water users and be consistent with the *Batho Pele* principles;
- Balance the needs of these users on the basis of equity, beneficial use and sustainability;
- Make best use of the technical skills and tools available;
- Merge with the requirements of the resource directed measures and the Reserve;
- Provide stakeholders with a clearly defined process and endpoint;
- Be facilitated by trained and unbiased staff.

### **3.2 Establishing a process of change**

If IWRM is to serve stakeholders' needs, then they must be given the opportunity to express these needs. However, it is important to decouple long-term needs from the practicalities of setting short-term goals. Stakeholders must be encouraged to identify their long-term goals (e.g. use of the water resource; environmental status of the resource), or to express a need (e.g. equitable access; economic returns for the use of water), but should recognise that the purpose of this is to ensure a process of positive change, and not to establish short-term goals.

### **3.3 Moving towards common ground**

Stakeholders must be aware of the fact that their needs for use of the resource may conflict with other users needs. Resolving these will be based on the principles of equity, efficiency and sustainability.

The move towards a common goal for use of the water resource involves identifying conflicting needs for use of the resource, and resolving or negotiating these conflicts. This process would use IWRM tools like water demand management, water quality management, or the conjunctive use of surface and ground water resources. This process would also rely on water resource assessment techniques such as water resources yield models or water quality modelling. It is an iterative process of interaction with stakeholders, and of bringing conflicting stakeholders together to resolve potential conflicts.

### **3.4 Gradual and progressive realisation of these goals**

The value of establishing a long-term goal for the use of the water resource is that it sets a clear direction for IWRM, which will help secure ongoing stakeholder participation. However, it is also important for stakeholders to recognise that it will take some time to realise these goals, and that this process will require them to take some action.

The time that it would take to realise these goals will depend on whether the catchment is stressed, unstressed or marginal. In stressed catchments, it may take longer to realise stakeholders' goals for the resource. In these cases it will be important to set interim goals for management, typically in a five-year cycle to fit in with the revision cycle of the catchment management strategy.

### **3.5 Contributing to catchment management strategies**

A catchment management strategy is required to consist of a situation assessment; foundation strategies that provide the institutional and financial framework for the catchment management agency, and supporting strategies that address water resources management issues. The process outlined in this document will contribute to the supporting strategies, but will influence the foundation strategies as it requires the financial and human resources.

Successive catchment management strategies will have to outline a gradual process of realising the long-term needs of the stakeholders. The IWRM process must move from establishing the long-term goals for the water management area, to determining what step can be taken in the next five years (i.e. what are the goals?). The next step is to determine the management objectives associated with these goals (i.e. what has to be done?). This will be followed allocating these tasks to stakeholders (i.e. who would do this?). The final step would be to decide what local actions are required to achieve this (i.e. how will they do it?). Ultimately, these steps would be outlined in the supporting strategies component of the catchment management strategy.

This process will be revisited every five years, to fit into the revision of the catchment management strategy. Stakeholders could then reaffirm or modify their long-term goals, and establish new interim objectives for the next five years.

#### **4 A PROCEDURE FOR STAKEHOLDER PARTICIPATION IN IWRM**

The procedure for stakeholder participation in IWRM is summarised in the following diagram. It includes eight main steps:

1. Identification of stakeholders;
2. Awareness creation;
3. Establishing a process of change through the identification of long-term goals for use of the resource;
4. Identification of conflicting needs for use of the resource;
5. Developing a common objective;
6. Establishment of interim objectives;
7. Obtaining agreement on management objectives and local actions, and
8. Contributing to the catchment management strategy.

All appendices referred to in the diagram can be obtained in Document 1a of this series (full text).

## STEP 1 – IDENTIFY STAKEHOLDERS

**WHAT IS THIS?**  
 Stakeholders include all users of water as well as stakeholders concerned with the protection of the water resource. This includes consumptive users, recreational users, and dischargers to the water resource. Certain land uses near to the resource, that impact on the resource, may also be included.  
 Stakeholders may associate in WUAs, WSIs or Catchment Forums

**WHAT STAKEHOLDERS SHOULD KNOW**  
 Stakeholders must be made aware of other stakeholders in the process, and their mandates. Maps of the WMA should be provided showing where the stakeholder bodies occur in the catchment.

**TOOLS AND TIPS**  
 Water users are identified from water balance models, land use maps, Licenses, or registered Water Users.  
 DWAFs Generic public participation guidelines suggest additional methods and generic stakeholder lists. (See Appendix A)

**MONITORING TOOLS**  
 Stakeholder lists grouped according to their associations. These lists can be added to at any point, particularly as stakeholders become aware of the process

## STEP 2 – BUILD AWARENESS OF IWRM

### WORKSHOP – UNDERSTANDING IWRM

**WHAT IS THIS?**  
 Stakeholder groups should be made aware of the concept of IWRM, and the process that will be followed. The aim of this is to build awareness of IWRM to enable meaningful participation, and to outline the procedure for interaction with clear outcomes.

**WHAT STAKEHOLDERS SHOULD KNOW**  
 Stakeholder groups should be visited and given a Briefing Document on IWRM (being developed for this project), and on the procedure that will be followed.  
 (Stakeholder issues 1-12 form the basis for these visits).

**TOOLS AND TIPS**  
 Workshops and information sessions with the stakeholder groups.  
 Briefing document on IWRM and the process outlined here to be followed. Maps of the WMA. (see Appendix B)

**STEP 3 – ESTABLISH A PROCESS OF CHANGE**

**WHAT IS THIS?**  
 Stakeholders must express their long-term needs with respect to use or protection of the resource and the need for equity. The aim of this is to establish a process that stakeholders feel will lead to more equitable water use, and which will meet their needs

**WORKSHOP – THE ROAD AHEAD**  
**WHAT STAKEHOLDERS SHOULD KNOW**  
 Stakeholders must understand the current water use patterns and economic returns from water use, as well as current quality and quantity problems. Similarly, stakeholders need to know the state of the aquatic ecosystem.

**TOOLS AND TIPS**  
 Water resource assessment reports outlining current and potential future problems. Output 7.5 and DWAFs guide for water quality assessments. The River Health Programme and DWAFs water quality data base. DWAFs SEA procedure. (see Appendix C)

**MONITORING TOOLS**  
 Questionnaires assessing stakeholders' belief in fact that the process will lead to more equitable beneficial and sustainable use of water.

**STEP 4 – IDENTIFY CONFLICTING NEEDS**

**WHAT IS THIS?**  
 This process identifies where stakeholders long-term needs for use of the resource conflict with respect to water quantity and quality, or with respect to the state of the aquatic ecosystem.

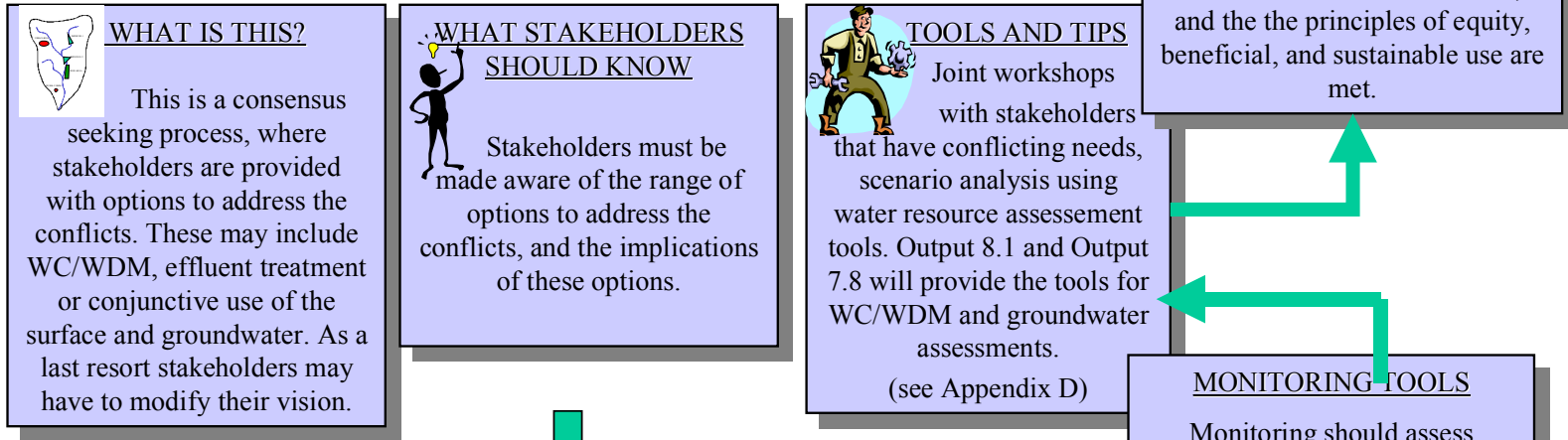
**A TECHNICAL PROCESS**  
**WHAT STAKEHOLDERS SHOULD KNOW**  
 Stakeholders must be made aware potential conflicts in their needs and that they would have to work together to find solutions.

**TOOLS AND TIPS**  
 Water quality and quantity modelling tools that assess the risks of conflicts in drought and wet periods. Expert assessments can also be used. Conflicts may also be expressed in terms of the ability to use water, for example emerging farmers need to acquire land before irrigating availability of land could therefore conflict with this need. (see Appendix D)

**MONITORING TOOLS**  
 The process of change should clearly identify a need for the more equitable use of the resource. Current and projected water use patterns could be used.

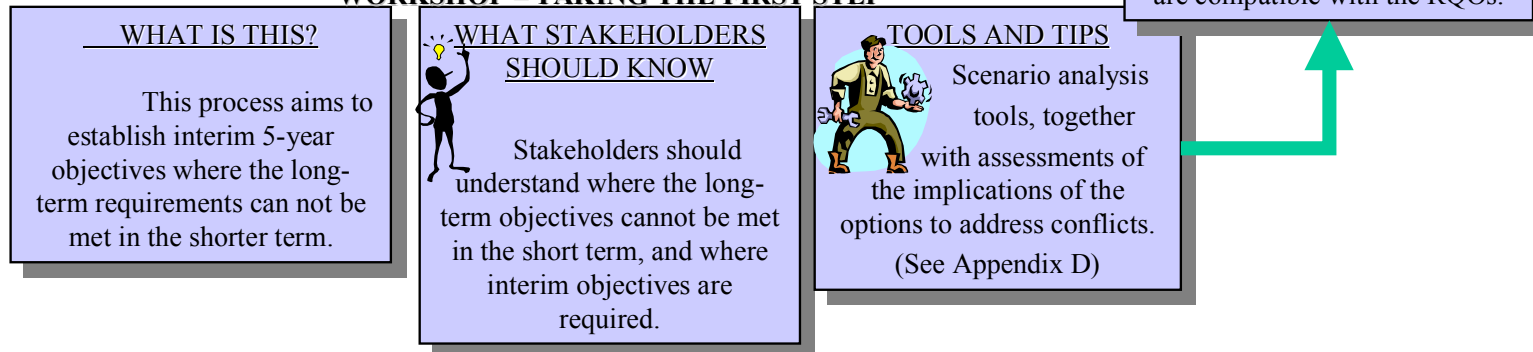
**STEP 5 – DEVELOP A COMMON OBJECTIVE**

**WORKSHOP - FINDING COMMON GROUND**



**STEP 6 – ESTABLISH INTERIM OBJECTIVES**


**WORKSHOP – TAKING THE FIRST STEP**





## STEP 7 – AGREE ON MANAGEMENT OBJECTIVES AND LOCAL ACTIONS


### WORKSHOP – WHO DOES WHAT



**WHAT IS THIS?**  
This process identifies who will do what, and the monitoring process that will accompany implementation. This may include support from the CMA.



**WHAT STAKEHOLDERS SHOULD KNOW**  
Stakeholders must understand what actions they need to take to realise their common vision.



**TOOLS AND TIPS**  
Action and Monitoring plans should be prepared for each of the stakeholders outlining how (and if) the activities will be financed and supported by the CMA. Output 7 will provide tools for groundwater monitoring. (see Appendix D)

**MONITORING TOOLS**  
Monitoring of this step is ongoing throughout the implementation of the CMS, and should be aimed at assessing whether the agreed actions are being carried out, and whether these are having the desired effect.



## STEP 8 – CONTRIBUTE TO THE CMS

### THIS PROCESS HAS INPUT TO THE DEVELOPMENT OF THE CMS

**ACTION**  
The above process contributes to the "supporting strategies" of the CMS. These should highlight the short term and long term goals, as well as the Action Plans.



**WHAT STAKEHOLDERS SHOULD KNOW**  
Stakeholders must be given the opportunity to comment on the final CMS. This may require the development of a simplified version of the CMS.



**TOOLS AND TIPS**  
A simplified version of the CMS could be presented and distributed at stakeholder workshops. Stakeholders should be given the opportunity for comment.

## **5 CAPACITY AND AWARENESS BUILDING NEEDS**

### **5.1 Background**

The process described above can only be successful if it satisfies two requirements:

1. Stakeholders need to be made aware of the process, what is required of them, and its eventual outcomes, and
2. The process will have to be facilitated and driven by trained staff.

“Awareness” refers to an understanding of the process, where stakeholders can contribute, and of the final outcomes of the process. “Capacity” refers to the ability to run the process.

### **5.2 Capacity building**

The ability to run the participation process typically requires staff who can interact with stakeholders, who are familiar with the approach outlined above, and who also have a broad understanding of the tools that must support the process. Unfortunately, there few people in South Africa that have this broad base of skills, and it is recommended that a training programme be developed and implemented within the IWRM Project to ensure that there is a core of trained staff to carry the process forward.

The technical component of the training course should include two main sections:

IWRM as a process and philosophy, outlining the approaches presented here, as well as how IWRM can be supported by tools like water conservation and water demand management, conjunctive use of the ground and surface water resources, and water quality and quantity modelling tools.

Interaction with stakeholders and ensuring their ongoing participation in the process. DWAF’s generic public participation guidelines and suite of models could be used as a basis for this component of the training.

The training materials should be compatible with the National Qualifications Framework, and course participants should receive a certificate of completion. It is also recommended that the training course be taken up into a tertiary education institution in South Africa, so as to provide an ongoing source of trained staff for newly established catchment management agencies.

Initially, the IWRM project could focus on training DWAF staff both at head office and in the three water management areas, as well as stakeholders drawn from the already established catchment forums. However, catchment management agencies (or DWAF) would have to ensure that they have the resources to drive the process in the other water management areas in the longer-term. Capacity building should therefore also address how the process described could be financed and driven in other water management areas.

### **5.3 Awareness building**

It is recommended that the IWRM Project produce simple awareness materials based on the process outlined in this report. This material should explain what IWRM is and what stakeholder participation involves, as well as the main water-related issues in the targeted water management area.

These materials should ideally be written in a simple form, be translated into local languages and include simple diagrams and drawings of the process. The objective of this process would be to ensure that stakeholders have all the information they need to meaningfully contribute to the process. Additional poster materials could be provided to schools and to support workshops with the stakeholders.

## **6 RECOMMENDATIONS**

### **6.1 Further development of the process**

The following process is recommended to further refine the approach provided in this report:

Local service providers at a national level should further develop the concepts outlined here, specifically after consulting with stakeholders from the catchment forums and water user associations in the three water management areas.

The Appendices (see Document 1a, this series) outlining the tools that can be used to support the process need to be expanded to include more tools.

Once the process has been further refined, local service providers in each of the water management areas should implement the process on a test basis, under guidance from the project team.

Lessons learnt from this process should be noted, such that the procedure can be updated in Phase 2 of the project.

The updated process should be published by DWAF, as one of the water user association or catchment management association guides.

### **6.2 Testing the process**

Testing the process can be achieved in several ways:

Local service providers could be appointed to drive the process.

DWAF staff could be trained to drive the process, and could then make sure the process is tested.

Stakeholders from each of the water management areas, as identified in the process of establishing catchment management agencies, could be trained to drive the process.

Local service providers could be appointed to assist trained DWAF and/or trained stakeholders to drive the process. This provides the greatest opportunities for sustainability and is the recommended option.

### **6.3 The training programme**

The ongoing process of developing the process rests largely on training DWAF staff and stakeholders to carry the process forward. The training programme outlined above should be developed as soon as possible.

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**DOCUMENTS FOR OUTPUT 4: STAKEHOLDER PARTICIPATION ESTABLISHED AND TESTED IN THE THREE SELECTED WATER MANAGEMENT AREAS THROUGH PUBLIC AWARENESS AND STAKEHOLDER WORKSHOPS:**

1. a. Guidelines for Stakeholder Participation in Integrated Water Resource Management in Water Management Areas in South Africa, Carl Bro a/s, March 2002
- b. Guidelines for Stakeholder Participation in Integrated Water Resource Management in Water Management Areas in South Africa: Summary, Carl Bro a/s, 2003**
- c. Guidelines for Stakeholder Participation in Integrated Water Resource Management in Water Management Areas in South Africa: Executive Summary, Carl Bro a/s, 2003
  
2. a. Evaluation of the Involvement of Previously Disadvantaged Individuals in the Catchment Management Agency Establishment Process in the Three Water Management Areas.
- b. Evaluation of the Involvement of Previously Disadvantaged Individuals in the Catchment Management Agency Establishment Process in the Three Water Management Areas. Summary.
- c. Evaluation of the Involvement of Previously Disadvantaged Individuals in the Catchment Management Agency Establishment Process in the Three Water Management Areas. Executive Summary.

**RELATED DOCUMENTS:**

Integrated Water Resources Management Communication Strategy, DWAF.

Generic Communication Strategy for IWRM, DWAF/DANCED, December 2001.

Communication and Implementation Plan for Crocodile West and Marico, Mvoti to Umzimkulu, Olifants-Doorn, Carl Bro a/s, Pravin Amar Development Planners cc, October 2001.

Institutional Roles and Linkages: Phase 1 Report, Carl Bro a/s, IZNA Consortium, February 2002.

Capacity Building Overview Assessment Vol.1, Carl Bro a/s, IZNA Consortium, October 2001.

Capacity Building Overview Assessment Vol.2, Specific Capacity Building Requirements of Role-Players, Carl Bro a/s, IZNA Consortium, October 2001.

Capacity Building Implementation Plan, Carl Bro a/s, IZNA Consortium, April 2002

Guideline on the Viability Study for the Establishment of a Catchment Management Agency, Carl Bro a/s, Pegasus Strategic Management, February 2002.

Guidelines for Groundwater Management in Water Management Areas, South Africa, Carl Bro a/s, IZNA Consortium, February 2002.

Guidelines for the Implementation of Water Conservation and Water Demand Management in the Water Services Sector, Carl Bro a/s, IZNA Consortium, March 2002.