

MINUTES
OF
MEETING OF PROJECT STEERING COMMITTEE
FOR
THE STUDY ON
THE EXPANSION OF CAPACITY OF MAGALIES WATER
IN THE REPUBLIC OF SOUTH AFRICA

Held in Residensie Building, Room 1041,
29th July 1997, 14h00

Present:	T. Ramaema	(Chairman)
	R. Strydom	Magalies Water
	P. Montoedi	Magalies Water
	S. Ramodike	Eastern District Council
	P. Meintjies	Highveldt District Council
	L. Khutsoane	Rustenberg District Council
	P. Pyke	DWAF: RWSM
	J. van Aswegen	DWAF Mpumalanga
	B. Bradely	DWAF Mpumalanga
	S. Vogel	DWAF North West
	S. Marais	DWAF: CWSS
	V. Maloka	Mbibane LPSC
	M. Thubana	Mbibane TLC
	P. Schusana	Mbibane TLC
	M. Mahlangu	Sehoko LPSC
	Y. Maruo	JICA Advisory Committee
	K. Satao	JICA Advisory Committee
	Y. Omura	JICA Advisory Committee
	T. Nakamura	JICA South Africa Office
	S. Kadowaki	Study Team
	Y. Miyanishi	Study Team
	B. Sawara	Study Team
	C. Mannall	Study Team
	T. Mamiya	Study Team
	T. Oda	Study Team
	J. Nagy	Study Team
	T. Hart	Study Team
	C. McKudu	Study Team
	P. Ramsden	Study Team
	M. Moitisiwa	Study Team

1. Welcome

The Chairman welcomed participants to the meeting.

2. Apologies

These had been received from:

I. Colvin	DWAF
K. Pelpola	DWAF
F. van Zyl	DWAF
N. Fenner	Magalies Water
J. Ntshwagong	Rustenberg District Council

3. Approval of Agenda

This was approved without amendment.

4. Minutes of the Previous Meetings

4.1 PSC (26th March 1997)

Approved without change.

4.2 PEG (1st July 1997)

Approved subject to minor corrections.

5. Matters Arising

5.1 PSC (26th March 1997)

Item 5.2: Mr Pyke reported back in respect of the Moretele 2 area indicating that consensus has been achieved for a new water board in an area covering most of the upper Olifants River basin. Proposals for the creation of this board would go to the Minister shortly. He indicated that Witbank supports the creation of a new board. This will create a core operation for the new board enhancing its viability.

Item 8: Mr Kadowaki reported back that the counterpart training has been successfully completed.

Item 8: Mr Kadowaki requested a change of the following dates:

- Next PSC meeting date from the 21st October to Monday 27th October.
- Cancellation of the PEG meeting scheduled for 5th August.
- Additional PEG meeting on Wednesday 22nd October.
- Change of the PEF meeting from 9th September to Monday 22nd September.
- All PEG meetings to be held in Rustenberg due to problems of a venue in Brits.

The above changes were approved.

5.2 PEG (1st July 1997)

Item 5: The Study Team is considering the possibility of linking the schools to the planned infrastructure of the pilot project. This will be resolved shortly with the assistance of a grass-roots grant-in-aid from the Japanese Government. The Chairman indicated that the official policy of DWAF is that schools and clinics should be included as an integral part of projects and not separately.

Item 8.2: This item covered by the agenda.

6. Presentation of Progress Report

The interim report which had been distributed prior to the meeting refers.

Copies of transparencies used in the presentation were also distributed.

6.1 Overview

Mr Kadowaki presented an overview of status of the Feasibility Studies and Pilot Projects noting that all the main planned activities were being progressed successfully.

Discussion;

The Chairman asked DWAF regions how the report was being used in planning:

- Mr Vogel indicated that the Planning Forums tended to address local authority level planning. The Study is by contrast useful in that it provides an overview of a whole area.
- Mr van Aswegen indicated that the information coming out of the study is of a high quality and supplements other data and research.

The Chairman asked the representatives of the District Councils the same question:

- Mr Meintjies indicated that he concurred with the views of the DWAF regions.

6.2 Phase 2: Engineering

Mr Sawara presented an overview of the engineering aspects.

Discussion:

The Chairman asked whether DWAF regions have included the plans as outlined in their budgets for RDP 4:

- Mr Strydom indicated that none of the plans have been included in budgets to date. These need to be included in future budgets i.e. RDP 5.
- Mr Strydom noted that it is a strategic decision as to whether to proceed with the plans. The Chairman indicated that the Department is committed to meeting the right of all people to have access to water and therefore has no option but to go forward with projects as outlined. The question is not whether to proceed but rather how to proceed. Where will the funds be raised, how will costs be recovered, what will priorities be, who the implementing agent will be, etc.
- The question of higher level of service needs to be carefully considered from the perspective of the costs. Appropriate level of service should rather be the goal.

The Chairman asked if the local authorities / communities involved understood the implications of these projects and the commitments when funding is raised from lending institutions. Mr Vogel indicated that communication has been extensive. He could not give the assurance that this communication has led to understanding and acceptance.

6.3 Phase 2: Institutional

Mr Nagy presented an overview of the feasibility study institutional aspects:

Discussion:

- The Chairman stressed that the purpose of the Water Services Bill is to facilitate regulation of the water supply function which is the role of DWAF. The bill will enable DWAF to transfer operational activities to appropriate authorities.
- The Chairman stressed that it is important that the institutional planning take into account the capacity which can be transferred from DWAF and the effect which this can have on creating capacity at local authority levels.
- Mr Vogel felt that it is very important that institutional development be taken forward beyond the end of the study.

6.4 Phase 2: Financial

Mr Miyanishi presented an overview of the pilot projects institutional aspects.

Discussion:

- The Chairman indicated that DWAF will endorse the funding options and sources which are supported by the PSCs. Ensuring that the financial options are understood and accepted. This needs to be done at a meeting before the final report is prepared so that DWAF can be given the assurance that proposals are sustainable. Solutions should not be put forward which cannot be demonstrated to be sustainable.
- It was proposed that the PEG meeting of 2nd September be used for the above purpose.

6.5 Phase 2: Boundary Issues

Mr Ramsden presented an overview of the Boundary Issues.

Discussion:

- It was noted that the conclusion of the analysis is that the current bulk supply arrangements are economically optimal at present. In the long term local sources of supply may prove to be more cost effective. However given the large capital outlay necessary to switch to supply sources within the study area, and the greater priority for capital expenditure to meet service delivery needs, such source supply changes should only be considered as a long term possibility.
- Mr Vogel would meet with the study team to gain a better understanding of the assumptions and calculations.

6.6 Phase 3: Engineering

Mr Kadowaki presented an overview of the progress of construction of pilot projects. Good progress has been made.

Discussion:

- The Chairman asked about the quality of ground water at Ga-Rasai. Mr Sawara indicated that nitrates are extremely high. Mr Vogel indicated that both nitrates and fluorides are a problem in general in the area.
- Mr Hart indicated that this is not purely a water quality issue. Both quality and reliability are issues. These have mitigated against cost recovery.
- The Chairman made the point that if water quality is a problem it should be ruled out of the planning and calculations as it will not be an acceptable alternative.

6.7 Phase 3: Institutional Aspects

Mr Hart presented an overview of the pilot projects progress.

Discussion:

- In relation to Bapong the chairman noted that DWAF do not want to spend scarce resources on communities which are against development. This message should be clearly put to the community by the District Council.
- Illegal connections are a barrier to getting those with legal connections to pay for services.
- The general consensus was that the Bapong pilot project should proceed and seek to achieve what it can and learn more about the dynamics of a highly problematic situation. Bapong is a learning experience.
- It was further noted that the active involvement of the District Council and Rand Water is necessary if the Bapong problems are to be resolved.

6.8 Phase 3: Finance

Mr McKudu presented an overview of the work being done on tariffs for the pilot projects.

Discussion:

- It was noted that the tariff calculations only include operating and maintenance costs, not capital costs, because these are RDP level of service projects. It is very important that a provision for replacement is included in the tariff because RDP funding of projects is a once off.
- The tariff principles should be agreed with all key stakeholders and must include funding improvements and replacement.

The Chairman asked the representatives of the LPSCs for comment on the value of the meeting and the work done:

- Ms Maloka stated that real value has been gained from understanding the financial aspects and the basis from tariffs. This was an area where there had been little understanding previously.
- Ms Maloka asked that patience is required as communities have along way to come. What is important is that people are given the capacity to develop: "Don't give a person a fish, it only feeds him for one day, rather teach him to fish and you feed him for life".

6.9 Feedback from PEF

Mr Strydom reported back on the meeting of the PEF held on the 24th June.

Minutes of the meeting were included in the material handed out to PSC participants.

Discussion:

Ms Khutsoane noted that while attendance of the PEF was good, attendance by councillors was not good. This is an issue which needs to be specifically addressed in preparation for the next PEF meeting.

6.9 Acceptance of Progress Report

Mr Strydom proposed that in general the report is accepted, noting that the proposals will be the subject of discussion and debate in the process of working towards final recommendations.

Mr Vogel supported the acceptance of the report.

The representatives of the community also support this.

The Chairman confirmed acceptance of the interim report.

7. The Way Ahead

7.1 Issues of cost recovery, capacity building, and draft final report as per the agenda were not dealt with individually due to pressure of time and the fact that they had been largely already covered in the individual presentations and the following discussions.

7.2 After JICA Study

Dr Maruo advised that JICA has some reluctance to continue an involvement in the study beyond completion of the current phases. He however recognises that there are a number of areas where it will be important to ensure that initiatives continue and that not all of the development necessary to ensure sustainability will be in place this year. He will therefore assist in putting to JICA properly motivated requests for some further assistance.

The Chairman stressed that it is critically important to achieve sustainability. He requested that a meeting be arranged to discuss maintaining the ongoing inertia of the study after the end of JICA involvement. It was agreed that this would take place in Rustenberg on the 29th August. The Study circulation lists would be used to determine attendance. Mr Vogel will coordinate arrangements for the meeting.

8. Closure

There being no further business the Chairman closed the meeting.

MINUTES
OF
MEETING OF PROJECT EXECUTION GROUP
FOR
THE STUDY ON
THE EXPANSION OF CAPACITY OF MAGALIES WATER
IN THE REPUBLIC OF SOUTH AFRICA

Held in Rustenburg, 2nd September, 1997

JICA Magalies Water Study

Minutes of Meeting of the Project Execution Group

Held at 14h00, 2nd September 1997, in Rustenberg

Present:	R. Strydom	Magalies Water (Chairman)
	S. Ramodike	Eastern District Council
	K.J. Ntshwagong	Rustenberg District Council
	L. Khutsoane	Rustenberg District Council
	P. Meintjies	Highveldt District Council
	B. A. Dandashe	Magalies Water
	O. B. Mphachoe	Magalies Water
	M.W. Molotsi	PSC: Kameelboom
	V. Strauss	EVN Consulting Engineers
	P. Mashaba	VKE Consulting Engineers
	W. de Swart	VKE Consulting Engineers
	S. Kadowaki	JICA Study Team
	T. Oda	JICA Study Team
	T. Hart	JICA Study Team
	J. Nagy	JICA Study Team
	C. Mckudu	JICA Study Team
	M. Moitisiwa	JICA Study Team
	E. Burke	JICA Study Team

1. Welcome

The Chairman welcomed participants to the meeting.

2. Apologies

There were no apologies

3. Agenda

The agenda was included in the material circulated to participants and was accepted.

4. Approval of Minutes

The minutes of the meeting of 29th July 1997 were approved without amendment.

5. Matters Arising

There were no specific matters arising. The agenda covers items following on from the previous meeting.

6. Progress of Work

Handout material contained copies of the slides used to provide an update of progress.

6.1 Overall Progress

Mr Kadowaki gave an overview of the main activities since the last PEG meeting with reference to the handout material:

- Most of the Japanese members of the Study Team returned to Japan in August. As a result of absence of the relevant members of the team engineering aspects have not been the focus of the work during August.
- Feasibility Study financial and institutional aspects were progressed.
- Pilot Project construction is on schedule and is now 60% complete.

The Chairman noted that, while the plans for North Mankwe have not been finalised, RDP projects are proceeding. In particular he noted the Magong (Ramakokstad) project is proceeding but will not have full funding. It will therefore be desirable to include this in the feasibility study financing plans. The best way for the Study Team to understand the requirements would be by attending a steering committee meeting for this project. The Chairman undertook to have a meeting invitation extended to the Study Team.

6.2 Phase 2 (Feasibility Studies)

(1) Engineering Aspects

Mr Kadowaki gave an overview of the work done on levels of service.

In discussion the following was noted:

- Mr Mckudu clarified that the figures in the handout indicate the additional cost of providing a higher level of service i.e. the total cost less the grant provided to cover RDP level.
- The Chairman was concerned that a large amount of time was being spent on considering higher levels of service when we cannot change the policy of only subsidising only RDP levels. Mr Mckudu indicated this was because the technical experts were of the view that a higher level of service needs to be taken into account in bulk delivery infra structure, and that economies of scale will reduce the overall cost impact. Also by doing this the two options will have been documented and this information will therefore be available for future decision making.
- Mr Kadowaki asked that the meeting confirm which level of service should be used as the basis for planing.
- The Chairman confirmed that the approach should be to plan for the basic (RDP) level of service but to take into account a higher level in the design of delivery infra structure. For delivery infra structure the plans should be based on parameters currently being used in new DWAF and water board projects. These are similar to the 90%-10% (yard connections - standpipes) referred to in the handout.
- If the above is the case the question is what use will the information on other options be put to? This will be used to assist with future planning and serving to inform stakeholders about the implications of different possibilities. In this regard it was agreed that a more comprehensive set of scenarios be developed i.e currently the extreme cases are shown and some in between values need to be calculated.
- After discussion the Chairman asked that the technical consultants liase closely with the existing consultants working in the feasibility study areas to ensure that needs identified and being planned for by them are taken into account. Also to ensure that there is alignment between the Study recommendations and those of the consultants. The contact people are as follows:

North Mankwe:	VKE Consulting Engineers (W. de Swart) (083-255 9086)
Moretele 2:	BSL Consultants (Johan Rall) (031-243 4343)

(2) Institutional Aspects

Mr Nagy gave a status updated with reference to the hand out material. In discussion it was noted that:

- The Chairman noted that the joint venture between RDC and MW is still in the very early stages of development.
- RDC have divided the district in two parts for planning and implementation purposes: An area south of the Pilannesberg where EVN and Africon will undertake the work on behalf of the RDC/MW joint venture. RDC will itself handle the role of water service provider (undertaking the appropriate planning) in the area north of the Pilannesberg. The North Mankwe feasibility study area falls in the northern part which will be handled directly by RDC.
- Mr de Swart emphasised that there will be significant benefit to be gained from following a common approach to matters such as cost recovery. In fact different approaches in different areas will be counter productive by creating confusion. It was suggested that the training work being done by BSC Group (Peter van Ryneveldt - Tel No 011- 462 2371) in Motlhabe may provide a useful model for other areas.
- Mr Hart noted in respect of the Klipvoor feasibility study area that the meeting of stakeholders on the 28th August had been strongly emphasised the need to provide EDC with support in taking on its service provision role. This would be a need extending beyond the end of the current study phases.
- Mr Meintjes noted that the Mbibane TLC is receiving support in the form of a capacity building program. This will take up to two years to demonstrate results.
- The Chairman emphasised that the long term goal should be to develop local authorities to the point where they can act as the service provider. Interim arrangements should not act as a barrier towards achieving this goal.

(3) Finance

Mr Mckudu presented a summary of the financial analysis which he had undertaken for Klipvoor and Moretele 2. It was noted the financial aspects had been discussed in depth at a meeting on the 28th August and that it was not therefore appropriate to go over this again in detail.

The key point arising from discussion was that:

- The analysis again highlights that it is the capital costs which contribute to creating a situation where the cost per household is significantly greater than the level of affordability. How capital will be raised and / or interest rates subsidised is therefore the critical issue.

- Mr Meintjes noted that a business plan has been developed for bulk water supply in the Moretele 2 feasibility study area. This envisages a bulk supply from Temba which necessitate an upgrading of the water treatment works. The Study Team were asked to ensure that they are in touch with this planning process and the implications of the proposals. BSI are the consultants who are developing the business plan and the contact person is Johan Rall (013) 243 4343

6.3 Phase 3 (Pilot Projects)

(1) Engineering

Mr Strauss gave an update on progress with reference to a plan circulated. It was noted that the pilot projects are generally on schedule.

In discussion it was noted that:

- There are significant technical complexities at Ga-Rasai and careful coordination between different members of the team will be necessary to ensure success.

(2) Institutional

Mr Hart gave an overview of progress with reference to handout material. In particular he noted that:

- The service provider options for the pilot projects are aligned with the proposals for the feasibility study areas.
- The pilot projects will need to be mentored and supported after the conclusion of the Study. This is in keeping with DWAF policy to mentor RDP and other projects.
- Development of business plans is making good progress.
- An emphasis will be put on creating the necessary hand over arrangements during the next month.

(3) Financial Aspects

Mr Mckudu reported on progress on the financial aspects. The handout material refers.

- It was noted that it is important that tariffs should be similar for similar areas and similar types of supply. If there are significant differences this will create confusion between communities and lead to resistance to payment for service.

7. Feedback on Stakeholder Meeting (28th August 1997)

Mr Hart reported that this workshop had been well attended. The need for additional support after completion of the current project stages was emphasised. Key points of note were:

- Ensuring sustainability will depend upon the overall institutional framework being in place. This framework will provide the necessary support to the pilot projects and ensure implementation of feasibility study recommendations. The EDC needed support in particular.
- The pilot projects need to be seen to be delivering value to communities. This will only be the case if they are sustainable. To achieve this sustainability some additional support will be necessary.
- Evaluation will be necessary to ensure that the lessons learned are transferred so as to add value within the ESA (and to other regions).

8. Report Back on other Meetings

8.1 Area Planning Forums

Mr Nagy and Mr Mannaal attended the RDC and EDC planning forums respectively. Brief presentations were made covering the JICA Study to both groups.

8.2 HWSA Indaba

Mr Nagy attended part of this three day workshop. At this workshop the future direction of the proposed new water board discussed and was discussed and agreed. This assists the Study Team with considering options for this area.

9. Way Ahead

9.1 Next PEF Meeting

It was agreed that the purpose of the next PEF meeting will be a stakeholder sounding board on the conclusions and recommendations going into the final report.

After some discussion it was agreed that this should take the form of a combined PEG / PEF meeting to be held on the 22nd October.

9.2 Preparation of the Draft Final Report

Mr Kadowaki outlined the program of preparing this report.

The Chairman asked that this report add value by:

- Providing specific advice on how the proposals in the report should be implemented.
- Dealing with the question of additional support will be necessary after the current study is completed.

9.3 Next PEG Meeting

This will be the combined PEG / PEF on the 22nd October.

There will not be a PEG meeting on the 1st October as indicated in the initial list of PEG meeting dates.

10. General

There were no matters under general.

11. Closure

The Chairman thanked participants for their attendance and closed the meeting.

MINUTES
OF
JOINT MEETING OF PROJECT EXECUTION FORUM AND
PROJECT EXECUTION GROUP
FOR
THE STUDY ON
THE EXPANSION OF CAPACITY OF MAGALIES WATER
IN THE REPUBLIC OF SOUTH AFRICA

Held in Rustenburg, 22nd October, 1997

Present:

<u>Name</u>	<u>Organisation</u>	
R.J. Strydom	Magalies Water	(Chairman)
A. Dandashe	Magalies Water	
O.M. Mphachoe	Magalies Water	
K. Surtey	Rustenburg D.C.	
J. Cumiff	Rustenburg D.C.	
J.N. Ntshwagong	Rustenburg D.C.	
L. Khutsoane	Rustenburg D.C.	
H. Anderson	DWAF	
O.J. vd Berg	DWAF	
P.D. Pyke	DWAF	
J. Stoop	DWAF	
B. Bradley	DWAF (Mpumalanga)	
M. Tubana	Mbibane TLC	
B. Kekana	Mbibane TLC	
P. Mollo	Mbibane TLC	
D. Moatshe	Bapong	
E. Rahlogo	Bapong	
I. Mokhutso	Bapong	
P. Meintjies	Highveld. D.C.	
V.N. Maloka	Semohlase LPSC	
P. Mocketetsi	Semohlase LPSC	
T. Moloka	Semohlase LPSC	

J. P. Mare	Rand Water
B. van Niekerk	Department of Local Government, Public Housing and Development
M. Makgopela	EDC
N. Mateta	Northern Province
L. Rossouw	Metsi Qual
M. W. Molotsi	Kameelboom
S. Kadowaki	JICA Study Team
Y. Miyanishi	JICA Study Team
B. Sawara	JICA Study Team
T. Mamiya	JICA Study Team
J. Nagy	JICA Study Team
M. Moitsiwa	JICA Study Team
T. Hart	JICA Study Team
T. Oda	JICA Study Team
C. Mannall	JICA Study Team
C. McKudu	JICA Study Team

1. WELCOME

Mr Strydom opened the workshop by welcoming participants. He indicated that the overall objectives of the day's proceeding were:

- To give the Study Team the opportunity to present an overview of the outputs of the Study.
- To create the opportunity for Stakeholders to discuss recommendations coming out of the Study.

- To clarify roles and responsibilities for the future in respect of both the pilot projects and feasibility study areas.

He noted that the work was now reaching a conclusion and that this would be the last meeting of the PEF under the terms of the present Study.

Mr Nagy presented the programme and arrangements for the day. He stressed the importance of Stakeholders having the opportunity to discuss the various outputs and indicated that questions would be dealt with throughout the proceedings.

Apologies were received from Mr Fernandez (DWAFF North West).

2. PRESENTATION OF MATERIAL FROM DRAFT FINAL REPORT

Copies of all slides used in presentations were included in a document circulated to all participants.

2.1 Overview of JICA Study

Mr Kadowaki gave an overview of the project covering the objectives of the Study, structure of the project and the overall work schedule. He specifically dealt with aspects covered in each of:

- Phase 1 Master Plan Study
- Phase 2 Feasibility Studies
- Phase 3 Pilot Projects

He noted that the main issues for discussion during the day were:

- Application of requirements of the proposed Water Services Bill.
- Options for institutional development in retail water supply.
- Developing a phased development plan.
- Affordability and levels of service.
- Staged development proposals.
- Building up reserve funds in a staged development proposal.

2.2 Feasibility Studies (Phase 2)

2.2.1 Engineering Aspects

Mr Sawara presented an overview of the engineering aspects with reference to a work flow diagram which identified four main areas of work:

- Demand planning based on population.
- Demand planning based on service level.
- Determining sources of water.
- Developing infrastructure plans for each feasibility study area.

Discussion:

- Mr van den Berg noted that some of the proposals will require up grading of infrastructure. For example the Weltevreden WTW will need to be upgraded. He asked whether this had been discussed with the current management of the facilities. Mr Sawara indicated that this was the case and that these cost have been included in planning and therefore in tariff calculations.
- Mr Mare asked if yard connections are metered or not? Mr Sawara confirmed that they are and also noted that Service Level B is a yard tap and not a house connection.
- Mrs Mateta asked whether the recommendation is that ground water should be ruled out? Mr Sawara replied that ground water is a short and medium term option, but is not a long term solution because of quality and quantity considerations. That is to say in the long term ground water is not a sustainable solution. The Study has therefore looked at the cost of using surface water and the applicable tariff. Mr Pyke confirmed that ground water is not excluded as a matter of policy and there are areas of South Africa where it can be a long term solution.
- Mr Montoedi asked who will be responsible for monitoring water quality? In reply it was noted that the purpose of the Water Services Bill is to introduce a clear structure of roles and responsibilities. The Water Services Provider will carry out this function under the control of the Water Services Authority which will in turn report to DWAF on this.
- Mr Makgopela asked about the sources of contamination of ground water. In reply it was stated that contamination potential is a complex question and a number of factors must be taken into account such as sanitation, cattle grazing, population density, depth of boreholes and soil type.
- Mr Mare noted that Service Level B will create significant sanitation problems if sanitation planning does not take place simultaneously with water supply planning due to increased waste water volumes.

- Mr Strydom noted that we should be careful how the construction costs are presented so as to clearly differentiate between the total cost and the additional cost i.e. those over and above RDP level costs. If these differences are not clearly indicated misconceptions could arise.
- Mr Meintjies noted that possible transport subsidy cuts could influence population particularly in the KwaNdebele area. If these subsidies are withdrawn or reduced people may migrate to places closer to places of employment.
- Mr van den Berg requested that the draft final report should be given to the Department of Trade Industry because they need to be made aware of the service provision challenges. These need to be taken into account in planning future regional development. DWAF has an inter departmental coordinator who could do this.

2.2.2 Institutional Aspects

Mr Nagy presented an overview of the institutional aspects covering:

- The institutional framework covered by the Water Services Bill.
- An assessment of the current institutional environment.
- Institutional needs identified from the pilot projects.
- The bulk Services Providers for each feasibility study area.
- Proposed institutional strategies in the area of distribution / reticulation.
- The proposed retail Services Providers for each feasibility study area.
- A phased institutional development plan.
- Roles and responsibilities related to implementation.
- Short and medium term action plans.

Discussion:

- Mrs Mateta sought clarification on the concept of service cooperatives. In reply it was noted that this is a concept and that the need being addressed is the need for intermediary level structures which could facilitate coordination, sharing of resources and exchanging experience and best practice. There are a number of options as to the form of such intermediary organisations and a cooperative is one possibility.
- Mrs Mateta asked whether such organisations might not create constitutional problems. Mrs Surty noted that such structures will fall under the district council and need to be approved by it. They would be an extension of the district councils function in service provision and therefore not a problem.

- It was clarified that the BoTT programme in Mpumalanga refers to: Build, operate, train and transfer, which is a DWAF programme of private sector involvement in the implementation of RDP water schemes.
- Mr Pyke confirmed that a joint venture partnership concept between MW and RDC (and EDC) to create an intermediary level structure to take on service provider roles has been progressed. He indicated that this seemed to be viable proposition.
- It was noted that the development of water services plans by Services Authorities as envisaged in the Water Services Bill should not be done in isolation of other planning in the area. Mrs Surty agreed noting that Area Planning Forums are in place and any duplication should be avoided.
- Mr Montoedi asked who would be responsible for monitoring water quality. It was confirmed that this is covered by the role of the Water Services Authority and that responsibilities for executing the monitoring function would be delegated to the Services Provider.
- A question arose regarding the transfer of former NWWA staff to Magalies Water rather than to the District Councils and whether the latter would not be a better option. In reply it was noted that the District Councils are not directly involved in operations and maintenance activities and do not have the capacity to manage such operations. The proposed joint venture between the Councils and the Water Board may however be a vehicle in the transfer of staff to local authorities where operations will ultimately reside. Mr Pyke reminded the meeting that ultimately service provision is a local authority responsibility and that all plans should focus on getting capacity to this level.

2.2.3 Financial Aspects

Mr Miyaniishi presented an overview of the results of the financial analysis done for the feasibility studies covering:

- Implementation arrangements.
- Financial considerations.

In the latter he covered the question of affordability versus willingness to pay. Also the assumptions necessary in calculations to arrive at proposed tariffs.

Discussion:

- Mrs Mateta raised a concern about the use of average levels of income / affordability for planning as there will be a large group at the bottom end of the income structure who will not be able to afford any level of service. A way of dealing with the question as to how those who have a right to water but cannot afford any tariff is essential. This relates to the O&M component of the tariff and not the capital portion which is covered by the RDP. Solutions will need to be developed in consultation with communities.

- Mr Strydom queried some of the figures in the presentation which suggest that only the cost of retail infrastructure has been taken into account. Tariffs must include the cost of implementing the necessary bulk structures.

2.2.4 Environment

Mrs Rossouw gave an overview of the process which has been followed in considering environmental impact issues associated with implementing the technical options.

No fatal flaws have been identified which would prevent project implementation. Only in the Klipvoor area is there potential significant impacts. The construction of a new water treatment works is necessary and the ideal siting of this works is immediately downstream of the Klipvoor Dam wall in an area which forms part of the Borakalalo Nature Reserve. The impact of this and possible options are being discussed with the North West Department of Nature Conservation and the North West Parks Board.

2.2.5 Overall Assessment

Mr Miyanishi provided an overall summary of the outputs of the feasibility studies.

2.3 Boundary Issues

Mr Mackudu explained that there are several areas where for long term planning the sources of water needs to be reviewed. He stressed that this analysis did not affect the short and medium term plans. The areas under review within the Study area are referred to as the:

- Rand Water supply area.
- Barnardsvlei supply area

Unit and marginal cost data was presented.

2.4 Pilot Projects

2.4.1 Engineering

Mr Mannall reported that the current status was that the pilot project construction work was nearing completion. At Klipvoor the work is complete. Handover of the infrastructure to Rustenburg DC, Eastern DC and Mbibane TLC for Kameelboom, Ga-Rasai and Semohlase / Seghokgo respectively will take place shortly.

2.4.2 Institutional and Finance

Mr Hart gave feedback on the progress of the pilot projects. Key points were:

- Objectives of the pilot projects.
- Nature of the projects.
- Pilot project implementation.
- Capacity building approach and lessons learned therefrom.
- Project management plans.

He also presented proposals regarding continuation of the projects proposing that:

- Operational carry over requires consolidation and refinement of the management and O&M arrangements implemented in terms of the management plans, and full operational testing of water systems.
- Consolidation and integration of institutional arrangements at local and at regional level is necessary.
- Best practice sharing should be encouraged.

Discussion:

In response to a question it was noted that the Bapong pilot project started later than the other pilot projects. Its objective is to assist the Bapong community to formulate a water management policy which includes cost recovery. Local government in the area is in a state of flux which makes progress more difficult. Progress is however now being made.

2.4.3 Handover Post JICA

Mr Hart proposed that there were four requirements:

- The immediate establishment of a strategic task group. The brief of this group would be to develop an action plan for post-JICA follow-up activities.
- The establishment of a mentoring team, possibly comprising a coordinator and a community liaison officer.
- The development of a comprehensive M&E programme. The task group would design the programme, or find a consultant to do so.
- The determination of the scope of work of an institutional and technical support team (by the task group), and the formation of such a group.

4. CLOSURE

Mr Nagy posed the question as to what steps the participants would like to see taken to ensure that the benefits of the work of the Study were not lost at the point of formal conclusion of the study. After discussion the following points were agreed to and these were to be the recommendations of the Project Execution Forum to the Steering Committee:

- A Task Group should be formed and tasked with ensuring that the outputs of the Study are effectively utilised and the recommendations implemented.
- This Team should not be an end in itself but rather that it should provide the support and motivation necessary to those whose responsibility it is to implement the recommendations.
- The Team should be linked to the Water Decentralisation Task Teams
- Participants in the Team should be the key players in the implementation process. They will be essentially the parties involved in the Study to date.
- The Team will need support going forward and the local members of the current Study Team are well placed to provide this and DWAF should consider the necessary arrangements.
- Specific action steps regarding the above should be decided by the Steering Committee.

Mr Cunniff closed the workshop by indicating that significant value had been gained from the Study. He noted that:

- The Study had contributed significantly to building relationships between the parties. The working relationships established would continue into the future and are essential to achieving service delivery.
- Rural communities had been given the opportunity to participate in the planning process at all levels in the Study structure. He felt that this was unique and had been of significant value to the communities concerned.
- Change had been initiated by the Study and that a process was now moving forward, the value of which, would be felt for many years in the future.

Mr Cunniff extended thanks on behalf of the Stakeholders to:

- The Japanese Government for having made the Study possible. He asked Mr Kadowaki to convey these thanks to the Embassy of Japan.
- DWAF for having arranged and supported the Study.
- Mr Kadowaki for having ably led the Study Team.

- Japanese and local members of the Team for a professional job well done.
- Members of the support staff in Rustenburg and Pretoria.

Finally he thanked all the Stakeholders for their time and active participation in the work of the Study.

MINUTES
OF
MEETING OF PROJECT STEERING COMMITTEE
FOR
THE STUDY ON
THE EXPANSION OF CAPACITY OF MAGALIES WATER
IN THE REPUBLIC OF SOUTH AFRICA

Held in Holiday Inn Crown Plaza Conference Centre, Pretoria
28th October 1997, 14h00

Project Steering Committee

Minutes of Meeting

28th October 1997 at 14h00

Holiday Inn Crown Plaza Conference Centre, Pretoria

Present:	K. Pelpola	(Chairman)
	N. Fenner	Magalies Water
	R. Strydom	Magalies Water
	P. Meintjies	Highveldt District Council
	T. Ramaema	DWAF
	L. Colvin	DWAF: CWSS
	P. Pyke	DWAF: RWSM
	F. van Zyl	DWAF: Planning
	O. van den Berg	DWAF: WRM
	J. van Aswegen	DWAF: Mpumalanga
	B. Bradely	DWAF: Mpumalanga
	P. Fernandez	DWAF: North West
	S. Marais	DWAF: CWSS
	Y. Maruo	JICA Advisory Committee
	K. Sato	JICA Advisory Committee
	Y. Omura	JICA Advisory Committee
	S. Matsumoto	JICA Tokyo Head Quaters
		Japanese Embassy
	T. Nakamura	JICA South Africa Office
	S. Kadowaki	Study Team
	Y. Miyanishi	Study Team
	B. Sawara	Study Team
	T. Oda	Study Team
	J. Nagy	Study Team
	T. Hart	Study Team
	C. McKudu	Study Team
	P. Ramsden	Study Team

1. Welcome

The Chairman welcomed participants to the meeting.

2. Apologies

There were no apologies:

3. Approval of Agenda

This was approved without amendment.

4. Minutes of the Previous Meetings (29th July 1997)

Approved without change. Proposer R. Strydom.

5. Matters Arising

There were no matters arising not addressed by the agenda items..

6. Presentation of Draft Final Report

The draft final report which had been distributed prior to the meeting refers.

Copies of transparencies used in the presentation were also distributed.

6.1 Report back from PEG / PEF Workshop

Mr Strydom gave feedback covering the key aspects dealt with at his workshop. These were the:

- Feasibility studies.
- Boundary issues.
- Pilot projects.
- Next steps.

With regard to the latter points he noted that the view of the Stakeholders at this workshop was that:

- A Task Group should be formed and tasked with ensuring that the outputs of the Study are effectively utilised and the recommendations implemented.
- The Team should be linked to the Water Decentralisation Task Teams
- Participants in the Team should be the key players in the implementation process. They will be essentially the parties involved in the Study to date.

6.2 Overview of Phases 2 and 3

Mr Kadowaki presented an overall summary of the Feasibility Studies and Pilot Projects noting that all the main planned activities had been progressed successfully. In his presentation he covered:

6.3 Phase 2 (Feasibility Studies)

6.3.1 Phase 2: Engineering

Mr Sawara presented an overview of the engineering aspects.

Each of the proposed technical solutions.

Discussion:

- Mr Fernandez sought clarification on the extent of current surplus capacity on the infrastructure in the North Mankwe area. This only exists in respect of the bulk supply line to Spitzkop.
- Mr Pelpola asked if the bulk water costs have been taken into account. Mr Sawara noted that these have based on a formula as illustrated on Page 4-4 of the North Mankwe report.
- Mr Pelpola asked if the possibility of supplying the North Mankwe area from the West had been considered. Mr Sawara indicated that because the area west of North Mankwe falls into a different water shed region this had not been considered.
- Ms Colvin asked about the minimum level of demand in number of households which is necessary to justify including the higher level of service in planning. She also felt that the cost of connections given in the report were high given that these were additional to the RDP standard. If these are realistic no rural community is likely to be able to afford the yard connection level of service. After discussion it was noted that the costs are realistic. Mr van Zyl noted that this sort of data is very useful and should be used as the basis for discussion in getting stakeholders to understand the realities of the financial impact of service delivery.

6.3.2 Phase 2: Institutional

Mr Nagy presented an overview of the feasibility study institutional aspects:

Discussion:

- Mr Pelpola asked if the private sector had been considered in the role of service provider. In reply it was noted that the all the intermediary level structures provide an opportunity for private sector participation.

- Mr Pelpola asked if the structures proposed such as the Magalies Water / District Council Joint Ventures will be credit worthy and acceptable to lenders as recipients of loans. Mr Nagy indicated that it is not the structure itself that determines credit worthiness, rather its capacity to meet interest and capital repayments. This capacity depends entirely on cost recovery. Hence the emphasis on institutional development at community level which is a major strategy proposed in the final report.
- Mr Nagy clarified that public / private partnerships were referred to as temporary meaning that they were not the end goal. The goal is local authorities taking over the water service provider responsibility

6.3.3: Phase 2: Financial

Mr Miyanishi presented an overview of the pilot projects institutional aspects.

Discussion:

- Mr Fenner asked whether it was practical, that is to say possible, to get communities to contribute towards a reserve fund for the future. Mr Miyanishi indicated that this would be one of the challenges faced at implementation.
- Mr van Zyl asked if a sensitivity analysis has been done. Mr Miyanishi confirmed that it had and is discussed in the Report.

6.4 Boundary Issues

Messers Ramsden and Mackudu presented an overview of the study of boundary issues noting that they had considered the economic implications of changing the source of supply from Rand Water to a local source of supply (i.e. Magalies Water). This was for two areas, the Rand Water and Barnarsvlei supply areas respectively.

Discussion:

- Mr Pelpola asked why the raw water cost was not taken into account. In reply Mr Ramsden indicated that the approach has been to ascertain whether a local source can be developed for the same amount as the marginal cost of supply from Rand Water. It was agreed that the approach needs to be clarified and be more clearly stated..

6.5 Phase 3 (Pilot Projects)

Mr Hart presented an overview of the pilot projects progress.

Discussion:

- In discussion Mr Hart emphasised that the projects had been implemented in a very short space of time i.e. six months. This had therefore been a unique experience.

- Ms Colvin commented that size of community does not necessarily make circumstances more complex if appropriate strategies are in place for dealing with the regional context.

7. Evaluation of Study Report Against TOR Agreement

Mr Pelpola referred the participants to the three main objectives of the Study being:

- 1
- 2
- 3

The Study appears to have addressed these objectives. He indicated that the team should ensure that the following two areas were adequately covered in the final report:

- Firstly that the study covers all sectors (i.e communities as well as commerce and industry) in its assessment of solutions.(?)
- Secondly that innovative financing methods have been addressed, given the increasing need for off budget financing.

8. The Way Ahead

8.1 Views of Key Stakeholders

Mr Kadowaki requested that written comments should be submitted to him by the 21st November for incorporation in the Final Report

8.2 Submission of Final Report

Mr Kadowaki indicated that this will be in early January 1998.

8.3 Further Cooperation between JICA and South Africa

Mr Hart presented the proposals which had be put to the combined PEG / PEF workshop which were:

Continuation:

- Consolidation and refinement of the management and O&M arrangements implemented in terms of the management plans, and full operational testing of water systems.
- Consolidation and Integration of Institutional Arrangements at local and at regional level.
- Best Practice Sharing.
- Feasibility Study Implementation.

Action:

- The immediate establishment of a strategic task group. The brief of this group would be to develop an action plan for post-JICA follow-up activities.
- The establishment of a mentoring team, possibly comprising a co-ordinator and a community liaison officer.
- The development of a comprehensive M&E programme. The task group would design the programme, or find a consultant to do so.
- The determination of the scope of work of an institutional and technical support team (by the task group), and the formation of such a group.

Discussion:

- Mr Ramaema indicated that meeting should not be seen as the end of the study. He felt that there is a need to look very deeply at the institutional arrangements because of the implications on financing.
- Mr Maruo small budget for monitoring pilot projects. And for a seminar for sharing experiences.
- Ms Colvin felt that we should not lump the task team together but rather have a team for NW and one for MP.
- Mr van Zyl felt that there should be strategic teams looking at master planning, financing, institutional development etc..
- Mr Pelpola indicated that the challenge for the Task Team will be to come up with an institutional structure which is acceptable to the OECF as a vehicle for accepting loan funding.

It was then agreed that:

- Mr Ramaema would coordinate an effort to look at the strategic and policy requirements needed before work could begin on implementing the Study recommendations. This mainly relates to policy as to how funding of projects will be dealt with. Policy guidelines would then be given to a task team as the basis for its work. The policy guidelines would determine the nature, and scope of work, of a Task Team which would take the Study recommendations forward.
- Mr Pelpola proposed that as an interim measure the PEG continue in its role and keep the Study initiatives and momentum going.

- The lessons from the pilot projects would provide useful input to a DWAF workshop on 21st and 22nd November and Mr Hart was requested to give this input.

9. General and Closure

Mr Ramaema said that he hoped that the work of the Study would move forward and not be wasted. He thanked the team for the professional and cordial way the study has been conducted. He felt that a lot had been learned from the Study and that this was real example of knowledge transfer.

Mr Maruo thanked DWAF and all the participants for their assistance and cooperation.

Mr Fenner thanks everyone who had given inputs to the Study.

Mr Pelpola specifically thanked Mr Kadowaki for his role as the Team Leader.

There being no further business the Chairman closed the meeting.

C. SCOPE OF WORKS (S/W)

APPENDIX A SCOPE OF WORK (S/W)

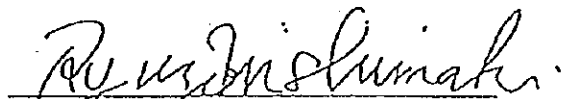
SCOPE OF WORK
FOR
THE STUDY ON
EXPANSION OF THE CAPACITY OF MAGALIES WATER
IN THE REPUBLIC OF SOUTH AFRICA

AGREED UPON BETWEEN
DEPARTMENT OF WATER AFFAIRS AND FORESTRY
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Pretoria, 4th. August 1995



Mr. M. Muller
Deputy Director General,
Department of Water
Affairs and Forestry



Mr. Gyuzo Nishimaki
Leader, Preparatory Study Team
Japan International
Cooperation Agency

I. INTRODUCTION

In response to the request of the Government of the Republic of South Africa (hereinafter referred to as "the Government of South Africa"), the Government of Japan has decided to conduct the Study on Expansion of the capacity of Magalies Water in the Republic of South Africa (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly, Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programs of the Government of Japan, will undertake the Study, in close cooperation with the authorities concerned of the Government of South Africa.

This document sets forth the Scope of Work with regard to the Study which will become effective on the date of the exchange of diplomatic notes concerning the Study between the Government of Japan and the Government of the Republic of South Africa.

II. OBJECTIVES OF THE STUDY

The objectives of the Study are:

1. to formulate an overall and strategic framework/master plan for the appropriately phased, long-term, sustainable development of the water supply infrastructure and development of sanitation, including appropriate 2nd, and 3rd, tier support, in the extended supply area of Magalies Water (MW). A priority program up to the year 2002, and an extended program up to 2015 should be included.
2. to conduct a feasibility study for priority project(s) to be selected from the strategic framework/master plan to promote water supply services in the study area and to consider sanitation options; and
3. to share technology on planning methods and skills with the counterpart personnel of Magalies Water and the Department of Water Affairs and Forestry (DWAF), and other participating organizations.

III. STUDY AREA

The study area will be as defined in Appendix 1. This area is described as the "extended supply area" (ESA) throughout this document. The ESA is the provisional core area for the study, but it is also acknowledged that the boundary might be adjusted to incorporate or exclude some peripheral areas.

IV. SCOPE OF THE STUDY

In order to achieve the above objectives, the Japanese study team (hereinafter referred to as "the Team") will conduct the Study which shall cover the following:

Background

In terms of South Africa's new water supply and sanitation policy, a specific challenge is to transform and empower institutions in the sector so that all communities in the country have access to water and sanitation services, and the support they need to sustain them. The basic elements of the water supply

and sanitation policy are presented in the White Paper on Water Supply and Sanitation, which in turn refers to the Reconstruction and Development Programme (RDP).

In terms of policy, Water Boards will play an important bulk supply role in the long term. During the transitional period, however, the Boards are expected to stimulate and support 3rd. tier water supply institutions and to ensure service delivery. They also have the potential to extend water supply networks to areas previously denied formal water provision.

Definitions Used in the Document

DWAF-Department of Water Affairs and Forestry
MW-Magalies Water
ESA- The extended supply area of the water board
NWWA-North-West Water Authority
JICA- Japan International Cooperation Agency
RDP- Reconstruction and Development Programme
ODA - Overseas Development Agency
DANIDA- Danish International Development Agency
NPV - Net Present Value
DCF- Discounted Cash Flow
PSC - Project Steering Committee
CAPEX- Capital Expenditure

Four Major Outputs

The study will produce four major outputs which will be recommendations on:

- 1 Confirmation of the extended supply area and the configuration of internal business unit .
- 2 The organizational adaptation and extension of the 2nd. tier in the ESA . in relation to water supply and sanitation.
- 3 The establishment and / or reinforcement of effective 3rd.tier structures in the ESA, in relation to water supply and sanitation, and
4. The formulation of a capital investment plan

Phases of the Study

The first phase of the study will lead to the formulation of a strategic framework/master plan. Subsequent phases will focus on the selection and implementation of water supply and sanitation pilot projects.

The framework of the study is as follows :

Phase 1 - Formulation of a Master Plan

This phase can be sub-divided into four stages as follows :

Stage 1 - Situational analysis

Stage 2 - Formulation of policy and strategy.

Stage 3 - Water supply technical alternatives - pre-feasibility studies

Stage 4 - Recommendations for a quality assurance and control programme , and terms of reference for Phases 2 and 3.

Phase 2 - Feasibility study on priority projects

Phase 3 - Implementation of selected water supply and sanitation pilot Initiatives

Project Management

The study will be managed by a Project Steering Committee (PSC). Representation must include MW (CEO); NWWA; DWAF; Provincial Governments; JICA and selected representatives of the technical assistance team. The PSC will meet at approximately three-month intervals, and timing will be based on major milestones, particularly the submission of major reports. The PSC will not have executive powers with respect to MW and NWWA. The PSC will make recommendations to DWAF. These will also be referred to the management of MW and NWWA.

Three Project Working Groups (PWGs) will oversee activities in the 2nd, 3rd, 4th tier and capital investment plan contexts. Representation should reflect key stakeholders in each context, but must include MW, NWWA, DWAF and the Team. The purpose of the PWGs is ensure the effective implementation of the study in the most practical way.

Study framework

1 Phase 1: strategic framework/master plan

1.1 Stage 1 - Situational Analysis

The situational analysis will form a foundation for all four outputs. The essential components are as follows:

1.1.1 Investigation of peripheral areas

The peripheral areas to be included in the situational analysis will be identified and will be an input into the process design for the analysis.

1.1.2 Review of policy regarding 2nd-tier roles and responsibilities

Review of policy relating to 2nd, tier organizations. Material consulted should include:

- RDP documents

- Water supply and sanitation white paper

- Documentation on review of water laws

- Draft report on scope and function of Water Boards

- Legislation on local government functions

- Consultation with relevant DWAF, RDP and provincial officials

1.1.3 Issue scoping with stakeholders

This task will involve interaction with stakeholders such as:

- a) MW (management and staff)

- b) NWWA
- c) Selected customers
- d) DWAF, Provincial Government
- e) 3rd. tier structures

The purpose of the exercise is to obtain a broad spectrum of views regarding the problems and prospects of the study.

1.1.4 Profile of the 2nd. tier

Assemble a picture of how MW and NWWA (in the ESA) are configured with regard to the following :

- a) present operational structures
- b) functions, roles and responsibilities
- c) operational systems, policies and procedures
- d) costs of bulk water purchases
- e) cost recovery structures
- f) income vs. expenditure
- g) short and long term financial obligations

This task will not require detailed research. However, the information will inform an analysis of the implications of serving an extended supply area in Stage 2.

1.1.5 Background study

Understanding of the present conditions in the study area through the collection and interpretation of existing data and documents, interviews and field observations on:

- a) climate, topography, geology, hydrology, hydrogeology, etc.
- b) social and economic conditions and trends
- c) health and hygienic conditions of population
- d) environmental conditions, legislation and policies
- e) regional and urban development plans and policies
- f) established land use plans

1.1.6 3rd. tier audit

a) Conduct an extensive evaluation of the capacity, roles and potential of the 3rd Tier. This study should aim at revealing the contribution that elements of this sector might make towards achieving an effective water supply and sanitation system in terms of the vision outlined in the White Paper.

b) Conduct an in depth analysis of the strengths and weaknesses of 3rd tier organizations with respect to water supply and sanitation issue. The organizations investigated will be selected from the full spectrum of 3rd. tier actors, with a view to determining the appropriate support action to be undertaken by the 2nd. tier.

The following issues should form part of the investigation of 3rd.

lier structures:

- a) Political and organizational dynamics
- b) Legal and institutional aspects
- c) Management
- d) Technical competence/ capacity
- e) Training competence/ capacity
- f) Community acceptability
- g) Transitional Issues

The list of such organizations should include:

- a) Institutions replacing the present Regional Services Council system
- b) Local authorities established under the provisions of the interim constitution
- c) Tribal authorities
- d) Development committees and other local structures
- e) Non-government organizations
- f) Training and capacity-building organizations
- g) Local water committees
- h) Others

1.1.7 Community case studies

Case studies of selected communities to determine :

- a) Current water supply and sanitation status
- b) Views on service levels and tariffs
- c) Willingness and ability to pay
- d) Organizational and political dynamics
- e) Local human resource capacity
- f) Local water initiatives

1.1.8 Water study

The water-related component of the background study should look at :

- a) Existing water supply and sanitation services with regard to :
 - i) policy frameworks
 - ii) physical components, such as water sources (surface and groundwater)
 - iii) physical status, operation and maintenance of facilities
 - iv) legal and institutional issues
 - v) social issues
 - vi) cost recovery and economic issues (including collection agencies)
 - vii) environmental issues.
- b) Water demand forecasts up to the year 2015 through projections on:
 - i) population growth and urbanization
 - ii) economic growth and changes in living conditions



- c) Studies and on-going projects related to the water supply and sanitation sector including RDP, DANIDA, ODA projects.

1.1.9 Task allocation

Tasks 2.1 - 2.5 will be managed by the 2nd. Tier PWG. The 3rd. Tier PWG will manage 2.6 - 2.8, and the Capital Investment PWG 2.9.

1.2 Stage 2 - Policy Formulation and Strategy Definition by Means of Workshops

1.2.1 Gap analysis

Conduct a comprehensive gap analysis to determine which issues require attention if the 2nd. and 3rd. tiers in the ESA are to operate effectively. Inputs will be all the reports from Stage 1.

- a) Review and process Stage 1 information.

- b) Conduct workshops with key stakeholders including :
 - i) MW
 - ii) NWWA
 - iii) DWAF
 - iv) Provinces
 - v) Regional bodies
 - vi) Local authorities
 - vii) Tribal authorities
 - viii) Community organizations
 - ix) Other relevant stakeholders

These workshops will generate a spectrum of views regarding the challenge to the 2nd. and 3rd. tiers in the ESA, and regarding what has to be done to meet these. The results are an input into 3.2.

1.2.2 Policy and strategy recommendations/plans

Based on the gap analysis, task groups will formulate policy and strategy recommendations and draft implementation plans regarding :

- a) Human resources issues. These might include :
 - i) human resources required for new roles
 - ii) job descriptions for new roles
 - iii) placement of staff
 - iv) training requirements.

- b) Managerial and operational issues. These might include :
 - i) managerial capacity
 - ii) institutional and organizational structure
 - iii) staffing and manpower development
 - iv) financial management and effective revenue collection

- v) the nature and brief of extension services
- c) Financial Issues. These might include:
 - i) preliminary cost estimates (capital projects and operation and maintenance)
 - ii) cost recovery targets
 - iii) policy on mobilizing financial resources for investment
 - iv) tariff policy and billing system
 - v) financial assurance
 - vi) capital financing plan
 - vii) non-payment policy
 - viii) connection fee and subsidy policy
- d) Pros and cons of business unit proposals.
- e) Revised supply area boundary.
- i) 3rd. tier support issues.
 - i) Formulate a strategic plan that would ensure that relevant and affordable support is provided to 3rd Tier urban, peri-urban and rural organizations, and that the necessary working relationships are formalized and developed.
 - ii) Determine what the new role and functions of the 2nd. tier is with regard to supporting the 3rd Tier.
 - iii) Formulate and implement a transition plan that is responsive to i) and ii) above.

The following issues should be included in these discussions:

- i) training program
- ii) communication program
- iii) institutional program (including the legal establishment of Local Water Committees
- iv) training program for trainers
- v) monitoring
- vi) nature and duration of support from 2nd. tier, eg. technical assistance, financial assistance
- vii) auditing the needs/performance of local water committees, including organizational, legal, financial and technical issues.
- g) Communication issues
 - i) Formulate a communication strategy for stakeholders
 - analysis of communication problems
 - assessment of available tools for communication
 - organizational context of communication
 - ii) Monitoring the quality of communication between 2nd. tier and first and 3rd. tier stakeholders
 - examination of communication tools

feedback from the audience groups
analysis of effectiveness
making improved alternatives

1.2.3 Task allocation

Tasks (a - e) will be the responsibility of the 2nd. Tier PWG; f) and g) will be managed by the 3rd. Tier PWG.

The combined product of Stage 2 will be a phased Implementation or transition plan.

1.3 Stage 3 - Development of technical solutions - pre-feasibility studies for new and existing projects and facilities

1.3.1 Development of technical solutions

Outputs from the situational analysis will inform on which new areas need a potable supply of water and which existing facilities should be refurbished or upgraded. The activities necessary to develop the solutions during this stage are as follows :

a) Technical solutions will be developed for each identified deficient consumer group by considering :

- i) source of water - existing surface or groundwater sources or potential new undeveloped sources. (Liaison with DWAF will be essential to verify the existing water supply planning framework for the ESA),
- ii) capacity of existing treatment facilities within the existing supply area,
- iii) bulk supply distribution arrangements in the present area of supply and the potential to extend these lines into the new areas of supply.
- iv) the potential to supplement existing surface water resources by means of conjunctive use of groundwater.

b) The overall sustainability of the technical solutions developed will be evaluated using the following criteria :

- i) technical soundness
- ii) cost per capita supplied (CAPEX/number of consumers)
- iii) estimated CAPEX, operational and maintenance costs
- iv) NPV of the scheme using DCF techniques and varying discount rates.(Projected operational and maintenance costs are to be included as is the envisaged consumer demand)
- v) the sensitivity of the success of a technical solution to factors such as willingness to pay, variations in demand and migratory and development patterns.
- vi) environmental impacts (biophysical)
- vii) social impact and acceptance towards the impact

- viii) staffing and manpower development necessary to support and develop 3rd tier structures
- ix) efficiency of the operational arrangement

Broad sanitation options will be considered against the background of the water supply solutions, and if feasible and appropriate might be included as an additional component of the pilot projects in one or more.

- c) Preliminary prioritization of areas (to be supplied) or projects by means of workshops with the stakeholders.

1.3.2 Initial Capital Investment plan

Once the technical alternatives are sufficiently developed an Initial Capital Investment Plan can be developed by means of the following tasks:

- a) Assemble preliminary cost estimates of new capital projects and expansions or refurbishment of existing projects.
- b) Extend financial assessment of the studies by the inclusion of:
 - i) Full cost of operation and maintenance
 - ii) Cost of investment-Capital Cost (debt interest and redemption)
 - iii) Cost of overheads
 - iv) Show preliminary cash flow statement on expected stream of income (based on tariffs) and expenditures (based on capital and O&M expenses).
 - v) Expected subsidies.
- c) Evaluate financial viability of new and existing projects and the value of the asset base of existing infrastructure.
- d) Formulation and differentiation of tariffs for the spectrum of consumers in the project area taking cognizance of:
 - i) existing bulk users (industries, established municipalities etc.)
 - ii) new communities requiring an amount of financial assistance,
 - iii) communities requiring full subsidization,
 - iv) connection fees.
- e) Evaluate appropriate metering and billing procedures.
- f) Prepare an Initial Capital Investment Plan which would include:
 - i) Listing of assets to secure financing of capital expenditure for alterations/extensions to existing water works.
 - ii) Mobilization of financial resources for short-term financing (for alterations /refurbishment to existing facilities) and long-term financing (for new capital projects).
 - iii) Evaluate use of available financial(debt) instruments

eg. Variable vs. fixed loans and internal loans vs. foreign aid and foreign denominated currency loans.

1.3.3 Pre-feasibility Report

a) A report will be prepared which will document the alternatives considered, the financial analysis and a review of the sustainability of the project based on funding and tariff alternatives .

b) make recommendations regarding actions to be implemented in stage 4 and Phase 2 and 3.

1.3.4 2nd. and 3rd. Tier Implementation Plans

The 2nd. and 3rd. Tier Implementation plans generated in Stage Two should inform the pre-feasibility deliberations of Stage Three. In addition, the recommendations should be submitted to DWAF and the management of MW and NWWA. If the recommendations imply significant organizational changes, various task groups will be required to obtain a mandate from the above organizations to develop terms of reference for the implementation of change management programmes where these are deemed necessary.

During Stage 3, preliminary community training programmes and curricula should be prepared, and discussed with potential 3rd. tier training agents.

1.4 Stage 4 - Executive Summary and TOR for phase 2 and phase 3

1.4.1 Executive Summary

The findings of Phase 1 of the project will be summarized and presented to the PSC by way of an executive summary.

1.4.2 TOR for Phase 2 and 3

A detailed TOR will be developed for phase 2 and 3 of the project, including TOR for organizational change processes. The latter must be mandated in terms of 1.3.4 above.

2 Phase 2 : Feasibility studies on selected priority projects

2.1 Selection of priority projects

An output from Phase 1 stage 3 will be a number of identified projects and associated technical alternatives. Assuming that budget or cash flow constraints will preclude a number of these projects, a list of priority projects will need to be compiled. The compilation of projects that will be studied during Phase 2 will be evaluated using the following criteria.

- i) sustainability of the project
- ii) cost effectiveness of the project
- iii) acceptability of the project by the envisaged consumer base
- iv) acceptance by the PSC
- v) complementarity with development proposals in the area

2.2 Supplementary data collection

Supplementary data collection including detailed topographical, geological and hydrogeological surveys may be required during this phase of the project.

2.3 Population and Water demand surveys

- a) Population estimates obtained in Phase 1 will be checked by means of field surveys and a statistical evaluation of the resultant data sets.
- b) The water demand model used in phase 1 stage 2 and 3 of the project will be re-evaluated using data collected from field altitude, affordability and acceptance surveys. A demand model for each consumer group will be established.

2.4 Preliminary design

- a) Sale yield evaluations based on risk of failures and aquifer recharge will be conducted for the proposed water sources.
- b) Pipeline route surveys will be undertaken and the positioning of infrastructure will be determined.
- c) Secondary reticulation routes will be determined and staked in consultation with local water committees.
- d) Land acquisition for servitudes to pipeline routes will be initiated. Objections will be noted and possible alternative routes considered.
- e) Design of pipelines, facilities and equipment.
- f) A detailed cost estimate of the scheme will be carried out and the DCF analysis initiated in the phase 1 portion of the study will be recalculated with the new information derived from this phase of the project.

2.5 Final Capital Investment plan

- a) Detailed cost estimates of new capital projects will be assembled and alterations and extensions to existing facilities will be evaluated
- b) Final tariff settings will be evaluated in the light of the more

detailed capital expenditure, operational and maintenance costs.

c) A Final Capital Investment Plan will be prepared which will include:

- i) List of assets
- ii) Confirmation of financial resources for financing
- iii) Finalize available financial (debt) instruments
- iv) Recommendations regarding financing of the identified projects
- v) A projected cash flow for the implementation of the identified projects.

2.6 Institutional, organizational and personnel requirements for the implementation of the project(s) will be developed

2.7 An Initial Environmental Impact Assessment (Initial EIA) will be carried out for the projects identified

2.8 Project implementation plans will be developed for use in Phase 3

2.9 A Feasibility report will be prepared documenting the work carried out and recommending pilot projects to be undertaken in Phase 3 of the study.

2.10 Implementation of Organizational Change

If mandated in terms of 1.3.4, the organizational change tasks developed in Stage 3 should be implemented here, to be sure that capacity to implement pilot projects is in place.

3 Phase 3 - Implementation of selected Pilot Projects

3.1 Ratification of the selected pilot projects

The projects recommended for implementation as pilot projects will be implemented on the recommendation of the PSC in consultation with the DWAF.

3.2 Detailed design of the components of the selected pilot projects

Detailed design activities will include:

- i) finalization of pipe classes and sizes
- ii) treatment facilities and chemical processes required to obtain the required water quality.
- iii) structural design of the associated facilities eg reservoirs, treatment plants etc.
- iv) telemetry control (if required)

- v) flow control and metering
- vi) pump design and required electrical reticulation
- vii) drilling of boreholes and the installation of pumps as required.
- viii) production of detailed construction drawings.

3.3 Preparation of Tender Documentation

Tender documents for the projects will be developed which will include contractual arrangements, technical specifications and schedules of quantity.

3.4 Adjudication of Tenders and the award of Contracts

Adjudication of the tenders will be completed and recommendations made to the PSC for implementation.

Award of Contracts will be done on the recommendation of the PSC.

3.5 Financial Control

a) Control measures will be put in place during the construction phase to monitor the budget established in the Capital Investment Plan.

b) Financial reporting and monitoring during the implementation of the projects.

3.6 Contract Supervision

The implementation of the projects will be supervised by the project team.

3.7 Training

It is envisaged that during the implementation phase capacity building of local bodies will be undertaken. Once the schemes are commissioned further training will be undertaken and a monitoring phase will be initiated.

3.8 Commissioning and Hand over

The projects will be commissioned and handed over to the respective operating bodies.

A detailed set of as built drawings will be completed together with an operating manual and recommended maintenance procedures.

V. STUDY SCHEDULE

The Study will be carried out in accordance with the tentative schedule attached in Appendix 2.

VI. REPORTS

JICA will prepare and submit the following reports in English to the Government of South Africa;

1. Draft Inception Report

Thirty (30) copies at the beginning of the first work in South Africa.

2. Inception Report(1)

Thirty (30) copies within 1 month after the commencement of the first work in South Africa.

3. Progress Report

Thirty (30) copies at the end of the first work in South Africa.

4. Interim Report

Thirty (30) copies at the end of the 2nd. work in South Africa.

5. Inception Report(2)

Thirty (30) copies at the beginning of the 3rd. work in South Africa.

6. Draft Final Report

Thirty (30) copies at the beginning of the fourth work in South Africa. The Government of South Africa will submit their comments to JICA within thirty (30) days after receipt of the Draft Final Report.

7. Final Report

Fifty (50) copies within sixty (60) days, after JICA's receipt of comments on the Draft Final Report.

VII. UNDERTAKINGS OF DEPARTMENT OF WATER AFFAIRS AND FORESTRY (DWAF)

1. To facilitate the smooth conduct of the Study, DWAF shall take the following necessary measures:

- (1) to secure permission for entry into private properties or restricted areas for the conduct of the Study,
- (2) to secure permission for the Team to take all data and documents (including photographs and maps) related to the Study out of South Africa to Japan, and
- (3) to provide medical services as needed. Its expenses will be chargeable on members of the Team.

2. DWAF shall bear claims, if any arises, against the members of the Team

resulting from, occurring in the course of, or otherwise connected with, discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Team.

3. DWAF shall act as the counterpart agency to the Team and also as the coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.

4. DWAF shall, at its own expense, provide the Team with the following, in cooperation with other organizations concerned:

(1) available data and information related to the Study,

(2) necessary number of counterpart personnel,

(3) suitable office space with necessary equipment and clerical services in Pretoria,

(4) credentials or identification cards, and

(5) appropriate number of vehicles with drivers.

VIII. UNDERTAKINGS OF JICA

For the implementation of Study, JICA shall take the following measures:




1. to dispatch, at its own expense, the Study Team to South Africa.

2. to pursue technology transfer to the South Africa counterpart personnel in the course of the Study.

IX. RESOLUTION OF PROBLEMS

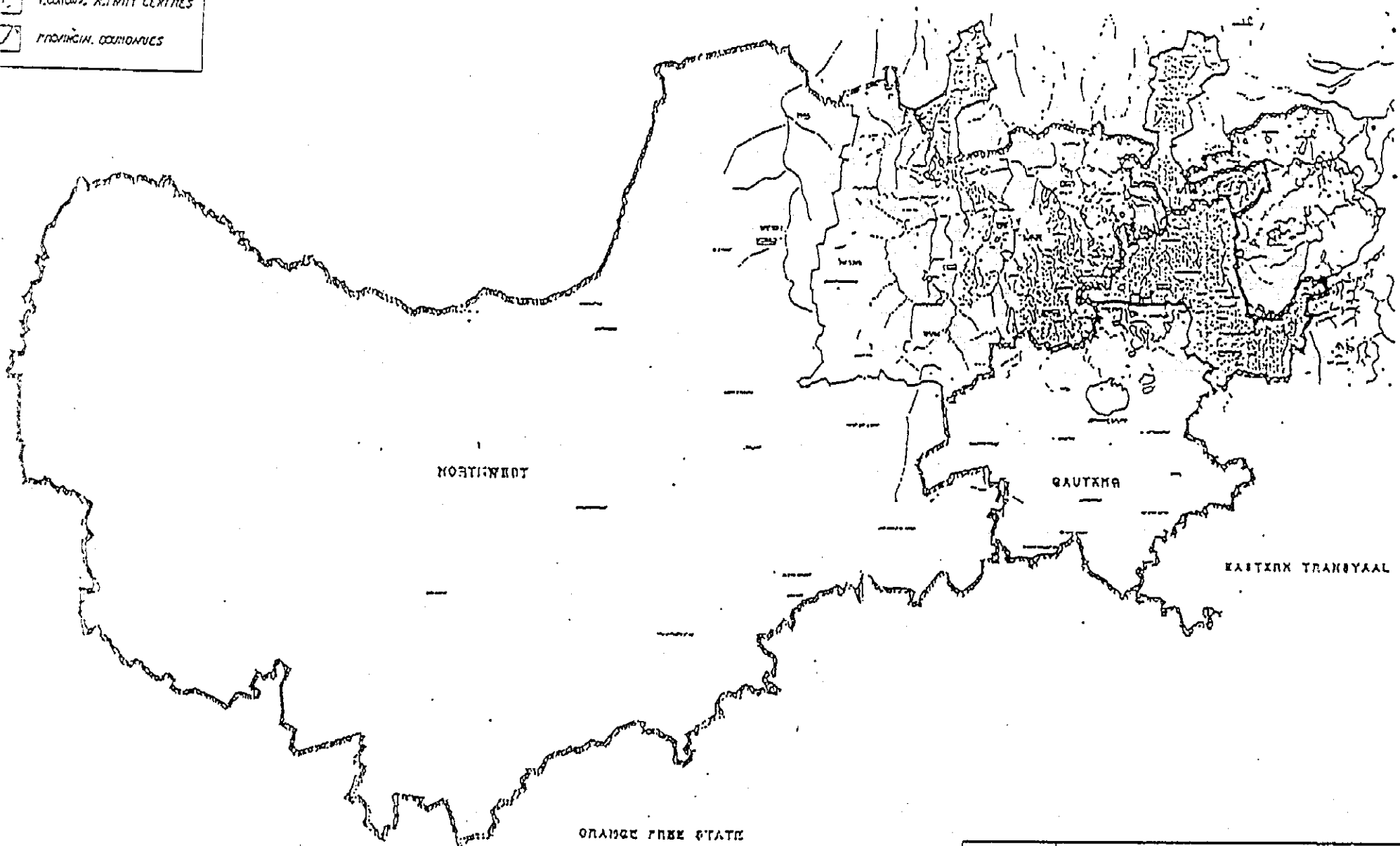
JICA and DWAF shall consult with each other with respect to any matter that may arise from or in connection with the Study.



-  EXISTING SUPPLY AREA
-  ECONOMIC ACTIVITY CENTRES
-  PROVINCE BOUNDARIES

Study Area

NORTHERN TRANSVAAL



NORTH-WEST

GAUTENG

EASTERN TRANSVAAL

ORANGE FREE STATE

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MAGALIES WATER ; MAP 1
PROPOSED AREA OF SUPPLY

The Study on
Expansion of the capacity of Magalies Water
In the Republic of South Africa

TENTATIVE SCHEDULE

MONTH DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
WORK IN SOUTH AFRICA	█						█						█								
WORK IN JAPAN	□			□						□											□
REPORT PRESENTATION	▲	▲			▲							▲		▲					▲		▲
	DIC/R	IC/R(1)			P/R							IT/R		IC/R(2)					DF/R		F/R
PHASE	← PHASE I →												← PHASE II AND III →								

- NOTE:
- DIC/R : Draft Inception Report
 - IC/R : Inception Report
 - P/R : Progress Report
 - IT/R : Interim Report
 - DF/R : Draft Final Report
 - F/R : Final Report

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APPENDIX B MINUTES OF MEETING ON S/W

MINUTES OF MEETING
ON
SCOPE OF WORK
FOR
THE STUDY ON
EXPANSION OF THE CAPACITY OF MAGALIES WATER
IN THE REPUBLIC OF SOUTH AFRICA

AGREED UPON BETWEEN
DEPARTMENT OF WATER AFFAIRS AND FORESTRY
AND
JAPAN INTERNATIONAL COOPERATION AGENCY

Pretoria, 4th. August 1995



Mr. M. Muller
Deputy Director General,
Department of Water
Affairs and Forestry



Mr. Ryuzo Washimaki
Leader, Preparatory Study Team
Japan International
Cooperation Agency

In response to the request of the Government of Republic of South Africa (hereinafter referred to as "the Government of South Africa"), the Japanese Preparatory Study Team (hereinafter referred to as "the Team") was sent by Japan International Cooperation Agency (hereinafter referred to as "JICA") to discuss, with Department of Water Affairs and Forestry (DWAF), the Scope of Work (S/W) for the Study on the Expansion of the Capacity of Magalies Water (hereinafter referred to as "the Study").

The Team headed by Mr. Ryuzo Nishimaki stayed in South Africa from 18th July through 9th August 1995. During their stay in South Africa, the Team carried out preparatory field study in the Study Area, received information and held a series of interviews with officials of DWAF and other authorities concerned of the Government of South Africa. The list of participants is given in the Appendix 1.

The Team also had discussions with officials of DWAF and other authorities on the Scope of Work defining the Study to be undertaken by both the Government of South Africa and JICA for the successful execution of the Study.

The Team and the Government of South Africa confirmed among others, the following:

1. " I. INTRODUCTION " of S/W

Both sides confirmed that the full scale study team which includes Japanese prime consultant (s) and also South African local consultant (s) shall respect and abide by all applicable laws and regulations in South Africa.

2. " IV. SCOPE OF THE STUDY " of S/W.

(1) " the Team " means the Japanese primary consultant, which may include South African consultants as members of Japanese primary consultant group.

(2) "local consultant" means the sub-consultant assigned to specific investigation(s) by Japanese primary consultant.

3. " VII. UNDERTAKINGS OF DEPARTMENT OF WATER AFFAIRS AND FORESTRY " of S/W

(1) With respect to 2., DWAF will take action within its jurisdiction .

(2) With respect to 4.(2), DWAF will provide counterpart personnel within its limitation of human resources.

(3) With respect to 4.(3), DWAF will provide two equipped offices in Pretoria with limited secretarial services.

(4) With respect to 4.(5), Japanese side recognized that South African side does not have the capacity to provide any vehicles and drivers for "the Team."

4. Counterpart training

With respect to 2. of "VIII. UNDERTAKING OF JICA" of the SAW, DWAF requested that JICA accept counterpart personnel for training in Japan during the Study. The Team will convey the request to the JICA Headquarters.

5. Others

(1) The South African side requested that 50 percent of the contract is awarded to South African local consultants. Appointment of local consultants regarding the local contract will be done by JICA study team in close consultation with DWAF. The Japanese side undertook to convey this request to Japan.

(2) Societies in the study area are dynamically changing in political, social and administrative aspects these days. Given that all concerned personnel in this project should keep in their mind that constructive and flexible attitude is important to cope with such condition.



LIST OF PARTICIPANTS

SOUTH AFRICAN PARTICIPANTS

Department of Water Affairs and Forestry (DWAF)

Mr M. Muller	-	Deputy Director General
Mr Kalinga Pelpola	-	Director, Community Water Supply and Sanitation
Mr Peter Pyke	-	Deputy Chief Engineer

Department of Finance

Mr D. van Rensburg	-	Directorate: International Development Finance (IDCC)
Dr E. Links	-	Chairman: IDCC

Department of Foreign Affairs

Adv. Pieter Kruger	-	Senior State Law Advisor (International Law)
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Magalies Water Board (MWB)

Mr D.H. Marks	-	Chairman
Mr N. Fenner	-	Chief Executive Officer (CEO)
Mr Roelf Strydom	-	Chief Engineer

North West Water Authority (NWWA)

Mr N. Letimela	-	Acting Chief Engineer Officer
Mr Johan Pansegrouw	-	Area Manager (East)

North West Provincial Government

Mr Z. P. Tolo	-	MEC for Public Works
Mr Darkie Africa	-	MEC Local Government, Housing, Planning and Development

JAPANESE PARTICIPANTS

JICA Preparatory Study Team

Mr Ryuzo Nishimaki	-	Leader
Dr Yuji Maruo	-	Water Resource Development
Mr Yoshiki Omura	-	Water Supply Planning
Mr Makoto Saito	-	Water Supply Administration
Mr Kazuchika Sato	-	Management, Finance, Human Resources Development, Social Analysis
Mr Kazuhiko Kikuchi	-	Study Planning

Embassy of Japan

Mr Koji Tahara	Development Attaché
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JICA