

ANGLO PLATINUM'S APPROACH TO INTER-SECTORAL USER INTEGRATION: THE ORWRDP¹ AS CASE STUDY

¹BERTUS BIERMAN and ²ILMA BRINK

¹Manager Engineering: Spatial Development, Anglo Platinum,
²Associate-Director, Bigen Africa

ABSTRACT

Water is recognized as a fundamental key to Anglo Platinum's business and placed on the same strategic level as minerals. The company acts within the broader strategic framework of the "One Anglo" which supports the notion that every operation in South Africa must comply with the South African legal and regulatory frameworks pertaining to integrated water resource management (IWRM). One of the most significant approaches embraced in the management strategy of Anglo Platinum and aligned with the Department of Water Affairs and Forestry's IWRM solutions within a complex system, is user integration. Conceptually, user integration links the fundamental principles of social equity, environmental sustainability, redress and economic efficiency with the objectives of water for people, for food, for the environment and for economic development.

Within this ground-breaking paradigm Anglo Platinum played a pivotal role in creating cohesion amongst the mining sector in the Bushveld Igneous Complex. They strategically assisted in integrating the mining industry's bulk water needs with the urgent need of rural domestic users located in the area – resulting in the announcement of R9-billion Presidential project known as the Olifants River Water Resources Development Project (ORWRDP) during 2003. Twenty-two (22) mining companies, established as the Olifants River Joint Water Forum (JWF), collectively positioned themselves over a period of 5 years as primary stakeholders and commercial contributors to ORWRDP.

Through discussions on economic realities, the business environment and government's role as economic enabler, the JWF, under the strategic-, legal- and technical leadership of Anglo Platinum and the Department of Water Affairs and Forestry (now known as the Department of Water and Environmental Affairs) came to a historic agreement, known as the ORWRDP Memorandum of Agreement (MOA) signed between the parties on 26 May 2008. The principles of the agreement encapsulated the intention by both parties to ensure sustainable economic development and provide relief towards an urgent domestic water need.

The implementation of the Anglo Platinum approach towards user integration has provided the mining industry and the Department of Water Affairs and Forestry ("DWAF"), as IWRM obligator with a workable model to ensure that the fundamental principles of the IWRM i.e. equity and sustainability are successfully reached.

1. INTRODUCTION

Integrated Water Management in South Africa

Water as resource in South Africa is recognized as a "finite, scarce and unevenly distributed resource that needs to be managed in an integrated and participative way" (Danced, 2002).

The legislation governing integrated water management in South Africa comprises water resource management and water services provision that was formulated to put emphasis on redressing historical imbalances with regard to water allocation, optimal use and environmental sustainability.

The Department of Water Affairs and Forestry ("DWAF") (now known as the Department of Water and Environmental Affairs ("DWEA")) described the concept of Integrated Water Resource Management ("IWRM") in its document: *IWRM: Institutional Roles and Responsibilities* as a cross-sectoral integration with specific objectives and principles that must be considered. Based on the principles as depicted in the "IWRM Comb" (see figure 1), and integrated with the objectives of water for people, for food, for the environment and the industry an integrated sustainable and justifiable environment for all is envisaged:

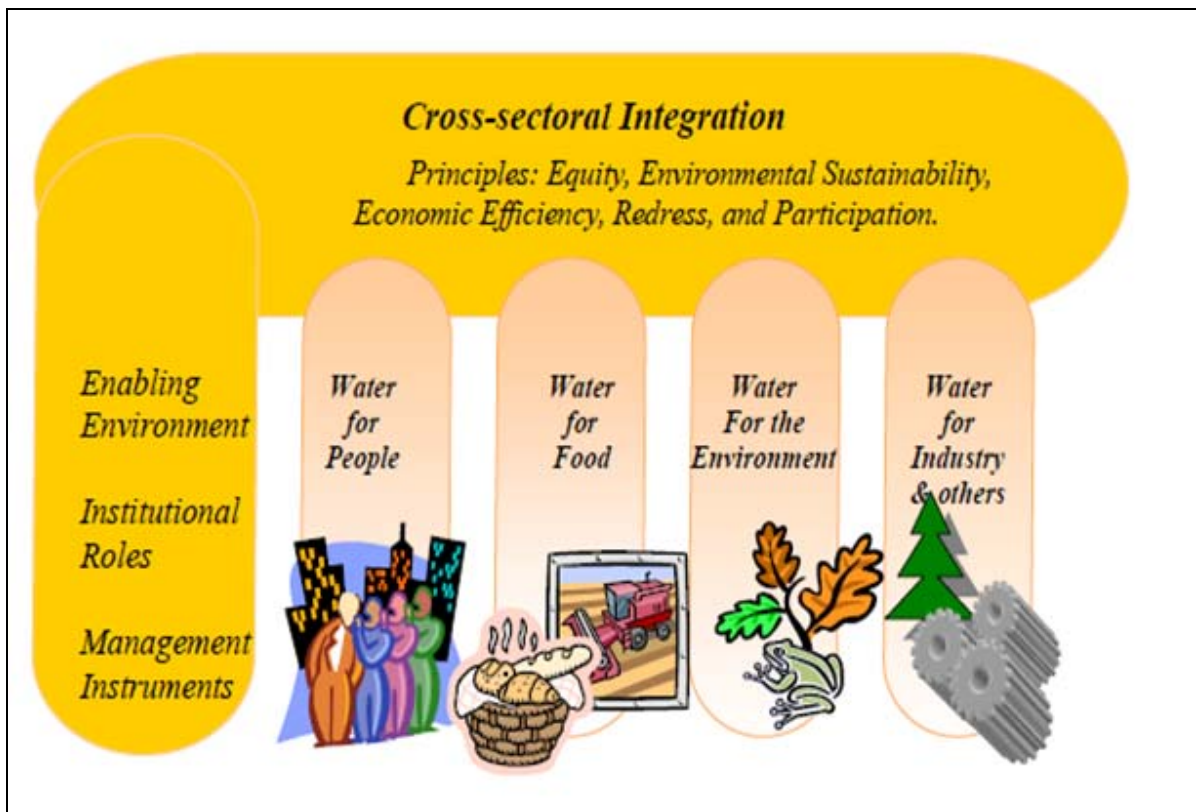


Figure 1. IWRM Comb

The IWRM methodology supports the notion of partnerships and active participation during execution of identified projects – but states clearly that partnerships will be formed on government level with active participation earmarked with non-governmental bodies (Danced, 2002).

The Anglo Platinum Approach to Water Management

Water is recognized in the “*Anglo Platinum Bulk Water Strategy*”, as a fundamental key to its business and placed on the same strategic level as minerals. The company acts within the broader strategic framework of the “One Anglo” which supports the notion that every operation in South Africa must comply with the South African legal and regulatory frameworks pertaining to Integrated Water Resource Management.

The strategy emphasizes Anglo Platinum’s core values which embrace the principles of:

- Water quality and zero discharge
- Zero use of potable water for operational use
- Zero sectoral competition and sustainable social benefits, and
- Inter-sectoral integration

The core values depicted in the *Anglo Platinum Bulk Water Strategy* compliments the elements embedded in the IWRM cross-sectoral integrated approach – ensuring that Anglo Platinum vision is geared towards sustainable benefits for all. Alignment of the core values with the IWRM principles are illustrated below (see figure 2):

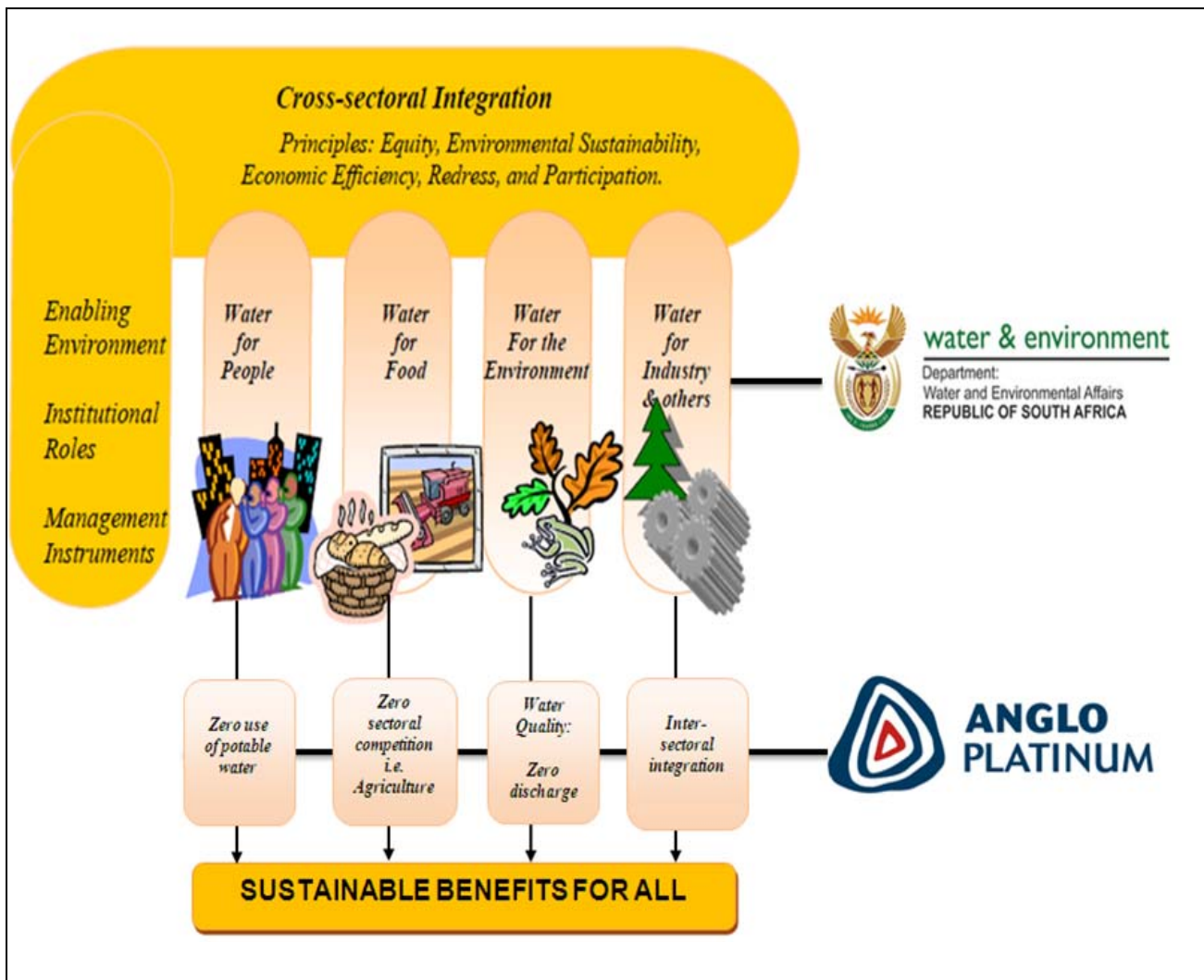


Figure 2. Anglo Platinum’s core values integrated with the IWRM Comb

The company acknowledges that water conforming to potable standards is a scarce and expensive resource in South Africa and therefore supports the notion that potable water be earmarked for use by communities rather than use in mining operations.

The company further recognizes that sectoral competition for water is politically a contentious issue in South Africa and has therefore committed itself not to compete for water allocated to agriculture – potentially resulting in a loss of agricultural production, loss of income and endangering the stability of food supply.

The company also subscribes to the precautionary principle of pollution and has committed itself to subscribe to regular water quality monitoring, analysis and reporting.

Through its view of inter-sectoral integration, the company embraces the principles that water is managed as a shared resource, and that the other users’ water rights and interests be respected at all times.

The Focus of the Paper

Anglo Platinum recognizes that as leading producer in the Bushveld Igneous Complex (“BIC”) they have several competitive advantages that may result in the potential domination of resources such as water for operational use.

The company has however committed itself in terms of inter-sectoral integration to embrace the IWRM principles of:

- Equity
- Environmental Sustainability
- Economic Efficiency
- Redress and
- Participation

This commitment realized in a strong leadership role as well as technical and legal support towards ensuring water supply – not only for the company’s own operational use, but more importantly to twenty-one (21) other existing and future mining producers located in the Olifants River- and parts of the Mogalakwena/Sand River catchment areas.

By leading in partnership development, a private-private collaborative forum known as the Olifants River Joint Water Forum (“JWF”) was established to liaise with the Department of Water and Forestry (“DWAF”) in the context of the Olifants River Water Resources Development Project (ORWRDP).

The focus of the paper will be on the institutional and financial approach proposed by DWAF and the collective view of the JWF under chairpersonship of Anglo Platinum to their position as co-funder of this major water infrastructure project.

2. THE OLIFANTS RIVER WATER RESOURCE DEVELOPMENT PROJECT (“ORWRDP”)

The Scheme

The Olifants River Water Resources Development Project (“ORWRDP”) was announced by President Thabo Mbeki in his state of the Nation Address on 14 February 2003.

On 9 June 2004 the South African Cabinet confirmed the Olifants River Water Resources Development Project (ORWRDP) indicating that the project will aim to provide infrastructure enabling the reallocation of water to meet growing water needs of both the mining sector and the local communities within the middle parts of the Olifants River catchment and parts of the Mogalakwena/Sand River catchments. The main components were identified as a large dam at De Hoop farm on the Steelpoort River together with the required bulk distribution infrastructure networking through the indicated catchment areas (see figure 3). The total capital cost of the project was estimated at roughly R4 billion in 2004.

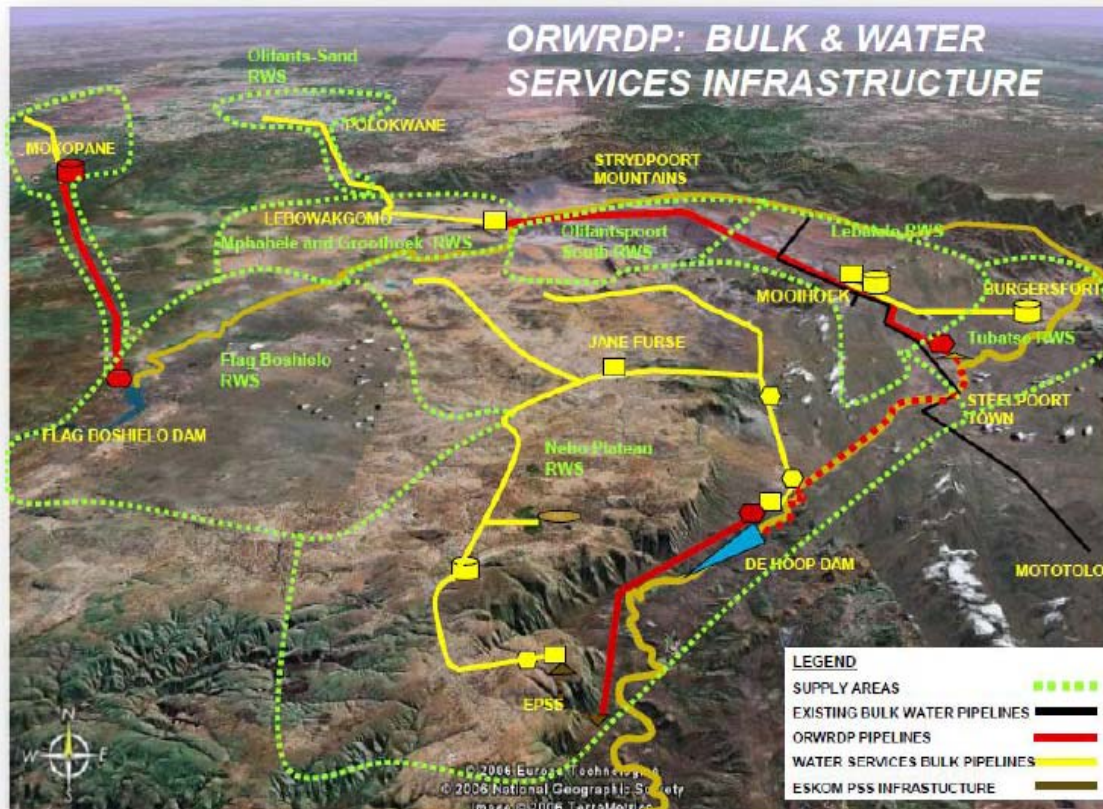


Figure 3. ORWRDP Planned Bulk and Water Services Infrastructure

In accordance with existing policy, the water resources infrastructure constituting the ORWRDP was classified as national infrastructure and DWAF was assigned the responsibility as promoter of the project.

The Funding Arrangements

DWAF was of the view that the funding for the ORWRDP project will primarily be derived from the mines by means of off-take agreements, which will be utilized to underwrite and source private-sector funding. Funding towards the water services portion was to be sourced from either Municipal Infrastructure Grant funding of the various Water Services Authorities or separately from National Treasury.

DWAF based their view of mine funding on several key clauses reflected in the 1997 White Paper on Water Policy, which stated that:

“The Cabinet decided in February 1996 that the price paid for water by major users should progressively be raised to meet the full financial costs of making it available and to reflect its value to society (clause 6.5)...new Government water resource development projects will, where possible, be funded by a mix of finance from commercial and concessional sources, underpinned by user payments (clause 6.6.3).”

Cabinet approved the request that the Trans-Caledon Tunnel Authority (TCTA) be mandated to develop a proposal for the financing of the ORWRDP – subject to the approval of DWAF and National Treasury and based on the pre-requisite that the risks associated with the Project be identified, assessed and satisfactorily managed. TCTA is a state-owned entity and DWAF’s implementing agent for water resource infrastructure. The company is earmarked as the future National Water Resource Infrastructure Agency (NWRIA).

The Stakeholders

DWAF as promoter of the ORWRDP commenced with the planning of the project during 2003 and issued a responsibility structure (see figure 4) for the planning and implementation of the project:

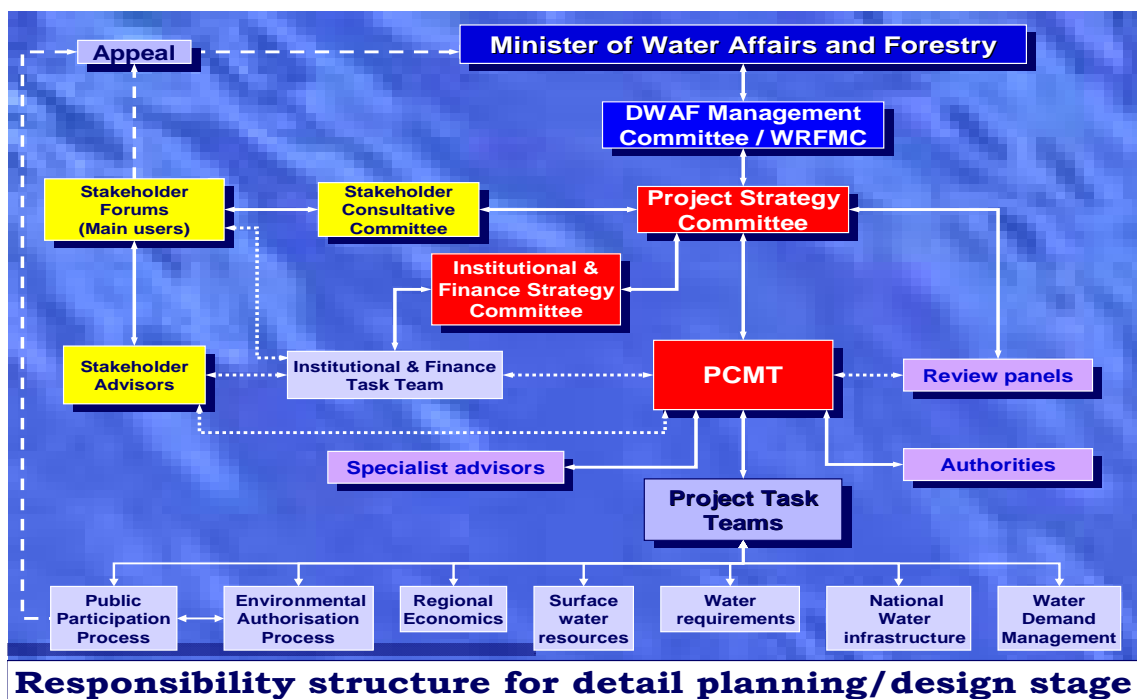


Figure 4. ORWRDP Responsibility structure for detail planning and design stage

The structure depicted the responsibility and communication flow that was to be utilized during the execution of the ORWRDP. The complimentary Terms of Reference provided direction in terms of the following committee configurations, its representatives, their roles and functions:

- (1) The establishment of a Project Strategy Committee (“PSC”). DWAF representatives were mandated to:
 - consider and give direction on strategic issues as well as setting of relevant priorities with respect to key activities on the overall project, with the purpose of expediting the commissioning of the project; and
 - anticipate and avoid possible obstacles and outside interference.
- (2) Further the establishment of an Institutional and Finance Committee and -Task Team. DWAF representatives inclusive of representatives from National Treasury and TCTA were mandated to consider issues and provide guidance related to the development of institutional arrangements, funding and management options in preparation for interaction with external stakeholders.
- (3) The establishment of Stakeholders Consultative Committees was also depicted with the stakeholders categorized into an “Inter-Governmental Stakeholders” and non-Governmental bodies in “Stakeholders Forums”.

The Inter-Governmental representatives were identified as Limpopo and Mpumalanga Provincial Governments, relevant departments in the Provincial Governments and relevant National Government Departments such as Minerals and Energy, Eskom (Electricity Supply Commission) and SANParks (South African National Parks Board).

The Stakeholder Forum representatives were identified as District and Local Municipalities, Water Boards and Water User Associations, Environmental interest groups, Agriculture, Forestry, Mining, Industrial users, urban and domestic users and other representatives of the public. The proposed mandate for these committees was summarized as:

- to formulate the needs for and possible objections to the project; and
- to consider the advantages and disadvantages of proposed solutions.

3. INTER-SECTORAL INTEGRATION

In reaction to correspondence received from the Department of Water Affairs and Forestry and a meeting scheduled with the mining companies to discuss their funding contribution, fourteen (14) mining companies under chairpersonship of Anglo Platinum and with the assistance of consulting engineering firm, Bigen Africa established the Olifants River Joint Water Forum on 8 July 2004. The Forum managed to develop an approach that influenced and changed government’s perception of the envisaged institutional and financial arrangements of the Project. The forum extended its membership to twenty-two (22) companies over a period of five (5) years.

The Olifants River Joint Water Forum (Jwf)

About 80% of the platinum and 20% of the palladium mined each year worldwide are produced from in the eastern, northern and western limbs of the Bushveld Igneous Complex (“BIC”) in South Africa, thus an exceptionally important economic resource.

The eastern and northern limbs of the BIC are located within the Middle-Olifants River and Mogalakwena/Sand Catchment areas (see figure 5):

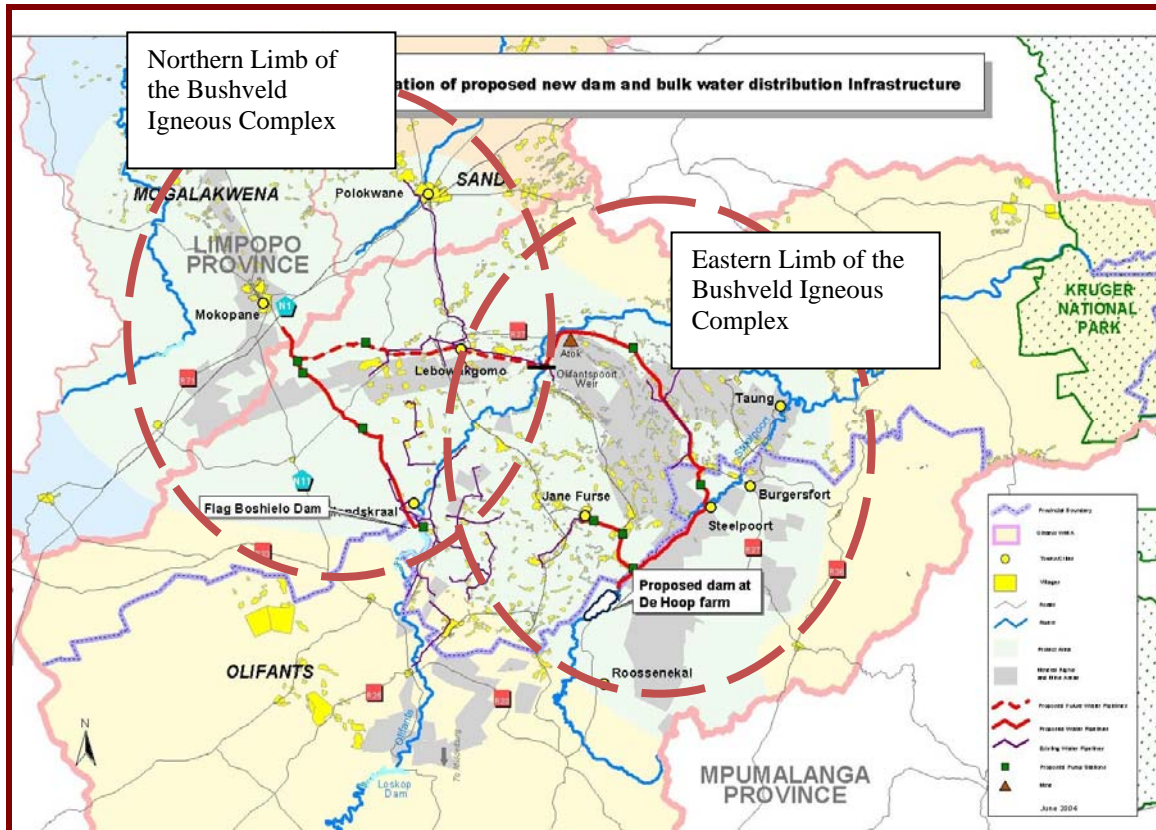


Figure 5. Bushveld Igneous Complex

The growing needs of the mines in the eastern and northern limb areas required sustainable, cost-effective services in order to meet their production targets so as to compete in a global market. Unique private-private collaborations, such as the JWF, were established due to the realization that the physical disparities in the area, impacted negatively on not only the individual mining companies' development plans, but endangering the mining industry's development in the area. With synergism at play, the individual mining companies realized that collectively they can address key issues, triggers and constraints – collaborate and partner with government and integrate their needs with government's goals of creating an integrated approach to resource management.

Subsequent to its establishment, the JWF informed DWAF of its existence and was acknowledged as the representative body to the mining industry in the project area.

During the first meetings between the parties the JWF tabled the following principles:

1. That all existing agreements and rights (such as the Lebelalo Water User Association) be honored.
2. That all future arrangements need to be fair and structured to benefit the mining industry as a whole.
3. That water requirements are provided to DWAF and the timing of delivery aligned with the project development and the available resources.
4. That various funding options i.e. off-take agreements and/or upfront contributions be discussed in a transparent fashion.
5. That the term "mines" be defined in the context of mining development and the definition be agreed with DWAF.
6. That the ORWRDP institutional roles and responsibilities be clarified, and
7. That the calculation process of the unit cost per kilolitre be done transparently.

ORWRDP Institutional Arrangements

The JWF strongly positioned them in favor of a more inclusive approach, arguing against the position of mere stakeholder - with the mandate of formulating the needs and considering possible objections, advantages and disadvantages to the project.

DWAF recognized the JWF as the largest future co-funder of the ORWRDP with the right to participate in strategic planning, setting of relevant priorities with respect to key activities of the overall project and considering issues with regard to the development of institutional arrangements, funding and management options.

The JWF was included in the core committees of the planning process i.e. the Project Strategy Committee and the Institutional and Finance Task Team. DWAF decided to do away with the Stakeholder Forums and included all directly affected parties, such as the Water Services Authorities, Water User Associations, Water Boards, Eskom and SANParks into the core planning processes as well. This step resulted in a fundamental shift in government thinking pertaining to stakeholder involvement in terms of planning major infrastructure projects where stakeholders were not merely consulted with, but actively participated in the strategic and financial decision-making of the total project.

ORWRDP Funding Arrangements

The discussion of the private-sector funding arrangements for the ORWRDP resulted in a further shift of government perspective.

The JWF, representative of largely existing and future mining projects, tabled the opinion that very few mines can commit to off-take agreements. Based on the forecasts the potential future mining demands amounted to 290 MI/d while the existing use amounted to only 44 MI/d. In terms of future demands, mines at the pre-feasibility stage made up some 127 MI/d and mines at feasibility stages a further 43 MI/d. Increased demand in terms of the existing mines made up the remaining potential demand of 76 MI/d. It was therefore evident that of the potential future demand only 15% was linked to existing use. The balance of 85% was linked to potential future use.

Uncertainty to the development time-frame of new mines subject to the impact of the rand commodity prices and the state of the global commodity market – resulted in the JWF's position statement that off-take agreements cannot be concluded simultaneously. However the inability for the JWF members to sign off-take agreements at that stage did not defer the intent to take water from the scheme. To show their positive commitment and intent to eventually take water – the mines proposed to sign an ORWRDP Memorandum of Agreement with DWAF.

The drafting of the MOA commenced during 2005 and only ended with the signing thereof on 26 May 2008 by the Minister of Water Affairs and Forestry and 22 mining companies. The principles encapsulated the intent of both parties to support each other's developmental approaches. It also served as the fundamental basis for the drafting of the off-take document (also known as the "Olifants Water Supply Agreement").

The MOA discussions altered the initial configuration of the project. The intent was to implement the project as one large scheme. With the support of TCTA it was proposed that consideration be given by National Treasury to fully fund the project – as economic and social enabling measure. If National Treasury was against the notion of funding the total project, it was recommended that the project be constructed in phases in order to keep the unit cost of water as low as possible providing the JWF members the opportunity to commit to the project when economic conditions change favorably. National Treasury opted for the latter and showed their intent to support and not impair economic development – by funding the construction of the first phase of the Project – the De Hoop Dam.

With the signing of the Memorandum of Agreement and the construction of the De Hoop Dam underway, drafting on the Olifants Water Supply Agreement commenced during 2008. The envisaged time-frame for completion is set for October 2009. Signed agreements will be utilized to underwrite private sector funding to commence with the planning and construction of the bulk distribution system in a phased approach.

The total project cost through various reviews has escalated since 2004 from an intended R4 billion to just below R10 billion (2009), bring the capital unit cost for water from the scheme to approximately R10/kl for commercial use. The completion date for the dam and major pipelines is set at mid-2012.

4. CONCLUSION

The establishment and management of the Olifants River Joint Water Forum, under the strategic, technical and legal leadership of Anglo Platinum provided the company with a tested-and-tried model towards inter-sectoral integration, fundamentally ensuring water allocation for economic development and domestic use. The private-private and public-private relationships and trust, created through a 5-year process of continuous discussions and decision-making processes has eventually resulted in a clear and well-thought through project. Anglo Platinum has assisted in creating a user-integrated platform for realistic development of future water resources where both commercial and social users can sustainably benefit from.

5. REFERENCES

- Danish Cooperation for Environment and Development (DANCED). (2002) "Institutional Roles and Linkages: Phase I Report". Integrated Water Resources Management Strategies, Guidelines and Pilot Implementation in Three Water Management Areas, South Africa, 10 February. DWAF-DANCED, IZNA Consortium.
- Department of Water Affairs and Forestry. (1997) "White Paper on Water Policy". 30 April.
- Department of Water Affairs and Forestry. (2003) "Olifants River Water Resource Development Project." Provisional Responsibility Structure for the Planning Phase Explanatory Notes, 26 September. Pretoria.
- Department of Water Affairs and Forestry. (2003) "2nd Project Strategy Committee Meeting." Minutes, 20 November. Pretoria.
- Department of Water Affairs and Forestry. (2004) "3rd Project Strategy Committee Meeting." Minutes, 27 January. Pretoria.
- Department of Water Affairs and Forestry. (2004) "6th Project Strategy Committee Meeting." Minutes, 20 July. Pretoria.
- Department of Water Affairs and Forestry. (2005) "ORWRDP: Summary Report on Detailed Planning Stage." Executive Summary, 24 August. Pretoria.
- Joint Water Forum. (2004) "Correspondence addressed to Mr Mike Muller, Director-General: Department of Water Affairs and Forestry." Olifants River Water Resources Development Project (ORWRDP): Joint Water Forum representation: Institutional and Finance Task Team and Strategy Committee. Pretoria.
- Trans Caledon Tunnel Authority (TCTA). (2005) "Institutional and Finance Committee." "Olifants River Water Resource Development Project, Phase II." Recommendations by the Institutional and Finance Task Team regarding financing of the project. Pretoria.