

Wolfgang Kanz
P O Box 284
Nottingham Road
3280
19 September 2008

Attention:

Ms Tolksdorff
Ms Holt
Mr Geringer
Mr Teurlings
Ms Mokoena

cc. Ian Felton, Kim van Heerden

Review statement on the Mooi-Mgeni River Transfer Scheme Phase 2 (MMTS2) draft Environmental Impact Report

Please find below an assessment of the Mooi-Mgeni River Transfer Scheme Phase 2 (MMTS2) draft Environmental Impact Report (EIR). It is a great concern that the EIR has failed in certain aspects, detailed below:

- It has failed to address (or consider in some cases) the concerns raised by Interested and Affected Parties (IAPs)
- It has failed to address (or consider in some cases) pipeline route alternatives to a reasonable extent
- It has misrepresented (or failed to consider in some cases) the sentiment of IAPs along the pipeline route
- It has failed in terms of process
- It has ignored impacts related to the constriction camp and servicing requirements

In light of the above, it is strongly requested that the consultants include all the outstanding requirements in terms of the Environmental Regulations in terms of the Environmental Conservation Act, that serious cognisance of the DEAT and DAEA guidelines is taken and that IAPs are afforded an opportunity to review the additional information in the form of an amended draft EIR, which includes further scoping of the proposed pipeline route alternatives, circulated for comment before the final EIR is submitted to DEAT for decision-making.

Please note: The need for the transfer scheme is recognised and the review is not intended as an objection to the scheme taking place. The concerned IAPs however insist that due process is followed to ensure that the best options are adopted and the evaluation is comprehensive. Should the EIR be submitted in its current form, it is emphatically stated that every legal option available will be pursued to appeal any decision by the competent authority and that all land legal rights will be exercised to prevent the construction of the pipeline as proposed.

The IAPs strongly recommend that DWAF engage with the Environmental Assessment Practitioners (EAPs) to ensure that the deficiencies of the EIR are remedied – delays in the implementation of the pipeline will be experienced on account of the EAPs not complying with best practice environmental impact assessment.

Please note: The author of this review statement is an EAP himself, is aware of all requirements of the EIA Regulations, and has conducted numerous bulk water supply pipelines in his professional capacity. The deficiencies in the draft EIR are easily proven and an appeal against a decision based on the draft EIR and previous Scoping process is extremely likely to be successful.

We trust that you will afford this issue the due diligence required and look forward to reviewing the amendments in the next draft EIR.

Please review the following as part of this document:

Appendix 1: Correspondence received and reverted to the EAPs

Appendix 2: Engineering response to alternatives

Yours faithfully,
Wolfgang Kanz

Please note: The volume of information provided within the EIR (including specialist reports etc) has rendered the 4 week comment period very inhibiting i.e. more time should be allowed. It is therefore requested that an additional 2 week comment period is granted. This would allow for a more comprehensive review of the information and would ensure that all statements can be verified and reviewed by other parties, as represented below.

Representing:

Mr Dickson
Mr Parkinson
Mr Bettison
Mr Craggs
Mr Lawson
Mr Bauer
Mr Henry
Mr Croesser
Mr Jones
Mr Cameron
Mr Redhead
Mr Greene

and representing The Meadows Meander Estate recently approved 4 subdivisions

1. Introduction

The review statement is structured as follows:

- Review of the Scoping process and applicability to the present time
- Review of the assessment of alternatives conducted to date
- Review of the issues assessed in the EIR
- Review of issues not addressed by the EAPs
- General review of specialist work conducted and additional gaps in the document
- Conclusions and recommendations

It is requested that the EAPs apply their minds to all of the below issues raised and provide the following information:

- Why various issues / procedures have not been addressed / considered
- Technical information on why various issues / procedures have not been addressed / considered, detailing the merits or demerits of the latter
- What will be done to rectify this issue

2. Review of the Scoping process and applicability to the present time

2.1 Introduction

It is clear that a proper Scoping process of the proposed pipeline routes was not carried out. A scoping study was carried out in 2004, but this did not examine the proposed pipeline routes. It is therefore with great concern that the pipeline routes were not subjected to this exercise. This should have been carried out, for the following reasons:

- The issues associated with the proposed pipeline routes were never scoped
- The IAPs along the proposed pipeline routes have almost entirely changed since 2004 as the majority of the properties affected comprise new property owners
- The presentation to DEAT regarding the application for exemption from various requirements of the EIA process did not inform DEAT that the actual pipeline routes had never before been subjected to a Scoping process
- DEAT therefore provided any exemptions on a flawed basis and would have insisted on a Scoping process for the proposed pipelines if they had been made aware of this issue
- The lack of an adequate Scoping process has resulted in an inadequate consideration of alternatives and a lack of support from IAPs along the pipeline route
- A Plan of Study for Scoping of the proposed pipeline routes was never completed (GN 1183)
- In terms of the requirements of GN 1183, the following were not complied with in the 2004 Scoping, and were not provided to IAPs affected along the pipeline route:
 - (i) a brief description of how the environment may be affected along the pipeline route
 - (ii) a brief project description along the pipeline route
 - (iii) a description of environmental issues identified along the pipeline route
 - (iv) a description of all alternatives identified in terms of the pipeline route
 - (v) an appendix containing a description of the public participation process followed along the pipeline route, including a list of interested parties and their comments

- The competent authority never reviewed any information in respect of the proposed pipeline route in the 2004 Scoping process
- The time lapse since 2004 has resulted in a number of changes in the area, including approved developments and new issues, which were never scoped during the initial Scoping process
- In terms of process (Scoping) the original process did not consider the following issues (which have also not been addressed in the EIR):
 - (i) Property values
 - (ii) Security within secure estates
 - (iii) Future development potential
 - (iv) Impacts on existing infrastructure on properties (e.g. water pipelines)
 - (v) The merits and demerits of alternate pipeline routes
 - (vi) The number of homeowners impacted

It is clear that DEAT made a decision in terms of the exemption on limited information provided by the EAPs, and would have insisted on a proper compliant Scoping process had all the relevant information and consultation taken place. Furthermore, the exemption from having to scope the proposed pipeline routes should have been the subject of public participation itself to ensure a transparent process.

2.2 Please find below relevant information (actual content) obtained from the DEAT Guidelines on Scoping (comments by this author are included in *bold italics*) relevant to the EA process under the Environmental Conservation Act:

The terms of reference for the assessment phase will be based on issues and concerns raised during scoping; when issues are inadequately identified, the assessment will be of poor quality. A consequence would be further delays in decision-making while further environmental information is gathered and assessed.

It is the contention that issues have been inadequately identified and explored in terms of alternatives.

All who have a stake in a proposed activity are provided with the opportunity to contribute to the scoping process. When effectively done, it will involve the relevant authority, the proponent, other authorities, and interested and affected parties in discussions about the proposed activity and the issues it raises.

All who have a stake in the proposed activity have not had adequate opportunity to contribute to the scoping process; in fact, there was no scoping process in terms of the proposed pipeline routes.

The process for the identification of project alternatives must be documented, as well as the criteria used to evaluate these alternatives. Such criteria would include social, economic and ecological/biophysical issues.

A Scoping process was not conducted in terms of identifying alternative pipeline routes. Economic issues related to pipeline alternatives have not been considered in the EIR.

Scoping is typically divided into three phases:

- planning the scoping procedure;
- a process of stakeholder engagement to identify the key issues, and
- reporting on the terms of reference for the next phase of the assessment.

No such process was conducted in terms of the proposed pipeline routes.

In controversial cases which involve a wide diversity of stakeholders and perspectives, skilful and effective scoping increases the probability that the environmental assessment will satisfy all stakeholders, with agreement on rationale and criteria for distinguishing potentially significant issues from others.

IAPs along the proposed pipeline route are not satisfied with the environmental assessment. No agreement was reached on the rationale and criteria for impact assessment along the proposed pipeline routes.

According to DEA (1992), “scoping may well be considered the critical stage in the IEM procedure. The success of a proposal will be largely determined by the adequacy of the scoping exercise.” The scope of an environmental assessment is defined by the range of issues and alternatives to be considered, and the approach towards the assessment that will follow (DEA, 1992).

The scoping process in terms of the proposed pipeline route has been inadequate, in fact absent in terms of process requirements in regard to the EIA regulations under the Environmental Conservation Act.

Basic elements of Scoping

The characteristics of a scoping exercise are as follows:

- It is an open process that involves the authorities, proponent and stakeholders.

None of the IAPs along the proposed pipeline route were consulted in a Scoping process in respect of the pipeline route.

- Feasible alternatives are identified and selected for further assessment.

The level of detail in the assessment of alternative pipeline routes is totally unacceptable; alternatives have not been adequately identified and compared; the assessment of alternatives does not meet with guidelines from DEAT nor does it meet with international best practice.

- Important characteristics of the affected environment are identified.

Important characteristics along each of the potential pipeline alternatives have not been adequately identified and documented.

- Significant issues to be examined in the assessment procedure are identified.

This process was absent as the proposed pipeline routes were not Scoped adequately.

- It provides the basis for determining terms of reference for the assessment procedure.

The terms of reference for the assessment could not have been ascertained accurately in the absence of a Scoping process for the proposed pipelines.

Stakeholder engagement is a process of interacting with stakeholders, so that a range of views and concerns can be expressed to inform decision-making and help build consensus on the assessment process to be followed.

No consensus on the process of evaluating alternative pipeline routes was established. In minutes of a key stakeholder meeting the EAPs advise that consensus was reached – this is a gross misrepresentation of the actual proceedings of the meeting. Alternatives were discussed but no consensus was reached.

Both prior to, and at the outset of the scoping process stakeholders will have a strong interest in whether the issues they raise will be rejected, accommodated or validated by the process.

The EAPs have not adequately addressed issues raised by the IAPs concerned and are of the opinion that their issues are not being adequately considered.

The issues-focused approach to scoping takes care of such concerns when there is effective participation. This approach is implicit in the procedure described in the regulations for EIA in South Africa, issued in 1997 in terms of sections 21, 22 and 26 of the Environment Conservation Act 73 of 1989 (Weaver, *et al*, 1999). These regulations emphasize the need for wide I&AP consultation and review. With this approach, significant issues identified by I&APs in the scoping phase become the focus of environmental assessment, and it is therefore critically important that the views and perspectives of all I&APs are adequately represented in the process.

There was no Scoping process in terms of the proposed pipeline routes and therefore perspectives and views of the IAPs have not been adequately addressed. The regulations pertaining to Scoping have not been adhered to in regard to the proposed pipeline routes.

Outcomes of Scoping

The desired outcomes of scoping are as follows (Weaver, *et al*, 1999):

- Stakeholders have been effectively identified and incorporated into the scoping process.

None of the IAPs along the proposed pipeline route were involved in a Scoping process dealing with the proposed pipeline route.

- Alternatives for achieving the objectives of the proposed activity have been given due consideration.

Alternatives have not been given due consideration (please review later sections of this review statement).

- Closure has been reached on the significant issues to be addressed.

Concerned IAPs have not agreed to the proposed pipeline route and closure is far from being reached.

- The roles and responsibilities of various stakeholders in the process have been clarified.

There was no Scoping process that could achieve this.

- All participants have agreed on the process to be followed.

There was no Scoping process, and this was not achieved. A Pan of Study for the assessment of alternatives was not provided in a Scoping Phase to IAPs.

- Teams have been appointed to execute the work required, and provided with adequate terms of reference that are acceptable to all participants.

No terms of reference were provided to IAPs for the assessment of alternative pipeline routes.

The terms of reference for the assessment phase are based on the issues raised during scoping.

There was no Scoping process in terms of the proposed pipeline route, and IAPs were never afforded an opportunity to review any terms of reference within a Scoping process.

When significant issues are not identified and addressed, it will result in an inadequate assessment of poor quality (Wood, 2000). Scoping is typically considered complete when a document, which sets the terms of reference for the subsequent assessment phase and the process to be followed, is produced and reviewed.

A Scoping report was not produced for the proposed pipeline routes, and was therefore not reviewed. The EIA process therefore does not comply with the guidelines and best practice, and is considered inadequate.

Scoping involves all who have a stake in a proposed activity. Effectively done, scoping will involve the lead authority and the proponent in a dialogue about the project and the issues arising from it. This is supplemented by consultations with relevant statutory and non-statutory organizations, and I&APs (EC, 2001).

Scoping in this case has been deficient as no IAPs and key stakeholders had an opportunity to comment on the proposed pipeline routes in the Scoping process.

Interested and affected parties (I&APs)

Interested parties include those indirectly affected by a proposed activity, such as local, national and sometimes international NGOs, individuals and interest groups. They reflect a range of values that should be included in the scoping process and they can provide useful information to improve the effectiveness of this process. Those affected by the proposal have a major role in identifying issues and ensuring that local knowledge and values are understood.

IAPs were not consulted within a Scoping process for the proposed pipeline routes.

Their views should be taken into account when choosing between alternatives, in deciding on the importance of issues, and in framing mitigating measures, compensation provisions and management plans.

The assessment and consideration of alternatives provided by IAPs along the proposed pipeline routes have not been adequately considered, and the EAPs have not provided feedback on questions and comments made by IAPs (this is described in detail later on in the review statement).

The phases of scoping are typically divided into the following:

- Planning the scoping procedure.

No planning of the Scoping for the proposed pipeline routes was undertaken.

- A process of stakeholder engagement to identify the key issues.

No stakeholder engagement in terms of a Scoping process for the proposed pipeline routes was undertaken.

- Reporting on terms of reference for the next phase of the assessment.

No terms of reference based on a Scoping process were made available in terms of the proposed pipeline routes

The objectives for the process of engagement with stakeholders include:

- making information on the scoping process, and other supporting information, available to those whose views are to be obtained;

No IAPs were given the opportunity to be involved in a Scoping process in terms of the proposed pipeline routes.

- ensuring that I&APs understand what is being proposed, and why;

No IAPs were given the opportunity to be involved in a Scoping process in terms of the proposed pipeline routes.

- identification of the key issues to be addressed in the assessment;

No IAPs were given the opportunity to be involved in a Scoping process in terms of the proposed pipeline routes.

- prioritizing the issues by evaluating the potential significance of concerns raised from both a technical and a subjective perspective, taking into account the needs, values and importance of the affected environment to stakeholders; and,

No IAPs were given the opportunity to be involved in a Scoping process in terms of the proposed pipeline routes. During the impact assessment phase of the proposal technical detail was requested but was not provided by the EAPs. This technical

detail should have been included in the EIR and opportunity should have been provided to review this detail in the context of the other information provided in the EIR.

- development of a strategy for addressing and resolving each key issue

No IAPs were given the opportunity to be involved in a Scoping process in terms of the proposed pipeline routes.

Stakeholder engagement is thus critically important as a process for integrating diverse knowledge, expressed in various ways. This requires that stakeholder engagement practitioners take the time to become familiar with diverse stakeholders and their modes of expression to help them understand technical aspects under discussion and to ensure that any of their concerns that underlie issues can be uncovered (Weaver, *et al*, 1999). The terms of reference for the assessment phase are based on the issues raised during scoping. Inadequate scoping will therefore result in an inadequate assessment of poor quality.

There was no adequate Scoping process for the proposed pipeline routes, which has led to an inadequate assessment of poor quality. Key immediately affected IAPs were not present at the focus group site meeting conducted by the EAPs and therefore were not afforded adequate opportunity to present concerns in the context of a site visit. This has resulted in a bias towards certain alternatives without considering all alternatives equally.

In terms of assessing the proposed pipeline routes in this EIA process, the following information pertains (as provided in the EIR):

The EIA process from the old regulations was followed because the application has already been submitted in January 2004 (prior to the promulgation of the NEMA EIA Regulations on 21 April 2006 and entry into force on 1 July 2006). This report (Parts I, II and III) aimed to compile all the previous studies conducted on the Mooi-Mgeni Transfer Scheme into one report and update any missing information. In general, all the previous information was sufficient except for the new area of the proposed pipeline and the proposed quarry. (Source: Chapter 9-11 final Aug 2008, Page 33).

It is clear that a Scoping process had to have been conducted in terms of the proposed pipeline – this was not complied with.

3. Assessment of Alternatives

3.1 Please find below relevant information (actual content) obtained from the DEAT Guidelines on Assessment of Alternatives (comments by this author are included in bold italics) relevant to the EIA process under the Environmental Conservation Act

Consideration of alternatives is one of the most critical elements of the environmental assessment process. Its role is to provide a framework for sound decision-making based on the principles of sustainable development. Alternatives should be identified as early as possible in the project cycle.

No pipeline route alternatives were provided by the EAPs—the first time alternatives were shown was in the ER, although there was general discussion around alternatives at meetings. IAPs provided the EAPs with a range of alternatives, of which all have not been considered and made available for public comment.

The search for alternatives should be well documented and should take into account the views of stakeholders.

The search for alternative pipeline routes has not been documented to a reasonable level allowing accurate assessment and evaluation of which alternative is the best. The alternate route provided have not taken into account the views of all stakeholders.

Key criteria for consideration when identifying alternatives are that they should be “practicable”, “feasible”, “relevant”, “reasonable” and “viable”.

The EAPs have not provided documentation detailing why the preferred pipeline route is the best pipeline route in terms of the above criteria, taking into account the views of IAPs. A number of equally suitable routes have been provided to the EAPs; however, these have not been evaluated, and reasons for discarding these have not been provided.

Assessment of alternatives should include a comprehensive comparison of all potential impacts, both direct and indirect and cumulative, on the environment.

The alternative routes have not been subjected to a documented comprehensive comparison of potential impacts. This information has not been made available, although direct requests were made to the EAPs for this information.

The goal of evaluating alternatives is to find the most effective way of meeting the need and purpose of the proposal, either through enhancing the environmental benefits of the proposed activity, or through reducing or avoiding potentially significant negative impacts. The concept of alternative can be defined as a possible course of action, in place of another, that would meet the same purpose and need.

A number of alternatives provided by IAPs would serve the same purpose and need for the pipeline and are equally feasible, yet take into account the views of IAPs.

Consideration of potential alternatives in the EIA process is one of the most critical elements of the scoping phase (DEAT, 2002). Its importance is highlighted by Glasson et al. (1999) and by the Council of Environmental Quality (CEQ) in the United States, which describes the consideration of alternatives as the ‘heart’ of EIA (CEQ, 1978). By implication, alternatives are essential to the EIA process, yet they are often inadequately handled.

Alternatives have in this case been inadequately considered, which renders the ER inadequate, and further information and re-circulation of an amended ER with the additional information is a necessity.

It is not uncommon to find that feasible alternatives are omitted deliberately or that alternatives proposed by stakeholders are rejected without adequate justification.

Adequate justification has not been provided for the discarding of various alternate routes provided to the EAPs.

Due consideration of alternatives ensures that the EA is not reduced to defence of a single project proposal that is the desire of the proponent. Rather, it provides the opportunity for an unbiased, proactive consideration of options, to determine the most optimal course of action. An appropriate range of alternatives that would meet the stated need for and purpose of the project has to be considered.

The EIR has failed to comply with the above.

Failure to consider alternatives adequately at the outset is often symptomatic of a biased process that is intent on defending a project proposal.

The EAPs are requested to provide the required additional information for public review such that the above potential issue / contention can be obviated.

The manner in which alternatives to a proposal have been considered is often one of the contested areas of an EA. By contrast, recognition of the valuable role of alternatives implies a desire for transparency in the EA process and a willingness to explore all feasible options in an objective manner, with a view to facilitating balanced decision-making in order to achieve sustainable development.

The above has not been achieved by the EAPs.

There is extremely little information provided on the rationale and technical assessment of the proposed route alternatives. The below is a copy of the documentation related to alternative pipeline routes within the smallholdings between the dam wall and Gowrie provided by the EAPs:

Source: Issue & responses register

Three focus group meetings have been held – one with the Municipalities regarding water services, another with landowners on the pipeline route to look at alternative routes and the third with the Mooi River Irrigation Board (MRIB).

These meetings did not result in consensus on the proposed pipeline route.

WA Kanz Enquired whether details on the assessment of the pipeline route alternatives being conducted could be provided, as it would be interesting to see which criteria were used to evaluate which pipeline routing would be most suitable considering all environmental factors. *EAP Response:* Three focus group meetings have been held – one with the Municipalities regarding water services, another with landowners on the pipeline route to look at alternative routes and the third with the Mooi River Irrigation Board (MRIB). All registered Interested and Affected Parties will be supplied with all information regarding the proposed development and will have an opportunity to review all reports before it's submitted to the authorities for review. At this point in time final expropriation lines for the dam are not available as it will only become known during the expropriation process. The same applies for the pipeline route from the dam to its junction with the existing Mearns pipeline which has been established through negotiation with landowners but of which the exact coordinates of the servitude lines have not been finalised.

No negotiated outcomes have been achieved with landowners along the route. The IAPs along the route have not been provided with the criteria which were used to evaluate the

pipeline alternatives. The details of the comparative assessment of alternatives was not provided to the IAPs.

WA Kanz: Also enquired whether details on the Scoping Phase for the pipeline routing could be obtained. Mentioned that all those impacted by the pipeline would expect the alternatives assessment to encompass the guidelines as set out by DEAT.

No information on the Scoping Phase for the pipeline routing were provided; no Scoping has been conducted for the pipeline routes. Alternatives have not been assessed in compliance with guideline set out by DEAT.

Source: Final Aug 2008, chptr 6, sect 3, point 19

A final pipeline route has been identified after a number of alternatives were identified at the focus group meeting held on 4 June 2007 and following an intensive site visit on 11 June 2007.

The above is not a satisfactory process of determining alternatives. The merits and demerits of all alternative pipeline routes must be evaluated in an equivalent and transparent manner, and this process must be documented. This has not taken place. At least 14 landowners impacted by the pipeline route proposed by the EAP have not agreed to the proposed routing. To draw conclusions on the preferred route without a clear and transparent process describing the iterative process in arriving at the best pipeline route option is unacceptable. For this reason, the author requested this information from the EAPs – this has not been supplied.

The limiting factor is that along certain sections, the road, river and railway cannot be crossed from an engineering perspective.

The IAPs have confirmation from an independent engineering company (Kantey & Templar, Appendix 2) that the proposed road and railway crossing (as proposed in the pipeline alternatives from IAPs) can be crossed from an engineering perspective. The IAPs asked the EAPs for the technical detail on why the proposed crossings are not possible – this was not provided. Mr Brysiwicz also confirmed that the crossing adjacent to his property (the primary alternative provided by IAPs) was the initial preferred alternative historically. The above statement provided by the EAPs is therefore misleading and inaccurate.

The proposed route was chosen for the practical engineering reasons mentioned as well as the fact that it will go between the houses on Mr Dickson's property and in a 20m wide 'servitude' on Mr Bettison's property.

Mr Bettison is objecting to the proposed pipeline crossing his property. It will render his property value at least 20% of its current value and will render the remainder problematic in terms of future development potential. Furthermore, the proposed pipeline is routed through one of the last remaining areas of natural grassland in the Rosetta Urban Node and it would be preferable to avoid this grassland altogether. Mr Bettison was initially also offered compensation for the proposed servitude through his property, which has now also been retracted. This information has not been made available to Mr Bettison. Mr Bettison was last contacted approximately 10 months ago; this is completely unacceptable as he is a directly impacted landowner.

Residential developments have been taken into consideration when the route was designed.

The residential footprints have been taken into account, but the functionality and security of any residential estates along the route have not been taken into account. Residential developments along the proposed route are not in support of the pipeline going through their properties.

Source: Final Aug 2008, chptr 6, sect 3, point 19.5

The new pipeline will lead from the Spring Grove Dam wall in an easterly direction across various small-holdings. It will meet up with the existing pipeline east of the R103. A new pipeline will be constructed within the existing 25 wide servitude of aqueduct.

This describes the route but does not provide any clarity o the process followed in establishing the best possible alternative taking into account all biophysical, social and economic considerations.

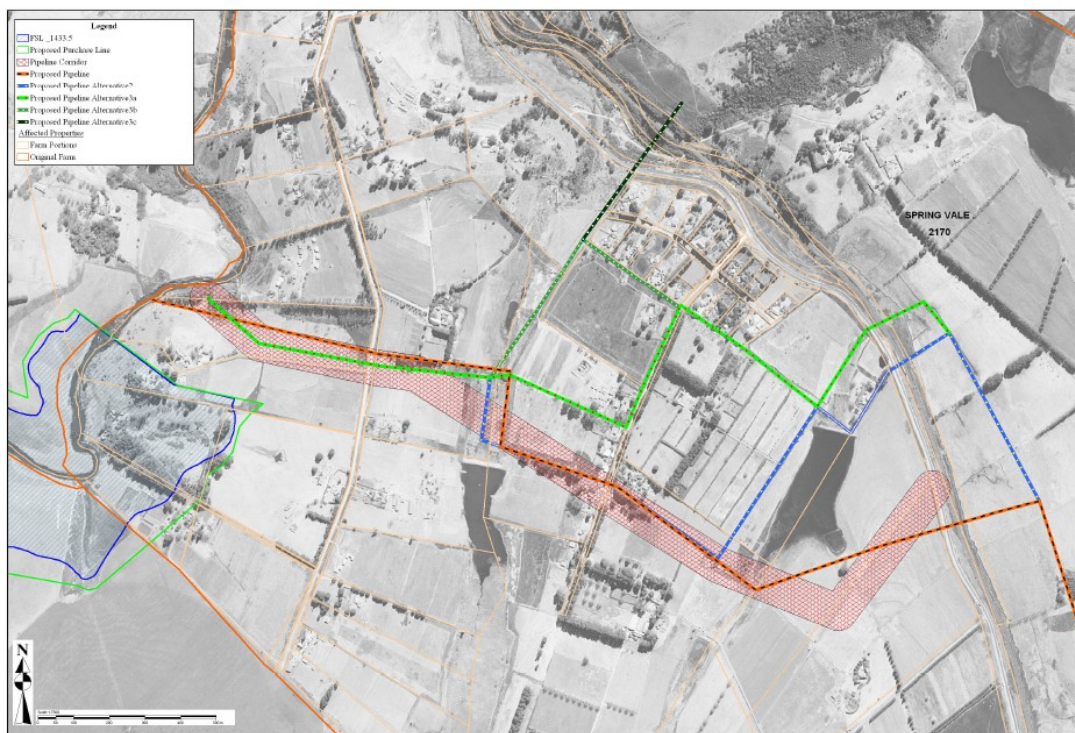
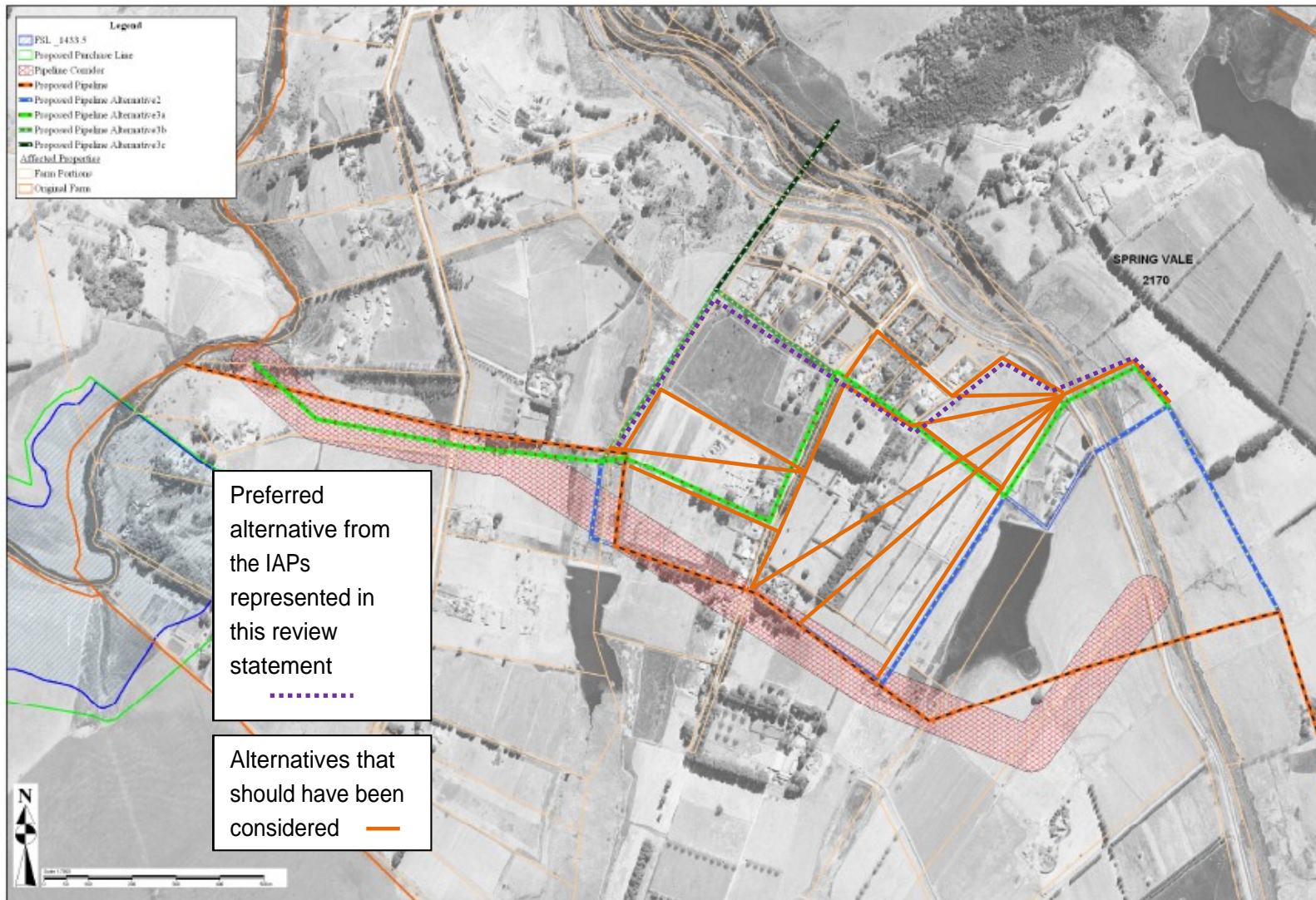


Figure 19.2: Alternatives for the proposed new pipeline route

The above is the map illustrating the alternative pipeline routes that were included in the map provided in the draft EIR. The pros and cons of each of the above route alternatives has not been assessed and no objective rationale or iterative process of elimination of various alternatives was conducted.

Furthermore, not all of the alternative pipeline routes provided by IAPs have been included; these are again provided below.

The EAPs have decided to cross properties rather than go along property boundaries; the latter is standard practice. In line with this, the EAPs therefore have to consider crossing all properties along the route diagonally across the properties rather than along property boundaries. A number of additional alternatives have therefore been provided that must be considered.

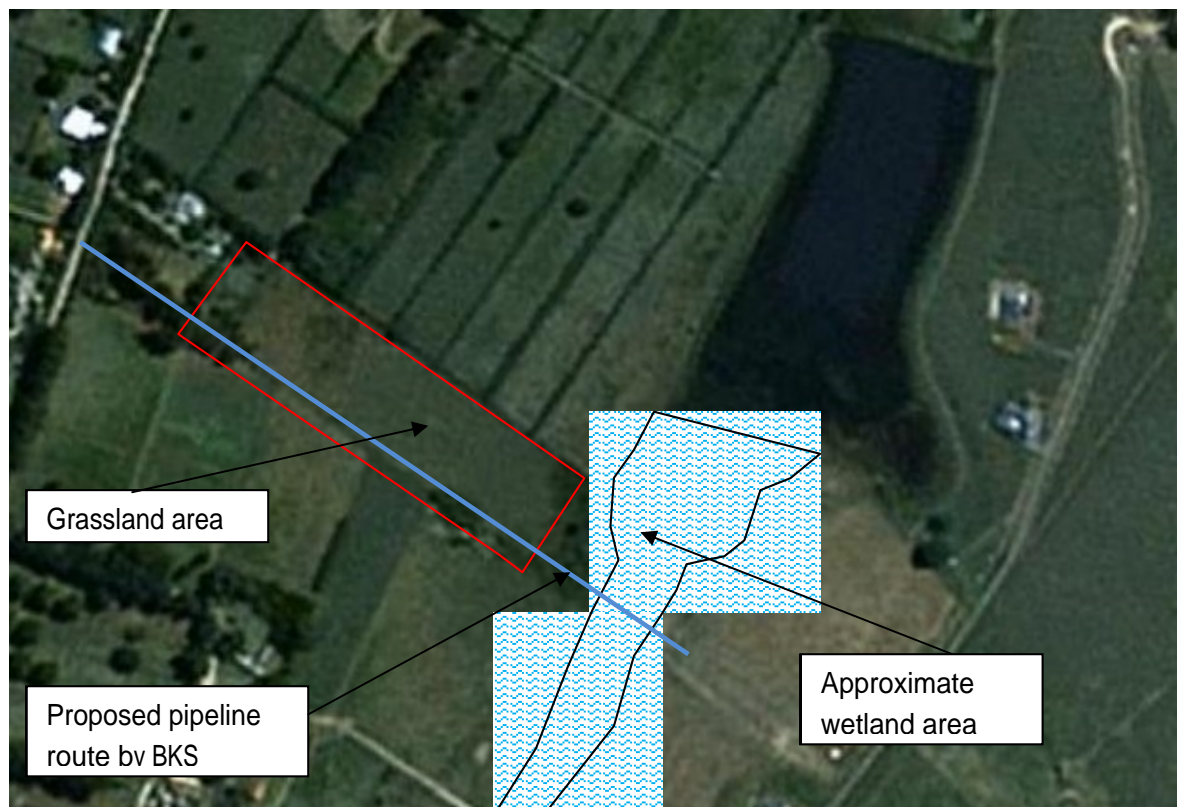


The EAPs are requested to reasonably apply their minds to the consideration of all alternative routes as above, as required by DEAT, DAEA and best practice.

Source: Annexure B Ecological Assessment, page 48

The assessment states that “A floristic survey where all plant species were noted” was conducted. The site visits to the pipeline (by the ecological specialist) were conducted on 7 and 8 May 2007, a time totally unsuitable for the identification of plants and assessment of vegetation (on account of dormancy of plants and limited opportunities for the identification of plants), apart from a very basic screening type of exercise. Indigenous grassland within Mr Bettison’s property has not been identified, clearly illustrating that the study was incomprehensive. The IAPs insist that if the grassland in Mr Bettison’s property is to be impacted that a botanical survey is conducted in November 2008 to ensure that no important plant species are impacted.

Please find below an aerial photo of the property concerned.



The ecological assessment also did not consider relative sensitivity of the alternative pipeline routes; the ecological study did not consider all alternatives noted in the EIR, and did not consider all of the alternatives presented by the IAPs. The IAPs insist that a comparative assessment of the alternative pipelines is carried out, as per accepted methodology and process.

Source: Final August 2008, chptr 4, Page 5

A second site visit was undertaken on the 18th of February 2007, followed by a 3rd visit on the 11th of June 2007 to research the pipeline alternatives.

The IAPs insist that the findings and detail of the process carried out in the iterative comparative assessment of pipeline routes is provided to IAPs in an amended draft EIR made

available for review. The criteria for comparative assessment are also requested again. A decision on the EIR cannot be made in the absence of proper environmental assessment.

Source: Final August 2008, chptr 2, Page

11.1.11 Alternative Pipeline Routes Identified

A focus group meeting was held (on the 4th of June 2007) with landowners affected by the MMTS2 regarding the pipeline route to look at alternative routes. Some problems and solutions were discussed until consensus was achieved about where the pipeline will run. For instance: the Mearns servitude will not be widened, but the new pipeline will be laid next to the existing pipeline.

No consensus was reached, however alternatives for further investigation were provided. The above statement by the EAPs is misleading and inaccurate.

The ALTERNATIVE pipeline routes that were considered are shown on the figure below:

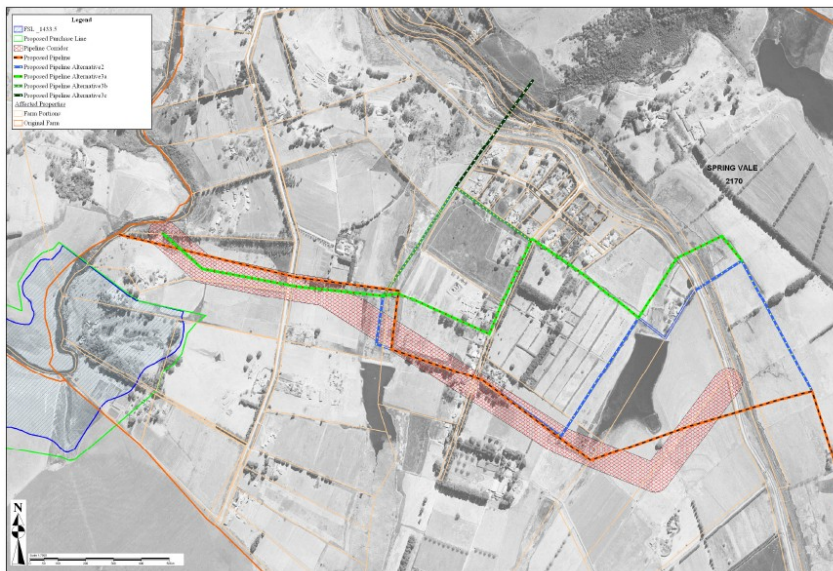


Figure 11.3: Alternatives for pipeline route

The above alternative pipeline routes do not include all pipeline routes identified by the IAPs. Furthermore, the EAPs should as a function of their work proactively investigate additional alternatives to augment those provided by the IAPs, and offer a assessment of all routes that can be reasonably considered. All of the alternative routes identified by the IAPs (as included in the map provided in this review statement) should have been assessed and a comparative evaluation of each route should have been undertaken. None of this information has been provided in the ER. The ER is therefore fatally flawed in its current state.

The Heritage Assessment, Economic study and Social Impact Assessment also did not evaluate the relative impact of each of the proposed pipeline route alternatives. All of the alternative routes identified by the IAPs (as included in the map provided in this review statement) should have been assessed and a comparative evaluation of each route should have been undertaken. None of this information has been provided in the ER. The ER is therefore fatally flawed in its current state.

Source: Annexure D SIA Transfer Scheme, page 1

The servitude for the new rising main pipeline section from the Spring Grove Pump-station to the Mearns pipeline (3km section) is set to be 100m wide to cater for alignment changes potentially required to limit social and environmental impacts.

The author has himself conducted EIA processes for a number of bulk water pipelines in KZN and this condition has never been required. It is the purpose of the EIA to identify social and environmental impacts, and the EIA has to inform the pipeline route to an extent that is acceptable to the environment. The final 25m servitude should therefore have been identified in the ER, backed up with sound reasons for the alignment. The current ER process therefore has not achieved its required outcomes.

No impacts related to developments were considered, including management of impacts arising as a result of intrusion into a secure estate. The impact of pipeline noise in the operational phase has also not been considered, and aesthetic mitigation measures for infrastructure required for the pipeline route have not been discussed with relevance to specific receptors. The current EIR process therefore has not achieved its required outcomes.

Source: 146-Min-04-pt-pipeline focus group 4 june 060707 rev4-4 oct

I Dickson asked if the pipeline route has been finalised.

P Tolksdorff noted that the pipeline route from the proposed dam wall to the existing Mearns servitude has not been finalised and that the purpose of this meeting is to obtain a route for this section with the input of the stakeholders. Mr P Teurlings briefed the group on the pipeline route from the dam wall to the Mpfana Weir.

The finalised pipeline route was not circulated for comment to all IAPs before inclusion in the ER. Comment should have been obtained by IAPs on the preferred pipeline route before inclusion in the draft EIR.

I Dickson requested details on the type and depth of the pipeline. P Teurlings replied that the pipeline will be a steel pressurised 1.4m in diameter and at a depth of approximately 1.5m or more. He also noted that the alignment of this section of pipeline is not fixed and the engineers require a 100m wide corridor area in which to finalise the alignment and design thus providing them with flexibility to miss trees, houses, etc.

The author has himself conducted EIA processes for a number of bulk water pipelines in KZN and this condition has never been required. It is the purpose of the EIA to identify social and environmental impacts, and the EIA has to inform the pipeline route to an extent that is acceptable to the environment. The final 25m servitude should therefore have been identified in the ER, backed up with sound reasons for the alignment. The current ER process therefore has not achieved its required outcomes.

W Kanz asked if the 100m will be the construction servitude. P Teurlings said that a 100m corridor is required for the design engineers, the servitude that will be registered will be narrower than the existing Mearns pipeline servitude, the latter being 25m. He also noted that only one pipeline will be placed in the servitude as the pipeline will be sized to provide the

maximum flow into the Mpofana River that being 4.5m³/sec (1.3 m³/sec from Spring Grove Dam and 3.2 m³/sec from Mearns Weir, or 4.5 m³/sec directly from Spring Grove Dam).

W Kanz noted that the construction width should not be more than 20m.

P Teurlings replied that it should be in the order of 7 to 10m.

W Kanz asked if the width of the final servitude could be minimised.

P Teurlings said the servitude will be minimised due to the associated costs but will not be determined at the EA stage. W Kanz asked who will ensure that the construction goes according to plan. P Teurlings noted that the appointed Environmental Control Officer will have to check the construction against the EMP.

W Kanz asked if the EMP will advise how wide the servitude should be. P Teurlings said the engineers can only finalise the width after the final design, post RoD.

The author has himself conducted EIA processes for a number of bulk water pipelines in KZN and this condition has never been required. It is the purpose of the EIA to identify social and environmental impacts, and the EIA has to inform the pipeline route to an extent that is acceptable to the environment. The final 25m servitude should therefore have been identified in the ER, backed up with sound reasons for the alignment. The current ER process therefore has not achieved its required outcomes.

W Kanz asked if the EMP will include pipeline maintenance controls. P Teurlings confirmed that the EMP will include operational and maintenance controls.

I Dickson suggested a second meeting should be held once the route has been finalised.

The EAPs did not comply with the above request; the finalised pipeline route was not circulated for comment to all IAPs before inclusion in the ER. Comment should have been obtained by IAPs on the preferred pipeline route before inclusion in the draft EIR.

He also asked whether the district road could be used. P Teurlings replied the district road route is longer and there are logistic issues of having a pressured pipeline within a road reserve.

The author has himself conducted EIA processes for a number of bulk water pipelines in KZN and pipelines have in many instances been preferred to be placed within roads and their servitudes. In some instances the pipelines have been routed in the centre of district and provincial roads. In case the EAP suggest that this is different in terms of a 1.4m diameter pipeline, the author has also been involved in projects where 1.4m diameter pipelines have been placed within roads and their servitudes. There are no pressure related issues.

He added that he would ask the engineers about this suggested route.

The EAPs never provided the IAPs with information on this route; IAPs request that this is provided in the amended draft EIR.

W Kanz asked if there will be alternative routes. P Tolksdorff noted that there are currently alternatives, and the stakeholders present today will inform the alternative and form additional alternatives.

The additional alternatives identified in the meeting were never adequately assessed and comparatively evaluated. This is a fatal flaw of the draft EIR and IAPs cannot be expected to provide reasonable comment in the absence of such information.

P Teurlings noted that the proposed route should be ideally sited along boundary fences.

This has not been done, although some of the identified alternatives offer this option.

He noted that no graves have been identified along the proposed routes and that the ecologist has identified a sensitive wetland area.

The ecologist missed some wetlands and the heritage consultant did not evaluate the alternate routes. The IAPs insist that the specialists complete their work for inclusion in an amended draft EIR for review by IAPs, which includes all the information required as the regulations and guidelines.

MOOI-MGENI RIVER TRANSFER SCHEME PHASE 2 (MMTS-2) PIPELINE LANDOWNERS SITE VISIT
MINUTES PIPELINE LANDOWNERS SITE VISIT MINUTES

Mr Kanz was not invited to this meeting, yet he is a directly affected landowner.

Mr Bettison noted that there is an approximate 20 m space between Bettison's fence around his house and the property border fence (at the blue gum trees). He also stated that he liked the trees and did not want them removed if the pipeline was laid in that area.

Mr Bettison did not consent to the pipeline crossing his property.

P Teurlings noted, next to the fence, on Greene's property is a covered reservoir and the dam at the bottom of the property (forming the border with Dickson).

I Dickson noted his concern about the reedbuck living in the bush on Bettison's property next to the dam. He stated that he is concerned that during construction and maintenance the reedbuck will leave. P Teurlings said they could move the pipe to Greene's side next to the bush. [Added comment: a bushbuck was unknowingly photographed on the currently vacant portion of land showing that the reedbucks move in and out of the area in spite of construction activities occurring in the area].

I Dickson asked whether they could rather put the pipeline along the D682. P Teurlings said the road servitude is too narrow and would cause too much disruption to landowners along the D682.

The EAPs consider the routing of the pipeline along the D682 to create too much disturbance to landowners along this road. By what measure has this been decided? Also, the temporary disruption must be weighed up against the permanency of a pipeline across non-state owned land. The D682 is not a busy road and a restriction to single land during construction would not be considered a significant concern. The disruption

would be short term and not a significant impact. The information provided by Mr Teurlings is incorrect and poorly evaluated.

The servitude within the D682 is not too narrow. In any case, the 5m no building servitudes within properties along the D682 would offer additional land for the pipeline, land which can in any case never be developed. Placement of the water pipeline in these areas would constitute no loss to anyone as this is effectively already 'dead land'. New water pipelines of this magnitude (e.g. the Umgeni DV Harris Water Pipeline 145cm in diameter) are about to be routed through suburbs in Pietermaritzburg; this is evidence that this can be done along a district road in a rural area. The author of this review has been involved professionally in this regard and the EAPs cannot dispute this fact.

I Dickson asked whether it would be possible to miss the existing and proposed properties on the property. P Teurlings showed that the pipeline could easily be constructed between the properties, missing the large tree but properly needing to relocate the pumphouse to a more suitable location on the property as shown on the final layout plan.

The pump house is linked to the borehole, not the dam. The pipeline would destroy or at least destabilise the borehole, which supplies the 9 residences on the property. This is an unacceptable impact and if the route was proposed to go through this section then a new borehole would be required that yields an equivalent amount of water. The water is also used on the adjacent property and Mr Bechard also has servitude to the water resources on the property. Any new boreholes drilled and installed with pumps would have to meet an equivalent yield as currently is the case – 36 000 litres per hour. If not, then all of the property owners would have to be compensated for this. The proposed pipeline route when going through Mr Kanz's property is also routed over a borehole on that property, which supplies the 4 new subdivisions on the Meadows Meander Estate. The pipeline would destroy or at least destabilise the borehole, which supplies the 4 residences on the property.

I Dickson said that Brysiewicz (Portion 92) has built a new dam downstream of Dickson's. P Teurlings stated that during construction the security fence will be maintained on both sides. A security company can be hired during pipeline maintenance. P Teurlings also noted that on Dickson's property there was an open space between the Eskom line and the boundary with Kanz's property. I Dickson said that his boundary fence was not correct and an electric fence will be erected 2m inside the current fence. He asked whether the pipe could cross Brysiewicz's property. P Teurlings said that he would investigate it later that day. [Added comment: following investigations on Brysiewicz's property, it is clear that no pipeline crossing is possible due to the steep terrain, rocky nature of the Brysiewicz property and lack of available terrain between the R103 and the Brysiewicz property.]

The IAPS have commissioned an independent engineer to evaluate the constraints on Mr Brysiewicz's property – the conclusions drawn are that the terrain is not too steep, that the geology is workable and that there is sufficient terrain between the R103 and Mr Brysiewicz's property. The above statement provided by the EAPs is therefore misleading and inaccurate.

Source: 146-Min-04-pt-minutes 2nd Public meeting 25june with slides

Meetings held – one with the Municipalities regarding water services and another with landowners on the pipeline route to look at alternative routes. P Tolksdorff said that some

problems and solutions were discussed and there is now some consensus about where the pipeline will run.

The IAPS did not consent to the proposed pipeline route alternative. The above statement provided by the EAPs is therefore misleading and inaccurate.

P Teurlings said that the limiting factor is that along certain sections, the road, river and railway cannot be crossed from an engineering perspective.

The IAPs have confirmation from an independent engineering company (Kantey & Templar, Appendix 2) that the proposed road and railway crossing (as proposed in the pipeline alternatives from IAPs) can be crossed from an engineering perspective. The IAPs asked the EAPs for the technical detail on why the proposed crossings are not possible – this was not provided. Mr Brysiwicz also confirmed that the crossing adjacent to his property (the primary alternative provided by IAPs) was the initial preferred alternative historically. The above statement provided by the EAPs is therefore misleading and inaccurate.

P Teurlings thus explained that the proposed route was chosen for the reasons mentioned as well as the fact that it will go between the houses on Mr Dickson's property and in a 20m wide 'servitude' on Mr Bettison's property. He added that it will then move through a wetland that was dug up by Mr Godwin. It will then move through Mr Warren's property. P Teurlings stated that the pipeline should ideally be a straight line to reduce economic costs.

The IAPs DO NOT accept this statement from Mr Teurlings. The above statement is essentially the sum total of the reasons provided by the IAPs for selection of the preferred pipeline route. The EAPs have not adequately applied their minds to the issue of pipeline alternatives. Information on the selection criteria for alternatives has been requested repeatedly, but this has been ignored by the EAPs. The IAPs therefore had to commission their own engineering review of the above conclusions, which have been shown to be inaccurate and misleading.

Further information on alternatives:

Stakeholder confidence is established when alternatives are considered in an open and transparent manner and there is public acceptance of the alternatives to be considered.

The EAPs have not complied with the above.

The role of alternatives is to provide a framework for subsequent decision-making by a competent authority (Glasson et al., 1999). The importance of their role cannot be overestimated. Full disclosure of all impacts associated with relevant alternatives provides the basis for sound decision-making based on the principles of sustainable development. Decision-makers should be provided with adequate information to enable them to determine the most acceptable alternative by making trade-offs between biophysical, social, economic, historical, cultural and political factors.

The level of information in terms of pipeline route alternatives provided to the competent authority in the draft ER is incomplete, inaccurate and misleading. No cognisance of guidelines produced by DEAT, DAEA or best practice internationally have been adhered to. This author sent the EAPs a copy of the DEAT guidelines as a point of reference, however this was ignored and the guidelines have not been complied with.

In route investigations, various corridors are investigated and compared in terms of their impacts.

This has not been carried out and documented in the draft EIR.

Alternatives should be identified as early as possible in the project cycle (e.g. during the pre-feasibility stage).

Alternative pipeline routes were disclosed too late in the process; in fact, there was not even a comment period in terms of the preferred pipeline route in a Scoping phase or within the EIR phase.

Identification of alternatives usually takes place during the scoping phase of the EIA.

There was no Scoping phase for the proposed pipeline in its current proposed position; this is a fatal flaw of this EIA process and any decision based on this EIR (without an adequate Scoping of the pipeline route) will be appealed.

The search for alternatives should be broad and objective and should be well documented.

The alternative pipeline routes, and consideration of alternatives, is extremely poorly documented, incomprehensive and totally inadequate in terms of evaluation and assessment.

Stakeholders should be consulted in the identification of alternatives and their views taken into account. Key criteria when identifying alternatives are that they should be “practicable”, “feasible”, “relevant”, “reasonable” and “viable”.

The alternatives provided by the IAPs comply with the above, yet have not been evaluated adequately and to a level required in a Scoping and Full EIA process.

Once all the alternatives are identified, it may be necessary to focus on a few and to eliminate others. The elimination process should be well documented and substantiated, with an explanation of why certain alternatives are not being considered in detail. It is usually possible in consultation with stakeholder groups to eliminate some alternatives.

The elimination process has not been well documented and substantiated. It has in fact been glanced over in cursory fashion by the EAPs.

A detailed analysis of potential environmental impacts should be given for each of the remaining preferred alternatives, as well as a consideration of technical and financial aspects as they also have potential impacts.

The EIR has not complied with the above.

Once a short list of options has been produced, each alternative should be evaluated. The final step in the process is to comparatively assess the alternatives.

A comparative assessment has not been conducted; this is a fatal flaw of the EIR.

Alternatives must be assessed and evaluated at a scale and level that enables adequate comparison with the proposed project.

The level of detail provided is too poor to make an informed decision on which pipeline alternative is the best option.

The discussion of alternatives should include a statement on the criteria used to select certain alternatives and how the level of investigation that was applied to each alternative was established.

The EIR does not comply with the above.

If an alternative was rejected, a full motivation should be provided.

The limited information provided by the EAP is inadequate, especially in light of an independent engineering report which shows that the EAPs conclusions are ill-founded and misleading.

No matter what method is used, it is important that the alternatives are compared in terms of all potential biophysical, social and economic impacts, both positive and negative. The effectiveness of mitigation measures should also be included. Technical and financial criteria are also relevant. The same evaluation criteria should be used for all alternatives. The comparison should be systematic and well documented and reasons for the preferred alternative given.

The evaluation of alternative pipeline routes does not meet with the above criteria, in that the EIR does not provide the following:

- ***A comparison of biophysical impacts associated with each alternative route***
- ***A comparison of social impacts associated with each alternative route***
- ***A comparison of economic impacts associated with each alternative route***
- ***A comparison of technical requirements associated with each alternative route***
- ***A comparison of financial requirements associated with each alternative route***
- ***A cost benefit analysis, both to the proponent and the public***
- ***The same evaluation has not been afforded to all of the alternatives***
- ***The comparison has not been systematic and well documented***

The EIR has failed dismally in terms of the requirements.

Consideration of alternative activities is a critical element of both EIAs and SEAs. Identification should take place during the scoping phase and should facilitate input from all stakeholders.

There was no Scoping phase for the pipeline alternatives. This therefore needs to be remedied.

The selection of alternatives is based on a comprehensive and participatory assessment of the full range of options.

This has not been complied with.

Social and environmental aspects are accorded the same significance as economic and financial factors in the assessment process.

This has not been complied with.

The assessment and evaluation of alternatives continues through all stages of project planning, development and implementation.

The EIA process excluded a Scoping of the proposed pipeline routes; the EIA process is itself flawed and has precluded the option of evaluating alternatives adequately.

3.2 Please find below relevant information (actual content) obtained from NEMA guidelines in terms of alternatives:

This document is Guideline 5: Assessment of Alternatives and Impacts in support of the Environmental Impact Assessment Regulations, 2006. It provides a basic guide to the assessment of alternatives and impacts which are key components of an EIA process. The purpose of the document is to create a common understanding amongst the different role-players what is required in the assessment of alternatives and impacts and alternatives.

The identification, description, evaluation and comparison of alternatives are important for ensuring the objectivity of the assessment process. In cases where there is no objective and thorough assessment of alternatives, the EIA process usually only confirms a chosen activity and the value of the assessments as an input to decision-making may be compromised.

The consideration of alternate pipeline routes has focussed on the original alignment rather than allowed for active and equal consideration of each alternative pipeline route.

The Regulations indicate that alternatives that are considered in an assessment process be reasonable and feasible. I&APs must be provided with an opportunity of providing inputs into the process of formulating alternatives. Once a full range of potential alternatives has been identified, the alternatives that could be reasonable and feasible should be formulated as activity alternatives for further consideration during the basic assessment or scoping and EIA process.

A Scoping process has not been followed for the proposed pipeline route. IAPs have not had an opportunity of informing the range of alternatives to be assessed during the EIA Phase of the process, and were not afforded an opportunity to review a Plan of Study.

The number of alternatives that are selected for assessment should not be set arbitrarily, but should be determined by the range of potential alternatives that could be reasonable and feasible and should include alternatives that are real alternatives to the proposed activity. The process of selecting alternatives should be clearly documented.

The above has not been complied with.

The assessment process should also be iterative where necessary to reflect the optimal formulation of alternatives.

No iterative and systematic process has been followed in the formulation of alternatives.

In order to justify the termination of the assessment, or further assessment of any alternative, it is, however, important to document the interactions and iterations properly. The assessment of alternatives should follow the impact assessment process described in the next section and should, as a minimum, include the following:

- the consideration of the no-go alternative as a baseline scenario (even in cases where the no-go alternative is not a realistic alternative);
- a comparison of the selected alternatives; and
- the providing of reasons for the elimination of an alternative

The above point has not been complied with.

The alternatives should be investigated to the same level of detail for the purposes of the comparative assessment of the alternatives. The comparative assessment should at least include the following aspects :

- capital and operating costs;
- direct, indirect and cumulative impacts;
- mitigation measures;
- physical, legal or institutional constraints; and
- compliance with policy and legal requirements

The above has not been complied with in respect of considering alternative pipeline routes and establishing the nest alternative.

The following should have been applied to all alternatives - Assessment of impacts include:

- identifying and assessing the potential impacts associated with a proposed activity and its alternatives;
- predicting the nature, magnitude, extent and duration of potentially significant impacts;
- identifying the range of mitigation measures that could be implemented to lessen the impacts of the activity; and
- evaluating the significance of residual impacts i.e. impacts that remain after taking mitigation measures into account

The above has not been complied with in respect of considering alternative pipeline routes and establishing the nest alternative.

There are different approaches that can be adopted to the undertaking of the assessment of impacts, but they should always be based on a methodology that includes:

- a clear process for impact identification, prediction and evaluation;
- specification of impact identification techniques;
- criteria for evaluating the significance of impacts;
- the design of mitigation measures to address impacts;
- defining types of impacts (direct, indirect or cumulative); and
- specifying uncertainties

The above has not been complied with in respect of considering alternative pipeline routes and establishing the nest alternative.

The main purpose of the assessment of alternatives and impacts is to provide the competent authority with relevant and objective information that will enable the authority to make informed decisions on an application for environmental authorisation. In order to achieve this purpose it is important that:

- methodologies that are used are clearly described so that it can be understood and considered by the competent authority and I&APs;
- methodologies and techniques are applied in such a way that accurate and objective information and/or opinions are provided;

- any issues raised by I&APs in respect of alternatives and impacts are addressed in the comments and responses report; and
- the assessment of alternatives and impacts results in options that represent the minimum impact on the environment.

The above has not been complied with in respect of considering alternative pipeline routes and establishing the best alternative.

4. Please find below relevant information (actual content) obtained from the DEAT Guidelines on the completion of EIRs

The function of the Environmental Impact Report (EIR), is, to help the responsible authority in making informed decisions. The EIR should accomplish the following:

- Documents and communicates, clearly and impartially:
 - (i) the context of the proposed activity;
 - (ii) the probable impacts and risks associated with the proposed activity and its alternatives; ***the latter has not been complied with in terms of alternative pipeline routes***
 - (iii) measures to mitigate and manage negative impacts and enhance benefits - associated with the proposed activity and its alternatives, and the residual significance of impacts if mitigation measures were to be implemented effectively;
 - (iv) the concerns of the interested public, authorities, and the communities affected by the proposal (***the concerns of IAPs along the pipeline route have not been adequately addressed***); and
 - (v) the level of confidence in predicting and evaluating impacts, any gaps in knowledge and areas of uncertainty which could substantially influence the findings.
- Forms the basis for stakeholder review. For this reason, the EIR must use simple language and be easily understood.
- Forms a sound basis for informed decision-making (***the absence of an adequate consideration of pipeline route alternatives renders decision-making in terms of the pipeline impossible***). In this respect, the EIR should give explicit, reliable and easily understood information to guide the decision-maker. ***The absence of an adequate consideration of pipeline route alternatives renders decision-making in terms of the pipeline impossible.***
- The EIR should enable the decision-maker to decide on an action in the best interests of society and the environment where appropriate, set relevant conditions of authorisation. ***The absence of an adequate consideration of pipeline route alternatives renders decision-making in terms of the pipeline impossible.***
- The EIR should thus give a clear indication as to the degree to which the proposed activity and its alternatives would be consistent with, contribute to, or detract from, sustainable development. A comparison of alternatives should highlight these considerations, and make explicit the tradeoffs between these different dimensions of development (Weaver et al 1998). ***The absence of an adequate consideration of pipeline route alternatives renders decision-making in terms of the pipeline impossible.***
- For any chosen alternative, provides a sound point of departure for the proponent in managing the impacts of the proposal in an environmentally and socially responsible way.

The soundness of an EIR relies heavily on the adequacy of the EIA process. If the EIA is conducted in accordance with current best practice, the preparation of the EIR becomes relatively straightforward. If, however, there is little consistency in the approach to assessing and evaluating impacts, and considering alternatives and mitigation, the preparation of an acceptable EIR is likely to be extremely difficult.

In this case, the pipeline route component of the EIR has not been conducted in accordance with current best practice, the EIA process has failed to include a Scoping Process of the alternative pipeline routes, and this has led to a poor evaluation of the alternate pipeline routes, and the adoption of a preferred alternative that is not considered the best alternative.

In addition, the proponent is responsible for providing sufficient relevant information about the proposed activity to enable reliable prediction, assessment and evaluation of impacts to be reflected in the EIR.

This has not been provided for the alternate pipeline routes. In this case no scope for the pipeline was assessed.

In terms of the EIA Regulations (R1183 of 5 September 1997, promulgated in terms of the Environment Conservation Act 73 of 1989), the contents of the EIR should be as follows:

- A description of each alternative, including particulars on:
 - (i) The extent and significance of impacts.
 - (ii) The possibility for mitigation of impacts.
 - (iii) Comparative assessment of alternatives.

A Scoping Process and comparative assessment of pipeline route alternatives has not been carried out. This is a fatal flaw of the EIA process in this instance, and renders the application non-compliant with the EIA Regulations. A plan of study is also required – this was never produced for the proposed pipeline routing.

According to the Department of Environmental Affairs and Tourism (1998), the assessment of impacts should be in terms of the nature of impact, extent, duration, intensity, probability. The significance of impacts is then determined through a synthesis of these aspects.

The alternative pipeline routes were not evaluated according to the above criteria.

In terms of South Africa's National Environmental Management Act, 107 of 1998 (NEMA), although the EIR contents are not prescribed, the minimum requirements of an EIA, to be investigated, assessed and communicated are given as follows:

Including -

- (a) Investigation of the environment likely to be significantly affected by the proposed activity and alternatives thereto; ***the alternative pipeline routes have not been investigated sufficiently***
- (b) Investigation of the potential impact, including cumulative impacts, of the activity and its alternatives on the environment, socio-economic conditions and cultural heritage, and assessment of the significance of that potential impact; ***the alternative pipeline routes have not been investigated sufficiently***

Assessment and Evaluation of Impacts and Risks of Project and Alternatives, this should include a summary of potentially significant impacts and their distribution, and comparative evaluation of alternatives. ***The latter was not carried out in terms of alternative pipeline routes.***

Potentially significant impacts and risks for each alternative, before and after mitigation or optimisation:

To cover -

- (a) Approach to evaluating significance and criteria used; ***this was not carried out in terms of alternative pipeline routes***
- (b) Positive & negative impacts; ***this was not carried out in terms of alternative pipeline routes***
- (c) Direct, indirect & cumulative impacts, during different phases of the proposed project; ***this was not carried out in terms of alternative pipeline routes***
- (d) Impacts of the proposed activity & its alternatives on the biophysical environment, including on important biodiversity areas, sensitive areas, unique or special areas; ***this was not carried out in terms of alternative pipeline routes***
- (e) Impacts of the proposed activity & its alternatives on the socio-economic environment, including on health and safety, lifestyle and livelihoods, cultural heritage, access to resources; ***this was not carried out in terms of alternative pipeline routes***
- (f) Risks accompanying different alternatives; ***this was not carried out in terms of alternative pipeline routes***
- (g) Impacts of the environment on the proposed activity and its alternatives (including hazardous, unstable or contaminated areas, disease); ***this was not carried out in terms of alternative pipeline routes***
- (h) The distribution of impacts, namely who would stand to gain and who to lose from the proposed activity, and whether the distribution of impacts was fair, giving particular consideration to vulnerable or disadvantaged persons; ***this was not carried out in terms of alternative pipeline routes***
- (i) Any impacts associated with proposed mitigation measures (eg noise barriers next to roads interfere with movement of threatened animal species); ***this was not carried out in terms of alternative pipeline routes***

Evaluation of Alternatives and Trade-offs:

Compare project & alternatives after mitigation, highlight significant impacts & risks, & trade-offs with respect to meeting sustainable development objectives:

- Implications of the proposed activity and alternatives should be systematically compared to enable the most appropriate option to be determined. ***This was not carried out in terms of alternative pipeline routes.***
- An explicit basis for choice of the most appropriate alternative should be established. ***This was not carried out in terms of alternative pipeline routes.***
- An evaluation of the degree to which the proposed activity and its alternatives would be consistent with, contribute to, or detract from, sustainable development objectives, including laws, policies, plans, standards, goals or targets at different scales is important. ***This was not carried out in terms of alternative pipeline routes.***
- The likely significance of positive and negative impacts, residual cumulative impacts, public acceptability of impacts; ***This was not carried out in terms of alternative pipeline routes.***

- The distribution of significant impacts among affected parties and associated equity and environmental justice implications; ***This was not carried out in terms of alternative pipeline routes.***
- Social sustainability implications (including health and safety aspects, livelihood implications), ecological and economic sustainability implications, as well as the probable effectiveness of mitigation measures, are often used to compare alternatives and evaluate trade-offs. ***This was not carried out in terms of alternative pipeline routes.***
- Trade-offs should be clarified. ***This was not carried out in terms of alternative pipeline routes.***

The identification of reasonable alternatives in the ER is often inadequate (Lee et al, 1999). Deficiencies often arise when the EA process has been started too late in the project cycle (***as is the situation in this instance***), and the proponent has already focused on a specific activity rather than considering an appropriate range of options (***this appears to be the case in this instance***).

Alternatives are frequently too narrowly stated, and often do not give due consideration to the full spectrum of possibilities (Netherlands EA Commission in UNEP, 2002) cycle (***as is the situation in this instance***). In Sri Lanka, the best alternatives have been known to be deliberately avoided, and non-viable alternatives are superficially covered instead (Zubair, 2001) cycle (***as is the situation in this instance***). Lack of reasons for rejecting alternatives proposed by stakeholders is another common problem cycle (***as is the situation in this instance***).

ERs are expected to provide sufficient reliable and relevant information to stakeholders (including decision-makers). ***This has not been provided within this ER in terms of the alternate pipeline routes.***

A sound EA provides the basis for a good ER. Many of the shortcomings in ERs noted in South Africa and elsewhere in the world stem from a poor EA process. ***In this case the EA process has omitted to include a Scoping process for the alternative pipeline routes.***

In order for the ER to act as an effective communication tool, the information contained in the ER must be relevant, reliable and adequate enough to help decision-makers and other stakeholders to understand the implications of the proposed activity. ***The decision-makers have not been supplied with enough information in the draft ER to make an informed decision on alternative pipeline routes. IAPs reviewing the EOR have insufficient information to provide comment. An amended draft ER needs to be circulated for review.***

5. Failure to address concerns raised by Interested and Affected Parties

5.1 Reason for objection to the draft EIR in terms of the proposed pipeline route alternatives, and request for an amended draft EIR made available for circulation – questions and comments provided to the EAPs have not been addressed; the copies of the correspondences sent have been included in Appendix 1:

- Emails had to be sent, sent again and resent before any correspondence was received, and in most cases the information requested was not received and the issues raised have not been addressed in the EIR. The EAPs have not met their obligations in terms of public participation.
- The EAPs were asked for shapefiles of the proposed pipeline and the dam on three occasions; this was to be used for informed review of the issues at hand. This was not provided. The EAPs have not met their obligations in terms of public participation.
- The request was made to the EAPs to route the pipeline along property boundaries rather than through properties. Mt Teurlings agreed with this philosophy. However, the pipelines have been routed through various properties rather than along property boundaries.
- If properties are to be crossed then there are a number of other routes that could be considered. Therefore one would need to consider crossing other properties along the route, not just Portion 174 and 175. If one is proposing to cross lands, then there are far more direct routes. W Kanz provided additional routings to those already proposed, based on the following:

Ecological impacts (covered by Exigent)

Nuisance impacts (covered by Kay Brügge)

Crossing of Spruit

Existing damage of wetlands

Engineering impacts (avoidance of deep trenches, minimal 90° bends).

This was not been done.

- In terms of pipeline impacts, W Kanz asked the EAPs to add the following to their list of impacts to be considered:
 1. Reduction of property values on account of servitudes
 2. Area of wetland traversed
 3. Length of pipeline

The above were not included in their evaluation.

- W Kanz also asked the EAPs to also note the number of existing servitudes already on his property (two Eskom powerlines, with 12m and 30m servitudes respectively). More servitudes would further prejudice Portion 175 of Springvale and would render one of the four recently approved subdivisions unsalable on account of geometry of servitudes reducing developable areas. DWAF would have to

expropriate the entire plot at market value if the pipeline is to traverse across the middle of this new subdivision.

- Mr Kanz added that whilst deep trenches are an additional cost, in terms of environmental impacts such structures are easily rehabilitated with an effective EMP. There may be some implications with regards to maintenance, but then this is predicted to take place only in about 25 years time so this should not be an issue in the short to medium term. Deep trenches are therefore considered a cost implication rather than a significant environmental impact. The same applies to 90° bends, provided you retain enough flow. Mr Kanz asked for information on how many 90° bends are feasible on this pipeline before it becomes problematic in terms of flows, and asked for the technical detail in support of this (if this is the case). This information was not supplied and the questions posed were not responded to. The EAPs have not met their obligations in terms of public participation.
- Mr Kanz asked when he was advised of the landowners site visit. The EAPs did not provide this information even though it was requested of them.
- Mr Kanz enquired in terms of the 'problems' associated with Mr Brysiewicz's property. Mr Kanz advised that there were no valid reasons for not considering the latter property. An engineer's report was requested providing reasons for the technical unsuitability of the property. An engineer's report to the contrary was produced. The EAPs did not respond to the requests for the above information. **No substantive information has been provided to eliminate any alternative pipeline routes**
- Mr Kanz clarified issues related to inserting a pipeline into the D682 and requested comments in this regard. The EAPs did not respond to the requests / information provided in this email.
- Information re economics was requested. The EAPs did not respond to the requests / information provided in this email.
- A concern was expressed that alternate routings were not being afforded equal attention to the preferred routing. It was requested that all conclusions drawn in the EIR are addressed on a technical and landowner sensitive basis, not purely an economic basis. The draft EIR does not address the above issues / concerns. The alternative routes have NOT been afforded equal attention, as was anticipated.
- A copy of the Plan of Study for the assessment of the proposed pipeline route was requested, such that IAPs are informed as to how different routes are being evaluated, compared and assessed. The EAPs did not respond to the requests / information provided in this email.
- The EAPs were made aware of an additional wetland along the preferred pipeline route, such that this would be included in their study. The draft EIR does not address the above issues / concerns.
- A number of alternatives were provided to the EAPs. However, all of these have not been evaluated, and no substantive information has been provided justifying their termination.
- The objections raised by Mziki and other IAPs along the route have not been catalogued. This is especially worrying as the EAPs have mentioned a number of times that there is consensus on the preferred pipeline routing. It is reiterated that the parties represented in this review statement strongly object to the preferred route as described in the EIR, and will adopt all possible legal measures to ensure that the proposed pipeline is not routed as proposed in the preferred layout in the EIR.

- Technical details on the alternate pipeline routers were requested a number of times – none has been forthcoming from the EAPs.
- The impacts (social and economic) on the gated estates needed to be quantified and evaluated. This has not been done.
- The procedures that will be enacted if the proposed pipeline impacts in exiting service infrastructure within properties. This has not been quantified.
- The issue of access for the water service provider is of concern. The owner of the Springvale property (where the existing Mearns pipeline is routed) has expressed significant concerns regarding the conduct of service providers working on the pipeline (for maintenance etc). The routing of the pipeline through state land (such as the road and rail reserve) therefore merits due consideration. . This has not been done
- It was requested for quantification of the time frame for a length of 1km of pipeline to be laid? This was not provided.
- The EAPs initially advised property owners along the route that there would be compensation for the servitude. This has not materialised. The water service authority will have to expropriate the land if it wishes to route the pipeline across the preferred route as currently proposed.
- Mr Kanz requested details of the assessing officer from DEAT that is dealing with the application. This was not provided.
- Details of the assessment of pipeline route alternatives were requested. Information on the criteria being considered in the evaluation was requested. This was not provided.
- A list of alternative routes being considered (preferably mapped) was requested. This was not provided
- Mr Kanz's objections have to the proposed pipeline have not been included in the comments and responses report.
- Mr Bannister's objections have to the proposed pipeline have not been included in the comments and responses report.
- Mziki's objections have to the proposed pipeline have not been included in the comments and responses report.
- Mr Greene's objections have to the proposed pipeline have not been included in the comments and responses report.
- It was requested that information on the Scoping process undertaken in terms of the pipeline routing be provided. This was not provided.
- The DEAT Guidelines in terms of the assessment of alternatives were provided to the EAPs to guide this component of the study; this was ignored for the alternative pipeline routes.

5.2 Reason for objection to the draft EIR in terms of the other issues, and request for an amended draft EIR made available for circulation – questions and comments provided to the EAPs have not been addressed; the copies of the correspondences sent have also been included in Appendix 1:

Comment sent to EAPs:

I have been advised that it is planned for 500 new houses to be built on Shonalanga and an adjacent property for the construction period and that these houses would thereafter be made available to the municipality. Please confirm whether this is the proposal. It sounds too large, but I would like to comment in this just in case. **Confirmation was not received in this regard.**

Response by the EAPs:

This matter is yet to be negotiated and resolved. **Confirmation was not received in this regard.**

Comment sent to EAPs:

There may well be a need for some municipal offices in Rosetta (possibly 10) and there is a requirement for low income housing in Rosetta, with the number being approximately 40 to 50 units (these are the only figures that I have heard). Whilst it is recognised that the building of a number of units that will be equivalent to the number required in the short to medium term (possibly 60), building of 500 units (ultimately for permanent occupation) would result in in-migration, a higher impact on services, a requirement for schools, and a large population of temporary residents, probably comprising mostly single men and women. This sort of demographic is prone to disorganised and unsettled occupation, and would likely have a large impact on the area, including the town centre. There is a large unemployed population in Bruntville that is in need of work (please see attached Social Impact Assessment for parts of the Mooi River area - approx 3 500 people are unemployed in Bruntville alone). It would make more sense to commit the funds that would be required for around 400 houses to establishing a better transport system between Mooi River and Nottingham Road to allow for unemployed people to gain access to places where work opportunities exist (such as Nottingham Road and Rosetta) rather than encourage the translocation of people. The SIA was done for a particular development, however addressed broad level socio-economic conditions too. Your social impact assessment will reveal that public transportation is a problem in the area and that a municipal bus service is required (this is corroborated by the attached SIA). In this regard, the R 22 million investment that would be required for 440 houses would be better spent on a municipal bus service / BEE opportunity that addresses this shortfall in the Mooi Mpfana Municipality. All labour that cannot be sourced from the local population should without doubt be transported into and out of Rosetta daily at a subsidized "bus fare". This would afford the municipality a bus service from commencement of the project and into perpetuity. An upgrade of clinic facilities would also be a good form of social investment.

Response by the EAPs:

DWAF has never stated that it wanted to build low cost houses on Shonalanga. A temporary compound will be erected for construction purposes on site and removed at the end of the construction period or utilising existing accommodation at Bruntville if available. DWAF is not in house building industry and would want to avoid it if other options exist.

Surely this should be a component of the Social Impact Assessment and the Corporate Social Investment opportunities that this project offers. Why has this issue not been addressed in the draft EIR and Social Impact Assessment? The social impact assessment has also not considered the transport issues identified above as a potential Corporate Social Investment opportunity.

Comment sent to EAPs:

There is a need for an upgrade of the sewage and water treatment works in Rosetta - would these be upgraded as part of the proposed dam construction? I anticipate that the effluent generated on the site would require a treatment works rather than septic tanks. Please confirm what is currently proposed, and how you would be addressing this in the EIA. The R22 million that would be required for 440 houses would be better spent on such service infrastructure. The tarring of the access road to the dam wall could also be included in such funding.

Response by the EAPs:

No response was received.

Comment sent to EAPs:

In terms of sewage and water treatment works, if such works are proposed, it stands to reason that these be designed to be able to cope with Rosetta's current and future predicted demands. Is this the case?

Response by the EAPs:

No response was received.

Comment sent to EAPs:

Please provide a method statement on how labour will be sourced from the local population, including means of identification and procurement procedures that ensure economic benefits accrue to the local population rather than outside service providers and contractors (this should form part of the EMP).

Response by the EAPs:

No response was received.

Comment sent to EAPs:

Please advise on procedure for the appointment of an Environmental Control Officer that would audit the implementation of the project.

Response by the EAPs:

No satisfactory response was received.

Comment sent to EAPs:

Please advise if there will be remuneration to businesses that will not realistically be able to operate as a consequence of the construction of this dam. I have attached my previous comments to you. I assume these will be addressed in the draft EIR.

Response by the EAPs:

No satisfactory response was received.

6. Assessment of impacts of the construction camp and its servicing requirements

It is with great concern that the impacts from the construction camp (apart from generic statements in the social impact assessment) have not been identified adequately and have not been addressed in the draft EIR; **the specifics of the construction camp have not even been provided**. The following has been provided:

“The construction camp will ***very likely*** include some worker accommodation; a site office(s); stores; building materials (cement silos) and construction (plant) equipment; and lights (for security purposes).”

This statement provides no empirical data – **this is not acceptable in terms of evaluating impacts**.

For example, the provision of water to the construction camp and other workers associated with the project – no mention of this was found in the draft EIR and either of the Social Impact Assessments.

The issue of sewage disposal is another issue of concern. How is the predicted volume of sewage from the construction camp going to be treated? What are the volumes predicted? Where will the sewage be treated and disposed of? Is there capacity within the proposed sewage treatment facilities? The draft EIR does not address these issues, which are significant considering the lack of capacity within Rosetta to supply water and treat sewage. The amended draft EIR must address these issues.

The amended draft EIR (impact assessment) must also address the visual and social impacts (including changes in property values and safety and security) that will be associated with the construction camp and increased activity on the roads used.

The construction camp is likely to be in place for a period in excess of 2 years. The draft EIR must address the impact of the construction camp as a semi-permanent issue.

Please note: The impacts associated with the construction camp / facility must be addressed as part of this EIA, and it is insufficient to merely denote management recommendations to these aspects. These are significant concerns for IAPs residing adjacent, and the impacts need to be evaluated.

The details of the construction camp have not been provided. Considering that this will comprise an (i) alternate use to Agriculture on the property (a listed activity in terms of the Environmental Conservation Act), and (ii) the construction of new roads, **the establishment of the construction camp must be evaluated within the EIA**.

7. Conclusions and recommendations

The draft EIR has not complied with the regulations regarding Scoping and Environmental Impact Assessment, both in terms of the Environmental Conservation Act and National Environmental Management Act. This is the case both in terms of the requirement of a Scoping Process within an environmental impact assessment, and in terms of assessment of alternative pipeline routes. The draft EIR has also not complied with all DEAT and DAEA guidelines, as well as an international best practice in terms of the Scoping Process and the requirements for the assessment of alternatives, specifically the assessment of alternative pipeline routes.

It is strongly recommended that the draft EIR is amended to include the missing information, and that the alternative pipeline routes are adequately scoped before the amended draft EIR is submitted for additional review.

The competent authority has not been provided with the required information to enable informed decision making in terms of which alternative pipeline route is the best solution. The impacts of the construction camp. This missing information must be provided such that IAPs and stakeholders have an opportunity to review the findings and provide meaningful comment in terms of a draft EIR.

If the EAP does not comply with the above recommendations, and specifically does not afford IAPs with an amended draft EIR for review, the author is of the opinion that the IAPs represented in this review will have an exceptionally strong position in terms of making a successful appeal to the Minister (if DEAT provides a positive Record of Decision). This is amplified by the fact that the EAPs have not addressed all of the concerns and issues raised by the IAPs.

8. References

CEQ (Council on Environmental Quality) (1978) National Environmental policy Act, Implementation of procedural provisions: final regulations. Federal register 43 (230), 55977-56007. 29 November.

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DEAT (2002) Scoping, Integrated Environmental Management, Information Series 2, Department of Environmental Affairs and Tourism (DEAT), Pretoria.

DEAT (2004) Criteria for determining Alternatives in EIA, Integrated Environmental Management, Information Series 11, Department of Environmental Affairs and Tourism (DEAT), Pretoria.

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Glasson, J., Therivel, R. and Chadwick, A. (1999) Introduction to Environmental Impact Assessment, UCL Press, London.

Lee, N., Colley, R., Bonde, J and Simpson, J (1999) Reviewing the quality of environmental statements and environmental appraisals, Occasional Paper Number 55, EIA Centre, Department of Planning and Landscape, University of Manchester

Weaver, A., Morant, P., Ashton, P. and Kruger, F. (1998) Strengthening the effectiveness of EIA in South Africa. Paper represented at the International Association for Impact Assessment – South Africa (IAIA-SA) Conference, Conference Papers and Notes, Drakensberg, 300 – 310.

Weaver A, Rossouw N and Grobler D. (1999) Scoping and “Issues-focused” Environmental Impact Assessment in South Africa, African Journal of Environmental Assessment and Management, 1, 1-11.

Wood, C. (2000) Screening and Scoping, In: Lee, N. and George, C. (eds.), Environmental Assessment in Developing and Transitional Countries, John Wiley and Sons, Ltd.

Zubair, L. (2001) Challenges for EIA in Sri Lanka, Environmental Impact Assessment Review, 21, 469-478.

DEAT (2006) Guideline 5: Assessment of Alternatives and Impacts in support of the Environmental Impact Assessment Regulations, 2006. Integrated Management Guideline Series, Department of Environmental Affairs and Tourism (DEAT), Pretoria

Appendix 1 Correspondence sent in terms of the above issues

----- Original Message -----

Subject: [Fwd: [Fwd: Re: Fw: MMTS2 - Map of the pipeline route]]
Date: Thu, 22 May 2008 11:40:09 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Paula Tolksdorff <Paula@cymbian.co.za>
CC: Shelley Holt <Shelley@cymbian.co.za>, Ian Dickson <ianspico@gmail.com>, Jonathan Parkinson <jonathan@fresheye.co.za>, petert@BKS.CO.ZA

Dear Paula,
Please attend to the email sent 14th August 2007.
Many thanks,
Wolf

----- Original Message -----

Subject: [Fwd: Re: Fw: MMTS2 - Map of the pipeline route]
Date: Thu, 20 Mar 2008 14:01:39 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: jonathan@fresheye.co.za >> Jonathan Parkinson <jonathan@fresheye.co.za>

----- Original Message -----

Subject: Re: Fw: MMTS2 - Map of the pipeline route
Date: Mon, 28 Jan 2008 07:32:21 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Paula Tolksdorff <Paula@cymbian.co.za>, Shelley Holt <Shelley@cymbian.co.za>
CC: Anthony Bannister <anthony.b.bannister@gmail.com>, "ians >> Ian Dickson" <ianspico@gmail.com>
References: <009d01c7d0dc\$b9ec1930\$8ff0370a@acere8f5014f99>
<C9D6B8C8B2CB4584AE252D84386F99F6@Cymbian.local>
<744FE5CC7F1A1046985F6A058EB4F36B05028C@server.Cymbian.local>

Hi Paula & Shelley,

Please forward me a shapefile for the proposed Spring Grove Dam and its pipelines. Also, please advise on the response to my comments submitted previously.

Many thanks,
Wolfgang

Paula Tolksdorff wrote:
Dear Wolfgang

Thanks you for the response, please note that we will forward this on to BKS and obtain a response.

Regards
Paula Tolksdorff

PO Box 1676
Cresta
2118
Tel/Fax:(011) 678 6680
Cell 082 3762 497

-----Original Message-----

From: Wolfgang Kanz [<mailto:wolf@afzelia.co.za>]
Sent: 14 August 2007 10:17 AM
To: Paula Tolksdorff; Shelley Holt; Anthony.Bannister@bundunet.com
Cc: Ian Dickson
Subject: Re: Fw: MMTS2 - Map of the pipeline route

Dear Paula and Shelly,

Please be advised that it would be preferable if proposed pipeline routings follow existing property boundaries and traverse properties not currently under development application. If properties are to be crossed then there are a number of other routes that could be considered - therefore one would need to consider crossing other properties along the route, not just Portion 174 and 175. If one is proposing to cross lands, then there are far more direct routes. I have added additional routings to those already proposed, based on the following:

Ecological impacts (covered by Exigent).
Nuisance impacts (covered by Kay Brügge).
Crossing of Spruit.
Existing damage of wetlands.
Engineering impacts (avoidance of deep trenches, minimal 90° bends).

In terms of pipeline impacts, please add the following to your list of impacts to be considered:

1. Reduction of property values on account of servitudes
2. Area of wetland traversed
3. Length of pipeline

Please also note the number of existing servitudes already on my property (two Eskom powerlines, with 12m and 30m servitudes respectively). More servitudes would further prejudice Portion 175 of Springvale.

I would also like to add that whilst deep trenches are an additional cost, in terms of environmental impacts such structures are easily rehabilitated with an effective EMP. There may be some implications with regards to maintenance, but then we have been assured that this would take place only in about 25 years time so this should not be an issue in the short to medium term. Deep trenches are therefore considered a cost implication rather than a significant environmental impact. The same applies to 90° bends, provided you retain enough flow. Obviously I am not an engineer, so please advise if the above is an incorrect assumption. Please advise how many 90° bends are feasible on this pipeline before it becomes problematic in terms of flows, and please provide us with the technical detail in support of this (if this is the case).

Thank you for including the above into your study.

Regards,
Wolfgang

Ian Dickson wrote:

----- Original Message -----

From: Jon White <<mailto:jonwhite@sai.co.za>>
To: Jonathan <<mailto:jonathan@fresheye.co.za>> ; Spico Dickson
<<mailto:ianspico@gmail.com>>
Sent: Monday, August 13, 2007 5:33 PM
Subject: Fw: MMTS2 - Map of the pipeline route

Dear Spico and Jonathan

Herewith an e-mail and attachment I have just received from Paula Tolksdorff. Please examine the map and the alternative routes to see if they correctly reflect the various alternatives that have been proposed to date.

Regards

Jon

----- Original Message -----

From: Paula Tolksdorff <<mailto:Paula@cymbian.co.za>>
To: Jon White <<mailto:jonwhite@sai.co.za>>
Sent: Monday, August 13, 2007 4:23 PM
Subject: MMTS2 - Map of the pipeline route

Dear Jon

Thanks for the fax - we had not received the email and value the follow up. Please find attached the section from the public meeting presentation where the pipeline alternatives were discussed.

Regards

Paula Tolksdorff
PO Box 1676
Cresta
2118
Tel/Fax:(011) 678 6680
Cell 082 3762 497

----- Original Message -----

Subject: Re: [Fwd: The Spring Grove Pipeline Route]
Date: Thu, 22 May 2008 11:42:17 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Wolfgang Kanz <wolf@afzelia.co.za>
CC: jonathan@fresheye.co.za >> Jonathan Parkinson <jonathan@fresheye.co.za>, petert@BKS.CO.ZA, Paula Tolksdorff <Paula@cymbian.co.za>, Shelley Holt <Shelley@cymbian.co.za>, Ian Dickson <ianspico@gmail.com>
References: <47E251F6.4050307@afzelia.co.za>

Dear Paula,

Please attend to the email sent 24th October 2007.
Many thanks,
Wolf

Wolfgang Kanz wrote:

----- Original Message -----

Subject: The Spring Grove Pipeline Route
Date: Wed, 24 Oct 2007 17:26:37 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Shelley Holt <Shelley@cymbian.co.za>, Paula Tolksdorff <Paula@cymbian.co.za>
CC: Ian Dickson <ianspico@gmail.com>

Dear Ms Holt and Tolksdorff,

Reading through the minutes of the meeting and the landowners meeting the following apply:

1. Please advise when I was advised of the date of the landowners site visit. I have no recollection of this being communicated to me. Considering the pipeline may be routed across or adjacent to my property, perhaps consultation would have been appropriate. Possibly correspondence was sent and missed - if so, please advise when, communication may have failed somehow.
2. The reasons for the pipeline routing not being possible through Mr Bysiewicz's property have been stated as steep terrain, rocky nature and lack of available terrain between the R103 and the property. Please note that is not a valid reason. I am conducting two other water pipeline projects as the Environmental Assessment Practitioner where narrow sections need to be crossed, geotechnical conditions are exceedingly rocky and the slope is at the angle of repose. It is a purely economic consideration, not an environmental consideration. Please provide an engineer's report that confirms that the crossing over Mr Bysiewicz's property and the R103 is not technically feasible - an engineer's report to the contrary can be produced if this is required.
3. The routing of the pipeline along the D682 is considered to create too much disturbance to landowners along this road. By what measure has this been decided? Also, the temporary disruption must be weighed up against the permanency of a pipeline across non-state owned land. The D682 is not a busy road and a restriction to single land during construction would not be considered a significant concern. What would the time frame for construction be along this road?
4. Why is the servitude within the D682 to narrow? Please also advise if you have considered the 5m no building servitudes within adjacent properties along the D682 - placement of the water pipeline in these areas would constitute no loss to anyone as this is effectively already 'dead land'. New water pipelines of this magnitude (e.g. the Umgeni DV Harris Water Pipeline 145cm in diameter) are about to be routed through suburbs in Pietermaritzburg; surely this can be done along a district road in a rural area? Please respond.
5. If economic considerations are ultimately the overriding factors, then the costing of each route should be provided in the EIR for comparative processes and review by independent parties.

The concern is that the alternate routings are not being afforded equal attention to the preferred routing. Please ensure that all conclusions drawn in the EIR are addressed on a technical and landowner sensitive basis, not purely an economic basis.

I trust the emails I sent through previously are being addressed. As no scoping phase formed part of the pipeline route determination, please provide us with a plan of study on how you're actually assessing,

evaluating and comparing impacts along the different routes. This will provide clarity on what we can expect in the draft EIR.

Regards,
Wolfgang

----- Original Message -----

Subject: Re: [Fwd: Re: Dam wall and pipeline implementation]
Date: Thu, 22 May 2008 11:43:27 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Wolfgang Kanz <wolf@afzelia.co.za>
CC: jonathan@fresheye.co.za >> Jonathan Parkinson <jonathan@fresheye.co.za>, Paula Tolksdorff <Paula@cymbian.co.za>, Shelley Holt <Shelley@cymbian.co.za>, Ian Dickson <ianspico@gmail.com>, petert@BKS.CO.ZA
References: <47E251CE.5030606@afzelia.co.za>

Dear Paula,
Please attend to the email sent 12th July 2007.
Many thanks,
Wolf

Wolfgang Kanz wrote:

----- Original Message -----

Subject: Re: Dam wall and pipeline implementation
Date: Thu, 12 Jul 2007 11:50:25 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Paula Tolksdorff <Paula@cymbian.co.za>
CC: Shelley Holt <Shelley@cymbian.co.za>, Ian Dickson <ianspico@gmail.com>, Anthony.Bannister@bundunet.com
References: <2E4465CFEA774ED9BA06403EE4AA6082@Cymbian.local>
<744FE5CC7F1A1046985F6A058EB4F36B04FE02@server.Cymbian.local>

Hi Paula,

Thank you for that information.

I would like to advise you that a wetland delineation has been carried out this week on the drainage line at the bottom of Portion 174 of Springvale No. 2170. Based on the DWAF guidelines it would appear that the wetland at the proposed crossing point at the head of the dam is across a wetland of approximately 30 - 40m delineated according to DWAF's guidelines (the report has not yet been completed but will be sent in the next week) and the crossing is within the flood line of the dam and the watercourse. This information will be provided to you graphically within the next week. Please include these points in the issues that you have identified.

Regards,
Wolfgang

Paula Tolksdorff wrote:

> Dear Wolfgang
>
> The process to appoint engineers for the design of the pipeline or the
> dam wall has not yet started. This process can only start once a
> positive RoD has been received from DEAT.
>
> The engineers as part of the BKS team are only on the project because of
> their specific expertise with regards to environmental impacts, issues
> and concerns.
>
>> Regards
> Paula Tolksdorff
>
> PO Box 1676
> Cresta
> 2118
> Tel/Fax:(011) 678 6680
> Cell 082 3762 497
>
>
> -----Original Message-----
> From: Wolfgang Kanz [<mailto:wolf@afzelia.co.za>]
> Sent: 11 July 2007 12:16 PM
> To: Paula Tolksdorff
> Cc: Ian Dickson; Anthony.Bannister@bundunet.com
> Subject: Dam wall and pipeline implementation
>
> Hi Paula,
> Please advise if the process of appointing an engineer for the design
> and implementation of the Spring Grove dam wall and pipeline has already
>
> started.
> Regards,
> Wolfgang

----- Original Message -----

Subject: Re: [Fwd: MMTS2 - Map of the pipeline route]]]

Date: Mon, 26 May 2008 16:19:31 +0200

From: Wolfgang Kanz <wolf@afzelia.co.za>

Organisation: Afzelia Environmental Consultants

To: petert@BKS.CO.ZA, Paula Tolksdorff <Paula@cymbian.co.za>, marindalr@BKS.CO.ZA,
Ian Dickson <ianspico@gmail.com>, "parki >> Jonathan Parkinson"
<jonathan@fresheye.co.za>

CC: John Richardson <john@afzelia.co.za>

References: <48367E34.1040708@afzelia.co.za> <[008301c8c003\\$2d8d02b0\\$88a70810\\$@co.za](mailto:008301c8c003$2d8d02b0$88a70810$@co.za)>

Hi,

Please forward us all of the required files so that we can plot the pipeline route in ArcMap.

Thanks

Wolfgang

----- Original Message -----

Subject: MMTS2 - Map of the pipeline route]]
Date: Fri, 23 May 2008 09:58:50 +0200
From: Marinda Le Roux <marindalr@BKS.CO.ZA>
To: wolf@afzelia.co.za <wolf@afzelia.co.za>
CC: Peter Teurlings <petert@BKS.CO.ZA>, Paula Tolksdorff <Paula@cymbian.co.za>

As below

----- Original Message -----

Subject: Re: Fw: MMTS2 - Map of the pipeline route
Date: Mon, 28 Jan 2008 07:32:21 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Paula Tolksdorff <Paula@cymbian.co.za>, Shelley Holt <Shelley@cymbian.co.za>
CC: Anthony Bannister <anthony.b.bannister@gmail.com>, "ians >> Ian Dickson" <ianspico@gmail.com>
References: <009d01c7dddc\$b9ec1930\$8ff0370a@acere8f5014f99>
<C9D6B8C8B2CB4584AE252D84386F99F6@Cymbian.local>
<744FE5CC7F1A1046985F6A058EB4F36B05028C@server.Cymbian.local>

Hi Paula & Shelley,

Please forward me a shapefile for the proposed Spring Grove Dam and its pipelines. Also, please advise on the response to my comments submitted previously.

Many thanks,
Wolfgang

Paula Tolksdorff wrote:
Dear Wolfgang

Thanks you for the response, please note that we will forward this on to BKS and obtain a response.

Regards
Paula Tolksdorff

PO Box 1676
Cresta
2118
Tel/Fax:(011) 678 6680
Cell 082 3762 497

Ian Dickson wrote:

----- Original Message -----

From: Jon White <<mailto:jonwhite@sai.co.za>>
To: Jonathan <<mailto:jonathan@fresheye.co.za>> ; Spico Dickson
<<mailto:ianspico@gmail.com>>
Sent: Monday, August 13, 2007 5:33 PM
Subject: Fw: MMTS2 - Map of the pipeline route

Dear Spico and Jonathan

Herewith an e-mail and attachment I have just received from Paula Tolksdorff. Please examine the map and the alternative routes to see if they correctly reflect the various alternatives that have been proposed to date.

Regards

Jon

----- Original Message -----

From: Paula Tolksdorff <<mailto:Paula@cymbian.co.za>>
To: Jon White <<mailto:jonwhite@sai.co.za>>
Sent: Monday, August 13, 2007 4:23 PM
Subject: MMTS2 - Map of the pipeline route

Dear Jon

Thanks for the fax - we had not received the email and value the follow up. Please find attached the section from the public meeting presentation where the pipeline alternatives were discussed.

Regards

Paula Tolksdorff
PO Box 1676
Cresta
2118
Tel/Fax:(011) 678 6680
Cell 082 3762 497

----- Original Message -----

Subject: Re: MMTS2 - Map of the pipeline route]]
Date: Sun, 22 Jun 2008 11:12:55 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Marinda Le Roux <marindalr@BKS.CO.ZA>
CC: Peter Teurlings <petert@BKS.CO.ZA>, Paula Tolksdorff <Paula@cymbian.co.za>, Jonathan Parkinson <jonathan@fresheye.co.za>
References: <AD12CF1F3B54794B83D6D6CFA3FE6DFE50C2D39508@PTAEX.BKSNT.bks.co.za>

Dear BKS team,

The shapefiles you sent me excluded the auxiliary files. Please resend. Also please send the shapefiles for the alternative routes.

Regards,

Wolfgang

----- Original Message -----

Subject: Re: Mziki Cymbian Enviro dam 25.06.07
Date: Sun, 01 Jul 2007 12:18:28 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Paula Tolksdorff <Paula@cymbian.co.za>
CC: johnz@iafrica.com, Ian Dickson <ianspico@gmail.com>, Brian.Mennell@improchem.co.za
References: <009201c7b75d\$1a509a40\$7ad23e0a@acere8f5014f99>
<2630EAA8E7EE48FCA62D373141E22F76@Cymbian.local>
<744FE5CC7F1A1046985F6A058EB4F36B04FB51@server.Cymbian.local>

Dear Paula,

I have been advised that it is planned for 500 new houses to be built on Shonalanga and an adjacent property for the construction period and that these houses would thereafter be made available to the municipality. Please confirm whether this is the proposal. It sounds too large, but I would like to comment in this just in case.

If this is the case, please address the following points:

1. There may well be a need for some municipal offices in Rosetta (possibly 10) and there is a requirement for low income housing in Rosetta, with the number being approximately 40 to 50 units (these are the only figures that I have heard). Whilst it is recognised that the building of a number of units that will be equivalent to the number required in the short to medium term (possibly 60), building of 500 units (ultimately for permanent occupation) would result in in-migration, a higher impact on services, a requirement for schools, and a large population of temporary residents, probably comprising mostly single men and women. This sort of demographic is prone to disorganised and unsettled occupation, and would likely have a large impact on the area, including the town centre. There is a large unemployed population in Bruntville that is in need of work (please see attached Social Impact Assessment for parts of the Mooi River area - approx 3 500 people are unemployed in Bruntville alone). It would make more sense to commit the funds that would be required for around 400 houses to establishing a better transport system between Mooi River and Nottingham Road to allow for unemployed people to gain access to places where work opportunities exist (such as Nottingham Road and Rosetta) rather than encourage the translocation of people. The SIA was done for a particular development, however addressed broad level socio-economic conditions too. Your social impact assessment will reveal that public transportation is a problem in the area and that a municipal bus service is required (this is corroborated by the attached SIA). In this regard, the R 22 million investment that would be required for 440 houses would be better spent on a municipal bus service / BEE opportunity that addresses this shortfall in the Mooi Mpofana Municipality. All labour that cannot be sourced from the local population should without doubt be transported into and out of Rosetta daily at a subsidized "bus fare". This would afford the municipality a bus service from commencement of the project and into perpetuity. An upgrade of clinic facilities would also be a good form of social investment.

2. There is a need for an upgrade of the sewage and water treatment works in Rosetta - would these be upgraded as part of the proposed dam construction? I anticipate that the effluent generated on the site would require a treatment works rather than septic tanks. Please confirm what is currently proposed, and how you would be addressing this in the EIA. The R 22 million that would be required for 440 houses would be better spent on such service infrastructure. The tarring of the access

road to the dam wall could also be included in such funding.

3. In terms of sewage and water treatment works, if such works are proposed, it stands to reason that these be designed to be able to cope with Rosetta's current and future predicted demands. Is this the case?

4. Please provide a method statement on how labour will be sourced from the local population, including means of identification and procurement procedures that ensure economic benefits accrue to the local population rather than outside service providers and contractors (this should form part of the EMP).

5. Please advise on procedure for the appointment of an Environmental Control Officer that would audit the implementation of the project.

6. Please advise if there will be remuneration to businesses that will not realistically be able to operate as a consequence of the construction of this dam. I have attached my previous comments to you. I assume these will be addressed in the draft EIR.

Many thanks.

Regards,
Wolfgang

Attachment sent in email:

Questions in respect of the proposed Spring Grove Dam:

9. Pipeline routing

9.1 Will owners be compensated for the routing of the pipeline servitude, and if so, how?

9.2 Will the pipeline be routed along the centre point between properties, or along one boundary within a specific property?

9.3 Will the water in the pipeline be made available to landowners along the route? What activities will be permitted above the pipeline?

10. Land expropriation / purchase

10.1 How will farm staff that currently reside on the property be relocated once expropriation has taken place? This is especially pertinent for farm workers with tenancy claims.

10.2 Will all or only part of any specific property be bought out? If only part of the property will be purchased, and the remainder is too small to be agriculturally viable, what zoning will the remainder be given? Will adjoining properties be afforded any development rights to offset their losses (in terms of economic viability of the remainder).

10.3 If the zoning is to remain agriculture 1 regardless of economic viability, will farmers be allowed to break more land on the remainder?

10.4 Will the purchase value reflect the value as determined by the Municipal Rates Act i.e. the farm is valued in terms of market value and both the land and its improvements are included in the valuation?

10.5 The cost of restarting a farm, especially reconstructing infrastructure that will be lost when the water inundates the farms, is much higher than the selling price of infrastructure i.e. farmers will lose money if having to rebuild their infrastructure. Will there be any subsidies to cater for these losses?

10.6 How will farmers be reimbursed for the land purchased from them? More importantly, when would the farmers be paid out? If the payment will be incremental, how

will interest be accrued? Farmers wishing to restart would require all the capital to avoid lending from banks.

10.7 How long would the farmers be allowed to continue farming the land whilst the dam fills up? Will there be any form of lease arrangement?

11. Time scales

11.1 What is the predicted date of completion of the dam wall?

11.2 What is the predicted time frame for the filling of the dam?

12. The quarry area

12.1 The proposed quarry will be opposite the garden centre. What will be the method of extracting material (will explosives be used)?

12.2 What route is proposed for transporting the material to the dam wall site? Will this route be surfaced with an all weather material?

12.3 What would the hours of operation be for this activity?

12.4 Over how long a period would the quarrying take place?

12.5 Will there be any financial reimbursement to businesses such as B&Bs that cannot operate under these conditions?

13. Activities on and adjacent to the dam

13.1 What recreational activities would be permitted on the dam?

13.2 Will there be public access to the dam?

13.3 Will only non-motorised (non-polluting) vessels be permitted on the dam?

13.4 Who is doing the town planning around the dam, including land use zonings etc.

Other major dams in KZN have recently, and some are currently, been afforded their own Spatial Development Frameworks. Will this be the case for Spring Grove dam?

----- Original Message -----

Subject: Re: Pipeline
Date: Thu, 22 May 2008 11:35:52 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Jonathan Parkinson <jonathan@fresheye.co.za>
CC: Paula Tolksdorff <Paula@cymbian.co.za>, Spico Dickson <ianspico@gmail.com>, Shelley Holt <Shelley@cymbian.co.za>, petert@BKS.CO.ZA
References: <C45AE84B.943%jonathan@fresheye.co.za>

Hi Jonathan,

I have not yet had a proper response to my queries either. I sent specific questions that require some technical response; Paula please advise. Please advise when we are due to receive a response.

Best regards,

Wolf

Jonathan Parkinson wrote:

Dear Paula – I wrote to you last on the 6th May, and haven't had any reply. Isn't it ironic that the e-mail concerned the deafening silence around the details of this project and the need for you and BKS to acknowledge the objections we at Mziki, and Wolf as our neighbour have. I appreciate the fact that in our conversation you mentioned that the report hadn't yet been published, so I wrote (6th May) that we would like to have our objections noted in the report as these have been on-going from the middle of 2007. (I will enclose my 6th May e-mail again).

----- Original Message -----

Subject: Re: [Fwd: Re: Dam wall and pipeline implementation]
Date: Thu, 22 May 2008 11:43:27 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: Wolfgang Kanz <wolf@afzelia.co.za>
CC: jonathan@fresheye.co.za >> Jonathan Parkinson <jonathan@fresheye.co.za>, Paula Tolksdorff <Paula@cymbian.co.za>, Shelley Holt <Shelley@cymbian.co.za>, Ian Dickson <ianspico@gmail.com>, petert@BKS.CO.ZA
References: <47E251CE.5030606@afzelia.co.za>

Dear Paula,
Please attend to the email sent 12th July 2007.
Many thanks,
Wolf

----- Original Message -----

Subject: Pipeline Routing
Date: Mon, 30 Apr 2007 09:34:57 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: paula@cymbian.co.za
CC: Shelley@cymbian.co.za, Ian Dickson <ianspico@gmail.com>, Anthony.Bannister@bundunet.com

Dear Paula & Shelley,

Please register myself (Wolfgang Kanz), Ian Dickson and Anthony Bannister as Interested and Affected Parties. The following are our initial concerns.

The proposed pipeline routing has been illustrated in two different drawings. The one route runs along the northern boundary of Portion 174 of Springvale No 2170, the second route runs diagonally across Portion 174 and Portion 175 of Springvale No 2170.

In terms of the latter, the following issues need to be considered:

1. At present the pipeline runs through a gated estate (Portion 174).
2. The pipeline runs through at least one, possibly two, already authorised houses that have been built or are in the process of being built on Portion 174. The pipeline traverses bulk infrastructure pipelines within this property.
3. The pipeline possibly runs through the homestead on Portion 175. The pipeline will traverse bulk infrastructure pipelines within this property.
4. The pipeline is routed underneath the existing access onto the R103 for Portion 175 and Portion 176, as well as Portion 179 & 180 of Springvale No 2170.
5. Portion 175 is under application for development - the draft Scoping Report has been handed in and the DFA is about to be lodged - the development will be a secure development with access control.
6. The proposed pipeline possibly runs through two proposed houses within this development.
7. The issue of access for the water service provider is of concern.

The following specific questions pertain:

1. Why has the pipeline be routed diagonally through properties?
2. What is the time frame for a length of 1km of pipeline to be lain?
3. Why has the pipeline not been lain along the district road and within the reserve of the R103?
4. What activities will be permitted above the pipeline?
5. What size will the servitude be for (i) construction and (ii) operation?
6. How often are markers placed aboveground along the pipeline route?
7. How would the water service provider gain access to the pipeline? A secure protocol would have to be put in place.
8. Will owners be compensated for the routing of the pipeline servitude, and if so, how?

Please address these concerns as soon as possible.

Kind regards,

Wolfgang

----- Original Message -----

Subject: Re: Mziki Cymbian Enviro dam 25.06.07
Date: Tue, 26 Jun 2007 12:47:27 +0200
From: Wolfgang Kanz <wolf@afzelia.co.za>
Organisation: Afzelia Environmental Consultants
To: paula@cymbian.co.za
CC: Ian Dickson <ianspico@gmail.com>, Jonathan Parkinson <jonathan@fresheye.co.za>, Jon White <jonwhite@sai.co.za>, Tom Groesser <sms@icon.co.za>, Richard Stanley <rs@hps.co.za>, Keith Jones <pant.yr.ochain@talk21.com>, Jill Lawson <jill@tanner.co.za>, Greg Henry <ghenry@iafrica.com>, Graham Craggs <gcraggs@telesure.co.za>, Ewen Cameron <ewen.cameron@pamgolding.co.za>, Debbie Parkinson <jaypee@iafrica.com>, Clive Greene <cgreene@pamgolding.co.za>, Andre van Bassen <andre@lifesense.co.za>, Shelley <Shelley@cymbian.co.za>
References: <009201c7b75d\$1a509a40\$7ad23e0a@acere8f5014f99>

Dear Paula,

Please assist with the following:

1. Please provide details on the assessing officer from DEAT that will be dealing with this project.
2. Also please provide details on the assessment of pipeline route alternatives being conducted. We would very much appreciate the criteria being employed to evaluate which pipeline routing is most suitable considering all environmental factors.
3. Please provide a list of the alternative routes being considered (preferably mapped)
4. I noticed at the public meeting held on 25th June that the revised pipeline route traverses almost diagonally across Portion 175 of Springvale. I would like to state that as the landowner of Portion 175 of Springvale, I have not supported this routing and strongly object to it being planned along such a route, directly across my property, not even alongside a boundary.
5. Please also advise on the Scoping Process undertaken in terms of the pipeline routing. I am not aware that the pipeline routing formed part of the historical Scoping process.

I have attached the DEAT Guidelines in terms of the assessment of alternatives. You're obviously

aware of these guidelines, but I thought it prudent to advise you that all those impacted by the pipeline would expect the alternatives assessment to encompass the guidelines as set out by DEAT.

I trust these comments will be addressed and your responses incorporated into your reports.

Regards,

Wolfgang

Appendix 2: Engineering response to alternatives

<<< This has been provided in a separate submission >>>