

# **LINKAGES BETWEEN WATER RESOURCES AND WATER SERVICES**

## **Scoping Report**

**Final Version**

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**Department of Water Affairs and Forestry**

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## **1. INTRODUCTION**

### **1.1. Background**

The Water Services Directorate: Policy and Strategy (P&S) identified a need for better co-ordination between Water Resource Management (WRM) and the Water Services (WS) Directorates and Sub-Directorates, in terms of policies and projects implemented by each Directorate.

The WS: P&S Directorate is, on occasion, requested to comment on documents prepared by their counterparts in WRM. It was realised that many of the documents have a direct impact on WS line functions, however, input from Water Services should have been included in the inception phase of the project to have any meaningful impact. Also, certain Regional Offices and Municipalities raised a concern about the lack of co-ordination between WRM and WS in the feedback received at the National Office.

The need for a co-ordinated approach between WRM and WS programmes is understood and echoed in most strategic documents. The reality is that there is no formal process in place to ensure a co-ordinated and standard approach. The current practice is that only certain programmes enjoy the benefit of comments from both WRM and WS.

It is estimated that the Water Services Sector represents an overall demand of 19% of the total water use in South Africa. This demand is likely to grow due to population growth, the increased number of people that will have access to water services as the current backlog is addressed and the expected improvement in the standard of living. Improved living standards are expected to result not only in increased per capita water consumption for basic needs but also for multiple uses of water for economic growth. This level of water demand will have a significant impact on the water resource, if not properly planned and adequately catered for. It is possible that the impact on the water resource may result in direct contravention of the objectives of the National Water Act (Act 36 of 1998) and the Water Services Act (Act 108 of 1997). This fact alone implies that it is imperative for WRM and WS to engage more intimately at a policy and strategy level to ensure sustainability at all levels. Further, the Regional offices, municipalities, key sector stakeholders and the public at large do not view DWAF as WRM and WS. Many do not understand the difference between WRM and WS, hence, an interfaced approach to solving water problems is essential.

An interfaced approach between WRM and WS needs to occur at a National and Regional Office level. Certain Regional Offices, such as the Western Cape Office, are in the process of establishing a mechanism for better co-ordination and interfacing between WRM and WS, to ensure the sustainable use and protection of the resource. This approach was adopted to make it simpler for

their end-user (the consumer). The consumer does not recognise the difference between WRM and WS.

Based on the concern raised by WS: P&S it was decided that a scoping report/discussion paper should be compiled to a) identify areas of synergy and areas that require input from both WRM and WS and b) recommend a way forward.

Various Directorates within DWAF have started to consider the linkages between WRM and WS. The efforts of these various Directorates need to be aligned. Although it was not the primary intention of this scoping report/discussion paper to establish a process for better co-ordination between WRM and WS for DWAF as an organisation, it may also lead to this positive outcome. The primary intention of the document is to ensure better interfacing at WS: P&S project level and to comply with the Directorate's mandate of policy co-ordination.

Finally, the WS/WRM interface was discussed at great length at the recent Water Services Sector Leadership Group (WSSLG) workshop held in November 2006, as a key issue in the sector.

## **2. PURPOSE OF THE SCOPING REPORT/DISCUSSION PAPER**

The aim of the scoping study is to:

- Identify potential areas of synergy, overlap and gaps between WRM and WS at a National office level;
- Propose a way forward that would ensure Regional offices, Municipalities and other stakeholders receive consolidated feedback from DWAF; and
- Potentially serve as a discussion document to explore the possibility of developing an action plan to ensure better co-ordination between WRM and WS for DWAF as an organisation. Further, the findings of the scoping report could form the basis of a more in-depth study to develop a mechanism to address the gaps between WRM and WS, and to recommend a way forward.

## **3. POLICY, LEGISLATION AND STRATEGIC PLANS THAT SUPPORT AN INTERFACED APPROACH**

The need for a better interface between WRM and WS is not a new concept initiated by WS: P&S. Instead, this principle is supported in the following policies documents, legislation and DWAF's strategic plans.

According to the Strategic Framework for Water Services (2003), *"It is important that there be alignment between policies, legislation and strategies within the*

*water services sector as well as alignment between these and the policies, legislation and strategies of other sectors related to the water sector (for example, water resources, finance, local government...”*

The National Water Act (Act 36 of 1998) and the Water Services Act (Act 108 of 1997) provide an enabling environment for WRM and WS to be aligned.

The draft Water Services Revision Bill, which is in compliance with the Strategic Framework for Water Services, attempts to close the gap between WRM and WS at both a planning and implementation level. The Draft Bill ensures that there is a level of co-ordination in areas that could impact on the resource such as:

- The provision of industrial water and the disposal of industrial waste water;
- The direct abstraction of water from a water resource and,
- Water Services Development Plans must be consistent with the National Water Resource Strategy and any catchment management strategies prepared by catchment management agencies for water management areas, in terms of the National Water Act (Act 36 of 1998).

The Department’s Multi-year Strategic Plan for 2004/5-2006/7 also emphasises the need for linkages between WRM and WS programmes.

From the above, it is a clear mandate that there needs to be co-ordination between the functions of WRM and WS. However, currently there is no means to provide the linkages between WRM and WS.

## **4. STATUS QUO REPORT**

### **4.1. Introduction**

The following is a brief summary of the process currently implemented within DWAF to ensure collaboration between WRM and WS, as well as a few examples of the expectations of stakeholders.

Depending on the nature of a project, a Project Steering Committee (PSC) is often arranged. Various Directorates are represented at these PSC meetings with the intention of providing input on the project. This approach is not always implemented, especially in the case of smaller and less strategic projects. In some cases DWAF officials take the initiative to circulate documents for comment, however, this approach is done on an *ad hoc* basis.

There are currently various initiatives undertaken by both WRM and WS that attempt to bridge the interface gap, however these efforts are not co-ordinated or

consistent, only occur at specific interfaces such as planning, governance and regulation and are not according to a documented or official DWAF process.

Some municipalities have indicated that they are not certain of the procedure to follow when circulating documents for comments or requesting assistance from DWAF.

Other key institutions and government departments such as the South African Local Government Association (SALGA), Department of Provincial and Local Government (DPLG), Department of Environmental Affairs and Tourism (DEAT) etc. require a consolidated approach to programmes from DWAF. A typical example would be the Consolidated Environmental Implementation and Management Plan (CEIMP), which is a mandatory plan that all government departments are required to submit to DEAT for approval. Currently, DWAF's CEIMP is prepared and submitted by WRM with very little input from WS.

Another typical example is where DWAF posts were created at SALGA and DPLG to establish a link between local government and WS, as part of the Masibambane Programme. Even though the intention is to close the gap between local government and WS, there are various WRM policies and programmes that could benefit from the posts, but this can only occur if DWAF has internal mechanisms to ensure the interface between WRM and WS.

As a final example, DWAF officials represent the department at the different Social Cluster Task Team meetings. The official is expected to provide input from a WRM and WS perspective. For this function to be effectively executed the DWAF representative must be knowledgeable about the linkages between WRM and WS programmes, or at least request input from the various sectors through a formal process.

The Directorate: Resource Protection and Waste currently holds monthly meetings with key Water Services officials to discuss projects that may require input from both sectors. Further, the Directorate: Resource Protection and Waste were involved in the training of Councillors as part of a collaborate effort with the Water Services Directorate: Sector Development to ensure that water sector training is provided.

The Water Research Commission (WRC) is currently completing a review of the Governance Process between Water Services and Water Resource Management as part of a research project. The project is likely to be completed by March 2007 and will further explore the relationship between Water Resources and Water Services.

The section below contains a list of possible projects that require immediate input from both WRM and WS. Failure to provide this input will result in a waste of resources, as co-ordination would need to occur at a later stage. In some

instances failure to comment could result in the contravention of the principles of both the National Water Act (Act 36 of 1998) and the Water Services Act (Act 108 of 1997).

#### 4.2. Current Water Resources Initiatives that Require Water Services Input

Currently, Water Resource Management has various initiatives on the go, however, the timeframe of this scoping study did not allow for all the initiatives to be reviewed. Hence, only key initiatives which may have a direct impact on Water Services are discussed below. Although planning is not considered a programme it was highlighted at the WSSLG workshop that there should be better planning initiatives between WR and WS. In particular, it was suggested that WR should engage more with municipalities to understand their needs especially when developing ISPs.

No	Programme	Comments
1	Catchment Management Strategy	<p>Section 77 of the NWA requires the establishment of Catchment Management Agencies (CMA). The NWA requires that each CMA develop a Catchment Management Strategy (CMS) for managing the water resource in its Water Management Area (WMA). Each CMS must contain appropriate information about the characteristics of the WMA, appropriate strategies, objectives, plan, guidelines and procedures, adequate human and financial resources and have sufficient involvement and support of stakeholders.</p> <p>To this end, an inception report for the Preparation of Generic Guidelines for the Compilation of a Catchment Management Strategy was prepared. The Inception Report does not recognise any of the Water Services needs or structures. The guideline therefore needs to be updated to include the following:</p> <ul style="list-style-type: none"> <li>• The CMAs must be part of the sector committee that is responsible for compiling the Provincial Water Sector Plan (PWSP). The priorities set by the CMA and the priorities set by the Water Services Sector must be aligned to ensure efficient planning of resource use.</li> <li>• The CMAs must be consulted when the Water Services Development Plans are compiled.</li> <li>• The guideline must clearly define the relationship between the CMA and the WSA.</li> </ul>

		Failure to achieve the above will result in a CMS that does not adequately plan for the needs of the Water Services Sector.
2	National Groundwater Strategy	<p>As part of the Toolkit for Water Services, developed by DWAF in partnership with the Norwegian Agency for Development Co-operation, Guidelines on Protecting Groundwater from Contamination were compiled. Currently, Water Resources is preparing a National Groundwater Strategy with the future aim of compiling guidelines for the protection of groundwater. The strategy is partly aimed at selling the concept that groundwater is an available and reliable source of water. It is imperative that Water Services are part of the discussion on the National Groundwater Strategy to ensure no duplication of tasks.</p> <p>According to the Guidelines on Protecting Groundwater from Contamination, 13% of the nation's total water supply originates from groundwater. Due to decreasing available river and spring flows during low flow and drought periods, as well as widespread problems of surface water pollution in rural areas, groundwater will be the most feasible option for a large portion of new water demand. In light of the above, WSA's must be informed of the National Groundwater Strategy, especially for the abstraction of groundwater in rural areas.</p> <p>Mine water is also considered groundwater. Mines in the Witbank area are already treating mine water and supplying it to towns. The impact on the water services sector needs to be investigated. Municipalities need to investigate the option of treating and using mine water as an alternative water source.</p> <p>Further, as part of the Compulsory Licensing process, all use of water, including groundwater, must be registered, something that WSA's and WSP's do not currently do.</p>
3	Geohydrological Management for Dolomitic Areas	In April 2005, a draft working document entitled, Guideline for Assessment, Planning and Management of Water Resources in Dolomitic Areas was circulated for comment by the Sub Directorate: Integrated Hydrological Planning. This document has a direct impact on WSA's and WSP's that abstract water from dolomitic areas, particularly in rural areas where bulk reticulation systems are not feasible.

4	Grey Water Policy	<p>Currently, there is no National Policy or Strategy on Grey Water Management. However, in April 2005, a status quo report was published by DWAF on the management of grey water in informal areas in the Western Cape. Grey water management is seminal to the sustainable management of the resource and to the water services sector. Any discussions on a future national grey water management strategy must include input from Water Services, as the implementation of the strategy is likely to have financial implications for WSA's and WSP's especially if there are design implications in terms of new reticulation systems.</p> <p>Further, the Directorate responsible for the development of the policy must be clearly defined as it affects WRM, WS and Sanitation.</p>
5	Resource Directed Water Quality Management Policy	<p>The Sub-Directorate: Water Quality Planning recently circulated a Resource Directed Water Quality Management Policy, a Catchment Visioning Tool and a Decision Support Tool for the evaluation of licence applications. These tools are important to Water Services, particularly for the water use licence applications that municipalities are required to submit for all Section 21 activities as per the NWA. The Decision Support Tool for the evaluation of licence applications is based on the James Perkins' document, which does not necessarily consider Water Services activities.</p> <p>There should be high-level discussions between Water Resources and Water Services to compile a guideline for municipalities in terms of water use licence applications. Most municipalities are not aware that they need to apply.</p>
6	Environmental Issues	<p>According to the April 1998 EIA Regulations of the Environmental Conservation Act (Act 73 of 1989), certain activities were identified as listed activities, including the upgrade or construction of the following:</p> <ul style="list-style-type: none"> <li>• Bulk water systems;</li> <li>• Sewerage treatment works and associated infrastructure;</li> <li>• Abstraction of water; and</li> <li>• River diversions.</li> </ul>

		<p>Environmental authorisation is required prior to the construction of these activities, which largely affects municipalities. Further, the NWA states that environmental studies must be undertaken on developments in sensitive areas, which are not deemed listed activities according to the EIA Regulations. The Sub-Directorate: Environment and Recreation compiled guidelines to ensure environmental compliance, however, the guidelines largely address Water Resources' activities. This leaves a gap for non-compliance in terms of Water Services activities. As part of the Masibambane Programme an environmental audit document was compiled however the implementation of the document is not monitored. A policy decision must be taken on how environmental issues will be in-corporated into Water Services activities. Also, a guideline/strategy document should be compiled for municipalities, in line with the Water Resources document.</p> <p>Further, an Environmental Water Resources Legal Booklet was recently compiled. The booklet has been well received by all sectors as it concisely highlights Water Resources obligations in terms of all environmental legislation. The booklet also addresses Water Services environmental obligations. Water Services needs to comment on the appropriateness of the current document and must be part of the committee responsible for future updates of the document.</p>
7	Rain Water Harvesting	<p>As part of water conservation and demand management, the rain water harvesting (RWH) project was launched. RWH tanks are installed on an ongoing basis across the country. A national RWH fund was made available by DWAF to encourage RWH as a supplementary supply of water. The fund can be accessed by all municipalities, although this is currently not happening because municipalities are not aware of the fund. It is imperative that Water Services is included in this project for two main reasons:</p> <ul style="list-style-type: none"> <li>• To ensure that municipalities access the RWH fund; and</li> <li>• Water from the RWH tanks should not be used for drinking water purposes. However, the reality is that the water is used for drinking water. This is particularly the case in urban informal areas where water is sourced from standpipes or where householders exceed the free basic allowance. The quality of the water in the RWH tank is not tested hence this could be a problem. Water Services: Regulations must be involved in the RWH programme to provide input on drinking water standards.</li> </ul>

8	Treatment and Re-use of Mine Water	A joint committee comprising of both Water Services and Water Resources recently addressed the treatment and re-use of mine water. This is a typical example of combined problem solving and planning, which should be encouraged on all other projects.
9	Water Allocation	The draft Water Allocations Toolkit was recently circulated for comment. Water allocation affects most Water Services activities. The Provincial Water Sector Plans must take cognisance of the Water Allocation Process. Water Services must be included in discussions around water allocation as it affects projects such as the private land guideline, the provision of water for small-scale multiple uses and may have an impact on water services policy issues, etc.
10	Water Conservation/Water Demand Management Strategies	<p>In March 2005, the Minister of DWAF launched the Water Conservation/Water Demand Management (WC/WDM) Strategies. The WC/WDM strategies aim to close the gap between Water Resources and Water Services. The implementation of the strategies will have large financial and institutional impacts on municipalities. For instance, municipalities should be providing rain water harvesting tanks - this will serve as an alternative water source (WS) while at the same time limit the impact on the resource (WR). It has been suggested at the recent WSSLG Workshop that a National WC/WDM Revolving Fund should be established to ensure that initial seed capital is made available to municipalities to implement a WC/WDM programme. Municipalities need support on implementing WC/WDM. The department that provides infrastructure is not responsible for factors that affect WC/WDM such as billing, metering etc. hence the support programme should ensure that the finance and engineering departments within the municipalities work together to ensure WC/WDM. A structured programme to support the sector (not just LG, the programme should include irrigation boards, mining, industry, etc) is required.</p> <p>DPLG should do more in terms of WC/WDM education and awareness at a consumer level.</p> <p>Water Resources and Water Services need to agree on the best way forward in terms of the implementation of the WC/WDM strategies, in order to accommodate the constraints of the municipalities and the issues raised above.</p>

11	Catchment Assessments and Compulsory Licensing	<p>Water Resources is focusing on the use of Compulsory Licensing as a tool to “level the playing field” with respect to water use. A number of studies have been initiated to develop the procedures for Compulsory Licensing. The intention is to test these procedures in some 2-3 pilot catchments. The Mhlathuze Catchment as well as the Olifants and Inkomati WMAs were selected as the initial pilot areas. In order to implement compulsory licensing in these or any other catchment, current water use patterns in the catchment with respect of who is using water and for what purposes needs to be outlined. This should include the formal licensed water use as well as the un-licensed water use (mainly in rural areas). Further, catchment assessments aim to verify how much of the registered water use is actually taken up by irrigators and the source of water for the various users (i.e. groundwater, impoundments, run of river etc.). The Water Services Sector is directly affected by the catchment assessment studies, as domestic use is a major component of resource use. However, there is very little evidence that Water Services at a National level or at a Provincial level were consulted in these assessments.</p> <p>It was identified in the ISPs that Water Services may be committing water in catchments that cannot sustain the demand such as the Lower Vaal Water Management Area. To avoid similar issues, Water Services must be included in all future catchment assessments.</p>
12	Waste Discharge Charging System	This project will certainly affect local authorities and Water Service Providers.
13	Waterworks Regulation	The document was developed by Resource Protection and Waste and will be transferred to Water Services Regulation. Further, the Waterworks Database developed by the Directorate: Resource Protection and Waste will be handed over to the Water Services Directorate: Regulation. Training on the use of the database will be provided.
14	Integrated Water Resource Management Plan Guideline	The document was developed as a combined effort between Resource Protection and Waste and Water Services: Planning and Information.
15	Internal Strategic Perspective (ISP)	The ISP developed by WR must be informed by the WSDPs and PWSP. LG should engage with WR to establish realistic plans for water for growth and development initiatives, which are addressed in the ISP.
16	The Tariff Policy	The impact of the tariff policy on WSAs must be investigated.

#### 4.3. Current Water Services Initiatives that Require Water Resources Input

WS: P&S is in the process of finalising and revising legislation, policies, various guidelines, strategies and projects that would benefit with input from Water Resources. Such projects include, but are not limited to the following:

- Review of the Water Services Act;
- The Private Land Guideline;
- The District Plan developed by Planning and Information must be interfaced with WR;
- Guideline for the Provision of Water for Small Scale Multiple Uses;
- Guideline for the Development of a Provincial Water Sector Plan;
- Transfer of Assets;
- Intervention Protocol;
- The Free Basic Services Policy;
- Water Services Policy Database and Toolbox; and
- Water Sector Strategic Assessment Report.

The above-mentioned projects may have an impact on water quality, water allocation and catchment management.

## **5. STAKEHOLDERS AT NATIONAL OFFICE THAT MUST BE CONSULTED**

An organogramme of the Policy and Regulation Branch will be included in the document, once it has been finalised and been updated after the restructuring process. Considering that this project was initiated by WS: P&S, the following Directorates should be engaged with as a starting point:

- Strategic Co-ordination;
- National Sanitation Programme;
- Institutional Oversight;
- Integrated Water Resource Planning;
- Resource Protection and Waste;
- Resource Directed Measures;
- Information Management; and
- Water Use.

## **6. PROPOSED WAY FORWARD**

The approach as part of the scoping study was to review the areas of synergy and gaps between WRM and WS on specific projects, in order to emphasise the need for a co-ordinated approach. Based on the findings of Section 4.2 and 4.3 above, it is clear that there is a dire need to understand the interface between WRM and WS at an official level.

Even from the above-cited published literature it is apparent that there is very little co-ordination between WRM and WS. Any level of consultation between the two sectors has been the result of the authors of the documents, quoted in Section 4.2 and 4.3, taking the initiative and not because there is an official process to comply with.

There are two main recommendations of the scoping study namely:

- 1) There should be an overall action plan to engage with the key Chief Directorates in the Policy and Regulation Branch. This is seen as a long-term goal. The key officials from the relevant units should commit to the approach and drive the process to develop the strategy. This will ensure that the *ad hoc* approach currently employed is not continued.
- 2) As a short-term goal to address current initiatives, it is recommended that the projects highlighted in Annexure A and B are discussed with the relevant parties. Most of the documents are in the process of being finalised hence it is important that each unit acts immediately.

## 6.1. Action Plans

Provided below are two sets of action plans namely, 1) action plans to take the process forward within DWAF and 2) action plans to take the process forward within the sector.

### 6.1.1 Action Plans – DWAF Internal

The following is a list of action plans to map a way forward in terms of addressing the WRM/WS interface issues at a national DWAF level:

- Circulate this document to key stakeholders for comments. Even though the main purpose of the scoping study/discussion paper is to determine the gaps between WRM and WS, key stakeholders such as the Water Research Council, the International Water Management Institute, the Water SETA and the Water Information Network should be consulted on an ongoing basis as these organisations often commission studies in the WRM and WS fields. The scoping report should also be forwarded to these stakeholders for comments;
- A straw dog strategy document should be compiled for discussion purposes. This strategy should be seen as the DWAF approach to ensure an effective interface between WRM and WS;
- A co-ordination committee should be established to develop and implement the interface strategy. The strategy should discuss inter-directorate co-operative governance issues;
- Alternatively, the issue of co-ordination could be added to the agenda of an existing forum/committee that is attended by the key stakeholders. In developing the strategy, the committee must consider the efforts of the Regional Office, such as the Western Cape, who are in the process of implementing a co-ordinated approach between WRM and WS to address the interface issues. The strategy should ensure that directorates co-operate with one another, consult one another on matters of common interest and align the needs and requirements of legislation directly administered by DWAF;
- As an immediate interim solution, the business plans of each unit should be scrutinised by a dedicated official from each unit for the early identification of programmes that may need to be circulated for comments by either WRM or WS;
- This document must be included into the overall DWAF strategy;
- Workshop the DWAF strategy with key stakeholders.

### 6.1.2 Action Plans – Sector Based Approach

The following is a list of action plans, developed at the WSSLG workshop, to map a way forward in terms of addressing the WRM/WS interface issues at a sector level:

<b>Issue</b>	<b>Way Forward</b>	<b>Responsibility</b>	<b>Timeframe</b>
Collaboration	A task team should be set up. The task team should include SALGA, SAAWU, WR, Rachellete Cronje, WS (P&S), WRC and Masibambane, Sanitation. The task team should develop a route map on the way forward.	Task team	
Policy and Strategy Alignment	WS (P&S) should interface with B Rowlston, WR (P&S).	WS (P&S) and WR (P&S)	
Existing Initiatives	The existing scoping report (this document) developed by WS (P&S) should be taken forward and should be used as a discussion paper.	All	
Enforcement of polluter pays principle	Engage with WR on how this will be enforced. Establish whether they have a plan to implement the principle.	D: Regulation (Technical)	
Impact of tariff on WSAs	Do an analysis of what impact the tariff will have on WSAs.	Sector Dev/Economic Regulation	
Use of equitable share to fund basic human needs requirement	Possible workshop with WR to discuss the municipal environment.	WS: (P&S)	
Impact of free basic sanitation policy on waste discharge tariffs.	Liase with WR on the impact that the FBS policy will have on their waste discharge tariffs.	NSP/H Sussens WS: (P&S)	
Compliance with MFMA, Section 42 in case where a municipality or municipal entity/WSP buys raw water from DWAF/CMA	Consultations with NT/DPLG on possible alignment between strategy and MFMA.	WS: (P&S)	

Impact on Regional Water Services Providers as contemplated in Section 18 of the Water Services Bill.	Consultations with Water Services Bill.	WS: (P&S)	
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