

# University of Cape Town

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## Assessing the scope and effectiveness of stakeholder engagement in the development and implementation of the Environmental Management Plan for the Berg Water Project in the Western Cape Province, South Africa

Dissertation in partial fulfillment of the requirements for the degree Master of Philosophy - in Environment, Society and Sustainability, in the Department of Environmental and Geographical Science, Faculty of Science, University of Cape Town 2016

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Date 28 November 2016

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# Abstract

This research assesses the scope of stakeholder engagement and its effectiveness in the development and implementation of an Environmental Management Plan at project level. The theoretical basis of this research is the methodological premise that stakeholder engagement encourages quality environmental decisions and further promotes acceptable interventions for environmental management purposes towards sustainable development.

A case study of the Berg Water Project is used to explore this premise through an evaluation of the scope and effectiveness of engagement of stakeholders in the formulation and implementation of the construction environmental management plan, to satisfy conditions of authorization. Focus is placed on the scope of stakeholders and their issues, and evaluation of the effectiveness of the engagement process in considering the issues during decision-making processes. The scope focuses on who was involved, the context in which they were involved, and the extent to which they were involved. An engagement framework is used to assess the effectiveness of the engagement process, including project institutions for stakeholder engagement, levels and methods of engagement applied, and their contribution to an effective Environmental Impact Assessment process with regard to its review areas of procedural, substantive and transactive effectiveness. The assessment seeks insights on how issues and concerns relating to activities of engagement were dealt with, and the extent to which issues raised through engagement contributed into project decisions. Evaluation of activities applies a stakeholder mapping and analysis concept found in stakeholder engagement literature in order to establish the suitability of level of engagement and methods of engagement. Logistical support for the engagement process is also assessed to establish how the support, or lack thereof, affected engagement effectiveness.

An assessment is made of project documents within formation on stakeholders engaged during the environmental impact assessment process leading to the production of the construction environmental management plan, and information obtained from 45 interviewees from stakeholders who were engaged. The engagement process is accepted to be significantly inclusive as it covered a wide spectrum of stakeholders and gave them an opportunity to voice their concerns, and the outcomes indicated that the engagement process was adequate. Some notable weaknesses of the engagement process included failure to establish clear roles and responsibilities of the environmental monitoring committee-the entity which represented the interested and affected parties, failure to establish explicit engagement targets, and failure to identify potential trade-offs of environmental, economic and social expectations of stakeholders. By and large the effectiveness of engagement during the project was found to rest on commitment by project authorities to prioritize economic benefits for the local community, and the communication of relevant messages to stakeholders.

Important lessons can be derived from this research towards improving the theory and practice of Environmental Impact Assessment. Firstly, explicit legal and funding requirements for stakeholder engagement are important prerequisites which should be imposed on project implementers

regarding how they conduct the engagement process. Secondly, the presence, composition and functioning of a formal entity which represents the interests of identified interested and affected parties can broaden the range of issues that can inform project decisions. This entity should have clear roles which satisfy engagement objectives through scheduled activities which receive adequate logistical support. Thirdly, a communication approach should be devised to enable communication of relevant messages and ensure feedback mechanisms which inform and can improve the process. Lastly monitoring and auditing during the engagement process should have been done to assess satisfaction of substantive outcomes of engagement and environmental impact assessment beyond mere process compliance.

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# Abbreviations and Acronyms

|        |   |                                                              |
|--------|---|--------------------------------------------------------------|
| BWP    | - | Berg Water Project                                           |
| CEMP   | - | Construction Environmental Management Plan                   |
| CoCT   | - | City of Cape Town                                            |
| DEAD&P | - | Department of Environmental Affairs and Development Planning |
| DEAT   | - | Department of Environmental Affairs and Tourism              |
| DWAF   | - | Department of Water Affairs and Forestry                     |
| EA     | - | Environmental Authorization                                  |
| ECA    | - | Environmental Conservation Act (Act 73 of 1989)              |
| ECO    | - | Environmental Control Officer                                |
| EIA    | - | Environmental Impact Assessment                              |
| EIB    | - | European Investment Bank                                     |
| EIR    | - | Environmental Impact Report                                  |
| EMC    | - | Environmental Monitoring Committee                           |
| EMP    | - | Environmental Management Plan                                |
| EU     | - | European Union                                               |
| FES    | - | Franschoek Environmental Society                             |
| FFP    | - | Franschhoek First Policy                                     |
| FVTT   | - | Franschhoek Valley Task Team                                 |
| I&APs  | - | Interested and Affected Parties                              |
| IAIA   | - | International Association of Impact Assessment               |
| IAP2   | - | International Association for Public Participation           |
| IEDF   | - | Integrated Environmental Development Framework               |
| IUCN   | - | International Union for Conservation of Nature               |
| MDOT   | - | Michigan Department of Transport                             |
| NEMA   | - | National Environmental Management Act (Act 107 of 1998)      |
| NGO    | - | Non Governmental Organization                                |
| RoD    | - | Record of Decision                                           |
| SAG    | - | Skuifraam Action Group                                       |
| SEA    | - | Strategic Environmental Assessment                           |
| SMP    | - | Social Monitoring Program                                    |
| SUP    | - | Sustainability Utilization Plan                              |
| TBL    | - | Triple bottom line                                           |
| TCTA   | - | Trans Caledon Tunnel Authority                               |
| UNEP   | - | United Nations Environment Program                           |
| WCED   | - | World Commission on Environment and Development              |
| WCNCB  | - | Western Cape Nature Conservation Board                       |
| WCS    | - | World Conservation Strategy                                  |
| WSSD   | - | World Summit on Sustainable Development                      |
| WWF    | - | World Wildlife Fund                                          |

# 1. Research focus

## 1.1 Introduction

South Africa has embraced a development discourse which identifies with the concept of sustainable development. With this concept, development seeks to satisfy the needs of current generations without compromising the aspirations of future generations (World Commission on Environment and Development (WCED), 1987). Any development initiative seeks to improve livelihoods, however, impacting positively and negatively on people and the environment (Doelle and Sinclair, 2006). The decisions to address impacts require a democratic process to ensure equitable distribution of the impacts (Durham et al., 2014). The varied conceptions of sustainable development noted by various authors make it difficult to draw minimum acceptable designs for decision-making processes for development projects, compromising equitable distribution of benefits and impacts, a key objective of democratic decision-making.

Sustainable development entails democratic approaches to decision-making which rely on giving an opportunity to those interested in, and affected by, a development initiative, to inform development decisions at relevant and successive stages of a development proposal (Fischer, 2000). Those with interest in and affected by a development proposal, referred to as stakeholders, are involved to provide information on the natural environmental, social and economic context of potential impacts arising from a development (World Bank, 1991), to aid analysis for distribution of costs and benefits of a development. Adequate assessment of the natural, social and economic context likely to be impacted can be improved through engagement of stakeholders, which as Wood (2003) stated can be undertaken through either a “bottom-up or top-down approach”. Bottom-up engagement gives an opportunity for issues of stakeholders to broaden the scope of factors to inform planning and implementation of development proposals. The top-down approach, Wood argues (2003) is limited to satisfaction of prerequisite conditions for obtaining authorization to proceed with a development proposal and the bottom-up approach considers broader issues in setting development objectives. The bottom-up approach significantly contributes to sustainable development as engagement in it goes beyond the instrumental value realised by the top-down approach. O’Faircheallaigh (2010) argues that though the bottom-up approach is superior its implementation is still elusive as there is little agreement among authors and scholars as to what constitutes adequate engagement. This is the case since stakeholders’ interests vary with the type and issues related to a development proposal, making it difficult to transfer effective engagement approaches from one development initiative to another.

Development initiatives are carried out at varying scales and the purpose of this research will be satisfied by focusing at the project level. Stakeholder input at this level of development is coordinated through a tool called Environmental Impact Assessment (EIA), which obtains information from specialists and stakeholders at designated points in time for project decisions to contribute towards sustainable development (Jay et al., 2007). Hartley and Wood (2005) acknowledged the widely documented benefits of engaging stakeholders in the EIA process with regard to contextualizing project impacts but highlighted the need to continue debating how to undertake it more effectively. It is also accepted that in the search for effectiveness in stakeholder

engagement, negative outcomes of engagement noted include stakeholders forming alliances to upset the engagement process, and stakeholders disregarding power structures once empowered by the engagement process (Lawrence, 2003). Van Tatenhove and Leroy (2003) advocated for the need to fully harness the benefits of stakeholder engagement through continuously debating what constitutes a proper design and implementation format for engagement in EIA. For this debate to be productive it is in the domain of scholars and practitioners to contribute to shaping an effective engagement process.

The EIA process in South Africa falls under the National Environmental Management Act, Act 107 of 1998 (NEMA) and its subsidiary EIA regulations. The process requires EIA output to be submitted to a designated competent authority for use in a decision to authorize or decline a project (South Africa, 1998). NEMA requires an environmental authorization (EA) to be issued with conditions of approval expected to be fulfilled through implementing an Environmental Management Plan (EMP). To that effect EIA is broadly categorized into two phases, pre-decision and post-decision, with reference to a stage where the relevant authority takes a decision to approve or reject a development proposal, and stakeholder input is needed in both phases but in different roles. Ahammed and Nixon (2006) and Arts et al. (2000) noted that that post-decision implementation is weak internationally due to the limited mobility of regulatory authorities and or limited resources. The post-decision phase implements environmental recommendations from the EIA process and subsequent authorization conditions set in the EA through implementing the EMP (Baker, 2004). In this phase stakeholders raise the alarm if and when the EA and EMP conditions are not satisfied, as identified by the checking and monitoring.

The EIA pre-decision phase determines the scope of the project and the sensitivity of the affected environment and attempts to accurately predict the impact of the activity on the environment (Morrison-Saunders et al., 2001; Baker, 2004). It is at this phase where development of the EMP is initiated, and an opportunity presented for stakeholders to provide information to shape it. This is also when the stakeholders establish the acceptability of management and mitigation measures among other objectives. Such information sourced during project planning aids the development of a draft EMP based on the predicted impacts. In this way the EIA process contributes towards sustainable development as stakeholders provide useful information for assessment (Reed, 2008), which improves the quality of environmental decisions (Fischer, 2000; Newig, 2007).

In the post-decision phase the project is implemented, presenting an opportunity for applying and reviewing decisions made in the pre-decision phase (Morrison-Saunders et al., 2001). At this stage the EMP seeks to ensure that conditions of approval are upheld, the allocation of resources for EIA follow-up activities is based on the significance of impacts, that project implementation is adapted to unforeseen environmental events, and to “verify environmental performance through information on actual impacts as they occur” (Hill, 2000: 50). The post-decision phase thus requires adequate capacity, in all stakeholders, for effective follow-up activities such as environmental monitoring, and that capacity is developed during robust engagement (O’Rourke and Macey, 2003). Failure to continue engaging during the post-decision phase, with the same or more robustness as in the pre-decision phase, can significantly compromise implementation of the EMP.

The EMP development and implementation award an opportunity to prod adequacy of stakeholder engagement in EIA (Arts et al., 2001; Baker, 2004) as the EMP contains decisions to be implemented through its roll out. As many proponents practice due diligence in the pre-decision phase to obtain authorization (Arts et al., 1998), the compromised engagement at post-decision potentially forfeits the opportunity to effectively implement decisions made or refine those decisions. Continued meaningful participation of stakeholders when implementing the EMP can significantly address the weakness of due diligence to engagement only at pre-decision phases of the EIA process.

The adequacy of stakeholder engagement and the effectiveness of approaches used have been identified by practitioners and scholars as influencing the realization of the important benefits of compliance to the EMP. The EMP and the conditions of approval, as implementable deliverables of the EIA process, turn decisions taken into implementable activities with more opportunities to measure effectiveness through evaluating outcomes (O'Rourke and Macey, 2003). As stakeholder engagement intends to improve communication between stakeholders towards better decision-making and obtain sustainable outcomes, input from stakeholders in this context seeks to satisfy the objectives of the EIA process.

The assessment of engagement in this study measures the extent to which the approaches used affected the identification of stakeholders and their issues and how their issues informed decision-making process, thereby impacting on the effectiveness of the engagement process. Assessment as defined by the NEMA Amendment Act (Act No. 8 of 2004, Section 1) is "the process of collecting, organizing, analyzing, interpreting and communicating information that is relevant to decision-making". Assessment in this study is used to define a research approach which collects, analyses and communicates information to understand and evaluate the engagement process during development and implementation of the Berg Water Project (BWP) EMP. The research considers only the stakeholders identified during the construction phase, and their identity was sourced from engagement focused project documents for the EMP formulation and implementation. The assessment measures the logic of approaches that sought to address the varied interests of stakeholders, and how the interests influenced or were influenced by decisions. The potency of the approaches used to source relevant inputs into project decisions can provide insight on the extent to which the objectives of engagement in EIA were fulfilled in the process.

Engagement outcomes of the active roles played by stakeholders during the formulation and implementation of the BWP EMP will be used to determine effectiveness of the BWP EMP engagement process. Stakeholder engagement at this project produced outcomes which included the need for a minimum ecological stream flow reserve (Rossouw and Grobber, 2008) and incremental compliance to the construction EMP due to the active role played by the stakeholder entity for the project (Rossouw, 2009). Furthermore, the project's stakeholder entity, Environmental Monitoring Committee (EMC) has been considered a standard for other entities in development initiatives by the Department of Environmental Affairs and Tourism (DEAT) (DEAT, 2005). It is convenient to assess engagement on this project phase to scan for opportunities to improve the EIA process. Assessment of engagement in this research should inform on who the stakeholders were, their issues, approaches used to engage them on the project issues, outcomes of the engagement process and how the stakeholders perceive the process in retrospect.

The rationale for this research is two-fold. Firstly it is to understand the stakeholders and their interests during the formulation and implementation of the BWP construction-phase EMP. Secondly it is to find out the influence of approaches used to engage stakeholders on the effectiveness of the process in ensuring that stakeholder issues were adequately considered. This is to build understanding of the extent to which the process of formulating and implementing the EMP accorded an opportunity for stakeholders to “develop the understanding, skill and capacity necessary for achieving equitable and effective participation” (DEAT, 2000: 34).

Research in stakeholder engagement in EIA confirms the inherent weaknesses in process and effectiveness, inclined towards limited consensus on basic requirements needed to realize an effective engagement process. Although the output of the research is specific to the BWP, the findings are expected to contribute to the debate on the constituents of effective engagement during EIA. Such debate should provide due regard for aspects of the scope and effectiveness of stakeholder engagement that can be applied to improve the theory and practice of EIA towards enhancing its value.

## **1.2 Researching effectiveness of stakeholder engagement during the EIA process**

As mentioned above there is an ongoing debate on how to carry out effective stakeholder engagement in EIA. Academics and practitioners are faced with the task of identifying and applying requirements that ensure engagement of stakeholders achieves its intended objectives. In searching for effective approaches there is need to identify stakeholder issues in a project and approaches that can be usefully applied to ensure that the issues raised are adequately considered in project decisions.

### **1.2.1 Aim of research**

The aim of this research is to evaluate the scope and effectiveness of stakeholder engagement in contributing to the mitigation of environmental and social impacts of the Berg Water Project (BWP) during development and implementation of its Construction Environmental Management Plan (CEMP).

### **1.2.2 Objectives of research**

To evaluate stakeholder engagement in the environmental management of the BWP in consecutive phases (a) and (b) below, with regard to the:

- project institutions set up and used for the purpose of engagement;
- methods used for engagement;
- levels of engagement as informed by stakeholder analysis and mapping, and
- the procedural, substantive and transactive effectiveness of engagement.

The two consecutive phases considered in this research are:

- a. the environmental approval of the BWP, with a focus on development of the CEMP to satisfy conditions of approval, and
- b. the implementation phase of the CEMP.

### **1.3 Assumption and limitations of this research**

This research assumes that the outcome of the EIA study and the implementation of recommendations and decisions during the process depend significantly on the level of engagement. Practitioners and stakeholder engagement authors such as Reed et al. (2008) and O'Faircheallaigh (2010) hold a common view that effective engagement of stakeholders is critical towards effective EIA.

This dissertation focuses on the scope and effectiveness of stakeholder engagement in the formulation and implementation of the BWP CEMP. The findings may not be fully generalizable or prescriptive as one case study was used (Yin, 2009). The challenges of engagement in EIA are diverse and unlikely to be fully addressed through research on one project.

The research was conducted within the limitations of available time and funds. While acknowledging that analyzing more than one case would yield more generalized results, one case was selected to ensure intensive analysis thus attempting to maximize internal and conclusion validity of the case study research findings (Trochim, 2000).

### **1.4 Dissertation Structure**

The dissertation opens with an introduction to the research in Chapter 1, followed by a review of the literature on EIA and stakeholder engagement in Chapter 2. The review of literature begins by exploring the position of EIA in sustainable development at project level. Thereafter the elements for an effective engagement process are explored, and the impact of such processes on the effectiveness of the EIA process is evaluated. Chapter 3 addresses the research methodology used in this research. The findings and discussion thereof are presented in Chapter 4, where indicators of effective engagement are analyzed, evaluated and discussed with reference to the literature. Chapter 5 gives a concluding summary of the dissertation and summarized lessons from the case.

## 2 Reviewing stakeholder engagement in the assessment of development

This section discusses the position of stakeholder engagement in contributing to sustainable development as an important principle for democratic decision making. It considers the evolution of engagement and its conceptions, towards realizing sustainable development. The application of stakeholder engagement is assessed in terms of the effectiveness of its impact on decisions-making in EIA, a sustainable development tool, by looking at the stakeholders identified, approaches used to have their issues considered in project decisions, and how the engagement approach impacted EIA effectiveness. The aspects of reviewing EIA effectiveness will be applied to appraise effectiveness of engagement during the EIA process.

### 2.1 Stakeholder engagement towards attaining sustainable development

Stakeholder engagement is defined by the International Association of Impact Assessment (IAIA), cited in Chi et al. (2013:3), as the “involvement of individuals and groups that are positively or negatively affected by, or that are interested in, a proposed project, programme, plan or policy that is subject to a decision making process”. Engagement and participation is considered in this case to be a communicative and interactive process where individuals, groups and organizations choose to take an active role to influence and impact on decisions that affect them (Rowe et al., 2004; Wandersman, 1981; Wilcox, 2003). Stakeholder engagement, therefore, presents an opportunity for individuals, groups and organizations to be involved actively in shaping decisions that affect them.

The current development discourse is strongly influenced by the concept of sustainable development, and development refers to any policy, program, plan or project meant to improve livelihoods (Chi et al., 2013). The sustainable development concept embraces engagement as a principled ideal for democratic decision-making to equally consider social, economic and environmental factors during development decision-making (Brennan, 2013). The effectiveness of engagement in reconciling social, economic and environmental considerations during decision-making has to be interrogated to appraise its impacts towards the achievement of sustainable development.

#### 2.1.1 Progress of the concept of sustainable development

The concept of sustainable development was introduced through the World Conservation Strategy (WCS) developed by the International Union for Conservation of Nature (IUCN), the United Nations Environment Program (UNEP) and the World Wildlife Fund (WWF) to promote the idea of environmental protection centered on human interests (Institute for Sustainable Development, 1997). The Brundtland Commission formalized the concept and characterized it as a development approach seeking to meet the needs of the present and future generations (WCED, 1987). The concept gained greater political acceptance at the 2002 World Summit on Sustainable Development (WSSD) held in Johannesburg. More recently, the United Nations has further ratified this concept by basing its future developmental goals on the concept, as characterized by the recent upgrade from Millennium Development Goals to Sustainable Development Goals.

The sustainable development concept states that developmental decisions should be made according to the three pillars of the 'triple bottom line' (TBL), namely environmental, social and economic factors (Brennan, 2013). O'Riordan (2000) and George (1999) expressed concern on the broadness of the concept as it does not allow for precision in application and measurement, which can result in it being a popular description to achieve any desired goal. To streamline the concept Nieslony (2004) suggested that practical application should consider the following criteria: achieving consensus through participation, empowering of stakeholders, reducing cumulative, indirect and long term impacts, and integrating ecological, economic and social decision-making.

The above criteria build on adequate and relevant opportunity for stakeholders to participate in setting objectives during planning and implementation of proposals. This opportunity implies a certain level of influence by stakeholders on decision-making (Rossouw, 2009). The adequate inclusion of all stakeholders, which can widen the scope of factors to be considered, requires planning and implementation of development to involve all stakeholders, from ordinary members of the public, community organizations to elites and officials, which is a bottom-up approach. Contrarily, participation may only have instrumental value where participation is undertaken because it is required, a top-down approach. In both cases, Jacobs (1999) advises that care should be taken to avoid taking engagement as a goal itself through elevation of whatever emerges from participative and multi-stakeholder socio-political processes. Attaining sustainable development significantly relies on input from stakeholders, and engagement informs decisions about the social, environmental and economic context of a particular development proposal.

As application of the concept relies on input from stakeholders and subsequent decisions the significance of the issues emanates from robust engagement of stakeholders on a proposed development. Specific tools applied to assess a development proposal's alignment with the concept of sustainable development are EIA which assesses project level proposals and Strategic Environmental Assessment (SEA) which assess policies, plans and programs (Barker and Wood, 1999; Sadler, 1996). These tools rely on input of stakeholders to inform decisions with significant environmental, social and economic issues associated with the proposal.

### **2.1.2 Conceptions of participation in sustainable development**

The concept of sustainable development has been defined in various terms as dictated by human aspiration and environmental limits. Jacobs (1999) classified the concept into two groups: the narrow category of environmental protection and the broader category of social development. The narrow category takes due regard for environmental protection, while the broader category advances goals for economic and political life in addition to environmental protection.

The aggregating of bottom-up and a broad perspective of sustainable development emphasizes the need for structural changes in the economy, politics, institutions and individual lifestyles towards a just current and future distribution of resources within nature's limits (Hattingh, 2006). Such is likely to result in a radical conception of sustainable development, typical in environmental activists. When the top-down approach is combined with a narrow interpretation of sustainable development, a conservative conception is likely to be produced which emphasizes nature conservation and promotion of current production and consumption patterns to maintain human

livelihoods indefinitely (Jacobs, 1999). Hattingh (2006) posits that the conservative conception is common in stable national governments, industry and business.

In South Africa the concept is defined as “the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations” (Department of Environmental Affairs and Tourism (DEAT), 2006a:18). This definition calls for setting development objectives and subsequent implementation through a bottom-up approach with regard for people, planet and prosperity (South Africa, 2008). Due to issues of redress, transformation and justice in South Africa, Glazewski and du Toit (2013) argue that a broad definition of sustainable development with some significant structural changes in the economy and governance institutions can ensure equitable distribution of the impacts of development.

## **2.2 Stakeholder engagement in EIA**

EIA is an assessment tool applied at project level towards achieving sustainable development. Engagement in EIA has significant support such that Wood (2003:275) advanced that “EIA is not EIA without consultation and public participation”, with early participation increasing chances to produce significant benefits. The effectiveness of engagement in EIA is enhanced if its purposes are integrated into the EIA process and the application of engagement is streamlined to satisfy its objectives.

The stakeholder engagement process is a continuous sequence of stages comprising of plan, prepare, implement and act, review and improve (Stewart, 2009). Stewart (2009) specify that stages of plan and prepare set engagement objectives, analyze and map stakeholders and propose methods of engagement, implementation focuses on logistics during engagement and management of risks, act, review and improve embodies performance evaluation of the engagement process, and feedback and response to improve the process. This sequences require a careful selection of activities and institutions for engagement that satisfy objectives of engagement, timeframes and resource availability with adaptive management approaches that address stakeholders’ significant issues. Engagement seeks to link the planning of development with issues which require stakeholder input towards improving development decisions. The institutions for engagement refer to formal institutions formed to coordinate the engagement process on a development (Durham et al, 2014). The process should be guided by the set purposes of engagement, the identified stakeholders’ issues and the scope of engagement with a clear understanding of the complexities of relationships between stakeholders and with the project (Newig and Fritsch, 2009).

The performance of the process depends on understanding why it is necessary to engage (the purpose), what to engage on (the scope) and who needs to be engaged with (the stakeholders) (Accountability, 2008; Durham et al, 2014). Figure 2.2 shows how these three parameters can set the boundaries for the engagement process.

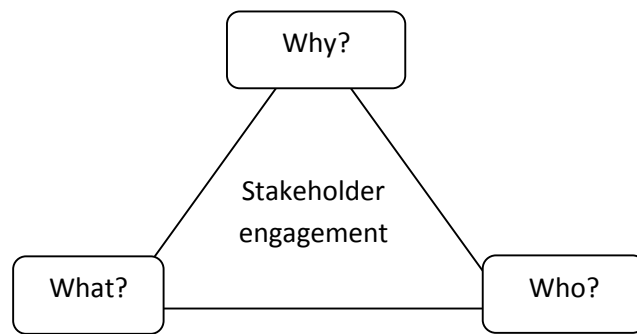


Figure 2.2: Parameters affecting success of stakeholder engagement (Source: Accountability, 2008)

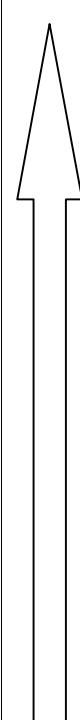
The ‘why’ of engagement defines the engagement purpose and should be set prior to the engagement process. Engagement in EIA seeks to improve the quality of project decisions through formal communication of stakeholder issues into project decisions. The Sustainable Development Commission (2008) advises the initiators of engagement with stakeholders to define the purpose and set engagement decision factors.

The ‘who’ of engagement identifies the stakeholders, their issues and concerns and how they should be involved in engagement. Stakeholders have been found to be a “constantly shifting multiplicity of organizations, individuals, interests and coalitions” (Sinclair and Diduck, 1995: 222), with different objectives concerning the EIA process and consequently wishing to participate in different ways. The stakeholders can be concerned with a specific or general project issue and can participate in decisions associated with planning, preparation, implementation, review and communication of development issues (Glasson, 1995). They can own the engagement process if there is opportunity to add their interests and concerns into development decisions through formal roles and responsibilities. Common stakeholder groupings in EIA are government authorities, project proponents, non-governmental organizations (NGOs), community organizations, civil society (the public) and the private sector (Rossouw, 2009).

The ‘what’ of engagement covers the scope of development that centers on proposal design issues which can be addressed through engagement. In this regard the Michigan Department of Transport (MDOT) advances design flexibility for proposal objectives to fit with the physical and social context of the recipient community (MDOT, 2009). Stakeholder issues are only considered based on the likelihood to influence the decisions, actions and behavior of stakeholders or the project, and timeframes are crucial in ensuring specific activities of engagement are clearly scheduled on the project timeline.

Participation is influenced by the extent to which engagement acknowledges the power of stakeholders, their influence on, and responsibility in, decisions made. The International Association for Public Participation (IAP2) (IAP2, 2000) ranks levels of participation as shown in Table 2.1 below.

Table 2.1: Levels of participation during stakeholder engagement (Source: IAP2, 2000)

|                                                                                                                                    |                                                                                   |                                |                                                                                                                                                                                                                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Levels of participation possible in the spectrum of increasing level of engagement between stakeholders in decision making process |  | <b>Levels of participation</b> | <b>Characteristics of the level</b>                                                                                                                                                                                                                                                                               |
|                                                                                                                                    |                                                                                   | Empower                        | Responsibility for decision-making and accountability for the outcome is delegated from the authority to the proponent and/or Interested and Affected Parties (I&APs).                                                                                                                                            |
|                                                                                                                                    |                                                                                   | Collaborate                    | Stakeholders go through shared decision-making based on dialogue. Responsibility for decision-making is shared between stakeholders at this level.                                                                                                                                                                |
|                                                                                                                                    |                                                                                   | Involve                        | Builds on a consultation process and gives an opportunity for stakeholders to work together so that concerns and issues are directly reflected in planning, assessment, implementation and management of a particular proposal or activity. Decision-making responsibility rests with the proponent or authority. |
|                                                                                                                                    |                                                                                   | Consult                        | Exchange of information between stakeholders, presenting stakeholders with an opportunity to raise concerns about the impacts and merits of a proposed activity or decision.                                                                                                                                      |
|                                                                                                                                    |                                                                                   | Inform                         | Information is provided to stakeholders. The information flow seeks to inform stakeholders on the issues, alternatives, solutions or the decision-making process.                                                                                                                                                 |

As the level of participation increases (towards the top of the figure), the concerned stakeholders' power and influence on decisions also increases. Each level is cumulative, that is, any successive level incorporates and builds on the activities of prior levels, and demands adequate capacity from stakeholders (MDOT, 2009). Stakeholders not engaged at an appropriate level may end up protesting to indicate that their issues and concerns were not adequately addressed. Protests can also indicate communication breakdown between stakeholders, which Denhardt and Denhardt (2000) and Stewart (2009) argue to be a level of participation in broken relationships.

The required level of participation can be deduced from a stakeholder's interest and influence on a project issue (Accountability, 2008). The interest and influence change with respect to the issue at hand, the stage of a project, and who is affected, such that participation has to adapt to such changes (Durham et al, 2014). The stakeholder mapping and analysis matrix uses interest and influence to characterize stakeholders as shown in Figure 2.3.

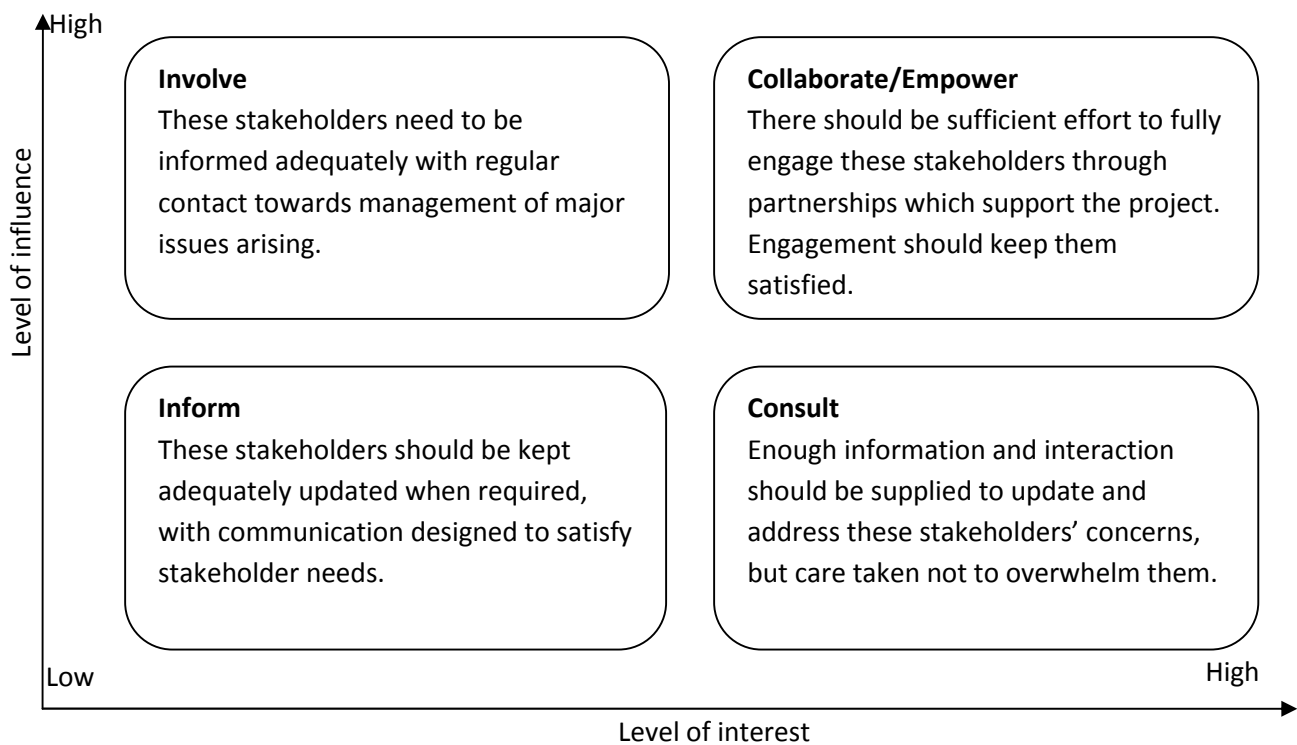


Figure 2.3: Stakeholder mapping and analysis matrix (Source: Durham et al, 2014)

Stakeholders with high levels of influence and interest on a project issue have to be prioritized more than those with low influence and interest. The level of interest and influence of stakeholders depends on a range of issues such as the nature of the project, the timing and extent of their involvement and their potential to impact on outcomes (Donahue and Denhardt, 2004). Figure 2.3 above gives an indication of what should be achieved at an engagement level if the process is to be regarded as effective.

Apart from determining the level of engagement, the stakeholder analysis and mapping quadrant informs applicable methods of engagement suitable for identified stakeholders. The method of engagement pertains to how communication and iteration during engagement occurs, and that communication can result in engagement either being passive or active. Passive engagement is a one way process, while active is a two way deliberative process (Accountability, 2008). Levels of engagement and methods of engagement can be matched, as in Table 2.2.

Table 2.2: Matching levels of engagement with appropriate methods (Source: IAP2, 2004)

|                                  | Levels of engagement                                                                                                                                                |                                                                                                                                          |                                                                                                                                               |                                                                                                                                                                                             |                                                                                                                                                                             |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                  | Inform                                                                                                                                                              | Consult                                                                                                                                  | Involve                                                                                                                                       | Collaborate                                                                                                                                                                                 | Empower                                                                                                                                                                     |
| Engagement goals                 | To provide balanced, objective, accurate and consistent information to assist stakeholders to understand the problem, alternatives, opportunities and/or solutions. | To obtain feedback from stakeholders on analysis, alternatives and/or outcomes.                                                          | To work directly with stakeholders throughout the process to ensure that their concerns and needs are consistently understood and considered. | To partner with stakeholders in the development of alternatives, making decisions and the identification of preferred solutions.                                                            | To place final decision-making in the hands of the stakeholder. Stakeholders are enabled/equipped to actively contribute to the achievement of outcomes.                    |
| Methods of engagement applicable | <ul style="list-style-type: none"> <li>• Fact sheets</li> <li>• Open houses</li> <li>• Newsletters, bulletins, circulars</li> <li>• Websites</li> </ul>             | <ul style="list-style-type: none"> <li>• Public comment</li> <li>• Focus groups</li> <li>• Surveys</li> <li>• Public meetings</li> </ul> | <ul style="list-style-type: none"> <li>• Workshops</li> <li>• Deliberative polling</li> <li>• Forums</li> </ul>                               | <ul style="list-style-type: none"> <li>• Reference groups</li> <li>• Facilitated consensus building forums for deliberation and decision making</li> <li>• Experimental projects</li> </ul> | <ul style="list-style-type: none"> <li>• Dialogue</li> <li>• Joint planning</li> <li>• Provision of data</li> <li>• Shared projects</li> <li>• Capacity building</li> </ul> |

The engagement method(s) have to meet the needs, capacity and expectations of the relevant stakeholders, with careful consideration of the benefits and limitations of the methods (Accountability, 2008), depending on the situation, time, skills and budget. Adequate engagement should allow for accessing relevant information from stakeholders as this increases opportunities for acceptance of and confidence in formal decisions (O'Rourke and Macey, 2003). O'Rourke and Macey argue that this approach binds stakeholders in new and different relationships, which among other outcomes leads to adequate application of environmental regulations.

Stakeholder engagement, like many aspects of policy or project work, can be complex and present varying levels of risk (MDOT, 2009; Stewart, 2009). Both authors noted that significant risks during engagement include varied interpretation of engagement objectives and different expectations about the outcomes of the engagement process. Some risks include feelings of systematic or technical exclusion from the process and insufficient time to raise concerns. Effective management of the risks can be through applying approaches to improve communication seeking to stop the risks from occurring or reduce their likelihood and/or impact (Durham et al, 2014).

Evaluation of engagement interrogates it to provide feedback for process improvement and appraises how far engagement delivers the intended outputs and outcomes (Accountability, 2008). Output evaluation focuses on the immediate results of an activity and outcomes evaluation looks at changes or benefits resulting from an output. The stakeholder engagement evaluation should be planned before the engagement process begins, highlighting key evaluation questions whose answers reflect the degree of achievement in outputs and outcomes.

### 2.2.1 Stakeholder engagement in satisfying the EIA objectives

EIA is a planning and management tool of sustainable development which emphasizes the prevention of adverse project impacts through due consideration of environmental, economic and social factors relevant to project decisions. Glasson (1995) positions EIA as an application of the precautionary principle on projects, in planning for environmental protection and management. Arts et al. (2000) further posit EIA as a tool for checking and monitoring the actual effects of a project if all stages are adequately applied. The IAIA (1999) presented the different objectives of EIA along with the steps of the EIA process which satisfies them, as summarized in Table 2.3 below.

*Table 2.3: Objectives of EIA and the steps which accomplish them (Source: IAIA, 1999)*

| <b>Objectives of EIA</b>                                                                            | <b>EIA step achieving the objective</b>                |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| To ensure environmental considerations are addressed in development decisions                       | Screening, Scoping                                     |
| To anticipate, avoid, minimize or offset adverse impacts caused by a development                    | Examination of alternatives, Impact analysis           |
| To protect productivity and capacity in natural systems and ecological processes that maintain them | Evaluation of significance, Review of report, Decision |
| To promote sustainable development, optimum resource use and management opportunities               | Mitigation management, Follow-up                       |

Processes before the decision phase focus on gathering information for consideration in project decisions. The information revolves around impact significance and management and mitigation proposals for the project. The processes after the decision has been made are known as the post-decision phase or follow-up actions (Bailey and Hobbs, 1990; Wood, 2003). Follow-up addresses the actual impacts of a project, assessing the performance of impact management measures through the activities of monitoring, evaluating, managing and communicating the environmental outcomes (Arts et al., 2000). The outcomes of monitoring and auditing, the performance of the mitigation activities, the compliance with regulatory standards and accuracy in impact predictions can feedback into the EIA process (Sadler, 1998). However, monitoring and auditing are regarded as being neglected in wider EIA practice due to the immobility of authorities and inadequate capacity (Arts et al., 2000; Ahammed and Nixon, 2006).

The implementation of EMP triggers follow up action, where the EMP is a deliverable of the EIA process (Durning, 2012) which gives practical effect to the conceptual and predictive processes that precede it (Jay et al., 2007). This makes it a key step in the actual implementation of the EIA and environmental management process, presenting an opportunity to determine the effectiveness of EIA. In South Africa as of 2006 the EMP is legally required as part of the final EIA documentation

submitted for a decision on a project (DEAT, 2006b). The EMP marks the transition from pre-decision to follow-up stages of the EIA process, providing a reference point for management action during follow-up activities. Hill (2000) summarizes the objectives and benefits of an EMP as to: implement conditions of approval; aid allocation of resources to EIA follow-up activities based on significance of impacts, facilitate flexible responses to changes in project implementation and unforeseen events, and verify environmental performance through information on actual events as they occur.

South African regulations require an EMP to be produced for specific stages of a project, such as construction, operation and decommissioning (Lochner, 2005). The EMP in each stage becomes a practical culmination of resources invested to mitigate and manage impacts, as it contains summarized impacts, mitigation measures, institutional arrangements, implementation schedules and reporting procedures (World Bank, 2006). This creates a favorable environment to appropriately align action with decisions made and real project impacts. This concurs with Hill (2000) who positions the EMP as the part which enacts the EIA process by providing the platform for follow-up and meaningful intervention during implementation.

Engagement in implementation of the EMP presents an opportunity for stakeholders to act as watchdogs of the follow-up phase (Hullet and Diab, 2002). This is crucial as per critique of the practice of EIA which has been found to be more concerned with prediction and identification of impacts at pre-decision level than on post-decision exercises of monitoring and auditing (Arts et al., 2001; Morgan, 2012), causing EIA to fail to maximize its potential for continuous improvement. In addition engagement can expand the procedural emphasis of EIA – this is currently focused on the pre-decision analysis for authorization, and can limit it from achieving its goal of environmental protection. In the study on the international effectiveness of EIA, Sadler (1996) found out that there was a lack of or poor performance of follow-up activities mostly due to a lack of capacity and from government immobility to travel to distant projects. This weakness of EIA, even noted in South Africa (Hullet and Diab, 2002), can be managed by empowering stakeholders through engagement so that they contribute meaningfully to follow-up activities. Effective engagement should be built on participatory approaches in the decision-making process to increase project economic viability, social equitability, and environmental sustainability (World Bank, 2006; World Commission on Dams, 2000a). Even though involving stakeholders can improve the quality and durability of the decisions, Weston (1997) proposes that a genuine balance in power between parties and representation of views is necessary to shape an effective EIA process, as engagement can be orchestrated to silence dissenting voices, weaken influential stakeholders or promote hegemony by strategically accumulating power in some stakeholders.

### **2.2.2 Guidance on stakeholder engagement in EIA**

Generic stakeholder participation principles provide guidance for planning stakeholder engagement, yet they must be streamlined to satisfy the purposes of the EIA process. The guidance on engagement which advances balance of power between parties and representation of views of all stakeholders advocated by Weston (1997) will be looked into as a way to shape effective engagement for an EIA process useful to the project evaluated in this research.

As stakeholder engagement in EIA seeks to improve the quality of environmental decisions by improving communication between stakeholders, information flow should be scoped to accurately align stakeholders' perceptions with project needs and engagement purposes. This opens opportunities for a position to clearly articulate meaningful participation cognizant of differences in perceptions, power and interests among stakeholders, and should be backed by legal and/or funding requirements (Thompson, 2007).

As stakeholders have been found to be a "constantly shifting multiplicity of organizations, individuals, interests and coalitions" (Sinclair and Diduck, 1995: 222) they have different objectives concerning the EIA process and different reasons for seeking to participate. For these persons and groups Marshall et al. (2005) highlighted that they have unique perspectives directing them to participate in specific ways. Of the stakeholders in EIA the approving authority welcomes an EIA since it provides information that strengthens their motivation for a particular decision (Wood, 2003), the developer does not necessarily welcome the EIA for its requirement that the development details be made public knowledge (Rossouw, 2009), the consultants and specialists are expected to be neutral and unbiased in their evaluation of the project during EIA, but are paid by the developer (Durning, 2012) and the public who welcomes an EIA since it provides a formal opportunity to engage on a project.

The engagement process can be positioned to deal with these perspectives by streamlining engagement approaches to satisfy EIA requirements adequately. The consultants and specialists contracted by the developer produce assessment reports, which Hardcastle (2015) noted in some cases to be of low quality in the Western Cape Province. There is always a concern in EIA that decisions are made even though there are concerns of poor quality reports or stakeholders' issues and concerns are disregarded, leading to participation by the public being considered as largely tokenism. EIA is generally welcomed by the public nonetheless. Attending to dissenting voices has been advised as a way to strengthen risk management as their involvement creates ownership and greater commitment to getting the process right (Lehmann, 2009). The principle of engagement advances that key engagement activities, the importance of timing of engagement, and opportunities to evaluate the performance of the process should be considered. Clear roles and responsibilities have to be assigned to stakeholders as a way to adequately empower them to participate, and objectivity in participation is highlighted as an important element towards attaining the purposes of engagement.

Apart from EIA principles further guidance on engagement is provided by specific guidelines set by bodies governing a project type. As this research uses a dam project in South Africa it is convenient to consider the Generic Public Participation Guidelines by the Department of Water Affairs and Forestry (DWAF) (DWAF, 2001) and the World Commission on Dams (WCD) Guidelines for Good Practice cited in Fujikura and Nakayama (2002). These guidelines are not prescriptive, but rather offer valuable guidance on the application of stakeholder participation programmes for best practice in the field. The WCD guidelines outline in general terms ways to assess options and plans and implement dam projects to meet the commission's criteria: those relevant to stakeholder engagement on dam projects are guidelines 1, 2 and 22, as outlined in Annexure 2.

The guidelines emphasize the importance of identifying stakeholders by impacts of a particular project. Further, involving stakeholders in decisions concerning mitigation and management of impacts, through negotiation and review of the process by independent institutions, fortifies democratic decision-making. The DWAF guidelines (DWAF, 2001) in Annexure 3 present 16 principles that fortify stakeholder participation for dam projects in South Africa. The WCD and DWAF guidelines promote transparent decision-making, contributing diverse knowledge and values and thereby improving the quality of environmental decisions. Moreover, the quality of decisions made through stakeholder participation strongly depends on the quality of the engagement process leading to them (Sheate, 1996).

## **2.3 Stakeholder engagement evaluation**

Stakeholder engagement is applied in fields such as environmental management (Reed, 2008), development and climate change (Gardner et al, 2009; Shaw and Kristjanson, 2013), transport infrastructure development (MDOT, 2009) and business sustainability (Accountability, 2008; International Finance Corporation, 2007). The adequacy of engagement revolves around setting engagement goals, identifying stakeholders and their issues, which has been found to rely on the potency of activities for engagement and the potential of institutions for engagement. Evaluation of engagement depends on information obtained about the above components of the engagement process.

Evaluation looks at how far the process affected participation, especially where cases of low capacity to participate coupled with consultation fatigue were previously noted to lead to little perceived or real reward in terms of outcomes of engagement (Martin and Sherington, 1997; Reed, 2007). This was found to be common where non-negotiable positions were adopted by the proponent indicating little chance for stakeholders to influence decisions and where poor facilitation of engagement created ambiguities which led to delayed decisions (Burton et al., 2004; Vedwan et al., 2008). To that effect Bull et al. (2010) suggest that the nomenclature and functioning of project institutions for engagement should be designed to manage these weaknesses. Such institutions are useful if they allow citizens to be involved in a partnership underpinned by awareness of rights, knowledge of roles and confidence in the process of engagement (Arts et al., 2000). Assessment of citizens' attitudes to participation, capacity to participate and recognition of individual and institutional barriers to participation should inform the nature and anatomy of the institutions for engagement so as to maintain healthy relationships between stakeholders.

### **2.3.1 Evaluating effectiveness of engagement in EIA**

Engagement should be assessed for performance against set objectives in order to establish the effectiveness of the process. Assessment of the effectiveness of engagement in the EIA process is informed by the principles of assessing EIA effectiveness. Wood (2003) proposes that reviewing EIA process effectiveness should be done in terms of its procedural, substantive and transactive effectiveness. Procedural effectiveness focuses on the extent to which the EIA process was compliant to reputable provisions and principles; substantive effectiveness looks at the EIA process achieving set objectives such as support for well-informed decisions; and transactive effectiveness assesses how far the EIA process delivered outcomes at least cost and in the minimum time possible.

The criteria of evaluating stakeholder engagement in the EIA process varies based on the applicable legal systems. In the United States' environmental legal system, where EIA has its origin, the relevant criteria focus on participation being positioned to influence decisions based on a right to participate and access to documentation and on the public's right to appeal to the courts with regard to EIA decisions (Wood, 2003). Such evaluation criteria informs on the components of credible participation through interrogating the engagement process with relevant questions such as those in Annexure 4.

The criteria highlight the significance of timing in participation, creating institutions for engagement, capacity in all stakeholders and the influence on decisions in a formal decision-making process. The preparations, application and outcomes are all covered in these criteria, treating the process as a unit rather than as individual events.

### **2.3.2 Framework for evaluating the effectiveness of stakeholder engagement**

The framework for evaluation of the effectiveness of stakeholder engagement will in this instance use assessment data collected on project institutions for engagement and during activities of engagement, and their contributions to EIA effectiveness. The components will be evaluated on how far they empower participants to influence decisions and improve the credibility of participation (Stringer et al., 2006). Credibility issues previously arose where stakeholders "may not have sufficient expertise to meaningfully engage in ... highly technical debates" (Reed 2008: 2422). The evaluation process explores how far institutions for engagement and the activities of engagement presented opportunities to address the issues and concerns of stakeholders and presented opportunities to improve the capacity of stakeholders thereby avoiding the negative outcomes of engagement (Kothari, 2001; O'Rourke and Macey, 2003). The institutions and the activities can be evaluated as indicated in Figure 2.4.

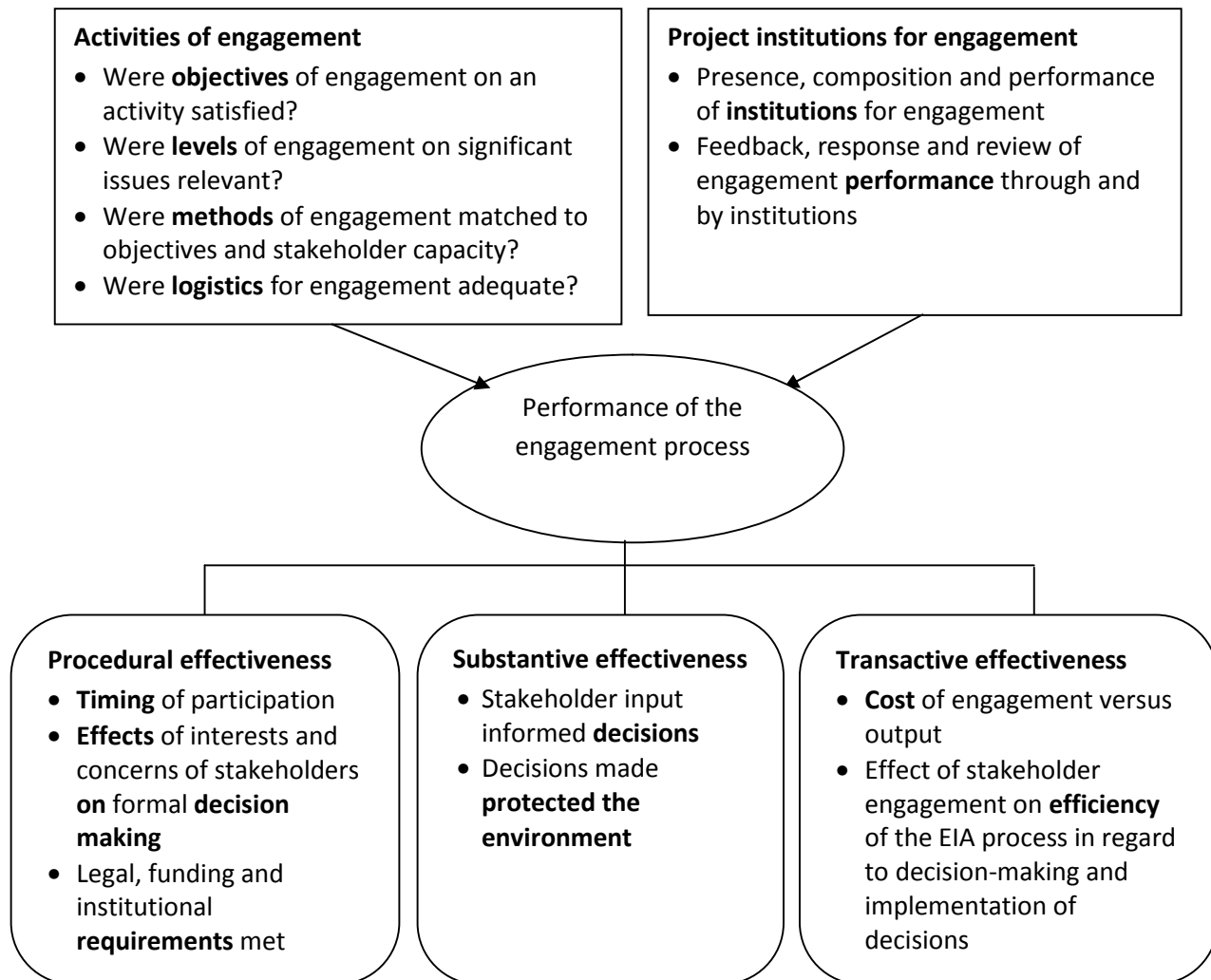


Figure 2.4: Conceptual framework for evaluation of stakeholder engagement in this research

In evaluating engagement using this framework, logistical support during engagement is crucial as it positions the process for attainment of the purpose of engagement. The framework also seeks to explore the influence of activities and institutional mechanisms of engagement on the procedural, substantive and transactive effectiveness of EIA. The findings on the performance of activities and project institutions for engagement are considered in the context of the three EIA review criteria of procedural, substantive and transactive effectiveness identified by Wood (2003).

## 2.4 Summary

Stakeholder engagement seeks to improve project decisions through democratically and relevantly considering stakeholder issues and concerns during a development's formal decision-making process, and furthermore during project implementation. Stakeholder engagement principles borrow from the principles of sustainable development, which require decisions to be informed by stakeholder issues and concerns after ensuring power and influence are redistributed among stakeholders. Guidance on engagement for a project should take due regard of legal and funding provisions, and stakeholders' expectations of engagement.

At a broader scale stakeholder engagement follows a process of plan, prepare, implement and act, review and improve. The adequacy of the engagement process builds on clearly setting the engagement parameters: the purposes of engagement, the relevant participants and the reasons for engagement. The parameters are satisfied if the outcomes of stakeholder analysis match stakeholder interests and influence on a project with relevant levels of engagement. Institutions specifically formed to facilitate engagement, and the activities of engagement where stakeholder issues are addressed, have both been advanced by the literature as enablers for adequate and credible engagement.

The assessment of stakeholder engagement in EIA is focused on identifying the stakeholders, their issues, the opportunities created to have those issues inform decisions and how engagement contributes to the procedural, substantive and transactive aspects of EIA effectiveness. The engagement activities and institutions for engagement are then used to evaluate engagement in light of the three aspects of EIA effectiveness.

# 3 Research Approach

The preceding literature review situates stakeholder engagement in EIA effectiveness, and its attempt to attain the project-level goal of sustainable development. Stakeholder engagement is widely accepted as a key component of effective EIA, yet how to undertake it effectively warrants further research. The stakeholder engagement components of scope and effectiveness are assessed in this research to evaluate their performance during development and implementation of the project CEMP.

The study of relevant literature on stakeholder engagement in EIA forms the conceptual grounding for this research. Topics that were studied to inform and contextualize this research are:

- Sustainable development as a goal of effective engagement in EIA.
- Stakeholder engagement and its role in attaining EIA objectives.
- Evaluating the effectiveness of stakeholder engagement in EIA.

The literature has identified gaps in these topics, and focus is placed on the implementation of engagement concepts in the BWP. This is achieved through an appraisal of the soundness of the scope and the effectiveness of the engagement process during the formulation and the implementation of the project CEMP.

## 3.1 Evaluating the scope and effectiveness of stakeholder engagement during the EIA process

This section formulates the criteria used to evaluate the scope and effectiveness of stakeholder engagement in an EIA process, which leads to the development and implementation of a construction environmental management plan. The Oxford English Dictionary defines *effective* as “having achieved an expected or desired outcome”, and *effectiveness* as “assigning a value to the outcome of the desired achievement”. Within the context of environmental management this value is based on a range of outcomes. The expected outcomes of the EIA process given in the literature include contribution to project-level sustainable development or authorization for a proposal to proceed, or pollution prevention or avoiding damage to the environment, or consensus on a decision even though it may lack the three preceding outcomes.

The context of this research posits the desired outcomes of the EIA, and that engagement is a means to achieve those outcomes. Assessment in this research considers the degree of, or reasons for the effectiveness of engagement, rather than focusing on a yes or no outcome (Retief, 2007). The degree and reasons for engagement represent a spectrum which cannot be sufficiently decided on only two outcomes of yes or no. Retief (2007) fortifies this position by discouraging the use of the word *success* which strengthens the yes or no outcomes, and this research focuses on detecting and revealing information and clues for improving practice, which is beyond the yes and no scope.

In reviewing best practice, principles for effective stakeholder engagement become central as to what effective stakeholder engagement should entail, with special focus on the extent to which the engagement process satisfied these principles. The principles, Annexure 3 and Annexure 4, are should configure criteria for proper practice through rigorous empirical analysis.

The same dictionary defines the noun *scope* as “the range of issues to which something is relevant”. This relevance refers to the stakeholders, their interests in the project and the relevance of activities in the engagement plan. It goes further to explore the relevance of influence by stakeholders’ contributions to decisions and implementation of the EMP.

### **3.2 Methods**

This research used two methods of data collection for the chosen case study. Such data collection approach triangulates the data gathered on the case and reinforces the internal validity of the research findings (Soy, 1997). As this research significantly examines the perceptions of people of interest by assessing their ideas, attitudes, motives and intentions in real situations, this according to Henn et al. (2009), render it qualitative research, where insights, discovery and interpretation is preferred to rigorous measurement in qualitative research (Noor, 2008 citing Merriam, 1988). Qualitative assessment is criticized for its inability to generalize, or findings lacking external validity – a critique raised by many scientists against the use of case study methods. A case used in qualitative research can clarify observations by valid, reliable and probability reasoning as a guideline to improve practice, rather than to establish an absolute truth (Cresswell, 2013).

Yin (1993) identified three types of case study methods, which are exploratory, descriptive and explanatory. The exploratory method establishes relationships and formulates hypotheses from field work and analysis of the raw data gathered; the descriptive method surveys data and analyzes it to describe a specific theory or topic further, and the explanatory method explains relationships based on more detailed research questions and hypotheses tested by gathering specific data.

According to Yin’s (1993) classification of case study methods this research contains explanatory, descriptive and exploratory aspects. It is exploratory in that new issues are likely to emerge through some of the research questions. The descriptive aspects arise as the data collected is useful to describe engagement in greater detail. Explanatory characteristics only emerge where relationships transpire through obtaining data from focused research questions.

Consideration was given to Yin’s (1994) three conditions of case study design:

- i. The type of research questions determines the approach as being descriptive, exploratory or explanatory.
- ii. The amount of control by the researcher over the case study events.
- iii. The degree of focus considers current events in context and does not rely on historical information only.

Since more than one data source is used and these sources are brought up against each other to ensure accuracy, a triangulated research strategy is at work in this case. As highlighted by Denzin (1984 cited in Tellis, 1997), source triangulation is used to verify the same fact from different sources and thereby develop a deeper understanding of the case and strengthen the findings.

The research uses one case only, with historical information and role players’ accounts of what happened as data sources. Yin (1994) identified six types of research information sources for case

studies, namely documentation, archive records, interviews, direct observation, participant observation and physical artefacts. This research utilizes three of these source types, namely documentation, archive records and interviews with relevant role players. Table 3.1 shows methods that were utilized to triangulate the data obtained in the case study.

*Table 3.1: Data triangulation methods*

| <b>Method of data collection</b> | <b>Sources of data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Review of existing documents     | Conditions of approval<br>EIA and EMP reports<br>Environmental Control Officer (ECO) monthly monitoring and biannual audit reports<br>Minutes of Environmental Monitoring Committee (EMC) meetings<br>Newspaper reports                                                                                                                                                                                                                                                                  |
| Semi-structured interviews       | Semi-structured interviews were conducted with stakeholder representatives from sectors who were formally represented on the EMC. The interviewees were as follows: government and local authority officials (4), general public (6), water users (agriculture and downstream) (3), environmental NGOs (4), former BWP laborers and residents from the local area (La Motte and Franschoek) (7), tourism (5), business (5), directly affected parties (6), media (2), and councilors (3) |

EIA documentation consisting of reports, approval reports, EMP documents and general project correspondence was studied in order to come to terms with the scope of engagement. Various project reports form the key to the research since they contain issues raised by stakeholders (Rossouw and Malan, 2007). The ECO audit reports and issues raised during implementation of the EMP were also subjected to review. Other documents examined were environmental authorizations, minutes of liaison meetings and minutes of EMC meetings. The stakeholders who were engaged in the concerned project phases were interviewed to establish specific responses to the research questions through initial rigorous probing, followed by spontaneous development of the interview. The semi-structured interviews, the review of archival records and document analysis formed the core of the research and enhanced the information on the case (Yin, 2009).

### **3.2.1 Data collection**

The information used in the research was obtained from the implementer of the Berg River Project, namely the Trans-Caledon Tunnel Authority's (TCTA) archives of project documents and from semi-structured interviews with I&APs who were involved. Project archive records included minutes of liaison meetings, minutes of EMC meetings, the comments and complaints issues register, and memorandums to stakeholders (Haas et al., 2010; Leedy and Omrod, 2013). Project documents included the EIA report, project media releases, monthly monitoring reports and audit reports.

Semi-structured interviews, using a list of questions in Annexure 1, were conducted with stakeholders who participated in the project and the interviewees were identified through the stakeholder engagement registers and the snowball approach. The semi-structured interviews were

recorded and/or note taken of important points during the interview. Probing questions focused on identifying themes or recurrent issues raised earlier on pertaining to project concerns from earlier interviews or identified from case documentation (Chess, 2000; Accountability 2008). The interviews probed issues with specific stakeholders on the process followed and the durability of environmental decisions made or otherwise. The interviews provided more information on stakeholder experiences and were conducted mindful of the fact that the stakeholders themselves contributed to the performance of the engagement process.

### **3.2.2 Data analysis**

The framework developed from the literature was used to assess scope and effectiveness of stakeholder (Stringer et al., 2006). The analysis was applied to aspects identified under activities and project institutions that formed part of the engagement process, and their contribution to EIA effectiveness. The outcomes were used to evaluate the individual and combined impact on the performance of the engagement process.

The activities of engagement were analyzed according to the extent to which they contributed satisfied the desired level of engagement, the suitability of the methods applied, and the adequacy of logistical support for stakeholders to perform optimally. The project institutions for engagement were evaluated on their presence, composition and performance in enabling the engagement process, and on their ability to give feedback and respond to the engagement process (Reed, 2008; Bull et al., 2010). The performance of activities of engagement (Stewart, 2009) and project institutions for engagement were both evaluated on their contribution to the procedural, substantive and transactive effectiveness of the EIA process.

### **3.2.3 Selection of case study**

The selection of the case study was guided by the following criteria were applied:

- The project should ideally be located within Cape Town for logistical reasons
- The project must be located within a sensitive receiving natural environment
- The project must have generated public interest or reaction (Denhardt and Denhardt, 2000)
- The project must have finished before the initiation of this research in order to verify information with the parties who were involved on the project
- The project must be of sufficient magnitude in terms of size, complexity, cost and overall impact on its immediate area (Newig and Fritsch, 2009)
- The case should present an example of where differences in opinion exist on whether the EIA process generally failed or succeeded (Chess, 2000; MDOT, 2009).

The combination of rich biodiversity and socio-economic dynamics in the project's recipient area presents a typical case with the scale, complexity, magnitude and conflict between biodiversity, natural beauty and development needed for assessing the effectiveness of stakeholder engagement in the EIA processes (Haas et al., 2010)

### **3.3 Summary**

The research approach seeks to address the strengths and inadequacies of stakeholder engagement as described in the literature and also observed in practice. The approach or methodology followed uses a case study analysis to explore opportunities to improve stakeholder engagement practice. Evaluation of the engagement process should address the purposes it seeks to satisfy, in this case to make the EIA process effective, and the performance of engagement can be inferred from the effectiveness of specific EIA process stages. Data collection methods used in the case, sources of data and data analysis are highlighted in this chapter to communicate the approach to the treatment of data in order to satisfy the aim and objectives of the research.

# 4 Empirical findings and discussion of stakeholder engagement for the BWP CEMP development and implementation

## 4.1 Introduction

This chapter introduces the physical and socio-economic landscape of the recipient environment of the BWP. The findings on engagement at formulation and implementation of the project CEMP are described. Finally the findings are discussed by comparing them with what literature review has positioned as adequate engagement.

### 4.1.1 Context of the project

The BWP dam site is in the upper reaches of the Berg River system in the Drakenstein Mountains near the town of Franschhoek, situated in the Stellenbosch Municipality in the Western Cape, South Africa (Haas et al., 2010; Rossouw and Malan, 2007). It is situated within mountains vegetated by the fynbos biome and a unique combination of cultural and architectural attributes. The project is composed of a concrete-faced rock fill embankment, a pump station at the foot of the dam and a supplement scheme (Haas et al., 2010).

The residents in the area are a mix of wealthy classes of retired residents and established landowners, juxtaposed with extremely poor and previously disadvantaged groups. The wealthy residents enjoy the international stature of the Western Cape wine route and can also afford the associated high lifestyle for this sought after residential and tourist destination. On the other end of the economic band are the poor and previously disadvantaged who are employed in the seasonally remunerated agricultural industry. Economic activities in the area include intensive grape farming and wine production, export fruit production and some water-intensive industrial activities down the Berg river.

The BWP was an outcome of alternatives analyzed to augment the water supply to the greater Cape Town and adjacent farming areas. Project authorities, the Department of Water Affairs and Forestry (DWAF), the City of Cape Town (CoCT) and TCTA, were bound by public-public partnerships, and public-private partnerships bound project authorities and the local community (TCTA, nd). DWAF as the regulator and national department responsible for water policy oversaw the BWP implementation, while the CoCT was the principal beneficiary of the project and TCTA implemented the project.

BWP was initiated during South Africa's fundamental governance transformations in the 1990s and was the outcome of participatory planning and implementation exercises which involved I&APs in public processes to optimize water resource management. The governance transformations included alignment of legal and institutional frameworks with the dawn of democratic governance in South Africa. International influence on the project was inevitable, as Cape Town was the host for the international secretariat of the WCD, and the then DWAF Minister, Professor Kadar Asmal, was

appointed chairman of the commission (Haas et al, 2010). The operations of the WCD from Cape Town provided enough opportunity for its ideas to filter into BWP decision processes.

Construction of BWP started in 2004 and the project came into operation in 2008 through broad public processes. A construction phase EMP guided the implementation of environmental impact management proposals in the Environmental Impact Report (EIR) and approval conditions set in the EA. The CEMP development and implementation involved stakeholders through a multi-stakeholder institution. The institution sought to ensure that stakeholders formally raise their issues and concerns towards compliance with the spirit and intent of conditions of approval in the EA (DEAT, 1999).

The stakeholders on the BWP were grouped under sectors of local authorities, issue based NGOs, residential communities, representatives of society, the media and project authorities. Local authorities ranged from local municipalities to provincial government. Issue based NGOs were organizations concerned with environmental issues associated with the project and the key players, which included Wildlife and Environment Society of South Africa (WESSA), Franschhoek Trust (FT) and Franschhoek Environmental Society (FES). Resident communities were the immediate residential areas who were in the physical vicinity of the project infrastructure. Representatives of society were any organizations who were already operating in the local community and were concerned about project issues impacting on the community. Media included all the modes of information distribution which were being used for the project, including those internal and external to the project. Project authorities were the DWAF, DEAT, DEAD&P, TCTA and CoCT. The DWAF was the project proponent and it was also the national regulator of water issues. The TCTA is a public entity under the DWAF responsible for developing water infrastructure including the BWP. The DEAT and DEAD&P were the environmental authorities for the project and enforced environmental legislation. The DEAT issued the environmental authorization and the DEAD&P monitored the project for environmental compliance. The CoCT was the beneficiary of the project as the project was undertaken to improve its water supply.

#### **4.1.2 Environmental management aspects of the project**

The EIA of the BWP was done in terms of the Integrated Environmental Management Procedures developed by DEAT in 1992. While the EIA was conducted nominally under the auspices of the Environment Conservation Act (Act Number 73 of 1989) (ECA) Section 22(3), this legislation did not provide the basis for compulsory EIA in South Africa until the end of 1997 with the promulgation of the EIA regulations under the ECA. DEAT issued the EA for the BWP, dated 10 March 1999, following submission of the EIR. The EA contained conditions that needed to be satisfied at implementation of the project and these included formulation and implementation of EMPs to manage and mitigate major impacts identified in the EIR at various phases of the project. The defining condition was the requirement for the I&APs to be meaningfully engaged to inform decision on key issues such as expectations of locals to realize immediate economic benefits and project impacts on water quality and quantity in regard to economic and ecological impacts.

The purposes of this research are satisfied by focusing on engagement in the CEMP, which sought to inform construction phase planning and implementation with social, economic and environmental

input from stakeholders. To achieve the CEMP targets, the EIR required commitment from project authorities to implement CEMP recommendations, possibly by means of legal contracts and the supervision of the project by an independent body with sufficient authority to ensure effective implementation.

The I&APs entity enforced by the EA provided for engagement and it essentially became part of the CEMP formulation and implementation processes. The CEMP was approved by the national and provincial environmental regulatory authorities (the DEAT and the DEAD&P) as required by the EA. The TCTA, as the project implementing agent, sought to ensure the final project design and construction recognized community concerns, minimized construction disturbance and improved aesthetics as well as optimized performance of physical and non-physical aspects of the project (Haas et al., 2010). The environmental responsibilities for participants were enabled by clear lines of communication established by the organogram in Figure 4.1, which shows the environmental responsibility of the different project role players.

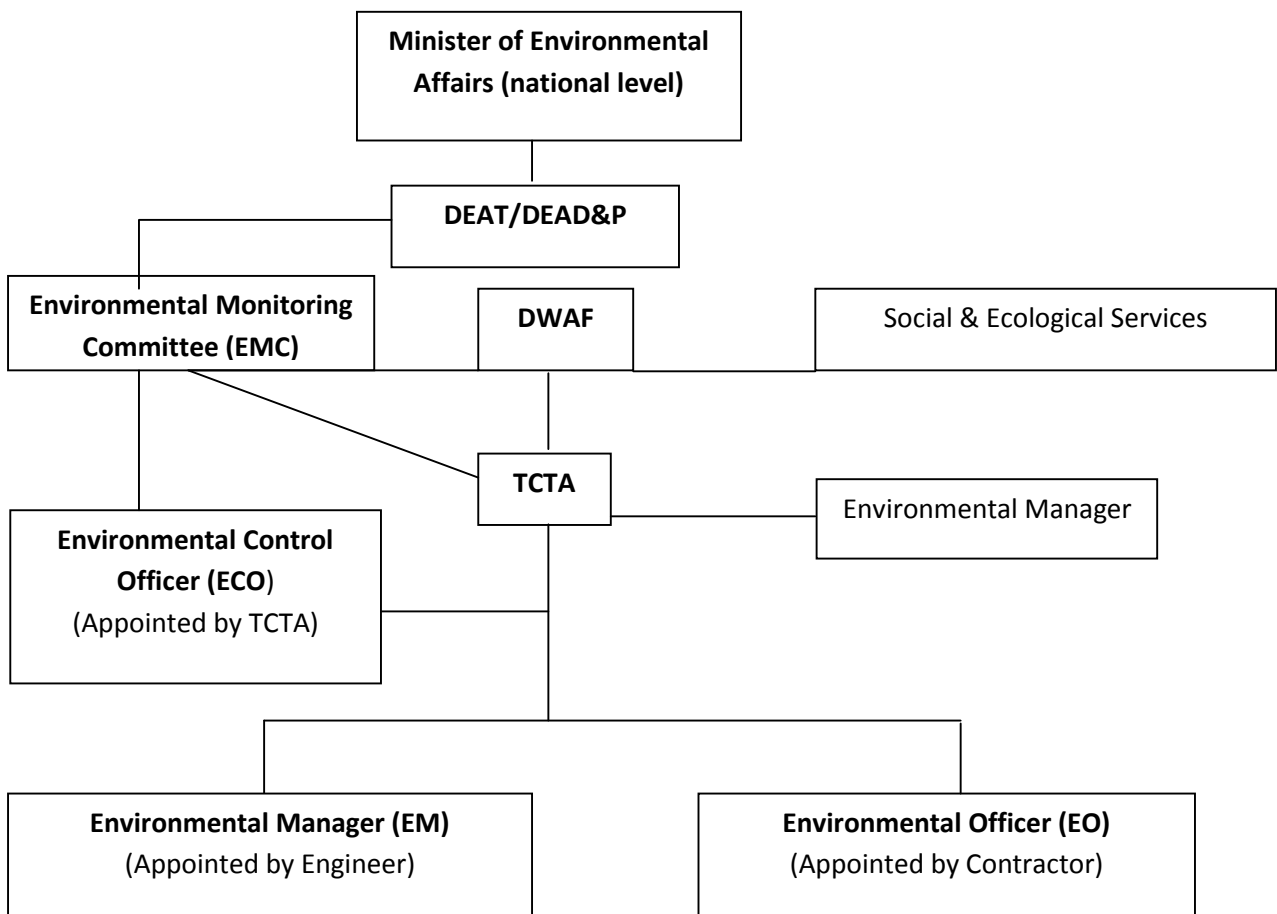


Figure 4.1: Hierarchy of project environmental responsibility (Source: BWP EMP, 2003)

The organogram above relied on the CEMP, which was used by the ECO and EMC to monitor its implementation. The EMC provided input into the CEMP, endorsed its authorization, and monitored project environmental management and implementation of the CEMP. The ECO audited the overall

compliance with the CEMP whose findings were communicated to the EMC, TCTA, EM and EO. This formal communication sought to exchange information necessary for decision-making and ensure the decisions are implemented through implementation of the CEMP.

Construction phase had an additional legal commitment in the form of an Integrated Environmental Development Framework (IEDF) which was requested by the EMC in order to align planning and implementation of the BWP with the prevailing Stellenbosch Municipality land use planning schemes. The CEMP, prepared in 2003, comprised of strategies, design guidelines and monitoring programs for addressing significant project impacts. Engagement with the I&APs produced the following approaches to enhance project social, economic and environmental performance:

- Franschhoek First Policy (FFP) - a policy commitment to promote local skills development, and prioritize local employment and procurement of services from local contractors;
- La Motte Housing Trust Fund - a mechanism to transfer the eighty purpose-built houses for the contractor's staff in the La Motte village to qualifying local residents after the construction phase;
- Water Quality Monitoring Programme - set out to monitor the water quality impact of construction activities and to ensure compliance with the specified water quality standards;
- River Monitoring Programme - set to establish a baseline of the functioning of the river prior to impoundment in order to assess the impact of the dam on the river and estuarine functioning and ecological status;
- Environment Compliance Auditing - conducted by an independent ECO mainly concerned with EMP compliance. The ECO reported to the TCTA and EMC;
- Social Monitoring Programme - initiated as part of the EMP to develop effective strategies to compensate and mitigate construction-related negative impacts, and maximize social benefits by addressing impacts of in-migration, effectiveness of host community skills training programs, impacts of skilled migrant workers, and the nature and scale of women's empowerment on the project.

The FFP became crucial as it contributed to the acceptance of the project by the local community and it had to be satisfied during implementation of the project. The water quality monitoring programme relied on river baseline information obtained from the river monitoring programme.

## **4.2 Findings on stakeholder engagement**

This section gives an account on aspects of stakeholder engagement focusing on project institutions designed for engagement, levels and methods of engagement as informed by stakeholder analysis and mapping, and the effectiveness of the whole engagement process. This section reports on what has been found from project documents, archives and interviews with stakeholders who were involved during the construction phase.

### **4.2.1 Project institutions for engagement**

The project had institutions for engagement which were put in place for institutionalized coordination of engagement events and formal coordination of stakeholder issues into the formal project decision-making process for developing and implementing the CEMP. The institutions of

engagement included the EMC, the environmental management structure represented by the organogram (Figure 4.1 above), and the information desk, as shown in Table 4.1 below.

*Table 4.1 Project institutions for engagement at construction phase (BWP EMP, 2003)*

| <b>Project institution of engagement</b>                                       | <b>Purpose</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental Monitoring Committee (EMC)                                       | <ul style="list-style-type: none"> <li>• Report to and exchange information with the constituent stakeholder sectors on the functioning of the EMC and the implementation of the project;</li> <li>• Provide input into, review, and recommend approval of the EMP to the environmental authorities, and once approved, monitor compliance with the EMP and report noncompliance;</li> <li>• Participate actively in monitoring the social, economic, and environmental impacts of all processes related to the implementation of the BWP;</li> <li>• Ensure continued involvement of stakeholder constituencies in the environmental, social, and economic aspects of the project planning, construction and operational phases;</li> <li>• Ensure the exchange of relevant project information between the TCTA and other stakeholder groups; and</li> <li>• Release statements on the level of compliance with the EMP and the standard of environmental management on the project as and when necessary.</li> </ul> |
| Environmental management structure represented by the organogram in Figure 4.1 | <ul style="list-style-type: none"> <li>• Ensure clear lines of communication within the project team and implement impact management decisions arising from the engagement process</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Information Desk (Employment and Issues and concerns desk)                     | <ul style="list-style-type: none"> <li>• Receive input, issues and concerns raised by all stakeholders, including the public, on implementation of project policies, strategies and processes.</li> <li>• Provide relevant project information to stakeholders.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

The EMC formalized the role of interested and affected parties in the project governance structure during formulation and implementation of the CEMP. It was facilitated by an independent and elected chairman, described by an interviewee from WESSA as “deceptively charming and cunningly biased towards project authorities”. The EMC formalized information exchange among stakeholders towards adequate engagement. The environmental responsibility organogram positioned the EMC in the project organogram to show clear lines of communication with role players in the project governance. The information desk was provided by the TCTA to address spontaneous stakeholder and public issues concerning the project.

### ***The EMC***

The EMC was composed of twenty people who represented the project authorities (DWAF, CoCT, DEAT, and TCTA), local authorities and mandated representatives from different I&APs identified through due process. For optimal performance the EMC was broken down into task teams which dealt with specific roles on the EMP and reported to the composite EMC. The task teams were the Franschoek Valley task team (FVTT), the downstream task team, the natural environment task team, the engineering and contractual task, the IEDF task team, the media task team and the EMC special committee dealing with matters like the EMC secretariat. The EMC communicated environmental and social issues important to the I&APs, especially concerning the communities in the Franschoek valley.

The EMC drew up its own constitution and instituted protocols on how to reach decisions in the case of a stalemate, which was through a vote in which each member had equal voting power. The EMC further re-organized itself into functional teams outlined above, which dealt with specific issues and had to report to the full EMC. The drawing up of the constitution and re-organization were conducted in EMC meetings and later reported to stakeholders by their representatives. Procedures for executing EMC duties and monitoring the performance of the EMC were put in place. The EMC was constantly monitored for its performance against its responsibilities. The resignation of 10 EMC members from the FVTT, in 2004, disrupted the EMC performance in three crucial meetings leading to implementation of the CEMP. DEAT and DWAF later reconstituted the EMC after one year with minimum engagement of other stakeholder sectors, further straining relationships in the EMC.

### ***Environmental responsibility structure***

The environmental responsibility organogram shown in Figure 4.1 sought to promote effective communication among project participants, ensure effective governance and planning arrangements for participatory decision-making, and compliance monitoring. The organogram provided for partnerships in implementing the project and enhanced the attaining of project economic, social and environmental requirements through improved communication between and among participants.

### ***TCTA Information Desk***

An information desk housed a toll free telephone number, a fax number, a dedicated e-mail address and a postal address. Its presence was advertised to stakeholder sectors and the public, and the contact details were also included on all press releases, advertisements, information sheets and any other publications about the project. Issues received by the information desk through any method of communication were systematically recorded to facilitate addressing them. A procedure was established to guide the receipt, handling and responding to queries, and the procedure included a fixed time limit within which a response must be given.

#### **4.2.2 Findings on levels and methods of engagement on engagement activities of the CEMP**

The stakeholders were engaged in project activities at pre- and post-decision phases. At pre-decision they were involved in the formulation and management of the EMC and formulation of the CEMP. The post-decision activities during implementation included auditing and monitoring of the CEMP. The level of participation on the activities of engagement shall be appraised as informed by interest and influence according to the stakeholder mapping and analysis (Durham, 2014 and IAP2, 2004) for

appraising adequacy of level of engagement applied. This mapping and analysis matrix in Figure 2.3 informs on appropriate levels and methods of engagement considered to be adequate depending on the influence and interest a stakeholder had on an issue. The components of the evaluation framework will be applied to appraise effectiveness of engagement.

### Findings on engagement during formation and management of the EMC

The formation of the EMC relied on the I&APs list drawn up through the facilitation of an independent consultant, and stakeholder sectors derived from it. Representatives were chosen by each stakeholder sector to inform decisions according to the interests of their constituencies. Engagement on the establishment and consolidation of the EMC was varied depending on issues identified, with favorable outcomes such as drawing up the baseline water monitoring programme and development of the IEDF as initiatives from the process. The significant issues during formulation and management of the EMC are shown in Table 4.2 below.

*Table 4.2 Activity of engagement: Formulation and management of the EMC*

| Issues and concerns                               | Aspects of stakeholder engagement    |                                                                                                                                                 |                                     |                                      |                             |
|---------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------|
|                                                   | Who the implementer engaged          | How the implementer engaged stakeholders                                                                                                        | Level of interest for those engaged | Level of influence for those engaged | Level of engagement applied |
| <b>Introduction of the project to communities</b> | Local communities, local authorities | Conducted Road shows, open days and public meetings to inform stakeholders about the project. TCTA gave out pamphlets with project information. | High                                | Low                                  | Inform                      |
| <b>Choosing of representatives for the EMC</b>    | All stakeholder sectors              | Conducted public meetings to facilitate selection of representatives into the EMC by stakeholders.                                              | High                                | High                                 | Empower / Collaborate       |
| <b>Drawing up of the EMC constitution</b>         | EMC                                  | The EMC held a meeting where its members formulated the constitution.                                                                           | High                                | High                                 | Empower / Collaborate       |
| <b>Support for EMC members</b>                    | EMC members                          | The EMC raised the issue of funding members as they execute their duties on the project.                                                        | High                                | Low                                  | Involve                     |
|                                                   | EMC                                  | The EMC was broken                                                                                                                              | High                                | High                                 | Empower /                   |

|                      |     |                                                                                                                     |      |     |             |
|----------------------|-----|---------------------------------------------------------------------------------------------------------------------|------|-----|-------------|
|                      |     | down into functional units at a meeting.                                                                            |      |     | Collaborate |
| <b>EMC indemnity</b> | EMC | The EMC raised the issue in one of its meetings and TCTA did not present an opportunity for shared decision-making. | High | Low | Involve     |

At the introduction of the project to communities, the TCTA sought to provide information to stakeholders about the project, potential challenges and alternatives. This coupled with methods such as public meetings, road shows and open days point to that the engagement level of informing stakeholders was adequate on this issue. With the issues of choosing EMC representatives, formulating the EMC constitution and the formation of EMC task teams the stakeholders' interests and influence were both high as there was a significant opportunity to influence decisions and participate in shared decision-making with regard to choosing their own representatives, drawing up their own constitution and forming task teams with the facilitation of TCTA. The empower or collaborate level of engagement was used and it concurs with the stakeholder analysis matrix. The issue of indemnity was of high interest to stakeholders but the decision-making role remained with TCTA. However, the way TCTA dismissed the stakeholder's concern did not indicate that there was healthy dialogue as an interviewee from the FVTT indicated that "TCTA considered us as junior partners and dismissed our indemnity concerns without adequate discussion". Though TCTA was accurate in clarifying that the EMC's role was not decision-making, arguing that there was no need to indemnify them from adverse consequences of decisions, the way this issue was handled had negative outcomes on the engagement process, and an interviewee from WESSA held the opinion that TCTA imposed their decision on indemnity upsetting relationships and partnership arrangements.

The beneficial outcomes of engagement included the EMC assisting in profiling the community, determining key people and organizations in the area, revealing any political dynamics that could influence the engagement process and previewing key issues and concerns relating to the implementation of the project. The outcomes benefited project authorities and the stakeholders in that stakeholder sectors were targeted with their information requirements for engaging stakeholders and the public as shown in the Table 4.3 below

Table 4.3: Project information distribution approach used by the TCTA for identified stakeholder sectors (Source: BWP EMP, 2003)

|                |                                              | Type of information         |                                 |               |                                    |                                  |           |                 |
|----------------|----------------------------------------------|-----------------------------|---------------------------------|---------------|------------------------------------|----------------------------------|-----------|-----------------|
|                |                                              | General project information | Water quality, flow, monitoring | Environmental | Construction details and Programme | Social, Training, Labor and SMME | Technical | EMC Information |
| <b>SECTORS</b> | General Public                               | X                           |                                 | X             | X                                  | X                                |           | X               |
|                | Government/Local Authority Officials         | X                           | X                               | X             | X                                  | X                                | X         | X               |
|                | Water users, Agriculture, Downstream         | X                           | X                               | X             | X                                  |                                  |           | X               |
|                | Environmental NGO Sector                     | X                           | X                               | X             | X                                  |                                  |           | X               |
|                | Local area (La Motte, Franschoek, Simondium) | X                           |                                 | X             | X                                  | X                                |           | X               |
|                | Tourism                                      | X                           |                                 | X             | X                                  |                                  |           | X               |
|                | Business                                     | X                           |                                 | X             | X                                  | X                                |           | X               |
|                | Directly Affected Parties                    | X                           | X                               | X             | X                                  | X                                | X         | X               |
| Media          | X                                            |                             | X                               | X             | X                                  |                                  | X         |                 |
| Councilors     | X                                            | X                           | X                               | X             | X                                  | X                                | X         |                 |

The information distribution approach in Table 4.3 above sought to direct relevant project information to stakeholders to assist them to raise issues and concerns which informed project decision-making processes and subsequent implementation of decisions through implementing the CEMP. Information distribution channels used spatial categories which, according to an interview with a La Motte resident, “provided information mostly in printed form and only became more meaningful when TCTA or our representatives explained it”. The approach was grounded on the principle of inclusivity seeking to treat stakeholders as partners in local actions that impact the sustainable performance of the project by adding value according to stakeholder expectations and needs. However, the approach did not provide adequate information on water quality to the local area, tourism and business sectors, which resonates with the Cape Argus’ article that stakeholders did not have an understanding of in-stream flow requirements.

Apart from information received from TCTA, stakeholders also received BWP information from external media sources which influenced stakeholder perceptions and TCTA made efforts to furnish them with information towards satisfying project requirements. The influence of public media was apparent with regard to the in-stream flow requirement issues conveyed to the public by media in 2003, particularly the views of the Skuifraam Action Group (SAG), a coalition of NGOs and civic organizations who were against the project (Interview with the SAG, Cape Argus, March 2003, cited in Haas et al, 2010). That communication posited that most stakeholders were not familiar with the broader economic rationale and justification for investments for in-stream flow requirements and suggested that TCTA was not doing enough to make I&APs understand the project. Any efforts by TCTA to convince the SAG away from its position that water demand management was a preferable

alternative to BWP due to its high capital costs and negative and environmental impacts rather led to the SAG standing firmer in its position.

The project Public Participation Program (PPP) indicated points on the project timeline where engagement should occur and project information was to be provided, cognizant of the interests and issues of stakeholders towards adequate participation and at the same time avoiding information overload. The implementation of PPP and outcomes, from CEMP formulation to implementation, is shown in Table 4.4 below

*Table 4.4 Chronology and key events: project implementation (Source: Haas et al, 2010)*

| <b>Year</b> | <b>Stakeholder engagement related events</b>                                                                                                                                          | <b>Engagement outcomes from the events</b>                                                                                                                        |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2002        | Start of Berg River baseline monitoring program which was a condition of the EA<br><br>Compiling a list of I&APs<br><br>Establishment of the EMC<br><br>Initiation of EMP formulation | Water quality baseline monitoring delayed<br><br>I&AP membership established<br><br>The EMC formed through a participatory process                                |
| 2003        | First EMC meeting – the TCTA proposes change of ‘M’ from management to monitoring<br><br>EMC requested the production of IEDF to accompany the EMP<br><br>EMC endorsed the CEMP       | EMC felt disempowered by change of the ‘M’ from management to monitoring<br><br>The IEDF was produced<br><br>CEMP was approved by the DEAT                        |
| 2004        | EMC meetings                                                                                                                                                                          | EMC organized itself into seven task teams focusing on particular issues of the project<br><br>10 EMC members resign from the Franschhoek Valley Task Team (FVTT) |
| 2005-2008   | Monitoring of the EMP implementation                                                                                                                                                  | The project initially reported to be in general compliance, and incremental compliance to the EMP and environmental standards as the project progressed           |

The sequence of events in which stakeholders were engaged and the outcomes obtained from the engagement process is discussed further below. The provision of relevant information to stakeholders improved the capacity of stakeholders to participate, the provision of logistical support such as funding stakeholder engagement meetings and funding the EMC secretariat to perform its duties and engagement before decisions were made contributed to the outcomes in Table 4.4 above.

### Methods and levels of engagement on CEMP formulation and implementation

At formulation of the CEMP, the TCTA supplied project information to the EMC in form of the EIR, the EA requirements and the BWP information to inform and provide guidance on key issues to address, which were project impacts on water quality and ensuring local residents are prioritized for project economic benefits. Engagement included levels varying from informing to empowering. At implementation the issues and concerns about the level of engagement were mostly about empowerment to participate.

During the formulation of the CEMP the levels of engagement, as informed by the stakeholder mapping and analysis, indicate that in most instances stakeholders were engaged at appropriate levels. The issue of the La Motte housing project and contestation of refusal of indemnity were the only ones engaged at a lower level, which affected the perceptions of the EMC with regard to the TCTA. A summary of the engagement process on this activity is shown in Table 4.5.

*Table 4. 5 Activity of engagement: Formulation of CEMP*

| Issues and concerns                                                                           | Aspects of stakeholder engagement |                                                 |                                     |                                      |                             |
|-----------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------|
|                                                                                               | Who the implementer engaged       | How the implementer engaged stakeholders        | Level of interest for those engaged | Level of influence for those engaged | Level of engagement applied |
| <b>Appointing the ECO</b>                                                                     | EMC                               | Conducted a meeting with the EMC                | High                                | Low                                  | Consult                     |
| <b>Production of the IEDF to gel BWP into the Stellenbosch Municipality land use planning</b> | EMC                               | Conducted a meeting with the EMC                | High                                | High                                 | Empower / Collaborate       |
| <b>Management approaches for the project's socio-economic impacts</b>                         | EMC                               | Conducted a meeting with the EMC                | High                                | High                                 | Empower / Collaborate       |
| <b>Management approaches for the project's environmental impacts</b>                          | EMC                               | Conducted meeting with the EMC                  | High                                | High                                 | Empower / Collaborate       |
| <b>Addressing of specific stakeholder issues: La Motte housing project</b>                    | EMC                               | Conducted a meeting with the La Motte community | High                                | High                                 | Consult                     |

|                                                         |             |                                                                  |      |      |                       |
|---------------------------------------------------------|-------------|------------------------------------------------------------------|------|------|-----------------------|
| <b>Review of project documents</b>                      | EMC         | Conducted meetings with the EMC                                  | High | High | Empower / Collaborate |
| <b>Alteration of dam type</b>                           | EMC         | Conducted a meeting with the EMC                                 | High | High | Empower / Collaborate |
| <b>Renaming of the dam</b>                              | EMC         | Conducted meetings with the EMC and stakeholders                 | High | High | Empower / Collaborate |
| <b>Poor attendance of local authorities to meetings</b> | EMC         | During an EMC meeting                                            | High | High | Empower / Collaborate |
| <b>Report back to constituencies</b>                    | EMC members | EMC representatives conducted meetings with their constituencies | High | High | Empower / Collaborate |
| <b>Contesting refusal of indemnity</b>                  | EMC         | Raised during a meeting and followed up by a memo                | High | Low  | Involve               |

From the table above most high interest and high influence issues were engaged at appropriate level, that is ‘empower’, save for the La Motte housing issue where stakeholders were engaged at a lower level. On the La Motte housing issue, the Franschoek stakeholders who were engaged directly informed the criteria to be used to transfer project staff housing to the local community after project completion and did not assume a joint decision-making role. The proponent’s position was that the stakeholders were not capacitated enough to assume a decision-making role but they rather sought to consult them to obtain views on the issue. Apart from the La Motte housing, the issues of high interest-high influence had stakeholders engaged at empower/collaborate such as on alteration of dam type such that there was shared decision-making. This was due to anticipated economic effects such as threatened loss of agriculture exports to EU countries due to potential increase in salinity of water in the Berg River due to the project. The EMC, with particular emphasis on farmers and downstream water users, was engaged to ensure outcomes reflect shared decision-making. The potential agricultural losses were quoted in the region of R128 to R385 million per year, and anticipated to cause significant job losses among low-wage agriculture workers (Haas et al, 2010). It turned out that the salinity issue was marginal and two citrus farmers who were interviewed confirmed that it wasn’t as bad as they had anticipated. With the issue of compensating the EMC, the implementer only considered compensating the EMC Chairman for transport costs at rates stipulated by the Department of Transport. This was due to the TCTA considering that the EMC

Chairman was doing more errands than other EMC members over and above representing his constituency.

During the post decision stages, in the activity of implementing the CEMP, the EMC monitored CEMP’s performance against impact mitigation and management targets set during its formulation. Engagement relied on information generated from the ECO environmental audit report and environmental incidences that unfolded during project implementation; the engagement process on this activity is summarized in Table 4.6.

*Table 4.6 Activity of engagement: Implementation and monitoring of the CEMP*

| Issues and concerns                                            | Aspects of stakeholder engagement |                                                                                                                                          |                                     |                                      |                             |
|----------------------------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------------------|-----------------------------|
|                                                                | Who the implementer engaged       | How the implementer engaged stakeholders                                                                                                 | Level of interest for those engaged | Level of influence for those engaged | Level of engagement applied |
| <b>Monitoring and auditing</b>                                 | EMC                               | ECO monthly reports and biannual audit reports, meetings between EMC and ECO. EMC quarterly reporting meetings with their constituencies | High                                | High                                 | Empower / Collaborate       |
| <b>Management of incidences related to CEMP implementation</b> | EMC                               | Meetings between EMC and TCTA                                                                                                            | High                                | High                                 | Empower / Collaborate       |

The EMC obtained information from the ECO’s audit reports and used this information to engage during meetings. The meetings had positive outcomes in reviewing the performance of the including improving compliance in areas such as water monitoring during construction, managing complaints on solid waste management, which were significantly non-compliant at the beginning. Such issues were of high interest to stakeholders and their input had significant influence on decisions taken. Favorable outcomes included improvement of audit reports from partial compliance to overall compliance on the fifth audit, which transpired in the beginning of the second project year as the audit was initially a quarterly exercise. The monitoring of water salinity was considered adequate by one downstream farmer who said “the water monitoring was tight and it produced excellent results which helped us plan ... and the impacts were not as bad as anticipated”, which indicated that engagement dealt with stakeholders’ opinions and fears. The CEMP was updated through engaging the EMC in order to maintain the overall compliance status and adapt to changes during implementation of the CEMP.

### **4.2.3 Effectiveness of the whole engagement process**

The performance of the engagement process is evaluated according to its influence on the procedural, substantive and transactive aspects of EIA effectiveness highlighted in the framework developed in literature review. Procedural effectiveness looks at the timing of engagement, effects of engagement on project decisions, and satisfaction of legal, funding and institutional requirements. Substantive effectiveness is concerned with whether engagement satisfied the engagement objectives and how that led to the protection of the environment, the ultimate goal of EIA. Transactive effectiveness looks at the cost and efficiency of the process.

Procedurally the EMC was established before detailed project designs were done, resulting in the engagement outcomes impacting on design decisions to satisfy recommended in-stream flow requirement, protect the ecological reserve and maintain water quantity and quality for downstream water users. One farmer interviewed for this research indicated that “before the project started my worry was to know how much water TCTA would allow for our operations and to maintain the naturalness of our surroundings”. A sand mining and processing stakeholder was also concerned about “the impact of the dam project on salinity of the water and sand as it had bearing on quality of my products”. Upon reflecting on these initial concerns these stakeholders pointed out that the actual impacts were marginal and manageable as compared to the scale of the project, an indication that the concerns raised were either incorporated into project decisions and anything reasonably practical to manage the impacts was done or they anticipated too much with regard to the negative impacts. Also the approval of the EMP by the EMC and the inclusion of the IEDF towards authorization indicated appropriate timing of engagement, where stakeholders were successful in communicating to decision-makers which issues to consider. This indicated proactive and timely engagement where stakeholder input shaped decisions on impact management through outcomes such as initiating baseline water quality monitoring early, before construction commenced.

However, process failures of the engagement process were raised by the water expert from the downstream task team, such as the delay in pre-project water quality monitoring, which was perceived by an interviewee from WESSA and WCNCB as loss of opportunities for better monitoring of water quality. To strengthen their position the environmental NGOs, led by Franschhoek Environmental Society (FES) and WESSA engaged water quality experts whose findings indicated that the delay had material implications on the monitoring process, similarly TCTA contracted its own water consultants whose view stated that the process flaw had immaterial effects on impact mitigation and management. Such counter positions show that while stakeholders can maximize such incidences as leverage to advance their concerns, it impacted negatively on performance of the EMC. Nevertheless the outcome assisted in improving vigilance in the impact management and monitoring processes by TCTA during EMP implementation.

With the above experience the interviewee from WESSA perceived engagement “as a way used by project authorities to validate a predetermined position rather than a way to empower partners for dialogue, innovative thinking and the application of partnership approaches to development”. The interviewee from TCTA maintained that “the EMC assumed it was going to manage the project in

the strictest sense of making decisions and performance management in all project aspects” and the subsequent clarification by TCTA that the EMC’s role was a monitoring rather management appeared to be TCTA’s way of limiting their authority to perform its roles. At this point it was going to benefit the engagement process to note that there were differences in perceptions and opinions, and failure to manage such frictions after TCTA failed dialogue on the indemnity issue led to frustrations which triggered resignation of 10 EMC members from the FVTT. The FVTT felt TCTA was not willing to facilitate the engagement process fairly. At least TCTA could have facilitated for partnership approaches to manage perceptions that showed potential to affect the functioning of the EMC.

The interviewees from WCNCB, La Motte village and WESSA indicated that the engagement process did not effectively address the key expectation of getting well paid jobs for the poor and disadvantaged members of the Franschhoek community, who only realized marginal benefits from the project. TCTA could have reminded stakeholders that engagement during the EIA process sought to ensure adequate opportunities for stakeholders to inform project decisions. Satisfaction of expectations is possible if stakeholder expectations are aligned with objective project decisions.

Even the skills audit in local communities towards implementing some socio-economic strategies in the FFP had negative effects as the report overstated the skills in the local communities as compared to the actual skills available. This led to costly remedial actions such as contractors being assigned targets to train locals on low and fairly well paying jobs only, rather than highly skilled positions, which compromised achievement of the FFP purposes. The contractors did not welcome this responsibility, as it affected daily production. For the trainees it was welcome in that they got an employment opportunity but they were disappointed that the training was not recognized as formal training in the mainstream economy.

Legally the engagement process satisfied the requirements of the EA, more importantly the formation and engagement of the EMC, and the recommendations of the EIR. The project partnership arrangements, to ensure formal interaction between and among public and private entities involved, were significantly satisfied by the project governance structures. The arrangement of and commitment to stakeholder engagement in the project governance approach led to the European Investment Bank (EIB) funding 47% of the project capital budget (Haas et al., 2010). The EIB’s decision was motivated by BWP’s approach of early stakeholder involvement in option assessment and project development and the incorporation of its recommendations into the project governance.

In terms of substantive effectiveness, engagement led to the establishment of in-stream flow requirements for economic downstream water use and ecological preservation with the help of a water expert from the downstream stakeholders who had competent knowledge of the Berg River catchment. Compliance monitoring by the natural environment task team, and revalidation of the in-stream flow and ecological reserve flows over time, were pointed out by the task team as important indicators to be monitored. On socio-economic effectiveness, as of 2006, contractors had provided 11,102 person days of training, of which 9,908 days were for local persons, and a total of 5,890 local people had site safety training. Specific construction skills training amounted to 3,093 person days

(Haas et al, 2010). Environmental incidences were minimal and no non-compliance fines relating to implementation of CEMP were issued. The audit and monitoring process had a significant drawback in that it focused on process auditing only, not output of the process. This makes it difficult to draw objective conclusions on measuring substantive effectiveness from engagement process outputs deduced from monitoring and audit reports.

In terms of transactive effectiveness the communication and public relations budget under which stakeholder engagement fell constituted approximately 1% of the implementation phase budget cost (Haas et al, 2010). There have not been any records of fines for non-compliance with the EMP. The construction phase was finished on time according to what was set on the project timeline.

Interviews with WESSA, FES and WCNCB allude to the fact that there were mixed perceptions and opinions on the engagement process and its outcomes. WESSA and WCNCB felt that environmental sustainability issues could have been adequately addressed by the engagement process if stakeholders were sufficiently capacitated to understand the sustainability issues pertaining to the BWP. A downstream resident interviewed argued that downstream flow impacts could have been managed better if early monitoring was coupled with stakeholder capacity to understand the issue. Another farmer from the area held the view that “the EMC was a non-technical body which found the in-stream flow requirement issues very complex”, implying additional support to simplify the technicalities of the issue was necessary to help EMC members understand, process, and interpret the monitoring results appropriately. This could have included a report on the status or quality of the river by a river scientist, explaining how to interpret monitoring results in terms comprehensible to lay people.

Interviewees from FES, FVTT and WESSA indicated they were not satisfied with relationships in the project institutions, particularly the EMC which was largely made up of government institutions which prevented robust engagement as they maintained their own loyalties. Interviewees from the water users, NGOs, local area residents and directly affected sectors expressed strong views that the ECO’s relationship with the TCTA compromised neutrality in the performance of duties. Their opinion on the relationship is premised on the fact that, although the ECO was chosen by TCTA in consultation with the EMC and jointly reported to TCTA and EMC, the assumed independence was eroded by the fact that TCTA paid the ECO. These perceptions affected functional relationships, further impacting on open and transparent discussion of the ECO’s reports. Among the EMC members, especially the FVTT, there was less appetite to invest time in future dialogue when expectations for local development appeared too remote to be met. However, the level of compliance to the CEMP somehow counters this perception.

### **4.3 Discussion and evaluation of stakeholder engagement findings on the case to stakeholder engagement in literature**

Stakeholder engagement in the construction phase of the BWP project sought to inform project decisions with information from identified stakeholders, as in any other stakeholder engagement exercises. This discussion evaluates scope and effectiveness of engagement of stakeholders on the BWP using concepts from the reviewed literature and the framework developed from it. Findings from the BWP were sourced from project documents and semi-structured interviews with relevant

stakeholders. The requirements of project institutions for engagement, and levels and methods of engagement, were analyzed using stakeholders mapping and analysis (Durham, 2014 and IAP2, 2004). Issues of conformance or otherwise between application and theoretical concepts will be discussed and their subsequent input into an effective EIA process.

A revisit to the definition of stakeholder engagement will benefit this discussion, taken from the review of literature. Stakeholder engagement is the “involvement of individuals and groups that are positively or negatively affected by, or that are interested in, a proposed project, programme, plan or policy that is subject to a decision making process” (IAIA cited in Chi et al (2013:3).

The key feature of this definition is that those affected by or interested in a development proposal are involved with the intention to contribute to the decision-making process through a communicative and interactive process.

The initial action of formulating a plan for engagement in the context the BWP’s EMP was to set engagement parameters of what, why and who (Accountability, 2008) in order to set the context of engagement. The planning and implementation of the BWP triggered the engagement process with particular focus on the formulation and implementation of CEMP. Engagement parameters for this research were set according to the literature by clearly identifying reasons for engaging and who to engage. The engagement process, however, did not assign specific roles to the EMC leading to process flaws. Clear roles and responsibilities give direction and assist and avoid compromised relationships in partnerships.

The literature review positions adequacy of engagement on the level at which stakeholders were engaged, cognizant of the level of interest in an issue and the extent to which they can influence decisions. The application of engagement methods must be suitable for that level and the capacity of stakeholders. In the BWP, the engagement planning significantly complied with the requirements of setting parameters for engagement success according to Accountability (2009). The planning and engagement before the decision was meticulous as it was found that the legal, funding and water provision institutions for project governance ensured effective engagement post the approval decision stage. This indicates that mechanisms can be designed to enforce engagement even in the post-decision phase through enforceable instruments from key project role players. The setting up of institutions for engagement was carried out at acceptable levels and methods of engagement.

The achievement of engagement purposes has been found to strongly rely on open, inclusive, and communication-intensive approaches so that there is exchange of information during decision-making (IAP2, 2004). The EMC formalized communication among stakeholders, and its presence on the environmental management structure of the BWP promoted clear communication channels. Most interviewees conceded that the EMC laid a solid foundation for partnership approaches for adequate project communication in, for example, analysis of alternatives before major decisions were made, which assisted management of the partnership arrangement. However perspectives like the SAG perceiving the EMC as a way of co-opting opposition to minimize their influence or to manage the risks associated with excluding them, and FVTT’s perceptions that engagement was used for the project to gain acceptance by the local community rather than to ensure equitable

distribution of impacts among stakeholders, speak to the flaws which were encountered in the process. These instances correspond with Denhardt and Denhardt's (2000) idea that, if stakeholders perceive that they are not adequately engaged or their issues are not adequately addressed, they revert to protest. Stewart (2009) suggested that protest is a lower level of engagement in a broken relationship with communication breakdown.

#### **4.3.1 Formation and management of institutions of engagement**

The participatory approach to the formation of the EMC led to adequate representation of all I&APs. The methods and levels of engagement matched the stakeholder analysis and mapping approach put forward by Accountability (2009). An important point to note is that the EMC was built from a new list of I&APs in order to accommodate for any changes that happened in the four year gap between issuance of the EA and the construction phase. All forty five interviewees attest that the capacity of representatives was key in order to be effective in engagement. Such a view emanated from the failure of representatives from local communities to effectively represent their constituencies' interests in the wake of vociferous environmental NGOs, and the group loyalties perceived in representatives of government institutions. Such flaws, coupled with the absence of explicit engagement outcomes and clear roles of the EMC, provided an uneven platform for effective negotiation. Unclear EMC roles and responsibilities led to challenges of harmonizing the narrow engagement conception based on environmental protection typical in environmental activists and NGOs with a broad engagement conception typical of government institutions (Jacobs, 1999). The BWP showed this conflict of conceptions especially given that some of the positions adopted by the project authorities, as government institutions, were contrary to those held by the environmental NGOs. Participation of stakeholders should therefore be organized to reconcile divergent conceptions of sustainable development through decisions reflecting adequate engagement based on the exchange of relevant information on issues, in a transparent process.

The EA explicitly required contributions of an I&APs entity into the EMP formulation and implementation, as was also required by DWAF, EIB and WCD, and the I&APs entity's early and continuous involvement in robust environmental auditing. The consultative processes of the EMC provided for project governance to embrace the principle of inclusivity enshrined in the engagement approach used on the project. As pointed out by WESSA, FES and WCNCB, the EMC representation was however significantly compromised due to the high proportion of representatives of government institutions and comparably low capacity of representatives from disadvantaged sectors, leading to decisions that affected equitable distribution of impacts and outcomes, such as the minimal implementation of products of the FFP, while compliance to the EMP was high. The competencies needed for effective communication, such as eloquence in debate and skill in negotiation, to ensure that decisions are informed by the materiality of the issues and concern, remained skewed to the interests of privileged members of society. Such weakness is common in democratic processes where those skilled in debate and negotiation triumph.

A critical evaluation of findings indicates that institutions of engagement contributed significantly to the effectiveness of engagement at the project phase. The flaws witnessed were attributable to their functional weaknesses like failure to fully acknowledge low voices of local stakeholders in the EMC and failure reconcile divergent opinions of TCTA and FES and WESSA on impacts of project on water quality, and differences in stakeholder expectations and opinions on what the institutions, especially

the EMC, should achieve. Indeed, the conflicts witnessed in the operations of the EMC are testimony to the fact that each stakeholder had an opportunity to represent their opinions, although the decisions taken did not always reflect the diverse values on what different stakeholders considered to be material to the decisions taken.

#### **4.3.2 Methods and levels of engagement at formulation and implementation of CEMP**

During the formulation of the CEMP, the issues brought up by interested parties were diverse yet justifiable in the context of informing equitable distribution of impacts and social justice. However, consensus on attainable objectives was not always achieved. For example, while the La Motte communities prioritized employment opportunities, farmers prioritized water quality, SAG prioritized environmental protection, and the project authorities prioritized sustainable water provision to the Greater Cape Town area. It is crucial in such a case to engage in order to reach decisions which reflect these diverse aspirations, and if not possible, then the decisions taken should be justified to show impartiality between all stakeholders. The decisions made should be clearly communicated based on the premise that engagement during EIA seeks to inform decision makers with objective information.

In the BWP, logistical support funded engagement events. The interviewee from WESSA's held that the reimbursing of direct costs such as transport was supposed to be consistent or should at least support the financially disadvantaged stakeholders in order to foster commitment to the engagement process. However it emerged that the chairman of the EMC was the only member remunerated for his services. In addition, the chairman's neutrality was doubted by some sectors, particularly comments by this interviewee that he was deceptively biased towards project authorities, which created perceptions of inequity and triggered hostility with other stakeholders.

While a balance needs to be found in applying communication that caters for the privileged and the underprivileged, this ideal was not fully attained for different stakeholders by the project authorities at some points in the process. The communication approach applied did not strengthen the 'soft' voices of the disadvantaged to the same level as those of the vociferous environmental NGOs. A lesson learnt is that the world of information is still divided, with the disadvantaged relying on rudimentary communication while the privileged depend on Western-centered communication approaches. Too often a Western-centric approach prevails such that information still remains a privilege of the advantaged. Apart from access, engagement should be designed to ensure information is equally useful for all stakeholders towards impacting decisions by making it accessible and meaningful to all.

Targets set unanimously were missed, which worked hand in hand with contentious issues in compromising the working relations of the EMC members. This was evident with SAG and downstream stakeholders who felt the delay in implementing river monitoring was a missed opportunity to test other alternatives to the project. Such instances provide opportunities to raise issues which are perceived to have been insufficiently dealt with. So, for example, the SAG revived their position that the decision process lacked sufficient identification of trade-offs, analysis and justification. TCTA felt the delay in enacting river monitoring was due to inadequate communication from the project proponent. The counter-accusations indicate that a lack of clarity and direction in

dealing with issues can significantly affect the perceptions of the affected stakeholder sectors, and if opportunities to address the drawbacks are lost this can result in compromised working relationships and frustration.

#### **4.3.3 Performance of the engagement process**

According to the theoretical framework, evaluation should appraise performance of the engagement process towards attaining procedural, substantive and transactive effectiveness of the EIA.

Procedural effectiveness was assessed by determining the extent to which due process was followed in appropriately engaging with stakeholders. Substantive effectiveness was assessed in terms of the outcomes and outputs of the process on decisions and the sustainability of the project, while transactive effectiveness was assessed by comparing the costs of the process to the contributions of engagement to the efficiency of the EIA process.

Procedurally, engagement offered adequate opportunity for stakeholders to inform decisions and for effective coordination to implement them. However being allowed to organize does not always translate to effective participation as was evident in the case of the delayed water quality baseline monitoring, where the implementer blamed it on flawed communication and the concerned sectors perceived it as intentional disregard of the issue. There are cases where issues and concerns of the stakeholders significantly informed decisions like the change of the dam design to ensure acceptable water quality to other water users. While environmental and civil rights groups applauded overall commitments to include stakeholder issues and concerns and to promote inclusivity, process flaws led to some stakeholders whose views were opposite to those of project authorities to further perceive the project authorities as undertaking engagement with ulterior motives rather than to have stakeholders inform project decisions. This is also possible when project decision-making processes do not explicitly identify, analyze and justify project benefits and impacts trade-offs. This became clear when the emphasis on short-term socio-economic benefits for surrounding communities appeared handy to obtain community buy-in with no specific procedures to realize the benefits which were not clearly stated beforehand.

The BWP shows that a positive convergence of political, economic, environmental, technical and cultural factors is needed to shape durable decisions that have broad legitimacy. A national governance framework should incorporate essential elements to set priorities for engagement to inform democratic decision-making. These elements should be included if they encourage decision-making on issues arising from stakeholders at the same time balancing competing interests, rights, and needs of those affected by the decisions. Interviewees from WESSA and some downstream farmers contend that the DWAF's public consultation guidelines placed insignificant accountability on how municipalities deal with participation outcomes that differ from government's preferred stance. The evidence cited by these stakeholders relates to those instances where government institutions chose loyalty to their informal alliances rather than exercising objectivity on issues, and having a bigger representation on the EMC which promoted their ideas where voting was concerned. However, it is difficult to assess how widely such views were held across all I&APs involved, and whether the controversies that arose were the result of poor communication or something else. The stakeholders whose expectations were not met perceived engagement as a managed process and those stakeholders were prone to critique the morality of the engagement.

There are opportunities presented by role players which can be used to ensure that significant engagement is attained. On the BWP the funding requirements and influence of institutions such as the WCD played a significant role in ensuring that stakeholders were engaged meaningfully. The WCD's emerging position on reforms in water governance towards improving water infrastructure development called for water provision targets with regard to I&APs, similar to South Africa's water governance provisions. The presence of the WCD secretariat in Cape Town provided enough opportunity for its engagement ideas to permeate into BWP decision-making. Also, the Berg River is an important water supply for agriculture in the area, and water quality was an important factor with regard to the quality of products mostly supplied to the European Union (EU) markets. It will be naive to disregard the influence of the European Investment Bank (EIB) on the project's development, which was motivated by interests in ensuring a positive cash flow from the project and the need to secure sustained quality agricultural produce from the area. The alignment with the WCD recommendations and the subsequent provision of funding by the EIB, constituting 47% of the project capital cost, could explain why South Africa had more than local political motivations for engagement in its water provision approach in this project. Indeed, the request for reporting on the progress in implementing the CEMP and the involvement of the EMC and the ECO by EIB (Haas et al, 2010) is a positive convergence of interests of a project role player with encouragement for continuous and meaningful engagement of stakeholders. It is critical for engagement to carefully maximize such opportunities with all stakeholders fully aware of such developments.

In terms of substantive effectiveness the engagement process significantly satisfied the setting of social, economic and environmental targets such as the FFP, IFR, ecological reserve and water quality. The audit and monitoring focused on compliance to the CEMP rather than the outcomes of such compliance in addressing social, environmental and economic impacts of the project.

The transactive effectiveness of the engagement process compared costs with outcomes, and the effect of engagement on the efficiency of the EIA process. There is a broad understanding among stakeholders that the cost of engagement was insignificant in relation to project capital costs. The report by Haas et al. (2010) indicated that the engagement cost was less than 1% of the project capital costs, which indicates that the engagement process was significantly effective when cost is compared with engagement outcomes. The distribution of costs however was questioned by the civil society and NGO sectors whose perception was that engagement events such as meetings, road shows and communication media were supported more than direct assistance to the stakeholders themselves as it was only the EMC chairman who got a transport allowance.

Given that the EMP audit mostly measured process outcomes of the CEMP, it is advisable to develop a mechanism which uses the outputs of compliance to inform the design of trade-offs between immediate and long-term project impacts. The trade-offs should be made to balance short, medium and long-term benefits and costs among stakeholders. Going forward, it is important to monitor the distribution of costs as well as the benefits, and establish approaches to reconcile environmental protection and social justice. An option for distribution analysis may be the consideration of two possible stances, that is, establishing an explicit mechanism for benefit sharing with the host community as a long-term partner and/or the possible contribution to impact management and mitigation by stakeholders who benefit from effective management of negative impacts. For some

issues the amount of time consumed and resolutions reached were not coherent, as too much time was consumed due to the bureaucracy associated with decision-making in the government institutions.

#### **4.4 Summary of chapter**

This chapter provides context by describing the natural and socio-economic setting and the project partnership arrangements which applied to the project. The stakeholder engagement initiatives which speak to the objectives of this research were assessed to establish the extent to which stakeholders adequately informed the CEMP development and implementation.

Stakeholder engagement at this phase of the BWP significantly concurs with the literature in terms of what it takes to ensure that the objectives of engagement were satisfied. Challenges encountered mostly revolved around varied perceptions and opinions of engagement. Interviewees provided retrospective opinions, with significant focus on how the exercise could have yielded better outcomes. Assessment of the initiatives indicates that engagement on the project was effective but there were opportunities to improve the process, especially if stakeholders had better understood their roles.

The BWP sheds light on the importance of engagement to inform the distribution of the benefits and costs of infrastructure provision, in addition to assisting in shaping decisions and empowering participants to engage in dialogue on views about available opportunities to enhance management of a development's impacts. The argument to this point is that stakeholders were actively involved in developing and implementing the CEMP, with both positive and negative outcomes. The BWP case illustrates the significance of effective communication practices for infrastructure provision as a way to deal with challenges arising from the complexity inherent in partnership approaches and co-operative governance.

# 5 Conclusion and recommendations on the BWP CEMP stakeholder engagement

This chapter first provides general conclusions on the Berg Water Project (BWP) stakeholder engagement, and some insights on improving stakeholder engagement towards an effective EIA process. This chapter collates findings of stakeholder engagement during the construction phase of the project by focusing on what were found to be success stories or otherwise in terms of performance of activities of engagement and project institutions for engagement. Recommendations are made on where improvements can be made in order to improve stakeholder engagement in EIA practice.

## 5.1 Conclusion

The research aimed to evaluate scope and effectiveness of engagement in contributing to mitigation of impacts at development and implementation of the BWP CEMP. As The BWP was developed when governance transformations were aligning to South Africa's transition to constitutional democracy the decision-making process for the project was bound to consider social, economic and environmental issues, both adverse and beneficial which impacted on stakeholders. The project was developed, and a significant EA precondition was the establishment the EMC, an I&APs entity, to adequately inform CEMP formulation and implementation decisions with stakeholder issues.

Concerning the aim of scope and effectiveness, a broad spectrum of stakeholders was engaged, and it was composed of local authorities, issue based NGOs, residential communities, representatives of society, the media and project authorities who had interest in and affected by decisions at the concerned project phases concerned. The scope was significantly broad to the extent that TCTA, the implementing agent, had to design a communication strategy for meaningful exchange of information with and among such a wider array of stakeholders. The stakeholder identification process ensured continued updating of the stakeholder database through communication which identified issues project raised with who raised them. The process was effective in that stakeholders had an opportunity to inform project decisions with issues through formal platforms provided by the implementing agent. Notable weaknesses included challenges in handling divergent opinions, which resulted in issues of trust and fairness being raised mostly against the implementing agent and the EMC chairman. Additionally the engagement process did not come up with explicit targets to ensure stakeholders fully realize socio-economic benefits from project decisions made, and the socio-economically disadvantaged groups were affected more.

With regard to the objective on project institutions for engagement on the project, the EMC, the BWP environmental responsibility structure and the TCTA Information Desk were formed and played a significant role in sourcing input from stakeholders and managing the risks associated with the social, economic and environmental impacts that the project brought into the area. The EMC provided a formal and organized way of feeding stakeholder issues into the project's formal decision-making processes. The environmental responsibilities portrayed in the organogram of

institutional arrangements enabled clear communication to occur between the EMC and other project role players, and the information desk allowed for spontaneous channeling of matters as they arose. The combined impact of these mechanisms fed into effective dialogue, risk management and improved outcomes of project implementation. The scheduled meetings ensured the EMC's commitment to its functions and its ability to reorganize itself into functional units. The ability of the EMC to utilize expert assistance in areas of low competence ensured that their capacity to engage was improved. The institutions assisted in building and maintaining workable relationships between all stakeholders.

The institutions and their functioning broadened the spectrum of stakeholders and approach beyond using engagement for instrumental value only. The formation of EMC ensured those affected and or with interests in the project were formally represented. The functioning of the EMC, the BWP environmental responsibility organogram and the TCTA information desk ensured issues, economic, social and environmental, arising from stakeholders and concerning the project were brought to relevant platforms for consideration before decisions were made.

With regard to the objective on levels of engagement and methods of engagement there was a significant concurrence of level of engagement applied and methods used to engage the stakeholders with the propositions of literature. The incidences identified such as resignation of the FVTT from the EMC speaks more of operational weaknesses including failure to effectively exchange ideas on issues of concern.

With regards to the objective on of procedural, substantive and transactive effectiveness engagement on the project was effective but with significant weakness on substantive effectiveness. Procedurally it managed to satisfy engagement objectives by ensuring that stakeholder issues informed project decisions and there was procedural compliance to the EA and CEMP. Substantive effectiveness was satisfied with regards to influence on decisions such as improvement of water monitoring arising from downstream stakeholders and production of the IEDF, but however lacked in setting explicit objectives of protecting the environment and equitable distribution of impacts. The cost of engagement was insignificant in comparison to the total project cost, partly due to the timely addressing of major project issues and engaging stakeholders at levels cognizant of their interests and influence on a project issue. The cost included sponsoring engagement events, financing the EMC secretariat's duties, and logistical support to improve the effectiveness of the engagement process.

The governance transformations in South Africa, and water infrastructure development transformation that was occurring at an international level, helped to ensure that engagement was seriously considered in the project. Influence from funding institutions also ensured that stakeholders were adequately involved through enforcement of contracts requiring reports on engagement as the project progressed. The researcher has identified the following as critical factors in the effectiveness of stakeholder engagement on the formulation and implementation of BWP CEMP:

1. Adopting governance arrangements with clear legal, funding and institutional provisions for stakeholder engagement

2. Establishing and maintaining relationships in partnership arrangements
3. Implementing context-based communication approaches to be used by the implementing agent
4. Establishing suitable institutions for stakeholder engagement, such as an I&AP entity
5. Scheduling frequent and organized meetings for the I&APs entity
6. Balancing diversity of stakeholders and complementary expertise and perspectives
7. Organizing logistical support for engagement events and stakeholders who have limited resources.

From this research it can firstly be concluded that the achievements of stakeholder engagement rely on establishing strategic objectives and adopting appropriate governance structures supported by legal and institutional provisions. Secondly, it is important that there is commitment by the project implementer to communicate relevant messages and information to stakeholders, which enables stakeholders to engage effectively towards attainable decisions. Thirdly, it is necessary to ensure that there are appropriate channels for formal representation of stakeholders' issues in a prescribed decision making process, coupled with early involvement of stakeholders, which can enhance the performance of the engagement process. Fourthly, the objectives of engagement have to be decided through participatory processes to ensure commitment from all stakeholders. Fifthly, and finally, stakeholder engagement should be used to coordinate deliberation on stakeholders' issues and concerns, to continuously add value to project decisions at different phases.

## **5.2 Recommendations for improving engagement during the implementation of other projects**

The following recommendations can address the challenges identified in this research on the implementation of stakeholder engagement, especially in EIA practice. It is fundamental to make use of legal, funding and institutional provisions in the strategic objectives of the governance approaches being advanced, so that the tactical implementation of EIA is built on a permissive governance atmosphere.

The timely identification of stakeholders and their issues assists in informing project decisions. This requires that the project implementer takes initiatives to engage with all stakeholders so that they can negotiate outcomes which integrate solutions to their issues into project decisions. The negotiation should be based on relationships that are built early in the engagement process, and the trust obtained in the relationship is necessary to address divergent perceptions without affecting project progress. It is advisable to set engagement objectives for involving stakeholders, and clearly set stakeholders' roles in attaining them.

The project implementer is advised to provide an enabling environment, focusing on being able to unearth any issues that are critical to the success of the project. There is a need to come up with specific activities where stakeholders need to be engaged, cognizant of their interests and influence on project decisions. There should be adequate measures to inform and manage perceptions of stakeholders on their expectations concerning the benefits from the project. It is advisable as far as possible to make use of legal instruments such as contracts to commit contractors to adequate

stakeholder engagement, with emphasis on the adequacy of capacity and logistical support to the engagement process, so as to ensure that commitment and focus is geared to improving the outcomes of engagement.

Methods of engagement should be matched with the level of engagement as informed from stakeholder analysis and mapping. Methods of engagement should be streamlined to attain objectives with identified stakeholders. Feedback should be handled carefully as it is critical in improving the engagement process.

In summary the researcher recommends that to improve stakeholder engagement in EIA, its practice should:

1. Allow for joint setting of engagement objectives and assign clear roles to stakeholders
2. Ensure that the level of engagement is informed by stakeholder analysis and mapping
3. Ensure that the project implementer takes initiatives to facilitate stakeholder engagement
4. Provide for logistical support and build adequate stakeholder capacity, and
5. Be able to contextualize stakeholder issues within the project.

These recommendations are intended to improve stakeholder engagement in the practice of EIA. Adaptive management of the process is required, especially with appropriate feedback responses. Information dissemination is an important aspect which when coupled with management of relationships and perspectives can position stakeholder engagement towards expedient outcomes.

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# 7 Annexure

## Annexure 1: Schedule of interview questions

1. Please describe your involvement on the Berg Water Project during the construction phase?
2. Please explain the process that was followed to develop the EMP for the construction of the Berg Water Project, touching on who was involved and when.
3. Were you aware of the objectives for stakeholder engagement on the project, and if so, how did you come to know about these objectives? Did you agree with these objectives, and why? And did the process satisfy the objectives?
4. What project institutions of engagement were designed for engaging stakeholders to satisfy the stakeholder engagement objectives during the development and implementation of the EMP, and on which of these were you involved?
5. How effective were these institutions in satisfying stakeholder engagement objectives? Provide examples to back up your statements.
6. To what extent did project decisions consider your input or input from other stakeholders during the engagement process, in terms of decisions taken during the development of the construction EMP? Did the project decisions relevantly consider issues and concerns of all stakeholders?
7. Did the implementation of the EMP give appropriate consideration to the issues raised by the stakeholders during engagement? Please support your answer using specific incidences.
8. What were the methods used to engage stakeholders, during the (a) development and (b) implementation of the construction EMP, and how effective were they? Please explain your answer with reference to particular examples where possible. To what extent did each method of engagement satisfy the engagement objectives?
9. Did the stakeholder engagement processes and procedures in this case present all possible opportunities for optimum participation? What could have been done better, especially addressing the EMC issue on indemnity?
10. Describe how the engagement process affected project costs and the speed with which project decisions were made?

## Annexure 2: WCD Guidelines for stakeholder engagement

*WCD guidelines for stakeholder engagement (Source: adapted from Fujikura and Nakayama, 2002)*

| Guideline number | Guideline                                                      |
|------------------|----------------------------------------------------------------|
| 1                | Stakeholder analysis                                           |
| 2                | Negotiated decision making processes                           |
| 22               | Independent review panels for social and environmental matters |

### **Annexure 3: DWAF generic public participation guidelines**

DWAF Generic Public Participation Guidelines (Source: adapted from DWAF, 2001)

| <b>Principle number</b> | <b>Principle</b>                      |
|-------------------------|---------------------------------------|
| 1                       | Inclusive involvement of stakeholders |
| 2                       | Integration                           |
| 3                       | Mutual respect among role-players     |
| 4                       | Continuity in participation           |
| 5                       | Consideration of multiple options     |
| 6                       | Flexibility                           |
| 7                       | Transparency                          |
| 8                       | Accountability and Commitment         |
| 9                       | Rights and Roles                      |
| 10                      | Accessibility of Information          |
| 11                      | Awareness Creation                    |
| 12                      | Capacity Building & Empowerment       |
| 13                      | Efficiency                            |
| 14                      | Suitability of Scale of Involvement   |
| 15                      | Feedback to and from stakeholders     |
| 16                      | Monitoring and Evaluation             |

## **Annexure 4: Evaluation questions for criteria to assess participation in an EIA system**

*Evaluation questions for criteria to assess participation in an EIA system (Source: Wood, 2003)*

### **Questions that need to be answered when assessing participation**

- Has participation taken place prior to, and following, EIA report publication?
- Has consultation and participation taken place prior to scoping, during scoping, during EIA report preparation, during review and following revision, during decision-making and during monitoring?
- Has a public participation strategy been initiated for each EIA?
- Are copies of EIA documents made public at each stage of the EIA process?
- Can copies of EIA documents be accessed free of charge or purchased at a reasonable price?
- Do confidentiality/secretcy restrictions inhibit participation?
- Are participation methods appropriate to the stage of the EIA process at which they were employed?
- Is funding of participants provided for?
- Are obligatory participants specified at various stages in the EIA process?
- Must adjoining authorities either local, regional national or international be consulted?
- Does published guidance on participation exist?
- Must the results of participation be published?
- Do rights of appeal exist at various stages of the EIA process?
- Does participation function efficiently and effectively?