

- (2) Brits municipality does not deem it necessary for a water board to have jurisdiction over their area and are of the opinion that they manage their water supply and sanitation infrastructure very successfully.
- (3) Mr Meyer, Secretary to Bosveld Services Council stated that water boards can continue to supply bulk water as the Bosveld Services Council is not gearing up for this.
- (4) Mr Sarel Roets of Premier Mine stated that Magalies Water can consider taking over the sewage treatment plant for Refilwe. Operations of the plant is poor and in need of attention.
- (5) Mr Piet Fourie of Bronkhorstspuit stated that Bronkhorstspuit should be left to run their own purification plants as they have the capacity to run them and the income from water sales forms an important income item without which the Council will not be able to survive.
- (6) Mr Willie Louw would appreciate it if Magalies Water provided Naboomspruit with bulk water. He would also not be concerned if they took over the water and sewage treatment plants as the council cannot finance the required upgrading.

7.3.4 Key official from Magalies Water and NWWA

Lengthy discussions were held with Mr N Fenner (CEO Magalies Water), Mr J Coetzer (Secretary to the Board of Magalies), and Mr S Tsigele (formerly NWWA, now Rand Water).

Since 12 April 1996 Magalies has taken over control of the areas in the ESA that were previously served by NWWA. The views of Magalies therefore represent the views of the water board operating in the ESA.

7.4 Review of Discussions Regarding the Establishment of a Water Board in Eastern Zone

7.4.1 Consultation with BODA officials

Discussions were held with Mr P Smith of BODA and the following minutes of meetings and other relevant documentation was reviewed:

- (1) Record of proceedings: Kwandebele, Moutse 1 and 3, Moretele 2, Sub-regional Water Board Indaba, 28 and 29 November 1995, Zithabiseni, BODA;
- (2) Highveld Regional Water and Sanitation Indaba 2, February 1996, DWAF and BODA; and
- (3) Sub-Regional Water Board Task Team Report, February 1996, Discussion Document, Highveld Water Board.

Mr P Smith is of the opinion that the Indaba process followed in the former Kwandebele area

would be valuable in determining community requirements in other regions and that possibly three Indaba's should be established in various areas of the Study Area in order to elicit community opinion.

DWAF is currently being assisted by British ODA through funding and technical assistance for organizational capacity building in Northern and Mpumalanga provinces. A proposal was initiated that part of the funding be used for the purpose of Sub-regional Water Board Indaba's to kick start the establishment of water boards in Mpumalanga Province. Presently there are no water boards involved in water provision in the sub-region or the Province. The sub-region comprises Kwandebele, Moutse 1 and 3, and Moretele 2.

With respect to the establishment of a water board, the procedure in the past was a mere government declaration. Today, consultation with all stakeholders is necessary and for this reason all major stakeholders in the sub-region were invited to an Indaba on 28 and 29 November 1995 at Zithabiseni.

The objectives adopted for the Indaba were as follows:

- (1) to provide a forum for the discussion of sub-regional water supply and management issues;
- (2) to discuss the present situation and to examine the implementation of a new water supply and sanitation policy;
- (3) to examine second-tier options and to plan a course of action; and
- (4) to task an appropriate body to take the plan forward.

A number of options for water boards in the sub-region were identified:

- (1) status quo, no water boards in the region;
- (2) establish a new water board;
- (3) extend the supply area of the existing water board;
- (4) establish a semi-independent business unit linked to an established board;
- (5) select a combination of these as short and long term options; and
- (6) suggest another option.

In order to collect the information that people needed, and to establish a resource base, a task team was established. The brief of the task team was:

- (1) analyze the pros and cons of the various options;

- (2) to formulate a communication/ consultation strategy;
- (3) to enlist the help of any delegates as necessary; and
- (4) to report back.

A second Indaba, Highveld Regional Water and Sanitation Indaba 2 was held on 20 and 21 February 1996. The Task Team tabled a discussion document at this Indaba which gave:

- (1) a detailed analysis of the pro's and con's of the various options for a regional water and sanitation authority; and
- (2) proposed a regional communication and consultation strategy.

The recommendation on the pro's and con's of the various water board options is that a terms of reference and a funding proposal be drafted and that a multi-disciplinary team of specialist consultants be appointed to conduct a feasibility study on the two options defined. The study will need to collect information on:

- (1) Areas of needs;
- (2) potential of available resources;
- (3) inventory of established bulk water supply and wastewater systems and surplus capacity;
- (4) various technical options and associated costs; and
- (5) financially feasible options for different areas.

The study report (from these consultants to be appointed) will also need to include an option evaluation with reference to:

- (1) possible boundaries;
- (2) structure of the Board;
- (3) viability; and
- (4) sources of finance.

The objective of the communication strategy is to provide clear guidelines and principal objectives for structured stakeholder participation during the envisaged reconstruction and development of the management aspects of water and sanitation services in the sub-region.

7.4.2 Interviews with Major Protagonists Holding divergent View Points

The main options are spelled out above. There are however two divergent view points:

- (1) DWAF initially were of the strong opinion that it would make financial sense for the area of jurisdiction of Magalies Water to include the Kwandebele sub-region.**
- (2) Discussions with DWAF personnel in the Mpumalanga Regional Office has however highlighted how sensitive this issue is. It was also pointed out that the task team appointed by the Indaba is currently engaged with the evaluation of options and that it would undermine their process and confuse the stakeholders if the JICA Study Team initiated another study.**

7.4.3 Implications of the BODA work for the JICA Study

It was agreed that the JICA Team should continue the study of the whole Study Area. In the former Kwandebele area however, the JICA Study Phase 1 was restricted largely to a technical level pending the outcome of the Indaba process. The technical and institutional implications concerning the Eastern Zone as a peripheral area and the possibility of the Zone becoming a separate business unit of MW are discussed in Chapter 9 of this Supporting Report.

CHAPTER 8 : PROFILE OF THE SECOND TIER

CHAPTER 8 PROFILE OF THE SECOND TIER

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CHAPTER 8 PROFILE OF THE SECOND TIER

8.1 Introduction

At time of the commencement of the JICA Study, three water boards operated within the Study Area. These were Magalies Water, North-West Water Supply Authority and Rand Water. As no merging of the operations of Magalies Water and Rand Water was required or envisaged, a profile of Rand Water was not required. Magalies Water however were required to take over the staff, functions and infrastructure of NWWA within the former Bophuthatswana portions of the Study Area. These areas included Mankwe, Bafokeng, Odi 1 and 2 and Moretele 1 and 2 magisterial districts. In practice, MW took over control of these areas on 1 April 1996. This take over was formalised in the Government Gazette of 12 April 1996, from which date NWWA no longer formally functioned within the Study Area. This profile of the Second Tier concentrates therefore on Magalies Water, and those portions of NWWA that are now under the control of Magalies Water. The management and financial information included in this report is dynamic, and may have changed due to recent developments.

8.2 Management Structures

The mission of Magalies Water is stated as to ensure that bulk potable water and sanitation which meet the required health standards, are made available in the service area for social and economic needs, at a price which ensures the continued viability of the undertaking.

Traditionally, the primary function of Magalies Water was one of bulk water supply. Subsequent to the merger, and as a result of the requirements of the White Paper on Water Supply and Sanitation, Magalies Water has been tasked with Third Tier support and functions. In addition, Magalies Water has been requested to assist with the operation and maintenance of sewage treatment works which currently fall under the jurisdiction of the Department of Local Government, Housing, Planning and Development. The portions of NWWA that have been taken over by Magalies Water include the Rustenburg region and the Moretele portion of the Mabopane region. The balance of the Mabopane region has been taken over by Rand Water. The traditional role of NWWA in the Rustenburg and Moretele regions was that of pipeline and borehole maintenance, and some pipeline construction. NWWA thus fulfilled a Third Tier function within these regions.

Magalies Water has, by virtue of the Water Act, a relationship with DWAF. The Minister of Water Affairs and Forestry approves the Board of Magalies Water, the latter now being representative of the ESA. Secondly, DWAF is represented on the Board of Magalies Water. Thirdly the Minister of Water Affairs approves the tariffs, raw water abstractions and the new schemes of the Board. Magalies Water also has a close relationship with all its major consumers. This relationship has historically been good, with prompt payment. This relationship is important, as bulk water consumers such as mines and local authorities have a vested interest in securing an economical and high-assurance supply; they therefore take a keen interest in the planning of Magalies Water. Traditionally, Magalies Water has only contracted with traditional local authority structures with in-house operations and maintenance capabilities. In rural areas under the new constitution and local government act, capacity does not exist in many areas, and water boards will be required to fulfill the function of local government in

respect of water supply and sanitation. In other rural areas, emerging Third Tier organizations such as Rustenburg District Council for example, are extremely sensitive to the possibility of water boards, or any other institution, usurping their authority. This view is supported by the Department of Constitutional Planning.

Magalies Water is managed from a Head Office in Rustenburg, a business unit at Vaalkop (West Business Unit) and a business unit at Wallmannsthal (East Business Unit). The Head Office is managed by the CEO, Mr NJ Fenner. The Board Secretary is responsible for public relations, administration and the creditors and revenue functions. The Manager of Finance and the Personnel Manager are also stationed in the Head Office. The Operations Manager is responsible for the plant operators (four teams), pipeline inspections (four teams) and the Electrician. There is also a laboratory function at Vaalkop. The total number of staff at Vaalkop is 54, (24 production/administration and 30 maintenance). Three water purification plant managers, (Wallmannsthal, Temba and Cullinan), report directly to the East Business Unit Manager, as do two laboratory technicians and the Communications/Training Officer. Plant operators, pipeline inspectors and electricians report directly to the purification plant managers. In total, at the three plants, there are 50 staff members.

Subsequent to the transfer of control of portions of NWWA to Magalies Water, the former Rustenburg Region of NWWA has been retained by Magalies Water as a separate business unit based in Mogwase. Reporting to the Regional Manager are the Chief Accountant, the Regional Marketing Manager, the Training Officer, the Operations Manager, the Project Engineer and the Mankwe District Manager. As the Moretele District, (part of the former Mabopane Region) lost its regional office to Rand Water at the time of the merger, the management and administration of this district has been centred in the District Office at Kudube, and placed under the overall control of the East Business Unit, with management from Wallmannsthal. Reporting to the Moretele District Manager are the Chief Accountant, the Projects Engineer, the Plant Manager (Kudube Works) and the technicians responsible for the urban and rural operations and maintenance functions within the Odi I and Moretele I regions. Magalies Water is not involved in the Kwandebele area at present.

8.3 Organization and Functions

Magalies Water was established as The Vaalkop Water Board on 6 January 1970 to supply water for domestic use (to Northam and Saulspoort villages), for industrial use, (to the platinum mines in the Northam area), and to the farming community. The name of the executive arm of the board has since been changed to Magalies Water and the body corporate to the Board of Magalies Water. The supply area of Magalies Water has also been extended on numerous occasions, the latest extension being on 12 April 1996. The current extent of the ESA is shown in the Figure 2-1 of the Main Report.

As discussed under previously, Magalies Water has traditionally been tasked only with bulk supply. The organization is thus lean and geared towards effectively fulfilling this function. NWWA on the other hand fulfilled a retail Third Tier function before the merger, heavily reliant on subsidies. Functions were chiefly the operation and maintenance of boreholes and small diameter pipework, as well as billing and collection. Magalies Water, having taken over this role in the Mogwase Region and the Moretele District in the short to medium term in any event, needs to build new capacity and to develop existing capacity to fulfill this role and function.

NWWA staff now subject to the management of Magalies Water have not yet been employed by that Board, having been seconded from NWWA to Magalies Water for the period of a year while staffing needs are being assessed. The SA Municipal Workers Union, having a recognition agreement with NWWA, have submitted substantial wage demands to NWWA, which in turn may have serious effects on the operations of Magalies Water, who are not a party to these negotiations.

8.4 Financial Status

For the year ending 29 February 1996, Magalies generated an operating surplus (before long term loans) of R 10.2M from water sales of R36.8M. At 29 February 1996, outstanding debt included R95.8M outstanding loan stock and R88.9M long term obligations to government relating to the abstraction of water from Vaalkop Dam and to the taking over of the purification works at Wallmannsthal. Fixed assets under the control of Magalies Water at that time totalled R194.9M (book value). Summarised cost information is included in the Data Book. A detailed breakdown of the financial position of the former Rustenburg Region and the Moretele District of NWWA, as transferred to Magalies Water, is not available. Magalies can only be expected to develop some clarity on the actual income and expenditure of the regions taken over from NWWA after a number of months of operation. Initially Magalies Water will receive a subsidy (previously paid to NWWA) of about R30M, although it is the requirement of DWAF that this subsidy must be phased out. In order to ensure proper financial management Magalies Water is expected to continue to operate the former NWWA areas as separate business units. Magalies Water is also expected to assist and be proactive in raising loans to support Third Tier (above RDP level-of-service) infrastructure development.

8.5 Merger Process

North West Water Authority and Magalies Water were requested by the Minister in late 1995 to propose a plan for the rationalization of the area of supply and functions of the two boards within the Study Area. The draft proclamation of 12 April 1996 was to serve as a basis for the merger negotiations. For the purpose of the investigation, four task groups were constituted, viz a technical task group, a financial task group, a personnel task group and a task group dealing with areas of jurisdiction. The most important findings of the task groups were as follows:

- (1) Only the operation and maintenance of certain infrastructure was handed over to Magalies Water.
- (2) All movable assets used to execute these responsibilities would also be handed over.
- (3) All personnel connected with the operation and maintenance of the infrastructure within the affected region/district (around 250 in number) are to be integrated with Magalies Water. For the first twelve months such staff members are only to be seconded to Magalies Water, pending finalization of staff needs and job descriptions by Magalies Water, and the negotiation of individual employment contracts.

- (4) The supply areas of the boards should be altered as set out in the draft proclamation, eventually promulgated on 12 April 1996. The Director General of DWAF should be requested to make the necessary directive empowering Magalies Water to act within these revised areas of jurisdiction.

The hand over plan was accepted by the Minister and implemented as from 1 April 1996. Certain problems and constraints were identified as part of the merger process. These are:

- (1) The merger process absorbs a large portion of managements time;
- (2) Salary discrepancies exist for equivalent posts;
- (3) Different accounting systems were operated by the two boards;
- (4) Certain infrastructure marked for transfer is in a poor condition; and
- (5) NWWA management responsible for the sewage treatment works have been transferred to Rand Water.

CHAPTER 9 : PERIPHERAL AREA ISSUES

CHAPTER 9 PERIPHERAL AREA ISSUES

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CHAPTER 9 PERIPHERAL AREA ISSUES

9.1 Background

The agreement between JICA and the Department of Water Affairs and Forestry required that any sensitive areas peripheral to the Study Area should be identified during the Study, and taken into account where relevant to the creation of a master plan for the extended supply area of Magalies Water. Peripheral area issues usually relate to the identification and proclamation of supply areas for water boards, and are therefore sensitive issues; in addition, experience has shown that such issues are political and thus not quickly resolved. Many issues (such as those set out in Section 9.3 below) have to be considered before a final decision can be made in this regard. In view of this restriction, peripheral area issues were explored through discussion conducted primarily with higher order water sector players.

9.2 Approach

At the commencement of the Study, Magalies Water supplied bulk water to consumers within those portions of the Study Area that were proclaimed in favour of the Board. These supply areas were, for historical political reasons, restricted to the former White Group Areas, and the Board's water supply function excluded any form of retail supply or support. The White Paper on Water Supply and Sanitation (dealt with elsewhere in this report), requires that the areas of supply of the various water boards should be rationalised and extended, and/or that new water boards should be created, in order to achieve the goals and objectives of the White Paper, thereby extending access to affordable and hygienic water supply and sanitation to all the residents of the Republic, including previously neglected rural communities within the former TBVC States and within former self-governing territories.

In order to achieve the objective of creating rationalised areas of jurisdiction for water boards within the North West Province, the Minister approved, in a Government Gazette dated 12 April 1996, revised proclamations for those water boards that operated within the North West Province at that stage. In terms of this proclamation, Magalies Water was empowered to act within certain former Bophuthatswana territories (Moretele 1, Bafokeng, Odi 1 and 2, and parts of Mankwe district); additional supply areas were also proclaimed for Magalies Water in the former RSA districts of Swartruggens, Koster, Brits, Rustenburg and Warmbaths. As Rand Water was, on the date of the proclamation, actually supplying water to certain of the Bophuthatswana areas formerly under the control of NWWA (Garankuwa and Mabopane, parts of the Bafokeng district, and the Rustenburg- Bapong axis), Rand Water initiated tri-lateral discussions with the

DWAF and Magalies Water, regarding the proclamation of the affected supply areas in favour of Rand Water. A proclamation for the GaRankuwa and Mabopane region to this effect was approved by the Minister and gazetted on 21 June 1996 (Government Notice No.1025). This latter proclamation was required in order to legalise an already existing situation, ie where Rand Water already supplied water to local authorities within the former Bophuthatswana State, or where Rand Water was fulfilling the Third Tier function on behalf of local authorities. Pursuant to bilateral discussions that were held between Rand Water and DWAF during December 1995 regarding areas of jurisdiction, DWAF instructed the boards of Magalies Water and Rand Water in writing to continue with discussions and negotiations regarding their limits of supply within the affected areas, based on certain guidelines that were laid down in the directive. This process is still on-going.

9.3 Supply Area Criteria

A number of criteria have been developed for setting the boundaries of water boards or other water authorities. These are:

- (1) Bulk supply must be provided in a cost effective manner. The lowest overall cost to the country should be the overriding criterion. This approach will ensure economies of scale, and the lowest overall supply tariff(s) to consumers.
- (2) The security, quality and quantity of alternative supplies should be taken into consideration.
- (3) Imports and exports across supply area boundaries should be avoided, unless necessary for reasons that are set out in these criteria.
- (4) Existing agreements for bulk supply should be considered in setting boundaries.
- (5) Existing legal and administrative boundaries should be taken into account, eg farm, local authority and tribal authority boundaries.
- (6) Water resource management, including pollution control and the water balance should be considered in this regard. Where possible catchment boundaries should be followed.
- (7) Water boards should be financially viable in the long term; any short term central government subsidies should be phased out in the short to medium term.

- (8) Risk must be shared at provincial level; ie there should be a number of viable water boards within each province.
- (9) A water board should be placed in the position to develop economical Third Tier support within its area of supply. The effective implementation of RDP projects is a short to medium term criterion that is linked to this issue.
- (10) It must be possible to divide the supply area into logical and economical management units (supply units, blocks, areas and zones). Boundaries must clearly delineate responsibilities for water supply and sanitation.
- (11) Accountability and accessibility to all end users must be ensured.

The above criteria should also govern peripheral area debates and were therefore used to assess the following peripheral areas which were identified during the course of the Study.

9.4 Naboomspruit

Water demand in Naboomspruit (located in Northern Province north-east of Nylstroom) is at present met locally from the Frikkie Geysers Dam and from boreholes within the Nyl River Basin. These sources are under pressure from growth in demand. The possibility of a dam on the Mogalakwena River has also been investigated recently; the Town Engineer of Naboomspruit has expressed doubts concerning the adequacy of this source, due to high demand growth in the Potgietersrus area.

When Magalies Water was planning the Temba to Nylstroom pipeline, they approached Naboomspruit TLC regarding its requirements for a supply from that scheme. The town council of Naboomspruit elected not to be included in the supply area of Magalies Water, as the town council entertained the view that the cost of water from Magalies Water's Temba WTW (via Warmbaths and Nylstroom) was too expensive for it to participate in that scheme. Naboomspruit TLC has therefore been excluded from the Recommended ESA of Magalies Water, for purposes of the Study. Should Naboomspruit again raise this issue with Magalies Water at some future stage, the matter can be dealt with by the Board at that stage. However it should be noted that the inclusion of Naboomspruit in the supply area of Magalies Water would result in the transfer of water into another catchment (Mogalakwena River Basin), and would divide the management of the Nyl River control area. Both of these results should be avoided if possible.

9.5 TLC's Acting as Water Boards

The situation has arisen that certain TLC's within the Study Area (Bronkhorstspuit and Brits) at present fulfil the role of water boards, ie these TLC's supply water to consumers that do not fall within their area of jurisdiction. In fulfilling this role the TLC's are not subject to the provisions of the Water Act, as is the case with most water boards that function within the RSA. The current situation is confusing for consumers (both of these TLC's fall within the proclaimed supply area of Magalies Water), and effectively places the function of bulk water supply under the control of the provincial government instead of DWAF. The situation is exacerbated by the findings of the Study, that both Brits and Bronkhorstspuit should be focal points for future water supply development within the Study Area.

Both Brits and Bronkhorstspuit have indicated that they are unwilling to transfer their bulk supply assets to Magalies Water, although this appears to be the only logical long-term solution. This issue will have to be addressed by the DWAF in the near future, as the situation will become increasingly problematic as water supply development continues within the Study Area.

9.6 Boundary between Magalies Water and NWWA

The task team on areas of supply that was set up by Magalies Water and North West Water as part of the merger process, considered this boundary as part of its assignment. The recommendations of the task team are included in the Government's proclamation of 12 April 1996, relating to the areas of jurisdiction for North West Province. This proclamation has essentially followed the watershed, in the absence of any significant development within this peripheral area. For water resource management reasons the existing supply area of Magalies Water (ESA) excludes the entire Madikwe district this district being associated with the Marico River and falling into the area of supply of NWWA.

The alternatives sources of surface water supply to the north-western Mankwe region, are from Vaalkop Dam in the south-east and from the Moletedi Dam in the north-west. The Vaalkop North Supply Area (Saulspoort Supply Block) was considered as part of the preliminary study of water supply systems for the Study Area (Supporting Report B). The technical solution proposed for this supply block entails a bulk supply from the La-Patrie to Mabeskraal pipelines. Two villages outside the ESA of Magalies Water (Mantsho and Mapapulle) have been shown as included in the Saulspoort Supply Block. An alternative supply from the Moletedi Dam is also possible; however this supply area falls outside the Study Area, and further study by NWWA will be necessary before a final decision can be taken. The issue of tribal ties will also influence

decisions regarding supply boundaries within this area, and is likely to favour the inclusion of this area into the area of supply of Magalies Water.

Immediately to the north of Mankwe District, the PPC cement factory at Dwaalboom is supplied with water from the bulk supply system of Magalies Water, although it falls outside the supply area of Magalies Water. In this specific case Magalies Water sells water to PPC at a point near Northam, which is inside the ESA. A similar situation exists in respect of Union Section (Rustenburg Platinum Mine); a portion of this mine's activities also falls outside the ESA, although water to this area is supplied from a point within the Magalies Water supply area. The above privately owned pipelines could possibly be utilised in the future to supply water to adjacent towns and villages, as shown in the preliminary planning of water supply systems for the Vaalkop North Supply Area (Supporting Report E).

The existing boundary between Magalies Water and NWWA in Koster and Swartruggens districts is also formed by the approximate watershed between the Crocodile and Marico River Basins. The entire Marico district as well as the western portions of Koster and Swartruggens fall within the supply area of NWWA. All dams on tributaries to the Groot Marico (Madikwe Dam, Pella Dam, Kromellenboog Dam, Marico Bosveld Dam and the Klein Marico Dam) fall into the supply area of NWWA. The Koster and Lindleyspoort Dams (Elands and Koster Rivers respectively) fall into the supply area of Magalies Water (Crocodile River System). No request or motivation to amend the ESA boundaries in this region was identified during the course of the Study.

9.7 Eastern Supply Zone

the issue of water board boundaries within the Eastern Zone is currently the subject of a separate study commissioned by the DWAF, and involving interested stakeholders within the Kwandebele region and surrounding districts. A task team has been set up by the various stakeholders for this purpose. Provisionally the stakeholders have expressed their desire for an independent water board. An alternative is to place the Eastern Zone entirely under the management of Magalies Water as a separate business unit. If this option is pursued the choice of remaining under the management of Magalies Water can be revisited once this business unit has been firmly established. Unfortunately, the task team's report will not be completed within the time frame of Phase 1 of the Magalies Water JICA Study; further consideration can possibly be given to this issue during Phases 2 and 3 of the Study.

When considering the future of the Eastern Supply Zone it is important to note that both

Kwandebele and Moretele 2 are relatively poor areas, and will in all probability need cross subsidisation from other supply areas, in order to ensure available and affordable water supply from the water board tasked with supply to such districts. It is also important to note that Magalies Water does not supply water to Kwandebele at present, the existing supplies being made from the Weltevreden Treatment Works (Mkombo and Loskop Dams) which is currently operated by DWAF, and from the Bronkhorstspuit Works (Bronkhorstspuit and Grootdraai Dams) operated by Bronkhorstspuit TLC. Should an independent water board be established for the Eastern Zone (including possibly other regions outside the JICA Study Area) the future involvement of Magalies Water in the Cullinan and Bronkhorstspuit districts will have to be carefully considered. At present only the involvement of Magalies in these districts is in supplying water to Cullinan and the surrounding areas. From an operational point of view it will be advantageous for the primary water sources for Kwandebele and Moretele 2 (Bronkhorstspuit and Mkombo Dams) to be included in the area of supply of the water board that is to be responsible for these areas. In addition, it should be the objective for water resource management purposes to place as much of the catchment of these dams as possible under the control of a single water board. In view of the above reasoning, it is proposed that the Eastern Supply Zone should be considered as an unit, for inclusion or exclusion from the area of supply of Magalies Water. The role of Bronkhorstspuit TLC in supplying water to this Zone (see section 9.5 above) should also be reviewed when considering this issue.

In considering future surface water supplies to Moretele 2 District, supplies from Weltevreden WTW, Temba WTW or possibly a new works at Rust de Winter dam can be considered. The chosen alternative should be influenced by the area of jurisdiction of the water board(s) responsible for the Eastern Supply Zone. Should the Temba TW option be selected for implementation, then that portion of Moretele 2 District that is supplied from this source should be included in the area of supply of Magalies Water (Temba Supply Area). Supply from Weltevreden or Rust de Winter makes incorporation of the entire Moretele 2 District in the supply area of the water board responsible for the Eastern Supply Zone more logical (Weltevreden Supply Area). No further peripheral area issues were identified for this supply zone during the course of the Study.

9.8 Boundary between Magalies Water and Rand Water

The boundary debate between Rand Water and Magalies Water is concentrated in two separate supply regions, viz the extent of the area of supply of Rand Water along the Rustenburg to Western Platinum axis (Barnardsvlei Supply Area and peripheral areas); and the extent of the area of supply of Rand Water from its Hartbeeshoek Reservoir (Rand Water Supply Area).

9.8.1 Barnardsvlei Supply Area

The Barnardsvlei Supply Area is described in Supporting Report E. Briefly, it may be stated that this supply area is operated at present by Rand Water, the supply scheme having been implemented in the 1960's to accommodate further development of Rustenburg as well as mining operations within this portion of the Study Area. Water is supplied under gravity by Rand Water from its Witpoortjie Reservoir in Randfontein, via a series of break pressure tanks to a new regional reservoir at Barnardsvlei (97 Ml capacity). From this point, water is supplied westwards towards Rustenburg, and eastwards to Western Platinum Ltd.

The debate regarding this area of supply is two-fold, viz :

- o Should Rand water continue in the long term to be the bulk water supply authority for the Barnardsvlei Supply Area, or should this area be eventually placed under the management of Magalies Water?
- o If Rand Water continues to manage the Barnardsvlei Supply Area, what should be the actual supply area boundaries of Rand Water on the western and eastern peripheries of the Barnardsvlei Supply Area?

In respect of the first issue, different opinions have been expressed by various stakeholders (and by various representatives of the main stakeholders) at different stages of the Study. The most favourable solution should be evaluated in terms of the various criteria that are set out in 9.3 above. The most important selection criteria however, appear to be the existence of historical supply agreements between Rand Water and bulk consumers within this supply area, water resource management issues, and the creation of effective management structures for each of the water boards. In respect of the water resources management issue, the Study shows (Supporting Report E) that future augmentation to the Barnardsvlei supply area is likely to come from the Crocodile River System (Vaalkop and Hartbeespoort Dams).

All major role players have agreed that the short and medium term augmentation to the Barnardsvlei Supply Area should come from Vaalkop Dam, by removing certain existing demands in the Greater Rustenburg region from the western extremity of the Barnardsvlei to Rustenburg pipelines. Furthermore, the Study shows that long term augmentation to the Barnardsvlei Supply Area should come from Brits WTW (Hartbeespoort Dam via the Crocodile River). An argument can be made that the whole supply arrangement can be simplified in the long term by placing the Barnardsvlei Supply Area under the control of Magalies Water. This arrangement will also favour the logical development of management structures by Magalies

Water. It should be borne in mind that Magalies Water has its head office in Rustenburg, and is thus well placed in order to manage this supply area.

In respect of the second issue, historical supplies made by Rand Water weigh heavily in the debate. In the west, Rand Water has for a sustained period supplied water to Rustenburg TLC, Rustenburg Platinum Mines and to Impala Platinum Mines. In the east, Rand Water at present supplies Western Platinum Mine and the surrounding areas.

Debate regarding supply boundaries in this supply area is ongoing, and will continue independent of, but informed by, the findings of the Study. In order to achieve a short to medium term working solution, DWAF (as described in 9.2 above) has agreed to an arrangement whereby Rand Water's existing supply limits will be extended to the north of Rustenburg and to the east of Western Platinum. The agreed extension does not increase the overall cost of supply to consumers, and is compatible with the preliminary planning of water supply systems within the Western Supply Zone (see Supporting Report E). This decision will need to be revisited in the long term when further augmentation of the supply to the Vaalkop South and Barnardsvlei Supply Areas becomes necessary.

9.8.2 Rand Water Supply Area

The Rand Water Supply Area is also described in Supporting Report E. Briefly, water is supplied by Rand Water from Zuikerbosch Treatment Works near the Vaal Dam through an extensive distribution system to its Klipfontein and Hartbeeshoek Reservoirs in the south of the Western Pretoria Municipal Substructure's area of jurisdiction. From Hartbeeshoek Reservoir supply is made northwards to the urban and peri-urban areas of Klip-Kruisfontein, Akasia, Rosslyn, GaRankuwa and GaRankuwa Industrial, Mabopane, Soshanguve and Winterveld. The supply is at present being upgraded by Rand Water from a capacity of 140Ml/d to 300 Ml/d. No argument has been made to date that Rand Water should discontinue its involvement in this supply area, unless the Study should show that it is possible and more economical to replace this supply with one from Brits WTW (Hartbeespoort Dam), or from Kudube WTW (Leeukraal Dam) in the short to medium term. As discussed in Supporting Report E, water resource availability is such that sizeable excess capacity will only become available from the Crocodile River System after 2005, so until such times the existing supply cannot be so replaced.

Should Rand Water continue in the long term to supply the Rand Water Supply Area up to the maximum capacity of their existing supply system (300 Ml/d), it is not expected to be necessary to adjust the current supply boundaries in this region. The estimated 2015 primary demand of the

Rand Water Supply Area almost matches the existing capacity of the supply system via Hartbeeshoek.

9.9 Discussions with Key Stakeholders

Discussions were held with a number of key stakeholders who generally recognised the sensitivity of the peripheral areas issues, especially that of whether KwaNdebele should be included or not. As a result, they would generally prefer not to be quoted as taking a particular stand point or be seen to have preconceived ideas.

The following indications received from key stakeholders may however be of value:

- (1) MW management does not see the question of peripheral areas as an urgent matter or as a pressing issue. They also recognise that the peripheral areas question cannot be properly addressed without the involvement of NWWA, Bosveld Water and RW.
- (2) Mr Steve Naraghi (NWWA) does not see a problem in including the western side of Mankwe into the ESA, and believes that it can be supplied from MW sources.
- (3) Mr John Cunniff (Rustenburg District Council) would prefer the whole of his district to fall within the ESA.
- (4) Mr Lourens Human (Rand Water) would like to see the area supplied by RW (Soshanguve, Mabopane, and Bafokeng) fall within the Rand Water supply area.
- (5) Mr Willie Law (Naboomspruit) would prefer a future supply to Naboomspruit to be from MW and would thus favour incorporation.
- (6) Mr Johan van Aswegen (DWAf Mpumalanga) pointed out the sensitivity of the Kwandebele question. He would prefer the decision to be left to the working group.
- (7) Mr Pete Smith (BODA) would ideally like to see workshops held and the communities affected by the peripheral area (in Kwandebele) question to be informed and given the opportunity to decide for themselves.

Some of the major municipalities within the ESA would prefer to "go it alone" and do not see the necessity of their infrastructure to be placed under MW control.

II. INSTITUTIONAL STUDY

CHAPTER 10 BACKGROUND TO THE STUDY

CHAPTER 10 BACKGROUND TO THE STUDY

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CHAPTER 10 BACKGROUND TO THE STUDY

10.1 Introduction

The general election that brought the Government of National Unity (GNU) into being, headed up by Nelson Mandela, took place in April 1994. For two years prior to that an intense process of negotiation had been taking place to produce an interim constitution that all parties could subscribe to. All parties that participated in the election did so on the basis of their acceptance of this constitution. This interim constitution (now a final constitution) forms the background of the changes that have happened in South Africa since 1994.

The suggested expansion of the area of Magalies Water is set against the background of political change in South Africa. This change has ramifications on this project at a number of levels. It is considered important that a broad understanding of the issues and their consequences is obtained so that the results coming out of the Community Inventory Survey can be properly integrated and any recommendations can be made in the knowledge of the broader context of the project. The following section provides such a context.

10.2 South Africa Pre 1994

Prior to the events in April 1994 the South African Government had been elected only by the White race group. In the 1980s a token gesture towards Coloureds and Indians was made with the establishment of the Tricameral (three Houses) parliamentary system whereby there was separate political representation for Whites (through the House of Assembly), Coloureds (House of Representatives) and Indians (House of Delegates). Each race group voted for representation within their respective House (or Own Affairs). Power effectively lay with the House of Assembly, with the two other houses having only limited consultative and decision-making functions. Own Affairs were mostly concerned with housing, education, health and public works and effectively reinforced the legalised separation of the residential areas of the different race groups. There were some functions that were General Affairs and cut across all race groups, such as police, prisons, defence etc.

In the above framework Black people did not have any political representation in South Africa. In the original vision of apartheid South Africa Black people would have political representation and economic opportunity in specially designated "Homeland" areas. These homelands came about in the 1970s and may be divided into two types:

Independent States - where the homeland has opted for full independence from South Africa. There were four Independent States - Transkei, Bophuthatswana, Venda and Ciskei - and referred to collectively as the TBVC States; and

Self-Governing Territories (SGTs) - where the homeland did not opt for 'independence' from South Africa. There were six of these - Lebowa, Kangwane, Gazankulu, QwaQwa, Kwazulu and Kwandebele.

The homelands were envisaged as places where Black South Africans could realise their economic and political aspirations, although these would be exercised geographically separate from the main urban and economic areas of South Africa. Assistance would be provided in the form of financial and economic incentives to business that wished to establish there, financial support would be provided to the homeland government, project funding for infrastructure development would be provided, and various other forms of assistance would be given to help these areas prosper and grow.

In the case of the TBVC states that had taken independence there was the opportunity to not only develop health, education and housing for the population, but they could have their own armies, police force and judicial systems. By comparison the SGTs were much more directly controlled by South Africa, being fully linked into the financial and institutional procedures and systems of South Africa. Although the homelands were operated as semi-independent states with separate governments there were no borders or boundaries. Often it was difficult to tell whether one was within or outside a homeland. Boundaries were often roads, with one side of the road in the ex-homeland and the other side in RSA.

The objectives of the homelands did not convert into reality. The homelands were to all intents and purposes dumping grounds for unwanted Black people and served as pools of cheap labour for adjoining White towns. There was complete economic and financial reliance on RSA as these states had little or no economic potential and thus no income to fund the provision of government services. The budgets of these homelands were almost completely based on financial transfers and South African Customs Union funds. The governments of these homelands were unable to attract or pay for the necessary skills to run government services and so relied on seconded officials from the RSA government to run key services. Because there existed little or no job opportunities in the homelands themselves many of the residents of these areas commuted long distances daily between the homeland and cities such as Johannesburg, Durban and Pretoria..

The homelands existed side by side with what may be termed White South Africa. The structure of the first tier in the form of the Tricameral Parliament has already been described. At the second tier consisted of 4 Provincial Administrations for each of the 4 provinces - Transvaal, Orange Free State, Natal and Cape - and the homelands existed outside these areas. Basic services such as education, health, housing and public works were provided by these structures. Regional Services Councils were established in the mid-1980s to provide infrastructure on a regional basis, but did not extend into the homelands. Each of the 3 houses of the Tricameral Parliament had representation in these Provincial Administrations on a form of proportional representation. However, services were provided on a racially-defined basis.

Local government took place within the context of the tricameral system and the homelands. At the local level in RSA Whites, Indians and Coloureds participated collectively in local government but the legacy of the Group Areas Act enforced a racial separation of wards and sub-municipal boundaries. In the Black townships within South Africa that were not in the homelands (such as Alexandra, Tembisa, Soweto) there were Black Local Authorities, despised by the inhabitants as token appointments and the subject of concerted opposition by the civic movement in the late 1980s. In the ex-homeland areas local politics, particularly in the more rural areas, had been dominated by tribal authorities supported by the government of the

homeland. In the urban areas of these homelands local government had been in many instances disempowered by the homeland governments, with services being provided by the homeland government, not through representative local authorities.

Over 90 % of the country was in White South Africa, although around 70 % of the population lived in the homelands. White South Africa contained all the major metropolitan areas and almost all the smaller towns, as well as the major farming, industrial and recreational areas. To avoid homelands occupying any areas that could be used for the above purposes many of them comprised a large number of small geographical areas, in some cases quite distant from each other. This made administration of both the homelands and the provincial areas more difficult and caused a great deal of service duplication where it was not economically justifiable.

All the major utilities operated only in White South Africa. Water Board areas of supply excluded the homeland areas, direct electricity supply by ESKOM likewise. All the major roads and toll roads were in the White portion. Thus almost the entire economic power of South Africa lay outside the homeland areas.

10.3 South Africa Post 1994

Although South Africa was going through a process of change prior to the 1994 elections it was the democratic elections in April of that year that spelt the demise of the homelands as administrative and institutional entities, and ushered in a new dispensation. The homelands became defunct and were absorbed into the 9 new provinces. The Tri-cameral parliamentary system disappeared, although the 3 Houses referred to earlier were being progressively phased out since the late 1980s. It should also be said that many of the homelands were moving towards reincorporation with South Africa prior to the actual election, although one or two remained intransigent. In many of these homelands there was increasing civil strife, particularly after the unbanning of the ANC in 1990, and the unworkability of the homelands had been largely accepted in the late 1980s, although what was to replace them was not clear.

A new provincial dispensation was put in place in 1994, with powers derived from the interim constitution. Nine provincial governments were established, although they vary greatly in their institutional capacity to function as regional governments, partly as a consequence of the ex-homelands that existed within their areas. All these provinces have a set of functions defined in the Constitution. These include health, education, public works, broadcasting, trade promotion, agriculture, arts and culture, finance and tourism. Water supply is excluded and remains a national competence.

The transition from the previous constitutional set-up (homelands, tricameral system and all the complicated systems and procedures needed to run such a system) to the new provincial one has required an enormous amount of effort, particularly in dismantling and reassembling organisations. The provinces with most problems are Mpumalanga, Eastern Cape, KwaZulu-Natal and Northern Province are the most heavily affected. The poor financial situation of the governments of many of these homelands and the lack of qualified and motivated staff is making this process of transformation particularly painful. There is still a huge pool of homeland

government staff employed in the former capitals, with little or no work to do, but whom the new government, under agreements in the interim constitution, are unable to dismiss.

Democratic local government elections took place in most parts of the country in November 1995. A great deal of preparation was required, including the passing of a Transitional Local Government Act and the redrawing of council boundaries to include all those areas previously excluded. Local government is the cornerstone for the delivery of services, as well as the first point of contact between the populace and the government of the country. Local government elections are therefore vitally necessary for development of South Africa. Unfortunately the legacy of the past has placed additional pressure on the newly elected local governments in this country:

- (1) A key weapon against illegitimate Black Local Authorities in the 1980s was rent and service boycotts, intended to make the BLAs ungovernable. These boycotts have persisted into the new era, despite campaigns like Masakhane to encourage payment for services;
- (2) The struggle between democratic local government and traditional tribal local government continues in many of the ex-homeland areas, leading to lack of co-operation and inability of local government to function effectively;
- (3) Local government tended to employ some of the more conservative elements of South Africa. The arrival of democratic local government in many of the previously White areas has prompted widespread resignations and early retirement of officials and administrators; and
- (4) The expansion of local government into areas previously unserved has put additional pressure on local authorities throughout the country.

Regional Services Councils that previously only served the non-homeland areas of South Africa and were widely expected to disappear in the new dispensation are now experiencing a renewed popularity. It is realised that they are one of the few agencies below provincial government with the capacity to deliver services and so are now being restructured, democratised and having their boundaries extended to cover the homeland areas.

10.4 Impact on the Community Inventory Survey

10.4.1 Capacity

The racial demarcation of South Africa and the deliberate underfunding of key services to the non-White population has had a devastating effect on the capacity of the country post 1994 to govern itself and provide crucial services. Black people particularly are handicapped by the following historic factors:

- (1) Education provision significantly below that provided to any other group (at one point in the 1980s education expenditure per capita for Whites was eleven times that provided to Blacks);
- (2) Education boycotts throughout the last 20 years as the demand for liberation before education was increasingly heard;
- (3) Lack of access to economic opportunities through legislation such as the Group Areas Act, Influx Control, homeland policy and virtually every type of legislation where economic opportunities for Blacks was involved; and
- (4) Poor living conditions due to confinement in townships, with poor basic services and little or no work possibilities.

Given this historic situation it is not surprising that the issue of capacity building is such a fundamental development issue in South Africa post 1994. All sectors of society are affected by this capacity problem - all levels of government, the private sector, NGOs and community organisations. The lack of capacity of the many in turn puts pressure on the few who have necessary abilities and experience.

The issue of capacity is prevalent throughout the Community Inventory Survey and can be better understood in the context of the foregoing. The problem is particularly acute at the third tier, with almost all organisations limited by the lack of necessary skills to undertake their responsibilities. Capacity is also poor at the second tier, with provincial governments impinging on Study Area poorly equipped to support the third tier, as well as lacking essential planning and project management skills. DWAF itself also has capacity problems and the CWSS Directorate is already being asked to take on roles beyond its ability to manage. Finally, the communities that are the beneficiaries of this work fundamentally lack capacity, particularly in the ex-homeland areas, although they may not necessarily lack resources.

10.4.2 Homelands

There are two ex-homelands in the Study Area - the eastern part of the Independent State of Bophuthatswana in the west, and the SGT of Kwandebele in the east. Both served as dormitory areas for transfrontier commuters working in the Pretoria and Johannesburg area, both are fairly urbanised, comprising sprawling unplanned townships and informal residential areas, and both have underdeveloped infrastructure serving growing populations. Bophuthatswana is more developed than Kwandebele, with a number of industrial areas such as Ga-Rankuwa and Babelegi, but the removal of industrial incentives combined with the violent nature of political change in Bophuthatswana in 1994 has reduced considerably the economic base in this ex-homeland. The eastern parts of Bophuthatswana were always opposed to the existence of the homeland so civic structures and ANC support was always stronger there than the rest of the homeland. Kwandebele was characterised by a much greater degree of dependence on South Africa than Bophuthatswana, due to its smaller size and SGT status.

The presence of these homeland areas has a profound impact on this study:

- (1) The areas are much less developed and have much more dense populations than the other parts of the Study Area;
- (2) The economic base is very limited, with most work opportunities outside these areas; and
- (3) The institutions found there reflect the philosophy of government that was in place. Basic services such as water were in both homelands provided free of charge, and the organisations themselves are characterised by poor management, insular planning and lack of technical capacity.

10.4.3 Community Development

Related to the poor capacity in South Africa is the need for community development. It is a key development goal that people are involved in projects and programmes that are for their benefit, and that they are able to manage and maintain them after implementation. In the past in both South Africa and the homelands there was little involvement of communities in projects. Non-Government Organisations (NGOs) proliferated in the late 1980s and early 1990s to support community development in an environment where service providers such as local authorities, government departments, parastatals and the private sector only infrequently consulted communities on their needs and involved them directly in projects. Although many NGOs did an admirable job the net effect was not substantial and many NGOs are closing down through lack of funding and departure of key staff to the public sector.

The current situation is that many communities lack basic skills and experience in management of the provision of basic needs, such as management of water supply, and there is an enormous demand for support in training and development at the local level. DWAF has taken some steps in assisting by recruiting Organisation Development Officers (ODOs) to help communities be better able to help themselves, but the supply of their services is minimal in comparison to the number of communities needing such support.

10.4.4 Transformation

The past two years has witnessed South Africa undertaking the first steps in the transformation from a divided, minority-ruled and autocratic society to a unified, majority-ruled and democratic one. Although both desirable for the people and necessary for the future, a distinction must be made between the collective experience of transformation and the individual experience. The collective experience is generally positive, understanding and supportive. This has been strongly reinforced by re-entry into the world sports arena and successes in that field, the tremendous popularity of Nelson Mandela, access to places, goods and services that were previously denied to South Africans, and a general increased involvement in the affairs of the world at almost every level. At the individual level the experience is quite different and characterised for many people by uncertainty, stress and fear.

Some of this is based on actual problems facing the new South Africa - crime, factionalism, economic problems. But fundamentally the stress people experience is caused by change - in the

case of South Africa very rapid change. This change is occurring at all levels and affecting equally those with most to benefit and those with least to gain. Those who perceive they have little to benefit and fear the loss of privilege and position can become obstructive and devious. Those who would appear to be the major beneficiaries of the change find the taking on of responsibilities adds pressure and stress not experienced before.

The Community Inventory Survey is about transformation - the transformation of institutions to take on new roles and responsibilities or to shed them, the transformation of communities to become involved in shaping their own destiny, and the transformation of individuals to be able to manage services under a new set of demands and circumstances. It is therefore highly important that this project should not be seen merely as producing a specific product, but that the processes involved are part of the transformation and thus as important as the final result.

CHAPTER 11 : POLICY AND ROLE/RESPONSIBILITY

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CHAPTER 11 POLICY REVIEW AND ROLE/RESPONSIBILITY

11.1 Policy Frameworks and Legal and Institutional Issues

11.1.1 Introduction

The objective of this part of the study is to establish an overall view of existing water supply and sanitation policy frameworks, legislation and institutional issues in promoting or operating water supply and sanitation services in the Study Area. Our review and analysis includes an investigation of materials and literature as well as interviews conducted with agencies and institutions involved in water supply and sanitation in the Study Area. Based on the results of these activities we identify constraints and conflicts as well as policy and legal/institutional frameworks which serves as a basis for the provision of water supply and sanitation within the Study Area.

11.1.2 The Water Act (ACT 54 OF 1956)

(1) Background

National water policy in South Africa is laid down in the Water Act of 1956 (Act 54 of 1956) which has had 34 amendments since its inception. The Act lays down regulations governing the construction and maintenance of water works and the responsibility for managing different types of the water network. More specifically, the Act is designed to consolidate and amend the laws relating to the control, conservation and use of water for domestic, agricultural, urban and industrial purposes and to make provision for the control of water usage of certain activities and in certain areas. It defines three types of water management institutions: (i) State Water and Irrigation Schemes; (ii) Irrigation Boards; and (iii) Water Boards. The first type are managed by the Department of Water Affairs and Forestry (DWAF) and financed from the central government's consolidated budget. The second type are statutory bodies established by groups of irrigation farmers to provide a service in an area in which they all have a common interest. In the third case, the Minister of Water Affairs and Forestry recommends the establishment of a Water Board for a specific area to distribute bulk water for urban, industrial or agricultural use by local, state, and some central government authorities.

Act 54 of 1956 was passed to replace the Irrigation and Conservation of Waters Act (Act 8 of 1912) which was inadequate for the water requirements of an expanding urban and industrial economy and to bring the management of water resources and development under state control. Act 54 reintroduced centralized control over public water resources and made some attempt to accommodate the expanding urban and industrial economy, but it still primarily served the interests of the agricultural sector. The functions and responsibilities of the central and provincial governments were not clearly defined in the Act which served essentially as an instrument of policy. The new Government of National Unity (GNU) has been mindful of these problems and has taken a number of

important steps. First, a new Department of Water Affairs and Forestry (DWAFF) was established in July 1994 to replace the old Department of Water Affairs (DWA) and to assume responsibility for water resource management, water supply, sanitation, and forestry functions and to better meet and manage the water related objectives of the RDP. Second, a policy document, the *White Paper on Water Supply and Sanitation Policy* was published in November 1994 to clearly set out the policy for the new department in regard to water supply and sanitation services. And thirdly, the current Act itself as well as all other water related legislation is undergoing major review to ensure that it meets the present and anticipated objectives of the GNU.

(2) Water Laws Rationalization and Amendment Act (Act 32, 1994)

Act 1994 was enacted to repeal and provide for the rationalization of certain laws relating to water matters that remained in force in the former "homeland" areas. More specifically, Act 32, 1994 provides for the amendment of Rand Water Board Statutes (Private) Act, 1950 so that Rand Water Board can provide water supply and sanitation services and to amend Water Act 54, 1956 and to make certain provisions of the Water Act applicable to Rand Water Board. The Act also authorizes the Minister of Water Affairs and Forestry and Water Boards to provide water supply and sanitation services, provide for the establishment and functioning of local water supply and sanitation committees, and to further regulate the financial year of Water Boards. Act 32, 1994 further provides for the amendment of Water Act, 1988 (Bophuthatswana), amendment of the Bophuthatswana Water Supply Authority Act, 1988 to further regulate the Bophuthatswana Water Supply Authority Board, including the term of office of the members of the Board and to regulate the quorum of the meetings of the Board. The Act authorizes the Bophuthatswana Water Supply Authority to provide water supply and sanitation services, to replace the short title of the Act, to change the names of the Board and Authority, to provide for the functioning of the Authority in the extended area of jurisdiction, and to make provision for Water Boards to function in certain areas of the former Bophuthatswana.

(3) Specific legislation applicable to the Study Area

Water supply and sanitation policy in the North West Province (former homeland of Bophuthatswana) is currently laid down in two Acts: Act 54 of 1956 and Acts 38 and 39 of the Bophuthatswana Water Supply Authority Act, 1988. The Water Laws Rationalization and Amendment Act, Act 32, 1994 provides for amendments to section 2 of Act 39 of 1988 (Bophuthatswana) by substituting certain definitions and expressions in the Act. Amendments to sections 3, 4, 6, 10, 17, 22, and 34 of Act 39 substitutes Bophuthatswana Water Supply Authority for North West Water Supply Authority (NWWA) and authorizes NWWA to supply, distribute and ensure the provision of purified or unpurified water and provide effluent treatment or purification services and dispose of effluent including water recovered from effluent to persons in the North-West

Province. It calls for control of NWWA by the North-West Water Supply Authority Board, specifies the number of board members to serve on the board of NWWA, authorizes the Minister of Water Affairs and Forestry to terminate at any time the term of office of any appointed or alternative board members, and stipulates the compensation of the CEO and the submission of audited financial statements of NWWA.

Chapter IIIA in Act 39 of 1988 (Bophuthatswana) authorizes NWWA to provide water supply and sanitation services within the Study Area to any community occupying land for residential purposes subject to the maintenance of minimum standards, the financing of such service, and the setting and assessment of charges (tariffs) for such services. Section 47 of Act 39 substitutes Bophuthatswana Water Supply Authority for NorthWest Water Supply Authority and Bophuthatswana Water Supply Authority Board for North-West Water Supply Authority Board. Act 32, 1994 provides for the extension of the area of jurisdiction of the North West Water Supply Authority to cover the entire Province of the North-West and provides for the exercise and performance of powers, functions or duties by water boards in certain areas of the NWP

(4) Water Law Review

The Minister of Water Affairs and Forestry announced in June 1995 the formation of a special Water Law Review Panel to develop a set of policy principles on which a new law could be based. The mandate of the Panel was to complete its work by November 1995. The objective is to make the new water law simple, equitable, environmentally integrated and sustainable, economically viable and conducive to equitable economic growth, non-bureaucratic, and able to be administered simply and easily.

The Panel completed its work in a report entitled "Fundamental Principles and Objectives for a New Water Law in South Africa" in which nine sets of fundamental principle categories were developed. These were: *hydrological cycle; aquatic ecosystems; legal status of water; water demand, apportionment and usage; water quality management; value of water; existing rights to the use of water; management, administration and enforcement; and water supply and sanitation services*. Much work still has to be done in assessing the implications of the principles. In addition, a number of issues still require further investigation: *determination of existing rights, criteria for compensation, new water allocation criteria and procedures, determination of the ecological reserve, polluter pays issue, effective water law enforcement, international law, and institutional and administrative structures*.

The Department received much needed support from a number of organizations, the Land and Agricultural Policy Center (LAPC) and foreign governments including the French and Canadian governments who have offered to exchange views and share pertinent information. Numerous workshops were held and submissions from various groups of legal specialists and water and economic experts were made to the panel. Some of the concerns raised in the submissions included the protection of existing rights; whether the

law itself was the source of inequitable access to water or whether concepts such as private water were appropriate; and the use of water by agriculture, through the riparian rights principle was debatable. However, there was general consensus on the need to protect water as a resource, support for integrated catchment management, and general acceptance of the need to recognize the economic value of water, although concern was expressed over the effects of raising the price of water.

As of the time of preparing this report, the principles have yet to be accepted by the Minister and are still being reviewed by DWAF itself. The next phase was the formation of a *Steering Committee* to ensure the principles were acceptable to the Department and the Minister. The principles will be finalized by end of March 1996 after which a further round of consultations will be held culminating in a National Water Law Review Conference in July. From the National Water Law Review Conference will emanate a final set of principles which will guide the drafting of the legislation itself. This will be presented to the Cabinet for approval and tabled as a White Paper before actual drafting of the legislation commences.

(5) The Issues

In spite of the above initiatives taken by the GNU a number of issues still require attention.

- 1) despite the clear way in which Act 54 lays down the responsibility for managing the water network, the Act still overwhelmingly favors the irrigation sector through the riparian principle of allocating a proportional share of water to riparian land and property owners.
- 2) the Act has never made any provision for community water supply and sanitation services although an amendment (Section 7 of Act 32, 1994) was only added to the Act in Chapter IIA to accommodate the "rendering of water supply and sanitation services". Section 22 of Chapter II refers to water pollution, but does not specifically make reference to sanitation. The government has since provided specific support to a new Directorate for Community Water Supply and Sanitation, but still needs to exercise its powers to ensure that an appropriate authority is designated to manage projects proposed by this new sector. Also, policy guidelines on tariffs and cost recovery have yet to be established.
- 2) now that there is an official *White Paper on Water Supply and Sanitation Policy*, there is an urgent need to develop the necessary institutional arrangements for broadening the scope and functions of existing and new water boards and possibly irrigation boards so that they can better undertake duties and responsibilities outlined in the White Paper of ensuring that all South Africans have access to basic water supply and sanitation.

- 4) the above changes need to be set in the context of proposed new water legislation. The GNU has already indicated its firm committed to a new Water Act which will be needed to provide a firm legislative basis for the kinds of actions needed at the local level to deal with the first three issues above and also to consolidate the amendments made over the last few years to Act 54.

(6) Constraints or Conflicts

The major impetus for changing Act 54 stems from a number of factors: 1) there are currently two Acts (Act 54 of 1956 and Acts 38 and 39 of Bophuthatswana) which lays down water supply and sanitation policy in the Study Area. These Acts plus all amendments either need to be consolidated into a single Act or a completely new Act need to be established. 2) most of the emphasis of Act 54 has been on the riparian principle which operates on the basis of allocating a proportional share of water to a riparian land owner. For example, there is still pervasive focus on the irrigation sector. The Act primarily still serves the interests of the agricultural sector and does not provide for adequate sustainable management and conservation of water. 3) as mentioned earlier, there has been no emphasis on sanitation except for an amendment (Section 7 of Act 32 of 1994) which was only inserted in the Act in 1994 to cover community water supply and sanitation. 4) Act 54 is too wide-ranging and is generally considered inadequate to meet the needs of South Africa's modern industrial economy and semi-arid land where limited and highly variable water resources are subject to increasing competing demand. 5) the demand for water had reached a point where, relative to its availability, apportionment or allocation was becoming too costly for the state and other ways need to be considered to deal with more efficient allocation. And 6) the Act needs to be reviewed so that the GNU can better achieve its goals and objectives of providing water supply and sanitation services for all South Africans.

(7) Identification of Policy and Legal/Institutional Frameworks

A new institutional framework within which the goals and objectives of the White Paper and RDP can be most effectively undertaken is needed for the GNU to succeed in its objective of ending the inequity in access to basic water supply and sanitation services. This may mean proposing the establishment of organization (s), which, while being publicly accountable will enjoy the highest degree of professional and technical autonomy in undertaking its duties to the community. It will also mean proposing the administrative and legal mechanisms necessary to appropriate institutions which will give them the power to raise revenues sufficient to ensure that an economically appropriate level of service is sustained.

Unfortunately, the current institutional framework does not clearly define the policy direction on exactly where the government stands on the desirability of establishing a completely new water Act or consolidating all the amendments into a single Act or into

separate Acts dealing with water management, water supply, and sanitation. Also, hardly any analysis has been done on which policy recommendations in the White Paper and the RDP can be implemented under Act 54 and which require new or amended legislation.

Little attention has been focused on developing a well regulated framework for the transfers of water-use rights, particularly since water in South Africa is allocated inefficiently and becoming an increased scarcity. Under Act 54 for example, water-use rights are not tradable or transferable without first obtaining the consent of the Minister for Water Affairs water markets have not developed in South Africa. Under Acts 38 and 39, 1988 (Bophuthatswana) a land owner can sell or transfer his/her water rights without consent from the Minister of Water Affairs. Market based allocation of water can provide an incentive for more efficient water use in agriculture by securing compensation for water transferred away from low value users such as irrigation farmers to high value users such as communities and industry.

Water markets has implications for water supply and sanitation policy because a well regulated market for tradable water-use rights could secure water supplies to many communities without the need to develop costly, new sources of supply. Water in South Africa is already a scarce commodity and tradable water-use rights could alleviate water supply and sanitation problems particularly in the rural areas. In addition, community water supply and sanitation is currently undergoing major transformation and is becoming a burden on DWAF's resources. South Africa's water variability, increased scarcity, and inefficient allocation and use of water resources creates a favorable climate for the establishment of transferable water-use rights.

11.1.3 Reconstruction and Development Program (RDP)

(1) Basic Concept and Programme related to the Study Area

The Government of National Unity (GNU) has set out to transform South Africa under the guise of the Reconstruction and Development Program (RDP) aimed at social upliftment and economic development. The RDP is a policy framework for integrated and coherent socio-economic progress and developed through a process of consultation and joint policy formulation. A *White Paper, WPJ/1994*, on Reconstruction and Development was submitted to parliament November 1994 and reflects the GNU's approach to reconstruction and development. The six basic principles of the RDP are: (i) *integration and sustainability*; (ii) *people-driven process*; (iii) *peace and security*; (iv) *nation building*; (v) *meeting basic needs and building the infrastructure*; and (vi) *democratization, assessment and accountability*. The RDP consists of five key programs: (i) meeting basic needs; (ii) developing human resources; (iii) building the economy; (iv) democratizing the state and society; and (v) implementing the RDP itself.

The Central Government sets the broad objectives of the RDP and together with Provincial and Local Governments provide the policy and regulatory framework to facilitate its implementation at the national, provincial and local level. This involves establishing the RDP funding processes; provision of research, monitoring, statistical, auditing and performance assessment for the RDP; and the facilitation of intergovernmental consensus and restructuring and reorienting of the Public Service towards the goals of the RDP.

Each Province is expected to develop its own strategy for implementing the RDP. All have established responsibility for the RDP either in the Office of the Premier (Governor) or in the Office of the MEC for Economic Affairs. Provincial Governments will: carry out RDP activities, redirect expenditure and resources to RDP priorities, introduce reforms to meet the conditions for RDP implementation, consult with local communities on RDP programs, distribute united funds to local communities, and conduct operations to meet monitoring and auditing requirements.

The RDP have identified local authorities as key institutions for delivering basic services, extending local control and managing local economic development. Local authorities need resources for the extension and upgrading of municipal services and capacity building to permit community-based structures to assist in local planning and implementation of the upgrading. Additional sources of revenue will be needed for operating, maintenance and subsidy expenses as well as staff retraining and some new capital expenditure. RDP funding to transitional local authorities is conditional upon a set of criteria which demonstrates efficient service delivery, freezing of inappropriate projects and engaging in consultation with community groups. In rural areas where many third tier government structures are weak, provincial government is encouraged to initiate a process of building local government.

The RDP currently has three presidential lead projects (PLPs) to ensure the provision of water and sanitation services to communities in the Study Area. They are: the *North West Rural Water Supply Program*, *Moretele 1 Water Supply Scheme*, and the *Winterveldt Water Supply Project*.

The goal of the North West Rural Water Supply Program is to supply basic water to all areas of the NWP where there is no designated supply authority and to provide every resident in those areas with safe, affordable and sustainable supply of water at 25 liters per capita per day. The program has three components: water supply and sanitation, a Sanitation & Water Educational & Training Program (SWET), and water-related capacity building initiatives. The total cost of the project is R23.0 million. Project implementation commenced in early 1995 and is expected to be completed towards the middle of 1996.

The goal of Moretele 1 Water Supply Scheme is to provide water supply to RDP standards to a population of some 150,000 while strengthening the community's ability to maintain and sustain such supply. The project consist of three zones which have been identified to service state and tribal land (bulk supply and reticulation) as well as privately owned land

(bulk supply only). The project has a total cost estimate of R57.0 million and is being implemented by Magalies Water and DWAF. Work has already begun on supplying water to 150,000 people in 17 communities in Moretele 1. A second phase, Moretele 2 estimated to cost some R42.0 million is expected to come on stream in the latter part of 1996.

Winterveldt Water Supply Project was identified as a PLP in 1994 and is aimed at providing water to the community of Winterveldt at the minimum standards defined by the RDP. The total cost of the project was originally R23.6 million, but this estimate was insufficient to meet the basic RDP requirements. An additional R15.5 million was subsequently allocated to the project to commence the second phase.

In addition to the PLPs, the RDP is supporting the Molopo River Basin Project with providing clean water to communities living along the Molopo River in the Study Area. The plan is based on community driven needs and recent changes in community and tribal/local government structures and is planned for a four year period. It will clean up the river basin and transport clean, safe, drinking water to the community by laying pipes and placing stand pipes. It will also expand sewerage and wetland facilities to provide toilets and wash places along the river and will link existing developments of a clean water river system through wetlands and dams. The plan therefore provides the linkage with the Water Supply Authority's R17.0 million scheme to supply water to the tribal areas around Minabatho as well as various communities around the city and different structures such as the City Council, Tribal authorities, Provincial Government including Environment Affairs, and Local Government.

(2) Current Achievements and Constraints

The RDP succeeds in highlighting a vital issue facing South Africa, namely, the importance of long-term structural policies to achieve social upliftment and on-going economic development. It embraces major policy issues: the need for growth-oriented sector policies; the role of development planning; concern for basic needs and other social justice issues; and the role of government, the private sector and the community in implementing the RDP. Nevertheless, the RDP glosses over several issues that needs to be clarified and the following remarks will be addressed to those issues. In some areas more specific suggestions are called for, especially on ways to achieve a particular objective and on mechanisms for applying them.

- (a) The RDP seems to underestimate the difficulty of achieving certain kinds of policy reforms, particularly in areas still heavily influenced by socio-cultural factors. Some owners of private land for example, are reluctant to have standpipes on their property. Land is still a highly sensitive issue.

- (b) The RDP quite rightly argues for a minimum basic water supply of 25 liters per person per day, but some communities are demanding 50-60 liters per day instead.
- (c) Third, the institutional requirements for successful management of RDP projects after implementation need to be tackled seriously. More specifically, two of the PLPs in the Study Area currently being implemented by second tier institutions (Magalies Water and Rand Water) were originally scheduled to be handed over to Local Water Committees (LWCs) who will manage the projects after completion. But, DWAF has been in a dilemma regarding the feasibility of handing projects over to LWCs or Project Steering Committees (PSC) even though PSCs have no legal standing. In addition, both LWCs and PSCs lack the necessary training and capacity to efficiently manage the projects. While it has been decided to allow the water boards to temporarily assume responsibility for maintenance and management of the projects after completion, it is still unclear which aspects of the project will be handed over to PSCs.
- (d) In spite of the emergence of legitimate local government structures after the November 1995 elections, the gulf between local authorities and other community based structures remain wide, thereby offering no real scope for meaningful integration between short-term and long-term planning. All too often local management and planning and administrative capacity fall far short of what is required, while a common obstacle is the existing planning and budgetary system. The numerous and onerous conditions for RDP funding may also produce an image of "big brother" descending upon a community and laying the grounds for greater confusion.

11.1.4 White Paper on Water Supply and Sanitation

(1) Background

White Paper (WP N'94) is a policy document published November 1994 to clearly set out the policy for the new Department of Water Affairs and Forestry (DWAF) in regard to water supply and sanitation services and to revise and consolidate all water legislation. Its main purpose is to provide historical background on water supply and sanitation development in South Africa; explain the development approach which has guided policy formulation; put forward basic policy principles; outline the institutional framework proposed for water supply and sanitation services; provide standards and guidelines for basic service delivery; set out policy for the financing of services; outline immediate initiatives currently being undertaken; and provide supplementary policy and briefing information on important related topics.

DWAF has the national responsibility of ensuring that the water supply and sanitation needs of the people and of the economy which sustains them are met effectively. As part

of the reform process within DWAF, a new *Chief Directorate of Community Water Supply and Sanitation* was established to promote water supply and sanitation. The responsibilities of the Chief Directorate are to: assure effective on-going operation of potable water supply systems for which DWAF is responsible; plan and promote the expansion of services in collaboration with provincial governments; develop organizations at the local and regional level to achieve the goals of the RDP; and monitor and regulate water supply and sanitation activities in accordance with the constitution. White Paper WP N'94 is geared towards the establishment of a clear framework to enable third tier institutions to play their role in implementing service provision at the local level.

The question of equity is one of the major issues facing DWAF. Up to the present time most of the water in South Africa is used for commercial agricultural. Previous legislation was designed to protect the water rights of farmers along rivers while current legislation ensures an equitable distribution of water for industrial and other competing users. Most of the vast investment made by the state in the construction of large inter-basin transfer schemes were unevenly distributed and benefited only a small minority. The goal of the new DWAF is to end the inequity in the allocation of water resources and in water supply development and sanitation services.

(2) Water Supply and Sanitation Policy

(a) Policy Principles

The White Paper has adopted a set of principles on which water and sanitation policy will be based. These are based on local and international experience and on the premise of the RDP. The policy principles are: *development should be demand-driven and community-based; basic services are a human right; "some for all" rather than "all for some"; equitable regional allocation of development resources; water has economic value; the user pays; and integrated development and environmental integrity.* The primary principle in the White Paper is that development should be demand driven.

(b) Institutional Framework

The policy of DWAF is to ensure that existing institutional capacity for water supply and sanitation is maintained in the short-term so that the objectives of the RDP are met. DWAF has yet to establish a policy/institutional framework within which responsibilities and lines of support for water supply and sanitation activities are clearly defined. DWAF's short-term institutional goal is to maintain a service delivery and to rationalize the central government department to ensure the smooth integration of all previous homeland staff, functions and budgets into a new national department. Its medium-term goal is to support institutional development at the local level and to provide financial and technical assistance for physical development of

water supply and sanitation services. And the long-term goal of DWAF is the provision of services to consumers by competent, democratic local government supported by provincial governments.

The central government will continue to manage the nation's water resources and ensure that all citizens have access to adequate water and sanitation services. Provincial governments will share the responsibility for assuring service provision with local government. The Minister for Water Affairs & Forestry has also established a National Water Advisory Council to advise on priorities, monitoring progress and ensure that equity is achieved. The role of the private sector in areas of capital investment, training, capacity building and organizational development, and financing of commercial services has also been emphasized. The government has also enlisted the role of NGOs and international cooperation through sharing experience, aid and development finance, and engineering firms and suppliers of equipment.

(c) Basic Service Provision Policy

The policy of DWAF is to support the goals and objectives of the RDP and to ensure that all South Africans have access to basic water supply and sanitation services within seven years or less. Each person is therefore entitled to 25 liters of water per day to be transported over a distance not exceeding 200m. There should be availability and assurance of supply as well as maintenance of water quality and upgradability. The White Paper has also emphasized the strong linkage between sanitation services and public health as well as the provision of adequate sanitation services which meets basic health and functional requirements. Local authorities will be responsible for the implementation and management of sanitation services while second tier agencies and DWAF will only intervene in the absence of local government to ensure that local capacity to provide services is established. Provision has also been made for second tier agencies to assist in capacity building, education and training including general community awareness on water and sanitation; training of local authorities and Local Water Committees (LWCs); and training of specialized watercare technicians and professional and managerial staff. The Minister of Water Affairs and Forestry has also proposed the establishment of a National Community Water and Sanitation Training Institute at the University of the North with the support of the Water Research Commission.

(d) Finance and Tariff Policy

The basic policy of the GNU and a key principle of the RDP is that services should be self-financing at the local and regional level. The only exception is where poor communities are not able to afford basic services, government may subsidize the cost of the construction of basic minimum services, but not the operating, maintenance or replacement costs. The government has not yet finalized its new subsidy scheme for

the provision of basic water and sanitation services, but the following points provide the basic policy framework: government subsidies will be made available to communities which can not afford the minimum water supply and sanitation services; subsidies will only be available to cover the cost of minimum services provision and not operating and maintenance costs; other subsidies provided by DWAF particularly in respect to operation and maintenance costs will only be allowed where subsidies are required in the public interest; subsidies will be paid to local authorities or statutory LWCs rather than directly to a service provider; and, the amounts of subsidies will be determined locally by the actual cost of providing basic services.

A national water supply and sanitation development strategy will establish the financial implications of this policy and is expected to be completed in the very near future. It will provide information on the extent of the national program in terms of the number of households to be served and the cost of supporting such services. The White Paper also calls for an increase in the budget of the new DWAF from the current R1.6 billion to R2.8 billion to meet the goal of providing universal basic water supply and sanitation services to all citizens. In regard to urban service financing, the Government and Water Boards will be involved in addressing the cost of internal services (household connections) and reticulation by advising the appropriate financial agencies and authorities on the viability of such plans. DWAF will give high priority to rural service financing in rural areas which face a total lack of viable local government and in funding services in marginal areas with limited potential for sustainable development. DWAF will also support and assist local governments, LWCs, Water Boards and Provinces to arrange financing where communities choose higher levels of service than the minimum levels or where communities can afford the finance costs.

Water Boards will continue to function on a self-financing, non-profit basis as independent financially viable institutions in terms of the Water Act. However, the scope and function of Water Boards have been reviewed to extend their capacity to assist and support LWCs. DWAF is investigating the raising of funds through a National Water Bond and has a mixed public and private sector Working Group establishing the viability of such a scheme. Other options include the identification of external finance, particularly concessionary finance to fund the more economically viable schemes and opportunities within the statutory sector to hand over certain Government water schemes to Water Boards who would take over financial responsibilities for them.

DWAF believes that the basis of a sound tariff policy is that all consumers of potable water must contribute to the cost of their water supplies. Communities must pay for their operating and maintenance costs to ensure equity, sustainability and to uphold the principle of Community Based Development. In cases where poor communities are unable to afford the construction and operating cost of schemes provided by the

state, a social tariff covering only the operating expenses will be charged for the minimum level of service, but the full cost of supply will be charged for higher levels of service. In cases of new schemes, the tariff may be charged as a fixed monthly levy, a charge per volume of water received, or direct payment by the community towards the operation, fueling, and maintenance of their water supply. Government may subsidize the cost of basic minimum services but not the operating, maintenance or replacement costs.

DWAF supports the adoption of life-line tariff systems as a matter of policy to ensure that every person has at least a basic level of service. It has endorsed the policy of sliding tariff scales including a life-line or social tariff, a normal tariff, and a marginal tariff and is reviewing the possibility of calculating certain tariffs on the basis of the current value of the infrastructure (re-valuation of capital costs) to help restrain the growth of water consumption. Where communities or individuals wish to upgrade or improve their water supply or sanitation services to a higher level, the cost will be fully paid for by the individual or community. In areas such as the former homelands where communities have enjoyed free supplies of water full payment to cover operation and maintenance will be introduced over a period of two years. The GNU also plans to end the practice of unauthorized connections and non-payment during the two-year period.

(3) Immediate Initiatives

DWAF have taken a number of initiatives to execute its water supply and sanitation activities. It has established regional water supply and sanitation offices to support local government and communities where effective local government has not yet been established and where water boards do not exist. They will be the executive arm of DWAF and will ensure that the minimum standards set by DWAF are achieved. Water Boards will continue to function as autonomous not-for-profit utilities, but will assume expanded responsibilities. First, they will continue to supply water to organized communities and individual consumers which may also include the provision of sanitation services. Second, they will assist in the establishment of statutory LWCs and will provide technical and administrative training to LWCs and local authorities. To ensure that water boards fulfill their new role DWAF has made the board of directors of water boards more representative; change their supply area to include former homelands; redefine their functions to include supplying water to local communities where no authority exist and to include sanitation; and establish new water boards where non exist.

In regard to national sanitation strategy DWAF has defined a number of areas where policy will be formulated and where national guidelines will be required. These include: the institutional and working links with the health sector; guidelines for planning and implementing sanitation projects; the level of basic services to be included in the national housing subsidy and how the bulk services and operating and capital costs will be financed; policy on pricing and finance; guidelines on the assessment of environmental,

health and social impacts of sanitation systems; guidelines on waste recycling, beneficiation, and the siting of treatment and disposal works; guidelines to ensure that communities are able to manage waste; guidelines for private sector engagement and appropriate educational and training programs. Other initiatives include the establishment of a National Water Supply and Sanitation Information Management System to monitor and to ensure that standards are maintained and that adequate basic service coverage is achieved.

(4) Supplementary Policy

Supplementary policy issues include the role of women in the provision of basic services to ensure their full and active engagement at all levels. It has been recommended that 30% of seats on statutory bodies should be set aside for women. DWAF will also compile guidelines for the protection of water and the environment which will address the characteristics of the resource, its abstraction and monitoring, environmental impact assessment procedures, and an auditing function to review development projects and ensure that the guidelines are being applied. Other policy issues include conservation and demand management, water research, managing droughts and other disasters and the role of irrigation boards.

(5) Constraints or Conflicts

The White Paper takes some important steps forward in spelling out the appropriate role of GNU in ensuring that a clear and coherent public policy is the driving force behind its community water supply and sanitation services. It also brings out neatly the familiar fact that policies do not always have the link with institutional structures in promoting water supply and sanitation provision on the ground. Many of the structures are at variance with the capacity to administer and manage and some of the effects are contrary to what might be desirable. For example, institutions such as LWCs were originally established by DWAF to manage their own water supplies and sanitation services provision and to integrate with other local structures, but many of these institutions are not effective because of lack of financial and technical resources as well as training. Although the White Paper rightly emphasizes the weakness of many institutions, the neglect of rural infrastructure and public services has been a universal phenomenon in South Africa and once again reiterates the need to create institutions to facilitate the functioning of water supply and sanitation plants in the rural areas.

Water supply provision must be looked at in the general framework of the overall program for community water supply and sanitation and the policies adopted to particularly water supply and sanitation structure. The failure to have adequate policy adjustment policies could eventually lead to highly distortionary water supply and sanitation policies. Many of the problems can be alleviated by consolidating several of the local structures (LWCs, PSCs, etc.) particularly in the rural areas and placing more

emphasis on strengthening rural infrastructure and capacity. Given the weak institutional structures in the rural areas, DWAF had no alternative but to step in to save the situation from deteriorating and to implement the goals and objectives of the RDP. As a result, too much of the real burden in providing community water supply and sanitation services is now being carried by DWAF which has potential of growing at a rapid rate sapping most of DWAF's resources.

(6) Identification of Policy and Legal/Institutional Frameworks

The problems outlined in the White Paper reiterates the need to devise a long-term policy to achieve adequate water supply and sanitation service viability within the framework of the RDP. The White Paper does acknowledge the absence of an institutional framework which clearly characterizes the responsibilities and lines of support of all agencies involved in community water supply and sanitation activities. DWAF also has to define the institutional structure it wishes or plans to adopt to determine the broad directions for water supply and sanitation development. The design of the structure should be partly influenced by administrative considerations. To accelerate the pace of development in community water supply and sanitation, the government should pursue a water policy in which it attempts to channel resources into sectors that it views as important for current and future growth in community water supply and sanitation. Finer policy options and adjustments calls for developing a comprehensive description of water and sanitation policy which should focus especially on water supply and sanitation provision. Finally, policy coordination is vital in a highly fragmented South Africa giving further rise to the question of whether and where improvements are needed.

11.1.5 Local Government Transition Act (ACT 209, 1993)

(1) Overview

Act 209, 1993 was established to: provide for interim measures to promote the restructuring of local government and to provide for the establishment of Provincials Committees for Local Government in the various provinces; provide for recognition and establishment of forums for negotiating the restructuring of local government; provide for the exemption of certain local government organizations from certain provisions of the Act; establishment of appointed transitional councils in the pre-interim phase; delimitation of areas of jurisdiction and the election of transitional councils in the interim phase; issuing of proclamations by the administrators of various provinces; establishment of Local Government Demarcation Boards in respect of the various provinces; repeal of certain laws; and provide for matters connected in the Act.

Provincial governments regulate the local development planning process and build local government capacity. Following the provision of Act 209 of 1993, some 700 transitional metropolitan, local, and rural councils have been established throughout South Africa. There are approximately 15 transitional local councils (TLCs) and 25 transitional rural

councils (TRCs) in the Study Area whose members include farmers, women and traditional leaders. Their major task is to maintain services, collect revenues and assume the functions of municipalities, but many of the TRCs are small in terms of number of councilors and lack critical resources. Communities are in no position to pay for services because the rural areas are underdeveloped with little employment opportunities. TRCs are therefore totally dependent on proceeds from district councils and on central government grants. District Councils (DCs) were created as a conduit to channel through levies paid by communities in the more affluent areas towards supporting TRCs. Some 5 DCs have since been established in the Study Area.

Rural local government will be discussed at a two-day Rural Local Government Policy Conference March 26-27, 1996 aimed at bringing together traditional leaders, farmers, farmworkers and rural women to interact with one another and to identify a specific role for local government structures in the development of rural areas. The conference will review the implementation of local government systems since the Local Government Transition Act was enacted two years ago. Some of the major problems include the powers and functions of local structures and disputes over representation with traditional leaders and farmers demanding more powers than they were given under the Act. The conference will also seek to identify mechanisms to resolve the problems and to review key issues in the proposed Transition to Local Government Democracy Bill and the White Paper on Local Government which is expected to be published this October.

(2) Constraints or Conflicts

A well established institutional structure is the thread on which adequate provision of water supply and sanitation service hang in Study Area. It is clear that at the present stage local government particularly in the rural areas is not well developed further constraining service delivery by the shortage of resources and lack of capacity. Local government not only has important effects on the availability of service delivery, but is the cornerstone of institutional reform aimed at the local level. The role of TLCs and RSCs, which, to a great extent can be traced institutional factors including the legal framework supporting the rights of consumers to satisfactory service delivery is therefore an important related question.

Major coordination between various levels of government is a critical complement and an essential ingredient for a soft landing in the efficient delivery of services. Without some improvement in these institutional areas, local government structures cannot effectively control the policy mix and are unable to commit themselves fully to the adoption of regional policies required by cooperation and coordination - be it aimed at efficient service delivery or medium-term improvements. Some appropriate institutional changes need to be adopted to increase the flexibility of a new water supply and sanitation policy. And more emphasis need to be placed on regional and local coordination which could bring gains to participating local structures, whatever their

objectives. This is important and could make a positive contribution to the reduction of inconsistencies in water supply and sanitation policy. These practical difficulties could prevent substantial progress, but they could also hinder the implementation of medium-term goals and adjustments.

(3) Identification of Policy and Legal/Institutional Frameworks

In sum, the key issues are: (i) the complexity of water supply and sanitation provision has overwhelmed the administrative capacities of local government structures weakening their management and control functions and thus contributing to a lack of coherence in resource allocation, and (ii) lack of attention to the policy environment, far from enhancing the autonomy of local structures, has helped undermine it. The November 1995 local elections in the NWP aimed at electing local government representatives to improve the efficiency and delivery of services at the local level has left the status of many formal and informal community and local governments institutions unclear of their role; and their provisions, at least in regard the appointment of local authorities have not been vigorously applied. Responsibilities for managing different parts of the water supply and sanitation network is still unclear and much still needs to be done to assign responsibilities to appropriate local authorities. The question of institutional development and change needs to be addressed including the adequacy of current institutional arrangements for managing the water supply and sanitation network and the factors underlying the poor performance of the institutions presently involved in water supply and sanitation.

The character, technical and administrative functions of the institutional framework should be best suited to undertake various aspects of water supply and sanitation, paying particular attention to reforming the current system and creating other autonomous agencies. The institutional framework should define:

- (a) Specific responsibilities of the institutions;
- (b) Relationship between the institutions and the various levels of local and provincial government;
- (c) Mechanism for policy formulation;
- (d) Method for ensuring widest representation of stakeholders on policy formulation;
- (e) Nature and structure of the organizations; and
- (f) Administration, allocation of finances and financial and technical external audit procedures.

11.1.6 Other Policies and Legislation Related to Water Supply, Sanitation and Environment

(1) Regulation No. R. 1015, July 12, July 12, 1995

Regulation R. 1015 allows the Minister of Water Affairs and Forestry to make regulations in the Schedule relating to the establishment, powers, duties and functions of local water supply and sanitation committees. Any voluntary society may on behalf of the community with which it is involved, petition in writing to the Minister for the establishment of a committee. The petition should give a description of the community including an estimate of the current population of the community and description of the land occupied by the community and whether the land is situated within the area of jurisdiction of a local authority. If so, reasons have to be given as to why the local authority is not able to provide the desired water supply and sanitation service. The petition also has to describe the prevailing conditions in the community in regard to access to basic water and sanitation facilities and particulars of other organizations promoting the provision of water supply and sanitation services. Finally, the petition should demonstrate broad support from the community, the petitioning organization's constitution and particulars of any water supply and sanitation service which is being providing by the petitioning organization.

After consideration of a petition submission, the Minister may accept or reject the petition. The committee has the power to construct, operate and maintain any water work or facility providing water supply and sanitation service, acquire a right to a supply of water for use for or in connection with the provision of a water supply and sanitation service and provide a water supply and sanitation service subject to the direction issued by the Minister. The committee also has the power to undertake the supply of water to any person in accordance with the direction issued by the Minister, prevent unlawful abstraction of water from any facility provided, prevent the waste of unbeneficial use of water under its control and appoint employees deemed necessary. Furthermore, it can procure the services of agents, consultants and contractors needed and hire, purchase or acquire assets as required. Lastly, the committee can assess charges for water supply and sanitation services, write-off charges it deems as irrecoverable, and raise funds through loans or overdraft facilities.

(2) Government Notice 1111 of 1995

Government Notice 1111 of 1995 outlines the Urban Development Strategy of the GNU. It also defines the primary responsibility of local authorities which is: ensuring the delivery of services at community level and to select, prepare, and implement infrastructure projects. The choice of water service level and payment for services is therefore a local decision subject to affordability and national and provincial guidelines. Services and infrastructure are introduced in line with the affordability of communities affected and concerns the need and ability of consumers to pay.

The Municipal Infrastructure Investment Framework (MIF) highlighted the infrastructure needs: some 4 million people (approximately 15% of the urban population) have access to water which is untreated and not reticulated; and about 8 million have access to only minimal sanitation (that is, shared toilet facilities and unimproved pit latrines). The cost of addressing these backlogs depend on the level of services introduced and includes a mix of *basic*, *intermediate* and *full* service linked to household affordability. It has been estimated to cost approximately R61.0 billion over a 10 year period and excludes national bulk schemes such as dams and operation and maintenance cost of water works.

The MIF is meant to reduce air and water pollution and enhance the supply of adequate water and the provision of proper sanitation drainage. An average national distribution of 55:25:20 between full, intermediate and basic levels of services in municipal areas has been considered a realistic target for the infrastructure investment strategy over a 10 year period. "Basic" services for water would mean communal standpipes and on site sanitation; "intermediate" services refers to water provision through yard faucets on site and simple water-borne sanitation; and "full" services mean house connected water supplies and full water-borne sanitation. Approximately 50% (some R35-40 billion) of capital costs will be funded at local service provider level through redirection of existing capital budgets, borrowing and equity from private sector investment in-service delivery organizations; 10% (R7.9 billion) by high income households paying full costs for internal services and connection fees; and the remaining 40% (R30-35 billion) through capital grants from the central government including some government subsidies.

Operating (recurrent) funding will be generated at the local level which requires that all consumers pay the appropriate levels. Existing tariffs are expected to rise by 2-3% per year during the duration of the program. Since many poor households will have difficulty paying for services in full, redistribution (cross subsidization) from rich to poor households is expected to occur. There is relatively little scope for extension of redistribution through local taxes and charges. Consequently, transfers to local authorities amounting to some R700 million a year is likely to continue.

(3) Regulation No. R. 1764, November 7, 1995

Regulation R. 1764 refers to the election of certain members of transitional metropolitan councils and district councils.

(4) Regulation No. 1824, November 17, 1995

Under this regulation, the Minister of Constitutional Development appointed 11 individuals as councilors of the Local Government Affairs Council for a period of five months effective November 1, 1995. Their specific assignment is to deal with and finalize the apportionment of assets, liabilities, rights, duties and obligations of the council.

(5) The Health Act, 63 of 1977

Under Act 63 of 1977, the Health Minister may after consultation with the Ministers for Water Affairs & Forestry and Environment Conservation make, regulations relating to the regulation, control, restriction or prohibition of potable water originating from any source specified in such regulations or from other sources. He/She may also make regulations protecting catchment areas, rivers, watercourses, dams, lakes, and other sources against the danger of pollution and can regulate the approval, control, restriction or prohibition of the construction of water purification works and the application of purification or treatment processes with a view to health promotion. The Minister of Health may also regulate the registration of water purification works including the number, duties, training, and educational qualifications of persons employed as well as the regulation, control, approval, and restriction of methods of disposal of sludge and other waste products of water purification/treatment.

Furthermore, the Minister of Health can regulate the requirements to which materials used in the construction and equipment of reservoirs and water reticulation systems shall conform, the health protection measures for users of water when the reticulation system is interrupted or under repairs, and the measures taken to prevent infiltration of contaminated water into the water reticulation system. He/She can regulate the requirements in regard to purity, chemical composition, and quality of such water; the taking and analysis of sludge samples; and the reporting of pollution of such water. Finally, the Minister of Health can regulate the keeping of administrative records of water provision, purification, treatment, and disposal of sludge; the inspection and investigation of systems/processes utilized for provision of such water; and the refund to a local authority for persons employed for the provision or purification of water or the treatment of sludge. The Act makes no mention of sanitation.

(6) Environment Conservation Act (Act 73, 1989)

Act 73 of 1977 provides for the effective protection and controlled utilization of the environment. Under Part IV of the Act relating to control of environmental pollution, the Minister of Water Affairs & Forestry has the authority to issue permits in regard to waste management activities. The Minister can also issue directions in regard to the control and management of disposal sites and the procedure to be followed before any disposal site may be withdrawn from use or utilized for another purpose. The Minister for Environment Conservation may identify activities such as water use, disposal and waste and sewerage management which in his/her opinion may have a substantial detrimental effect on the environment. No mention of sanitation appears in the Act.

(7) Constraints or Conflicts

The central question in the evaluation of other policies and legislation related to water supply and sanitation is whether the central government has made the best choice of policy instruments and whether these instruments have been successful in moving the promotion and implementation of water supply and sanitation development toward the attainment of stated objectives. The fact is that the new policy has not been a systematic, long-run policy, but has been rather ad hoc because of the myriad of regulations and government notices which sends different and conflicting signals to roleplayers, stakeholders, and beneficiaries. Rather than technically crafted and coherent structures, these policies appear to be more the result of an accretion of interventions reflecting a wide range of pressures, situations, and interpretations of what is needed. A major obstacle to removing some of the conflicts and confusion is that many of the regulations were usually introduced for various purposes, some of which may aid the process of policy development and some of which may hinder it. For example, some of the regulations related to the establishment of LWCs and PSCs have resulted in creating bigger government bureaucracies rather than addressing the main problem. It is often difficult to assess clearly either ex-ante or ex-post which category these special regulations should fall into, but they appear to obviate the need for some unpleasant and politically difficult decisions which may very well be beyond the capabilities of the government.

(8) Identification of Policy and Legal/Institutional Frameworks

The various regulations and government notices should be viewed within the framework of problems arising from the larger policy and legal questions. An optimal policy framework should have organized and extended active support systems for water supply and sanitation development. Rather than technically crafted and coherent structures, these policies appear to be more the result of an accretion of interventions reflecting a wide range of pressures, situations, and interpretations of what is needed. The character of the policy framework should have important effects on the urban and rural composition of growth in water supply, the level of water supply concentration (subsidies), the factor intensity of production and perhaps, consumption. The lack of policy-relevant conclusions as to how various aspects of water supply and sanitation policy affects the urban and rural sector reflects the lack of attention this area has received in the past. The changing water policy setting with increasing emphasis on non-traditional water supply mechanisms implies the need for an organized search for more and better ways to tie the community structures to overall water supply. This dilemma will no doubt remain a serious one for DWAF.

11.2 On going Studies and Project

11.2.1 DANIDA Supported Project for Water Supply & Sanitation in NWP

The Danish government is currently funding a program of assistance to DWAF for technical and financial support for community water supply and sanitation development in the Study Area.

The first phase of the project is to undertake some of the immediate initiatives described in Section D of the White Paper on Water Supply and Sanitation Policy. The more specific objective is to improve organization development and provide institutional support for water supply to the black rural and semi-urban population of the NWP. The NWP is the focus of Danish assistance because it has been selected by DWAF as the pilot area for implementation of the White Paper strategy. The project has three basic components: restructuring the First Tier; facilitating rationalization of Second Tier institutions; and supporting capacity building in the Third Tier. At the First Tier level the project is providing support to the implementation of a Provincial Water Supply and Sanitation Directorate (PWSSD) in NWP. This included restructuring of DWAF by redirecting the department line functions and staffing of the former Bophuthatswana Water Department into four main departments: *Organization, RDP and Planning, Operation and Maintenance, and Administration and Finance*. As of this writing the recommendations are with DWAF in Mmabatho who now have to implement the recommendations.

At the Second Tier, the project is providing support to the rationalization of water boards. The objective is to make recommendations on the jurisdiction of water boards in the NWP. This was necessary because water boards assumed new functions such as retail support and old political boundaries were no longer relevant and economic efficiency could be improved through adjustment of areas of jurisdiction. DWAF spearheaded the process through the formation of a Think Tank consisting of all five Second Tier organizations, representatives of Provincial Government, Local Government, RDP, DBSA, Umgeni Water, and other relevant parties. The Think Tank held its first meeting March 1995 and appointed a Task Team consisting of Magalies Water, North West Water Supply Authority and DWAF to develop and evaluate jurisdiction options with a focus on the north-eastern section of NWP. The Task team met April 28 and May 15 and reported back to the Think Tank May 23 and again June 13. Diverging views on jurisdiction lead to subsequent bilateral meetings with water boards during July and August. A third Think Tank meeting was held August 24 aimed at arriving at a consensus recommendation on areas of jurisdiction. It was decided to divide NWP into five areas of jurisdiction: *NWVA (north western section); Goldfield Water (south western); Magalies Water (north eastern); Rand Water (south western); and Western Transvaal Water Supply Company (eastern section)*. The consultation plan was to be implemented by September 10 and the Minister's Proclamation made by September 15. At this writing a hand over plan describing the transfer and movements of staff and assets of the five water boards is scheduled to be formulated and must be finalized by April 1, 1996.

And at the Third Tier the project is providing support for the establishment of Local Water Committees (LWCs) and capacity building within the Community Water Supply and Sanitation (CWSS) branch within the regional office of DWAF in the NWP. Five organization development officers (ODOs) have been appointed as a result of DANIDA aid and are assigned to the CWSS branch in the NWP. At the provincial level, their role is to contribute to methodologies for putting the White Paper policy into action, formulate and manage an action plan to support the development of 3rd tier structures, and contribute to the organizational

development initiatives at the first and second tier. Their task at the local level is to appraise the community and conduct social surveys of existing and new water committees, support implementation of by-laws and the new statutory LWCs, conduct joint undertakings with engineers to determine water needs and availability, spread awareness within communities, build organizational capacity at the local and provincial level, and assist in identifying and implementing water and sanitation projects.

DANIDA also gave technical support to the Sanitation & Water Educational & Training Program (SWET) of the RDP's North West Rural Water Supply Project in evaluating tender proposals and drafting terms of references. And DANIDA has supported funding for a study to investigate cost recovery structures and unauthorized connections in the NWP. The second phase of the DANIDA Supported Project for Water Supply and Sanitation is the preparation of pilot projects and the preparation of the terms of reference for water research evaluation in the NWP.

11.2.2 DWAF Capacity Building Initiative

The British Overseas Development Agency (BODA) is assisting DWAF in expanding the capacity for management of water supply services in areas of Mpumalanga and Northern Provinces. BODA is specifically funding a two-year post of Project Manager - DWAF Capacity Building located in the CWSS Directorate at DWAF Headquarters in Pretoria. The major capacity building activities are: *facilitation of new management structures, support to Local Posts in organizational development, funding of consultancies covering specific issues, support/funding for workshops and training activities, and related project support and research.*

(1) Facilitation of new management structures

BODA is facilitating discussion between local government structures and water boards with the goal for water boards to undertake technical aspects of water supply from bulk water schemes existing in the former homelands. As part of its role in facilitating discussion, BODA organized a workshop November 1995 in the former KwaNdebele/Moutse/Moretele areas. The goal was to bring a wide range of stakeholders together and establish a task team to take the process to the next level. Similar workshops and meetings were held in areas of Mpumalanga and several are planned for the Northern Province. Discussions are also being facilitated between LWCs and Provincial Project Steering Committees to improve the focus of these meetings by reducing procedural matters and concentrating on real issues.

(2) Support to local posts

BODA has funded the recruitment and appointment of 10 ODOs and an ODO Coordinator on a temporary contract basis. Five ODOs are assigned to each of the two provinces and are based in the Interim Management Teams (IMT) of the provincial DWAF offices. The ODO Coordinator is based in Pretoria. It is anticipated that the cost of funding the ODOs will be absorbed into DWAF in fiscal 1997.

(3) Funding Consultancies

Three consultancies are currently funded by BODA: technical support for project management, survey of cost recovery attitudes and practice in Mpumalanga and Northern Province, and a survey of unauthorized connections on water schemes in the former homelands in Northern and Mpumalanga Provinces. The project management contract is for the payment of workshops on water boards and was originally for 6 months, but has been extended by an additional three months to April 3, 1996. The survey on cost recovery commenced November 1995 and is taking longer than anticipated because of difficulties in identifying target schemes and the need to categorize schemes and ensure that scheme selection is unbiased and representative. The study is likely to be completed by early April. The study on unauthorized connections commenced November 1995. A list of schemes with which to carry out a detailed survey have been identified and agreed with the provincial IMT and work is already underway. Meetings have been held with the main provincial role players in both provinces and two project steering committee meetings have been held. Further workshops were held January 1996. However, some communities have not been cooperative because their perceived conflict between consultants working on this study and those implementing the RDP. This issue is being addressed and the study completion date of April is still on schedule.

(4) Training

BODA is funding orientation workshops for ODOs and others at the Institute of Irrigation Studies and is funding two 3-month training awards for two ODOs in the UK commencing April 1996. ODA is also considering support for literacy training for a large number of staff recently absorbed by DWAF as well as appropriate guidelines for community training under Mvula Trust.

(5) Related Project Support/Research

BODA have supported Tsogang, an NGO in the Northern Province which is managing the crisis handpump program implemented through MSF (Medicins sans Frontieres) with community management and repair of existing equipment. However, communities have been reluctant to pay for the necessary maintenance when payment is due. A hygiene education/training program have also been implemented in the villages where handpumps were installed and this has led to requests for latrines. As a result BODA is currently considering a sanitation project likely to cost some R450,000 which includes the construction of 100 demonstration latrines in 43 villages together with associated training. Other studies and research programs include: ground management in drought prone areas and a recommendation that South Africa join the British Geological Survey in early 1996 and water resources research and development systems evaluation. It has been agreed in principle that BODA fund a Strategic Review of Water Research and Development in South Africa. BODA has yet to receive a formal request from DWAF.

Other funding proposals or requests include local water resource management in semi-arid areas and, a request by CSIR to support their proposed GIS database of Water and Sanitation Provision - Northern Province Pilot study. Discussions are still underway. The ODA project budget is approximately R5.5 million spread over two years.

11.2.3 Water Supply and Cost Recovery Project - DWAF

The survey was to document and gain an institutional and financial insight into the current situation particularly on government schemes where DWAF has a direct responsibility, compare it with what is required in the White Paper, and outline the shortcomings and failures. The survey also includes a *Cost Recovery and Implementation Plan* intended to establish the policy, principles, and detailed guidelines tailored to the provinces to ensure financial viability of the sector. The specific objectives of the survey were to: thoroughly understand the current cost recovery situation on government water facilities in Mpumalanga and Northern Province; establish the basis for a strategy for meeting the requirements of the White Paper tailored for the two provinces; and, expose and train provincial water and sanitation staff in social survey research methods and cost recovery issues to increase awareness of cost recovery issues amongst a wider group of stakeholders.

The target group of the survey were rural, urban, and peri-urban government and community run water schemes in the former homeland areas of Mpumalanga and Northern Province. The target group for training and cost recovery were the provincial CWSS staff involved in organizational development, accounting and cost recovery as well as representatives of local government and other third tier organizations. The survey was intended to study both formal and informal systems of cost recovery although the focus was more on formal systems. The TOR recommended three study categories: no cost recovery, formal cost recovery functioning system, and no formal system, but scheme functioning due to an informal system of cost recovery. At least five or ten schemes in each category were visited and a questionnaire type survey undertaken. The survey was to cover both provinces to get a thorough understanding of the current institutional cost recovery systems prevalent in both provinces, assess the strengths and weaknesses of these systems and outline the current placement of responsibility and chain of command.

The key questions focused on social and financial issues including existing information on the community's ability to pay and willingness to pay, the level at which communities have been consulted or involved in cost recovery, attitudes and aspirations of water users towards cost recovery, whether a cost recovery system was ever in place, and the origination and approximate level of recurrent costs. Collection and billing mechanisms included the manner in which consumers are billed, how the money is collected, existing management structures for billing and collection, the situation with illegal connections, possible immediate measures to increase cost recovery, the linkage between cost recovery and operational performance, and whether a cost accounting system was in place. Financial aspects included the level of arrears, whether sanctions were applied to non users, and which costs were recovered. On policy aspects, the key issues were the realism and effectiveness of current cost recovery policy and the extent to which

the policy is uniform across the two provinces, whether the policy was being implemented in line with the goals of the White Paper, the extent to which schemes managed by the government and those managed by NGOs differ in cost recovery record, the typical level of per capita recurrent costs of different systems and the main cost components.

The study was conducted by a consortium of Deloitte & Touche Management Consultants, Bosele Community Services and Community Agency for Social Inquiry (CASE). The project commenced November 1, 1995 and was completed April 30, 1996. Thirty communities were surveyed across 45 schemes in 5 ex-homelands. Once the project commenced, the following became evident which had wide implications for the survey team:

- (1) There were wide differing levels of development of water supply and sanitation services in these areas;
- (2) Fully developed regional water schemes existed in the former homelands of Venda and Gazankulu compared to Lebowa where the majority of water schemes were localized and were community specific;
- (3) There were great differences in service levels from poorly served street faucets to full urban water supply and sanitation;
- (4) To fully understand the income and expenditure, each scheme had to be considered in its entirety from the source of supply to the purification works, reservoirs and form of delivery to the end user.

The survey team had to choose water schemes which were fully defined and ensure that a diversity of communities within the schemes were sampled to reflect the differing service levels occurring. It was agreed that the project team in consultation with stakeholders choose the water schemes to be examined and identify the individual communities to implement community questionnaires. This was meant to achieve two objectives. First, from a financial standpoint, there would be a clearer relationship between the overall cost of the water scheme reflected in government budgets, consultant's reports, DBSA capital loans, and the income derived from water tariffs, levies, and connection fees. Second, ODOs working for DWAF would help identify individual communities for the survey questionnaire and participate in the questionnaire survey. This would have a training benefit for DWAF and support the ODOs in their community roles.

The main findings of the study were:

- (1) There were widespread opposition to street faucets;
- (2) There was no community enforcement and users were not prepared to pay a flat rate;

- (3) Poor service was widespread and users were not prepared to pay for poor service
- (4) Water quality and quantity was a major issue;
- (5) There were continuous breakdowns in water works and delivery infrastructure;
- (6) In the urban areas, administration of the water system was chronic; there were hardly any pipes or reservoirs;
- (7) Local residents had aspirations of attaining the same level of service found in white neighborhoods;
- (8) There were strong relationships between the community and tribal authorities;
- (9) The high unemployment and low income levels of users in rural areas affected the community's ability to pay;

The major limitations to the study was the short duration, limited case studies, extremely simplistic approach and the little detail available which resulted in only a broad survey. There was also very poor financial data, no cost recovery was taking place, only 10% of users were paying, payment of non-culture was pervasive, lack of systems, accounting, and computers, and the low ability to collect fees.

11.2.4 Survey of Unauthorized Connections on Water Supply Schemes in Mpumalanga and Northern Provinces

This project is an investigation of the nature and prevalence of illegal connections in the former homeland areas. It was undertaken by Consultburo Inc. and supported by British ODA and sources from CWSS of DWAF. The major objectives were to:

- (1) identify the extent of unauthorized connections and get a broader understanding of the problem through public participation;
- (2) raise awareness amongst stakeholders and identify options for addressing the problem; and
- (3) develop strategies and tactics in line with goals and objectives of the White Paper on Water Supply and Sanitation;

The study area included the areas of Lebowa, Venda and Gazankulu located in the Northern Province and Kangwane and KwaNdebele in Mpumalanga Province. The major findings of the study were:

- (1) the practice of unauthorized connections was widespread and are not regarded as unauthorized by communities;
- (2) unauthorized connections are being overly as well as tacitly accepted by local authorities, implying that program to counter the practice of unauthorized connections based on promoting changes in attitudes and perceptions may not be meaningful;
- (3) in some instances, local authorities have themselves installed unauthorized connections into primary reticulation to provide water supply to communities; there is wide variation on the quality of workmanship on unauthorized connections;
- (4) secondary reticulation does not make provision for upgrading the minimum water supply guidelines of 25 to 30 liters of water per capita per day to higher levels of service; in fact, communities have indicated that the minimum water supply level stated in the RDP will not be sufficient to meet their diverse needs and is inadequate and inappropriate;
- (5) in some cases unauthorized connections were made because of delays in delivery and the uncertainties surrounding existing authority delivery systems;
- (6) implementation of inappropriate water supply schemes will promote and not negate the prevalence of unauthorized connections;
- (7) the minimum service level that will promote cost recovery and prevent unauthorized connections will be individual yard pipes as well as water supply levels which make provision for a demand of 80-100 liters per capita per day;
- (8) it is highly unlikely that appropriate levels of service in water supply will be available to all communities by year 2000 due to financial constraints, and regulation of unauthorized connections within two years from 1995 and the imposition of sanctions thereafter is probably unjustified; and
- (9) Limitations in administrative and management capacity within Second and Third Tier institutions will continue to restrict prompt delivery of essential services

Recommendations for actions in achieving the goals of the White Paper were:

- (1) Include the Local Authorities as major role players to address the cause and effects of unauthorized connections and establish a sound contract between supplier and user;
- (2) Enforce the need for community participation during all phases of the project cycle and emphasize payment for use and cost recovery aspects;

- (3) The role of DWAF and other local or regional water supply authorities has to be formalized and communicated to all involved. DWAF should also subsidize the initial cost of training local authorities in administrative and financial management;
- (4) Legal issues surrounding water supply schemes should be highlighted and regulations for the enforcement of by-laws need to be communicated to communities;
- (5) Billing systems for existing levels of service need to be put in place immediately and should provide for change when new or upgraded level of service are provided;
- (6) There should be firm agreement on the principle of willingness to pay. Expected user charges and ability to pay for various levels of service must be agreed upon and accepted as a first priority for water supply projects;
- (7) Firm agreements between stakeholders should be established during project implementation to avoid conflict and should include community structures, local authorities, implementing agents and DWAF.

11.2.5 Review of the Scope and Functions of Water Boards

A national study on the Scope and Functions of Water Boards was conducted to provide a framework for instituting necessary changes to existing as well as new water boards in areas not serviced by water boards so that they can undertake duties and responsibilities outlined in the White Paper. The White Paper proposed that water boards increase the scope and extent of their functions to ensure that all South Africans have access to basic water supply and sanitation. To this end their new role is to: to establish a system of communications with communities within their area and explain the services and capabilities that the water board can offer; establish procedures for the establishment of LWCs, including application for funds, technical assistance and training; making funds available to LWCs for water supply and sanitation schemes including the provision of technical assistance in the planning of any local water supply and sanitation schemes; and monitor the expenditure and application of funds for projects. Water boards will provide water, sanitation and support services in a transparent, accountable, sustainable, and equitable manner according to the needs of communities and local authorities. There are currently 5 water boards/water supply authorities operating in the Study Area: North West Water Supply Authority, Magalies Water, Rand Water, Western Transvaal Water Supply Company and Goldfields Water.

The study made the following recommendations:

- (1) water boards should be representative of the community and consumer groups that the water board serves and that members of the board be appointed by the Minister for Water Affairs and Forestry;
- (2) LWCs should be regarded as sub-committees of local structures;

- (3) DWAF should make budgetary provision to enable local committees to fund water related and management capacity building initiatives;
- (4) the establishment of Water Industries Training Board to offer training in watercare operations and other water related areas;
- (5) all bills for water provided by DWAF for raw water or by a water board for bulk supply or by a local authority or any Third Tier organization should show the operation and maintenance costs separately from the capital costs;
- (6) establish within DWAF a separate division to handles details concerning the establishment of new water boards;
- (7) water boards should expand the scope of their revenue earning activities by offering laboratory services to local authorities and the public, offer a design service to water and sanitation schemes, and provide a service for the delegated management of local authority water distribution systems as well as wastewater collection, treatment and discharge for all solid waste collection and disposal; and
- (8) an investigation should be conducted into the application of the lifeline tariff and the ability of the community to afford such tariffs.

11.2.6 Implications for Development of Water Supply & Sanitation with Study Area

It would appear that DWAF have underestimated the magnitude of establishing new or enlarged water boards which is now proving to be a major activity for DWAF. The government might have been overly ambitious in taking on too many projects which it cannot commit to in spite of its limited capacity to manage. This has been a major criticism from those involved in the water sector who feel that DWAF does not play a large enough role in institutional building aspects project development. This has major implications not only for establishing of new water boards where none exists, but also for expanding the role of existing water boards in the Study Area as well as other regions of the country. A typical case in point is the establishment of the Bushbuckridge water board in Mpumalanga Province. This is a presidential lead project and is the only PLP out of a total of 22 PLPs involving the establishment of a water board. The Bushbuckridge Water Board is an institutional development project, a concept not well understand even by members of DWAF. The project is currently on course but is approximately 4 months behind schedule because of several problems encountered which have implications for the establishment of water boards in the Study Area.

- (1) The process of establishing water boards did not go well because the roles and functions of water boards were not well explained neither were the communities consulted on whether they really want a water board in the area. In addition, all the stakeholders were

not invited to participate in the debate. As a result, few options were put forward to the communities;

- (2) DWAF has not done much in determining and defining the boundaries of water boards because of the on-going debate of whether boundaries should be based on in areas or political or provincial boundaries;
- (3) DWAF itself is not clear on what approach to take in establishing water boards. There are currently two approaches: one approach is that the government appoint an implementing agency to set up the Project Steering Committees who will then draft the business plan; the other approach is that the government assist the community in setting up the Project Steering Committee who drafts the business plan and then appoint an implementing agency to implement the goals and objectives of the business plan. A combination of these two approaches was used in the Bushbuckridge Water Board project;
- (4) Although the White Paper on Water Supply and Sanitation Policy and a Government Gazette notice in July 1995 provided the framework for establishment and registration of statutory water committees with legal standing to assume financial responsibilities, none have been officially registered. The local government elections of November 1995 which put in place legitimate third tier government institutions has resulted in apparent duplication of responsibility. Making LWCs statutory bodies will lead to conflict between LWCs and elected local authorities;
- (5) The role of PSCs and LWCs have not been clearly defined. More guidance is needed from DWAF on this issue;
- (6) The process of electing/choosing members of the PSC was not transparent because members did not have an understanding of water issues;
- (7) There is no clear guidance on the extent of the decision making powers by LWCs and PSCs. For example, it is still unclear on which issues to refer to the PSC and which ones to deal with separately;
- (8) The general problem is that of communication. Members of the community have to be explained in simple and understandable language the function of a water board. Most members of the community believe the establishment of a water board is huge job creation project and don't understand the institutional complexities in developing a water management structure.

A task team is currently looking at the KwaNdebele/Moutse/Moretele Regional Water Board project with a view to ensuring that the problems outlined can be overcome or at least reduced in establishing a water board in the area.