

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA: 12/12/20/944

**FOR THE PROPOSED ESKOM NUCLEAR POWER STATION AND
ASSOCIATED INFRASTRUCTURE**

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

**KEY STAKEHOLDER FEEDBACK MEETING
CAPE ST FRANCIS**

16 APRIL 2010

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PREFACE

Should participants who attended the Key Stakeholder Feedback Meeting require any changes to these proceedings, please notify the Public Participation Office in writing within 14 days of receipt.

“Unidentified I&APs” refer largely to persons who attended the meeting and verbally raised issues without providing their names. This in no way diminishes the value of the issue raised. Should you recognise your input and would like to have your name recorded next to it, please advise the Public Participation Office.

1. ATTENDANCE

1.1. Attendance – Interested and Affected Parties

- As per attendance register.

1.2 Attendance – Eskom Holdings Limited

Name	Position/Role
Mr Tony Stott	Senior Manager - Stakeholder Management Generation Business
Ms Deidre Herbst	Senior Manager – Environment Generation Division
Mr Gert Greeff	Manager: Nuclear Sites
Ms Carin de Villiers	Stakeholder Management and Communication Manager - Nuclear Division)
Mr Mervin Theron	Manager Regulatory and Localisation – Nuclear Division
Mr Mandla Mbusi	Senior Advisor - Stakeholder Management

1.3 Attendance – Environmental Consulting Team (EIA Team)

Name	Organisation	Role in the project
Ms Jaana-Maria Ball	Arcus GIBB (Pty) Ltd	Nuclear 1 EIA: Project Manager
Mr Reuben Heydenrych	Arcus GIBB (Pty) Ltd	Senior Environmental Scientist
Ms Bongji Shinga	ACER (Africa)	Public Participation Consultant
Ms Karin Bowler	Karin Bowler Enterprises	Independent Facilitator

2. WELCOME AND INTRODUCTIONS

The Facilitator, Ms Karin Bowler, welcomed everyone to the meeting. She explained that the presentations were in English. She explained that participants are welcome to use the language of their choice as the EIA Team could communicate in English, Afrikaans and Xhosa.

She advised participants that the meeting is being recorded to ensure the accuracy of the minutes

Due to late arrival of participants at some public meetings, the starting of some meetings was delayed by a few minutes later than the advertised times. In this instance, the Facilitator advised participants that the time would be added on at the end of the meeting (if required) to ensure sufficient time for questions.

She asked that points of clarification be held over until the discussion period.

3. FACILITATORS INTRODUCTORY REMARKS

The Facilitator explained that an agenda had been distributed.

She further stated that the team would like to adhere to the times on the Agenda. However, as the meeting had started slightly later (15 minutes late) to allow all stakeholders to settle in at the meeting, this time will be added on at the end of the meeting. This will ensure sufficient time for questions. She asked that points of clarification be held over until the discussion period.

One of the objectives of the meeting is for stakeholders to have the opportunity of voicing their issues and concerns. She informed all participants that it is imperative that when they stand up and raise an issue to please state their name and organisation so that the minute-taker can preface the comment that is made in the minutes and attribute it to the correct person. She advised participants that the meeting is being recorded to ensure the accuracy of the minutes. She asked that all participants check that their issues have been captured correctly.

3.2 Conduct at Meeting

The Facilitator explained that participants are welcome to use the language of choice as the team can communicate in English, Afrikaans and Xhosa.

The Facilitator further read through the points presented on the slide, which provided guidelines with respect to the conduct of all participants and for achieving a constructive debate and discussion. These points are contained in the main presentation, which is provided in Appendix 2.

She requested all participants to assist the team by having a constructive debate at the meeting.

The Facilitator said that because of the importance of the meeting, time might become a problem, she asked the floor for permission to check if everyone is satisfied with the proceedings and the potential to go over the stated time.

3.3 Objectives of the meeting

The objective of the Key Stakeholder Feedback Meeting is three-fold, viz.:

- ❑ To present and discuss findings of the various specialist studies undertaken during the Impact Assessment Phase.
- ❑ To present the conclusions and recommendations of the Draft Environmental Impact Assessment Report.
- ❑ Provide an opportunity to Interested and Affected Parties to comment on the specialist study findings and the outcomes of the EIA.

3.4 Summary of Issues Raised during Scoping Phase

The Facilitator explained that the facilitator from the previous round of meetings thought it prudent to summarise a couple of key issues that came out of the process leading up to the EIA Report and also just to list some of those key issues. Having gone through the Issues and Response document, it is quite clear that these are only a few of the issues that were raised. Not all of them are relevant to the EIA process. Some of these issues belong to the NNR process.

For continuity purposes, the Facilitator briefly mentioned some of the issues:

“Some people are opposed to and some are in favour of the proposed Nuclear Power Plants at Bantamsklip, Thyspunt and Duynfontein sites. There are concerns about the potential impact on health and safety issues. The community living in close proximity to the power station are concerned about their sense of place. They are also concerned about the visual impact of a power station. The affect on tourism is also an issue of concern. Altered sea temperatures could potentially affect marine life. Commercial and recreational fishing might be negatively impacted. Light pollution from the plant. Concern over property values have also been raised. Some people have expressed a lack of trust in the EIA process. Issues regarding the storage of hazardous waste. Consideration of alternatives such as renewable energy”.

She emphasised that it is important for stakeholders to verify that issues, which were raised during the Scoping Phase, have been taken into consideration during the Impact Assessment Phase.

The Facilitator then introduced the project team to participants.

4. PRESENTATION: FINDINGS ON THE DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Ms Jaana-Maria Ball and Mr Reuben Heydenrych representing the Independent Environmental Assessment Practitioners, Arcus GIBB, presented the findings on the Draft Environmental Impact Assessment Report.

By way of introduction, Ms Ball, EIA Project Manager, thanked all present for their time and indicated that Arcus GIBB is pleased to be at the stage of presenting the findings of the specialist investigations and the outcomes of the Environmental Impact Assessment phase.

Ms Ball and Mr Heydenrych then presented the findings on the Draft Environmental Impact Assessment Report (refer to presentation slides provided in Appendix 2).

The issues raised and discussed following Arcus GIBB’s presentation are captured in the table presented in Appendix 1.

5. ISSUES AND COMMENTS RAISED AND DISCUSSED

5.1 Issues and Comments raised

The table contained in Appendix 1: "Record of Issues Raised and Discussed" details the issues, comments and concerns, which were raised and discussed at the meeting.

Please note: Should you wish to make any corrections, please advise ACER within two weeks of receiving these minutes.

6. WAY FORWARD AND CLOSING REMARKS

6.1 Minutes of Meetings

Ms Ball indicated that the minutes of meeting would be distributed to I&APs as soon as possible and every effort would be made to distribute them within 21 days from the date of the meeting.

I&APs will have 14 days after distribution to verify the minutes and provide their comments to ACER.

6.2 Timeframes

In terms of the timeframes, I&APs were reminded that the public review period of the Draft EIA Report ends on 10 May 2010. Arcus GIBB has allocated a 66 day comment period, which recognises that there are long weekends and Easter Weekend within the period 06 March – 10 May 2010.

Post-meeting note: Following a request at subsequent public meetings, the end date for the public review period was extended to 31 May 2010, thus providing an 87 day comment period.

Ms Ball encouraged all present to submit their comments to ACER (Africa) using one of the following methods:

- By mail: Public Participation Office, Nuclear 1 EIA, PO Box 503, Mtunzini, 3867
- By fax: 035 340 2232
- By email: nuclear1@acerafrica.co.za

Comments received on the Draft EIA Report are recorded and addressed on a weekly basis in the form of an Issues and Response Report. Comments received will be used to produce the Final EIA Report, which will then be submitted to the Department of Environmental Affairs (DEA) for their consideration.

The timeframe for submission of the Final EIA Report will depend on how long it takes to finalise the report as well as on the type of comments that are received from I&APs during the review period.

A letter will be sent to all registered Interested and Affected Parties informing them of the Authorities' decision.

6.3 Facilitators Concluding Remarks

The Facilitator stated that the onus of responsibility on your shoulders is to act as a reviewer to make sure that this process is robust and that your issues are answered. If not answered, it must be taken forward through the appropriate process. She encouraged everyone to make use of opportunities given to the stakeholders in terms of NEMA and the constitution.

The Facilitator thanked everyone for constructive engagement and encouraged stakeholders to submit written comments and closed the meetings.

Interactions between I&APs and the Project Team continued after the meeting. However, ACER did not record discussions, which took place after the meeting.

APPENDIX 1: RECORD OF ISSUES RAISED AND DISCUSSED

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
1	Mr Helmie Tilders FOSTER	<p>Mr Tilders said that his point did not have anything to do with the proposed nuclear reactor but rather the way in which the public meetings have been run. There is not a single notice in Sea Vista about any of the public meetings. There has been one notice put up by a local resident. He enquired if it is the consultant's responsibility to advertise public meetings and he wanted to know if this had been neglected.</p> <p>Mr Tilders asked if notice boards would not be better. He asked Mr Malgas to comment on this.</p> <p>Mnr Malgas: Wat gebeur in St Francis is dat ek nie glo dit is ons plig as St Francis om die gemeenskap te mobiliseer vir 'n vergadering soos vanaand nie. Ek probeer my bes op hierdie oomblik, soos ek beweeg deur die gemeenskap, om hierdie ding geadverteer te kry. Ek dink nie dit is aanvaarbaar vir ons as ons in hierdie gemeenskapvergadering vanaand beweeg, moet my vriend hier langsaan my op sy eie koste op hierdie township road [gaan] sodat ons die vissemanne kan inlig en die mense kan weet nie.</p>	<p>Ms Shinga responded by saying that the public had been notified. ACER (Africa) has a database of community members who have previously attended meetings at Sea Vista. In addition, there are leaders who represent their communities. All I&APs are notified and they in turn notify their constituencies if not already on database. ACER has also spoken to the municipalities and they are well aware of the meetings. ACER has had numerous consultations with the people of Sea Vista. Many of these people also receive personalised letters informing them about meetings.</p> <p>Ms Shinga added that meetings were also advertised in various publications using various languages. She said that obviously every individual cannot be reached and this is not the requirement of an EIA to go door to door but ACER does what is reasonable and acceptable and within the requirements of the law.</p> <p>Post meeting: The same processes were used to invite participants to previous meetings, the meetings were well attended and the requirement of posters was not raised. The meeting was announced in the community, the meeting was reasonably well attended. The team will also be returning to Sea Vista on Tuesday 26 May 2010 for a second public meeting and to specifically present on marine related aspects relevant to the Chocca industry.</p>

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		<p>Soos Helmie sê, ons het nie computers nie. Ek self het nie eers internet access nie.</p> <p><u>Translation</u> What is happening in St Francis is that I do not believe it is our duty, as St Francis, to mobilise the community for a meeting such as tonight. I am trying my best, as I go about in the community, to advertise this thing. I do not feel it is acceptable to us that if we want to attend this community meeting tonight that my friend here, sitting next to me, has to [go] on this township road, bearing his own costs, so that we can inform the fishermen and people can know. As Helmie mentioned, we do not have computers. I myself do not even have internet access.</p> <p>Ms Trudi Malan asked Ms Shinga how they can send underpaid letters to people and expect them to pay and how did they consider having a public meeting in Sea Vista on a Friday night. She knows 15 people who cannot attend due to Church meetings. She feels that there should have been more respect paid to the local community.</p> <p>Ms Cheron Kraak said she would like to include the lack of respect paid to the people of Jeffrey's Bay as she did not see anyone from that area at this meeting. No-one in Jeffrey's Bay is aware of any meetings.</p>	<p>Ms Shinga responded that they were alerted at the office that there were underpaid envelopes. ACER had sent out a one-page letter as well as the Executive Summary, which was printed back-to-back. Some post offices requested people to pay in a certain amount of money, this did not happen at every post office and has previously not been a problem. As compensation, the people who paid the money will be reimbursed. ACER apologies for this instance. She explained that when she dispatched the letters from the Durban Central Post Office, the teller did not inform her that the letters might be over-weight.</p> <p>She encouraged anyone with email addresses to send this information to ACER as this was a far more reliable and quick way of communicating.</p> <p>Ms Shinga stated that the community are not at all disrespected. When planning for all these meetings, these communities all under the jurisdiction of the municipality, the community is consulted and dates are checked. It has only recently been brought to ACER's attention that Friday is a problem and any future meetings in Sea Vista will not be held on a Friday. Ms Shinga said she had consulted with Mr Edward Busakwe, who is the community leader for Sea Vista and has been the key contact person since the EIA started (as advised by Kouga Local Municipality).</p> <p>Ms Shinga said that no signs had been put up but that adverts were placed in many newspapers including national, regional and local newspapers. Adverts are also placed in all the different languages used in the area.</p>

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
			<p>The facilitator asked Ms Shinga to provide a list of the newspapers in which advertisements were placed.</p> <p>Ms Ball said that this information will also be placed on the website.</p> <p>Post Meeting Note: The advertisements were placed in the following news papers:</p> <ul style="list-style-type: none"> • <i>Cape Times</i> • <i>Hermanus Times</i> • <i>Kouga Express</i> • <i>The Herald</i> • <i>Die Burger</i> • <i>Table Talk</i> • <i>Tygerburger Milnerton</i> • <i>Tygerburger Table View</i> • <i>Sunday Times</i> • <i>Our Times</i> • <i>PE Express</i> • <i>Suidernuus</i> • <i>Gansbaai Courant</i> • <i>Easi Ads</i>
2	Ms Francis Becker	She said that she is a concerned stakeholder and she has replied and sent her email address to ACER many times and she still does not receive correspondence via email.	The facilitator asked Ms Shinga to check the database to see if Ms Francis Becker is marked on database for email correspondence
3	Mr Alwin Malgas Sea Vista Forum	Mr Malgas said he was very upset as there was a meeting that evening that it would appear that it has	Comment noted and discussed above.

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		not been properly organised. The letters that were sent out were in English and 80 – 90% of the community are illiterate. He said that he had matric and he battles to understand the letters.	
4	Mr Joe Oosthuizen St Francis Bay Residents Association	<p>Mr Oosthuizen feels that working through municipalities is not a good idea as it can be noted that there are no representatives from the Kouga Municipality at this meeting and no-one from this municipality ever contacts the Residents' Association.</p> <p>If meetings are held in Sea Vista the only way that the Residents' Association can deal with the Sea Vista Forum is to print information and put up notices. All organisations such as churches are contacted and they put the message across to the community.</p>	Ms Ball added that they have also been working with some of the community leaders in terms of the nature of the meeting, languages, etc. and they would be loud hailing the meeting. She gave assurance that if the attendance was poor another meeting will be organised.
5	Mr George Hardie Goed Geloef Farm/St Francis Conservancy	<p>Mr Hardie said that he had noticed on the presentation that all the various criteria have been covered by the experts. He feels that the majority of the experts are against Thyspunt as a preferred site but the consultants seem to end up with a calculated difference that Thyspunt is 76 points ahead against 57 for the others.</p> <p>He asked how these criteria have been weighted in such a way that Thyspunt ends up higher than the others. Is it a fact that all the weighting is being placed on economic factors as opposed to all the others?</p> <p>The facilitator added that specifically referring to the economic component, was this also part of that criteria</p>	<p>Ms Ball referred to the weighting table on the slide. She said Mr Hardie was correct, the biophysical specialist does not favour Thyspunt in terms of high biophysical impacts before mitigation. If the reports are examined carefully, they have identified key mitigation measures, which they have recommended that in their opinion will bring the potential impacts down to a low significance.</p> <p>The weighting took place during a two-day meeting with all 24 independent specialists.</p> <p>Mr Heydenrych explained, using the slide, that there were seven criteria that were regarded as key for the choice of the relevant site. Firstly integration into the national grid, secondly seismic suitability, those are two technical criteria. There are a number of biophysical criteria, firstly, dune</p>

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		<p>and was there additional weighting given to the economic component?</p> <p>Mr Hardie disagreed with Ms Ball and said that if you spent an extra R8b on roads and works, jobs would be created and houses could then be built.</p>	<p>geomorphology, which technically at this site is very important due to the dune fields. Impacts on wetlands, vertebrate fauna and invertebrate fauna and then economic impacts.</p> <p>Mr Heydenrych said that the economic impacts also paid a key role when regarding Bantamsklip as the least preferred site for Nuclear-1 because it is significantly more expensive in terms of absolute values, it is R8b more expensive than either of the other two sites because of the upgrades that would be required for roads and bridges, as well as the longer transmission line.</p> <p>Ms Ball added that during the integration meeting, the economic specialist put that into context. This works out as three years of low cost housing in this country.</p> <p>Mr Heydenrych said that the question had been asked about whether the different decision factors have been weighted and how they were weighted. He could not go into all the details but the table that is in Chapter 9 of the report, indicates implicitly how the factors have been weighted. All the assumptions that have been made with regards to weighting of various impacts relative to two different sites are indicated clearly in the table.</p>
6	Mr Ryan Donnelly For A Safe Tomorrow	Mr Donnelly said that from his understanding it would appear that the manner in which it is weighted is that Thyspunt is the preferred site for the developer with regards to a nuclear power station. It is not a preferred	Ms Ball replied that all the range of environmental factors were taken into account in the assessment. Obviously for the assessment of the preferred site, the most critical factors were used. Ms Ball added that the majority of the

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		<p>site as far as environmental views are concerned. He added that with the no-go alternatives, this now means that one of these sites has to be used. His belief is that the no-go alternative is entirely deficient of "independent all-inclusive information".</p> <p>Mr Donnelly said that when he refers to the environment he was talking about the social, biophysical and economic.</p> <p>Mr Donnelly asked if the integration into the grid and the placement in relation to the need are the two main reasons why the power station has been placed at Thyspunt. He went on to say that in his opinion the power station is being placed in this area, not because of environmental impacts but rather as the need of the developer.</p>	<p>specialists were biophysical specialists. They had all agreed that economic factors, integration into the grid, seismic suitability and other biophysical factors were incredibly important in determining which is the preferred site for Nuclear-1. That does mean that other specialist studies have been dismissed, they are also key to the study.</p> <p>Ms Ball said that these were some of the considerations, there were others such as seismic suitability which is one of the key considerations.</p>
7	Dr Shirley Cowling FOSTER	<p>Dr Cowling objected to the statement that this area is going to be a benefit to the environment. The fauna alone will be hugely affected by the trucks. The consultants say that everything can be mitigated, there are facts that are being completely overlooked.</p> <p>Ms Hardie enquired as to why the specialists were not present to answer questions.</p>	<p>Ms Ball said that as environmental consultants, Arcus GIBB need from stakeholders pertinent detailed facts. She asked that anything that was not in the report be submitted to them for inclusion in the final report.</p> <p>Ms Ball replied that this request has been during this round of meetings and as she stated earlier the requests are being considered. .</p>
8	Dr Shirley Cowling FOSTER	<p>Dr Cowling said that the report states quite clearly that the specialists do not fully understand the way the dune system works. It is filled with water and is slurry. Dr Cowling said that at the previous meeting (St</p>	<p>Ms Ball replied there has been a great deal of debate and not all of the scientists agree with each other. Fred Ellery, Werner Ellenberger and Liz Day have had a lot of debate around the dune systems. They are complex, which is</p>

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		Francis Bay Public Meeting on 15 April), the project manager had said that the specialists do not fully understand the system. She asked why this had not been included in the weighting and the decision-making. All that seems to have been taken into account is seismic suitability and impact on dune geomorphology. She asked what the risk factor is around the incredibly dynamic unpredictable dune system on the site as the site is surrounded by this dune system.	<p>stated clearly in the reports. Werner's report clearly states that he does not foresee a significant impact if the access road crosses over the dunes.</p> <p>Drs. Illenberger and Day and Mr Barrie Low are recognised in their fields of expertise and have been very thorough in their assessments of the site and the potential impacts of constructing and operating a nuclear facility on this site. There was a level of uncertainty in April which has been addressed during the EIA phase of the EIA.</p>
9	Ms Trudi Malan Spokesperson for St Francis Alliance	<p>Ms Malan said that it is very clear and she wished to re-confirm that so far only technical and economical factors have been used to weight this site. She went on to say that Schulpfontein and Brazil were removed due to technical reasons. She wanted to re-confirm that this decision is not environmental, i.e. inclusive of social, biophysical and economic.</p> <p>Ms Malan went on to say that from an environmental perspective, a conservation valley has been proposed. She however feels that as an environmentalist, she sees the environment as a system. What will be done to the marine environment? The impacts on the marine environment in both the studies were not addressed. A tunnel will be constructed which is not addressed in the report.</p> <p>She went on to say that another impact not addressed is the new studies on entrainment of nuclear power reactors along the American Coastline. She had specifically requested that the methods be used when</p>	<p>Ms Ball said that Ms Malan was incorrect with the facts.</p> <p>Ms Ball strongly disagreed that environmental factors were not taken into account in the assessment of the preferred site. Four of the factors were biophysical factors. This assessment was undertaken together with all 24 specialists. The biophysical factors were weighted and taken into account in the assessment.</p> <p>Ms Ball went on to explain that in terms of the EIA methodology, potential short-term, medium-term and long-term impacts were investigated. On a local, regional and national level.</p> <p>In terms of the marine environment, Professor Charlie Griffiths and Dr Tammy Robertson were the specialists. Ms Ball said that she respects Ms Malan who is also a marine specialist, and she encouraged her to give detailed comments. The specialists had looked at the effect of brine and they provided specific mitigation measures.</p>

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No	Name	Comment	Response
		<p>this is decided. In the documents Koeberg is used as reference. Koeberg is 1,000 MW, this proposed plant is 4,000 MW.</p> <p>The fishing industry in the area is at risk. Eskom state that they might consider letting commercial fishing vehicles into the 1 km exclusion zone. It is however not stated that the brine plume and the plume of the discharge is going to come towards Seal Point. She asked what would happen in the 1 km that the fisherman might be allowed access to. The cumulative impact on the environment is not going to be mitigated away by suddenly making that a conservancy.</p> <p>Ms Malan went on to say that this country is in a new era. There are NEMA regulations, there is also a new Coastal Management Act which precludes hotels, etc being put on the site. Eskom should not say there will be other developments on the site.</p> <p>She asked about the entrainment effects of the 4,000 MW power station that is going to have on the environment. It has been proven in America, in a recent study, that the impact is huge.</p> <p>She went on to say that a desalination plant has been included, normally a desalinisation plant would trigger an EIA. However it seems to have become part of this EIA. She asked that the negatives on the environment of a desalination plant be listed.</p>	<p>Regarding heated water discharge, they also looked at this very specifically and they provided Arcus GIBB with mitigation measures.</p> <p>Ms Ball said that regarding the entrainment of marine organisms into the intake valves, this was also investigated.</p> <p>The issue of water has been raised from the beginning of this process. Alternatives had been examined in order to solve the issue of water. There is groundwater supply and 2 dams in this area, supplying the entire area. The specialist therefore came up with various alternatives which all of the specialists examined. For example, the desalination plant, the footprint and the visual aspects were investigated as was the effect on the marine environment. This has been assessed in detail in this EIA Study.</p> <p>It is appropriate in terms of the NEMA regulations include activities such as a desalination plant into this EIA and not to carry out a separate EIA.</p>
10	Ms Francis [surname]	She said that in terms of the economic impact, it would appear that the entire impact is on Eskom. This	Ms Ball said that as explained this was an integrated assessment, the economic specialist worked closely with all

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		<p>does not take the economic impact on the community into account at all. She has a business in Sea Vista and she asked if any of the specialists have approached any of the businesses in the area.</p> <p>There is also a municipality that is assessing everyone with very high rates, they are not present at this meeting. The impact on the entire area in terms of property values has not been assessed especially when the envisaged high traffic volumes are considered.</p> <p>She asked which way the wind was blowing and where they were situated when they conducted the noise study.</p>	<p>the other specialists. They assessed the economics on eco-tourism based activities. For example at Bantamsklip there is cut-flower farming, there is tourism activities around the whale watching, there is wine farming. Whereas in this area there is the Chokka Industry and a lot of accommodation establishments and an active tourism industry, the surfing competitions, etc.</p> <p>Post-Meeting Note: The Economic Assessment is attached as Appendix E18 to the Draft Environmental Impact Assessment Report.</p> <p>A macro-economic study was undertaken and they took all the aspects of tourism, agriculture, eco-tourism, property values in consideration, this information is contained in the specialist reports.</p> <p>Ms Ball explained that the noise study was undertaken by Prof. Adriaan Jongens from UCT. She could not say specifically on what day it was taken but she could put these questions to the specialist. He had a number of sampling points on the site. They looked at all the nearest residential areas such as Oyster Bay. A sampling point was just outside Sea Vista and another one on the Kromme River Bridge.</p>
11	Ms Martha Hutchinson Teacher	<p>Ms Hutchinson re-iterated what Mr Hardie had said about the weighting. It would seem from a general point of view that Thyspunt was unfairly weighted. Duynefontein appeared more favourable.</p> <p>She then voiced her objection to two issues. The first one was that conservation benefits at Duynefontein</p>	<p>Mr Heydenrych responded by saying that Koeberg already has a nature reserve, the Koeberg Nature Reserve, which is around Koeberg and includes the area of Duynefontein. Effectively the ecosystem around Koeberg and within Duynefontein where the proposed power plant would be, is already conserved. Eskom has an effective conservation strategy, they removed aliens from the area, the area is</p>

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		<p>would not be realised as opposed to conservation benefits at Thyspunt. That is very abstract and does not make sense.</p> <p>Her second objection was that there was no formal conservation, she asked that formal conservation be defined. She has been part of the Rebelsrus Nature Reserve and this has been established since the 1970s.</p> <p>Ms Hutchinson said that Rebelsrus was part of a larger conservancy.</p>	<p>also accessible to the public as a recreational resource. It is formally protected.</p> <p>Ms Ball referred to the specialist study which stated that with regards to Thyspunt and Bantamsklip if the remainder of the site is conserved, that would be beneficial from a conservation point of view..</p> <p>The facilitator asked if this is in terms of the Protected Areas Act. Mr Heydenrych replied that this was correct.</p> <p>The facilitator then asked Ms Hutchinson if Rebelsrus Nature Reserve was formally conserved and registered.</p> <p>The requirements for the management of a formally protected area are far more onerous in terms of management and duration when compared with a conservancy. Refer to the In terms of the Protected Areas Act, 2003 (Act No 57 of 2003) and proposed Regulations.</p>
12	Mr Ryan Donnelly For A Safe Tomorrow	Mr Donnelly said that the whole perception that this is going to be a formal conservation area is one thing. However, it is also going to be a high-level radioactive dumpsite.	Comment noted.
13	Mr Joe Oosthuizen St Francis Bay Residents Association	Mr Oosthuizen noted that in terms of the weightings, one of the most important issues that was brought up the previous evening is that the consultants had evaluated five sites that were chosen 30 years ago. Based on this these sites are being weighted. To his mind this is totally wrong. They should have used the same criteria and weighted something near the source	<p>Ms Ball said that she had provided an answer to this the previous evening.</p> <p>The NSIP were done 30 years ago, these were done by independent specialists. They went through a rigorous process and this took 10 years.</p>

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		<p>of power, where power is needed, so that electricity does not have to be shipped long distances. Eskom has instructed the consultant to give them the most ideal sites for power generation. If there was a blank canvas, this site would not have been selected.</p> <p>South Africans have a prime piece of this country, and this is about to be ruined, with power lines, bridges will be reconstructed, over 100 trucks per day on the roads for 7 - 9 years. It does not make any economic sense. It is wrong to say the economic impact is better in this area, it makes more economic sense to have it closer to where power is needed. The instructions from Eskom to the consultants were flawed right from the beginning.</p> <p>Mr Oosthuizen said that decisions cannot be made on information gathered 30 years ago. In the commercial world, this would be regarded as totally unacceptable.</p> <p>Mr Oosthuizen felt the fairest question would be to ask Eskom if a position closer to the source of energy would be more favourable than this site.</p>	<p>Arcus GIBB took these sites and instructed the specialists to investigate if they were still suitable for this project.</p> <p>The facilitator also asked a question of Eskom that if the planning was done 30 years ago, surely their planning and infrastructure must have changed substantially over the years. She asked what has been done with the grid planning and their load growth centres in that time. How much has that changed since the 1980s because that should be one of the fundamental principles. She asked Eskom to respond to how their planning has changed since 1980.</p> <p>Mr Stott responded that obviously the demographics have changed in the last 30 years. The geology, the coastline, the tides and the wave action have not changed. Therefore these are as valid today as they were 30 years ago. Demographics, agricultural practices, rural population, urban population have definitely changed.</p> <p>In terms of the needs for the country, Mr Stott explained that Eskom do not only need to build one power station, there are more power stations going to be built. Regarding Nuclear-1, from the Consultants' perspective, Thyspunt is the preferred site. However, other sites will be investigated for other power stations as the country needs 40 000MW of new electricity capacity by 2028, of which 20 000 MW has been earmarked for nuclear generation.</p> <p>He went on to explain that from when these statistics were done 30 years ago there was very little demand for electricity in the Eastern Cape, it has now picked up quite</p>

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		<p>The facilitator explained to participants that the manner in which the national grid is actually configured, and how it feeds into the electricity needs in the Eastern Cape has to be properly understood.</p>	<p>substantially. Power stations in this area are therefore required to support the growing demand in the Eastern Cape and to support the national grid.</p>
14	Mr Chris Barratt St Francis Kromme Trust	<p>Mr Barratt stated that he did not think that Mr Stott had answered the question. He spoke about problems with distribution, that has nothing to do with the situation of a power station if Eskom's current distribution is a problem.</p> <p>He asked for further clarification on the weightings. There have been numerous references to a 2-day meeting. He wanted to know if the minutes of this meeting were available, will they be published and if so why have they not been published to date.</p> <p>Mr Barratt then stated that the map is incorrect as it says estimated load growth points, it should read, estimated weak distribution points on Eskom's grid.</p> <p>Mr Barratt then asked if the 'notes' were available and if not, why because it is information which the public must access (if necessary).</p>	<p>Mr Stott responded by saying that it was not only the distribution that was a problem, it was the entire transmission network in the Eastern Cape is weak. That is the problem that electricity has to be delivered to industry and to residents. Residents only use about 30% of the available electricity in South Africa, 70% of the electricity goes to commercial buildings and industry.</p> <p>Mr Stott disagreed and said the map is accurate. It is based on information that Eskom has received from customers of their projection and of how they are going to expand into the future and therefore what the demand for electricity is going to be.</p> <p>Ms Ball said that there was not only one integration meeting there were three meetings for all of the specialists. There were also sub-cluster groups of meetings. 'Notes' and not minutes were taken of the meetings and they are internal working notes.</p>
15	Ms Cheron Kraak	Ms Kraak said she wanted to follow up on what Dr	Ms Ball said that this was a very important point and it has

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	Country Feeling	Cowling had said regarding the dynamic dune system. The new red listing that has been published, there are actually 13 plants that she knows of that occur in the dune system and which are threatened in some way. There are a further 10 which could well occur there. With all due respect to the specialists, if the dune system is trashed those plants will disappear forever and no amount of money will buy them back.	been reinforced by the specialist that the dune system is the most sensitive part of the site. If you have any further information to be past on to the specialist, please submit it in writing. The specialist reports acknowledge the sensitivity of the dune system and provide mitigation measures to minimise the impact on the sensitive wetlands and associated fauna and flora.
16	Mr Hilton Thorpe St Francis Bay Residents Association and St Francis Kromme Trust	Mr Thorpe said that when he saw the loadings on the screen he immediately thought he would like to know how Coega would have scored. He is aware that there are seismic problems at Coega but he is also aware that the brief to Arcus GIBB was 5 sites, they have not done a proper full examination of the potential of Coega. Clearly the economic side of it looks favourable as it is close to Port Elizabeth and the industrial development zone. He feels that what is being offered is damage control. Thyspunt is not a good site but the best must be made of it. That is the message that is being heard, whereas Coega is environmentally degraded, it has got all the infrastructural facilities and even a sub-station next door. There are, however, a couple of questions about this site. He then said that it is going to cost between R5 – R10b just for the infrastructure, to upgrade the roads and take back the power lines from Thyspunt and how could this be directed at mitigating problems found at Coega. This is not being investigated and he objects to this. It is not correct to say that alternatives have been investigated.	Ms Ball responded by saying that he had mentioned the seismic risk and she had mentioned the need for Nuclear-1 within a short space of time. The NSIP reports took 10 years to complete. There is ocean current problems with the Coega harbour, these are some of the issues that lead to the decision that Coega site was not feasible and reasonable for Nuclear-1. This does not mean that Eskom would not consider Coega for Nuclear-2 or 3. Ms Ball emphasised that all 24 specialists found that the three sites that were investigated and which were taken forward into the EIA phase as being suitable for investigation. Ms Ball said that Mr Thorpe's concerns are noted and she understands that he has obtained legal advice on the matter and the consultants would welcome the legal opinion.

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		<p>Ms Ball has said that this EIA is only concerned with Nuclear-1 and in terms of Nuclear-1 it could be said that these are the alternative sites. They are concerned about a nuclear programme for South Africa, which involves all 5 sites and is going to impact incredibly negatively on this area.</p> <p>Mr Thorpe went on to say that somewhere near Port Elizabeth must be investigated. Until that happens, this is not a proper process. He then asked Ms Ball to explain in detail why Coega was considered unsuitable.</p> <p>Mr Thorpe responded by saying that because Eskom is in a hurry to construct Nuclear-1 there is not time to investigate Coega.</p> <p>Mr Thorpe said that this was an appalling site to use for a nuclear power station but it might be acceptable due to a lack of anything better.</p> <p>Mr Thorpe feels that the lack of investigation is a fatal flaw.</p>	
17	Mrs Paddy Oosthuizen St Francis Bay Residents Association	Ms Oosthuizen said that everyone appeared to be on the same track. She asked if Ms Ball could tell them what the cost would be of upgrading Van Staden's Bridge and the bridge over the Kromme River.	Ms Ball said that she did not have that specific information at hand but would request that these estimates be included in the Final EIR.
18	Mr Mike Simms St Francis Bay Residents Association	Mr Simms said that he understood that the two most important criteria were integration into the national grid the network and second one was seismological risk.	Ms Ball replied that this goes back to issue of alternatives which had been addressed in detail earlier. She confirmed that other sites have not been assessed between Port

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		<p>What has been seen is that regarding integration into the grid network, the real demand lies in the Eastern Cape whereas this site is almost in the Western Cape. The Eastern Cape demand load is between Port Elizabeth and East London. In terms of using that criteria as integration, this has not been compared to any sites that might exist anywhere between these two towns. Therefore one would question how integration can be weighted into the assessment and whether this is a valid argument to use.</p> <p>In terms of the seismological, his understanding is that they have build nuclear power stations in Japan, in areas on the rim of fire. If they can build a nuclear power station in Japan then what could be wrong with the seismological situation along the whole South African coast between Port Elizabeth and East London.</p>	<p>Elizabeth and East London.</p> <p>Mr Simms is correct there are non standard nuclear power stations, Koeberg is one of them which are specifically designed to withstand seismic conditions.</p> <p>For Nuclear 1 the reason that Thyspunt is preferred is due to its relatively low seismic value compared to Bantamsklip and Duynefontein which provides some certainty that a standardised Nuclear plant can be built on this site. If a standardised plant is not suitable it will take additional time to finalise the specific design and to obtain NNR approval when compared with a standardised plant.</p>
19	Ms Trudi Malan Spokesperson for St Francis Alliance	<p>Ms Malan asked if it is correct that the studies that were used in the 1980s excluded the area between Port Elizabeth and East London. She thinks this is strange as this study is based on policies of the apartheid government as this site was excluded because it was within 100km of the Ciskei.</p> <p>The facilitator asked if the specialist had taken cognisance of the socio-political issues that have changed.</p>	<p>Ms Ball said that Ms Malan is correct. Her understanding of the NSIP report is that sites in the former homelands were not investigated by Eskom.</p> <p>Ms Ball replied that the 5 sites had been investigated and these were deemed to be suitable for Nuclear-1. All of the specialists, including the socio-economic specialist looked at the 5 sites and they did not look at sites all the way up the coast.</p>
20	Mr Ryan Donnelly For A Safe Tomorrow	Mr Donnelly took up the issue of the influx of workers and increase in population in the area. He asked what	Ms Ball said that their understanding is that there will be approximately 7,700 potential jobs at the peak of

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		<p>kind of an increase in population does the independent consultant envision for this area. He also asked that regarding the job seekers, where would these recruitment areas be and will there be any other recruitment areas. He also asked if there would be a specific bus line going straight to these recruitment areas and no-where else.</p> <p>Mr Donnelly asked if a study has been done on what the total envisaged population influx will be.</p> <p>Mr Donnelly said his concern relates to mitigation with regards to social impact in the area. Mr Stott explained to the meeting on the previous evening that there would be busses going from Humansdorp to the power station and that recruitment would be in Humansdorp. His concern is that Sea Vista, the closest affected community has no priority over the jobs and secondly they would have to travel to Humansdorp to get on the bus to travel back to the power station. He asked if there was going to be a bus that will pick up the residents in Sea Vista.</p>	<p>construction. This would attract workers to the area. The specialist has firmly recommended that at least 25% of the jobs, if possible, are given to local people, within the greater area. The specialist had examined Eskom's case studies in other large construction sites in terms of the potential numbers. Eskom does not appoint people at site, they engage with the department of labour and local government to determine where recruitment will take place.</p> <p>Ms Ball said the social specialist has made estimates in terms of workers, some would bring their families. The estimate is approximately 10,500 people.</p> <p>Ms Ball explained that because this study is still in the EIA phase, the specialist has made recommendations in regard to housing in Jeffreys Bay and Humansdorp and serviced areas there.</p> <p>Ms Herbst said that at Eskom's other sites, they have not limited recruitment to one area. For example at Kusile Power station, which is near Emalahleni, there is Phola which is about 20 km from the power station. Eskom has engaged with the local community leaders and a recruitment area has been set up in Phola. Eskom has also set up a recruitment centre in Emalahleni itself. In a remote area such as the Ingula Pumped Storage Scheme in the Drakensberg, there are lots of rural communities in the mountains, Eskom deals with the Chiefs, the Mayor, the department of labour and the various community leaders and arrangements are made for recruitment. Eskom would not only set up a centre in Humansdorp, it will be set up where it is required based on Eskom's discussions the</p>

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		<p>Mr Donnelly said that the point that he was trying to establish is that there is no mitigatable measure to deal with the social impacts in Sea Vista other than if Eskom takes on a body such as the Sea Vista Forum to manage and monitor who is a resident of Sea Vista.</p> <p>His last point concerns water. There is a perceived positive because of increase in agriculture in this area. He is a farmer and there has been a drought in the area, he asked if an in-depth water study had been done with regards to total population influx.</p> <p>Mr Donnelly said that he insists that the agricultural report does not indicate a positive impact until such time as the water issue can be sorted out.</p>	<p>department of labour and local government.</p> <p>Ms Ball said that a fresh water supply study was undertaken, they have recommended the desalinisation plant. In terms of the increased agricultural supply and the increased demand for water, she said that she could not answer that question presently but she would take this to the specialist concerned and have the it included in the Final EIR.</p> <p>Post-meeting Note: The Fresh Water Supply Assessment is attached as Appendix E9 to the Draft EIR. The assessment reports that There are no rivers or perennial streams at any of the three alternative sites. Construction and operation of Nuclear-1 will thus not have any direct impacts on surface water supply schemes or catchments. Furthermore, as Nuclear-1 will be developed at coastal sites where groundwater is near the end of the flow path, the only existing groundwater use that could be directly affected are the coastal springs. Any impacts on these springs will be of a localised extent. Desalination of sea water is identified as the most viable alternative for an assured water supply at all three alternative sites. Desalination has the least potential environmental impacts and it would not be affected by climate change.</p>

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21	Mr Alwin Malgas Sea Vista Forum	<p>[Parafrese] Mnr Donnelly is besig met 'n punt wat die gemeenskap hard raak. Dié een saak is uiters belangrik, want wat ek nou ontdek het in die verslag van hierdie mense, gaan oor die vis bedryf. Dit is vir my 'n probleem dat Eskom na onse mense toe gegaan het en vertel het van 7,000 werksgeleenthede wat gaan kom. Nou gaan ons binne 'n paar jaar in St Francis Baai se visbedryf sit [met probleme]. Waar gaan onse mense werk kry?</p> <p><u>Translation:</u> Mr Malgas says that Mr Donnelly has brought up a point that will have a big impact on the community. He thinks what he has just discovered in the report is a very important matter, because it is about the fishing industry. He thinks it is wrong that Eskom has gone to his people and told them about 7,000 job opportunities to come. [In reality], within a few years St Francis Bay's fishing industry will be [running into problems because of the construction of the power station]. He asks where his people will get jobs then?</p> <p>He quotes, "thus an exclusion zone of 1km width would account for roughly 1.8% of the total catch, which means there will be a decrease in the total catch annually. This would amount to about 27 tons per annum with an export value of €0.88 per annum". This is devastating for the community. "Either Thyspunt fishing ground were to be closed or as part of the exclusion zone the vessels based in Port St Francis would have to venture afield and therefore the</p>	<p>Ms Ball said that these were very important and serious questions.</p> <p>Mr Heydenrych explained that there might be some confusion about the exclusion zones and security zones. One of the exclusion zones required in terms of the NNR process is a zone that still has to be defined and imposed on Eskom is the so-called Protected Action Zone which is a zone within 800 m of the power station within which there can be no private development. This area is almost entirely within the current Eskom owned property, except for a small portion. There is also another exclusion zone and that is the security zone that is imposed within 1 km of the shore of the Eskom owned land. There may be restrictions on fishing within that zone. There are no other exclusion zones further from the power station.</p> <p>The facilitator asked Mr Malgas how far off shore they fished.</p> <p>Ms Ball said that she will ask the economic specialist to look specifically at the local economics and the effect on the local Chokka Industry.</p> <p>Ms Ball, the Chokka Fishery based in St. Francis Bay fishes all the way up and down the south coast. The Chokka spawning ground is found in depths of less than 50 m, which does fall within the 1 km zone. The specialist Dr Robinson reports that Chokka do spawn all the way out and there would indeed be an economic impact on the local fisheries. However, Dr Robinson said that the fishing boats</p>

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		<p>companies have to acquire larger vessels,” (which for the smaller ones there is not even a proper market to sell their smaller vessels so how would they be able to afford bigger vessels). “Which would not be able to enter Port St Francis” for which means the community are sitting with a harbour that they cannot use because all the small vessels would not be able to enter Port St Francis. So these companies would have to relocate their operations, which means that the fishermen have to go to Mossel Bay and he did not know if this would be suitable or reliable for the community. However, vessels based in Port Elizabeth that also fish from Thyspunt would also be affected.</p> <p>To summarise, the report says there will be 7,000 jobs available but the fishing industry will be severely affected in the medium and long term.</p> <p>Ms Malgas said that they fished 1.5 km from the shore. He said that they would be within the exclusion zone. He said if anyone went to look at this moment there would be about 40 boats fishing from Thyspunt and within the exclusion zone that is indicated on the map.</p> <p>Mnr Malgas said that every time Ms Ball refers to specialists, the question is did this specialist have any experience, did they ever catch Chokka themselves. Did they ever own or work on a Chokka boat. Mr Malgas said that he was a fisherman and he knows exactly what the situation is.</p>	<p>do move out beyond the site for the Chokka fishing at the moment.</p> <p>Post-meeting note: The Marine Biology Assessment is attached as Appendix E15 to the Draft Environmental Impact Assessment Report (Draft EIR). The report identified the following potential impacts on the marine environment in terms of Chokka squid:</p> <p><u>Disruption of the marine environment during construction</u></p> <p>The construction of an intake and outflow system for cooling water will result in temporary disruption to the marine environment. Under such circumstances the benthic habitat and in particular egg beds of the Chokka squid <i>Loligo vulgaris</i> are at risk of damage due to smothering, while turbidity may result in adults temporarily moving out of the area. This disturbance will be focussed within the construction phase and is likely to be localised and of short duration.</p> <p>Additionally, potential discarding of an estimated 6.37 million m³ of spoil from the excavation of the intake tunnel, nuclear island and turbine hall poses a threat to the marine environment. From a biological perspective potential impacts would occur due to increased turbidity in the water column as a result of the suspension of fine particles and due to smothering of the benthic habitat by spoil placed on the sea floor. At this site only the disposal of all or half the spoil at a deep site using a medium discharge rate are considered acceptable from a marine ecology</p>

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			<p>perspective. Following disposal on the seafloor, roughly 3 m of sediment will cover an area of 1.5 or 3 km² depending on whether only half or the full volume of sediment is disposed of. Following disposal, local water movement will result in shifting of the spoil in a north easterly direction towards Seal Point. Within the first five years following disposal the sediment is likely to spread to cover an area of between 8.3 km² and 6 km² in sediment of between 5 and 10 cm. In the next five years loose sediment originally placed on the disposal site is expected to continue to spread in towards Seal Point. If disposal of the full volume of sediment is employed this spoil is likely to spread to cover a small area in the small bay east of Seal Point in 5 – 10 cm of sediment. If disposal of only half the volume of spoil is utilised, this area will not be affected. While the initial disposal site will be lost as a breeding area to Chokka squid <i>L. vulgaris</i>, the areas to which sediment spreads are unlikely to affect these squid as they lay eggs on both sand bottoms and rocky reefs. Sandy bottom communities establishing within sediment originating from the disposal of spoil are likely to be dissimilar to those of surrounding areas. This is due to the fact that this site is dominated by consolidated sands will naturally support different biotic communities to those occurring in loose sediments such as those derived from spoil.</p> <p><u>Release of warmed cooling water</u> No input of warmed water comparable to that of the proposed development exists along this section of coast. As this site lies at the warm end of the Agulhas</p>

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			<p>Bioregion it could be argued that a portion of species occurring here may be near the upper end of their temperature tolerance range and hence could be particularly vulnerable to further temperature increase. Although theoretically possible, this is however, unsubstantiated.</p> <p>The fishery of greatest importance in the Thyspunt area is the coastal jigging fishery for Chokka squid <i>L. vulgaris</i>. The major spawning grounds of this species occur between Plettenberg Bay and Algoa Bay and it is here that these squid are targeted during the spawning season. Adult Chokka squid are adapted to a wide temperature range of between 8 and 22°C and are able to cope with rapid changes in water temperature, which allow them to easily move through thermoclines. As such it has been recognised that temperature is probably not a primary factor affecting the distribution of adults, but rather the distribution of their food source. This is reflected in catches peaking following drops in temperature resulting from coastal upwelling. It should be noted that it is not the drop in temperature which drives this change, but rather the process of upwelling. As such, elevated water temperatures resulting from the release of cooling water will not as a matter of course result in lower catches by the fishery.</p> <p>The egg capsules of this species are deposited directly onto the seafloor and develop optimally at temperatures between 12 and 20°C. At temperatures above 22°C egg development is retarded and mortality increases and above 24°C, 100% mortality is reached.</p>

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			<p>Based on a background temperature of 19°C egg beds will be able to tolerate a maximum temperature increase near the sea bottom of 3°C. Oceanographic modelling indicates that while a mean increase of 3°C near the seabed will be limited to an area of roughly 0.2km² around the outlets of a 4 000 MW plant, an area of 0.5km² will experience an maximum increase of 3°C or more, if a nearshore pipeline outfall is used .</p> <p>This temperature increase will be focused at depths shallower than 15 m. Modelling also showed that should a channel outflow system be used for a 10 000 MW plant, a mean increase of 3°C would affect less than 0.1 km² but about 2.5 km² would experience a maximum increase of 3°C or more (Models were not constructed to consider this release system for a 4 000 MW plant, but its impact would be less than that of the larger 10 000 MW plant. As egg beds are laid down predominantly in areas shallower than 50 m (unless unfavourable conditions force adult squid offshore), a certain amount of egg mortality is expected, although precise estimates cannot be made as the exact location of egg beds is not known. Nonetheless, the area to be affected is in fact a tiny portion of the spawning ground which is centred between Plettenberg Bay and Algoa Bay (Augustyn 1991). In order to minimise impacts on egg beds the cooling system outflow should be located at a depth of more than 50 m.</p> <p>The release of warmed water is not predicted to have a significantly negative effect on fish, or marine mammals. This is due to their mobility and ability to</p>

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			<p>avoid the localised warm water plume. In addition all of these species have wide-ranging distributions which extend far beyond the Thyspunt area. Although these species are likely to avoid the elevated temperatures immediately around the outfall, they are not expected to avoid the area in general.</p> <p>At Thyspunt there is notable potential for the establishment of new warm water species, due to the already high ambient sea temperatures at this site and its proximity to the sub-tropical Natal marine bioregion, which could act as a source of immigration of warm-water species. Climate change related declines in sea surface temperature in this region (Rouault <i>et al.</i> 2009) are unlikely to reduce the risk of establishment of warm water species as water temperatures have declined by less than 1°C over the last two decades. Should the establishment of warm water species occur, it is, however, unlikely to have dramatic impacts on the local ecology as immigrant species will be restricted to a small area warmed to within their thermal tolerance range by the plume.</p>
22	Mr Chris Barratt St Francis Kromme Trust	Mr Barratt said that the specialist report appears to say that there is a fish processing plant in Humansdorp, there is actually one in Port St Francis, which is not mentioned.	Information noted with thanks.
23	Ms Donna Jooste Coetsee Nature's Calling Magazine	Ms Jooste-Coetsee said that regarding conservation, the environment and the sea issues, specialists are being referred to, whenever questions are answered, Ms Ball quotes from the specialists. She asked how many of these specialists live in the area, how many of them fish, how many of them care for the environment.	Ms Ball replied that they had started off with 5 sites ranging from the Northern Cape down to the Eastern Cape. What was specified in the terms of reference to the specialists was that they must consult with local specialists and use local knowledge. They also had to undertake field work in the area. Some of this field work was extensive and some took weeks to complete. Arcus GIBB's criteria was to use

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			the best specialists that could be found in South Africa who were internationally renowned. Legislation demands that registered, experienced specialists be appointed. However, none of these specialists actually live in the area.
24	Mr Chris Barratt St Francis Kromme Trust	Mr Barratt asked for confirmation that each one of the specialists has visited this area and can a schedule be supplied of how long each specialist spent in the area.	Ms Ball said that this information is in the methodology section of the reports.. She confirmed that each specialist had spent time in the area and particularly the biophysical specialist. She said she would give actual confirmation of this. Many of the specialists are based in Cape Town. Also each specialists' CV is in the report. There is also a consolidated list of specialists and their full CVs also on the website.
25	Ms Andrea von Holdt Coega Development Corporation and Rebels Rus Nature Reserve Resident	<p>Ms von Holdt asked that the slide with the maps of the vertebrate sensitivity and the consolidated map of all the impacts on vertebrates and invertebrates be displayed. She then asked why the majority of the footprint is not sensitive.</p> <p>She also asked if she was correct in saying that it is 2,400 ha that was investigated and 73.79 is suitable for development and the footprint of the actual vicinity will be approximately 31 ha. When will it be known, where, within this 73 has the footprint will be constructed and will this have an impact on the 800 m radius. She asked this question because she is one of the landowners in the Rebelsrus Nature Reserve and the answer may determine whether she loses her property or not.</p> <p>She went on to say that it is continually mentioned that St Francis Bay and Oyster Bay and Cape St Francis</p>	<p>Ms Ball explained that the fauna is usually dictated by the flora and the habitat types. There are nine different communities including wetland communities on the detailed vegetation map.</p> <p>Ms Ball said that Ms von Holdt was correct. 31 ha is approximately 1.3% of the total area of the land. In terms of the exclusion zones, it is her understanding that it is taken from the centre of the power station.</p> <p>Mr Stott said that the zone was not taken from the centre of the power station, but it is taken from the perimeter of the power station.</p> <p>Mr Heydenrych clarified that the exclusion zone is currently an irregular shape and is defined as the EIA corridor and the power station may be constructed anywhere within that area. Once the power station is actually located, the shape</p>

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		<p>are the closest residential areas but actually people residing in Rebelsrus Nature Reserve are the closest.</p> <p>She also made a suggestion that the power station be constructed in the western section of the area so that these residents are not affected.</p> <p>Ms von Holdt then asked about the view shed analysis that was done. She asked if the visual specialist actually investigate the area where Rebelsrus houses are situated to determine whether it will be visible from this area.</p> <p>Ms von Holdt suggested that an Environmental Monitoring Committee be established. This committee should be made up of the developer, residents in the area, members of environmental authorities and local municipal authorities. This would ensure an opportunity for communities to be part of the development and to ensure that it does happen based on the requirements of the permits.</p> <p>Ms von Holdt said that specialists usually have a 3D photograph/diagram where they superimpose what the building would look like. Does Arcus GIBB have anything similar to show the audience? She does not know what this power station is going to look like and the slide is not clear.</p>	<p>of the exclusion zone will change. There would have to be a process of optimising the location as far as possible on a detailed level.</p> <p>Ms Ball said that they have recommended that the final positioning within this area needs to be investigated with the specialists and would obviously, if this were authorised, the DEA would build this into a condition and set a time frame.</p> <p>Ms Ball said that the specialist had looked at an area 16 km from the potential EIA corridor and they looked particularly the views from along the coastline. They also looked from existing residential areas.</p> <p>Ms Ball said that this was a firm recommendation in the Environmental Management Programme.</p> <p>Mr Stott confirmed that Eskom does this for all their projects.</p> <p>Mr Heydenrych, using the slide, clarified that there were two analysis undertaken by individual specialists basically on worst case scenarios, looking firstly 65m (station) and at the 95m mast which was for meteorological purposes. The visual specialist looked at the two heights and Arcus GIBB recommended that in terms of the meteorological mast that that should not be the preferred alternative and they have</p>

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		She asked that some sort of plant be put onto the slide even if it is not the exact plant, specifically indicating height. She asked that the worst-case scenario be illustrated.	<p>recommended other technology.</p> <p>Mr Heydenrych explained that Eskom has not gone through the commercial process as yet so the type of plant is still unknown.</p> <p>Post-meeting Note: A 3D representation is currently being prepared by the Visual Specialist.</p>
26	Mr Derek Cook Macohy Investments	He asked who pays specialists who are involved in the environmental monitoring committees. If Eskom pays them, there might be the perception that they are biased towards Eskom.	Ms Herbst replied that for the Medupi Power Station, Eskom has a specialist in the Environmental Management Committee and he is reimbursed for his travel and contribution. Obviously Eskom do pay as someone has to pay for the specialists. At Ingula Pumped Storage Scheme, Eskom has partnership with NGOs and there is specific work and baselines that are done for Eskom that is paid for but they do act independently and they bring in other conservation specialists many of them come without expecting payment.
27	Mr Petrus Leen Sea Vista Forum	<p>Mnr Leen sê hy verstaan daar was 24 spesialiste. Hy wil graag weet: voordat hierdie gesamentlike verslag opgestel was, wat was elke een se bevindings, en wat dan as hulle as gemeenskap verskil met hierdie 24 spesialiste?</p> <p>Mnr Leen sê hy wil sekerheid verkry. As hy die visbedryf vat, was dit net een kamp wat die studie deurgegaan het, of was dit twee verskillende? Hy vra dit sodat hulle duidelikheid kan kry oor wat hulle bevindinge was.</p>	<p>Mnr Hydenrych antwoord dat elkeen van die 24 spesialis verslagte ook ingesluit is in die verslag so almal na die individuele verslagte kan kyk. Hulle het elkeen onafhanklik gewerk maar daar was ook sekere spesialiste wat saam gewerk het, soos die biofisiese spesialiste. Maar elke een van die spesialiste het op sy eie sy bevinding bereik and Arcus GIBB het die bevindinge saamgevoeg.</p> <p>In die meeste gevalle in elke spesialisveld was dit 'n aantal individuele besluite, maar byvoorbeeld wat die mariene bioloë betref was daar twee spesialiste. In die sosiale span was daar vier of vyf mense. Daar was ook onafhanklike</p>

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		<p><u>Translation:</u> Mr Leen says his understanding is that there were 24 specialists. He would like to know what the findings were of each one, before the EIR was compiled. What happens if the community differs from the findings of the 24 specialists?</p> <p>Mr Leen says he wants more clarity: in looking at the fishing industry, for example, was only one ["camp" studied/studying][meaning unclear], or were there two different camps? He asks this in order to get more clarity about their findings.</p>	<p>mense wat die studies oorweeg het uit 'n wetenskaplike oorpunt om te sien of die metodes korrek was, om seker te maak dat die bevindinge korrek is.</p> <p><u>Translation:</u> Mr Heydenrych replies that each of the 24 specialist reports is also included in the report so that each can be studied individually. The specialists for the most part worked independently of each other, but there were also certain specialists that worked together, e.g. the biophysical specialists. But each of the specialists reached their own conclusions, and Arcus GIBB compiled their findings into one report.</p> <p>In most cases, each specialist field was handled by an individual, although in the case of marine biology, for example, there were two people, and the social team consisted of four or five people. There were also independent consultants who looked at the studies from a scientific point of view to ensure that the correct methodology was used that would lead to valid findings.</p>
28	Mrs Cheron Kraak Country Feeling	Mrs Kraak commented on the school. For at least 14 years the Sea Vista Primary School has needed new buildings and it is her understanding that due to the power station being built in this area that no new buildings have been constructed. She asked if new buildings would be constructed if the proposed power station is built in this area.	<p>Ms Herbst replied that she would reply using the example of other projects. . The Eskom Development Foundation will investigate the area and concentrate on those areas close to the site that are in most need and they identify what they can contribute. In areas surrounding other Eskom projects, schools have benefited by having classrooms added and even a facility for a teacher has been added to a school. When determining what is required at a school Eskom works closely with the Department of Education.</p> <p>Ms Ball said that this should be answered by the DEA.</p>

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		Ms Kraak asked if the power line route has not yet been decided, what happens if Duynefontein power route is preferable than Thyspunt route.	However, she explained that there are three separate EIAs being undertaken and if there is a fatal flaw in the transmission lines, this nuclear power station will not be constructed, even if authorisation had been granted for the plant.
29	Mr Alwin Malgas Sea Vista Forum	Mr Malgas said that he feels that Eskom is now putting a smart idea forward. He asked why they have been silent on helping the community, he has never heard of an Eskom Development Foundation before. He feels that Eskom has attended meetings in order to tell the community that they will spend towards a school. He said there is land available in St Francis Bay that belongs to the Department of Environmental Affairs.	Ms Herbst said that she was merely using examples from other Eskom projects.
30	Mr Chris Barratt St Francis Kromme Trust	Mr Barratt stated that in the specialist report the Sea Vista school was shown as between 15 and 18 km from the site. He pointed out that in fact it is 10 km from the site. This is another of the many anomalies that are in the report.	Post-meeting note: Sea Vista is 12 km from the Thyspunt site.
31	Mr Helmie Tilders FOSTER	Mr Tilders asked for the access road slide to be displayed. He commented that this road will affect the residences of St Francis and Sea Vista more than anything else in this entire project. It has been quoted that 825 vehicles will use the road in the morning, over a three hour period that is about 1 vehicle every 20 seconds. In the evening 500 vehicles over a 2-hour period, which also means a vehicle every 15 – 20 seconds. How would this affect Sea Vista, where the trucks all slow down to take the corner? This has not been well	Ms Ball responded that these concerns are noted. Social, noise, traffic, biophysical concerns have all been noted. A follow up meeting has been arranged with Key Stakeholders and these aspects will be discussed in more detail.

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		<p>investigated, in the original report of the 1980s there was no eastern access route. He feels that economics should not determine where the road is placed. A plan should be formulated to bring it from the north or the north-west.</p> <p>It has been mentioned that all roads will be tarred, so therefore a tarred road could be constructed on the northern side.</p> <p>There is also the matter of the Sand River crossing which has been a constant problem and then there is a dip at the Seekoie River near Humansdorp.</p> <p>He emphasised that this one road will affect everyone living in St Francis Bay to Cape St Francis including Sea Vista residents in an incredibly negative way.</p>	
32	Mr Chris Barratt St Francis Kromme Trust	Mr Barratt added that Ms Ball had said that there would be a 24-hour shift at the power station. The impact will be vastly different if there are trucks using the roads on a 24-hour basis and not only during daylight hours.	<p>Ms Ball said that the social specialist has made recommendations in terms of working hours.</p> <p>Post-meeting Note: The Social Impact Assessment attached as Appendix E19 of the Draft EIR recommends the following mitigation measure (pg.178) –</p> <ul style="list-style-type: none"> • Construction activities and vehicle movement should be restricted to daylight hours.
33	Mr Alwin Malgas Sea Vista Forum	Mr Malgas said that noise had been discussed previously. He asked that the specialists must bear in mind that in Sea Vista, houses are not constructed with 9-inch walls. The noise is going to be heard by the community and this will impact greatly on the lives of the community.	Comment noted.

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34	Dr Shirley Cowling FOSTER	Dr Cowling said that regarding the eastern access route, one of the major stakeholders is the Kouga council and she wanted to know if they have had any input into the report, particularly concerning the yellow eastern access road. If they have, this input is not indicated in the report.	Ms Ball responded she could not recall if the Kouga municipality had attended any of the meetings. Kouga Municipality is a key stakeholder and has been invited to comment on the report.
35	Ms Francis [Surname]	<p>She stated that she finds it hard to believe that the municipality has not been more active in commenting on this development. In the latest newsletter from the municipality, it is claimed that 95 houses have been built in Sea Vista during the last year but not one house has been built. Community issues have to be addressed and the municipality must become involved.</p> <p>She said that meetings with the municipality must include other stakeholders so that they can be questioned in the public domain.</p>	<p>The facilitator suggested that the municipality be formally approached for comment.</p> <p>Ms Herbst said that Eskom have held general discussions with the Kouga Municipality but she is not sure whether the specific issues concerning the access roads have been discussed.</p> <p>Ms Ball said that the Kouga Municipality had been formally invited to this meeting.</p>
36	Ms Trudi Malan Spokesperson for St Francis Alliance	<p>Ms Malan said there were two issues that needed to be addressed. She took exception to the yellow area being removed from the one slide.</p> <p>She then addressed Eskom and said that they have held several meetings with the local authority and these meetings have progressed to the stage that housing areas have been identified. These meetings have been held privately and the constituents from this community know nothing about these meetings. None of the ratepayers were invited to these meetings. She said that Eskom cannot hold meetings with the municipality in private. When Ms Malan phoned the municipality earlier that day to ascertain</p>	Mr Stott said that Ms Malan's insinuations are incorrect. It is true that Eskom has held discussions with the municipality as they had asked Eskom to come and see them when this site was chosen as one of the possible sites in the Scoping Report. They wanted to discuss both housing and rezoning. However, no decisions have been made as until authorisation is gained Eskom cannot move forward.

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		<p>who from their organisations would be attending this meeting she was told that no-one would be attending as the municipality are in discussions with Eskom.</p> <p>Ms Malan asked Eskom to address a letter to the municipality stating that no decisions have been made regarding housing.</p>	<p>Eskom will communicate this aspect with the municipality.</p>
37	A Stakeholder Cape St Francis	<p>She asked Mr Stott if the municipality were aware of the road that would go right through the village of St Francis Bay as well as the expansion of the bridge. She also asked if they were aware of the number of trucks that would be travelling along this road.</p>	<p>Mr Stott said that the municipality had received the same documentation and so they should be aware of all the data.</p> <p>This information will be shared formally with the Kouga Municipality.</p>
38	Francis [Surname]	<p>She stated that given that the major argument is that there is more power needed and it is needed soon. Given the fact that this power station is going to take 20 years to build, she does not understand why this is being proposed. She wanted a timeframe overview of all the processes. Timing is not a justifiable argument.</p>	<p>Ms Ball said that in the scoping phase, timing of all the permits was presented at the meetings. She said she could include this as an appendix to the final EIA report.</p> <p>Mr Stott explained that this particular project will take 7 years for construction, not 20 as mentioned by the speaker</p> <p>Mr Stott indicated that the speaker might be referring to the Integrated Resource Plan that the government is undertaking which will investigate a 20 year horizon. This plan should be issued in June 2010 and will indicate all the technologies that are required and by when they are required.</p> <p>Mr Stott added that energy planning will not end after 20 years, there have to be plans far beyond that period.</p>
39	Mr Ryan Donnelly For A Safe Tomorrow	<p>Mr Donnelly said that he is not comfortable with the independent environmental consultants looking at Thyspunt as a nature reserve because in reality it would be a waste dump. It would be a dangerous</p>	<p>Comment noted.</p>

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		<p>place that is why there are limitations placed on the area. Therefore he does not feel that it should be listed as a benefit. He asked that the consultants amend their positive impact to somehow include that aspect.</p> <p>In the beginning there was reference made to studies done on muscles with respect to radioactive contamination, he asked who did these studies and what studies have been done on human health and also who had conducted these studies (at Koeberg).</p> <p>Mr Donnelly added that as they were interested and affected parties in this area where they may well be subjected to similar emissions, could they see the studies. He also asked if any of these studies are done independently.</p> <p>Mr Donnelly also said that regarding all of the studies these are stacked up like dominoes. Should one fall, most of the others would also fall. He requested that the consultants undertake all the necessary studies to ensure that the information is as accurate as possible.</p>	<p>Ms Ball responded by explaining that the model of the Koeberg Power Station had been used, which is a Generation 2 type of nuclear power station.</p> <p>Ms Ball said that Prof Charlie Griffiths and Dr Tammy Robinson had conducted the marine specialist study, they did the same tests at Koeberg. She is unaware who Koeberg uses for health and safety monitoring.</p> <p>Ms de Villiers from Eskom explained that the health monitoring goes through the environmental survey and it is monitored through the NNR there are spot checks by the International Atomic Energy Agency.</p> <p>Ms de Villiers said they are available, at the moment Mr Mike Kantey has a full set of the studies from 1984 until 2006. If a nuclear power station was built, one of the things that would have to be done before commencement would be to obtain a baseline of what radioactive levels already exist in the area. Ms de Villiers said she would have to check if the initial studies were independent, the studies undertaken monthly, Koeberg provide the monitoring which is then checked by the NNR and spot checked by the International Atomic Energy Agency.</p> <p>Ms Ball said that this EIA did not cover health and safety issues that would fall under the NNR. Ms Ball agreed that</p>

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		<p>He also noted that East London did not appear to be a perceived growth as far as power was concerned, and he asked if there is a reason for this.</p> <p>Mr Donnelly asked for the slide on wind issues be displayed. What had been established from Ms Karin de Villiers is that the studies done on routine emissions and effects of them on the surrounding areas is usually conducted by the power company. When he examined the specialist report, it indicates that the information comes from two vendors. He is sceptical about the information that it is not independent of those who stand to profit from it.</p> <p>He went on to say that if the information is examined, he notes that the blue line represents a line that is an annual overdose, which is considered legally an overdose where no-one is allowed to dose anyone above that amount. His question was what will this mean for the residents and landowners at Rebelsrus, which is inside of the blue line. He does not object to the information – but he does object to the <u>source</u> of the information.</p>	<p>there was a huge amount of integration in these studies, that is the nature of the EIA, the specialists were required to verify information included in their studies.</p> <p>Mr Stott said that in reality the whole Eastern Cape needed power and the yellow indication on the map should be amended to reflect this.</p> <p>Ms Ball said that Mr Donnelly is correct, the air quality specialist took the most conservative estimates. They do come from potential vendors, one of which is Areva.</p> <p>Mr Heydenrych explained that the diagram indicates that according to the calculations of the independent air quality specialist, the doses that would actually occur on the site. These are above the legal limits, they are well within the limits.</p>
40	Ms Tanja Lategan Supertubes Surfing Foundation	<p>Ms Lategan asked about the private land and how much more land would need to be purchased and what process would that involve. This refers to access roads as well, would land be purchased for the roads.</p> <p>She added that there was talk of 4,000 ha piece of land being owned by Eskom.</p>	<p>Ms Ball responded that the specialist has recommended upgrades of the road to Humansdorp, which would necessitate purchasing servitudes, etc.</p> <p>Mr Stott said that if the project is approved, roads will have to be upgraded. Eskom does this in collaboration with the SANRAL as well as the Provincial and Local Government. Servitudes would most probably have to be purchased.</p>

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			Eskom cannot own roads. Negotiations would be held with landowners. Eskom does not have expropriation rights, if there was an unwilling seller, Eskom would have to approach the Minister to deal with this.
41	Ms Trudi Malan Spokesperson for St Francis Alliance	<p>Ms Malan asked Mr Stott to explain what will happen within Humansdorp. There is a huge social impact in Humansdorp and yet the people of this town seem to be unaware of the fact that hundreds of vehicles may go through their town each day.</p> <p>Ms Malan said that as previously stated, during the scoping process she had asked questions about access roads and she was told that this was unknown. Now in the draft EIA Report there is an access road with heavy traffic. The accumulative impact of this is huge. She said that she could not find the explanation for how the trucks will go from the N2 to the town of Humansdorp in the traffic study.</p>	<p>Ms Ball said that this presentation was given in Humansdorp three days previously.</p> <p>Ms Ball asked Ms Malan that if she knows of any organisations or key stakeholders or members of the public in this area, not only in Humansdorp, that would like to get involved in the project, please provide details to the team. The public meeting held was extensively advertised.</p> <p>The facilitator asked regarding any additional stakeholders that are identified, has there been a decision made regarding the comment period, as they would need to have time to comment.</p> <p>Ms Ball said that anyone could join the process at any time. She went on to say that it has been proposed to extend the comment period to the 31 May 2010.</p>
42	Mr Ryan Donnelly For A Safe Tomorrow	Mr Donnelly asked if a specific study could be done on the impacts on Humansdorp regarding the roads.	<p>Ms Ball said that there is a traffic study that had examined this and that separate EIAs will have to be undertaken for road upgrade or new roads.</p> <p>Post-Meeting Note: The Transportation Assessment attached as Appendix E25 to the Draft EIR has indicated where upgrades will be required in terms of the existing road infrastructure. The application for Environmental Authorisation further includes the following listed activities in terms of GN 386 and GN</p>

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			<p>387:</p> <p>GN 386 (15) The construction of a road that is wider than 4 metres or that has a reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.</p> <p>GN387 (5):</p> <p>The route determination of roads and design of associated physical infrastructure, including roads that have not yet been built for which routes have been determined before the publication of this notice and which has not been authorised by a competent authority in terms of the Environmental Impact Assessment Regulations, 2006 made under section 24(5) of the Act and published in Government Notice R385 of 2006, where-</p> <p>(a) it is a national road as defined in section 40 of the South African National Roads Agency Limited and National Roads Act, 1998 (Act 7 of 1998);</p> <p>(b) it is a road administered by a provincial authority;</p> <p>(c) the road reserve is wider than 30 metres; or</p> <p>the road will cater for more than one lane of traffic in both directions.</p>
43	Ms Trudi Malan Spokesperson for St Francis Alliance	Ms Malan asked where the trucks will actually travel. Presently this road would not be able to cope with the volume and the weight of the trucks. It is stated in the report that a preliminary assessment of the route from Port Elizabeth Harbour to the site was undertaken as part of the study. The preferred route is shown in Figure 10.14. She pointed out the Figure 10.14 was	Ms Ball said that her comments were noted and she thanked her for pointing out the missing figure. She undertook to go back to the specialist study and get the figure posted onto the website. Ms Ball said that all comments were noted and these are draft reports and all comments will be addressed.

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		<p>not in the transportation report. Furthermore she said that the report states that if the movement of exceptionally heavy loads is required, Eskom will undertake a detailed study of the transportation route from Port Elizabeth harbour to the Thyspunt site. Presently, the public is commenting on a draft EIA report without half of the information, she said that this is unfair practice. She asked when are the Eskom studies going to be available.</p> <p>Ms Malan said that she was not being paid to do this study, but the specialists have been paid a lot of money. Ms Malan feels that she is being asked to go through each study and pick out errors.</p>	<p>Post-meeting Note: Unfortunately the figure referred to was omitted from the Draft EIR. The figure is available on both websites (www.eskom.co.za and www.gibb.co.za) and in all public venues from 24 May 2010.</p>
44	Mr Chris Barratt St Francis Kromme Trust	Mr Barratt said he would like to back up Ms Malan on the traffic and transportation issue as the process was flawed.	Comment noted.
45	Dr Peter Inman Coega Development Corporation	Dr Inman made a suggestion from the experience gained at Coega. Heavy construction traffic should be separated from the vehicles bringing people to site, as it is best practice. At Coega, they had two routes, one for the busses going through Motherwell with a proper drop-off point carefully designed to get people safely to site and then there was a totally separate road for the heavy traffic.	Suggestion noted, with thanks.
46	Ms Cheron Kraak Country Feeling	Ms Kraak noted that in the marine studies there had been no mention made of surfing or about Jeffery's Bay, which is a wonder of the world when it comes to surfing. Surfing has put Jeffrey's Bay on the map. There are thousands of people who exist due to the surfing tourism. Approximately 2 years ago they had	<p>Ms Ball said that the surfing and tourism issues were in the tourism study and not in the marine specialist study.</p> <p>Ms Ball said that in terms of the sand, the recommendation from the specialist is that the pipeline would have to be 1.2 to 1.8 km out to sea, directly from the power station.</p>

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		<p>obtained objections from surfers all around the world. When she wanted to submit these objections she was told that they were not relevant.</p> <p>Her second point was how would the surf be affected by all of the sand and the heat that would be pumped into the ocean. There are sensitive sand dunes in Jeffrey's Bay that cause the natural wave.</p>	<p>Ms Ball undertook to make sure that the oceanographic specialist (WSP) has taken this into account.</p> <p>Ms Ball said that the marine specialist actually used the modelling from the oceanographic study as a basis to see how much of the area would potentially be covered with sand. The oceanographic modelling showed that it would be 3 km² at first and then a further 6 km² after a number of years.</p>
47	Mr Ryan Donnelly For A Safe Tomorrow	<p>Mr Donnelly requested that a special study be undertaken on the surfing industry. It is a complex and involved subject that has a big impact on the economics of the whole town.</p> <p>Mr Donnelly said that he owns an organic farm and he would like to know how this nuclear power station is going to affect his chances of organic certification.</p> <p>He then requested that the entire process must not proceed any further until there is enough material information to be able to make informed comment.</p>	<p>Ms Ball said that his comments are noted in terms of the material information aspect.</p> <p>Post-meeting Note: The Economic Assessment attached as Appendix E18 to the Draft EIR reports that although Jeffrey's Bay is beyond the 20 km radius of Thyspunt, there are strong negative perceptions in sections of the population there about the impact of a NPS. This was ascertained both during field interviews and through the comments in the interested and affected parties' response trail. Thus, Jeffreys Bay is dealt with briefly. Tourism dominates the economy of the town, and is heavily based on surfing. The normal population of 40,000 swells to 100,000 over Christmas and New Year and to 50,000 during the Billabong Pro International surfing competition over ten days in July. This is one of eleven world championship events, and is the most important surfing event in the country¹. According to the Tourism Impact report (Imani 2009), the turnover of accommodation establishments in</p>

¹ Jeffreys Bay is widely recognised as South Africa's premier surfing spot with the world's longest right-hand wave break.

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			<p>Jeffreys Bay amounts to R633 million per annum. It proposes the following mitigation measure:</p> <ul style="list-style-type: none"> An aggressive public relations campaign aimed at international product markets (e.g., in the case of squid fishing) or international bodies (e.g., the International Association of Surfing Professionals) to counter negative perceptions and boycotts of local products and events. This is an avoidance measure.
48	Mr Chris Barratt, Mr Paddy Oosthuizen and Mr Donnelly	<p>They requested for an additional 90 days to be added to the Draft EIA report review period.</p> <p>Mr Donnelly said the reason for the request is that the Sea Vista community still have not had the opportunity to begin their studies as there have not been Afrikaans and Xhosa Reports issued. If they cannot access information they cannot comment.</p>	<p>The request was noted for consideration.</p> <p>Ms Ball said that there would not be Afrikaans and Xhosa reports produced and this has been discussed with DEA. Presentations will be translated.</p>
49	Mr Hilton Thorpe St Francis Bay Residents Association and St Francis Kromme Trust	<p>Mr Thorpe wanted to follow up on the pumping of the sand out to sea. There was a proposal to pump sand from the site to St Francis Bay, where there is a beach erosion problem, he asked what had become of that proposal.</p> <p>Mr Thorpe added that there is a holding operation going on at the moment, which may be successful in stopping any further erosion. The erosion has gone so far already, however, that there are major problems.</p>	<p>Ms Ball replied that the study had been tracked down and she has spoken to the consultants and a solution has been found. Basically it was dismissed as an alternative for the soil disposal because the proponents told us that they had found a solution.</p>
50	Mr Helmie Tilders FOSTER	<p>Mr Tilders confirmed what Mr Thorpe and Mr Barratt have said. He also emphasised the request for a 90 day extension on the comment period. One of the</p>	<p>Request noted.</p>

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		<p>reasons for this is that the whole surfing community grows during winter and they should be given time to comment.</p> <p>His second point of concern is the sand being pumped into the sea. How will this affect the squid industry? An area of about 1 km is an exclusion zone, and then if sand is pumped into the sea, the current flows from west to east, therefore there will be an area of up to about 6 km of swirling sand in the current. Squid do not like swirling sand, which makes him worried that not only the exclusion zone will be affected, but rather an entire area will be affected. This needs to be addressed in detail.</p>	<p>Ms Ball replied that this comment has been noted and will take it back to the two specialists for them to study further.</p>
51	Mr Alwin Malgas Sea Vista Forum	<p>Mr Malgas wanted to know if Seal Point was also going to be affected. Squid prefer clear water and if there is a lot of sand, it will affect them.</p> <p>Mr Malgas then said that if the Sea Vista community had been considered from the beginning, would the reports have been in their language. He feels that this community is being neglected. Arcus GIBB cannot attend a meeting and expect to explain this large amount of reports in just two hours. He feels that it is their democratic right to have the reports in their own language. DEA have no local knowledge and are not considering the community.</p> <p>Mr Malgas said that Sea Vista was predominantly Afrikaans and Xhosa speaking. He asked that no terminology be used at the meeting at Sea Vista.</p>	<p>The facilitator asked Mr Malgas about the level of reading literacy in Sea Vista to establish if it would be beneficial to put the reports into another language if there are high levels of illiteracy.</p> <p>Ms Ball said that the meeting at Sea Vista would be presented in simple language. It will be presented in Afrikaans and Xhosa.</p>

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No	Name	Comment	Response
		Mr Malgas asked if DEA could be convinced that Sea Vista is a key stakeholder and are an affected community.	Ms Ball noted that participants could make this request directly to DEA.
52	Ms Trudi Malan Spokesperson for St Francis Alliance	<p>Ms Malan noted that although this EIA did not cover the power lines, the power lines have been used to exclude Bantamsklip as a preferred site from the study. In the economic impact assessment, the loss due to lack of power supply balance, actually balances the fact that you move those because it is closer to the grid. The loss due to balance is less at Bantamsklip than at Thyspunt. Further in the economic impact assessment it is stated that at Thyspunt there is a need to remove 6.4 million cubic metres of sand and bedrock. At Duynefontein there is a need to remove 6.5 million cubic metres. At Thyspunt there is no time delay and at Duynefontein there is a huge time delay. She asked for an explanation.</p> <p>Ms Malan also asked that the distance from Thyspunt to Vaalputs is actually 960 km and not 930 km. From Bantamsklip to Vaalputs it is 887 km. That makes a difference when you examine transport costs. These are the type of things that were used in the economic assessment to weight and then to pick Thyspunt. There are numerous mistakes in the economic impact assessment.</p> <p>Ms Malan then asked if Koeberg is 1.800 MW how big does the land have to be on which Koeberg is placed.</p> <p>She feels that there might be an error in the amount of</p>	<p>Ms Ball stated that any mistakes in any of the reports would impact the assessment. Dr Cowling had approached Ms Ball and asked is there is a way of commenting on the weighting, and there is a way – comments on the specialist reports and comments on Arcus GIBB's weighting and conclusions and recommendations are welcome. She encouraged everyone to provide detailed comment.</p> <p>This error will be corrected in the Transportation Study contained in the Final DEIR.</p>

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		land being set aside for Nuclear-1.	
53	Mr Petrus Leen Sea Vista Forum	<p>Mnr Leen het gesê sy bekommernis is dat daar baie gepraat is oor die Thyspunt stasie, maar sy probleem is wanneer daar begin word met konstruksiewerk vir sewe jaar, wat met die toerismebedryf gaan gebeur.</p> <p>Sy tweede punt is dat mense wat [vakasie]huise daar het, moeg gewerk is in Johannesburg en die ander groot plekke. Hulle kom hierheen om uit te rus. Sal [die konstruksiefase] nie vir hulle uitforseer vir sewe jaar nie?</p> <p>Sy derde vraag is wat dit gaan doen aan die eiendomsmark indien mense hier hul huise verkoop. As al hierdie dinge aan die gang is, gaan dit nie 'n breekpunt bring nie? Hy is 'n sub-kontrak werker en hy voel dat hy vir sewe jaar nie verseker sal wees dat hy gaan werk kry nie.</p> <p>Hy wil ook weet wat met die mense in die visbedryf gaan gebeur.</p> <p>Hy merk op, as voorsitter van die sektor-polisiëring, dat daar waarskynlik 'n invloei gaan voorkom van mense wat hoor dat hier 'n projek gaan wees. Hy wonder watter effek gaan so 'n invloei van mense hê op die huidige inwoners, aangesien hulle alreeds 'n probleem met instroming het.</p> <p><u>Translation:</u> Mr Leen said that a lot has been said about the Thyspunt station, but that his concern was what would</p>	<p>Mr Heydenrych het geantwoord en gesê hulle neem kennis van al die bekommernisse.</p> <p><u>Translation</u> Mr Heydenrych replied that they take note of all the concerns.</p>

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		<p>become of the tourism industry during the seven years of the construction phase.</p> <p>His second point is that the people that have [holiday] homes in Thyspunt, are drained by their work in Johannesburg and other big places and come there for tranquillity and rest. Would the construction phase not drive them away for seven years?</p> <p>His third question is what this will do to the property market if people start selling their homes. Would all these things together not lead to a breaking point? He is a sub-contract worker himself and feels that for seven years he will not be assured of a job.</p> <p>He also wants to know what would happen to people in the fishing industry.</p> <p>He also wants to comment in his capacity as chair of policing sector that there is likely to be an influx of people once it becomes known that a large building project was being undertaken. He wonders about the effect of such an influx [on the current residents], seeing that there is already a problem with influx.</p>	
54	Dr Peter Inman Coega Development Corporation	Dr Inman stated that the reason Coega had attended the meeting was that the whole point of the Industrial Development Zone was to try and add value to the beneficiation of raw materials. Some people have referred to them as 'The Banana Republic'. If there is going to be beneficiation of raw materials, where this is going to be done and which power station is going	Comments noted.

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		<p>to be used is another argument. He does understand the concerns. The point is, when there was the power crisis, suddenly the confidence of the country disappeared. A number of investors immediately stopped and would not sign and they have letters from banks saying, until guarantees are given nothing will be signed. This is impacting the entire country.</p> <p>Water is a problem in this area and he feels a separate EIA should be done to investigate the water. Emergency response plan is also a critical issue for a nuclear power station. Have Eskom thought of air transport. If people need to be evacuated in a hurry, is there a facility for air transport.</p>	<p>Post-meeting Note: Air evacuation is not considered in the Emergency Response Report which is attached to the Draft EIR as Appendix E26. A helipad will however be constructed in a suitable area and will be used as and when required. It may also be used when the helicopter is required to assist with the lifting of heavy equipment. The helipad will require aviation fuel storage of 5 m³.</p>
55	Mr George Hardie Goed Geloof Farm/St Francis Conservancy	Mr Hardie said that objections and comments have been raised all day and in each instance they were told that it would be referred to the specialists. He asked if their replies would be made public. Also, will the impacts arising from these concerns be made public especially if it reduces the viability of Thyspunt as the preferred site? This community want Thyspunt to be the third preferred site and if their objections have had an impact on the choice of site.	Ms Ball explained that they receive comments all the time. Arcus GIBB receive these comments in the form of an Issues and Response Report every Monday at 10h00. Arcus GIBB respond to these issues and this can sometimes take a few weeks as they need to go back to each specialist. The response that is then inserted into this report will be partially Arcus GIBB's response and partially the specialists response. If there is a long submission, Arcus GIBB usually responds as soon as this submission is finalised. A combined Issues and Response report will then be placed in the final EIA Report. If there are substantive changes to any of the reports, those reports would have to be taken back into the public domain for comment. If there are no substantive changes in the reports, then track changes are used in the necessary report and also track changes would be used in the final EIA Report. At the stage

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
			<p>when they are ready to publish the final EIA Report, this would be communicated to all registered I&APs as well as place adverts in the local, regional and national newspapers to say that the final EIA report is now complete and has been submitted to DEA. The report would then be made available for information purposes on the websites, in the various public places for further review. At that stage any I&AP has the right to send submissions to the DEA. If a decision is then made one way or the other, any I&AP has the opportunity to appeal during the set appeal period.</p> <p>Minutes will be sent out to all attendees for a 14 day comment period so that everyone can verify these minutes. They will then be finalised and placed on the website.</p>
56	Mr Ryan Donnelly For A Safe Tomorrow	Mr Donnelly added that with respect to the Draft Impact Report, which is at the present stage, it is apparent to him that this EIA is deficient in many areas. There appear to be more objections than constructive comment. He wanted to request that this draft be updated prior to it going into a form where it referred as a final draft.	Post-meeting Note: Whilst some minor changes will be made to the Final Environmental Impact Assessment Report GIBB is of the view that the present EIR, and its associated Specialist Reports, are comprehensive and that the relevant Authorities will have sufficient information to make an informed decision.
57	A Stakeholder	He said that Ms Ball had agreed the previous evening to further presentations and meetings. He feels that these meetings should be held after the changes have been made.	Ms Ball explained that the process of updating and finalising the report would go from draft to final unless there are substantive changes.
58	Ms Renee Royal Independent Environmental Consultant and Resident	Ms Royal asked if at the same time the draft Environmental Management Plan can be examined, it is very thin and appears to be a "cut and paste" work from the specialist reports. This must also be a draft EMP available for comment.	Ms Ball said the draft EMP is very much part of the draft EIA Report.
59	Ms Trudi Malan Spokesperson for St	Ms Malan said she would like to make a statement on behalf of the Thyspunt Alliance that they do not accept	Ms Ball responded by saying that these concerns are noted.

CAPE ST FRANCIS KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
	Francis Alliance	<p>this draft EIA report as a draft.</p> <p>She quoted, "Information required for this report is sufficiently complete for Duynefontein and Bantamsklip. The following limitations are relevant to the Thyspunt site, the geo-hydrological investigations undertaken for the EIA was focussed on the NPS site itself with only two boreholes drilled within the mobile Oyster Bay dunefield and the hydrological investigation undertaken for the EIA focussed on the NPS site itself with no investigation on the mobile Oyster Bay dunefield".</p> <p>This is not a draft study as this information is not in the report and the public cannot comment on information that they do not have.</p> <p>Every one of the 24 specialist studies has this line, <u>"further studies are required before a decision can be made"</u>.</p> <p>Ms Malan said that they would like the DEA to be informed that this community does not agree that this is a draft EIA Report. The community want a full study with all the information contained therein.</p>	
60	Mr Alwin Malgas Sea Vista Forum	Mr Malgas said he would like to note that the meeting at Sea Vista is going to be conducted in Afrikaans and Xhosa. He then questioned if the minutes will be produced in English.	Ms Ball said that the minutes will be recorded and will be in Afrikaans, Xhosa and English.

APPENDIX 2: PRESENTATION OF DRAFT EIA REPORT

Size of the Port Elizabeth Key Stakeholder Feedback Meeting presentation	1,407KB
Size of the Cape St Francis Key Stakeholder Feedback Meeting presentation	1,588KB
Size of the Melkbosstrand Key Stakeholder Feedback Meeting presentation	1,607KB

All presentations can either be downloaded from the following websites:

- ❑ Eskom's website: www.eskom.co.za/eia under the "Nuclear 1-Generation" link
- ❑ Arcus GIBB website: <http://projects.gibb.co.za/> under the "Nuclear 1 EIA" link

or can be requested from ACER (Africa) at 086 010 4958 or by notifying Bongi Shinga at bongi.shinga@acerafrica.co.za or nuclear1@acerafrica.co.za

APPENDIX 3: ATTENDANCE LIST

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
Adams	Rashid	Cllr	City of Cape Town			Attended
Bain	Cairns	Dr	Nuclear Energy Corporation of SA (NECSA)			Attended
Ball	Jaana-Maria	Ms	Arcus GIBB	Attended	Attended	Attended
Barratt	Christopher & Valda	Mr & Mrs	St Francis Kromme Trust	Attended	Attended	
Becker	Peter	Mr	Koeberg Alert Alliance			Attended
Bergh	Vincent	Cllr	City of Cape Town – Sub Council Blaauwberg			Attended
Bouwer	Nicolaas Andre	Mr	St Andrews College	Attended		
Bowler	Karin	Mrs	Karin Bowler Enterprises	Attended		
Brenner	Heather	Cllr	City of Cape Town			Attended
Buckle	Japie	Mr	SANBI	Attended		
Clark	Angus	Mr	PE Regional Chamber of Commerce & Industry	Attended		
Cook	Derek	Mr	Macohy Investments CC		Attended	
Cowling	Shirley	Dr	Friends of the St Francis Nature Reserve		Attended	
Dale	Jenny	Mrs			Attended	
de Villiers	Carin	Ms	Eskom Holdings Limited	Attended	Attended	
Donnelly	Ryan James	Mr	For A Safe Tomorrow (F. A. S. T.)	Attended	Attended	
Ferndale	Tyronne	Mr	Nelson Mandela Bay Municipality		Attended	
Greeff	Gert	Mr	Eskom Holdings Limited	Attended		Attended
Hardie	George	Mr	Goed Geloof Farm and St Francis Conservancy		Attended	
Hardie	Sandra	Mrs	Goed Geloof Farm and St Francis Conservancy		Attended	
Henkeman	Pauline	Mrs	Eskom - Koeberg Visitors Centre			Attended
Herbst	Deidre	Ms	Eskom Holdings Limited	Attended		
Hutchinson	Martha-Maria	Mrs	St Francis Conservancy		Attended	

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
Inman	Peter	Dr	Coega Development Corporation (Pty) Ltd	Attended	Attended	
Jacobson	Wolsley	Mr	Milnerton Rate Payers & Residents Association			Attended
Jeannes	Deon	Mr	Eskom Holdings Limited	Attended		
Jooste	Paul	Mnr	Oyster Bay RPA		Attended	
Jumat	Zain	Mr	Dept of Economic Affairs & Development Planning			Attended
Kraak	Cheron	Ms	Country Feeling		Attended	
Krause	Martin	Mr	Eskom Holdings Limited	Attended		
Lamont	Sydney	Mr	Sea Vista Forum	Attended	Attended	
Lategan	Tanya	Ms	Supertubes Surfing Foundation		Attended	
Leask	Kevin	Mr	Eskom Holdings Limited	Attended		Attended
Leen	Petrus	Mr	Sea Vista Forum	Attended	Attended	
Lesch	Donevin	Mr	Coega Development Corporation (Pty) Ltd	Attended		
Levack	Kaylene	Ms	Joshua Heritage	Attended		
Logie	Caryl	Mrs	Fourcade Botanical Group		Attended	
Longden-Thurgood	RM	Mr	Institute of Nuclear Engineers SA Branch			Attended
Mabentsela	Nombongo	Ms	Coega Development Corporation (Pty) Ltd	Attended		
Madyini	Ntandazo	Mr	Coega Development Corporation (Pty) Ltd	Attended	Attended	
Malgas	Alwyn	Mnr	Sea Vista Forum	Attended	Attended	
Marshall	Terence	Mr	Sandriver Sanctuary		Attended	
Miles	Melvyn	Mr	Eskom: Koeberg Visitors Centre			Attended
Moolman	Graham	Mr	St Andrew's College	Attended		
Mortimer	Bev	Ms	St Francis Chronicle Newspaper		Attended	
Msibi	Lawrence	Mr	Bitou Local Municipality	Attended		
Muir	Andrew	Mr	Wilderness Foundation SA	Attended		
Naiker	Melissa	Ms	Dept of Economic Affairs & Development Planning			Attended
Neilson	Peter	Mr	Nelson Mandela Bay Municipality		Attended	

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
Nggumshe	Phumla	Ms	Bitou Local Municipality	Attended		
Nicholson	Peter	Mr	Billabong SA		Attended	
Norman	Jan	Mr	Koeberg NPS	Attended		Attended
Ntamnani	Ncedo	Mr	Eskom Holdings Limited			Attended
Nwokedi	Judi	Ms	Areva	Attended		
Oddy	Chantal	Ms	Rebels Rus Conservancy	Attended		
Oosthuizen	Joe	Mr	St Francis Bay Residents Association		Attended	
Oosthuizen	Paddy	Ms	St Francis Bay Residents Association		Attended	
Oswald	Elbrecht	Mr	City of Cape Town			Attended
Patel	Imraan	Mr	National Dept of Science & Tech			Attended
Potts	Tracey	Ms	Eastern Cape Parks		Attended	
Pyoos	Marjorie	Ms	National Dept of Science & Technology			Attended
Ralston	Samantha	Ms	Cape Nature			Attended
Rautenbach	Elisabeth	Mrs	St Francis Conservancy		Attended	
Royal	Renee	Mrs	Resident/Environmental Consultant		Attended	
Simms	Mike	Mr	St Francis Bay Residents Association		Attended	
Slamdien	Ashraf	Mr	Blaauwberg Administration City of Cape Town			Attended
Stott	Tony	Mr	Eskom Holdings Limited	Attended		Attended
Theron	Mervin	Mr	Eskom Holdings Limited	Attended		Attended
Theron	Morne	Mr	City Of Cape Town Resource Management			Attended
Thorpe	Hilton	Mr	St Francis Bay Residents Assoc & St Francis Kromme Trust	Attended	Attended	
Tilders	Helmie	Mr	FOSTER		Attended	
Titmuss	Pat	Ms	City of Cape Town			Attended
van Dyk	Carel	Mr	Nelson Mandela Bay Municipality		Attended	
Vockerodt	Brian	Mr	Eskom Holdings Limited	Attended		
von Holdt	Andrea	Ms	Coega Development Corporation (Pty) Ltd	Attended	Attended	

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
West	David Michael	Mr	Eskom Holdings Limited	Attended		
Willemse	Douw	Mr	City of Cape Town			Attended
Williamson	Raymond	Mr	Melkbosstrand Rate Payers Association			Attended
Wiseman	Keith	Mr	City of Cape Town: Environmental Management Dept			Attended

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA: 12/12/20/944

**FOR THE PROPOSED ESKOM NUCLEAR POWER STATION AND
ASSOCIATED INFRASTRUCTURE**

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

**KEY STAKEHOLDER FEEDBACK MEETING
DUYNEFONTEIN**

20 APRIL 2010

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PREFACE

Should participants who attended the Key Stakeholder Feedback Meeting require any changes to these proceedings, please notify the Public Participation Office in writing within 14 days of receipt.

“**Unidentified I&APs**” refer to persons who attended the meeting and verbally raised issues without providing their names. This in no way diminishes the value of the issue raised. Should you recognise your input and would like to have your name recorded next to it, please advise the Public Participation Office.

In order to provide a structure and to enable the reader to follow the proceedings with ease the minutes have not been captured verbatim and post-meeting notes have been added for clarity and information purposes and are indicated in **bold**.

1. ATTENDANCE

1.1. Attendance – Interested and Affected Parties

- As per attendance register.

1.2 Attendance – Eskom Holdings Limited

Name	Position/Role
Mr Tony Stott	Senior Manager - Stakeholder Management Generation Business
Ms Deidre Herbst	Senior Manager – Environment Generation Division
Mr Gert Greeff	Manager - Nuclear Sites
Ms Carin de Villiers	Manager - Stakeholder Management and Communication Manager, Nuclear Division
Mr Mervin Theron	Manager – Regulatory Affairs and Localisation
Mr Mandla Mbusi	Senior Advisor - Stakeholder Management

1.3 Attendance – Environmental Consulting Team (EIA Team)

Name	Organisation	Role in the project
Ms Jaana-Maria Ball	Arcus GIBB (Pty) Ltd	Nuclear 1 EIA: Project Manager
Mr Reuben Heydenrych	Arcus GIBB (Pty) Ltd	Senior Environmental Scientist
Ms Bongzi Shinga	ACER (Africa)	Public Participation Consultant
Ms Karin Bowler	Karin Bowler Enterprises	Facilitator

2. WELCOME AND INTRODUCTIONS

The facilitator, Ms Karin Bowler, welcomed everyone to the meeting. She explained that the meeting was being recorded.

The facilitator then introduced the project team to participants.

3. FACILITATORS INTRODUCTORY REMARKS

The facilitator explained that an agenda had been distributed. She said that there were two amendments to the agenda:

- A typing error: the discussion period is 1 hour 40 minutes and not just 40 minutes
- The time on item 4 should read as 12.15.

She further stated that the team would like to adhere to the times on the Agenda. This will ensure sufficient time for questions.

One of the objectives of the meeting is for stakeholders to have the opportunity of voicing their issues and concerns. She informed all participants that it is imperative that when they stand up and raise an issue to please state their name and organisation so that the minute-taker can preface the comment that is made in the minutes and attribute it to the correct person.

She advised participants that the meeting is being recorded to ensure the accuracy of the minutes. She asked that points of clarification be held over until the discussion period. All issues will be captured in the Issues and Response Report (IRR) and she asked that all participants check that their issues have been captured correctly.

3.1 Conduct at Meeting

The facilitator explained that participants are welcome to use the language of choice as the team can communicate in English, Afrikaans and Xhosa.

The facilitator further read through the points presented on the slide, which provided guidelines with respect to the conduct of all participants and for achieving a constructive debate and discussion. These points are contained in the main presentation, which is provided in Appendix 2.

She requested all participants to assist the team by having a constructive debate at the meeting.

The facilitator said that because of the importance of the meeting, time might become a problem, she asked the floor for permission to check if everyone is satisfied with the proceedings and the potential to go over the stated time.

3.2 Objectives of the meeting

The objective of the Key Stakeholder Feedback Meeting is three-fold, viz.:

- ❑ To present and discuss findings of the various specialist studies undertaken during the EIA Phase.
- ❑ To present the conclusions and recommendations of the Draft EIR.
- ❑ Provide an opportunity to Interested and Affected Parties (I&APs) to comment on the specialist study findings and the outcomes of the EIA.

3.3 Summary of Issues Raised during Scoping Phase

The facilitator explained that the facilitator from the previous round of meetings thought it prudent to summarise a couple of key issues that came out of the process leading up to the EIA Report and also just to list some of those key issues. Having gone through the Issues and Response document, it is quite clear that these are only a few of the issues that were raised. Not all of them are relevant to the EIA process. Some of these issues belong to the NNR process.

For continuity purposes, the facilitator briefly mentioned some of the issues:

“Some people are opposed to and some are in favour of the proposed Nuclear Power Plants at Bantamsklip, Thyspunt and Duynefontein sites. There are concerns about the potential impact on health and safety issues. The community living in close proximity to the power station are concerned about their sense of place. They are also concerned about the visual impact of a power station. The affect on tourism is also an issue of concern. Altered sea temperatures could potentially affect marine life. Commercial and recreational fishing might be negatively impacted. Light pollution from the plant. Concern over property values have also been raised. Some people have expressed a lack of trust in the EIA process. Issues regarding the storage of hazardous waste. Consideration of alternatives such as renewable energy”.

She emphasised that it is important for stakeholders to verify that issues, which were raised during the Scoping Phase, have been taken into consideration during the EIA Phase.

4. PRESENTATION: FINDINGS ON THE DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Ms Jaana-Maria Ball and Mr Reuben Heydenrych representing the Independent Environmental Assessment Practitioners, Arcus GIBB, presented the findings on the Draft Environmental Impact Assessment Report.

By way of introduction, Ms Ball, EIA Project Manager, thanked all present for their time and indicated that Arcus GIBB is pleased to be at the stage of presenting the findings of the specialist investigations and the outcomes of the EIA phase.

Ms Ball and Mr Heydenrych then presented the findings on the Draft EIR (refer to presentation slides provided in Appendix 2).

The issues raised and discussed following Arcus GIBB’s presentation are captured in the table presented in Appendix 1.

5. ISSUES AND COMMENTS RAISED AND DISCUSSED

5.1 Issues and Comments raised

The table contained in Appendix 1: “Record of Issues Raised and Discussed” details the issues, comments and concerns, which were raised and discussed at the meeting.

Please note should you wish to make any corrections, please advise ACER within two weeks (i.e. 14 days) of receiving these minutes.

6. WAY FORWARD AND CLOSING REMARKS

6.1 Minutes of Meetings

Ms Ball indicated that the EIA Team would endeavour to distribute the minutes of the meeting to I&APs within 21 days from the date of the meeting. I&APs will have 14 days after distribution to verify the minutes and provide their comments to ACER.

6.2 Timeframes

In terms of the timeframes, I&APs were reminded that the public review period of the Draft EIR ends on 10 May 2010. Arcus GIBB has allocated a 66 day comment period, which recognises that there are long weekends and Easter Weekend within the period 06 March – 10 May 2010.

Post-meeting note: Following a request at subsequent public meetings, the end date for the public review period was extended to 31 May 2010, and again further extended by an additional 30 days. The closing date for comment is now 30 June 2010 (117 days).

Ms Ball encouraged all present to submit their comments to ACER (Africa) using one of the following methods:

- By mail: Public Participation Office, Nuclear 1 EIA, PO Box 503, Mtunzini, 3867
- By fax: 035 340 2232
- By email: nuclear1@acerafrica.co.za

Comments received on the Draft EIR are recorded and addressed on a weekly basis in the form of an IRR. Comments received will be used to produce the Final EIR, which will then be submitted to the Department of Environmental Affairs (DEA) for their consideration.

The timeframe for submission of the Final EIR will depend on how long it takes to finalise the report as well as on the type of comments that are received from I&APs during the review period.

A letter will be sent to all registered I&APs informing them of the Authorities' decision.

6.3 Facilitators Concluding Remarks

The facilitator stated that the onus of responsibility on your shoulders is to act as a reviewer to make sure that this process is robust and that your issues are answered. If not answered, it must be taken forward through the appropriate process. She encouraged everyone to make use of opportunities given to the stakeholders in terms of NEMA and the constitution.

The facilitator thanked everyone for constructive engagement and encouraged stakeholders to submit written comments and closed the meetings.

Interactions between I&APs and the Project Team continued after the meeting. However, ACER did not record discussions, which took place after the meeting.

APPENDIX 1: RECORD OF ISSUES RAISED AND DISCUSSED

DUYNEFONTEIN KEY STAKEHOLDER FEEDBACK MEETING

No	Name	Comment	Response
1	Mr Mike Longden-Thurgood Milnerton Resident	<p>Mr Longden-Thurgood raised the following:</p> <p>Occasionally I&APs get the reactor output wrong, believing that it is 4 000 MW(e), whereas this is a total heat output of a reactor, MW(t). The generating output is expressed as MW(e). This has not been made clear, with some I&APs believing that a new Nuclear Power Station site would only have a single reactor.</p> <p>In a number of reports where the numbers of reactor units are mentioned, the assumption is that there will be two, e.g. the specialist's report on sound. If Eskom chooses the Areva EPR at 1 600 MW(e), two units will provide 3 200 MW(e), which is 800 MW(e) short of 4 000. If the Westinghouse AP1000 is selected, this may either be a 1 184 MW(e) version or the 1 250 MW(e) version, but both versions would require three units to provide a total output of 3 552 MW(e) or 3 750 MW(e), again both short of 4 000MW(e). Eskom needs to decide pretty quickly which PWR they intend to order</p> <p>Mr Longden-Thurgood requested that the EIA report mentions that the plant type might not produce exactly 4 000 MW.</p>	<p>Ms Ball replied that Arcus GIBB had assessed up to 4 000 MW and he was correct in that it depends on what plant type Eskom decides upon whether there will be two reactors or three reactors. The envelope of criteria encompasses any of the reactors that are on the market of Generation 3 type. She undertook to examine the studies if one of the specialists had inadvertently stated that it was two reactors, this will be amended.</p> <p>Mr Stott said that Eskom had asked the consultants to investigate 4 000 MW in order to be conservative. To ensure that the EIA was robust and valid, 4 000 MW was used.</p>
2	Mr Mike Longden-Thurgood Milnerton Resident	<p>In the specialist report on the emergency plan, a reference is made to EUR report which details emergency procedures, which Eskom has adopted, with its own report setting out its emergency</p>	<p>Ms Ball said that all aspects of this EIA process would be checked from a legal standpoint.</p>

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		<p>procedures based on the EUR report. Questions:</p> <p>i) Neither of these reports are listed in the references.</p> <p>ii) Has the NNR agreed to the concepts set out in the EUR document, and that of Eskom?</p> <p>iii) Thirdly, it is intended that one or other of reports will be provided to I&APs to review?</p> <p>iv) Has Eskom already had their new emergency plan approved by the NNR, and has it been implemented for the Koeberg NPS?</p> <p>v) If not, and either one or the other report is not offered for review by the I&APs, will there not be a possibility of some individual or organisation claiming that the EIA process is invalid because of the non-disclosure of documents for this EIA process, as happened in the case of the EIA process for the PBMR?</p>	<p>The NNR have been notified of this proposal and is currently considering it.</p> <p>It has not been implemented for the Koeberg Nuclear Power Station. The current emergency plans for Koeberg will remain for now.</p> <p>Post-meeting note: The legislative requirements for nuclear facilities in South Africa are extensive. In the case of the Nuclear Power Station, two key authorisations are needed from two different regulatory authorities namely the Department of Environmental Affairs (DEA) and the National Nuclear Regulator (NNR). These authorisations are needed prior to construction activities commencing on the site.</p> <p>In terms of the National Nuclear Regulator Act 1999 (Act No. 47 of 1999, “the NNRA”), the NNR is responsible for managing radiation hazards from nuclear facilities. The National Nuclear Regulator Act therefore regulates nuclear activities. However, in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) [NEMA], the DEA has a responsibility for assessing the impacts of the NPS on the environment, impacts which are likely to include those relating to certain aspects of the radiological hazards of the facility.</p> <p>Eskom has had preliminary discussions with the NNR regarding the acceptance of the specifications of the</p>

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			European Utility Requirements (EUR) standards for Light Water Reactors (LWR) plants and it is a key assumption of this EIA that these specifications will be accepted in principle as they are international standards. No formal application has however been submitted by Eskom to the NNR in terms of the NNRA.
3	Mr Mike Longden-Thurgood Milnerton Resident	In the specialist report on transport, for access to Duynefontein, some confusion appears to have been introduced with the numbering of the access points, with one access being what I would regard as inappropriate for the main route to the Nuclear-2 site. I believe that the confusion might have arisen because no road diagrams have been included, with the access point numbers being clearly indicated on them. The Bus Rapid Transport System has not been mentioned as well.	If Arcus GIBB do find that the points mentioned have not been assessed she would raise this with the specialist and it will be included in the final report. Ms Ball said that the specialist study does look at integrated transport for the public to all the sites, but not in a great amount of detail. Ms Ball undertook to go back to the specialist and get this type of information into the final report. Ms Ball added that all the access roads to the Thyspunt site itself are public roads, the R330 and the route from Humansdorp down to Oyster Bay.
4	Mr Mike Longden-Thurgood Milnerton Resident	The Thyspunt site is shown in one specialist report as literally being surrounded by wind generation facilities. In respect of access, has agreement been reached with the wind generation companies for an access to the proposed Nuclear Power Station site?	Ms Ball said that there are a number of applications for wind farms around the Thyspunt site, one of which Arcus GIBB is undertaking the EIA. Ms Ball could not comment on Eskom's negotiations with these applicants. Mr Stott said that there have been discussions at a high level with the applicants (Independent Power Producers) but they are all in the EIA phase.
5	Mr Mike Longden-Thurgood Milnerton Resident	He also requested clarity on the Open Cycle Gas Turbine (OCGT) as his understanding was that it would be converted to a Combined Cycle Gas Turbine (CCGT).	Ms Herbst replied that Eskom had completed an EIA for the Combined Cycle Gas Turbine (CCGT) and there has been approval granted but they are still investigating the commercial viability and the gas resource. She added that

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			at this stage the process is on hold. If Eskom did go the CCGT route, it must be borne in mind that the (Open Cycle Gas Turbine) OCGT at Thyspunt would only be for emergency start up. It is therefore unlikely that a CCGT would be installed.
6	Mr Mike Longden-Thurgood Milnerton Resident	In the main report, the possibility is mentioned that any one site could be considered for sufficient nuclear reactors to produce a total generated output of 10 000MW(e). Will there be a need for Eskom to give this consideration early on in this sequence of EIA processes, otherwise there could be wasted effort and expenditure on looking at the two sites up the west coast, namely Brazil and Schulpfontein. On the other hand, for these two relatively remote sites, a larger number of reactors would require a larger number of staffing, i.e. management, professional, technical, office and general labouring. The social aspect of having a considerable larger population group, with families, in a power station township could introduce a considerably more interacting community, with the possibility of more viable interests becoming available. The social issues report does not mention this aspect – at least as far as I can recall.	Ms Ball responded that all aspects encompassing the environment were investigated during the Scoping phase, including social, biophysical and environment. The biophysical characteristics of the sites on the western coast deem them quite suitable for a nuclear power station. However, in terms of Nuclear-1, they were not considered to be feasible and reasonable alternatives for the timing of Nuclear-1. She could not comment on whether Eskom would consider the Northern Cape sites for Nuclear-2 or -3.
7	Mr Vincent Bergh City of Cape Town	Mr Bergh said that his concern is the high-level waste, which is being stored at Koeberg, which would obviously, also be stored at any new power station. His information is that presently there is no provision for a terror attack on the power station for insurance	Ms Ball replied that the site safety and radiological issues fall firmly in the ambit of the National Nuclear Regulator (NNR) Act and not NEMA and will be assessed by the NNR before Eskom can consider constructing or operating a nuclear power station. Arcus GIBB did undertake various studies such as emergency response and site control, which examined these aspects.

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		<p>purposes for people living in the vicinity. He asked if Eskom envisages making sure that such cover is available for the people living in the vicinity of the nuclear power station. If there is a terrorist attack and high-level waste is stored on site, everyone is extremely vulnerable.</p> <p>His second question related to the expansion of the City of Cape Town, which needs to occur northwards, towards the power station and towards Atlantis. The decommissioning of the current power station should take place within the next 15 years. If a new power station is constructed at Koeberg, this will mean that the area will be stagnant for the next 60 years, from 2025 to 2085 before any further expansion could occur.</p>	<p>Mr Stott said that the NNR Act requires Eskom to make financial provision for third party liability compensation claims in the event of nuclear damage. That is similar for every country in the world, this is why this type of insurance cannot be obtained from private insurance companies. A nuclear power station like any other power station also falls under the national key points and the State takes accountability for preventing terrorist attacks on power stations.</p> <p>Mr Heydenrych replied that the power station is proposed to be a Generation 3 type power station and because of the change in technology, the emergency exclusion zones are quite different to Koeberg. In the case of Nuclear-1 the smallest zone within which no development will be allowed is 800 m, that is in terms of EUR requirements. This will fall completely within the boundaries of the existing Eskom property. There is also a larger zone, which is 3 km where limited development applies.</p>
8	Mr Peter Becker Koeberg Alert Alliance	<p>Mr Becker said that he would like to comment on the previous question. The whole of the validity of this process is full disclosure to questions that are put to Eskom.</p> <p>He noted that the study had omitted the Vienna Convention and he questioned that this is a full answer to the question posed by the previous gentlemen. Eskom has limited liability of approximately R4b, and if you divide this by a few thousand houses this is not sufficient. He therefore</p>	<p>Mr Stott explained that South Africa has not signed the Vienna Convention [on Civil Liability for Nuclear Damage]. The Act of Parliament in South Africa [the NNR Act section 29] requires Eskom to make financial provision. Regulations that are issued by the Minister of Energy stipulate how much financial provision must be made [Regulation promulgated in Government Notice 581 dated 7 May 2004. Section 29 also allows for the Minister to require additional financial provision beyond what is stipulated by the Regulation]. The NNR Act [section 33] also makes provision for the Minister to go back to Parliament to</p>

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		<p>does not believe that Eskom has sufficient insurance to cover households in the area. Mr Becker asked what the value is of insurance held by Eskom. He had asked this question during scoping but had never obtained an answer.</p> <p>Mr Becker also added that an EIA is about two basic items, what will happen to the pollution, i.e. the waste and will this affect human health. He understands the constraints that the EIA consultants are under as this is said to be part of the NNR process. What is unclear is why these studies are not included in this EIA, this has caused a great deal of confusion because although there are studies pertaining to this in the report they are not to be considered as a decision-making part of the EIA.</p> <p>Mr Becker noted that in the executive summary it was stated that there are no disqualifying conditions under the seismological risk assessment. At the same time an envelope of design criteria is mentioned for a standard off-the-shelf design. He said that by their own definition they had not gone outside the envelope. He asked if this means that this off-the-shelf design would be able to withstand a seismic risk of ~0.3 g. He then went on to say that the slide displayed in the presentation had indicated an approximate figure of ~0.3g, to give an approximate is not scientific reporting. He then asked if it is stated that the figure is approximately ~0.3g and the limit of the envelope is ~0.3g this must be a disqualifying factor. If there is a discrepancy of</p>	<p>appropriate more funds if this is required. Mr Stott said that he does not know the exact figure that is stipulated in the Regulation, but he would revert to Mr Becker.</p> <p>Post-meeting note: The current figure stipulated in GN 581 dated 7 May 2004 is R2.4 billion. Eskom makes the financial provision through insurance (that is obtained from the international nuclear insurance pools) and which is in dollar denomination resulting in a financial provision in excess of R3 billion. Every year Eskom has to provide proof that the financial provision (insurance) has been obtained.</p> <p>Ms Ball said that after discussions were held with DEA these reports were included for information purposes only. Questions pertaining to this have been brought up regularly. It has been made clear that these do not form part of the ambit of this EIA. The public will be given opportunity to comment on these type of studies during the NNR process. The mechanism to comment on the Integrated Resource Plan will also be posted on the website.</p> <p>Ms Ball replied that Arcus GIBB had tried to make the slides as simple as possible as a range of communities have been consulted. Koeberg had been designed around a ~0.3g so it is possible to design way above the 0.3 PGA values. What has been stated is that more time and more money is needed to finalise designs.</p>

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		~0.1g it will exceed the design criteria of the standard envelope.	
9	Mr Zain Jumat Western Cape Dept of Environmental Affairs, Development and Planning	<p>Mr Jumat said that he had two questions relating to the desalination plant.</p> <p>He asked why desalination is the preferred option and he wanted to know if other types of water such as recycled water had been explored which is much less expensive than desalination.</p> <p>He asked to what extent the brine that is generated has been mitigated. What processes would be applied to that water. Desalination also uses ten times more energy. Eskom is looking at efficiency, why are they not considering other options.</p> <p>The executive summary refers to the discharge of warm water and the disposal of sediment but it does not mention the brine.</p>	<p>Ms Ball responded by explaining that the surface water specialist had examined various options of water provision at the site, one of which is obtaining water from the municipal supply. Desalination was recommended by the specialist and Eskom accepted that recommendation. The costs were built into the macro-economic model and was applied equally to all three of the sites.</p> <p>Regarding the potential impact of brine which is concentrated salt water, the marine specialist examined this and the land-based biophysical specialist also investigated this issue and it was recommended that during the construction phase that the brine be released in the surf zone to allow for sufficient and rapid mixing of the brine with the sea water. During the operational phase it is proposed that the brine water be mixed with the normal cooling water so that it will be discharged at a diluted state and that it be released through the tunnel with the slightly heated water.</p> <p>Ms Ball said that brine was mentioned on page 13 of the Executive Summary.</p> <p>Mr Stott said that Eskom would consider energy efficiency. In discussions with the local municipalities about the availability of water, certain recommendations were for desalination but Eskom is open to investigating the possibility of using recycled water.</p> <p>Ms Ball replied that the social and economic specialists</p>

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		<p>Mr Jumat said that he wanted to know to what extent local communities would benefit from this development. 7,700 jobs have been mentioned and what percentage of these jobs will be offered to local communities. These sites have a large impact on the local area and local communities should benefit.</p>	<p>have made specific recommendations in terms of 7 700 workers required during construction and the 1 400 required during operation. There has been a recommendation that at least 25% of the jobs be offered to the broader local community. There are also to supply services and downstream services, for example the establishment of crèches to look after children, fast food outlets, etc. and these could also benefit the local community.</p> <p>Post-meeting note: Current planning indicates that all water for the construction phase will be derived from the desalinisation plant. However, additional fresh water sources may be required for short periods of time during construction. During operation at all sites desalination provides a guaranteed source of fresh water supply for the lifespan of the proposed nuclear power station without jeopardising the availability of fresh water to other users. A desalinisation plant is therefore the preferred alternative for the provision of fresh water at all alternative sites. The wetland assessment does however propose the following mitigation measure:</p> <p>The option of disposing of treated effluent in an evaporation pond should ideally not be pursued, as this unduly enlarges the disturbance footprint of the site. Instead, it is recommended that the sewage treatment plant be designed such that full recycling of effluent is possible within the plant. Ideally, effluent should be treated to drinking water standards and used to supplement water produced by desalination, thus providing a more sustainable approach to the</p>

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			management of waste and natural resources on the site.
10	Cllr Heather Brenner City of Cape Town – Sub Council 1	Cllr Brenner said that she was interested in the number of vehicle trips during construction period. It states in the report that there will be 840 vehicles per day in the morning and that would be repeated in the evening. She asked if there has been any investigation into the amount of [wear and tare]/ [warranty] on the local roads around the proposed sites because maintenance of roads in the Cape Town area is a big issue and often a problem.	Ms Ball responded by agreeing that the roads issue is an extremely important impact on any construction project. The amount of vehicles would be extremely high and a large proportion would be heavy vehicles. The traffic impact has examined this issue in terms of the need for upgrades of roads. At the Thyspunt site the proposed access roads referred to are currently gravel roads. Eskom have held discussions with both South African National Roads Agency Limited (SANRAL) and the local provincial roads departments and municipalities regarding this issue. The access roads would need to be both constructed and maintained by Eskom.
11	Mr Keith Wiseman City of Cape Town	Mr Wiseman noted that the issues concerning the <u>spatial growth of Cape Town</u> have been raised many times. 1. What has been asked for is a comparative assessment of the alternative sites so that an informed decision can be made. This point was mentioned in the Plan of Study for Impact Assessment and there is a statement that a conservative assumption would be a 5 km evacuation plan. In fact what is now stated is that it is likely that an exclusion zone of 800 m and an evacuation zone of 3 km would apply. There is no source for this statement and it is unclear where this statement comes from. He is aware that this is not a decision for the EIA but would be for the NNR.	Ms Ball replied that regarding the 800 m zone, this information had originated from other examples overseas where the regulators in those countries have instituted this likely plan. References to this are in the EIR. Ms Ball further stated that a planner had investigated the various sites and because the planning zone would be 800 m, in Duynefontein and in one portion of the Thyspunt site, this falls outside the Eskom owned property. Eskom is attempting to purchase this remaining land to make up all of the 800 m. The planner felt that this would have limited impact on any social aspects or land use planning in the area. <u>Post-meeting note: In terms of the exclusion zones, the NNR will have to make a decision on the exclusion zone for the new nuclear power station.</u>

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		<p>2. He went on to say that within the Social Impact Assessment, the specialist states that this is a low significance impact based on the scenario of a 800m exclusion zone. The accumulative impacts have not been properly investigated, particularly of having for example a Pebble Bed Modular Reactor Demonstration Power Plant together with Nuclear-1 as well as the existing nuclear reactor at Koeberg. He understands that this is what the NNR would have to consider, the possibility of having three nuclear plants in the same area.</p> <p>3. In the Emergency Response Specialist report, Duynefontein was the least preferred site. That is not mentioned elsewhere, so things such as the impact on emergency services and public transport and the impact on the Integrated Rapid Transport (IRT) because of densities and population growth would need to be planned in, in terms of the West Coast growth corridor to make the IRT viable.</p> <p>4. The Emergency Response Report quotes the International Atomic Energy Agency by saying that major factors considered in the location of a nuclear plant are the affect of the plant on the region and population considerations. So sparsely populated zones are preferred to highly populated zones, that is the IAEA guidelines.</p>	<p>International practice based on Generation 3 design have been formalised in Europe. The European Utilities Requirements specifies internationally accepted emergency zones. Based on these international requirements, the current radius of the urgent protected zone directly around the power station is 800 m. This is a much smaller area than the zone around the Koeberg Nuclear Power Station. There is a larger, long term action protection planning zone outside of the urgent protected zone of 3km which applies.</p>

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		<p>However, this does not get carried through to the impact assessment report, in fact that conclusion from the specialist is not mentioned.</p> <p>5. When it comes to comparing the sites, the criteria are transmission integration, seismic suitability, dunes, wetlands, vertebrate fauna, invertebrate fauna and economic impacts. So the impact on population is not considered significant enough in the selection of Thyspunt over Duynefontein as the preferred site. That is a concern and they still feel that the spatial planning issues have not been assessed because Cape Town is a rapidly growing city. If Cape Town does not expand up the west coast, agricultural lands, biodiversity areas, mountain areas will have to be used for growth. This is a long-term impact on Cape Town.</p> <p>Mr Wiseman stated that the construction camp could result in a number of cumulative impacts, such as biodiversity, transport, services, etc. If authorisation is granted for Koeberg, the City of Cape Town would have to accept the construction camp.</p>	<p>Ms Ball replied that the social study did investigate the potential impacts of approximately 7 500 – 7 700 workers, which would include the families at the peak of construction. They also examined where these workers were likely to be housed, it differs at the various sites and Eskom's stance is that they would like to integrate most of the workers, for example, at Thyspunt there is serviced land readily available in nearby towns. Should there be a new housing development, a separate EIA would need to be undertaken. Should there be a need for a construction camp and there is serviced land available, this would be utilised.</p> <p>Mr Stott added that until the EIA are at the stage where a preferred site has been identified there can be no detailed discussions with any municipalities. There have been preliminary discussions held with all of the municipalities, including the City of Cape Town, of what the possibilities are for housing the construction workers and the eventually the full-time employees. There is the preference within the City of Cape Town to try and have people integrated into the proclaimed service areas and not to build new housing developments.</p> <p>Post-meeting note: Information contained with the specialist studies associated with the Nuclear-1 EIA is integrated throughout the Draft EIR. Information</p>

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			<p>pertaining to Emergency response is given in section 9.21 of the report amongst others. Although not explicitly stated that sparsely populated zones are preferred to highly populated zones, in section 9.21 reference is made to population density e.g. <i>“The presence of large populations in the region or proximity of a city to the nuclear power plant site may diminish the effectiveness and viability of an emergency plan In the course of the "selection" phase, during which a regional analysis is performed, sites in zones having the highest population densities are eliminated from the search; it is in effect reasonable, all other things being equal, to prefer sparsely populated zones to highly urbanised zones.”</i></p>
12	Mrs Janda McDonald Koeberg Alert Alliance	<p>Ms McDonald brought up the fundamental basis of the EIA and the fact that all the difficult and unanswerable questions have been passed on to various bodies such as the NNR, which is allowing the entire EIA process to proceed without any discussions or real data surrounding human health and safety. This is the most crucial part of the environmental assessment and if this EIA receives authorisation it will be misleading, as the crucial studies have not been assessed. All data regarding health and safety regarding nuclear installations are placed within the responsibility of the NNR.</p> <p>She said that the public demands that data such as levels and amounts of radioactive isotopes that would be emitted by a nuclear power station such as the one assessed, Generation 3, that documented health effects on the populations as a result of</p>	<p>Ms Ball said that as the EIA consultants they note Ms McDonald’s organisation’s opinion regarding what should and should not be in the EIA. As consultants, Arcus GIBB have followed the law of the land, the acts that are relevant to this particular study. She trusted that Ms McDonald would bring her concerns to the attention of the NNR representative.</p>

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		<p>prolonged exposure are undertaken. She demanded all information pertaining to levels that are reliable and acceptable to human health by global and natural monitoring, as well as by a medical authority which have been peer reviewed.</p> <p>She also mentioned the emergency plan, which is on the fringes of the EIA. Point 6 on page 2 of <u>The Assessment of Potential Impacts on Human Health</u>, states that the applicant must submit a Site Safety Report to the NNR comprising 'analysis to demonstrate viability of the emergency plan including transport and disaster management infrastructure'.</p> <p>Under the NNR Act, the declared 'Site Emergency' is limited to the nuclear site (not affecting the public). However, the management of off-site emergency (affecting the public) is the responsibility of Government authorities.</p> <p>In terms of the Disaster Management Act, the National Government Department of Minerals and Energy is responsible for coordination and management of matters related to nuclear disaster management at a national level. As per Section 25 of the Disaster Management Act, each national organ of state indicated in the National Disaster Management Framework must prepare a disaster management plan setting out contingency strategies and emergency procedures in the event of a disaster, including measures to finance these</p>	

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		<p>strategies.</p> <p>She quoted on the Disaster Management Plan of 2005: 'It is recognised that where there is a need for urgent protective actions in the public domain and where the local authority is not yet in a position to order such protective actions, the holder of the nuclear authorisation should as a priority act in the interests of the public by advising or recommending such protective actions'.</p> <p>The responsibility of the NNR, related to large-scale nuclear disasters has thus been limited to advise and recommend action. Anything above this falls on the shoulders of the DME and National Government.</p> <p>One would assume that a <u>National Nuclear Disaster Management Plan</u> would have concrete and accessible plans in place, in the event of a disastrous large-scale release of radioactivity from a nuclear power station, which, though unfortunate and rare, remains a possibility with devastating consequences.</p> <p>However, the <u>National Nuclear Disaster Management Plan</u> is nothing more than a set of recommendations regarding procedures necessary to create emergency plans.</p> <p>Real issues which should be addressed would include:</p> <p>a) The provision, storage and accessibility to</p>	

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		<p>protective clothing,</p> <p>b) The provision and accessibility by the public to prophylactic iodine tablets,</p> <p>c) The availability of nuclear shelters,</p> <p>d) The plan for evacuation looking at transport mechanisms and routes of escape.</p> <p>None of these have been dealt with in the <u>National Nuclear Disaster Management Plan</u>.</p> <p>If a nuclear disaster were to occur the following would take place if the <u>National Nuclear Disaster Management Plan</u> were to be followed:</p> <p>a) Koeberg would alert the NNR of the accident</p> <p>b) The NNR would ensure that the emergency plan on site is followed</p> <p>c) The NNR would alert the Department of Minerals and Energy</p> <p>d) The DME would alert the Local Authority</p> <p>e) The Local Authority would refer the matter back to the NNR for advice on what procedures to follow. A meeting would be convened by all three levels of government in the relevant Coordinating Centre.</p> <p>By which time it would be too late!</p> <p>She reiterated that the most important and unanswerable questions, which should be in the EIA, are not, and that this EIA might be passed not having taken into account human health and safety issues.</p>	

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13	Ms Melissa Naicker Western Cape, Department of Environmental Affairs and Planning	<p>Ms Naicker noted that once the preferred site, which presently is Thyspunt, has been chosen, the consultants indicated that desalination plant would be used for water. It was also indicated that Eskom would be willing to carry the cost of such a plant. She asked for confirmation of this.</p> <p>She went on to ask if the issue of a possible desalination plant had been thoroughly investigated in the EIA. She questioned if the <u>location</u> of the desalination plant was investigated. She also asked if approval of the desalination plant was going to affect where the nuclear plant will be sited.</p>	<p>Ms Ball said that it is not only the desalination plant, but the access roads and all other infrastructure. All of the specialists had examined the entire infrastructure and this was contained in the Application Form and the amendment to the Application Form. It was assessed within the footprint particularly regarding biophysical impacts. Arcus GIBB have found an area within the preferred site as well as within the other sites that have not been recommended for Nuclear-1 suitable for the desalination plant and other associated infrastructure.</p> <p>In terms of the detailed layout of the plant, Arcus GIBB has made a recommendation that should this project be authorised, then the specialists would need to go back to site to determine exact locations of these various infrastructure.</p>
14	Ms Marjorie Pyoos Department of Science and Technology	<p>Ms Pyoos said that her question related to Ms Naicker's question. Mention was made of 24 specialist studies and she wanted clarification about the assessment.</p> <p>For example impacts on wetlands is mentioned in isolation, impacts on the wetlands during construction, during access and operation of the plant were examined. She thought the desalination plant made good sense.</p> <p>However, the impact of the seawater desalination plant on the wetlands would be phenomenal and if these two impacts had been assessed separately, there has probably been an underestimation of impacts. Ms Naicker wanted clarification on the</p>	<p>Ms Ball agreed that this was an important part of a complex EIA project. There was a high degree of integration amongst the specialist studies. The specialists shared their reports amongst one another as results became available. Where possible, all the specialists went out to site together, so that field assessments could be conducted together. Each specialist assessed the cumulative impacts. There was sharing of reports amongst the specialists and sharing of reports with the transmission line EIA consultants as well. There were also integration meetings around clusters of specialists held. During the process there were three 2-day workshops held for the specialists. During this time, after some heated discussions, consensus was reached using mitigation measures.</p>

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No	Name	Comment	Response
		degree of integration.	
15	Dr Cairns Bain NECSA	<p>Dr Bain wanted to know about the cooperative agreement between the DEA and the NNR. He asked how effective would this agreement be when streamlining the EIA process.</p> <p>He also asked if there is a need for a working guideline to interpret this cooperative agreement.</p> <p>Lastly, he asked what the general view of the public is with the separation of these two acts.</p>	<p>Ms Ball said that there was a great deal of confusion surrounding the DEA and NNR processes. Ms Ball feels that there should be more guidelines and more education in the public domain about the various responsibilities.</p> <p>Ms Herbst said that this was a challenging aspect of the study and the NNR is very specific regarding how studies are conducted, as is the DEA. It is actually a positive that these two bodies got together and came up with the first terms of reference. They have had follow-up meetings and these have made things even clearer, specifically that DEA will not evaluate some of the studies.</p>
16	Mr Douw Willemse City of Cape Town - Electricity Services	Mr Willemse asked how far architectural design criteria have been incorporated into the whole process.	Ms Ball said that a visual specialist had investigated the sites and has put forward some recommendations in terms of visual design of the power station.
17	Ms Samantha Ralston Cape Nature	Ms Ralston said that she is quite concerned about the studies for the nuclear power station and the transmission lines being conducted separately. In particular it sounds like all the hot spots in the Western Cape have been identified. She is pleased that Bantamsklip is not the preferred option, she asked if this site had been permanently removed as an option or will it be considered as a future site.	<p>Ms Ball responded that the transmission lines EIA has been an extremely problematic and difficult EIA, specifically in terms of the environmental impacts on the surrounding areas in the Overberg Region. Eskom have not indicated that this EIA should be halted.</p> <p>Mr Stott said that this issue depends on what is produced in the Integrated Resource Plan (IRP), which is expected to be released in June 2010. If the IRP indicates that South Africa needs more nuclear power stations then more EIAs will be initiated and certainly Bantamsklip and Duynefontein will be included in future EIAs. Other sites will also be</p>

DUYNEFONTEIN KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
			investigated, therefore we have not instructed the transmission line EIA to stop, it does need to be completed.
18	Mr Morné Theron City of Cape Town	<p>Mr Theron noted that at Duynefontein there are so many biodiversity issues. They have recently appealed on the Administrative Complex, which has lead to the repositioning of the buildings in order to avoid sensitive transitional vegetation sites. The issue of a biodiversity offset is still not included in this study. This was something that was a condition of approval by the DEA in the Ankerlig OCGT site. He has not heard that this type of mitigation is proposed for Duynefontein.</p> <p>He added that it is a pity that something that is constantly mentioned and has been mentioned from the beginning of the study is ignored. This is such a critically endangered plant type that it will be lost no matter how carefully the land is prepared. It is disappointing that off site mitigation is not being proposed. They should acquire land off site and this should be a condition of approval.</p>	<p>Ms Ball replied that the particular specialist was Barrie Low and his team from Coastec, they also did the specialist study for Ankerlig OCGT site. There is 11 different plant communities at Duynefontein, there are approximately 380 species on the site, including red data species. There is also a dune system, which was assessed by both the dune specialist and the flora specialist. No off-site offsets have been recommended at this stage. There has been on site mitigation proposed for example clearing of vegetation and translocation of rare and endangered species and the positioning of the site.</p> <p>Ms Ball responded by saying that the specialist study is an independent study, independent of Arcus GIBB and independent of Eskom. Those recommendations have been made by that particular specialist. She asked Mr Theron to please submit his comments regarding off sets.</p>
19	Ms Samantha Ralston Cape Nature	Ms Ralston noted that Koeberg is ecologically very special and Eskom has done a great job in the private nature reserve. However, what would be beneficial, instead of having all the small piecemeal applications such as ???facilities, if they could sit around a table and discuss where they are planning to develop and expand (for all power plants) and then decide where to conserve. Maybe this	Ms Herbst replied that Koeberg is a formal nature reserve so it falls under the Protected Areas Act, it therefore has formal protection. From an Eskom perspective, on some of the sites, Eskom was required to purchase 8 000 ha as part of the authorisation condition. This is an easy offset as it was in a developing and unpopulated area. Eskom would be more than willing to discuss this with nature conservation and to share their future plans in terms of

DUYNESFONTEIN KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		discussion can be opened and this land can be donated to conservation. Her understanding is that Koeberg is just a private nature reserve, which legally does not have protection in the long-term.	conservation and biodiversity.
20	Mr Wolsley Jacobson Lions International and MRRA	Mr Jacobson said that his concern is the waste disposal. There does not seem to be any answer to the high-level waste storage. The fact that it is currently stored on site could be dangerous.	The facilitator said that this was a grave concern that falls under the ambit of the NNR but this issue must be dealt with. Post-meeting note: The National Radioactive Waste Disposal Institute Act, 2008 (Act No. 53 of 2008) came into effect in December 2009. The Institute has not yet formally been constituted. The EIR will be updated with further information on the formation of this Institute.
21	Mr Vincent Bergh City of Cape Town	Mr Vincent asked if the process will end if this EIA is accepted, would there be any recourse if there are problems with for example the NNR, if they had to increase the exclusion zone to 5 km.	Ms Ball said that she could not speak on behalf of the DEA but Arcus GIBB have made it clear in Chapter 9 of the report where there is a list of assumptions and limitations. One of the key assumptions is the 800 m zone. If any of the parameters is changed, either by the applicant or through the NNR process, the assumptions that would be built into the conditions of the authorisation would then become invalid. A review of the entire study would then have to be undertaken. Ms Ball also added that when a decision is made by the DEA, the decision is communicated with full details of conditions, there is then an opportunity for the public to study these conditions. Ms Herbst said that DEA always has a clause that they have the right to withdraw the authorisation.

DUYNEFONTEIN KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
22	Mr Mike Longden-Thurgood Milnerton Resident	<p>Mr Longden-Thurgood said that the Koeberg PWRs are Westinghouse type with a lifespan of approximately 40 years, this might be extended to 50 years. He feels that the existing Koeberg will be extended to 60 years. When looking at Generation 3, this has a design life of 60 years, he would not like to predict what the extension life would be. He added that he finds it extraordinary that even with a design life of 60 years, that some I&APs are insisting and demanding that the documents go to great detail on decommissioning. No-one can say what technology will be around in the future.</p> <p>Mr Longden-Thurgood said that decommissioning means removing a plant to a safe condition, removing the equipment plant, which is removable, it is not just dismantling the plant. Decommissioning is usually associated with dismantling and also the final removal of the radiated fuel has nothing to do with decommissioning. Making the fuel storage safe has everything to do with decommissioning.</p>	<p>The facilitator asked if this was not just good practice that good mechanisms are included in the process for decommissioning.</p> <p>Ms Ball responded that Mr Longden-Thurgood had an important point that this is something that is difficult to grapple with both by the specialists and by Arcus GIBB in terms of what decommissioning activity will entail especially when it is so far into the future. They have used the information at their disposal of case studies around the world and these have been incorporated into the report.</p> <p>Ms Ball also thanked Mr Longden-Thurgood for his valuable and constructive comments.</p>

APPENDIX 2: PRESENTATION OF DRAFT EIA REPORT

Size of the Port Elizabeth Key Stakeholder Feedback Meeting presentation	1,407KB
Size of the Cape St Francis Key Stakeholder Feedback Meeting presentation	1,588KB
Size of the Melkbosstrand Key Stakeholder Feedback Meeting presentation	1,607KB

All presentations can either be downloaded from the following websites:

- ❑ Eskom's website: www.eskom.co.za/eia under the "Nuclear 1-Generation" link
- ❑ Arcus GIBB website: <http://projects.gibb.co.za/> under the "Nuclear 1 EIA" link

or can be requested from ACER (Africa) at 086 010 4958 or by notifying Bongi Shinga at bongi.shinga@acerafrica.co.za or nuclear1@acerafrica.co.za

APPENDIX 3: ATTENDANCE LIST

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
Adams	Rashid	Clr	City of Cape Town			Attended
Bain	Cairns	Dr	Nuclear Energy Corporation of SA (NECSA)			Attended
Ball	Jaana-Maria	Ms	Arcus GIBB	Attended	Attended	Attended
Barratt	Christopher & Valda	Mr & Mrs		Attended	Attended	
Becker	Peter	Mr				Attended
Bergh	Vincent	Clr	Sub Council Blaauwberg			Attended
Bouwer	Nicolaas Andre	Mr	St Andrews College	Attended		
Bowler	Karin	Mrs	Karin Bowler Enterprises	Attended		
Brenner	Heather	Clr	City of Cape Town			Attended
Buckle	Japie	Mr	SANBI	Attended		
Clark	Angus	Mr	PE Regional Chamber of Commerce & Industry	Attended		
Cook	Derek	Mr	Macohy Investments CC		Attended	
Cowling	Shirley	Dr	Friends of the St Francis Nature Reserve		Attended	
Dale	Jenny	Mrs			Attended	
de Villiers	Carin	Ms	Eskom	Attended	Attended	
Donnelly	Ryan James	Mr	For A Safe Tomorrow (F. A. S. T.)	Attended	Attended	
Ferndale	Tyronne	Mr	Nelson Mandela Bay Municipality		Attended	
Greeff	Gert	Mr	Eskom Nuclear Sites	Attended		Attended
Hardie	George	Mr			Attended	
Hardie	Sandra	Mrs	St Francis Conservancy		Attended	
Henkeman	Pauline	Mrs	Eskom - Koeberg Visitors Centre			Attended
Herbst	Deidre	Ms	Eskom Generation	Attended		
Hutchinson	Martha-Maria	Mrs	St Francis Conservancy		Attended	
Inman	Peter	Dr	Coega Development Corporation (Pty) Ltd	Attended	Attended	

PROPOSED ESKOM NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE
 REVIEW OF DRAFT ENVIRONMENTAL IMPACT ASSESMENT REPORT

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
Jacobson	Wolsley	Mr	Milnerton Rate Payers & Residents Association			Attended
Jeannes	Deon	Mr	Eskom	Attended		
Jooste	Paul	Mnr	Oyster Bay RPA		Attended	
Jumat	Zain	Mr	Dept of Economic Affairs & Development Planning			Attended
Kraak	Cheron	Ms	Country Feeling		Attended	
Krause	Martin	Mr	Eskom	Attended		
Lamont	Sydney	Mr	Sea Vista Forum	Attended	Attended	
Lategan	Tanya	Ms	Supertubes Surfing Foundation		Attended	
Leask	Kevin	Mr	Eskom	Attended		Attended
Leen	Petrus	Mr	Sea Vista Forum	Attended	Attended	
Lesch	Donevin	Mr	Coega Development Corporation (Pty) Ltd	Attended		
Levack	Kaylene	Ms	Joshua Heritage	Attended		
Logie	Caryl	Mrs	Fourcade Botanical Group		Attended	
Longden-Thurgood	RM	Mr	Institute of Nuclear Engineers SA Branch			Attended
Mabentsela	Nombongo	Ms	Coega Development Corporation (Pty) Ltd	Attended		
Madyini	Ntandazo	Mr	Coega Development Corporation (Pty) Ltd	Attended	Attended	
Malgas	Alwyn	Mnr	Sea Vista Forum	Attended	Attended	
Marshall	Terence	Mr	Sandriver Sanctuary		Attended	
Miles	Melvyn	Mr	Eskom: Koeberg Visitors Centre			Attended
Moolman	Graham	Mr	St Andrew's College	Attended		
Mortimer	Bev	Ms	St Francis Chronicle Newspaper		Attended	
Msibi	Lawrence	Mr	Bitou Local Municipality	Attended		
Muir	Andrew	Mr	Wilderness Foundation - Port Elizabeth	Attended		
Naiker	Melissa	Ms	Dept of Economic Affairs & Development Planning			Attended
Neilson	Peter	Mr	Nelson Mandela Bay Municipality		Attended	
Ngcongolwana	Armstrong	Mr	SA Post Office	Attended		
Nggumshe	Phumla	Ms	Bitou Local Municipality	Attended		

PROPOSED ESKOM NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE
 REVIEW OF DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
Nicholson	Peter	Mr	Billabong SA		Attended	
Norman	Jan	Mr	Koeberg	Attended		Attended
Ntamnani	Ncedo	Mr	Eskom			Attended
Nwokedi	Judi	Ms	Areva	Attended		
Oddy	Chantal	Ms	Rebels Rus Conservancy	Attended		
Oosthuizen	Joe	Mr	Chem-Dry SA		Attended	
Oosthuizen	Paddy	Ms	St Francis Bay Residents Association		Attended	
Oswald	Elbrecht	Mr	City of Cape Town			Attended
Patel	Imraan	Mr	National Dept of Science & Tech			Attended
Potts	Tracey	Ms	Eastern Cape Parks		Attended	
Pyoos	Marjorie	Ms	National Dept of Science & Tech			Attended
Ralston	Samantha	Ms	Cape Nature Land Use Advice: Scientific Services			Attended
Rautenbach	Elisabeth	Mrs	St Francis Conservancy		Attended	
Royal	Renee	Mrs			Attended	
Simms	Mike	Mr	St Francis Bay Residents Association		Attended	
Slamdien	Ashraf	Mr	Blaauwberg Administration City of Cape Town			Attended
Stott	Tony	Mr	Eskom Generation	Attended		Attended
Theron	Mervin	Mr	Eskom	Attended		Attended
Theron	Morne	Mr	City Of Cape Town Resource Management			Attended
Thorpe	Hilton & Julia	Mr & Mrs	Waterways B & B, St Francis Kromme Trust	Attended	Attended	
Tilders	Helmie	Mr	FOSTER		Attended	
Titmuss	Pat	Ms	City of Cape Town			Attended
van Dyk	Carel	Mr	Nelson Mandela Bay Municipality		Attended	
Vockerodt	Brian	Mr	Eskom Transmission	Attended		
von Holdt	Andrea	Ms	Coega Development Corporation (Pty) Ltd	Attended	Attended	
West	David Michael	Mr	Eskom	Attended		
Willemse	Douw	Mr	City of Cape Town			Attended

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
Williamson	Raymond	Mr	Melkbosstrand Rate Payers Assoc			Attended
Wiseman	Keith	Mr	City of Cape Town: Environmental Management Dept			Attended

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA: 12/12/20/944

**FOR THE PROPOSED ESKOM NUCLEAR POWER STATION AND
ASSOCIATED INFRASTRUCTURE**

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

**KEY STAKEHOLDER FEEDBACK MEETING
PORT ELIZABETH**

12 APRIL 2010

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PREFACE

Should participants who attended the Key Stakeholder Feedback Meeting require any changes to these proceedings, please notify the Public Participation Office in writing within 14 days of receipt.

“**Unidentified I&APs**” refer largely to persons who attended the meeting and verbally raised issues without providing their names. This in no way diminishes the value of the issue raised. Should you recognise your input and would like to have your name recorded next to it, please advise the Public Participation Office.

In order to provide a structure and to enable the reader to follow the proceedings with ease the minutes have not been captured verbatim and post-meeting notes have been added for clarity and information purposes and are indicated in **bold**.

1. ATTENDANCE

1.1. Attendance – Interested and Affected Parties

- As per the attendance register.

1.2 Attendance – Eskom Holdings Limited

Name	Position/Role
Mr Tony Stott	Senior Manager - Stakeholder Management Generation Business
Ms Deidre Herbst	Senior Manager – Environment Generation Division
Mr Gert Greeff	Manager - Nuclear Sites
Ms Carin de Villiers	Stakeholder Management and Communication Manager - Nuclear Division
Mr Mervin Theron	Manager Regulatory and Localisation – Nuclear Division
Mr Mandla Mbusi	Senior Advisor - Stakeholder Management

1.3 Attendance – Environmental Consulting Team (EIA Team)

Name	Organisation	Role in the project
Ms Jaana-Maria Ball	Arcus GIBB (Pty) Ltd	Nuclear-1 EIA: Project Manager
Mr Reuben Heydenrych	Arcus GIBB (Pty) Ltd	Senior Environmental Scientist
Ms Bongji Shinga	ACER (Africa)	Public Participation Consultant
Ms Karin Bowler	Karin Bowler Enterprises	Independent Facilitator

2. WELCOME AND INTRODUCTIONS

The Facilitator, Ms Karin Bowler, welcomed everyone to the meeting.

She explained that the meeting was being recorded, there were no objections from the participants.

3. FACILITATORS INTRODUCTORY REMARKS

The Facilitator explained that an agenda had been distributed. She said that there were two amendments to the agenda:

- A typing error: the discussion period is 1 hour 40 minutes and not just 40 minutes
- The time on item 4 should read as 12.15.

She further stated that the team would like to adhere to the times on the Agenda. However, as the meeting had started slightly later than advertised, this time will be added on at the end of the meeting. This will ensure sufficient time for questions.

One of the objectives of the meeting is for stakeholders to have the opportunity of voicing their issues and concerns. She informed all participants that it is imperative that when they stand up and raise an issue to please state their name and organisation so that the minute-taker can preface the comment that is made in the minutes and attribute it to the correct person.

She advised participants that the meeting is being recorded to ensure the accuracy of the minutes. She asked that points of clarification be held over until the discussion period.

3.2 Conduct at Meeting

The Facilitator explained that participants are welcome to use the language of choice as the team can communicate in both English and Afrikaans.

The Facilitator further read through the points presented on the slide (Appendix 2), which provided guidelines with respect to the conduct of all participants and for achieving a constructive debate and discussion.

She requested all participants to assist the team by having a constructive debate at the meeting.

3.3 Objectives of the meeting

The objective of the Key Stakeholder Feedback Meeting is three-fold, viz.:

- ❑ To present and discuss findings of the various specialist studies undertaken during the Impact Assessment Phase.
- ❑ To present the conclusions and recommendations of the Draft Environmental Impact Assessment Report.
- ❑ Provide an opportunity to Interested and Affected Parties to comment on the specialist study findings and the outcomes of the EIA.

3.4 Summary of Issues Raised during Scoping Phase

The Facilitator explained that the facilitator from the previous round of meetings thought it prudent to summarise a couple of key issues that came out of the process leading up to the EIA Report and also just to list some of those key issues. Having gone through the Issues and Response document, it is quite clear that these are only a few of the issues that were raised. Not all of them are relevant to the EIA process. Some of these issues belong to the NNR process.

For continuity purposes, the Facilitator briefly mentioned some of the issues:

“Some people are opposed to and some are in favour of the proposed Nuclear Power Plants at Bantamsklip, Thyspunt and Duynefontein sites. There are concerns about the potential impact on health and safety issues. The community living in close proximity to the power station are concerned about their sense of place. They are also concerned about the visual impact of a power station. The affect on tourism is also an issue of concern. Altered sea temperatures could potentially affect marine life. Commercial and recreational fishing might be negatively impacted. Light pollution from the plant. Concern over property values have also been raised. Some people have expressed a lack of trust in the EIA process. Issues regarding the storage of hazardous waste. Consideration of alternatives such as renewable energy”.

She emphasised that it is important for stakeholders to verify that issues, which were raised during the Scoping Phase, have been taken into consideration during the Environmental Impact Assessment (EIA) Phase.

The Facilitator then introduced the project team to participants.

4. PRESENTATION: FINDINGS ON THE DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Ms Jaana-Maria Ball and Mr Reuben Heydenrych representing the Independent Environmental Assessment Practitioners, Arcus GIBB, presented the findings on the Draft Environmental Impact Assessment Report.

By way of introduction, Ms Ball, the EIA Project Manager, thanked all present for their time and indicated that Arcus GIBB is pleased to be at the stage of presenting the findings of the specialist investigations and the outcomes of the Environmental Impact Assessment phase of the EIA.

Ms Ball and Mr Heydenrych then presented the findings on the Draft Environmental Impact Report (EIR) (refer to presentation slides provided in Appendix 2).

The issues raised and discussed following Arcus GIBB’s presentation are captured in the table presented in Appendix 1.

5. ISSUES AND COMMENTS RAISED AND DISCUSSED

5.1 Issues and Comments raised

The table contained in Appendix 1: “Record of Issues Raised and Discussed” details the issues, comments and concerns, which were raised and discussed at the meeting.

6. WAY FORWARD AND CLOSING REMARKS

6.1 Minutes of Meetings

Ms Ball indicated that the EIA Team would endeavour to distribute the minutes of the meeting to I&APs within 21 days of the meeting.

I&APs will have 14 days after distribution to verify the minutes and provide their comments to ACER.

6.2 Timeframes

In terms of the timeframes, I&APs were reminded that the public review period of the Draft EIA Report ends on 10 May 2010. Arcus GIBB has allocated a 66 day comment period, which recognises that there are long weekends and Easter Weekend within the period 06 March – 10 May 2010.

Post-meeting note: Following a request at subsequent public meetings, the end date for the public review period was extended to 31 May 2010, thus providing an 87 day comment period.

Ms Ball encouraged all present to submit their comments to ACER (Africa) using one of the following methods:

- ❑ By mail: Public Participation Office, Nuclear 1 EIA, PO Box 503, Mtunzini, 3867
- ❑ By fax: 035 340 2232
- ❑ By email: nuclear1@acerafrica.co.za

Comments received on the Draft EIA Report are recorded and addressed on a weekly basis in the form of an Issues and Response Report. Comments received will be used to produce the Final EIR, which will then be submitted to the Department of Environmental Affairs (DEA) for their consideration.

The timeframe for submission of the Final EIR will depend on how long it takes to finalise the report as well as on the type of comments that are received from I&APs during the review period.

A letter will be sent to all registered Interested and Affected Parties informing them of the Authorities' decision.

6.3 Facilitators Concluding Remarks

The Facilitator stated that the onus of responsibility on your shoulders is to act as a reviewer to make sure that this process is robust and that your issues are answered. If not answered, it must be taken forward through the appropriate process. She encouraged everyone to make use of opportunities given to the stakeholders in terms of the National Environmental Management Act (NEMA) and the Constitution.

The Facilitator thanked everyone for constructive engagement and encouraged stakeholders to submit written comments and closed the meetings.

Interactions between I&APs and the Project Team continued after the meeting. However, ACER did not record discussions, which took place after the meeting.

APPENDIX 1: RECORD OF ISSUES RAISED AND DISCUSSED

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING

No	Name	Comment	Response
1	Mr Ryan Donnelly For a Safe Tomorrow	<p>Mr Donnelly questioned the consultants' objectivity regarding the sources of information on alternative power generation options. He questioned how have the independent consultants gone about sourcing information, and what sources of information have been used to decide that nuclear power is the way to go.</p> <p>Mr Donnelly also wanted to know if there has been a more conclusive national energy summit in which stakeholders have been able to participate.</p> <p>Facilitator suggested that Mr Donnelly's question refers to the Integrated Resource Plan</p>	<p>Ms Ball: As stated previously in the presentation, there are two feasible base-load power options available to Eskom. There are other forms of energy generation such as renewables that Eskom is busy investigating and these do not replace the proposed project. Several of these have completed EIA processes, for example the Wind Energy Facility in the Western Cape and Solar Thermal Facility in the Northern Cape. The generation potential of these technologies is limited and cannot be considered as base-load.</p> <p>Arcus GIBB has also looked at published data available in the public domain. A full reference list is provided at the back of the Draft EIR.</p> <p>Mr Stott: There is the Nuclear Energy Policy that government has already issued that went through a public consultation process facilitated by the Department of Energy. The Department of Energy is also busy with the second version of the Integrated Resource Plan, which they have indicated will be published in June 2010.</p>
2	Mr Alwin Malgas Se Vista Forum	<p>Ons woon in St Francis Baai en ons sit met 'n gemeenskap wat Afrikaans en Xhosa praat. Hoekom kom die informasie na ons toe in Engels? Ek het dit maar net bekyk, [Daar is baie mense hierso wat min daarvan kan verstaan.]. Dis goed om hierdie goed op die slides te sien, maar hoe gaan ek na die gemeenskap terug wat nie verstaan nie? Hulle sukkel met 'n gemeenskap wat deurmekaar gemaak is met die krag en Arcus Gibb.</p>	<p>Ms Ball: Arcus GIBB has consulted the DEA on the matter. In terms of bringing back information to the public, we are able to and will present the findings of the Draft EIR in Afrikaans. We have meeting in Sea Vista on Friday, 16 April 2010 and we will gladly present in Afrikaans at that meeting if the community requests this. In terms of the specialists, some of them are not South Africans and the language used for professional technical reports, including theirs, is English.</p>

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		<p>Dit is nie ek wat Engels nie verstaan nie, ek dink aan die gemeenskap wat sukkel.</p> <p><u>Translation</u> He lives in St Francis Bay and the community speaks Afrikaans and Xhosa. He questioned why information in English? [He has had a look at it and feels that there are many people within the community who would understand but little of it.] He states that is helpful to see the information explained on the slides, but the challenge is taking information back to the community who cannot understand it. The community who has become confused by the power station issues and Arcus Gibb.</p> <p>Mr Malgas further explained that it is not that he cannot understand English, but he is thinking of the community who has trouble [understanding].</p>	<p>Ms de Villiers added that if there is a question or answer that you do not understand, please raise your hand and it will be translated.</p>
3	Mr Janie Buckle SANBI - Working for Wetlands	<p>Mr Buckle stated that there are people who would prefer not to have nuclear power stations. He has a friend in Cape Town who has worked as an engineer at Koeberg Nuclear Power Station for about 20 years and his friend does not understand the need for nuclear.</p> <p>As per earlier discussion, he understands that every 18 months, a one third of uranium dioxide rods need to be put into a special container that needs to be cooled and kept at a certain temperature because if they get hot all sorts of things can happen.</p>	<p>Mr Stott: The rods do not go into casks, they are stored in the spent fuel pool. When re-racking of the spent fuel pool was carried out some of the rods were transferred to and are now stored in spent fuel casks. Koeberg Nuclear Power Station is required to contribute to the spent fuel fund. This provision is reported in the Eskom Annual report. An audit is undertaken every year by external auditors to confirm that information shared in the Annual Report is accurate.</p> <p>Once the Government has established a waste repository site, the spent fuel will go to that repository. The funds are available and will be able to cover the costs.</p>

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		<p>He enquired if this process has been included in the plans for the proposed nuclear power station, also within the economic context. According to his understanding, for many years to come, the process of cooling the rods will have to be continuously undertaken.</p>	<p>Ms Ball: There are two studies that considered this aspect. One is the Economic Study - it looked at construction, operational and decommissioning related costs. The costs have been built into the economic model.</p> <p>The second one is the Waste Specialist Study. The only feasible and reasonable alternative for the disposal of Low-Level and Intermediate Level radioactive waste is disposal at the Vaalputs nuclear waste disposal site, as it is the only authorised facility for this form of waste in South Africa. Vaalputs has more than sufficient capacity for the waste that will be generated by Nuclear-1.</p> <p>With regards to High-Level Waste (spent fuel), the only alternative currently available in South Africa is long-term storage of the spent fuel in the nuclear power station. Vaalputs is being considered as a disposal site for High-Level Waste, but the required authorisation processes for this will take several years, so currently the disposal of spent fuel at this facility is not a feasible option.</p>
4	Mr Ntandazo Madyini Coega Development Corporation	<p>Mr Madyini requested clarity on the reasons for focussing the economic study mainly on the macro-economic impacts. According to his understanding, micro-economic impacts on the cost benefit side should also be considered.</p> <p>Based on the information presented, only macro-economic impacts have been assessed.</p>	<p>Mr Heydenrych: The economic study examined two different aspects of economic impact, one was macro-economic and the other one was cost efficiency. The study looked at the potential economic impact at different levels.</p> <p>The conclusion was in terms of the economic specialist' opinion, which indicated that the cost efficiency aspects weigh heavier than the macro-economic impacts.</p>

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			Therefore, Thyspunt was preferred from the independent technical specialist's point of view.
5	Mr Hilton Thorpe St Francis Bay Residents Association St Francis Kromme Trust	<p>Mr Thorpe commented on the waste issue, particularly high-level waste:</p> <ul style="list-style-type: none"> ▪ Nuclear waste is one of the issues that is constantly put on the back burner and set aside as something to be decided about later. ▪ It is high time that waste is addressed before we go on with any new nuclear power generation program. ▪ The decay period of high-level waste is not to be measured in hundreds of years, it should be measured in hundreds of thousands of years. We should be looking at very long-term decay periods. ▪ All over the world waste has been a problem, the Fowler commission in England in the 1970s said it would be irresponsible to go ahead with any nuclear program if there was no recognised site for the long-term disposal of waste. ▪ In England they did another survey and spent 5 years looking for sites for intermediate dumping of waste and they found lots of places suitable but nowhere politically acceptable. This is the problem, it is not a technical problem, it is a political problem. Nobody wants nuclear waste. ▪ What is certain is that all nuclear power stations generate waste and there are no suitable sites in South Africa for that. ▪ I find the EIA report unbelievably complacent over the waste issue. We have no final solution and 	<p>Ms Ball: Waste management is covered in the Draft EIR.</p> <p>The NNR/ DEA co-operative agreement that is contained both in the Plan of Study for Impact Assessment and in the various appendices of the Draft EIR indicate that the NNR process should investigate and assess health and safety aspects and not the EIA process. There is also a letter from the Director General of the DEA and it excludes the issues around safety and radiation from the EIA.</p> <p>We have included the waste issue in the EIA, as appendices but the DEA will not be making decisions on those matters, they will pass them on to the NNR. Mr Thorpe's concerns regarding waste have been noted. The Terms of Reference for the EIA exclude an EIA for a nuclear waste repository (i.e. an EIA for a licensed waste site that will take nuclear waste).</p>

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		<p>waste has been excluded in the EIA like all the other contentious issues.</p> <ul style="list-style-type: none"> Waste is an integral part of the project and the Draft EIA Report states that in the absence of a final disposal site, there is a possibility or probability of permanent disposal of high-level waste on site, whether it is Thyspunt, Bantamsklip or Koeberg. This is completely unacceptable to the affected communities and there should be a full EIA to determine a feasible option. <p>Mr Thorpe concluded by saying that he believes that waste issue constitutes a fatal flaw in the entire process.</p>	
6	Mr Chris Barratt St Francis Kromme Trust	<p>Mr Barratt followed up on the waste issue.</p> <p>He queried which authority and piece of legislation provide for the delegation of nuclear waste from one department to another.</p> <p>Mr Barratt felt that the EIA has taken a very drastic move and excluded important aspects of the EIA. The fact that the consultant says, "<u>as far as he is aware and says co-operative agreement</u>" –does not necessarily mean that one can exclude the waste issue from the EIA and that is the difference.</p>	Mr Heydenrych: The National Environmental Management Act does provide for co-operative agreement between government bodies in order to facilitate co-operative governance.
7	Facilitator	For clarity purposes: In terms of the licensing process for nuclear and in terms of the NNR process, does the nuclear plant, once approved, need a separate EIA authorisation process for a high-level waste site?	Mr Stott: The NNR, in terms of its Act, must license nuclear facilities regardless of where they are in the country. There is a co-operative agreement between the NNR and DEA. The Nuclear Energy Act gives the Minister of Energy

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			<p>responsibility for the management of all nuclear waste.</p> <p>If we create a separate storage facility over and above the specified limits, an EIA will have to be undertaken. If there is an off-site disposal facility for nuclear waste, regardless of whether it is low-level or high-level waste, that would have to go through all the required processes, including obtaining approval from the Minister of Energy.</p> <p>There is a new Act of Parliament, which was promulgated in 2009 called the National Radioactive Disposal Institute Act, This institute is given the responsibility to establish and control radioactive waste on behalf of the Minister. This includes waste from nuclear power stations and medical waste. The government is also going to start a process of establishing a final repository for spent fuel.</p> <p>The law does not require that the processes have to be completed before the construction of any nuclear power station. It is believed that, technically, all radioactive waste can be managed safely and kept isolated from the environment for many thousands of years.</p> <p>Ms Ball: The co-operative agreement is in terms of Section 6 of the NNR Act and Regulation 709.</p>
8	Mr Sydney Lamont Sea Vista Forum	Ek wil 'n boodskap gee aan al die mense wat hier is. Die kernkragsentrale wat Eskom van voorneme is om te bou: ek wou vir julle sê dit sal in St Francis Baai gebou word. Daar is nie 'n alternatief nie. Ek het 'n boodskap van die Here af gekry. Ek het dit gesien in my droom, Ek het ook gesien dat daar 'n ongeluk gebeur wat ons almal van hier kan gebruik as getuie.	Mr Lamont's message was noted.

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		<p>Die ongeluk deur 'n motor of 'n kar verbrysel 'n ding, maar dit was 'n ongeluk waar mense nie suurstof gekry het nie. Ek het hulle gesien presies in dra daar by die [onduidelik]. Ek wil vir Eskom vanmôre sê: as julle net julle plan verskuif na 'n alternatiewe plek dan sal hierdie ding nie gebeur nie. Ek weet vanmôre en Eskom weet Thuyaspunt is die verkiesste plek. Ek kan nie stil sit nie, ek moet dit afgee; as die Here praat moet ek vir hom luister. Verkoop daardie grond van julle en gebruik daai geld en gaan Bantamsklip toe of 'n ander plek. Dit is iets wat ek gesien het voor julle hier by ons gekom het. Ek is nie 'n waarsêer nie, dit is 'n boodskap van die Here af.</p> <p><u>Translation</u> He informed all present that he would like to share a message regarding the power station that Eskom proposes to build. His message was as follows:</p> <p>I wanted to tell you that the power station would be built at St Francis Bay. There is no alternative. I had a message from the Lord. I saw it in my dream. I also saw an accident happen which can [make witnesses of us all]. This accident of a motorcar or car destroys something, but it was an accident in which people could not get oxygen. I saw them being carried in exactly at the [unclear]. I just want to tell Eskom today: if you would only move your plan to an alternative site, this thing will not happen. I know today, and Eskom knows, that Thuyaspunt is the preferred site. I cannot be quiet; I have to pass it on: when the Lord speaks, I have to obey. Sell that land of yours and use the</p>	

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		money to go to Bantamsklip or some other place. This is something I saw before you came here. I'm not a soothsayer; this is a message from the Lord.	
9	Ms Andrea von Holdt Coega Development Corporation and Rebels Rus Nature Reserve Resident	<p>Ms von Holdt indicated that she is representing Coega Development Corporation in her capacity as the Environmental Manager and is also a concerned resident of Rebels Rus Nature Reserve, which is in very close proximity to the Thyspunt site. She then raised the following comments:</p> <ol style="list-style-type: none"> 1. <u>The impacts on marine biology.</u> In the information document provided to I&APs, it is indicated that the impacts on marine biology would be highly significant in the long-term. These are negative impacts of up to 6m². The EIA report also indicates that these impacts could be mitigated sufficiently. She indicated that she is not clear as to what "sufficiently" means. 2. <u>Impact on the Chokka industry:</u> She would like the report to provide specific information that will help her understand how significantly negative are the impacts, provide clarity on the nature of negative impacts on the lives of the Chokka fishermen who are always in Thyspunt. She mentioned that she was uncomfortable as she has not read this particular specialist report but would like that a response be given in detail in the report. 3. It is also stated that that "<u>over a very long time the marine life will recover</u>", it is unacceptable from a conservationist point of view and would therefore like this point to be covered in detail and justified. 	<p>Mr Heydenrych: You are correct in your reading of the executive summary. The Marine Specialist concluded that there would be a potential impact of high significance within a limited area. In other words 3 km² in the short-term and 6 km² in the long-term over a period of 5 years. The area within that radius would be blanketed by sand of a certain thickness and that the marine processes within that area would effectively cease, and over a very long period of time they would start regenerating. According to the Marine Specialist, considering the distance that the sediment would be disposed offshore, as well as the location of the area, this was thought to be an acceptable impact.</p> <p>Ms Ball: Added that there were two specialists, Prof. Charlie Griffiths, an internationally renowned marine specialist and his colleague Dr. Tammy Robinson. They did specifically look at the potential impact on the Chokka industry in terms of its breeding cycle and the life cycle of the squid.</p> <p>Ms Ball offered that clarity will be sought from the marine specialist and a response provided.</p> <p>Post-meeting note: The Marine Biology Assessment is attached as Appendix E15 to the Draft Environmental Impact Assessment Report (Draft EIR). The report identified the following potential impacts on the marine environment in terms of Chokka squid:</p>

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		<p>4. The presentation given on the visual impacts indicated that the visual impact would be of low significance. She stated that she holds a different opinion, since from her house in the Rebels Rus Nature Reserve; she will clearly see the Nuclear Power Station. Therefore, the visual impact is high.</p>	<p><u>Disruption of the marine environment during construction</u> The construction of an intake and outflow system for cooling water will result in temporary disruption to the marine environment. Under such circumstances the benthic habitat and in particular egg beds of the Chokka squid <i>Loligo vulgaris</i> are at risk of damage due to smothering, while turbidity may result in adults temporarily moving out of the area. This disturbance will be focussed within the construction phase and is likely to be localised and of short duration.</p> <p>Additionally, potential discarding of an estimated 6.37 million m³ of spoil from the excavation of the intake tunnel, nuclear island and turbine hall poses a threat to the marine environment. From a biological perspective potential impacts would occur due to increased turbidity in the water column as a result of the suspension of fine particles and due to smothering of the benthic habitat by spoil placed on the sea floor. At this site only the disposal of all or half the spoil at a deep site using a medium discharge rate are considered acceptable from a marine ecology perspective. Following disposal on the seafloor, roughly 3 m of sediment will cover an area of 1.5 or 3 km² depending on whether only half or the full volume of sediment is disposed of. Following disposal, local water movement will result in shifting of the spoil in a north easterly direction towards Seal Point. Within the first five years following disposal the sediment is likely to spread to cover an area of between 8.3 km² and 6</p>

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			<p>km² in sediment of between 5 and 10 cm. In the next five years loose sediment originally placed on the disposal site is expected to continue to spread in towards Seal Point. If disposal of the full volume of sediment is employed this spoil is likely to spread to cover a small area in the small bay east of Seal Point in 5 – 10 cm of sediment. If disposal of only half the volume of spoil is utilised, this area will not be affected. While the initial disposal site will be lost as a breeding area to Chokka squid <i>L. vulgaris</i>, the areas to which sediment spreads are unlikely to affect these squid as they lay eggs on both sand bottoms and rocky reefs. Sandy bottom communities establishing within sediment originating from the disposal of spoil are likely to be dissimilar to those of surrounding areas. This is due to the fact that this site is dominated by consolidated sands will naturally support different biotic communities to those occurring in loose sediments such as those derived from spoil.</p> <p><u>Release of warmed cooling water</u> No input of warmed water comparable to that of the proposed development exists along this section of coast. As this site lies at the warm end of the Agulhas Bioregion it could be argued that a portion of species occurring here may be near the upper end of their temperature tolerance range and hence could be particularly vulnerable to further temperature increase. Although theoretically possible, this is however, unsubstantiated.</p> <p>The fishery of greatest importance in the Thyspunt</p>

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			<p>area is the coastal jigging fishery for Chokka squid <i>L. vulgaris</i>. The major spawning grounds of this species occur between Plettenberg Bay and Algoa Bay and it is here that these squid are targeted during the spawning season. Adult Chokka squid are adapted to a wide temperature range of between 8 and 22°C and are able to cope with rapid changes in water temperature, which allow them to easily move through thermoclines. As such it has been recognised that temperature is probably not a primary factor affecting the distribution of adults, but rather the distribution of their food source. This is reflected in catches peaking following drops in temperature resulting from coastal upwelling. It should be noted that it is not the drop in temperature which drives this change, but rather the process of upwelling. As such, elevated water temperatures resulting from the release of cooling water will not as a matter of course result in lower catches by the fishery.</p> <p>The egg capsules of this species are deposited directly onto the seafloor and develop optimally at temperatures between 12 and 20°C. At temperatures above 22°C egg development is retarded and mortality increases and above 24°C, 100% mortality is reached. Based on a background temperature of 19°C egg beds will be able to tolerate a maximum temperature increase near the sea bottom of 3°C. Oceanographic modelling indicates that while a mean increase of 3°C near the seabed will be limited to an area of roughly 0.2km² around the outlets of a 4 000 MW plant, an area of 0.5km² will experience an maximum increase of 3°C or more, if a nearshore pipeline outfall is used .</p>

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			<p>This temperature increase will be focused at depths shallower than 15 m. Modelling also showed that should a channel outflow system be used for a 10 000 MW plant, a mean increase of 3°C would affect less than 0.1 km² but about 2.5 km² would experience a maximum increase of 3°C or more (Models were not constructed to consider this release system for a 4 000 MW plant, but its impact would be less than that of the larger 10 000 MW plant. As egg beds are laid down predominantly in areas shallower than 50 m (unless unfavourable conditions force adult squid offshore), a certain amount of egg mortality is expected, although precise estimates cannot be made as the exact location of egg beds is not known. Nonetheless, the area to be affected is in fact a tiny portion of the spawning ground which is centred between Plettenberg Bay and Algoa Bay (Augustyn 1991). In order to minimise impacts on egg beds the cooling system outflow should be located at a depth of more than 50 m.</p> <p>The release of warmed water is not predicted to have a significantly negative effect on fish, or marine mammals. This is due to their mobility and ability to avoid the localised warm water plume. In addition all of these species have wide-ranging distributions which extend far beyond the Thyspunt area. Although these species are likely to avoid the elevated temperatures immediately around the outfall, they are not expected to avoid the area in general.</p> <p>At Thyspunt there is notable potential for the</p>

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			<p>establishment of new warm water species, due to the already high ambient sea temperatures at this site and its proximity to the sub-tropical Natal marine bioregion, which could act as a source of immigration of warm-water species. Climate change related declines in sea surface temperature in this region (Rouault <i>et al.</i> 2009) are unlikely to reduce the risk of establishment of warm water species as water temperatures have declined by less than 1°C over the last two decades. Should the establishment of warm water species occur, it is, however, unlikely to have dramatic impacts on the local ecology as immigrant species will be restricted to a small area warmed to within their thermal tolerance range by the plume.</p> <p>Mr Heydenrych: We take note of your comments regarding the potential visual impacts.</p> <p>Ms Ball added that the visual specialist undertook his study from all aspects. The Visual Impact Assessment conducted as part of the EIA is attached as Appendix E20 to the Draft EIR. It reports that the visibility the Nuclear Power Station at Thyspunt is contained along the coast by east-west orientated dune fields. This limits the visual exposure of the Thyspunt Nuclear Power Station to the towns of Oyster Bay and Cape St. Francis.</p> <p>The main aspect that influenced the above conclusion is the presence of the visually dominant Thyspunt Nuclear Power Station and the associated transmission lines and buildings, all of which are visible to some degree from within a 10 km radius of the site, but mainly along the coastal edge. This is due to the</p>

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			<p>landform that includes vegetated and moving dunes that trend east-west, almost parallel to the coastline and the extended visibility at night due to intense illumination of that site. However the general existing coastal night scene is disturbed by the intense incandescent lights on the 'Chokka' boats as they fish for squid near the shore. The light intensity varies according to the season for Chokka fishing. The visual intrusion on the landscape character will be increased by the HV Yard, the transmission lines and proposed northern access road that all become visually prominent in the panhandle of the property north of the high sand dune.</p> <p>The specialist study further proposes mitigation measures related to the colour of the large structures and masts, the erection of screens, lighting of structures and areas within the Nuclear Power Station and the position of soil dumps.</p> <p>A 3D representation is currently being prepared by the Visual Specialist.</p>
10	Mr Alwin Malgas Sea Vista Forum	Ons vang daai tjokka op [onduidelik] water. Hulle praat van 6 km ² . Die hele tjokka bedryf gaan daarmee heen gaan as daai water gaan warm word. Ons vang hulle in 10m water. Hulle praat van 'n pyplyn – ons het 'n gemeenskap daar; ons mense het nie die informasie nie. Dit gee my die idee dat Eskom selfsugtig is. Hulle gee nie om vir die mense van St Francis nie.	<p>Facilitator– Kan ek vra [by] die vergadering by Sea Vista, dat daardie spesifieke spesialis meer spesifiek na die inligting kyk.</p> <p>Facilitator requested that, since detailed information could not be provided at the meeting, detailed information be sourced from the specialist study in preparation for the meeting at Sea Vista on Friday, 16 April.</p>

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		<p><u>Translation</u> We catch this chokka on/in [word unclear] water. They talk about 6 km². The whole chokka industry will be destroyed if that water gets warm. We catch them in 10m water. They talk about a pipeline – we have a community there; our people do not have the information. This creates the impression with me that Eskom is acting selfishly. They do not care about the people of St Francis.</p>	
11	Mr Ryan Donnelly FAST	<p>Mr Donnelly questioned where exactly and specifically is the concentration of the spawning ground of the Chokka.</p> <p>Follow up comment: They do not know where it is. The Draft EIA report merely refers to “a very large area”. This indicates that they do not know where the specific area is.</p> <p>Facilitator’s follow up comment to Mr Donnelly: if the specialists do in fact know where the area is and they can substantiate it, will you accept it? She asked Mr Donnelly if his concern is that it is an omission in the report and it needs addressed.</p>	<p>Ms Ball: There are 24 very complex specialist studies. This aspect is covered in the report and can be shared with Mr Donnelly after the meeting when copies of the specific reports were available.</p> <p>Mr Donnelly agreed.</p>
12	Mr Hilton Thorpe St Francis Bay Residents Assoc and St Francis Kromme Trust	<p>Mr Thorpe recalled that there was a discussion about pumping the spoil from Thyspunt to St Francis Bay. He would like to understand if the consultant is talking about the same spoil that is now going to take up 6km² of the seabed.</p> <p>He requested enlightenment on what happened to that</p>	<p>Ms Ball: Mr Thorpe’s statement is correct. The suggestion was raised at some of the meetings around Thyspunt as a potential alternative for using the spoil. Arcus GIBB consulted with the specialist that undertook the EIA and were informed that they had found a solution to the problem. As a result, the pumping of the spoil to St Francis Bay was not considered any further in the EIA as an</p>

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		suggestion because that would have benefitted St Francis Bay given the fact that St Francis Bay has significant beach erosion.	alternative.
13	Mr Andrew Skowno Wilderness Foundation SA	<p>He questioned if the international markets will buy Chokka from the area. It should be recognised that Chokka from the area is sold internationally and has a positive economic benefit in the area. He further asked if the specialist assessed the impact from an economic perspective?</p> <p>Facilitator: the Chokka industry may be one components but it feeds into the integrated perspective of all other impacts, whether they are positive or negative and whether they can or cannot be mitigated especially when you are looking at a community that is dependent on the international market. The actual extent of that impact must be detailed.</p>	<p>Ms Ball: It is certainly an important economic activity around the Thyspunt site. At all of the sites we considered the agricultural base economic activities. As an example, around Bantamsklip there is a wine industry, Thyspunt there is Chokka industry and dairy farming, all of these were taken into account in the economic study.</p> <p>In terms of quality control and in terms of the specialist studies, there were Terms of Reference as detailed in the Plan of Study for EIA. Arcus GIBB also had the report quality controlled by an independent specialist in the various specialist fields, including expert opinions to make sure that the specialist complied with the Plan of Study.</p>
14	Ms Kaylene Levack Joshua Heritage	She wanted to know if a Heritage Impact Assessment has been done and if so, what was the level of participation in the study. Section 25 of the Act states that cognisance has to be taken of Cultural Heritage – she enquired if cultural heritage has been part of the EIA.	Ms Ball: Dr Timothy Hart from UCT Archaeology Department undertook the Heritage Impact Assessment. He started off in late 2007, so it was undertaken over a number of years. Extensive fieldwork was undertaken at the various sites. There was extensive field sampling at Thyspunt. The key mitigation measure which has come out of this study and which has been incorporated in the Draft EIR as well as the Draft EMP is that full archaeological collections need to be undertaken. These may take a number of months if not years by a team of experienced archaeologists. The Heritage Report has been reviewed during the Scoping phase and is being further reviewed by the public and experts as part in the Draft EIR.

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			Cultural Heritage was also part of the study and as such the study is in full compliance with the Heritage Resources Act.
15	Mr Hilton Thorpe St Francis Bay Residents Assoc and St Francis Kromme Trust	<p>Mr Thorpe drew attention to page 15 of the Executive Summary of the EIR which read, "Mitigation of Heritage Impacts particularly require the work of a science specific team dedicated to excavation over a period of several years prior to the onset of construction".</p> <p>That extract is in the Draft EIR. His question relates to how can construction begin in 2011. The same applies to the seismic investigation where they need very long time to determine the seismic implications in detail. Is Eskom going to jettison the idea of 2011?</p> <p>Facilitator noted that certain seismic studies have already been done in terms of the site selection and</p>	<p>Ms Ball: From the EIA perspective those mitigation measures were taken straight from the specialist reports and placed in the recommendations of the Draft EIR and the Draft EMP. If the DEA authorises this project with conditions, which is likely, that will be one of the authorising conditions.</p> <p>Ms Herbst: The important part to note is that the EMP stipulates what needs to be done before construction starts. Eskom has to comply with the EMP conditions. Therefore it will impact on Eskom's timelines and we will have to address this delay in our plans.</p> <p>However, there could be a phased approach in terms of what they excavate first. As an example, they could start at the construction area and then move to other areas. Eskom will have to obtain authorisation from the South African Heritage Resources Agency (SAHRA) and ascertain what can be completed during construction.</p> <p>Ms Ball: We have had initial meetings with SAHRA, together with the Heritage Specialist, in terms of the mitigation measures and seeing which resources are available in South Africa in terms of being able to complete some of this mitigation. The amount of time is based on the number of people available to undertake work on site.</p> <p>Ms Ball: There are many permits that the applicant, Eskom has to apply for and Arcus GIBB cannot respond on behalf of Eskom regarding their new build program.</p>

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		<p>suitability. She however questioned if there are any additional seismic related studies that need to be undertaken and their implications on Eskom's build programme.</p>	<p>Mr Stott: Eskom has a deadline that they would like to meet, however, this timeline will be determined by the Integrated Resource Plan that government is developing. This includes whether they want to have nuclear as part of the energy mix and if they do, by when do they want the first power station to be operational. It could be 2018, 2020 or 2022, all of those dates have been mentioned in the media. Assuming that the government indicates that they want nuclear, apart from the EIA authorisation, Eskom will also need to get the nuclear license from the National Nuclear Regulator.</p> <p>One of the things they will do is look at seismic analysis, i.e. is the plant designed to withstand the projected seismic activity. We have seen that for Thyspunt there is a lot of margin, those studies have been done since we started investigating sites in South Africa. Thyspunt has ~0.16g (Peak Ground Acceleration). There is however less margin at Bantamsklip and for Duynefontein ~0.3g. Eskom has requested additional studies so that we can refine those figures, particularly for Duynefontein because if it is ~0.3g or higher Eskom will have to design a plant specifically for that. For Thyspunt we believe that the standard design can be used because there is sufficient margin within the seismic activity. But this is all part of the NNR's licensing process.</p>
16	Mr Graham Moolah St Andrews College	<p>He had the following concerns:</p> <ol style="list-style-type: none"> 1. On the site there are numerous pre-historic shell middens and on top of that we also have the fish kraals. Heritage comes from a race of people that 	<p>Ms Ball: the Heritage Specialist has mapped the heritage sensitivity on Thyspunt and it is an extremely rich site. One of the key mitigation measures that the specialist has recommended and which have been taken into account, is the setback line of 200 m from the coast to preserve the</p>

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		<p>are dead and what is going to be done to preserve this in the future. This has been untouched and unspoilt for hundreds of years. The wealth of our middens that are on the site will be gone forever once the nuclear site is built.</p> <p>2. Water: As we know in the area, there is a critical water shortage. Without water, we die. This applies to farmers and everybody. What Eskom has done and what the EIA has done during the seismic drilling – is drilling into the water table. They are drilling this table so badly that it looks like they are trying to destroy the wetlands and dry them out. It is unbelievable when you see the damage on the site. It is so bad that the Chokka fishermen, who used to fish directly off Thyspunt have moved as far as the Fish River Mouth to try and catch Chokka because of the destruction being done. We have a wealth of underground rivers and we are drilling into that underground water table and source. If we destroy or damage this, it will be a disaster to this area for the rest of time. Water is life.</p>	<p>majority of the middens. Please supply any information you have to Arcus GIBB..</p> <p>Water resources are a huge issue. A desalinisation plant is included in this EIA at all of the sites - taking sea water and desalinising it and that is why one of the alternatives examined was the potential impact of brine, which is concentrated sea water.</p> <p>Mr Stott: Obviously to do the hydrological studies, drilling has been undertaken. Post meeting note: Ground water has not been pumped from the boreholes on the Thyspunt site, it is therefore not possible for the borehole drilling to impact on the water table.</p> <p>Ms Ball: The specialist has recommended that more monitoring points be drilled to determine precise mitigation measures.</p>
17	Mr Andrew Muir Wilderness Foundation of SA	<p>Mr Muir indicated that he is representing the Wilderness Foundation of SA in his capacity as the Chief Executive Officer.</p> <p>He then raised the following concerns:</p> <p>1. In a conversation with Sir David King, he mentioned that there is a technical adjustment</p>	<p>Ms Ball: I do not know the specifics regarding the technology process to recycle radiological waste. Arcus GIBB worked within the envelope of criteria for a generation 3 nuclear power stations. The parameters of this envelope of criteria were very conservative and Eskom and any vendor would have to comply to these criteria. The specialists looked at that criteria and undertook their</p>

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		<p>that is being done to recycle some of the waste that prolongs the process of using uranium and that there are new technologies coming into place. You mentioned that you would take this into account. I just need to know if this has been taken into account because clearly there are cost implications but it will impact positively on the overall waste disposal problem.</p> <p>2. Strategic Environmental Assessment (SEA). An SEA has not been done in this area. The fact that Eskom and the environmental consultants cannot do an SEA, will impact on every citizen of the Eastern Cape and South Africa. The EIA regulations, which have been amended in parliament, should come through by June 2010 and it is ironic that we are talking about a need for an SEA, which will be a requirement for a development of this nature. I say it is ironic because this EIA process will be submitted to the DEA before the regulations become a requirement. I am raising this as a concern as I believe that if an SEA was done, it would have taken into account the strategic impact of the region. There will be serious concerns raised through a SEA.</p> <p>3. This development is on the boundary of the Baviaanskloof Nature Reserve, which is a World Heritage Site and this has not been taken into account at all because it is outside the boundary of the scope of the EIA. Baviaanskloof is subject to international legislation in terms of world heritage.</p>	<p>assessments based on these criteria. Mr Muir was requested to please provide the specific information referred to.</p> <p>In terms of the SEA issue, the EIA studies were not limited to local potential impacts. The specialists looked at the effects on the region. In terms of the Baviaanskloof Reserve, all specialists, particularly the biophysical specialists, are well aware of this important conservation area. Nevertheless, we will flag this issue and make confirm that this issue is addressed in all studies.</p> <p>Post-meeting note: New environmental-impact assessment (EIA) Regulations, which will be published shortly, will come into effect in July this year. These regulations do not include a requirement to carry out a Strategic Environmental Assessment.</p> <p>The statement regarding a positive conservation benefit was taken out of the independent specialist study. This was a conclusion that has come out from a number of specialist studies.</p> <p>Mr Stott: Eskom looks at what technologies are available and explore all new technologies. The technology that Mr Muir has referred to is the one that significantly reduce the amount of high-level radioactive waste that is produced. There has recently been some announcements, and have learned that Bill Gates is in fact looking at different types of technology. These are very much into the future and they are only likely to become commercially available in about</p>

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		<p>4. Then, there is also the issue of the transmission lines and the various impacts related to Thyspunt and the impacts on many other parts of the Eastern Cape. That is why SEAs are important.</p> <p>Finally I really take objection to," Positive, overall conservation benefits," - this is insulting. You cannot say, when you consider the issues of water, marine life, visual impacts, that just because you are going to declare a small part of the land a reserve, that it is a positive conservation impact.</p> <p>You also cannot use the word "overall". It goes with the strategic side, as this does not take into account the long-term impacts of road transport and of transmission lines.</p> <p>The whole idea of an SEA is that you take a strategic view and not just the local impact. The same applies to the conservation, the reason why the Baviaanskloof Nature Reserve came into being is to create corridors of biodiversity to protect this set of biomes that we have in this area. Part of the corridors come from Cape St Francis area and an SEA would take that into account. That is why you cannot use the word "overall".</p>	<p>20 or 30 years time. Therefore this is too far into the future for us to consider for this nuclear power station.</p>
18	Dr Peter Inman Coega Development Corporation	<p>He stated that he is also a resident of Rebels Rus Nature Reserve and knows the area quite well. He raised the following points:</p> <ul style="list-style-type: none"> ▪ The challenge to me is the damage that has been 	<p>Comments noted.</p>

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		<p>referred to (drilling). I am not aware of how bad it is, but it is certainly not the way to do things. If there is going to be a certain amount of disturbance, this has to be very carefully controlled.</p> <ul style="list-style-type: none"> ▪ If the idea, as stated in slide 62, i.e. taking the land and looking after it all the way up to The Links, because it is all beautiful, it is all worth preserving, then you are looking at the most wonderful site. ▪ If you look at the bigger picture, it helps to conserve a much bigger area. You are currently looking at quite a small area and there is a lot more that is worth conserving. If you conserve a bigger area, you could actually be adding some value back. 	
19	Ms Chantal Oddy Rebels Rus Conservancy	<p>Is Eskom going to take a bigger area for conservation, because that is of interest to Rebels Rus Conservancy?</p> <p>Regarding the water issue, Rebels Rus has run out of water. There is nothing trickling into the tanks any more, so Eskom have definitely damaged the water table during the drilling at the Thyspunt site.</p>	<p>A recommendation has been provided by the specialists for an extended conservation area.</p> <p>Eskom stated that they are not taking water from the boreholes that have been drilled to complete the hydrological study.</p>
20	Mr Ryan Donnelly FAST	<p>Mr Donnelly objected to the manner in which the meeting is handled. Every time a question is posed to the Independent EIA consultants, which is within their scope of work, a question is passed on to the developer (Eskom) to respond. This has been experienced previously in the process. The public cannot have a situation where the developer is managing the EIA process. The EIA process has to be</p>	<p>Ms Ball objected to Mr Donnelly's statement. She further highlighted that there are some questions that are policy decisions etc, and that are way beyond the EIA. She advised Mr Donnelly that Arcus GIBB has responded to all EIA related questions.</p>

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		managed by the independent consultants.	
21	Mr Janie Buckle SANBI - Working for Wetlands	<p>Mr Buckle shared the following information:</p> <ul style="list-style-type: none"> ▪ I would like to make you aware that there two specialist studies by Rhodes University, Prof Fred Ellery, they are looking at that entire system and the uniqueness of that wetland system. Also the groundwater, and how that interrelates with the dune ecosystem. This is a very interesting subject. I have attended a conference on it already, this is nearing completion and you should gain knowledge from this study. ▪ From a wetland point of view we are concerned about the access roads and the power lines. In future once this thing comes off we would like to have some feedback. ▪ I have not seen the actual footprint of where the roads are and where the power lines are going. There are a lot of proposed mitigation measures for the dune system which we would have a problem with. ▪ We are experienced in wetlands restoration so we could offer assistance with this aspect. ▪ The uniqueness of the wetlands has been highlighted in your report but this is probably the one wetland in the world that has the [word unclear] ecosystem. <p>Facilitator asked if it would not be beneficial to provide this information to the specialist now particularly in terms of the access roads. These are the types of things that need to be evaluated and written into the</p>	<p>Ms Ball: The dune geomorphology specialist, Dr Ellenberger, and our wetlands specialist, Dr. Liz Day, have been working with Prof Ellery and there have been meetings between these various experts. Also there is another lady (Ms. Lauren Elkington), also from Rhodes University, doing her PhD on the subject..</p> <p>The specialist study recommended specific mitigation that was obviously specific to their technical specialist area. Drs Day and Ellenberger have indicated extensive mitigation, which is highlighted in the Draft EIR, in the Draft EMP (Appendix F). I must emphasise again that these are draft specialist reports and a draft EMP.</p> <p>Post-meeting note: Comment by Dr Illenberger received via e-mail on 19 May 2010</p> <p>A study investigating the structure and functioning of the Oyster Bay Dunefield system is being undertaken by a group of scientists led by Prof. Ellery and involving Ms. Gillian McGregor and Ms. Lauren Elkington, all from the Department of Environmental Science, Rhodes University; as well as Prof. Richard Cowling from the Nelson Mandela Metropolitan University. An MSc thesis entitled “Morphology, patterns and processes in the Oyster Bay Dune field system” by Ms Elkington is at an advanced stage of preparation. This is a work in progress, and the data collected cannot be presented or discussed in the EIR until the MSc is completed. However, if the thesis is completed before the Final EIR is completed, the</p>

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		EMPs, therefore it is advisable to raise them timeously.	<p>results of the thesis will be incorporated into the relevant specialist studies.</p> <p>Ms Herbst: responded to Mr Buckle's offer of involvement at later stages. At this stage, there is no final design, once we start getting involved in final design it is always useful to have professional organisations, NGOs involved in some of the decision-making. Eskom has had a very successful partnership with BirdLife South Africa and Middelpunt Wetland Trust on the Ingula Pumped Storage Scheme, where during final design and construction decisions are being influenced by the partnership.</p>
22	Ms Judi Nwokedi Areva Women in the Nuclear Industry in SA SA Citizen	<p>Ms Nwokedi shared the following information, which formed a basis for her comment and recommendation:</p> <p>I grew up with two power stations in my back yard in a previously forced removal settlement in the Western Cape. I had the benefit and the not so positive benefit of a coal power station and Koeberg. They were re-declared areas for people of my racial background and we were forcibly removed to that area. Obviously we had no benefit from any public participation in any process whatsoever.</p> <p>The process that is being followed now to develop energy security for South Africa is critical, it is pivotal and it is groundbreaking in terms of whether we survive the economy or not.</p> <p>I think it is very important to the DEA and the related ministries in clusters that the public education process is undertaken. The public education process could be</p>	Comment noted.

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		<p>undertaken parallel to the EIA because many issues will be discussed.</p> <p>I am not here to provide answers to some of the questions that have been asked, but in a public education process you can put the term key value chain of any energy solution to the South Africans not just stakeholders, so that South Africans can make decisions on the basis of objective neutral information that was provided to them.</p> <p>As South Africans we have been promised a public education process so that from the issues of base-load to carbon storage to co-generation to independent power producers – so that the debate takes place within the appropriate context.</p> <p>Lastly, on the spent fuel issues and technologies that are being developed, I would be happy to share my knowledge and talk about technologies that are in development and that are being deployed in countries across the world.</p>	
23	Mr Ryan Donnelly FAST	<p>Mr Donnelly fully supported Ms Nwokedi's recommendation with regards to information sharing. He felt that it is good idea. He also mentioned that he participated at the International Energy Summit in 2007 and there was representation from various stakeholders who are involved in the planning for energy.</p> <p>There were a number of energy groups that were objecting to SA's energy planning. It was however</p>	Comments noted.

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		<p>more of a dictative kind of summit. He thinks that as far as gaining information and coming to decisions and conclusions of what is the way forward, it definitely needs to be a process that involves everyone, from the beginning.</p> <p>At the moment when it comes to the public domain, I am well aware that Eskom has published a lot of things in the public domain and I would say that, that information is not independent. We need to look to the independence of information.</p>	
24	Ms Andrea von Holdt Coega Development Corporation and Rebels Rus Nature Reserve Resident	<p>Ms von Holdt raised the following comments:</p> <ul style="list-style-type: none"> ▪ She is of the opinion that the public cannot fight development and specifically this one. South Africa needs cleaner energy and do not want to go coal, so she thinks that the motivation for this specific project is there and it is clear. ▪ However, the concerns that have been raised at the meeting are mostly related to the biophysical environment. She does not get the confidence from the EIA Consultants that the public queries are being satisfactorily answered. ▪ She enquired if it would it be possible to get the specialist to address meetings. The responses forthcoming from the Consultants are that “this will be addressed or that they will go back to the specialists”. Face to face contact with the specialists is what will provide the majority of assurance to a lot of queries. ▪ Regarding the roads: In the summary report, it has been mentioned that there is a northern 	<p>Ms Ball: It is not typical in an EIA process to bring specialists to public meetings. GIBB does recognise that in some cases this would be beneficial if numerous issues are raised about a specific specialist report.</p> <p>It has been raised in correspondence from the DEA and we have considered it and we want to go through this round of meetings and see which issues come up. Particularly at Thyspunt site, the biophysical issues are complicated. They are issues that involve complicated mitigation measures to bring the significance of impacts down. We will bear this comment in mind and in the mean time please raise your issues around the studies you would like the specialist to address.</p> <p>GIBB will take all of your questions back to the specialists on a weekly basis, any issues that are raised during the week we send to the specialists and we get them to answer those queries with our assistance and then integrate it into an Issues and Response Trail. If there is a need to have a key focus group meeting around one or two specialist</p>

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		<p>access and a preferred western access. However, in the presentation, Mr Heydenrych mentioned an eastern access road, which was non-negotiable for large trucks. What is the situation with this road, as this concerns the residents of the Rebels Rus Nature Reserve? This access will impact specifically on the safety of our houses.</p> <ul style="list-style-type: none"> Will there be another round of public meetings if the public demands the presence of specialists? 	<p>studies, focus group meetings are very effective tools in an EIA.</p> <p>Post-meeting note: Focus Groups and another Key Stakeholder Meeting has been organised with selected specialists (marine, agriculture, traffic and transportation, social, geohydrology, freshwater ecology and dune geomorphology) in the Cape St. Francis/ St. Francis Bay area from 24 to 26 May 2010.</p> <p>Ms Ball: In terms of the eastern access road, this is for heavy vehicles, Yes, this access road will be used during construction phase because of the gradient and the access to the main roads for the heavy vehicles and heavy loads. These are huge vehicles with heavy loads and that will need to be strictly controlled, all the mitigation that are associated with that such as dust, noise, how many loads per day, etc. are built into the Draft EMP and the specialist studies themselves.</p> <p>There are two other access roads, one is a northerly access road and the biophysical specialist particularly found that this access road was unacceptable, in terms of passing over dune system and the associated sensitive wetlands and the inter-dune habitats for the flora and fauna. However, the visual specialist quite liked this road.</p> <p>In terms of the western access road that would come from Oyster Bay and roughly follow the existing road on the site, as we have said, the specialist have looked at corridors in this EIA and looked at the whole EIA corridor and they also looked at the road corridors and transmission line corridors</p>

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			and a detailed alignment, for example the wetland specialist and the botanical specialist have had that detailed walk-outs would have to be undertaken to find specific alignments for these roads. The concerns raised regarding the road alignment will be discussed at the Focus Group Meetings to be held 24 – 26 May 2010.
25	Mr Alwin Malgas Sea Vista Forum	<p>Ek wil beswaar maak, want die mense sê vir ons die een dag só en die volgende dag sê hulle só. Ek was binne Kalway Hotel waar Mnr Johan van der Walt verduidelik het waar die pad gaan wees.</p> <p><u>Translation</u> I want to object because one day we are told one thing and the next day another. I was at the meeting in Kelway Hotel where Mr Johan van der Walt explained where the road was going to be.</p>	
26	Mr Hilton Thorpe St Francis Bay Residents Association St Francis Kromme Trust	<p>The whole access road has a massive impact and it is what is wrong with this whole EIA.</p> <p>There is so much material information, which has not been supplied timeously. The first discussion that we heard of an eastern access road was in the EIR. There was nothing in the Scoping Report about the roads at all.</p> <p>The implications of bringing heavy machinery right past St Francis Bay is huge. All communities along that route are going to be affected.</p> <p>What does heavy load mean, does it mean about 4</p>	<p>Ms Ball noted the objection and stated that it will be taken into account.</p> <p>She pointed out that in the Scoping Phase there were no specific details of the site regarding access routes and that was pointed out and in fact a lot of the specialists had to go back for additional site visits to assess the corridors. They looked at the corridor rather than the road alignment, so it was not just the footprint of the road.</p> <p>Using the slides, Ms Ball explained the three alternative access roads.</p> <p>The details are in the Transportation Specialist Study.</p>

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		<p>loads of 1,000 tons, but if it means that every concrete mixer and steel truck etc. we are in for years and years of construction traffic. We could have a construction site here for the next 25 years.</p> <p>It is simply not right to impose such a facility on established communities where there is a successful tourism industry. The public does not have a definition of heavy loads and we object very strongly.</p>	<p>Basically it is abnormal loads and all details are in the study. This study is attached as Appendix E25 of the Draft EIR. The study reports that a variety of heavy loads will be transported to and from the Nuclear-1 site during the construction period, with the heaviest load being transported via a Self Propelled Modular Transporter (SPMT). The SPMT's dimensions are approximately 42 m in length and can be either 5.33 m (two trailer wide) or 8.23 m (three trailer wide) in width.</p> <p>The study does however confirm that several construction phase details such as the location of laydown areas, number of construction vehicles and daily trip frequencies are currently unknown.</p> <p>Regarding the roads (referring to map), she indicated the central line of the corridor. The width of the corridors assessed was 2 km and within this width an alignment must be found.</p>
27	Facilitator	<p>Mnr Malgas, terwyl jy uit was, het ek vir die mense gesê dat ek met Mev de Villiers gepraat het en sy sê dat daar blykbaar ander studies aan die gang is in die omgewing, waarmee die Departement van Paaie besig is. Sy wil net seker maak waar daardie paaie is en waar hulle loop en wie vir hulle verantwoordelik is om seker to maak dat daar nie 'n deurmekaarspul is rondom die paaie nie. Dit is om seker te wees dat die paaie projekte nie met hierdie projek deurmekaar raak nie.</p> <p><u>Translation</u> Mr Malgas, while you were out, I told the people that I</p>	<p>Ms de Villiers: She understands that there are 2 processes currently underway, as a phone call was received 6 months ago in connection with the road that is going to be constructed through Humansdorp to Oyster Bay and it was attributed to Eskom. In this regard, Ms de Villiers stated that Eskom has not been given instructions about any aspects relating to roads.</p>

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		<p>have spoken to Ms de Villiers and she says that apparently there are other studies being done by the Department of Roads in this area. She wants to make sure where these roads are and where they will run, to make sure that there is no confusion about the roads. This is to make sure that the roads project does not get mixed up in people's minds with this project.</p>	
28	<p>Ms Andrea von Holdt Coega Development Corporation and Rebels Rus Nature Reserve Resident</p>	<p>Ms von Holdt stated the following:</p> <ul style="list-style-type: none"> ▪ If the corridors are either 2km or 5km wide, surely at this final stage of the EIA, we should know the alignment within that corridor. Residents and people are affected and we should have access as to how these alignments are being chosen. ▪ Secondly, again I cannot see justification for the eastern access road if the report says the western access road is preferred. 	<p>Ms Ball: Referring to the map, she explained that in terms of input from the communities and in terms of the alignment this will happen post the EIA authorisation if it should take place. This question will have to be addressed to Eskom, but if there is expert knowledge of information within the corridors then we can recommend a specific alignment. We asked the specialists to look at a broad corridor.</p> <p>In Mr Heydenrych's presentation - he said that there are no alternatives to the eastern access road as farmer's said that they need this road and cannot do without it. In terms of the western access road and the northern access road – these were 2 alternatives as the second road to the site.</p>

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29	Mr Hilton Thorpe St Francis Bay Residents Association St Francis Kromme Trust	<p>Following on Ms von Holdts' comment and response provided, he stated the following:</p> <ul style="list-style-type: none"> ▪ The response provided by the Consultant indicates why the whole EIA process is discredited. ▪ The road access is a major environmental impact and if the road alignment is not included in this assessment what is the point of undertaking this EIA. To say this will be looked at after the ROD is quite unacceptable. ▪ So many other things have also been excluded from this process that all that NEMA describes as material information should be contained in the EIA and in our view the DEA should never have approved this Scoping Report because the whole process has been conducted back to front. ▪ Major issues affecting communities have been pushed aside and left until later on. 	<p>Ms Ball: The specialist reports found no fatal flaws within the corridor assessed. All they said in their recommendations was the detailed walk downs need to be done to determine the exact alignment if there are going to be deviations from the centre line of that corridor. So it has been adequately covered in detailed studies within those corridors by a range of specialists.</p>
30	Mr Ryan Donnelly FAST	<p>Mr Donnelly stated that Prof Richard Cowling from Cape St Francis is of the opinion that the western road should be chosen so that the communities in St Francis Bay are not negatively affected.</p>	<p>Comment noted.</p>
31	Mr Donevin Lesch Coega Development Corporation	<p>Mr Lesch stated that it is good to have studies done but have they looked at the issue of groundwater, utilisation during the construction period.</p> <p>Having read the summary, it is a concern when they say they are going to utilise boreholes and some groundwater will be discharged into the marine environment, which is in an area, which is a drought stricken area. They have to be clear what is going to happen regarding this matter. This is a great concern.</p>	<p>Ms Ball: Your concerns are valid. One of the alternatives was that during the construction phase they would use groundwater and then move to the desalination plant. The specialists rejected this alternative. If authorisation is granted for this project they will use desalinated water from the beginning.</p> <p>Post-meeting note: Local water (municipal) will however be used during the construction of the desalination plant.</p>

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		Facilitator encouraged Mr Lesch to check the specialist report to see if his concerns were adequately covered and if he is still concerned that there is insufficient information please make this submission again.	
32	Mr Petrus Leen Sea Vista Forum	<p>Ek wil net weet, ingeval die substasie by Thyspunt gebou gaan word, is daar enige veiligheidsmaatreëls? Die rede dat ek vra is wanneer die wind na Sea Vista se kant waai – die weste wind? Wat se versekering het ons as gemeenskap?</p> <p>Tweedens, sal daar genoeg tyd wees om al die mense te ontruim, want ek praat nou van plus minus 5000 mense in St Francis Bay. Wat se versekering kan Eskom ons gee?</p> <p><u>Translation</u> I just want to know, supposing that the power station is built at Thyspunt, will any safety measures be put in place? The reason is that the wind blows in the direction of Sea Vista, the westerly direction? What assurance do we as a community have around safety?</p> <p>Secondly, will there be enough time to evacuate all these people, because you are talking about approximately 5000 people in St Francis Bay. What assurance can Eskom give us?</p>	<p>In terms of human safety we have mentioned before that certain aspects fall under the National Nuclear Regulator Act. We did do a site control report and a site emergency response specialist report as part of the study. The DEA will not make a decision on that study, that is part of the site safety studies. Basically the NNR will issue a decision regarding issues around emergency evacuation from the zones and the owner of the site will have to comply with these restrictions and controls.</p> <p>Mr Stott: first of all Eskom will not build or operate a power station that is unsafe, we also have our own workers and employees to worry about. Secondly, over and above what Eskom believes, the NNR will check everything to make sure that the public is always safe. If the NNR feel that the public is in danger they can shut down the power station. The design of the power station that Eskom is interested in is the same for Generation 3. There are international specifications for that kind of power station, for example you would not need to do any evacuation outside of 800 m. It is a very different design from existing power stations and the existing conventions you have to take for example the Koeberg Power Station.</p> <p>The emergency plan that was mentioned – we are convinced that we have an emergency plan that can</p>

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33	Mr Alwin Malgas Sea Vista Forum	<p>Ons wil weet van ons veiligheid – wat is die risiko? In geval van 'n ongeluk, daar is omtrent 5000 mense. Mnr Stott sê die kragstasie is veilig.</p> <p><u>Translation</u> We want to know about our safety – what are the risks to us? In case of an accident, about 5000 people will be affected. Mr Stott says the power station is safe.</p>	<p>evacuate employees from the power station and that we can shelter anyone living in the area for the duration of any event to an acceptable level internationally.</p> <p>Ms de Villiers: In terme van die werking van die kragstasie moet ons kan bewys dat ons al die mense van die area kan uitkry in geval van 'n ongeluk. Dus, vanaf die begin, voordat die stasie operasioneel is, moet jy 'n program instel. Byvoorbeeld, (en ek kan net van Koeberg praat), ons het Sea Vista naby Wat almal sê is, hier is 'n ongeluk – dit is wat jy moet doen. Ons moet seker maak dat ons busse kan inkry in die area. Ons moet seker maak dat ons almal kan uitkry, so byvoorbeeld Atlantis wat naby is – daar is 75,000 mense, dis amper dieselfde gemeenskap as wat julle is, en ons moet daardie 75,000 mense uitkry as daar 'n ongeluk gebeur by Koeberg. Ons het busse, ons het taxis, ons het vervoer wat ons inbring om die mense uit te haal. Ons moet dit kan bewys en elke jaar bewys on dit vir die NNR. Ons het nie 'n keuse nie, hulle kan ons sluit as ons dit nie kan bewys nie.</p> <p>Met die nuwe ontwerp wat hulle gaan inbring is dit effens anders. As gevolg van die tegnologie wat baie meer gevorderd is as Koeberg s'n, is die area wat moet kan ontruim word baie kleiner. Sea Vista en St Francis Baai sit 20 km weg van die perseel af. Kom ons sê 5 km. Nou, met die nuwe tegnologie wat hulle inbring dwarsoor die wêreld, moet jy kan bewys dat jy binne 800 m almal kan ontruim. So dus nie eers buite ons heining nie.</p> <p><u>Translation</u> Ms de Villiers: In order to operate a power station, one of the requirements is that we have to prove that we would be</p>

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
			<p>able to evacuate all the people in case of an accident. So right from the start, before the power station even becomes operational, you have to have a plan for that.</p> <p>For example (and I only use Koeberg as an example; here we have Sea Vista nearby), the plan has to inform everybody, in case of an accident, this is what you should do. We have to be sure that we can get buses into the area. We have to be sure that we can get them out. Take Atlantis, which is close to Koeberg: there are 75 000 people. That community is a lot like yours. We have to be able to get those 75 000 people out in case of an accident at Koeberg. We need to have buses, taxis, have transport that we can bring in to remove people. We have to prove that we are able to do this, and every year we submit proof of this to the NNR. We do not have a choice in this as the NNR can shut us down if we cannot prove that [we are able to evacuate everybody].</p> <p>With the new design that is planned for this power station, things are a little different. This is because the technology for this power station is much more advanced than Koeberg, the area that you must be able to evacuate is much smaller. Sea Vista and St Francis Bay are 20 km away from the site. Let's say 5 km. Now, with the new technology that they are bringing in all over the world, you only have to prove that you can evacuate everybody within 800m from the power plant. So that is not even outside our perimeter fence.</p>

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
34	Mr Chris Barratt St Francis Kromme Trust	<p>Previously we were told of the EPZ, as 15 km and the recent information we have been given refers to 800m. This is a significant change!</p> <p>Mr Barratt expressed his concern regarding incorrect maps and wrong distances that have been used repeatedly. This aspect has been discussed at various meetings and requested the Consultant to rectify the error. The distances were wrong in the original maps. The Sea Vista people were told that they are 20 km away and they are not.</p> <p>The consultant was requested to confirm distances from the nuclear power station in relation to the neighbouring communities.</p>	<p>Ms Ball: Oyster Bay is approximately 3 to 5 km on the western side and the nearest community from the site. On the eastern side is Cape St Francis, St Francis Bay and Sea Vista which are approximately 15 - 20 km from the site.</p> <p>Ms Ball: Referring to the map, from St Francis Bay to middle of site is 11 km, as the crow flies. From Sea Vista to the centre of the site is 10 km as the crow flies.</p>
35	Ms Judi Nwokedi Areva Women in the Nuclear Industry in SA SA Citizen	<p>In terms of the design, the most sensitive part of the plant is where the uranium is contained. The plant is designed in such a way that if there is any technical fault it shuts down. There is NO potential risk from a hazardous outpouring. This is proven throughout the world where there are nuclear plants. In Japan where there were two bombs, to America, to France. The latest PWR shuts down. No radioactivity. There is no threat.</p>	<p>Comments noted.</p>

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		In terms of civils, when we build the construction site, that is a different form of safety. That is to do with competency and skills and occupational standards on the plant. If people are building a pylon, a beam or whatever, in the current execution in Finland there were no accidents. In Normandy where I have visited these plants, zero accidents. In fact, safety standards at a nuclear plant anywhere in the world are executed at the highest levels. Most of the objections are political and emotional as opposed to technical.	
36	Mr Angus Clarke PERCCI	From the Chamber of Commerce, we understand that have to get a power station in a short space of time. There are technologies available and it is a matter of educating the communities about safety. Nuclear – overall is safe, there has been one Chernobyl where a lot of lessons were learnt. From Eskom’s side, they need to educate the people about nuclear and take the fear away. It is a safe technology. How many thousands of people are killed in coalmines and coal power stations?	Comments noted.
37	Mr Lawrence Msibi Bitou Local Municipality (Plettenberg Bay)	My issue is the supply of uranium, where will you be sourcing it and how will you transport it to site?	Mr Stott: These contracts have not been signed, as there is no authorisation as yet for this power station. For Koeberg we get our uranium from France or the United States. It arrives on the ship and is transported from Cape Town Harbour to Koeberg Power Station. If authorisation is granted, it is almost certain that nuclear fuel will arrive at the harbour in Port Elizabeth Harbour then be transported by road to the site.

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
38	I&AP PE Key Stakeholder Feedback Meeting	It would be important to have a process that will be inclusive of all public representatives so that before you even start construction of a power station, everyone is 100% sure what is going to happen.	Comment noted.
39	Mr Ryan Donnelly FAST	<p>Mr Donnelly objected.</p> <p>My objection is basically an objection and a question. With regards to road alternatives, whether it is power, roads or whatever, whose responsibility it is to identify alternatives? Is it the developer or the independent consultant?</p> <p>Further to that, I would like the consultant to bring up the figure on annual inhalation dose of radionuclides. My question is where the 0.5 microSieverts lie in relation to the power station. There are people living within that area which would obviously be considered an overdose. What will happen to those people, will they be moved, what will they become?</p> <p>Also, I would like to say that limitations on radionuclides, is not material information with regards to knowing how we could be affected as agriculturalists or residents. Has there been any studies done on those types of technologies – on what the actual radionuclides emissions are?</p>	<p>The Facilitator acknowledged Mr Donnelly's objection.</p> <p>Ms Ball: the end width of the road will be 22m wide and the specialist looked at 100m from the centre line. If they could not find an acceptable corridor within that, they all worked together in the biophysical specialists and they were on site together for a couple of days. They then basically recommended another alignment.</p> <p>Regarding the decision for alternatives it is often a joint decision from the public, specialists and the client. For this study we started off with 5 alternatives sites, which we got from Eskom.</p> <p>Facilitator: in terms of the other issues – there are a lot of issues, it is not an ideal situation that you are dealing with in respect of regulations, which very clearly define to the environmental consultants what they can and what they cannot study as part of this process. It is not ideal. It leaves for a lot of discomfort with the general public knowing that there are certain issues that are not going to be evaluated as part of this EIA. The NNR has to conduct all the relevant studies before a licence can be issued. That process is also subject to intense public participation. The way that I understand this process is that a Environmental Authorisation can be given without those authorisations for the NNR process being in place. However, there would no</p>

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
			<p>doubt be a very strong statement or a condition that the EIA can give a positive authorisation but the power plant will never be able to be built without a successful process with the NNR. This has to be done in the public domain. I encourage you, the issues that you have raised, keep chasing them in the NNR process because that licence cannot be issued if those questions are not answered.</p> <p>It does not matter what it pertains to, if it deals with any aspect of the NNR and the NNR Act, it has to be taken up within that process. The critical part is going to be the integration and that the two studies talk to this EIA together with the NNR. That is why your review process as a stakeholder is so important.</p>
40	I&AP PE Key Stakeholder Feedback Meeting	Is the NNR going to do a study on the potential impacts on agriculture?	Facilitator: It depends on what they have to look at in terms of the NNR. They would look at the safety issues.
41	Ms Andrea von Holdt Coega Development Corporation and Rebels Rus Nature Reserve Resident	<p>Ms von Holdt submitted these comments in writing at end of meeting:</p> <ul style="list-style-type: none"> ▪ No matter where in South Africa this nuclear facility is built, it must be done properly. ▪ The EIA needs more reassurance on biophysical and socio economic impacts. ▪ This is the biggest EIA, let us make this a Class 1 EIA! ▪ Specialists need to be present at the meetings to respond to questions. ▪ Disposal of nuclear waste is an associated activity – must be investigated. 	<p>Please note our response to your written comments:</p> <ul style="list-style-type: none"> • Biophysical and Socio-economic Impacts In order to reach the Environmental Impact Assessment Phase and to compile the Draft Environmental Impact Report (EIR,) twenty-four separate specialist studies were conducted which considered the impacts of the nuclear power station on the physical, biophysical and socio-economic environment at Duynefontein, Bantamsklip and Thyspunt. Results and recommendations from the specialist studies formed the basis for the discussion on alternatives

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
		<ul style="list-style-type: none"> ▪ Disposal of domestic/construction waste – where? The existing St Francis waste site is not an option. ▪ Option of extending lifespan of Koeberg. 	<p>in Chapter 5 of the Draft EIR and the Impact Analysis and Recommendations and Conclusions in Chapters 9 and 10 respectively as well as the compilation of the Environmental Management Plan (EMP).</p> <ul style="list-style-type: none"> • Presence of Specialists A Key Focus Group Meeting is scheduled for Tuesday, 25 May 2010 at the St. Francis Links Golf Club in St. Francis Bay from 09:00 to 16:00. Selected specialists will attend the meeting to present on the following studies: Marine Ecology Assessment, Agricultural Assessment, Traffic and Transport Assessment, Social Impact Assessment, Wetland Assessment, Dune Geomorphology Assessment and Geohydrology Assessment. • Disposal of Nuclear Waste The only feasible and reasonable alternative for the disposal of Low-Level and Intermediate Level radioactive waste is disposal at the Vaalputs nuclear waste disposal site, as it is the only authorised facility for this form of waste in South Africa. Vaalputs has more than sufficient capacity for the waste that will be generated by Nuclear-1. <p>With regards to High-Level Waste (spent fuel), the only alternative currently available in South Africa is long-term storage of the spent fuel in the nuclear power station. Vaalputs is being considered as a disposal site for High-Level Waste, but the required authorisation processes for this will take several</p>

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
			<p>years, so currently the disposal of spent fuel at this facility is not a feasible option.</p> <ul style="list-style-type: none"> • Disposal of domestic/construction waste Chapter 3 of the Draft EIR reports that waste generation during the construction phase will be of temporary nature, until the completion of the construction activities. In addition, waste will be non-radioactive. Two main types will be created during this phase i.e. General and Hazardous. The latter category includes low-hazard waste (h) and high hazard waste (H) The waste typically produced during the construction phase is that resulting from the actual construction activities as well as from numerous construction workers, support functions and support activities, which will generate domestic waste. <p>Solid waste, excluding radioactive waste, will be transported to and disposed of at permitted off-site solid waste disposal sites. A number of disposal sites may need to be identified depending on the type of materials being disposed of. This waste relates to construction debris generated during building of the power plant and which comprises concrete and steel) as well as domestic waste generated from the canteens on site, which will cater for the construction workers.</p> <p>Solid waste production is likely to peak around the end of the first year and during the second year of construction, slowly and steady decreasing</p>

PORT ELIZABETH KEY STAKEHOLDER FEEDBACK MEETING			
No	Name	Comment	Response
			<p>thereafter. The total amount of general waste generated every year is expected to be around 450 – 500 tons for one operational reactor unit and 850 – 900 tons if two units will be operational. The exact amounts of these different materials, as well as the portions that may be recycled and placed in landfill will depend on the operational structure of the licensed waste disposal facility, as well as that of the site-specific operations.</p> <ul style="list-style-type: none">• Option of extending the lifespan of Koeberg This option was not considered as part of the scope of the current Environmental Impact Assessment.

APPENDIX 2: PRESENTATION OF DRAFT EIA REPORT

Size of the Port Elizabeth Key Stakeholder Feedback Meeting presentation	1,407KB
Size of the Cape St Francis Key Stakeholder Feedback Meeting presentation	1,588KB
Size of the Melkbosstrand Key Stakeholder Feedback Meeting presentation	1,607KB

All presentations can either be downloaded from the following websites:

- ❑ Eskom's website: www.eskom.co.za/eia under the "Nuclear 1-Generation" link
- ❑ Arcus GIBB website: <http://projects.gibb.co.za/> under the "Nuclear 1 EIA" link

or can be requested from ACER (Africa) at 086 010 4958 or by notifying Bongi Shinga at bongi.shinga@acerafrica.co.za or nuclear1@acerafrica.co.za


APPENDIX 3: ATTENDANCE LIST

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
Adams	Rashid	Cllr	City of Cape Town			Attended
Bain	Cairns	Dr	Nuclear Energy Corporation of SA (NECSA)			Attended
Ball	Jaana-Maria	Ms	Arcus GIBB	Attended	Attended	Attended
Barratt	Christopher & Valda	Mr & Mrs	St Francis Kromme Trust	Attended	Attended	
Becker	Peter	Mr	Koeberg Alert Alliance			Attended
Bergh	Vincent	Cllr	City of Cape Town – Sub Council Blaauwberg			Attended
Bouwer	Nicolaas Andre	Mr	St Andrews College	Attended		
Bowler	Karin	Mrs	Karin Bowler Enterprises	Attended		
Brenner	Heather	Cllr	City of Cape Town			Attended
Buckle	Japie	Mr	SANBI	Attended		
Clark	Angus	Mr	PE Regional Chamber of Commerce & Industry	Attended		
Cook	Derek	Mr	Macohy Investments CC		Attended	
Cowling	Shirley	Dr	Friends of the St Francis Nature Reserve		Attended	
Dale	Jenny	Mrs			Attended	
de Villiers	Carin	Ms	Eskom Holdings Limited	Attended	Attended	
Donnelly	Ryan James	Mr	For A Safe Tomorrow (F. A. S. T.)	Attended	Attended	
Ferndale	Tyronne	Mr	Nelson Mandela Bay Municipality		Attended	
Greeff	Gert	Mr	Eskom Holdings Limited	Attended		Attended
Hardie	George	Mr	Goed Geloof Farm and St Francis Conservancy		Attended	
Hardie	Sandra	Mrs	Goed Geloof Farm and St Francis Conservancy		Attended	
Henkeman	Pauline	Mrs	Eskom - Koeberg Visitors Centre			Attended
Herbst	Deidre	Ms	Eskom Holdings Limited	Attended		
Hutchinson	Martha-Maria	Mrs	St Francis Conservancy		Attended	

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
Inman	Peter	Dr	Coega Development Corporation (Pty) Ltd	Attended	Attended	
Jacobson	Wolsley	Mr	Milnerton Rate Payers & Residents Association			Attended
Jeannes	Deon	Mr	Eskom Holdings Limited	Attended		
Jooste	Paul	Mnr	Oyster Bay RPA		Attended	
Jumat	Zain	Mr	Dept of Economic Affairs & Development Planning			Attended
Kraak	Cheron	Ms	Country Feeling		Attended	
Krause	Martin	Mr	Eskom Holdings Limited	Attended		
Lamont	Sydney	Mr	Sea Vista Forum	Attended	Attended	
Lategan	Tanya	Ms	Supertubes Surfing Foundation		Attended	
Leask	Kevin	Mr	Eskom Holdings Limited	Attended		Attended
Leen	Petrus	Mr	Sea Vista Forum	Attended	Attended	
Lesch	Donevin	Mr	Coega Development Corporation (Pty) Ltd	Attended		
Levack	Kaylene	Ms	Joshua Heritage	Attended		
Logie	Caryl	Mrs	Fourcade Botanical Group		Attended	
Longden-Thurgood	RM	Mr	Institute of Nuclear Engineers SA Branch			Attended
Mabentsela	Nombongo	Ms	Coega Development Corporation (Pty) Ltd	Attended		
Madyini	Ntandazo	Mr	Coega Development Corporation (Pty) Ltd	Attended	Attended	
Malgas	Alwyn	Mnr	Sea Vista Forum	Attended	Attended	
Marshall	Terence	Mr	Sandriver Sanctuary		Attended	
Miles	Melvyn	Mr	Eskom: Koeberg Visitors Centre			Attended
Moolman	Graham	Mr	St Andrew's College	Attended		
Mortimer	Bev	Ms	St Francis Chronicle Newspaper		Attended	
Msibi	Lawrence	Mr	Bitou Local Municipality	Attended		
Muir	Andrew	Mr	Wilderness Foundation SA	Attended		
Naiker	Melissa	Ms	Dept of Economic Affairs & Development Planning			Attended
Neilson	Peter	Mr	Nelson Mandela Bay Municipality		Attended	

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
Nggumshe	Phumla	Ms	Bitou Local Municipality	Attended		
Nicholson	Peter	Mr	Billabong SA		Attended	
Norman	Jan	Mr	Koeberg NPS	Attended		Attended
Ntamnani	Ncedo	Mr	Eskom Holdings Limited			Attended
Nwokedi	Judi	Ms	Areva	Attended		
Oddy	Chantal	Ms	Rebels Rus Conservancy	Attended		
Oosthuizen	Joe	Mr	St Francis Bay Residents Association		Attended	
Oosthuizen	Paddy	Ms	St Francis Bay Residents Association		Attended	
Oswald	Elbrecht	Mr	City of Cape Town			Attended
Patel	Imraan	Mr	National Dept of Science & Tech			Attended
Potts	Tracey	Ms	Eastern Cape Parks		Attended	
Pyoos	Marjorie	Ms	National Dept of Science & Technology			Attended
Ralston	Samantha	Ms	Cape Nature			Attended
Rautenbach	Elisabeth	Mrs	St Francis Conservancy		Attended	
Royal	Renee	Mrs	Resident/Environmental Consultant		Attended	
Simms	Mike	Mr	St Francis Bay Residents Association		Attended	
Slamdien	Ashraf	Mr	Blaauwberg Administration City of Cape Town			Attended
Stott	Tony	Mr	Eskom Holdings Limited	Attended		Attended
Theron	Mervin	Mr	Eskom Holdings Limited	Attended		Attended
Theron	Morne	Mr	City Of Cape Town Resource Management			Attended
Thorpe	Hilton	Mr	St Francis Bay Residents Assoc & St Francis Kromme Trust	Attended	Attended	
Tilders	Helmie	Mr	FOSTER		Attended	
Titmuss	Pat	Ms	City of Cape Town			Attended
van Dyk	Carel	Mr	Nelson Mandela Bay Municipality		Attended	
Vockerodt	Brian	Mr	Eskom Holdings Limited	Attended		
von Holdt	Andrea	Ms	Coega Development Corporation (Pty) Ltd	Attended	Attended	

Surname	First Names	Title	Co/Org	Port Elizabeth Meeting 12 Apr 10	Cape St Francis Meeting 16 Apr 10	Melkbosstrand Meeting 20 Apr 10
West	David Michael	Mr	Eskom Holdings Limited	Attended		
Willemse	Douw	Mr	City of Cape Town			Attended
Williamson	Raymond	Mr	Melkbosstrand Rate Payers Association			Attended
Wiseman	Keith	Mr	City of Cape Town: Environmental Management Dept			Attended



ESKOM HOLDINGS LIMITED

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR A PROPOSED NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE DEA REF. No.:12/12/20/944

**EIA Phase Public Meeting:
Review of Draft Environmental Impact Report**

March / April 2010


Slide 1



PROPOSED AGENDA

1. Sign attendance register and discussion with team: 17:00 – 17:50
2. Welcome and introductions: 18:00 – 18:10
3. Presentation of EIA and EMP findings: 18:10 – 19:00
4. Discussion: 19:00 – 19:50
5. Way forward and close: 19:50 – 20:00

Slide 2




MEETING CONDUCT

- Please wait for the discussion session to ask questions
- Introduce yourselves prior to asking a question and indicate your specific interest
- You are welcome to ask the question in your mother tongue. Presentations will be in English
- One person at a time
- Work through the facilitator
- Show respect
- Focus on the issue not the person
- Be constructive
- Agree to disagree

**Please switch
off all cell
phones!**


Slide 3



MEETING OBJECTIVES

- The focus of the meeting is to provide an opportunity for Interested and Affected Parties (I&APs) to comment on the findings of the EIA and the Draft Environmental Impact Assessment Report (EIR)
- Provide an opportunity for I&APs to seek further clarity on the proposed project, the EIA phase and the Draft EIR
- Provide I&APs with an opportunity for interaction with the EIA team
- Recording of issues - the proceedings will be recorded and used to compile meeting minutes. Comments will be included in the Issues and Response Report (IRR) and changes will be made to the Final EIR, where necessary


Slide 4



KEY ISSUES

- Some people are opposed to and others are in favour of a nuclear power station at Bantamsklip, Thyspunt and Duynefontein
- Concerns about the potential impacts on human health and safety
- Local residents share a deep-felt connection to the area and have a strong “sense of place”
- A power station could potentially be unsightly
- Tourism is linked to conservation and preservation of the coastline


Slide 5



KEY ISSUES

- Marine life could potentially be adversely affected by altered sea temperature and turbulence caused by inflow and output of sea water to the plant
- Concern that commercial and recreational fishing may be negatively impacted
- Light pollution
- Concerns about potential drop in property values
- Concern about cost of constructing a power station
- Some people expressed a lack of trust in the EIA
- Storage of hazardous waste
- Renewable ('green') energy (e.g. wind, solar) vs. nuclear

Slide 6



PROJECT MOTIVATION

- Increasing demand for electricity (> 4% growth per annum)
- Projected requirement for more than 40 000 MW of new electricity generating capacity over the next 20 years
- In SA only coal and nuclear power are solutions for base load generation, while gas turbines, hydroelectric power stations and pumped storage schemes are used for peaking and emergency electricity generation


Slide 7



PROPOSED ACTIVITY

- Eskom proposes the construction, operation and decommissioning of a conventional nuclear power station and associated infrastructure either in the Eastern or Western Cape
- A nuclear power station of the Pressurised Water Reactor (PWR) type technology e.g. Koeberg Power Station
- The transmission power lines are subject to separate environmental authorisation processes


Slide 8



TRANSMISSION (TX) LINE EIAs

- Bantamsklip – Scoping phase has been extended to include Multi-stakeholder Workshops and additional public consultation. Revised Draft Scoping Report will be made available for public comment
- Thyspunt and Duynefontein – Scoping Report accepted by Authorities and EIA phase has commenced


Slide 9



PROJECT BACKGROUND

- The power station and directly associated infrastructure will require approximately 31 ha
- The footprint assessed makes provision for the potential future expansion of a power station to 10 000 MW or the maximum carrying capacity. Separate EIA required for any further expansion beyond 4 000 MW
- The proposed nuclear power station will include nuclear reactor, turbine complex, spent fuel, nuclear fuel storage facilities, waste handling facilities, intake and outfall pipelines, desalination plant and auxiliary service infrastructure (e.g. access roads, OCGT plant, HV yard, visitor centre)


Slide 10



PROJECT BACKGROUND

- Should the proposed project be authorised, it is anticipated that construction of the station could commence in 2011 with the first unit being commissioned in 2018 (optimistic)
- Construction period – 7 to 9 years
- Labour requirements:
 - Construction – 7 700 persons
 - Operation – 1 400 persons
- Construction and operational access routes to site - 22 m wide, tarred
- Normal (sedans), heavy (buses, trucks) and exceptionally heavy vehicles (42 m x 8.23 m max.)
- Peak construction vehicle trips: 828 morning and 945 evening

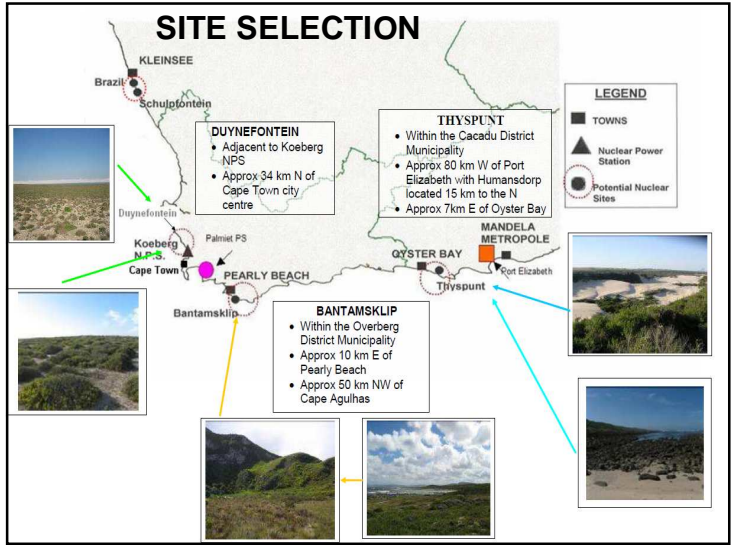
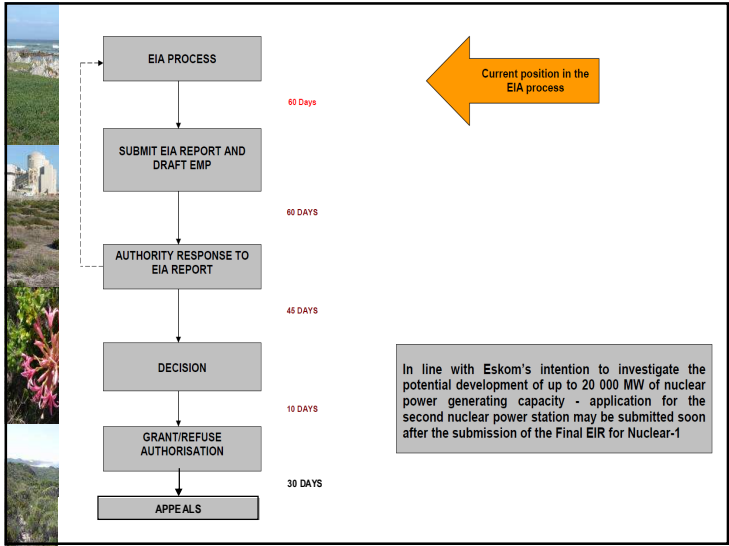
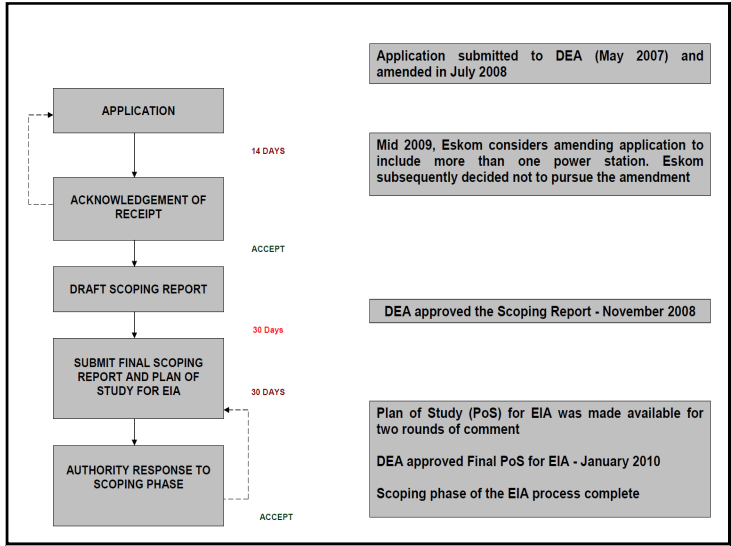
Slide 11

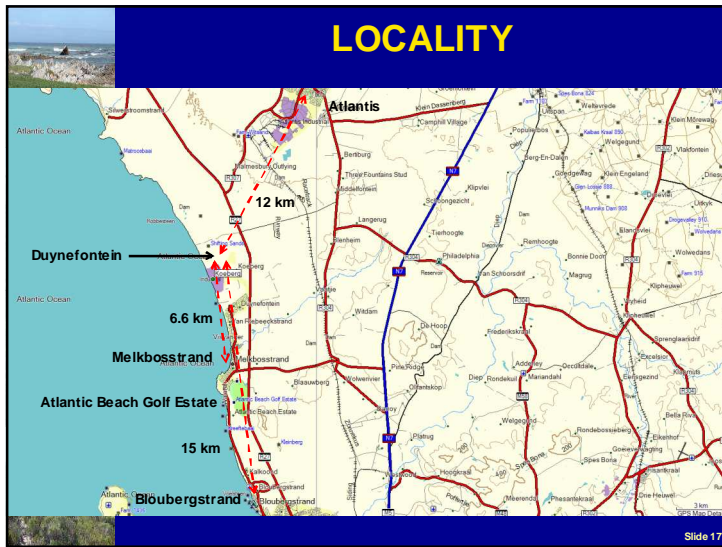


ENVELOPE OF CRITERIA

- Detailed description of proposed nuclear plant is not available, as preferred supplier has not been selected
- Approach used has been to specify enveloping environmental and other relevant requirements, to which the power station design and placement on site must comply
- Enveloping criteria represent the most conservative parameters associated with the various plant alternatives within the available Generation III PWR technology

Slide 12





ASSESSMENT OF IMPACTS

- The potential impacts assessed were based on:
 - Issues identified by I&APs during the public participation process (PPP)
 - Issues identified by specialists through research
 - Experience of relevant specialists with projects of a similar nature or in a similar environment
 - Consultation with local specialists
 - Environmental resources and conditions identified during site surveys

Slide 18

METHODOLOGY

- Independent specialists assessed potential positive and negative impacts with and without mitigation
- According to the specialists:
 - all potential negative impacts can be mitigated
 - there are no fatal flaws at any of the alternative sites

Slide 19

SPECIALIST STUDIES

- Physical Impacts
 - Geology and geological risk
 - Seismological risk**
 - Geo-hydrology
 - Geotechnical characteristics
- Biophysical Impacts
 - Dune geomorphology**
 - Flora**
 - Fauna (Invertebrate and Vertebrate)**
 - Hydrology
 - Freshwater ecosystems (wetlands)**
 - Oceanographic conditions
 - Marine biology**
 - Air quality
 - Assessment of the 1:100 year floodline


Slide 20



SPECIALIST STUDIES

- **Socio-economic Impacts**
 - Social impacts**
 - Economic impacts**
 - Noise
 - Visual
 - Heritage and cultural resources**
 - Waste
 - Tourism impacts**
 - Agriculture**
 - Transport
- As per the NNR / DEA co-operative agreement, a number of specialist studies related to human health risk and safety were commissioned and included in this EIR for information (4 studies)

Slide 21




SPECIALIST STUDY RESULTS

- **Seismological Risk**

Seismic studies indicate that the design basis for the respective sites in terms of peak ground acceleration values (PGA) are as follows:

- Duynefontein – PGA ~0.30 g
- Bantamsklip - PGA ~0.23 g
- Thyspunt - PGA ~0.16 g


Slide 22



SPECIALIST STUDY RESULTS

- **Impacts on Dune Geomorphology and associated geo-hydrology (landforms, sand and water movement)**
 - Groundwater does not 'daylight' at **Duynefontein** and **Bantamsklip** sites: access roads and transmission lines can be built across the mobile dunes
 - The interaction between dune systems and wetlands is complex at **Thyspunt**, since groundwater 'daylights' in many inter-dune areas
 - Haul roads and conveyor belts through Oyster Bay dunefield at **Thyspunt** between the nuclear power station and the HV yard, may cause more significant dune geomorphology impacts than at the other two sites


Slide 23



SPECIALIST STUDY RESULTS

- **Impacts on Flora (plants)**
 - **Bantamsklip** will experience the least potential negative impact on plant communities and species - the ecosystems on this site are fairly common along this section of coastline
 - **Thyspunt** has the greatest diversity of vegetation communities, including extensive and highly sensitive wetlands


Slide 24



SPECIALIST STUDY RESULTS

- **Impacts on Wetlands**
 - Development of a nuclear power station at **Duynfontein** is unlikely to result in any unmitigable, highly significant negative impacts on wetlands
 - Development of the proposed nuclear power station at **Bantamsklip** would not be associated with any unmitigable impacts to wetland systems
 - **Thyspunt** wetland systems are complex and potential negative impacts could occur without appropriate mitigation


Slide 25



SPECIALIST STUDY RESULTS

- **Impacts on Terrestrial Vertebrates (mammals and birds)**
 - Amount of land that is not of high faunal sensitivity at **Duynfontein** is more than sufficient for the nuclear power station
 - At **Bantamsklip** the nuclear power station could have significant negative potential impacts, without mitigation, because of the impacts on faunal habitats within the footprint
 - At **Thyspunt** a nuclear power station would have significant potential negative impacts, without mitigation, because of the potential impacts on faunal habitats within the footprint, the development of two access roads and proposed infrastructure across the dunefield


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SPECIALIST STUDY RESULTS

- **Impacts on Terrestrial Invertebrates (insects)**
 - Potential impacts on terrestrial invertebrate communities are similar for all alternative sites, with site-specific differences
 - **Duynfontein:**
 - None of the butterflies are endangered or endemic
 - Low to very low overall insect sensitivity
 - New species of ant found is regarded as a generalist (likely to be found on other areas of the site)


Slide 27



SPECIALIST STUDY RESULTS

- **Impacts on Terrestrial Invertebrates**
 - **Thyspunt** has the highest butterfly diversity and conservation value of the alternative sites
 - From the viewpoint of potential positive impacts of the nuclear power station, **Duynfontein** already positively benefits under the management of Eskom, which means that it would experience the least improvement in conservation status
 - **Bantamsklip** and **Thyspunt** would benefit substantially from formal protection status, resulting in a net positive impact on insect communities


Slide 28



SPECIALIST STUDY RESULTS

- **Economic Impacts**
 - Positive macro-economic impacts will be greatest at **Bantamsklip** and **Duynfontein** as the sites are situated in a province with a larger, more diversified economy. Nuclear-1 would result in less dislocation of economic activities if located at Duynfontein than at either of the other two sites
 - Macroeconomic indicators favour **Duynfontein** and **Bantamsklip**
 - Cost-effectiveness analysis indicates that **Thyspunt** is slightly favoured relative to **Duynfontein** and more favoured relative to **Bantamsklip**.
 - The differences between the alternative sites are slight, and all the sites would have positive economic impacts both on the local area and the province in which they are situated
 - The economic impact assessment gives greater weight to the cost-effectiveness analysis, which favours **Thyspunt**


Slide 29



SPECIALIST STUDY RESULTS

- **Heritage Impacts (archaeological sites, fossils and built environment)**
 - All alternative sites contain significant heritage resources
 - **Duynfontein** is palaeontologically highly sensitive, but has less Stone Age heritage than **Bantamsklip** or **Thyspunt**
 - **Thyspunt** more sensitive than **Bantamsklip** in terms of its heritage richness – sites mostly along coast at all sites. 200 m setback line recommended to protect heritage sites

Slide 30




SPECIALIST STUDY RESULTS

Marine Biology Impacts

- Potential impacts similar at all sites and the impacts can be mitigated if the proposed designs are implemented as planned
- Potentially the most significant impacts are:
 - Disruption of the marine environment through the offshore disposal of sediment
 - Release of warmed cooling water
- Spoil disposal will have a potentially highly significant long-term negative impact on the marine environment within a localised area (4.5km² at Duynfontein) – acceptable impact according to marine specialist

Slide 31




SPECIALIST STUDY RESULTS

Marine Biology Impacts

- Impacts on Chokka fishing industry at Thyspunt
- Impact on Abalone at Bantamsklip
 - With respect to release of:
 - Spoil
 - Warm water

Slide 32




SPECIALIST STUDY RESULTS

Marine Biology Impacts

- Radionuclides such as Cesium (Cs-137) and Strontium (Sr-90) present in oceans alongside other elements since 1940s
- Background Cesium has been recorded at Koeberg before the power station was established - detected in mussels, sand mussels and fish below levels at which further investigation would be required
- Strontium not recorded in marine organisms at Koeberg
- Due to few organisms in which Cesium has been recorded, low concentrations and lack of Strontium, these nuclides have no detectable potential impact on marine organisms

Slide 33




SPECIALIST STUDY RESULTS

Social Impacts

- Potential negative impacts relate to accommodation for temporary workers during construction
- Potential positive impact is the provision of electricity and related benefits to the broader national and regional economies
- Perceived risks associated with nuclear incidents could potentially lead to a change in attitude and behaviour – reliable information is important

Slide 34




SPECIALIST STUDY RESULTS

Tourism Impacts

- Communities at **Thyspunt** and **Bantamsklip** have expressed opposition to the proposed power station
- **Thyspunt** community highlighted the premium nature of the top-end coastal vacation destination
- **Bantamsklip** community emphasised the new and fragile nature of the developing tourism product and the local dependence thereon
- Some **Duynfontein** tourism stakeholders have personal objections to another power station, however they recognise the potential for increased business and promote a generally positive outlook for tourism

Slide 35




SPECIALIST STUDY RESULTS

Tourism Impacts

- Assessment takes account decline in nature-based tourism as well as an increase in business-related tourism associated with the proposed nuclear power station
- **Duynfontein** – limited potential impact during construction; potential 1.4% improvement during operation
- **Bantamsklip** - potential 5% positive impact during construction; a potential 8.6% improvement during operation
- **Thyspunt** – potential 7.9% negative impact during construction; 0% impact during operation

Slide 36




SPECIALIST STUDY RESULTS

Agricultural Impacts

- Agriculture around **Thyspunt** is based mainly on milk production (2008: R150 m per annum)
- Fynbos farming prevails at the **Bantamsklip** although there is some dairy as well as grape, beef, sheep and game farming (2008: R29 m per annum)
- **Duynfontein** is based on mixed farming (2008: R75 m per annum)

Slide 37



SPECIALIST STUDY RESULTS

Agricultural Impacts

- **Duynfontein** – no impact on agriculture during construction and operation
- **Bantamsklip** – negative potential impact of dust (construction). Potential of less than 5% increase in local market due to water limitations that restrict expansion
- **Thyspunt** – negative potential impact of dust (construction). Potential for 15% positive impact on production due to increased local market


Slide 38



PROJECT ALTERNATIVES

- **Location of the power station (i.e. site selection)**
 - Forms of power generation
 - Nuclear plant types
- **Layout of the nuclear plant**
- **Fresh water supply and utilisation of abstracted groundwater**
 - Management of brine
 - Intake of sea water
- **Outlet of water**
 - Management of spoil material
 - Access to Thyspunt
- **Waste**
- **No-development (i.e. 'No-Go')**

Slide 39




SITE SELECTION

- Site selection was based on:
 - Results of independent specialist studies: the significance of potential impacts, with mitigation, at each of the alternative sites
 - An integration workshop, involving all specialists, where ranking of the sites and key decision factors were agreed on
 - Quantified ranking taking into account the key decision factors

Slide 40

SITE SELECTION


- Impacts of low significance at all alternative sites filtered out e.g. noise, visual impacts, hydrology
- Impacts of medium and high significance that have the same significance at all sites were filtered out e.g. social
- The key factors for decision-making:
 - Integration into the national grid
 - Seismic suitability
 - Impacts on dune geomorphology
 - Impacts on wetlands
 - Impacts on vertebrate fauna
 - Impacts on invertebrate fauna
 - Economic impacts



Slide 41

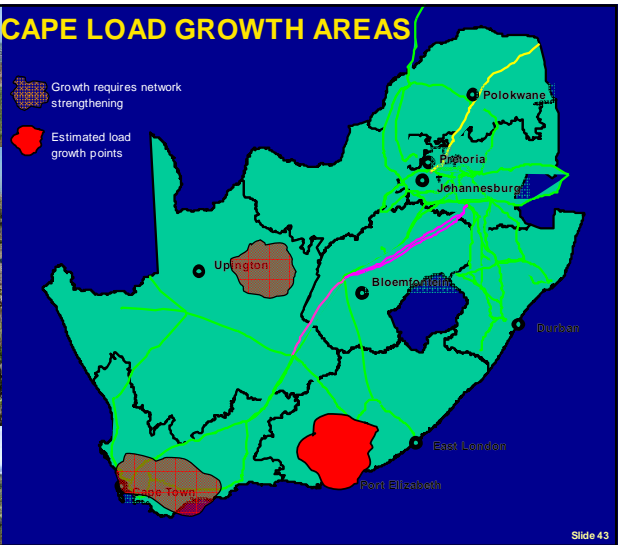
INTEGRATION INTO THE NATIONAL GRID

- Where do we require power stations for future load growth?
- Electricity needs to be transmitted from the high voltage yard at the power station through a network of transmission and distribution lines to end users
- To improve efficiency, Eskom tries connect new base load generation to the closest load, where possible



Slide 42

CAPE LOAD GROWTH AREAS




Slide 43

SITE SELECTION


A number of factors indicate that **Bantamsklip** cannot be regarded as a **preferred alternative** for Nuclear-1 when compared to the other two alternative sites:

- Substantially higher construction costs due to its remote location (requirements for upgrading of roads and bridges and lengthy transmission lines)
- Cumulative environmental impacts of the transmission corridors
- Potential impacts on invertebrate fauna

Bantamsklip is regarded as the least preferred site alternative for Nuclear-1



Slide 44




SITE SELECTION: RECOMMENDATIONS

A quantitative assessment of key criteria indicates that **Thyspunt** is preferred (with a score of 76 as opposed to **Duynfontein's** score of 57) due to:

- Lower seismic risk
- Relative ease of integration into the transmission grid
- Site's locality relative to the Port Elizabeth load centre
- Potential benefits of the conserving the majority of the site (2 400ha), as well as additional land being managed for conservation purposes
- Conservation benefits would not be realised at Duynfontein

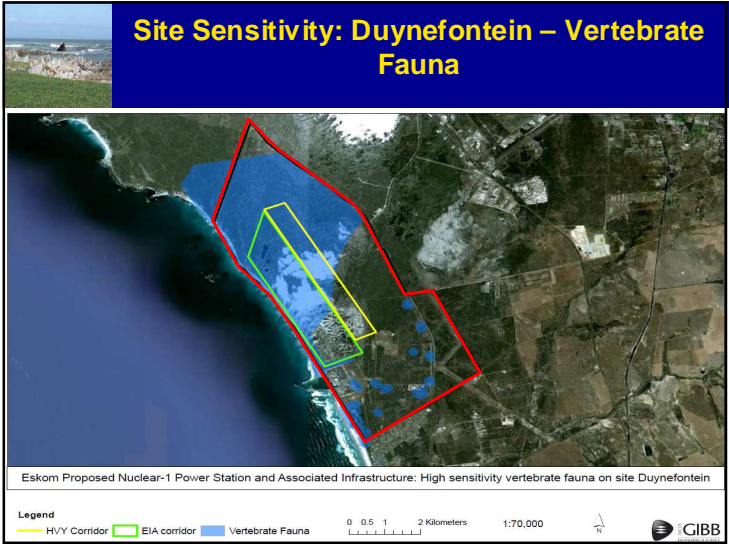
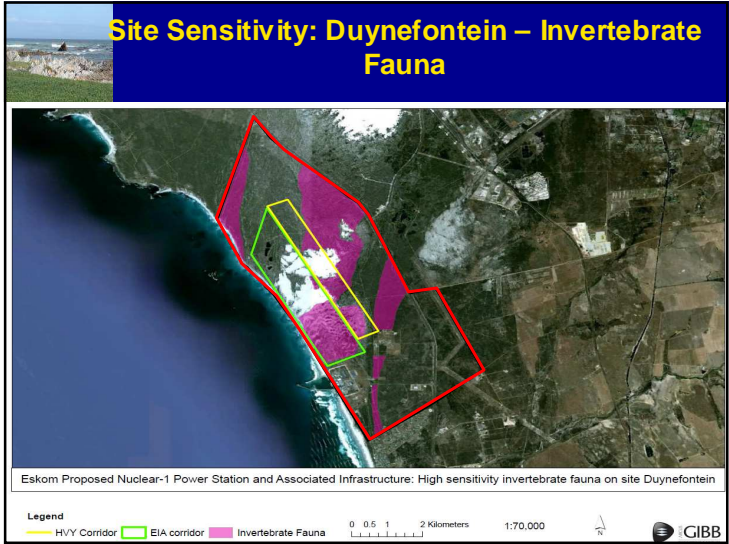
Slide 45

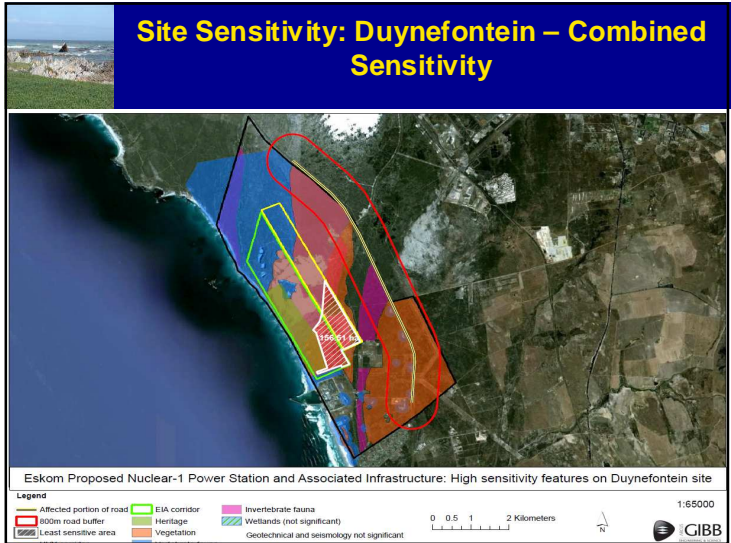
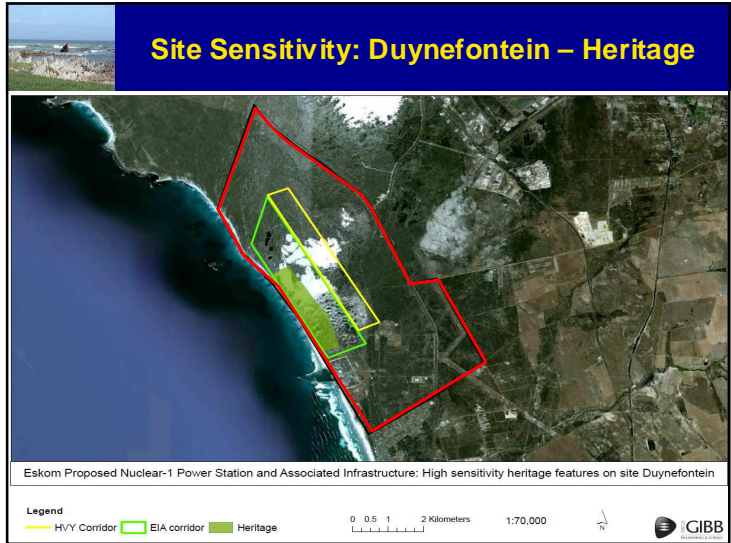
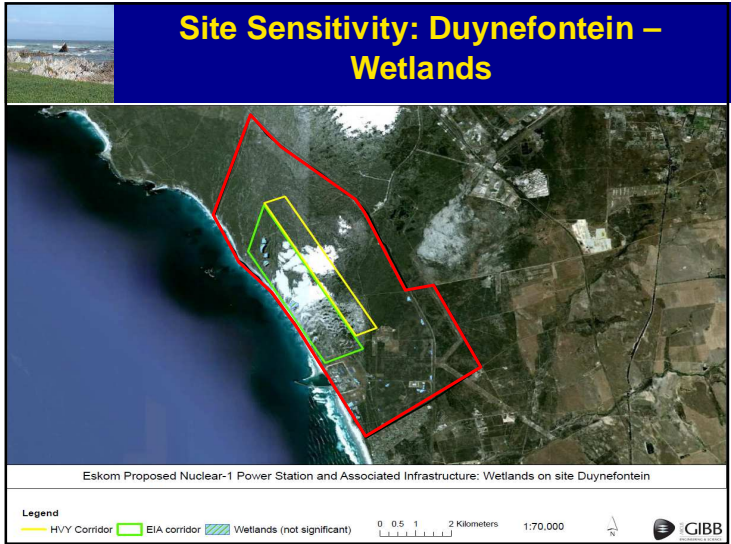
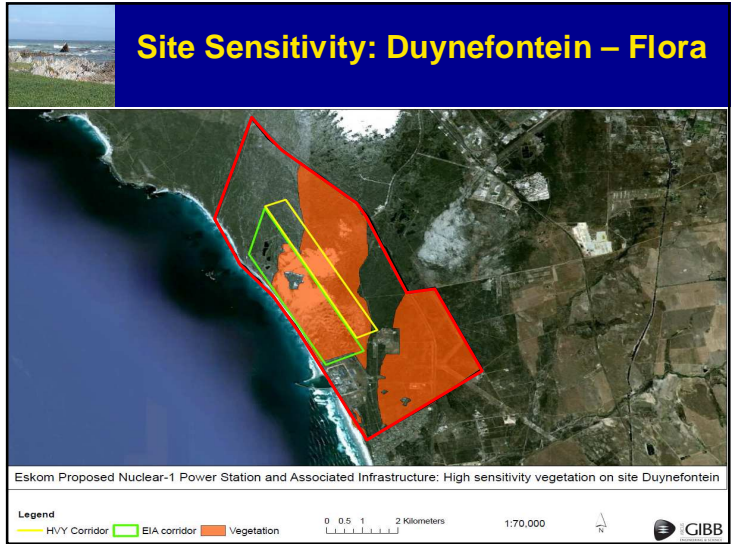


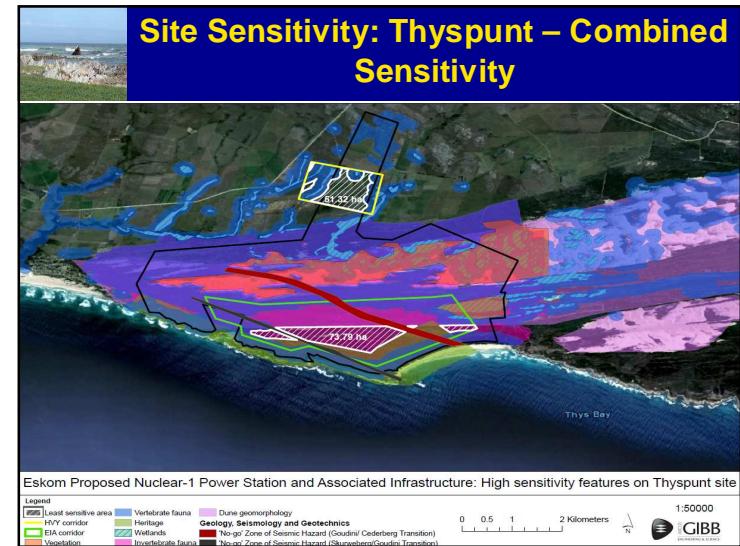
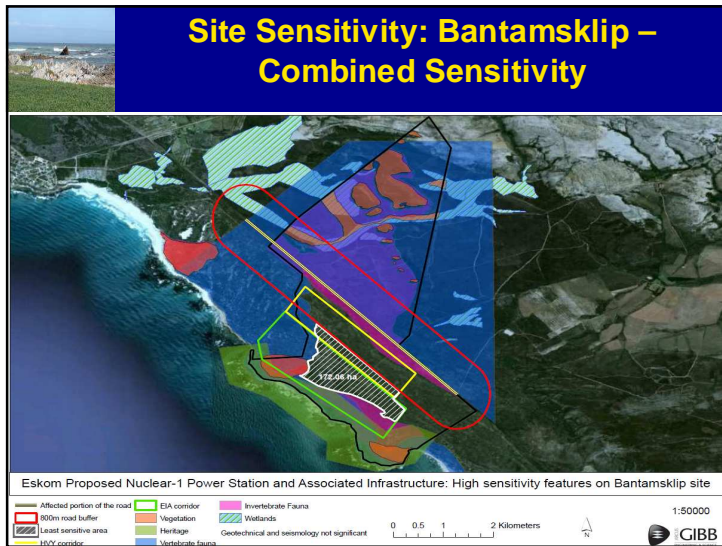
NUCLEAR PLANT LAYOUT

- Sensitivity maps of all specialist studies were integrated and composite maps were produced to indicate areas of high environmental suitability for each alternative site
- Finalisation of the site layout plans will require detailed investigations, in conjunction with relevant qualified and experienced specialists

Slide 46







CONSERVATION BENEFITS

- In spite of potentially significant negative impacts, all biophysical specialists in agreement:
 - no fatal flaws at any of the sites
 - positive impacts for conservation of the area outside the footprint of the power station at **Thyspunt** and **Bantamsklip** are significant
- Acquisition of properties for conservation outside the current **Thyspunt** property for wetland conservation
- To guarantee conservation benefits, Thyspunt and Bantamsklip's conservation status must be secured, i.e. declared as official nature reserves

Slide 55

FRESH WATER SUPPLY AND UTILISATION OF ABSTRACTED GROUNDWATER

- At all sites desalination provides a guaranteed source of fresh water supply for the lifespan of the proposed nuclear power station without jeopardising the availability of fresh water to other users
- Desalination plant is therefore the preferred alternative for the provision of fresh water at all sites, from the construction phase

Slide 56



INTAKE AND OUTLET OF WATER

- Installation of intake and outlet tunnels that obtain water from the ocean and feed cooling water into a storage area located adjacent to the cooling water pump houses is the only feasible alternative for all sites
- Outlet structures for cooling water and chemical effluent must be offshore
- All releases need to occur at the distances and depths prescribed by the relevant specialists
- Provided that the specific mitigation measures identified in the marine biology report are adhered to, offshore effluent release above the sea floor is the recommended alternative

Slide 57



MANAGEMENT OF SPOIL MATERIAL

- Fine spoil must be disposed of in the marine environment at all sites
- Spoil material that cannot be pumped to sea, must be disposed of on land and used for activities like levelling of the HV yard and to minimise the footprint on the terrestrial environment
- Visual impact of spoil dumps must be minimised
- Transport of spoil to the panhandle at Thyspunt via conveyor belt is not recommended due to the Oyster Bay mobile dune system

Slide 58



WASTE TYPES

- Low-level waste: \pm 940 drums (50 – 100 kg per drum) per year
- Intermediate level waste: \pm 160 x 6.3 ton concrete drums per year
- High level waste: \pm 1 880 tons of spent fuel over life of power station (60 years)


Slide 59



WASTE DISPOSAL

- Only feasible alternative for the disposal of Low-Level and Intermediate-Level radioactive waste is Vaalputs nuclear waste disposal site in Northern Cape
- This is the only authorised facility for this form of waste in SA. Vaalputs has sufficient capacity for the waste that will be generated by Nuclear-1
- With regards to High-Level Waste, only alternative currently available in SA is long-term storage of the spent fuel in the power station – common practice internationally
- Vaalputs may be considered as a disposal site for High-Level Waste in future


Slide 60



WASTE DISPOSAL

- National Radioactive Waste Management Institute established by the National Radioactive Waste Management Institute Act No. 53 of 2008)
- Act came into effect in Dec 2009
- Subject to NNR Regulations
- Institute will transfer responsibility from NECSA

Slide 61



NO-DEVELOPMENT ALTERNATIVE

- Given the urgent power demand in South Africa, the No-Go alternative is not considered to be an alternative, as Eskom's mandate is to provide power for the country
- Eskom would likely apply to develop coal-fired power stations if the current application is declined as coal-fired generation is the only feasible base load alternative
- Life-cycle environmental impacts of coal-fired power generation are greater than nuclear-fuelled power generation


Slide 62



NO-DEVELOPMENT ALTERNATIVE

- If Eskom does not utilise Bantamsklip and Thyspunt for Nuclear-1, there are two options:
 - Keep as a future nuclear site; or
 - Sell to a willing buyer - this may result in an any alternative form of land use - may not involve management of the majority of the properties as a nature reserve

Slide 63



KEY MITIGATION MEASURES

- Independent specialists have proposed mitigation measures to reduce potential negative impacts
- Draft EMP has been compiled as part of draft EIR and if authorised, it will be a legally binding document
- Compliance to EMP must be independently audited throughout construction and operation
- Mitigation measures for botanical impacts, vertebrate and invertebrate fauna, wetlands and heritage resources are particularly important
- Mitigation of heritage impacts will require the work of a site-specific team dedicated to excavations over a period of several years prior to construction

Slide 64



KEY MITIGATION MEASURES

- Qualified and experienced botanical, wetland, vertebrate and invertebrate fauna, dune geomorphology and heritage specialists will need to find acceptable detailed final access route alignments
- Additional groundwater studies are necessary to improve accuracy to of the groundwater model to understand interaction between groundwater and coastal seep wetlands
- Cut-off wall to prevent drawdown of groundwater affecting wetlands during construction
- Acquisition of properties on eastern side of site outside of current Eskom property up to the western boundary of The Links for dedicated wetland conservation

Slide 65



WAY FORWARD

- Comment Period – 6 March to 10 May (66 days) – extension to 31 May (87 days)
- Websites: www.gibb.co.za and www.eskom.co.za/eia
- Public meetings and key stakeholder workshops will be held around the sites assessed from 23 March to 21 April. Minutes of meetings will be sent to attendees
- Comments received will be addressed in the Issues and Response Report in the Final EIR

Slide 66



WAY FORWARD

- Final EIR will be submitted to the DEA for consideration and decision-making
- Final decision regarding EIA will be communicated to registered I&APs
- Construction of Nuclear-1 is subject to other approvals e.g. the NNR site safety decision and transmission lines EIA authorisations

Slide 67



WAY FORWARD

Written comments can be submitted by:

- Post: Public Participation Office, Nuclear 1 EIA, PO Box 503, Mtunzini, 3867, SA
- Fax: +27 (0) 35 340 2232
- Email: nuclear1@acerafrica.co.za

Slide 68



MEETING CONDUCT

- Please wait for the discussion session to ask questions
- Introduce yourselves prior to asking a question and indicate your specific interest
- You are welcome to ask the question in your mother tongue. Presentations will be in English
- One person at a time
- Work through the facilitator
- Show respect
- Focus on the issue not the person
- Be constructive
- Agree to disagree

**Please switch
off all cell
phones!**

Slide 69



THANK YOU

Slide 70





Specialist Report - Agriculture

25 May 2010
 Jon Howcroft – Agricultural Economist
 Bill Berry – Agronomist
 Alastair Paterson – Livestock Specialist

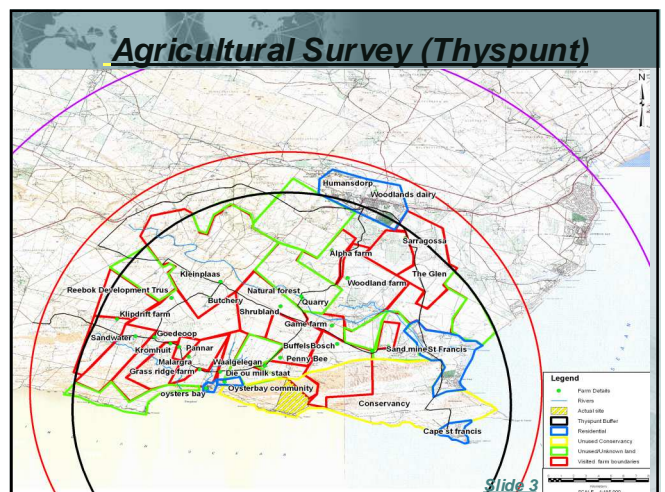
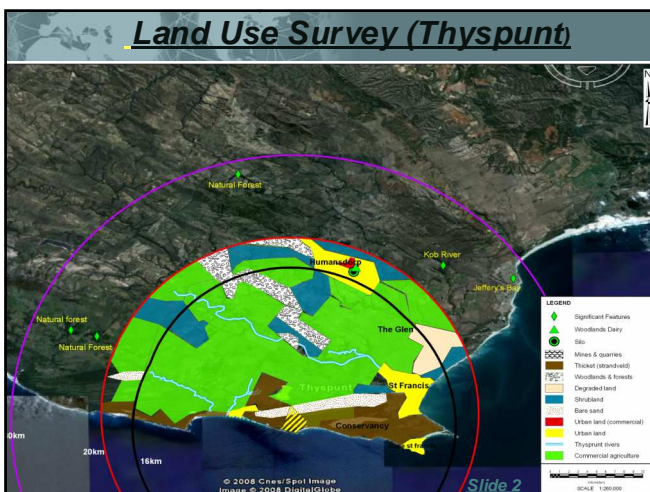


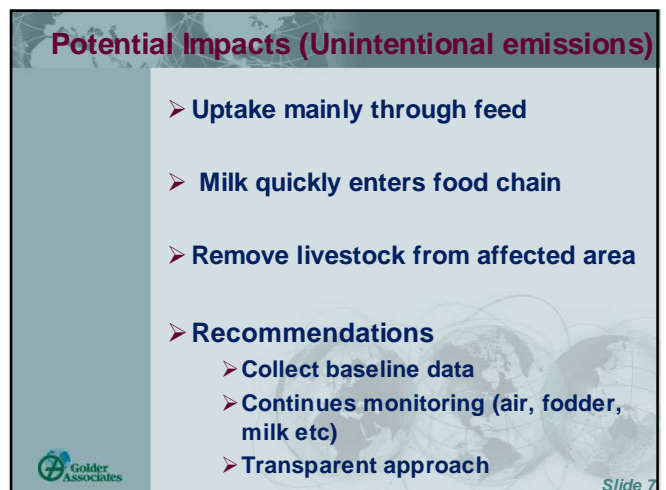
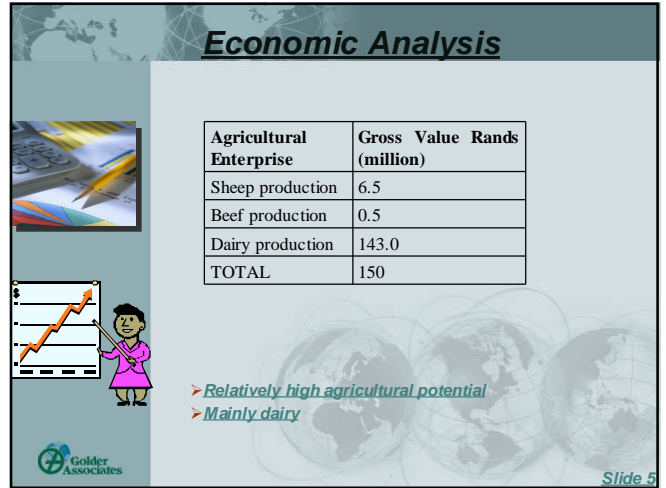
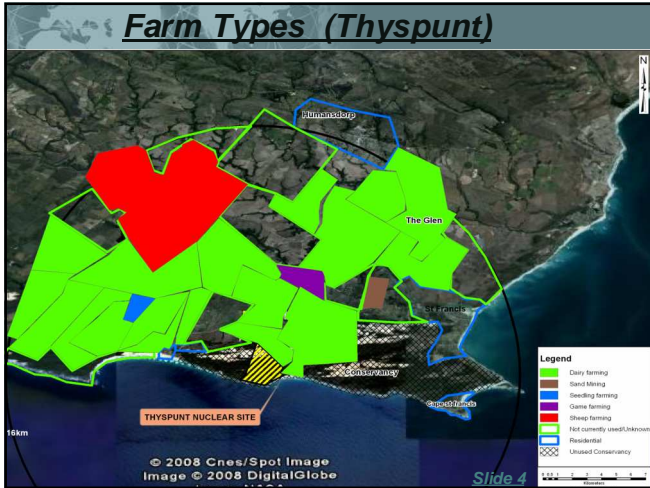
Approach

- Regional Analysis (Land Use)
- Agricultural Survey
- Economic Analysis
- Identified Potential Impacts
- Mitigation Options

Slide 1





Conclusion

- Potential negative impacts need to be mitigated and managed
- Positive impacts are significant and can benefit the agricultural sector

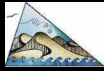
Thank You

Nuclear-1 EIA

Key Stakeholder Workshop
& Public Meeting
25 May 2010

Dune geomorphology

by Dr Werner Illenberger
Illenberger & Associates



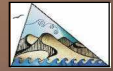
Slide 1

Experience:

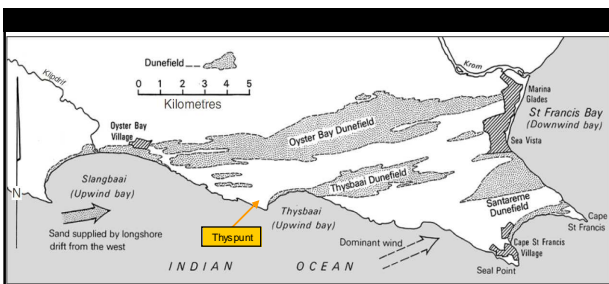
26 years research and consulting in physical coastal environment

Worked on dunes of the whole SA coast and Namibia

Broad multi-disciplinary knowledge of the coastal environment



Illenberger & Associates



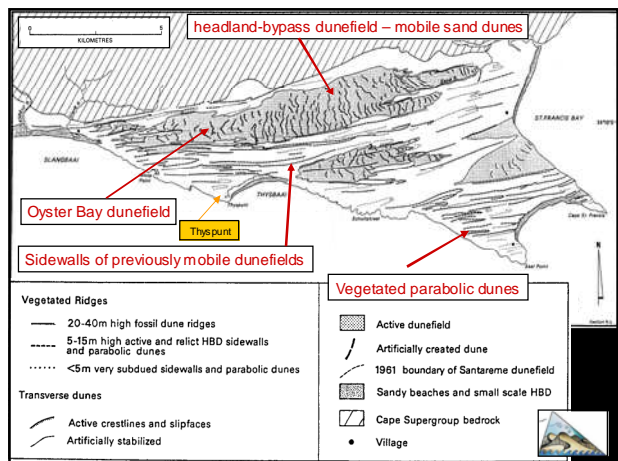
Headland-bypass dunefields in the Cape St Francis area

Sand moves from west to east through the dunefields

Mapped from 1961 aerial photographs.



Slide 3



Are the dune geomorphology, groundwater & surface water dynamics well-understood?

Burkinshaw, J.R. (1998) Morphodynamics of headland-bypass dunefields with particular reference to Cape St. Francis headland, Eastern Cape, South Africa. PhD thesis, University of Port Elizabeth, 373 pp.

La Cock, G. & Burkinshaw, J.R. (1996) Management implications of development resulting in disruption of a headland-bypass dunefield and its associated river, Cape St. Francis, South Africa. Landscape and urban planning, 34, pp.373-381.

McLachlan A., Illenberger W.K., Burkinshaw J.R. & Burns M.E.R. (1994) Management implications of tampering with littoral sand sources. J Coastal Research Special Issue No. 12, pp 51-59.

Illenberger, W.K. (1993) Variations of sediment dynamics in Algoa Bay during the Holocene. S Afr J Sci 89, 187-196.

Investigations undertaken in the dune geomorphology, wetlands, groundwater, surface water & geology reports as part of this EIA.

MSc in progress: Lauren Elkington, Rhodes University



Slide 5

**MSc in progress:
Lauren Elkington, Rhodes University**

An MSc thesis entitled "Morphology, patterns and processes in the Oyster Bay Dune field system" by Ms Lauren Elkington is at an advanced stage.

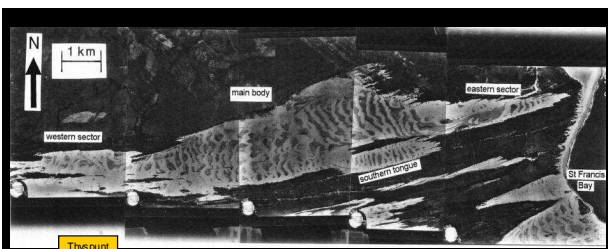
This is a work in progress, and the data collected cannot be presented or discussed here until the MSc is completed.

However, if the thesis is completed before the final Environmental Impact Assessment Report is completed, the results will be incorporated.

This course of action was agreed upon after discussion with Fred Ellery and his group.



Slide 6

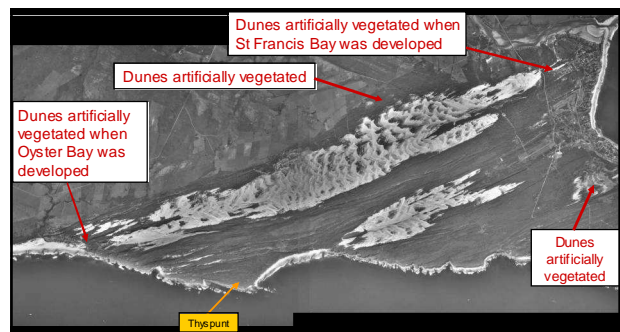


Detailed terminology for the Oyster Bay dunefield, mapped from 1942 aerial photographs.

The extent of unvegetated dunes before artificial vegetating with Rooikrans can be seen by comparison with the 1985 aerial photograph (next slide).



Slide 7

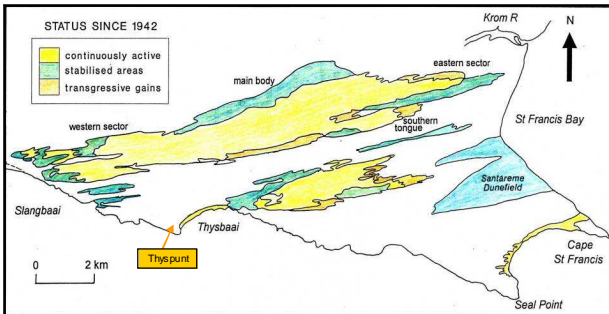


Overall view of headland-bypass dunefields at Cape St Francis in 1985. Comparison with the 1942 photograph (previous slide) shows the changes in the margins of the dunefields between 1942 and 1985.

The next slide depicts these changes.



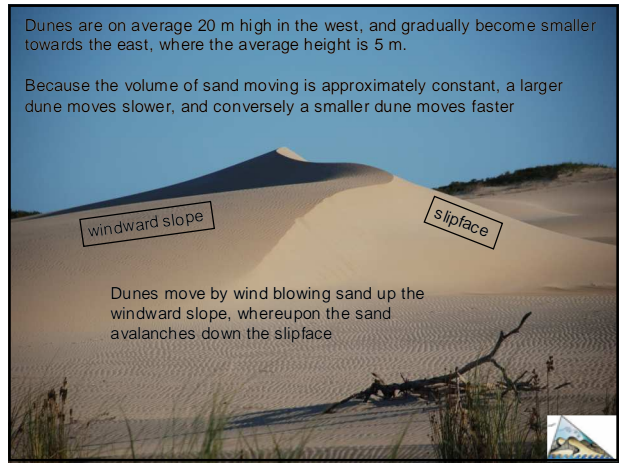
Slide 8

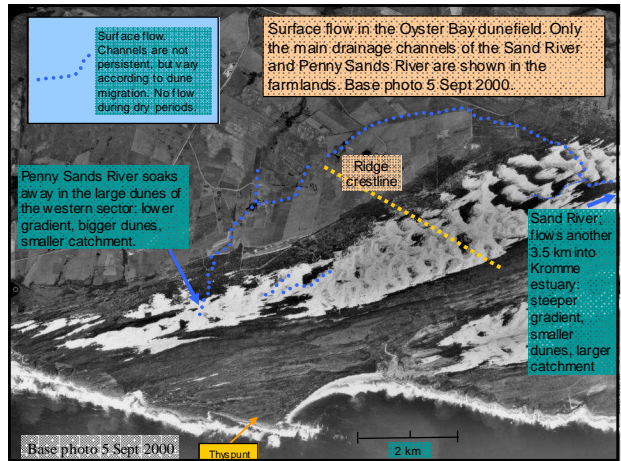
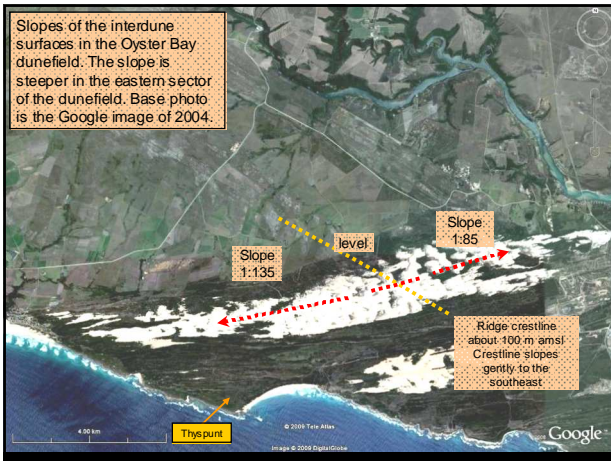


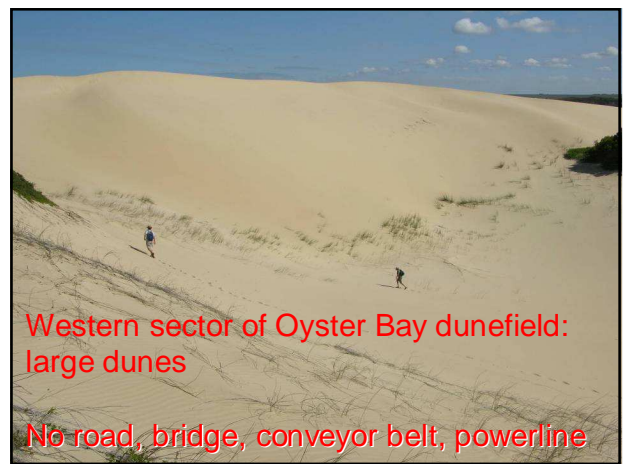
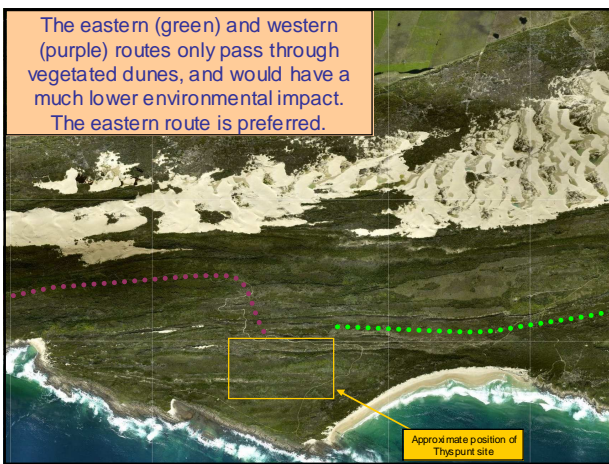
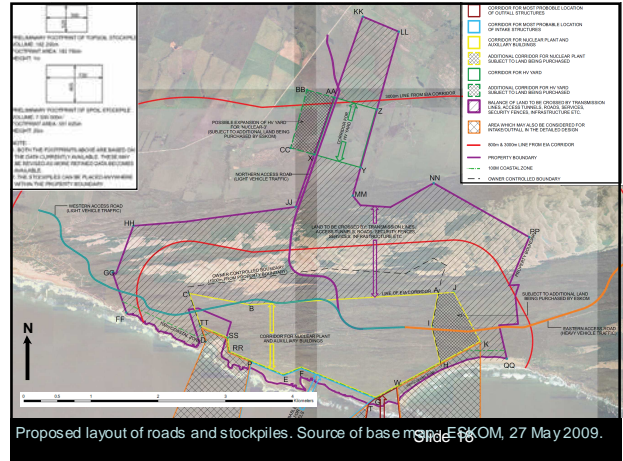
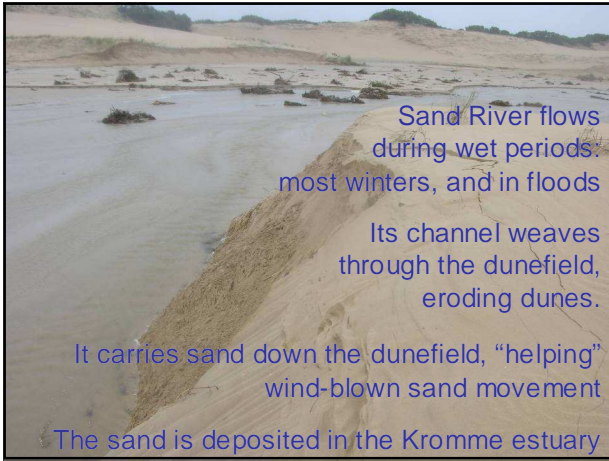
Headland-bypass dunefields showing changes in the margins of the dunefields between 1942 and 1985.

Since 1942 the dunefield has become progressively more vegetated, both within the dunefield and along the northern margin, mostly by various invasive alien *Acacia* species, dominantly Rooikrans.

Note the areas where the dunefields have transgressed over previously vegetated areas due to the natural advance of the dunefields.







Nuclear-1 EIA

Stakeholder Workshop
St. Francis Bay 25 May 2010

THYSPUNT GEOHYDROLOGY

PETER ROSEWARNE: SRK CONSULTING



Slide 1

Credentials

- ❖ 35 years of experience-supply, nuclear, mining, waste, subsurface contamination
- ❖ Developed St. Francis wellfields
- ❖ Local work at Coega
- ❖ TMG Aquifer expert
- ❖ EIA specialist studies, eg PBMR



Slide 2

Project Team

- ❖ SRK Consulting SA
- ❖ SRK Consulting UK
- ❖ Council for Geoscience
- ❖ Institute for Groundwater Studies: UOFS
- ❖ Freshwater Consultants
- ❖ CSIR



Slide 3

Investigation Approach

- ❖ Data review
- ❖ Site work – hydrocensus; borehole siting; drilling; testing (approx 6 months spent on site, 2.5 years in total, ongoing)
- ❖ Data analysis
- ❖ Numerical flow modelling
- ❖ Reporting
- ❖ Ongoing monitoring



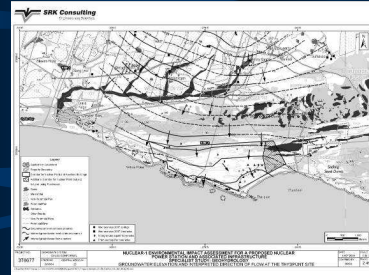
Slide 4

Site Investigation

- ❖ All bhs/springs within 5 km visited
- ❖ 38 exploration boreholes drilled (plus 78 geotech bhs)
- ❖ 19 Pumping tests carried out
- ❖ Packer tests
- ❖ Tracer test
- ❖ Water sample analyses
- ❖ Monitoring (13 data loggers)



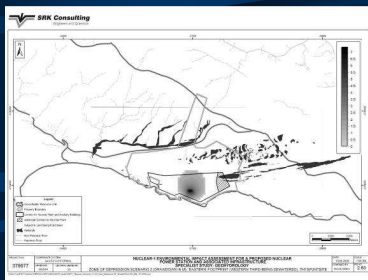
Slide 5



THYSPUNT
GROUNDWATER LEVEL CONTOURS



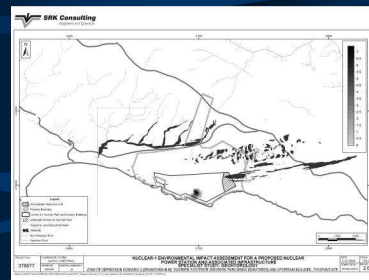
Slide 6



THYSPUNT
ZONE OF DRAWDOWN FROM DEWATERING: NO MITIGATION



Slide 7



THYSPUNT
ZONE OF DRAWDOWN FROM DEWATERING: WITH MITIGATION



Slide 8

Key specialist study findings

- ❖ There are 3 aquifers present
- ❖ There is extensive groundwater use in Oyster & St. Francis Bay
- ❖ Groundwater flow is to the south and southeast - site is at end of the flow path
- ❖ There are ecologically important wetlands on the site



Slide 9

Key specialist study findings

- ❖ Aquifers/wetlands are intimately linked
- ❖ Groundwater levels show minimal fluctuations with time/rainfall
- ❖ Downward trend since monitoring started
- ❖ Construction and operation of Nuclear-1 will require dewatering



Slide 10

Key specialist study findings

- ❖ Drawdown/contamination will be contained to the site and 1 km of Nuclear-1 with foundation dewatering
- ❖ Drawdown/contamination will be contained to the immediate Nuclear-1 surrounds with groundwater control measures



Slide 11

Mitigating measures

- ❖ Site system is naturally “buffered” by high porosity sediments; overflow into wetlands; drainage by cobble layer
- ❖ Ongoing monitoring being carried out to further confirm groundwater/wetlands interactions
- ❖ Further numerical flow modelling will be done (fine-tuning – basic findings unlikely to change)



Slide 12

Mitigating measures

- ❖ Freshwater supply will be from desalination of seawater
- ❖ Construction water could be sourced from dewatering
- ❖ Cut-off barriers to contain dewatering
- ❖ Artificial recharge to maintain coastal seeps/springs
- ❖ Further design work before construction



Slide 13

THANK YOU



Slide 14

Possible nuclear power station impacts on near-shore marine habitats (with special reference to Thyspunt)



Prof Charles Griffiths and Dr Tammy Robinson

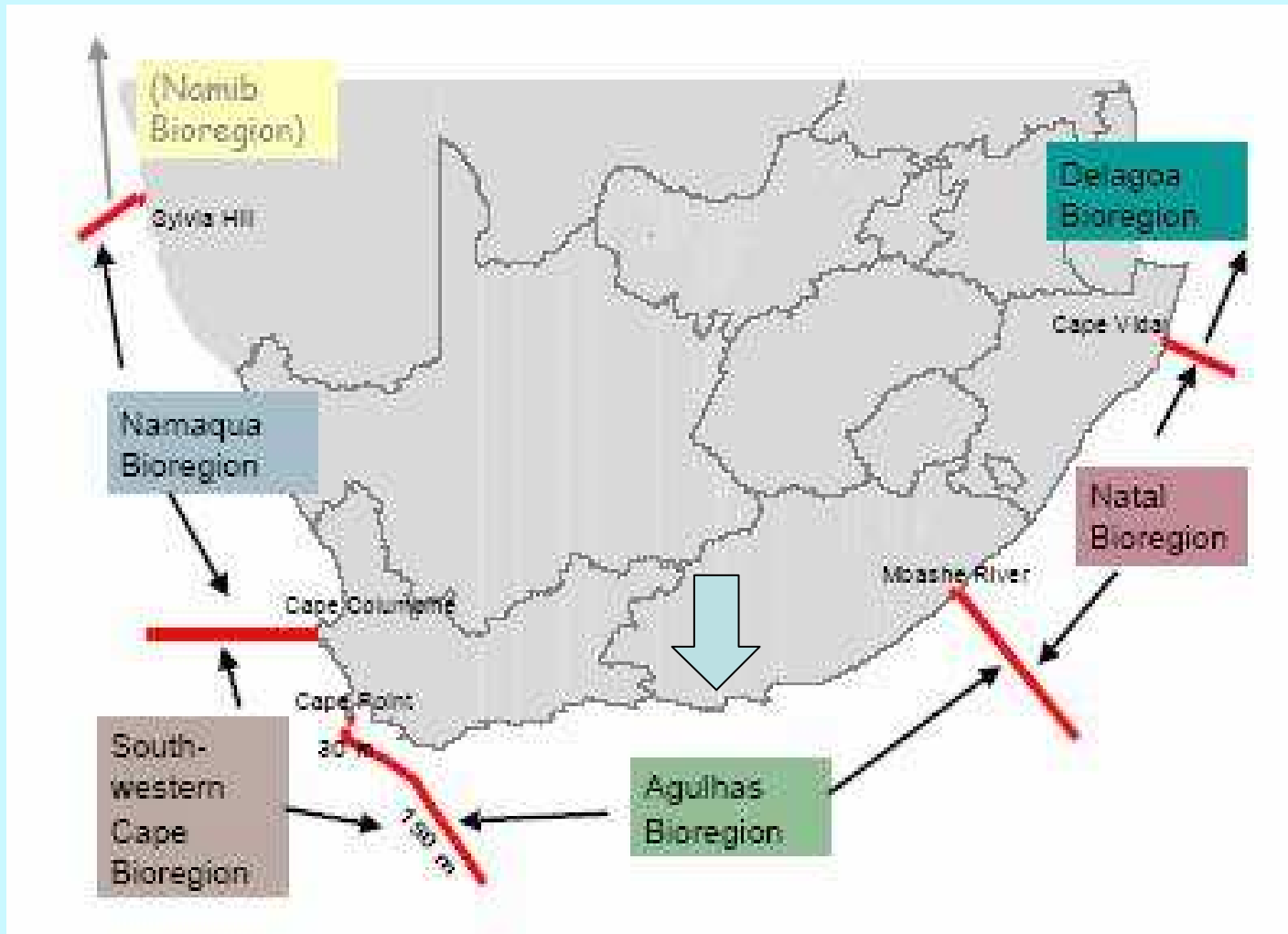
Marine Biology Research Centre

University of Cape Town

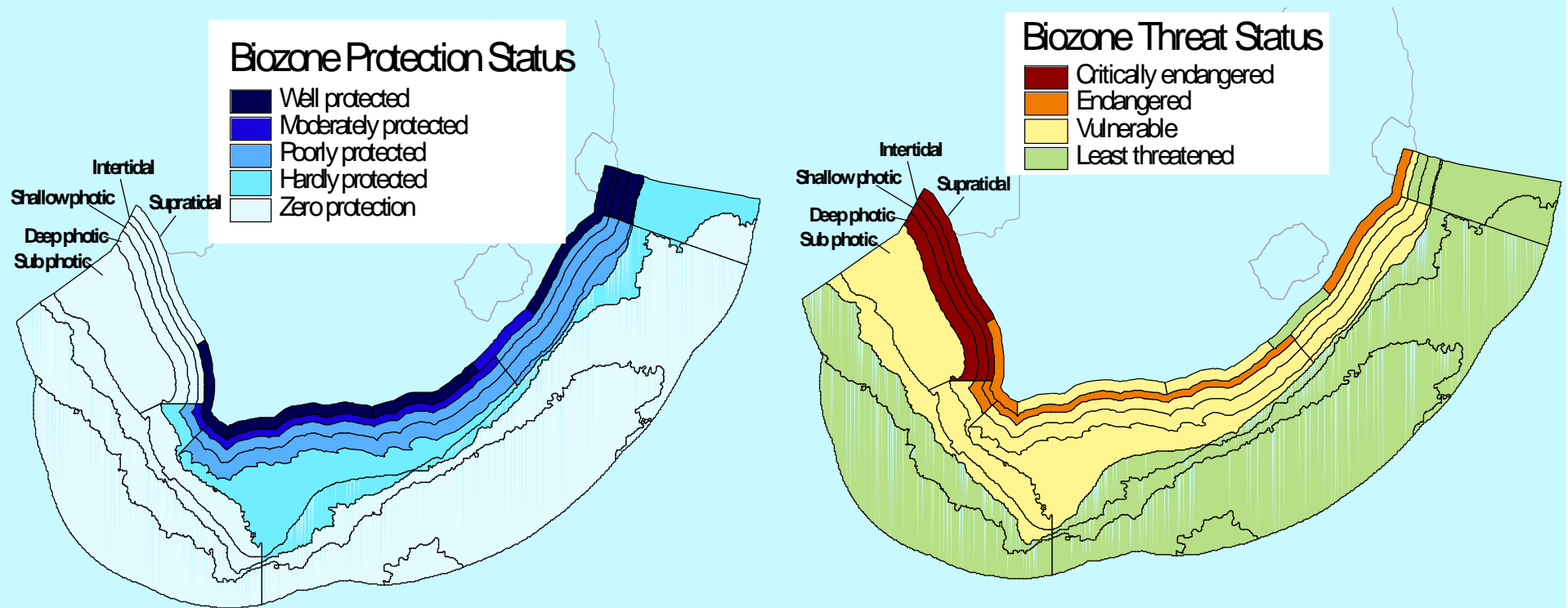
Charles.Griffiths@uct.ac.za

Background:

Thyspunt lies in the centre of the large, relatively uniform Warm-temperate 'Agulhas Bioregion' of South Africa

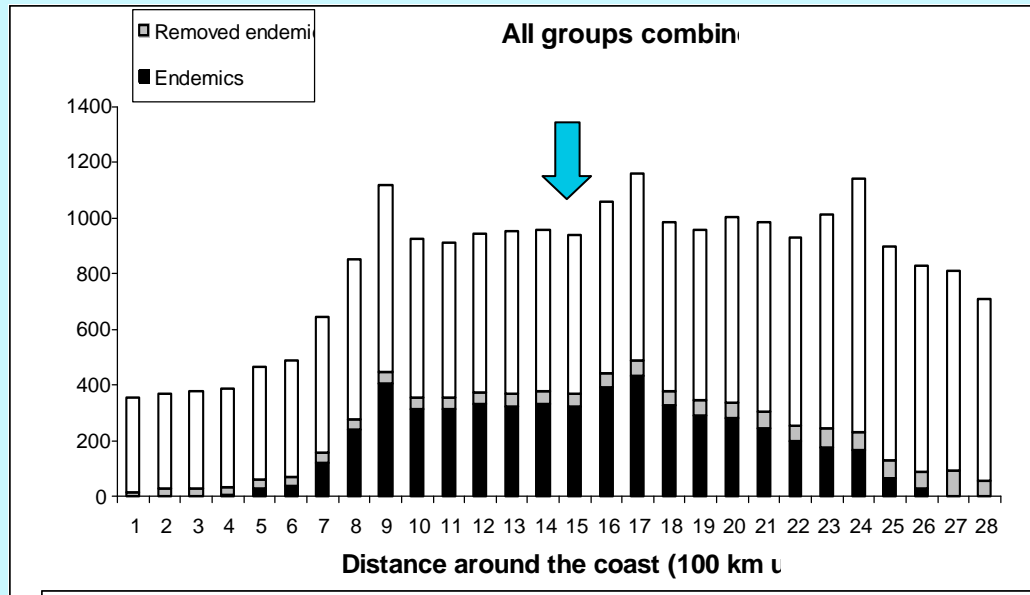


This bioregion is considered to be ‘well protected’ (in terms of protected areas) and is the least threatened coastal biozone in the region (in terms of exploitation pressure, mining etc)



Source: SA State of the Environment Report 2004

It lies in an area of high overall species richness and endemism (bar 15),
 but contains very few unique or range-restricted species (lower fig.)



Species per 100 km stretch

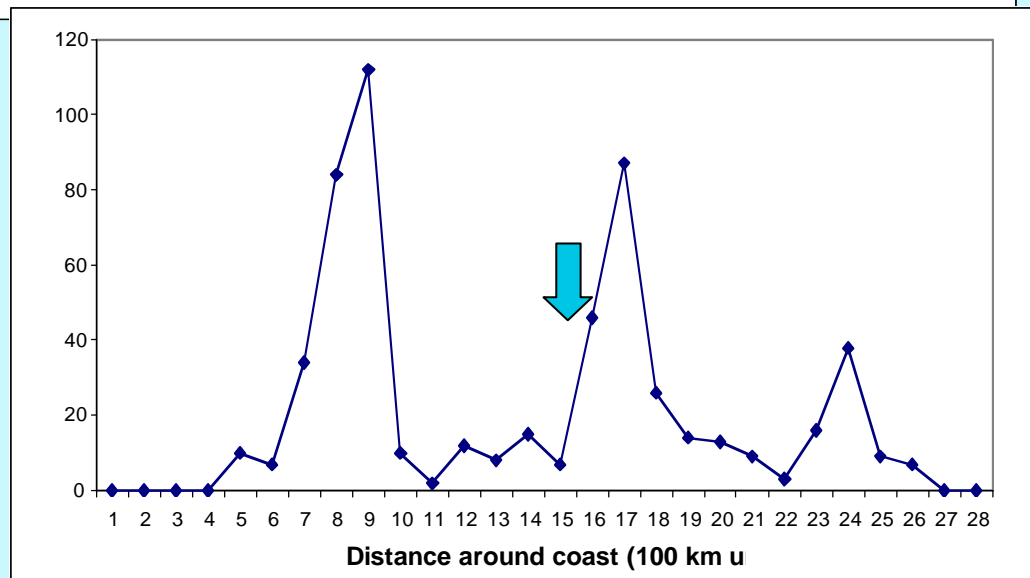
1= Orange R

8= Cape Town

15 = Thyspunt

16= Port Elizabeth

24= Durban



Range-restricted species
 Per 100 km stretch
 (range <300km)

Potential nuclear power-station impacts on marine environment:

1. Entrainment and death of fish and plankton in intake water
2. Death of local fauna as a result of construction work, spoil dumping, etc
3. Release of heated water and/or brine from desalination plants
4. Changes in current patterns due to breakwaters, etc
5. Creation of habitat (e.g. hard substrata where only beach existed before)
6. Access control, leading to less angling and disturbance (conservation areas)

Note: Release of radio-isotopes into the sea is not considered a threat, as cooling water never comes into contact with the reactor.

Entrainment of marine organisms in cooling water:

- Pumping, plus chlorination, of cooling water at Koeberg results in mortality of 28% phytoplankton and 43-68% of zooplankton in pumped water
- Almost no larger fish or other marine species are entrained and killed
- Wider impacts undetectable, given the much larger natural water flow through the area and the short doubling time of plankton in the cooling water

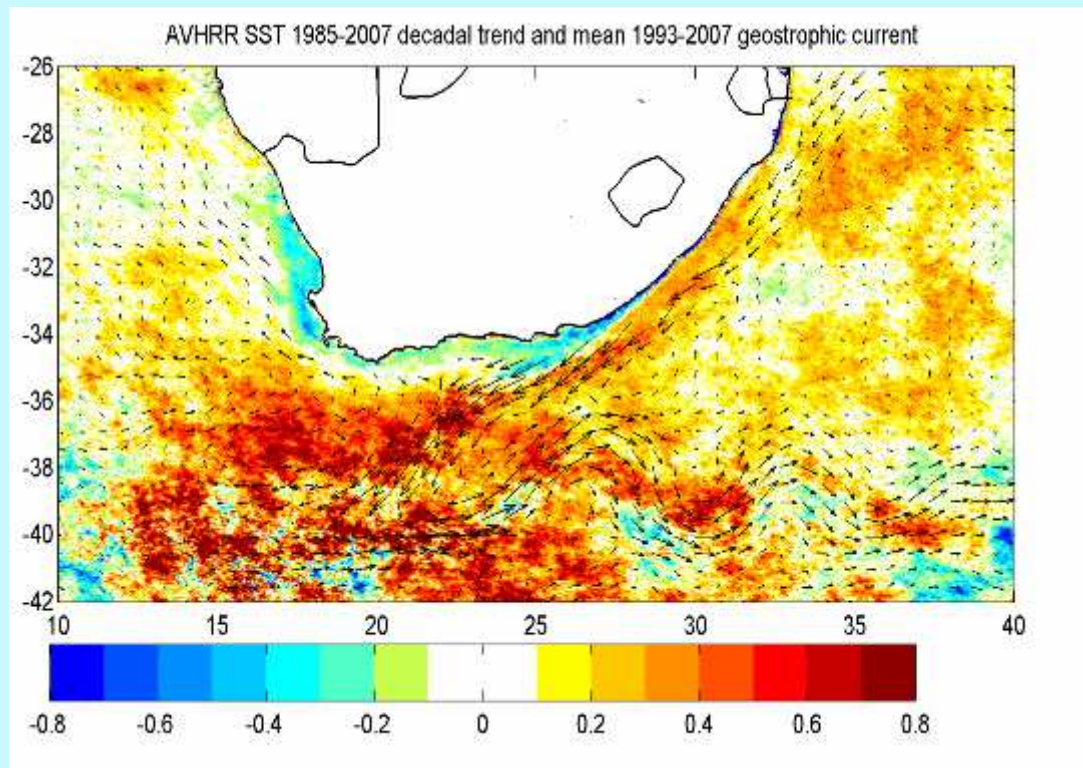
Construction and dumping:

(Regarded as the main environmental impact of concern)

- Tunneling to lay water intake pipes and laying of outfall pipes will disrupt limited areas of seabed
- Dumping of spoil can be expected to smother bottom-dwelling species over area approx 3 km² and may affect chokka squid spawning areas, but only by a few %
- This effect will be focused within the construction phase and will be localised and of limited duration (a few years)
- Recovery (spoil dispersion and colonisation) can be anticipated to take place over several years

Release of heated water:

- Volume minimal in comparison with natural flows (ca 80 m³.sec at Koeberg vs 60 million m³.sec for Agulhas Current)
- No temperature elevation >2°C detected more than 1 km from outfall at Koeberg
- Warmed plume water floats, so does not effect bottom-dwelling species
- Twice yearly surveys at Koeberg have revealed no detectable changes in biota, even within 1 km radius
- Any warming at Thyspunt is taking place in context of a long term cooling trend in region, as depicted below.



Sea temp changes
1985-2007

Release of desalination brine:

- More problematic than heating, as heavier than seawater, so sinks
- Could result in impacts during construction phase, but over limited area and limited duration of this phase
- During operational phase will be mixed with heated water, resulting in high dilution and reduced density, impact expected to be undetectable

Changes in current pattern and habitat type:

- Impacts trivial at this site, as hard substrates and complex shore topography already present and no stilling basin to be constructed
- Any additional hard substratum simply provides more habitat for attached species

Controlled access:

- Results in enhanced fish stocks and diffusion of protected fish into adjacent angling areas, but as this particular site is already restricted, little additional benefit is to be gained


Overall marine impacts - conclusions:

- Limited negative impacts expected during construction phase, mainly due to release of saline water and construction activities (excavation, dumping of spoil, etc).
- Area of impact a few km² (South Africa's EEZ = 1 million km²)
- Recovery expected to be measured in years (not decades)
- Marine impacts during operational phase expected to be undetectable, as is currently the case for Koeberg
- Positive impacts expected from conservation of site expected to continue



End

Slide 10



ESKOM HOLDINGS LIMITED

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR A PROPOSED NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE DEA REF. No.:12/12/20/944

**EIA Phase Key Stakeholder Meeting:
Review of Draft Environmental Impact Report**

March / April 2010

Slide 1



PROPOSED AGENDA

1. Sign attendance register and discussion with team: 09:00 – 09:50
2. Welcome and introductions: 10:00 – 10:10
3. Presentation of EIA and EMP findings: 10:10 – 11:00
4. Discussion: 11h00 – 11:50
5. Way forward and close: 11:50 – 12:00

Slide 2



MEETING CONDUCT

- Please wait for the discussion session to ask questions
- Introduce yourselves prior to asking a question and indicate your specific interest
- You are welcome to ask the question in your mother tongue. Presentations will be in English
- One person at a time
- Work through the facilitator
- Show respect
- Focus on the issue not the person
- Be constructive
- Agree to disagree

**Please switch
off all cell
phones!**

Slide 3



MEETING OBJECTIVES

- The focus of the meeting is to provide an opportunity for Interested and Affected Parties (I&APs) to comment on the findings of the EIA and the Draft Environmental Impact Assessment Report (EIR)
- Provide an opportunity for I&APs to seek further clarity on the proposed project, the EIA phase and the Draft EIR
- Provide I&APs with an opportunity for interaction with the EIA team
- Recording of issues - the proceedings will be recorded and used to compile meeting minutes. Comments will be included in the Issues and Response Report (IRR) and changes will be made to the Final EIR, where necessary

Slide 4



KEY ISSUES

- Some people are opposed to and others are in favour of a nuclear power station at Bantamsklip, Thyspunt and Duynfontein
- Concerns about the potential impacts on human health and safety
- Local residents share a deep-felt connection to the area and have a strong “sense of place”
- A power station could potentially be unsightly
- Tourism is linked to conservation and preservation of the coastline

Slide 5



KEY ISSUES

- Marine life could potentially be adversely affected by altered sea temperature and turbulence caused by inflow and output of sea water to the plant
- Concern that commercial and recreational fishing may be negatively impacted
- Light pollution
- Concerns about potential drop in property values
- Concern about cost of constructing a power station
- Some people expressed a lack of trust in the EIA
- Storage of hazardous waste
- Renewable (‘green’) energy (e.g. wind, solar) vs. nuclear

Slide 6



PROJECT MOTIVATION

- Increasing demand for electricity (> 4% growth per annum)
- Projected requirement for more than 40 000 MW of new electricity generating capacity over the next 20 years
- In SA only coal and nuclear power are solutions for base load generation, while gas turbines, hydroelectric power stations and pumped storage schemes are used for peaking and emergency electricity generation


Slide 7



PROPOSED ACTIVITY

- Eskom proposes the construction, operation and decommissioning of a conventional nuclear power station and associated infrastructure either in the Eastern or Western Cape
- A nuclear power station of the Pressurised Water Reactor (PWR) type technology e.g. Koeberg Power Station
- The transmission power lines are subject to separate environmental authorisation processes


Slide 8



TRANSMISSION (TX) LINE EIAs

- Bantamsklip – Scoping phase has been extended to include Multi-stakeholder Workshops and additional public consultation. Revised Draft Scoping Report will be made available for public comment
- Thyspunt – Scoping Report accepted by Authorities and EIA phase has commenced
- Duynefontein – Scoping Report accepted by Authorities and EIA phase has commenced


Slide 9



PROJECT BACKGROUND

- The power station and directly associated infrastructure will require approximately 31 ha
- The footprint assessed makes provision for the potential future expansion of a power station to 10 000 MW or the maximum carrying capacity
- The proposed nuclear power station will include nuclear reactor, turbine complex, spent fuel, nuclear fuel storage facilities, waste handling facilities, intake and outfall pipelines, desalination plant and auxiliary service infrastructure
- Should the proposed project be authorised, it is anticipated that construction of the station could commence in 2011 with the first unit being commissioned in 2018

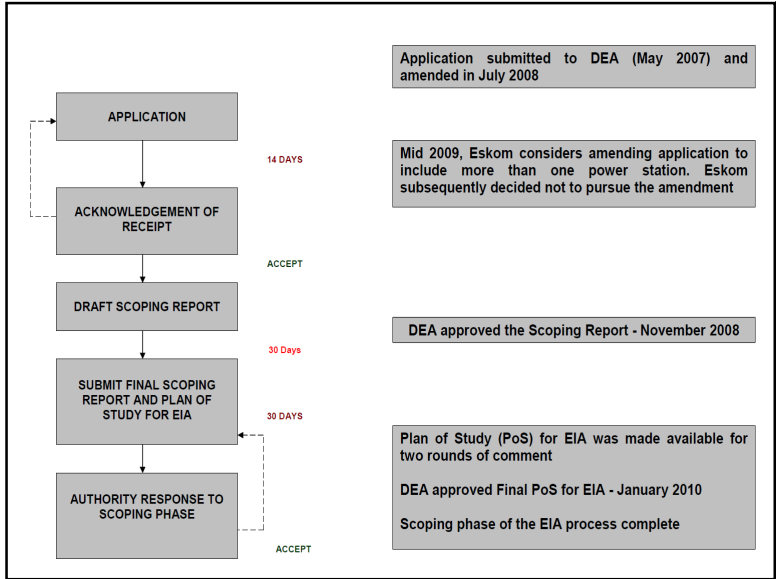
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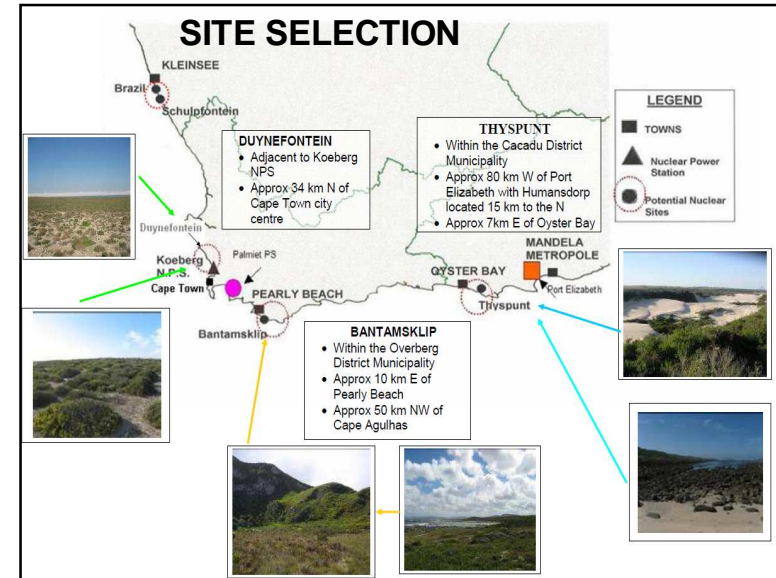
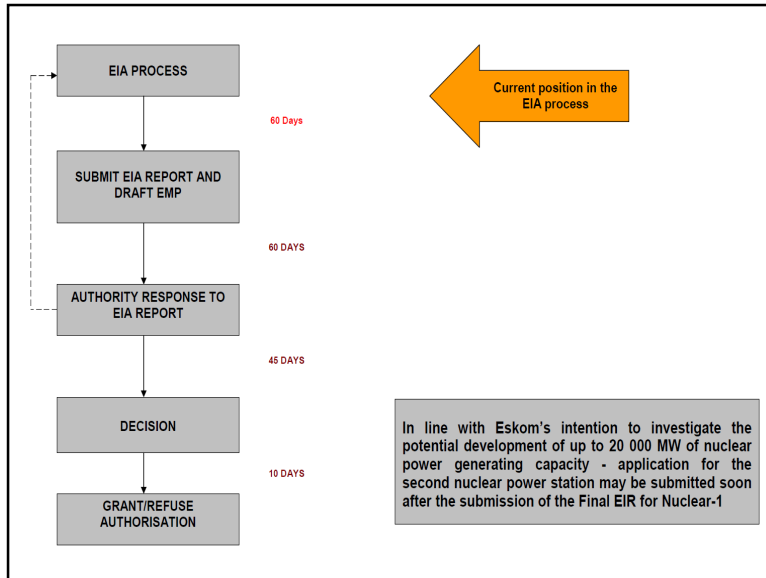


ENVELOPE OF CRITERIA

- Detailed description of proposed nuclear plant is not available, as preferred supplier has not been selected
- Approach used has been to specify enveloping environmental and other relevant requirements, to which the power station design and placement on site must comply
- Enveloping criteria represent the most conservative parameters associated with the various plant alternatives within the available PWR technology

Slide 11





ASSESSMENT OF IMPACTS

- The potential impacts assessed were based on:
 - Issues identified by I&APs during the public participation process (PPP)
 - Issues identified by specialists through research
 - Experience of relevant specialists with projects of a similar nature or in a similar environment
 - Consultation with local specialists
 - Environmental resources and conditions identified during site surveys

Slide 15

METHODOLOGY

- Independent specialists assessed potential positive and negative impacts with and without mitigation
- According to the specialists, all potential negative impacts can be mitigated
- There are no fatal flaws at any of the alternative sites

Slide 16



SPECIALIST STUDIES

- **Physical Impacts**
 - Geology and geological risk
 - Seismological risk**
 - Geo-hydrology
 - Geotechnical characteristics
- **Biophysical Impacts**
 - Dune geomorphology**
 - Flora**
 - Fauna (Invertebrate and Vertebrate)**
 - Hydrology
 - Freshwater ecosystems**
 - Oceanographic conditions
 - Marine biology**
 - Air quality
 - Assessment of the 1:100 year floodline


Slide 17



SPECIALIST STUDIES

- **Socio-economic Impacts**
 - Social**
 - Economic**
 - Noise
 - Visual
 - Heritage and cultural resources**
 - Waste
 - Tourism**
 - Agriculture**
- As per the NNR / DEA co-operative agreement, a number of specialist studies related to human health risk and safety were commissioned and included in this EIR for information (4 studies)

Slide 18




SPECIALIST STUDY RESULTS

- **Seismological Risk**

Seismic studies indicate that the design basis for the respective sites in terms of peak ground acceleration values (PGA) are as follows:

- Duynefontein – PGA ~0.30 g
- Bantamsklip - PGA ~0.23 g
- Thyspunt - PGA ~0.16 g

Slide 19



SPECIALIST STUDY RESULTS

- **Impacts on Dune Geomorphology**
 - Groundwater does not 'daylight' at Duynefontein or Bantamsklip sites: access roads and transmission lines can be built across the mobile dunes
 - The interaction between dune systems and wetlands is complex at Thyspunt, since groundwater 'daylights' in many inter-dune areas:
 - Haul roads and conveyor belts between the nuclear power station in the south and the HV yard in the north, may cause potential negative impacts on dune geomorphology at Thyspunt are more extensive than at the other two sites

Slide 20



SPECIALIST STUDY RESULTS

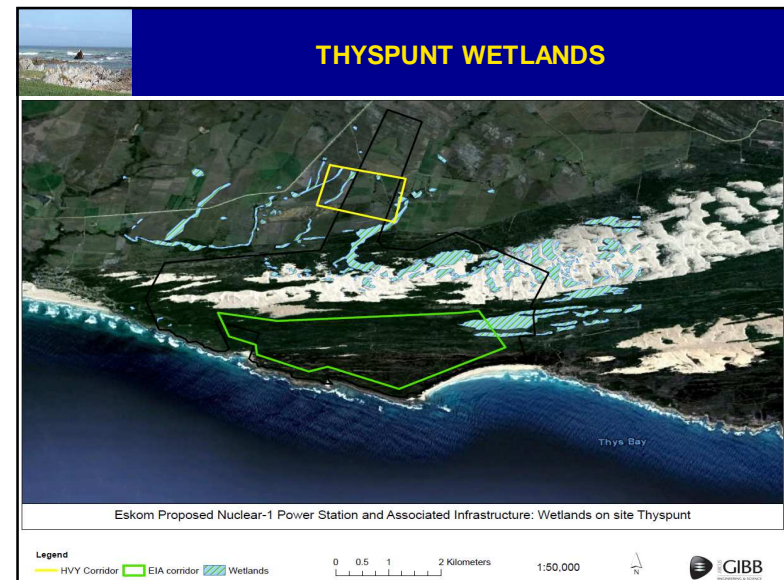
- **Impacts on Flora**
 - Bantamsklip will experience the least potential negative impact on plant communities and species, as the ecosystems on this site are fairly common along this section of coastline, provided that the power station is situated away from the limestone fynbos
 - Thyspunt has by far the greatest diversity of vegetation communities, including extensive and highly sensitive wetlands


Slide 22

SPECIALIST STUDY RESULTS

- **Impacts on Wetlands**
 - The development of a nuclear power station at Duynefontein is unlikely to result in any unmitigable, highly significant negative impacts on wetlands
 - Development of the proposed nuclear power station at Bantamsklip would not be associated with any unmitigable impacts to wetland systems
 - The Thyspunt wetland systems are complex and potential negative impacts could occur without appropriate mitigation

Slide 23






SPECIALIST STUDY RESULTS

- **Impacts on Terrestrial Vertebrates**
 - The amount of land that is not of high faunal sensitivity at Duynefontein is more than sufficient for the nuclear power station
 - At Bantamsklip the nuclear power station could have significant negative potential impacts, without mitigation, because of the impacts on faunal habitats within the footprint
 - At Thyspunt a nuclear power station would have significant potential negative impacts, without mitigation, because of the direct impacts on faunal habitats within the footprint, the development of two major new access roads, and the need for a development corridor across a large mobile dunefield


Slide 25



SPECIALIST STUDY RESULTS

- **Impacts on Terrestrial Invertebrates**
 - The potential impacts of the nuclear power station on the terrestrial invertebrate communities are very similar for all alternative sites, but there are site-specific differences
 - None of the butterflies occurring in the Cape Flats Dune Fynbos area around Duynefontein are endangered or endemic
 - Non-vegetated and partially vegetated portions of the site are of very low and low sensitivity, respectively.
 - The new species of ant found at Duynefontein is regarded as a generalist and is likely to be found on other areas of the site


Slide 26



SPECIALIST STUDY RESULTS

- **Impacts on Terrestrial Invertebrates**
 - Thyspunt has the highest butterfly diversity and conservation value of the alternative sites. Thyspunt is identified as higher sensitivity than Duynefontein, and only marginally lower than Bantamsklip
 - From the viewpoint of potential positive impacts of the nuclear power station, Duynefontein already positively benefits under the management of Eskom, which means that it would experience the least improvement in conservation status
 - Bantamsklip and Thyspunt would benefit substantially from formal protection status. The project would have a potential net positive impact on invertebrate communities at Bantamsklip or Thyspunt


Slide 27



SPECIALIST STUDY RESULTS

- **Economic Impacts**
 - The overall positive macro-economic impacts will be greatest at Bantamsklip and Duynefontein, and less at Thyspunt, as the sites are situated in a province with a larger, more diversified economy. Nuclear-1 would result in less dislocation of economic activities if located at Duynefontein than at either of the other two sites
 - Macroeconomic indicators favour Duynefontein and Bantamsklip
 - The cost-effectiveness analysis indicates that Thyspunt has a very slight edge over Duynefontein and a somewhat larger edge over Bantamsklip. The differences between the alternative sites are slight, and all the sites would have large positive economic impacts both on the local area and the province in which they are situated
 - The economic impact assessment gives greater weight to the cost-effectiveness analysis


Slide 28



SPECIALIST STUDY RESULTS

- **Heritage Impacts**
 - All alternative sites contain significant heritage resources.
 - The amount of Late Stone Age heritage that will be potentially impacted at Dufnefontein will be substantially less than that of Bantamsklip and Thyspunt
 - Dufnefontein is palaeontologically highly sensitive. Bantamsklip is almost as sensitive as Thyspunt in terms of its heritage richness

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SPECIALIST STUDY RESULTS

Marine Biology Impacts

- Potential impacts similar at all sites and the impacts can be mitigated if the proposed designs are implemented as planned
- Potentially the most significant impacts are:
 - Disruption of the marine environment through the offshore disposal of sediment
 - Release of warmed cooling water
- Spoil disposal will have a potentially highly significant long-term negative impact on the marine environment within a localised area (3 km² initially to 6km² after 5 years) – acceptable impact according to marine specialist

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SPECIALIST STUDY RESULTS

Marine Biology Impacts

- Radionuclides such as Cesium (Cs-137) and Strontium (Sr-90) present in oceans alongside other elements since 1940s
- Background levels of Cesium have been recorded at Koeberg before the nuclear power station was established
- Detected in mussels, sand mussels and fish below levels at which further investigation would be required
- Strontium not recorded in marine organisms at Koeberg
- Due to few organisms in which Cesium has been recorded, low concentrations and lack of Strontium, these nuclides have no detectable potential impact on marine organisms

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SPECIALIST STUDY RESULTS

Social Impacts

- Potential negative impacts relate to accommodation for temporary workers during construction
- Potential positive impact is the provision of electricity and related benefits to the broader national and regional economies
- Perceived risks associated with nuclear incidents could potentially lead to a change in attitude and behaviour – reliable information is important

Slide 32




SPECIALIST STUDY RESULTS

Tourism Impacts

- Communities at Thyspunt and Bantamsklip have expressed opposition to the proposed power station
- Thyspunt community highlighted the premium nature of the top-end coastal vacation destination
- Bantamsklip community emphasised the new and fragile nature of the developing tourism product and the local dependence thereon
- Some Duynefontein tourism stakeholders have personal objections to another power station, however they recognise the potential for increased business and promote a generally positive outlook for tourism

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SPECIALIST STUDY RESULTS

Tourism Impacts

- Assessment takes account decline in nature-based tourism as well as an increase in business-related tourism associated with the proposed nuclear power station
- Duynefontein – limited potential impact during construction. During operation a potential 1.4% improvement in tourism is predicted
- Bantamsklip - potential 5% positive impact during construction. During operation a potential 8.6% improvement in tourism is predicted
- Thyspunt – Potential 7.9% negative impact during construction. During operation a zero potential impact is predicted

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SPECIALIST STUDY RESULTS

Agricultural Impacts

- Agriculture around Thyspunt is based mainly on milk production (2008: R150 m per annum)
- Fynbos farming prevails at the Bantamsklip although there is some dairy as well as grape, beef, sheep and game farming (2008: R29 m per annum)
- Duynefontein is based on mixed farming (2008: R75 m per annum)

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SPECIALIST STUDY RESULTS

Agricultural Impacts

- Duynefontein – no impact on agriculture during construction and operation
- Bantamsklip – negative potential impact of dust (construction). Potential of less than 5% increase in local market due to water limitations that restrict expansion
- Thyspunt – negative potential impact of dust (construction). Potential for positive impact on production by increasing the size of the local market for fresh produce

Slide 36



PROJECT ALTERNATIVES

- Forms of power generation
- Nuclear plant types
- **Layout of the nuclear plant**
- **Fresh water supply and utilisation of abstracted groundwater**
- Management of brine
- Intake of sea water
- **Outlet of water**
- Management of spoil material
- Access to Thyspunt
- **Waste**
- **The no-development alternative (i.e. 'No-Go')**
- **Location of the power station (i.e. site selection)**


Slide 37



SITE SELECTION

- Site selection was based on:
 - Results of independent specialist studies: the significance of potential impacts, with mitigation, at each of the sites
 - An integration workshop, involving all specialists, where ranking of the sites and key decision factors were agreed on
 - Quantified ranking taking into account the key decision factors

Slide 38



SITE SELECTION

- Impacts of low significance at all alternative sites filtered out e.g. noise, visual impacts, hydrology
- Impacts of medium and high significance that have the same significance at all sites were filtered out e.g. social
- The key factors for decision-making:
 - Integration into the national grid
 - Seismic suitability
 - Impacts on dune geomorphology
 - Impacts on wetlands
 - Impacts on vertebrate fauna
 - Impacts on invertebrate fauna
 - Economic impacts

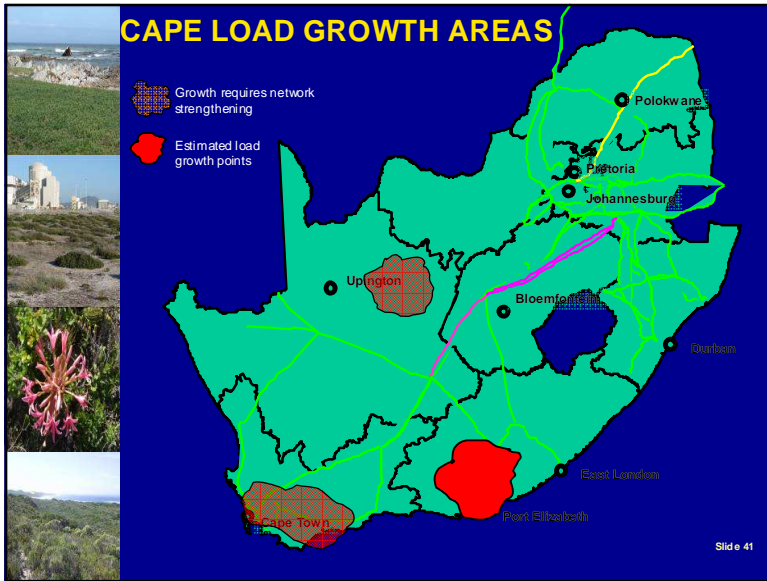
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INTEGRATION INTO THE NATIONAL GRID

- Where do we require power stations for future load growth?
- Electricity needs to be transmitted from the high voltage yard at the power station through a network of transmission and distribution lines to end users
- To improve efficiency, Eskom tries connect new base load generation to the closest load, where possible

Slide 40



SITE SELECTION

A number of factors indicate that Bantamsklip cannot be regarded as a **preferred alternative** for Nuclear-1 when compared with the other two alternative sites:

- Substantially higher construction costs due to its remote location (requirements for upgrading of roads and bridges and lengthy transmission lines)
- Cumulative environmental impacts of the transmission corridors
- Potential impacts on invertebrate fauna

Bantamsklip is regarded as the least preferred site alternative for Nuclear-1

Slide 42

SITE SELECTION: RECOMMENDATIONS

A quantitative assessment of key criteria indicates that Thyspunt is preferred (with a score of 76 as opposed to Duynefontein's score of 57) due to:

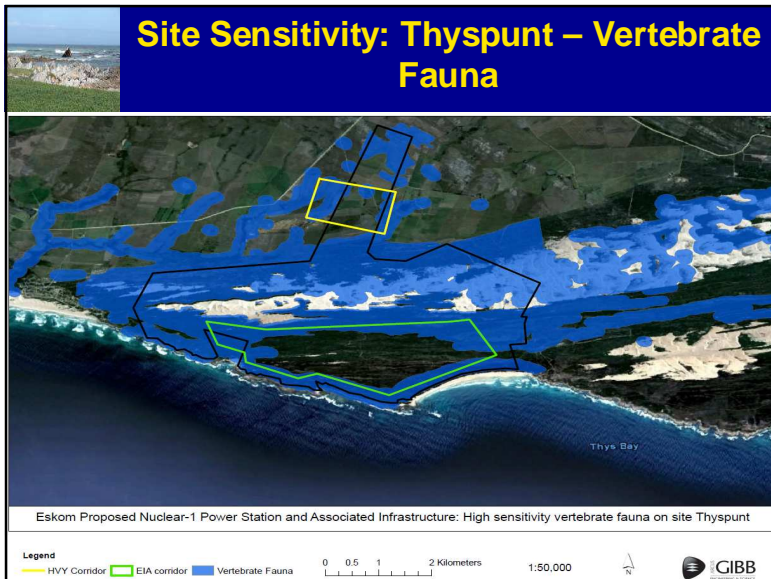
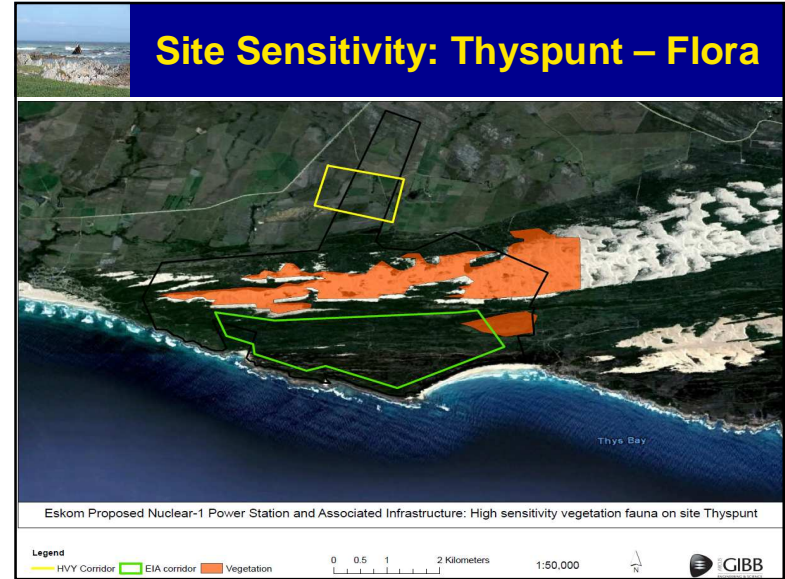
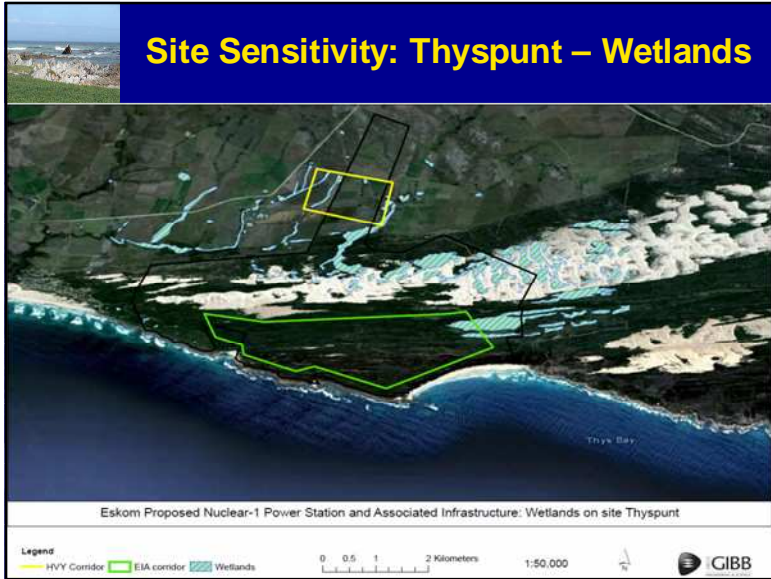
- Lower seismic risk
- Relative ease of integration into the transmission grid
- Site's locality relative to the Port Elizabeth load centre
- Potential overall positive conservation benefits of the majority of the site, as well as additional land being managed for conservation purposes
- Conservation benefits would not be realised at Duynefontein

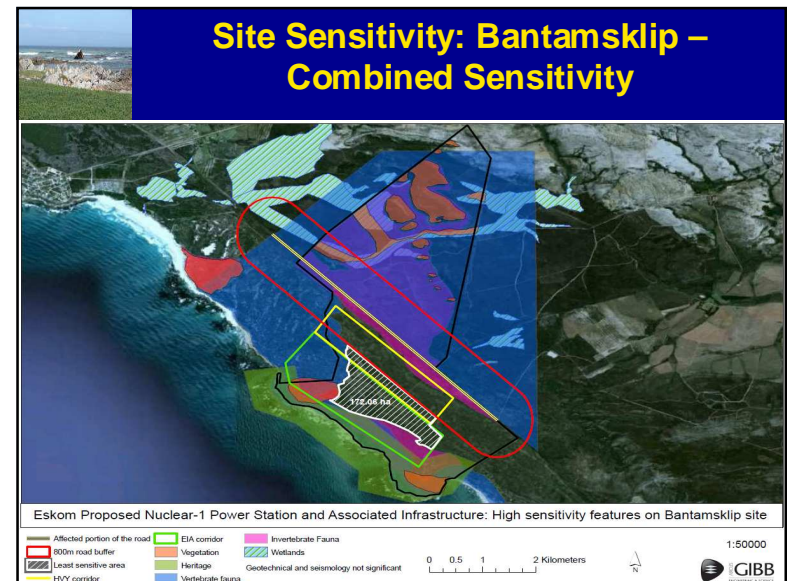
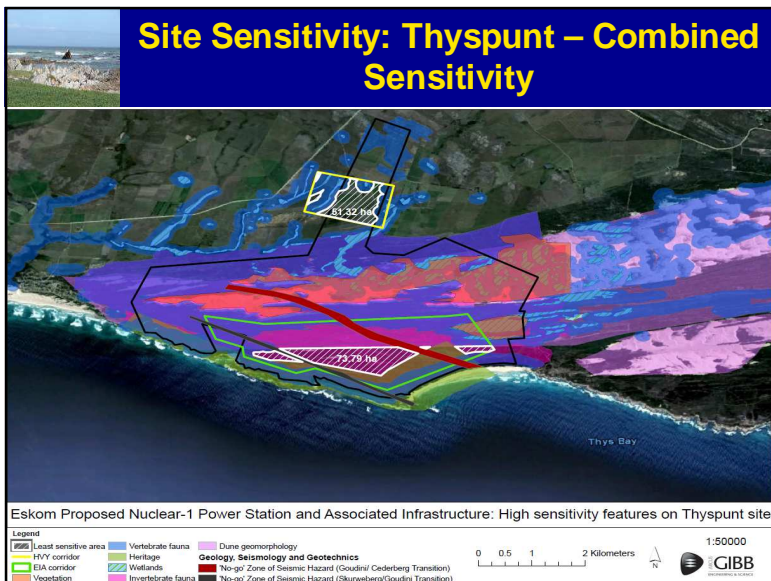
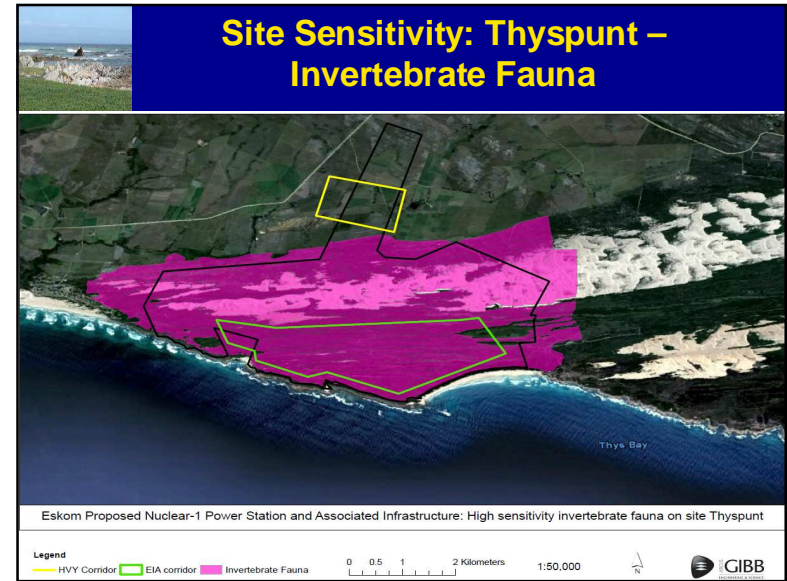
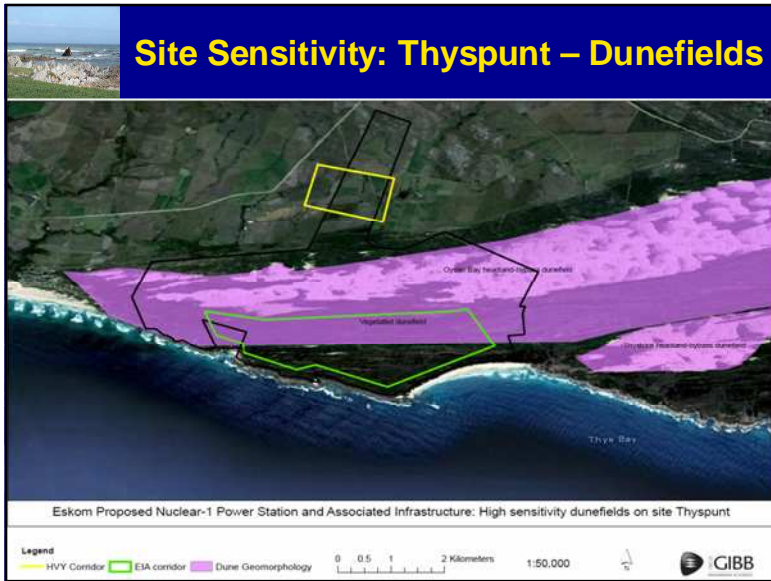
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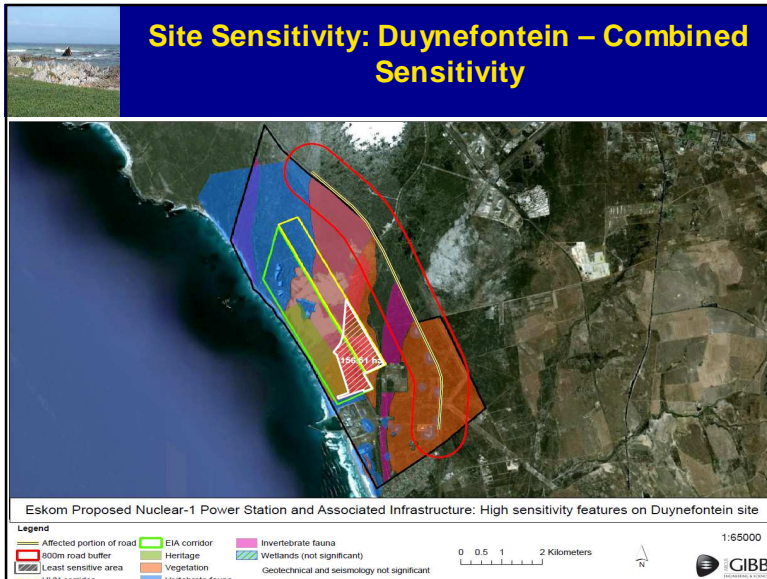
NUCLEAR PLANT LAYOUT

- Sensitivity maps of all specialist studies were integrated and composite maps were produced to indicate areas of high environmental suitability for each alternative site
- Finalisation of the site layout plans will require detailed investigations, in conjunction with relevant qualified and experienced specialists

Slide 44







FRESH WATER SUPPLY AND UTILISATION OF ABSTRACTED GROUNDWATER

- At all sites desalination provides a guaranteed source of fresh water supply for the lifespan of the proposed nuclear power station without jeopardising the availability of fresh water to other users
- A desalination plant is therefore the preferred alternative for the provision of fresh water at all sites

Slide 54

INTAKE AND OUTLET OF WATER

- The installation of intake and outlet tunnels that obtain water from the ocean and feed cooling water into a storage area located adjacent to the cooling water pump houses is the only feasible alternative for all sites
- Outlet structures for cooling water and chemical effluent must be offshore
- All releases need to occur at the distances prescribed by the relevant specialists
- Provided that the specific mitigation measures identified in the marine biology report are adhered to, offshore effluent release above the sea floor is the recommended alternative

Slide 55

MANAGEMENT OF SPOIL MATERIAL

- Fine spoil must be disposed of in the marine environment at all sites
- Spoil material that cannot be pumped to sea, must be disposed of on land and used for activities like levelling of the HV yard and to minimise the footprint on the terrestrial environment
- Visual impact of spoil dumps must be minimised
- Transport of spoil to the panhandle at Thyspunt via conveyor belt is not recommended due to the Oyster Bay mobile dune system

Slide 56



ACCESS TO THE THYSPUNT SITE

- The Eastern Access Route is required by Eskom for heavy loads and there is no alternative to this route
- The Western Access Route is favoured over the Northern Access Route, with respect to the potential impacts on agriculture, flora, wetlands, dune geomorphology and heritage resources
- The Northern Access Route is favoured only in terms of visual impacts
- Western Access Road is the preferred access road for the Thyspunt site

Slide 57



WASTE

- The only feasible alternative for the disposal of Low-Level and Intermediate-Level radioactive waste is disposal at the Vaalputs nuclear waste disposal site
- Vaalputs is the only authorised facility for this form of waste in SA. Vaalputs has sufficient capacity for the waste that will be generated by Nuclear-1
- With regards to High-Level Waste (spent fuel), the only alternative currently available in SA is long-term storage of the spent fuel in the nuclear power station
- Vaalputs may be considered as a disposal site for High-Level Waste in future

Slide 58



NO-DEVELOPMENT ALTERNATIVE

- Given the urgent power demand in South Africa, the No-Go alternative is not considered to be an alternative, as Eskom's mandate is to provide power for the country
- Eskom would likely apply to develop coal-fired power stations if the current application is declined as coal-fired generation is the only feasible base load alternative
- The life-cycle environmental impacts of coal-fired power generation are greater than nuclear-fuelled power generation

Slide 59



NO-DEVELOPMENT ALTERNATIVE

- If Eskom does not utilise Bantamsklip and Thyspunt for Nuclear-1, there are two options:
 - Keep as a future nuclear site; or
 - Sell to a willing buyer - this may result in an any alternative form of land use - may not involve management of the majority of the properties as a nature reserve

Slide 60



KEY MITIGATION MEASURES

- Independent specialists have proposed mitigation measures to reduce potential negative impacts
- Draft EMP has been compiled as part of draft EIR and if authorised, it will be a legally binding document
- Compliance to EMP must be independently audited throughout construction and operation
- Mitigation measures for botanical impacts, vertebrate and invertebrate fauna, wetlands and heritage resources are particularly important
- Mitigation of heritage impacts will require the work of a site-specific team dedicated to excavations over a period of several years prior to construction

Slide 61



KEY MITIGATION MEASURES

- Qualified and experienced botanical, wetland, vertebrate and invertebrate fauna, dune geomorphology and heritage specialists will need to find acceptable detailed final access route alignments
- Additional groundwater studies are necessary to improve accuracy to of the groundwater model to understand interaction between groundwater and coastal seep wetlands
- Cut-off wall to prevent drawdown of groundwater affecting wetlands during construction
- Acquisition of properties on eastern side of site outside of current Eskom property up to the western boundary of The Links for dedicated wetland conservation

Slide 62



WAY FORWARD

- Comment Period – 6 March to 10 May (66 days)
- Public meetings and key stakeholder workshops will be held around the sites assessed from 23 March to 21 April. Minutes of meetings will be sent to attendees
- Comments received will be addressed in the Issues and Response Report in the Final EIR
- Final EIR will be submitted to the DEA for consideration and decision-making
- Final decision regarding EIA will be communicated to registered I&APs
- Construction of Nuclear-1 is subject to other approvals e.g. the NNR site safety decision and transmission lines EIA authorisations

Slide 63



WAY FORWARD

Written comments can be submitted by:

- Post: Public Participation Office, Nuclear 1 EIA, PO Box 503, Mtunzini, 3867, SA
- Fax: +27 (0) 35 340 2232
- Email: nuclear1@acerafrica.co.za

Slide 64



MEETING CONDUCT

- Please wait for the discussion session to ask questions
- Introduce yourselves prior to asking a question and indicate your specific interest
- You are welcome to ask the question in your mother tongue. Presentations will be in English
- One person at a time
- Work through the facilitator
- Show respect
- Focus on the issue not the person
- Be constructive
- Agree to disagree

**Please switch
off all cell
phones!**

Slide 65



THANK YOU

Slide 66

Nuclear-1 EIA

Key Stakeholder Workshop

Presentation

SOCIAL IMPACT ASSESSMENT

May 2010

Slide 1 

Study Approach

A mixed quantitative and qualitative methodological approach including:

- A desk-top study
- Telephonic, focus groups and individual consultation with stakeholders. A first round of consultation was conducted during May 2009 – August 2009 followed up by a additional process of consultation from September 2009 to November 2009
- Information from other specialist studies

Slide 2 

Experience

- 25 Years involved in social development
- Team members include:
 - Willie Oosthuizen from Jeffrey's Bay
 - Maretha Jordaan
- Special support from Dr Neville Bews

Slide 3 

Positive Social Impacts

- Creation of employment opportunities
- Business opportunities.

Slide 4 

Negative Social Impacts

- Accommodation of staff and construction workers;
- Influx of job seekers;
- Impact on criminal activities;
- Risk of STDs, HIV and AIDS;
- Municipal services;
- Impact on social infrastructure and facilities;
- Future land use planning;
- Impact on sense of place;

Slide 5 

Negative Social Impacts

- Visual impacts;
- Traffic impacts;
- Noise and dust impact;
- Loss of employment after construction;
- Perceived risks associated with nuclear incidents

Slide 6 

Optimisation Measures

- Open tender processes and registering local service providers on Eskom's procurement database;
- Provide information regarding the types of business opportunities and economic spin-offs;
- Clear targets for BEE & local procurement;
- Basic business and entrepreneurial skills as part of a skills development component;

Slide 7 


Optimisation Measures

- The appointment of local labour should be a priority issue, with clear targets during the pre-construction phase;
- An employment/skills registration agency or 'labour desk' should be established;
- A labour skills, grading and assessment centre should be established.

Slide 8 


Key Mitigation Measures

- A proactive, broad-based information campaign;
- Make use of local labour and local suppliers of material as far as possible;
- Ensure that all discarded construction material that can be utilised to build informal structures, is properly disposed of after construction;

Slide 9 


Key Mitigation Measures

- Provision of sufficient accommodation;
- Cooperate with local authorities to ensure that all legislation preventing illegal settlement, is enforced at all times;
- Establish a Community Monitoring Committee;
- Design and implement an STD, HIV and AIDS awareness and prevention campaign

Slide 10 

Key Mitigation Measures


- Ensure sufficient services such as water, sanitation, roads, waste and refuse removal;
- Optimise vehicular movement during the construction phase and minimize traffic congestion problems in the area;
- Introduce training initiatives aimed at up-skilling, particularly unskilled and semi-skilled workers

Slide 11 

Key Mitigation Measures

Ensure sufficient –

- Medical facilities for growth in population;
- Law enforcement services for growth in population;
- School facilities for growth in learner population;
- Adequate sport facilities.

Slide 12 

Key Mitigation Measures

- Follow a transparent public participation process with role-players and interested and affected parties regarding future planning and land use needs;
- Ensure that communities receive correct and reliable information regarding the real and perceived risks of nuclear power.



Nuclear-1 EIA

THYSPUNT

KEY FOCUS GROUP WORKSHOP

25 MAY 2010

Traffic & Transportation



Nuclear-1 EIA

THYSPUNT

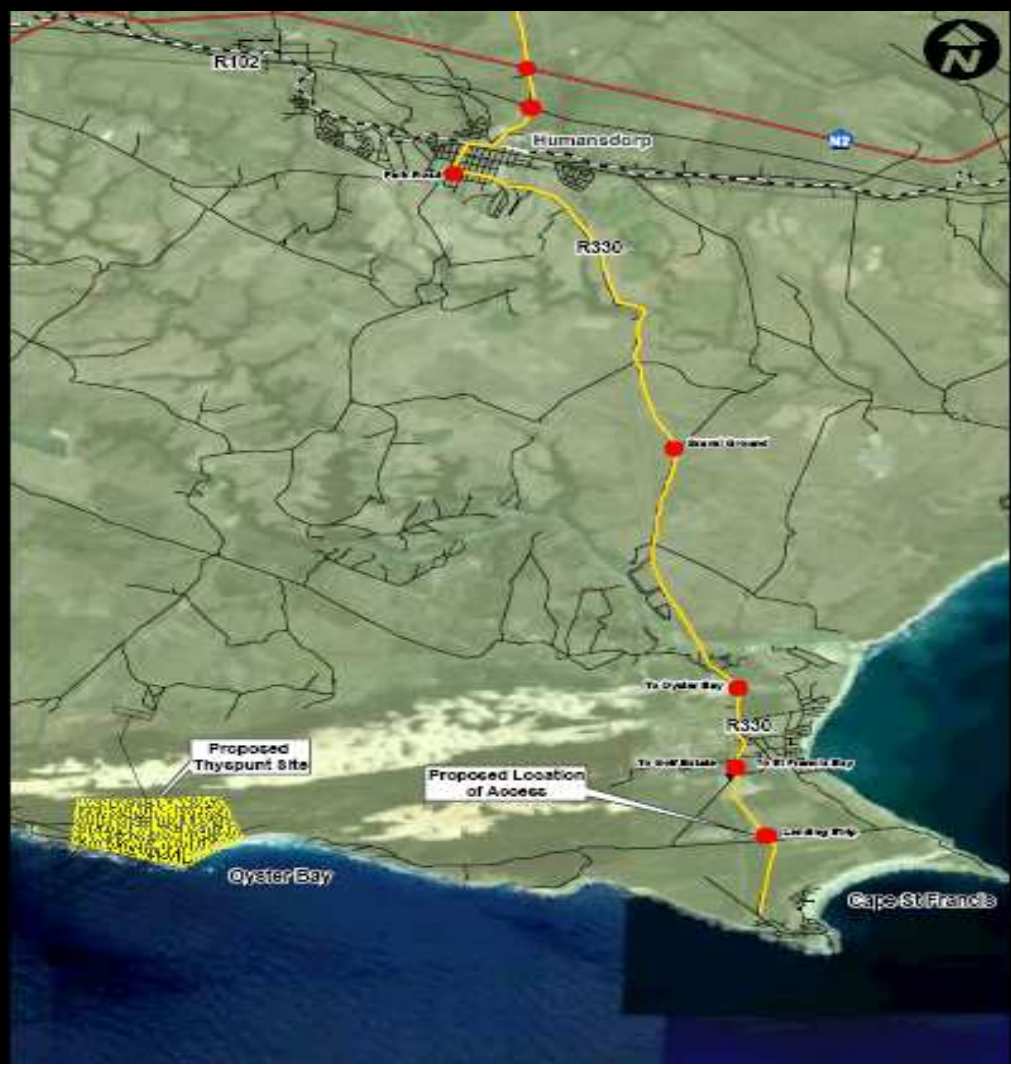
Status Quo Assessment

- Assess existing road & public transport



THYSPUNT

Location of Intersections surveyed



THYSPUNT

Intersections Surveyed and Analysed

2008 Background traffic and 2018 Background Traffic analysed (2% per annum growth)

- R330/Main Access Rd
- R330/St Francis Access Rd
- R330/Oyster Bay Access Rd
- R330/Gravel Rd
- Park Rd/Main St
- Main St/Humansdorp Access Rd
- Main St/N2 South Off-Ramp
- Main St/N2 North Off-Ramp

All intersections are Level of Service A or B – no upgrades required
Poor public transport services



Nuclear-1 EIA

THYSPUNT

Construction Phase Impact Assessment

- Nature of activity
- Trips generated
- Distribute trips on transport network
- Capacity analysis
- Mitigate impacts



THYSPUNT

Staffing

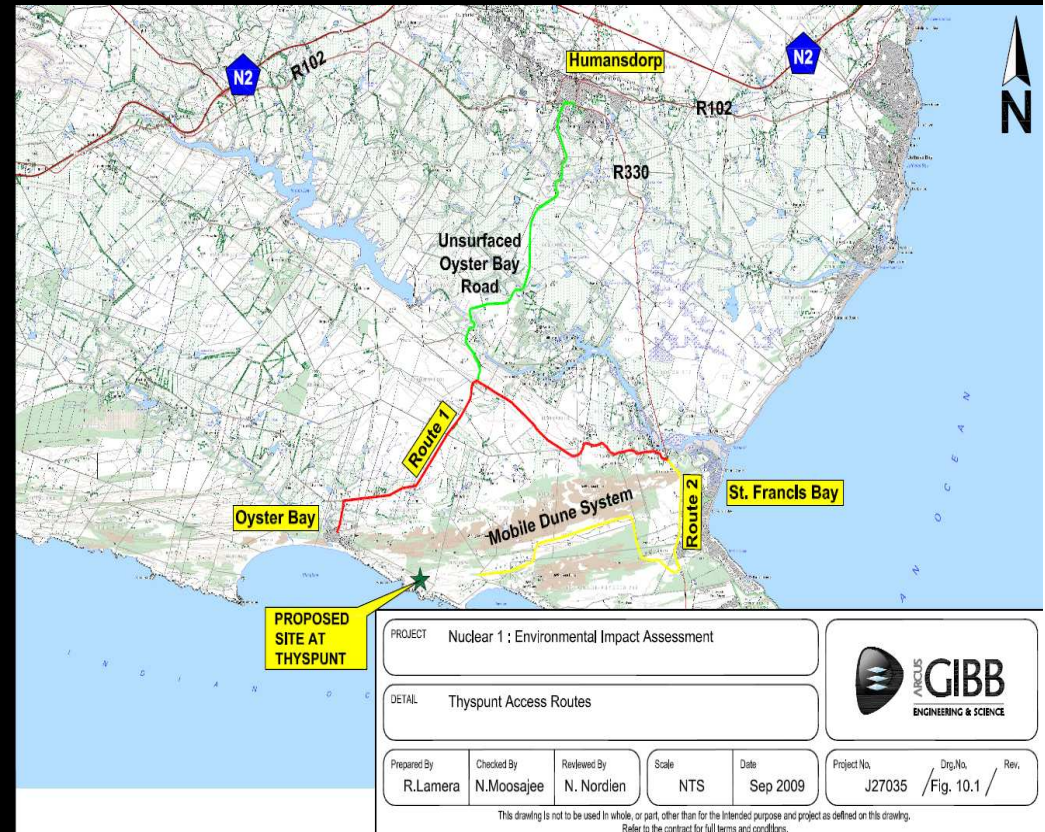
- Approximately 5 000 construction staff
- 2 000 Vendor staff
- 1 300 Operational Eskom staff
- 250 Eskom project staff



THYSPUNT

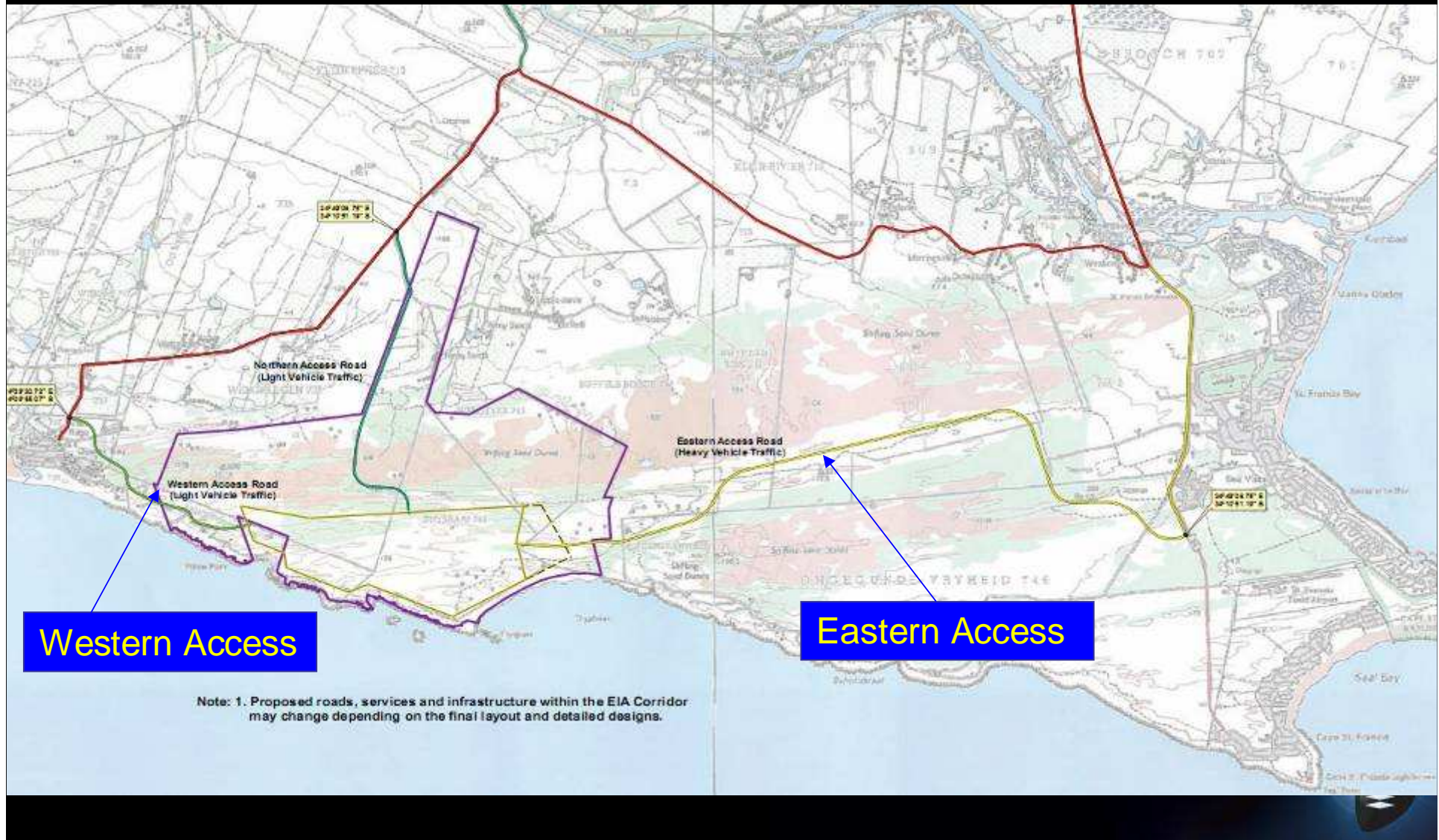
Construction Access Routes

- Route 1 – unsurfaced Oyster Bay Rd & Western Access (to be upgraded)
- Route 2 – (new surfaced road from R330) – R330 & Eastern Access (upgrade)
- Proposed -Route 1 for commuter construction traffic (bus & private car)
- Proposed – Route 2 light construction, heavy and exceptionally heavy (Section through Humansdorp – High Impact); R330 structural assessment



THYSPUNT

Construction Access Routes



THYSPUNT

Construction Access Routes

Humansdorp Main Road – High Impact (Reroute)



THYSPUNT

Estimated Construction Traffic Flows

	Bus	Car	Light Const	Heavy 10-100t	Ultra Heavy >100t	TOTAL
	One way/day	One way/day	One way/day	One way/day	/annum	
Western Access (Route 1)	85	380				465
Eastern Access (Route 2)		200	150	20	13	380

Peak in Year 6



THYSPUNT (Construction Mitigation Measures)

Road Upgrades

- Upgrade and surface Oyster Bay Road
- Construct Eastern Access Road
- Construct Western Access Road
- R330 pavement life assessment to be completed

Routing

- Alternative routing through Humansdorp

Intersections Analysis (2013)

- | | |
|--------------------------------|------------------------|
| • R330/Main Access Rd | (LOS F – upgrade) |
| • R330/St Francis Access Rd | (LOS F – upgrade) |
| • R330/Oyster Bay Access Road | (LOS A-D – no upgrade) |
| • R330/Gravel Rd | (LOS A-C – no upgrade) |
| • Park Rd/Main St | (LOS F – upgrade) |
| • Main St/Humansdorp Access Rd | (LOS A-D – no upgrade) |
| • Main St/N2 South Off-Ramp | (LOS A-B) |
| • Main St/N2 North Off-Ramp | (LOS A-C) |

Public Transport

- Dedicated bus service for construction workers



THYSPUNT

Exceptionally Heavy Load Route

Detailed infrastructure assessment



Nuclear-1 EIA

THYSPUNT Operational Phase Assessment

Traffic & Transportation



THYSPUNT

Staffing

- Approximately 1 300 staff
- 80% Day shift
- 20% on three Shift
- Modal Split: 70% Private, 20% minibus taxis, 10% bus



THYSPUNT

Intersections Analysis (2018)

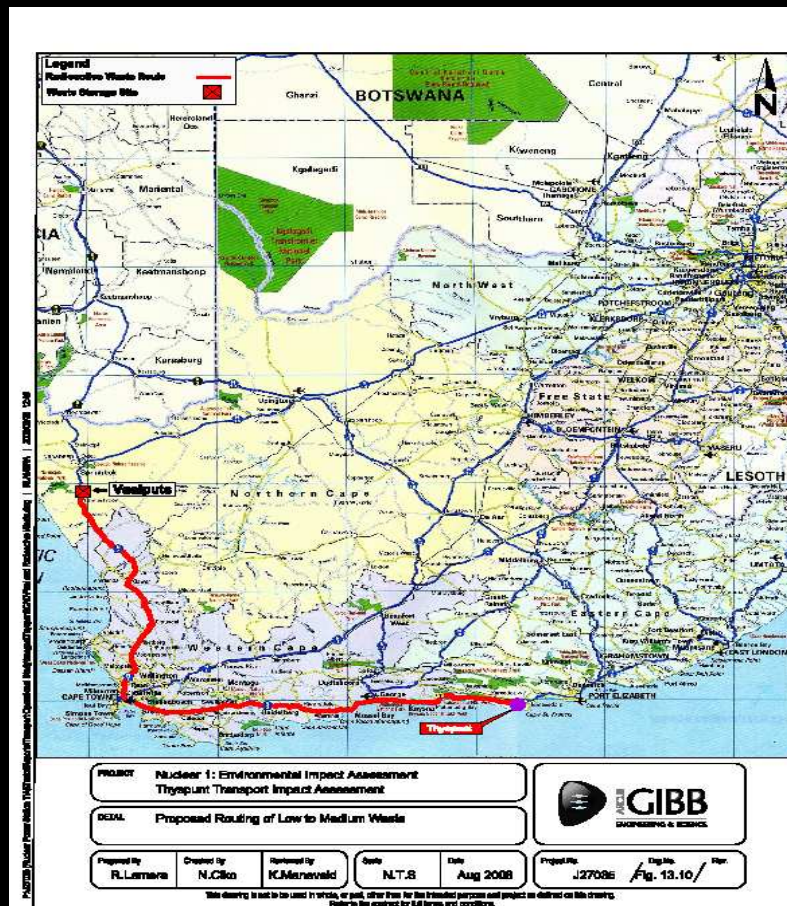
- R330/Main Access Rd (LOS A-B)
- R330/St Francis Access Rd (LOS A-B)
- R330/Oyster Bay Access Road (LOS A-C)
- R330/Gravel Rd (LOS A-B)
- Park Rd/Main St (LOS A-B)
- Main St/Jeffrey's Bay Access Rd (LOS A-C)
- Main St/N2 South Off-Ramp (LOS A-B)
- Main St/N2 North Off-Ramp (LOS A-B)

No upgrades required for operational phase



THYSPUNT

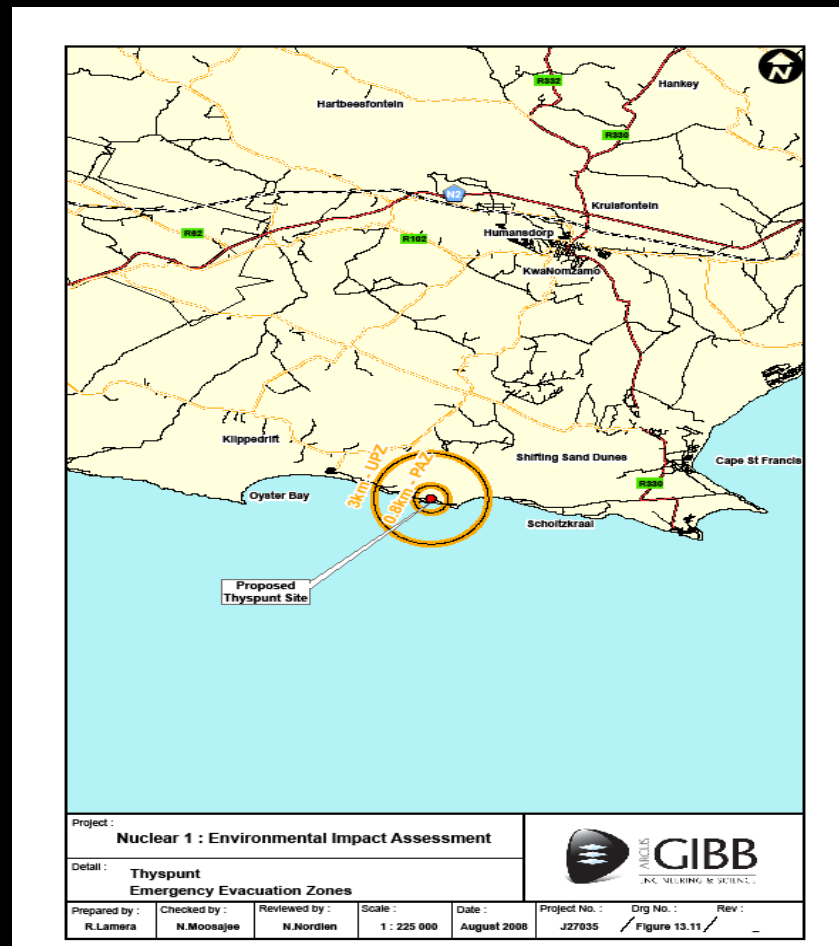
Low to medium Waste Route to Vaalputs
(2-4 shipments a week)



THYSPUNT

Emergency Evacuation

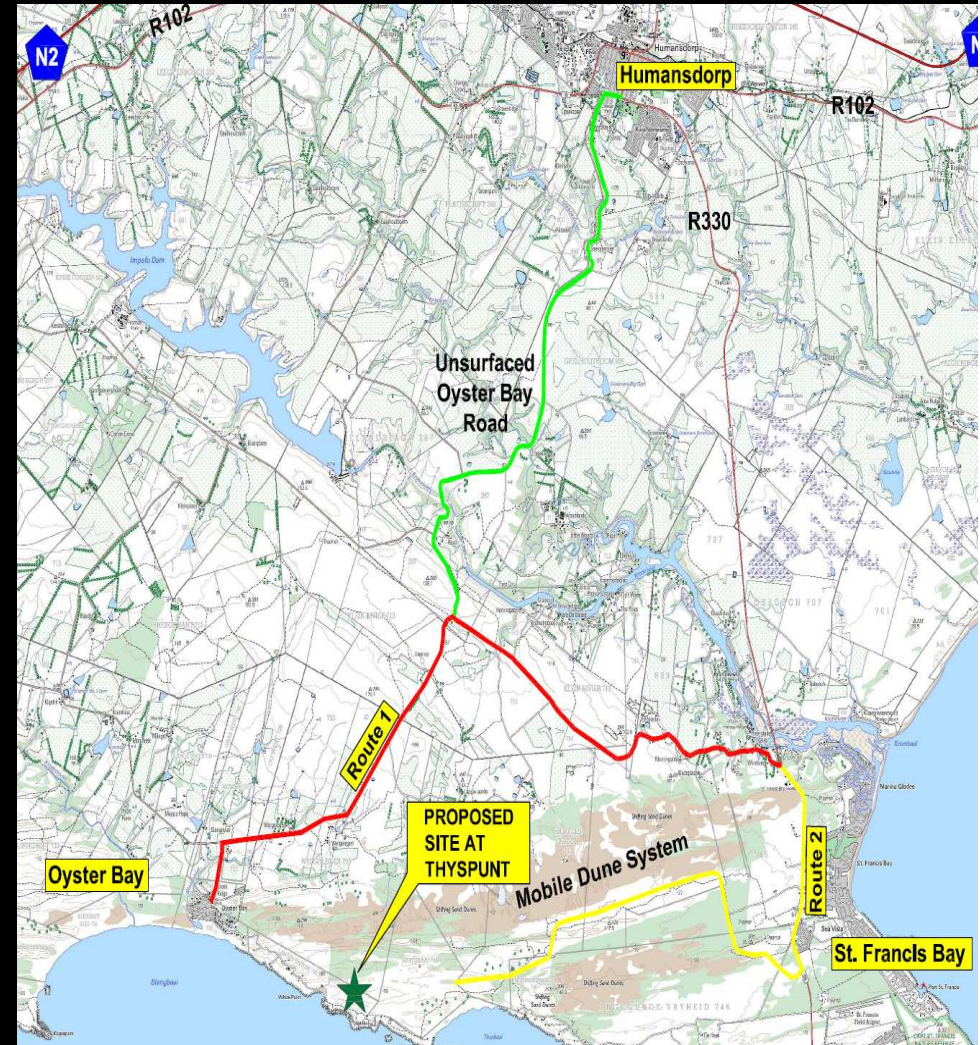
- Sufficient road capacity to evacuate
- Detailed Emergency Evacuation Plan to be developed



Key Transport Study findings

Thyspunt:

- Construction traffic require significant road upgrading
- Western & Eastern Access Rds to be constructed
- Construction traffic use two routes (Eastern – heavy, ultra heavy, construction light; Western - construction staff, partial Eskom staff)
- Humansdorp Main Rd – High Impact - rerouting
- R330 pavement assessment
- Ultra heavy loads detailed investigation
- Good access to PE harbour
- Cross-country routing of low and medium waste to Vaalputs



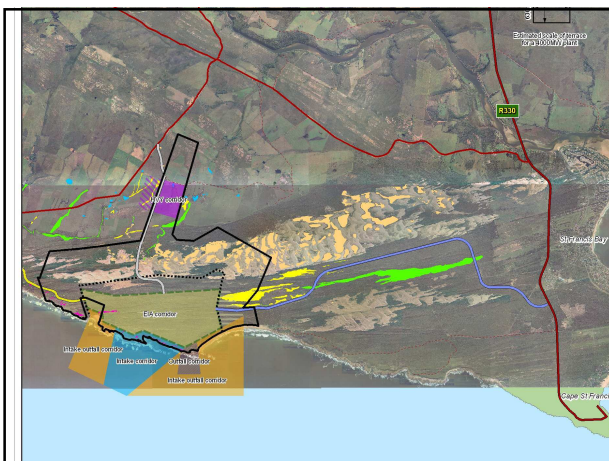
Implications of the proposed Nuclear-1 development

Slide 5

- Impacts associated with the **development platforms** (HV yard and Nuclear plant)
- Impacts related to **infrastructure**

[Major impacts highlighted only]

Slide 6



Major impacts that would be associated with the **development platforms**

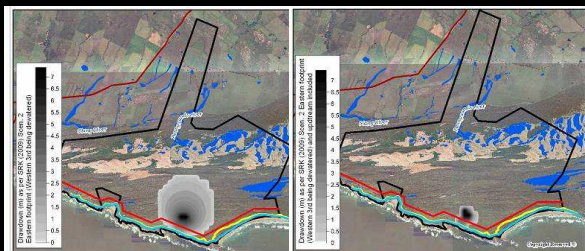
- Impacts associated with dewatering
- Impacts associated with transport and storage of spoil
- Impacts associated with increased disturbance at a site level

Slide 8

Dewatering impacts:

Modelled draw-down scenarios (after SRK 2009)

Impact would affect coastal seeps and potentially the Langefonteinvlei



Slide 9

Additional information needed to inform mitigation design for addressing draw-down impacts

- Quantification of wetland hydrology to establish critical wetland / groundwater thresholds
- Refinement of drawdown model based on accurate location options and sizing of the selected Nuclear-1
- Use of membrane or other technology to reduce draw-down effect

Monitoring programme currently underway to inform these issues

Slide 10

Mitigation measures would include:

- Establishment of effective setback areas that take cognisance of surface and subsurface processes, based on new data
- Design of measures to allow artificial recharge of remnant coastal seeps

Slide 11


Options for the transport and storage of spoil

- Transport of spoil over mobile dune associated with high, largely unmitigable impacts:
 - Disturbance and degradation of wetlands and associated dune systems
- Transport to St Francis Bay as piped slurry potentially mitigable
- Marine disposal

Slide 12


Major impacts that would be associated with infrastructure

- Impacts associated with transmission lines (within the site)
- Impacts associated with access roads (within and to the site)

Slide 13 


Impacts associated with the proposed transmission lines

- East-west physical fragmentation of interconnected terrestrial / wetland ecosystems
- Localised disturbance during construction
- Persistent degradation resulting from maintenance roads

Slide 14 


Mitigation against transmission line impacts

- Partial re-alignment
- Selection of least impacting pylon configurations
- No maintenance roads through mobile dunes


Slide 15 

Impacts associated with the proposed access routes

- 3 routes initially assessed
- Mitigation measures generally need to address:
 - Fragmentation at the level of the dune system and the site
 - Hydrological connectivity and impacts
 - Changes in flow patterns within and between wetlands
 - Degradation through ongoing disturbance
 - Changes in dune dynamics (????)

Slide 16 

The End

Slide 25 

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA: 12/12/20/944

**FOR THE PROPOSED ESKOM NUCLEAR POWER STATION AND
ASSOCIATED INFRASTRUCTURE**

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

KEY FOCUS GROUP MEETING WITH SPECIALISTS

ST FRANCIS LINKS GOLF ESTATE, ST FRANCIS BAY

25 MAY 2010

09H30 – 16H00

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PREFACE

Should participants who attended the meeting require any changes to these proceedings, please notify the Public Participation Office in writing within 14 days of receipt.

“Unidentified I&APs” refer largely to persons who attended the meeting and verbally raised issues without providing their names. This in no way diminishes the value of the issue raised. Should you recognise your input and would like to have your name recorded next to it, please advise the Public Participation Office.

1. ATTENDANCE

1.1. Attendance – Interested and Affected Parties

- As per attendance list.

1.2 Attendance – Eskom Holdings Limited

Name	Position/Role
Ms Deidre Herbst	Senior Manager – Environment Generation Division
Mr Gert Greeff	Manager - Nuclear Sites
Mr Mervin Theron	Manager - Regulatory Affairs and Localisation, Nuclear Division
Ms Carin de Villiers	Manager - Stakeholder Management and Communication, Nuclear Division
Ms Lorraine Ndala	Environmental Advisor - Environment Generation Division
Mr Jan Norman	Manager – Nuclear-1 Operations
Mr Jan Breytenbach	Acting Manager – Nuclear-1 EIA Project

1.3 Attendance – Specialists

Name	Specialist Study/Discipline
Prof Charles Griffiths	Marine Assessment
Mr Jon Howcroft	Agricultural Assessment
Mr Yusry Frizlar	Traffic and Transportation Assessment
Mr Alewyn Dippenaar Dr Neville Bews	Social Impact Assessment
Mr Peter Rosewarne	Geohydrology Assessment
Dr Liz Day	Freshwater Ecology Assessment
Dr Werner Illenberger	Dune Geomorphology Assessment

1.4 Attendance – Environmental Consulting Team

Name	Organisation	Role in the EIA
Ms Jaana-Maria Ball	Arcus GIBB (Pty) Ltd	Project Manager
Mr Reuben Heydenrych	Arcus GIBB (Pty) Ltd	Senior Environmental Scientist
Ms Bongzi Shinga	ACER (Africa)	Public Participation Consultant
Ms Karin Bowler	Karin Bowler Enterprises	Facilitator

2. WELCOME, INTRODUCTIONS AND MEETING OBJECTIVES

The facilitator, Ms Karin Bowler, welcomed everyone to the meeting. She explained that during the last round of meetings held during March and April 2010, it became clear that many of the

people present at the various meetings had pressing issues in terms of the various specialist studies. It was agreed with the environmental consultant that they would arrange for meetings with the relevant specialists. There were approximately 27 different specialists who contributed to the Draft Environmental Impact Report (EIR). It would be impossible to have all of these specialists attend a meeting. The environmental team, therefore, examined the Issues and Response Reports (IRRs) and the proceedings from the previous meetings and identified which of the specialists would be relevant to this particular area.

3. FORMAT OF MEETING

The format of the meeting is therefore to serve the objective to allow the specialists to respond to queries raised by stakeholders. There were strict timeframes set for the meeting, the specialists have been asked to do a 15-minute presentation in which an overview of approach and methodology and key findings and recommendations will be presented. After the presentation there will be 60 minutes allowed for discussion. The specialist studies to be presented would be: Marine Ecology Assessment; Agricultural Assessment; Traffic and Transport Assessment; Social Impact Assessment; Geohydrology Assessment; Freshwater Ecology Assessment and Dune Geomorphology Assessment. The facilitator asked that if there were any social issues that arose from the specialist studies that need to be integrated into the Social Impact Assessment, they would be 'parked' and then integrated at a later stage.

The agreed format of meeting with stakeholders was that each specialist will do a 15 minute presentation and then a 30 minute discussion (questions and responses) be allowed after each presentation.

3.1 Matters arising

No	Name	Comment	Response
1	Ms Trudi Malan Cape St Francis Civics and Thyspunt Alliance	Ms Malan raised an objection that the minutes of the previous meetings were only received that morning (25 May 2010) on email. This makes it difficult to comment.	The facilitator confirmed that she received the minutes early that morning. She however requested that the meeting continue and administration related issues be addressed separately as comment period for both the minutes of the meetings and the Draft EIR is still open. She added that everyone was aware of the issues that had been raised regarding the specialist studies. She asked that comment regarding the EIA process be submitted in writing to ACER Africa and if there are errors in the minutes of the public and key stakeholder meetings that all corrections be submitted to ACER within 14 days of receipt of the minutes. However, today the focus is on issues relating to the independent specialist studies.

No	Name	Comment	Response
2	Mr Chris Barratt St Francis Kromme Trust	Mr Barratt noted that the facilitator had taken 20 minutes with the introductions. He asked for confirmation that there would be time under the 'Way Forward' to discuss the 'way forward' and not be told that there will be discussion.	The facilitator confirmed that there would be time for discussion regarding the 'way forward' in the Way Forward section of the meeting.

The facilitator explained that the meeting is being recorded and she asked everyone to identify themselves and/or their organisation before raising their issues.

3.2 Introduction of team, specialists and Eskom representatives

The facilitator introduced the environmental team, the specialists and the Eskom representatives as per Sections 1.2 to 1.4.

4. SPECIALIST PRESENTATIONS AND DISCUSSION

Specialists presented the following assessments:

No	Assessment	Specialist
1	Marine Ecology Assessment	Prof Charles Griffiths
2	Agricultural Assessment	Mr Jon Howcroft
3	Traffic and Transportation Assessment	Mr Yusry Frizlar
4	Social Impact Assessment	Mr Alewijn Dippenaar and Dr Neville Bews
5	Geohydrology Assessment	Mr Peter Rosewarne
6	Freshwater Ecology Assessment	Dr Liz Day
7	Dune Geomorphology Assessment	Dr Werner Illinberger

Presentations can be emailed to participants upon request from ACER. Alternatively, can be downloaded on the EIA websites (www.eskom.co.za and <http://projects.gibb.co.za>) under Nuclear 1 – Draft Environmental Impact Report

5. ISSUES AND COMMENTS RAISED AND DISCUSSED

This section details all issues, comments and concerns, which were raised and discussed at the meeting after each presentation. Should you wish to make any corrections, please advise ACER within two weeks (14 days) of receiving these minutes.

5.1 RECORD OF ISSUES RAISED AND DISCUSSED

MARINE ECOLOGY ASSESSMENT SPECIALIST			
1	<p>Mr Greg Christy SA Squid Management Industrial Association</p>	<p>Mr Christy said that his organisation has joined the process in the latter stages. He had read the Executive Summary and was shocked to note that there was no mention of the squid industry.</p> <p>He asked if the professor had consulted any specialists in the squid industry, particularly those who work with the squid resource.</p> <p>He asked if the professor was aware that there is a Squid Scientific Working Group that deals specifically with the species. He does not recall any recognition of the environmental effects of the activity that is going to be done on site.</p> <p>He would like it minuted that they are concerned that there is a specific scientific working group that deals with the squid industry and yet at no stage was there any consultation with this group.</p> <p>He went on to say that there are contradictions that appear in the report. He asked at what depth the building spoil would flow into the ocean from the outflow pipe.</p> <p>Mr Christy said that within the same report, on page 36, it is mentioned that it was going to be a 27 m trench and that it will flow out at a 5m depth. Whereas on page 42 it says that it will be a few kilometres out at a depth of 30 m. As the Squid industry these</p>	<p>Prof Griffiths said that he had not personally consulted with any of these specialists as Dr Tammy Robertson had compiled that section of the report. He had however, read publications of various specialists.</p> <p>The professor said that he is not a member of the Squid Scientific Working Group, but is aware of its existence.</p> <p>Prof Griffiths said that his recollection is that it is 25m. (Please see post meeting note)</p> <p>Ms Ball said that the specialists make recommendations in terms of minimising and/ or avoiding potential environmental impacts. This recommendation then is written up as a recommendation in the EIR and hopefully becomes one of the recommendations taken up by the Department of Environmental</p>

MARINE ECOLOGY ASSESSMENT SPECIALIST	
	<p>figures are important.</p> <p>Ms Malan then added that on page 26 it stated that it will be located at more than 50 m. (Quoted from Marine Specialist Report).</p> <p>Mr Christy then asked about the sediment that is going to be pumped out and then over a period of 10 years it is going to create sediment spoil of between 5 and 10 cm on the bottom of the ocean. This would occur within 10 km of the outfall pipe. He asked if this is what is going to happen because the specialist had stated that it would be localised.</p> <p>Mr Christy asked if this sediment layer is similar to the bottom strata that is there at present or is it a completely different strata.</p> <p>He noted that turbidity is one of the main factors in the abundance and availability to capture the squid.</p> <p>He noted that the study implies that this development</p>
	<p>Affairs (DEA) in their Authorisation, if positive. This recommendation would then become a legally binding condition that Eskom, the appointed engineers, the vendors and the contractor would have to comply with.</p> <p>Ms Ball asked that stakeholders supply details in writing and these figures will be checked and added as a post-meeting note.</p> <p>Post-meeting note: The Marine Specialist confirmed that the building spoil would flow into the ocean from the outflow pipe at a depth of 50 m and at Thyspunt it will be at a distance of 1.2 - 1.4km offshore.</p> <p>Prof Griffiths explained that it would be pumped out from a pipe. Initially at a deeper layer over a smaller area, but because of marine currents and wave action it will spread out over a period of time. It should therefore go from being a relatively deep sedimentary layer over a relatively small area, to being a shallower sediment layer over a larger area over a period of time.</p> <p>Prof Griffiths explained that it would be sand from the site so therefore it should be similar in composition to the sand on site. It will be coastal sand on marine sand.</p> <p>Prof Griffiths replied that he had not claimed that there would be no effect. He had said that although there would be an effect it would be a low percentage of the total squid spawning grounds. The exact spawning grounds were not mapped in detail. He said that they do not know, if the spawning ground is removed,</p>

MARINE ECOLOGY ASSESSMENT SPECIALIST

		<p>will not affect the squid industry. However, the bottom strata is being changed, this is where the egg-beds are, and squid do not randomly put their egg-beds wherever there is a sandy bottom. They use a very specific place. He asked if the study has mapped out the exact squid egg-beds, because historically they come back to the same area every year to spawn.</p> <p>Mr Christy noted that 32% of the industry catch is in the affected area. In the economic report (not sure if the Marine Specialist worked together with the Economist), it is stated that there will only be a 1 km zone therefore the percentage is very small. This is not the case as 32% of the catch is caught in that specific area. He said he was shocked that his does not appear in the Executive Summary, is fobbed off in the economic report where it is dwindled down to 1.8%. The Squid Industry rejects this. Prof Griffiths states that the sediment will be there, the food will be affected by the cold water as this is going to change, therefore the food will not be there. The bottom substrata for the squid to breed and lay their eggs is not going to be there, and yet it is stated that there will be very little effect on the industry. The Squid Industry has a problem with the findings of the study.</p> <p>Mr Christy replied that the industry does have maps and there are studies that have been conducted and everything is available. This area of the coast is the centre of the squid industry. This fishery extends from Plettenberg Bay to East London but this area between the Kromme Bay and Oyster Bay and Jeffrey's Bay is there all year round. This takes it from being a</p>	<p>whether they will in fact move to another spawning ground, or whether they will fail to spawn. (Post meeting note: the 1km exclusion zone is a security zone out to sea and has yet to be determined. This zone is based on the Koeberg set up which has a intake basin which is not proposed for the Thuyspunt site)</p> <p>The facilitator asked Mr Christy if he had specific maps on the spawning.</p> <p>The facilitator said that one of the things that she would like to 'park' for the social specialist is in terms of understanding the regional and the national and international economic ramifications, because this would have a potential social and economic impact.</p> <p>Prof Griffiths responded that if Mr Christy has additional data, he would be happy to incorporate this into his report. He asked that it be borne in mind that all marine impacts are being examined over a variety of different sites. Once a site is chosen it would be appropriate to make sure that all the information</p>
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MARINE ECOLOGY ASSESSMENT SPECIALIST	
	<p>seasonal industry to being a permanent full-time employment industry. If some of these areas are closed this will mean that they might in the month of December be able to catch fish in Plettenberg Bay, they might catch in East London but consistently, this is the area where they catch the squid.</p> <p>Mr Christy undertook to forward to Prof Griffiths all the information available. He however mentioned that they would have preferred it if all information was incorporated before it was pronounced that Thyspunt is the preferred site.</p> <p>He added that as an industry, they feel that the specialist report has fallen short, both biologically and environmentally, particularly with regard to the squid industry. He feels that the main driving force in choosing a site should be the economic factors and the socio-economic impact.</p>
	<p>available be incorporated into the final report.</p> <p><u>Post-meeting note:</u> Comment from Dr. T Robinson (Marine Specialist)</p> <p>As marine scientists considering marine ecology impacts associated with the proposed Nuclear-1 development we are required to base any assessment on published and peer reviewed information. As such, our report to date has not included meetings or interviews with community leaders or role players. Any knock-on impacts from marine ecology affecting people (e.g. how chokka fisherman will be affected) are in fact not in our area of expertise and fall within the economic specialist study.</p> <p>Following the Focus Group Meetings, Professor Griffiths has made contact with Mr. Greg Christy who has unpublished information from the Chokka Fishing Association, which may assist our revised report. Once Professor Griffiths has received this information we will be in a position to assess it and, if it is suitable, include it in our assessment.</p> <p>With the greatest respect for the fisherman and other interested and affected parties, for us to do our job properly, we need to base our assessment on hard science and fact. By remaining impartial to the desires of the developer and emotions, needs and wants of affected parties we can best provide a rigorous assessment which accurately reflects the potential impacts on the marine environment. It is thus not out of disregard for them that we have not contacted them, but purely a reflection of us trying to provide an objective report based on the most</p>

MARINE ECOLOGY ASSESSMENT SPECIALIST			
			scientifically sound information available.
2	Mr Ryan Donnelly FAST	<p>Mr Donnelly enquired about the desalination plant. He asked what exactly is the brine and how it would affect the marine/sea life.</p> <p>Mr Donnelly asked if there are any chemicals that come out with the brine.</p> <p>He also asked about the hot water that will also come out, what sort of treatment measures are done to the cooling system. Is there such a thing as chlorinated water?</p> <p>Mr Donnelly asked if this has been assessed.</p>	<p>Prof Griffiths replied that the composition of the brine is in the marine specialist report and is about 1.5 times the concentration of normal seawater. It will therefore be heavier than seawater and will flow out of the pipe along the bottom of the sea floor. The wave action will mix the brine into the water column. The marine organisms do not like this highly saline water. In the immediate vicinity of the pipe there will probably be some mortality of but this was not a significant environmental impact.</p> <p><u>Post-Meeting note: Comment from Professor Griffiths (Marine Specialist): It is very difficult to specify exactly the distance from the pipe. The impact of the brine and the physical area of the impact will be dependant on the wave action and the sea current at a specific point in time. This will determine the extent of the impact however in general the impact will occur over a radius hundreds of metres from the pipe and not as far as kilometres from the pipe. In terms of mortality, if the salinity is equal to or exceeds 1.5 times the salinity of the surrounding sea water very few marine organisms will survive.</u></p> <p>Prof Griffiths replied that it is just concentrated sea water, it is salt with no added chemicals.</p> <p>Prof Griffiths said that the water that is routed through the cooling system of the plant is chlorinated by electrolysis so the chlorine that is in the seawater is utilised and this is what emerges and returns to sodium chloride in the seawater afterwards.</p> <p>Prof Griffiths said that it has been assessed in terms of what is</p>

MARINE ECOLOGY ASSESSMENT SPECIALIST			
			happening at the Koeberg Nuclear Power Station and the team from the University of Cape Town had been monitoring mortality in the vicinity of the Koeberg outfall since the plant had been constructed (i.e. 26 years).
3	Mr Helmie Tilders FOSTER	<p>Mr Tilders said that he had a comment as he has been tasked to assess the economic report, which gets its information to do with the squid industry from the marine report. If the economics of this area are examined, the squid industry plays a huge role. It employs about 4,000 people, it has an income of half a billion to a billion rand per month. Yet, the squid industry is fobbed off in the marine report that is sorely lacking and never went into any detail of the squid industry.</p> <p>He wanted this comment to be minuted.</p>	<p>The facilitator said that the social scientist would answer this question as far as they can and if they cannot, the issue would have to be dealt with in the economic study as part of the process.</p> <p>Post-meeting note: The Economic Assessment (Appendix E17 of the Draft EIR) reports that over the last 20 years the annual catch has ranged between 2 000 and 14 000 tons in the Eastern Cape with an average of 7 000 tons. The Port St. Francis-based companies average about 1 000 tons per annum. Squid is the most viable fishing industry in the area, almost the entire catch being exported to the European Union at an average price of about €7/kg.</p>
4	Dr Fred Ellery Rhodes University	<p>Dr Ellery asked a follow up question on the squid spawning area. Wind is a good sorter of sediment as it pulls out fine sediment from the sediment that is being transported by long shore drift along the coastline. And if by pulling the fine sediment out at Oyster Bay and transferring it across the headland, as a headland-bypass dunefield, so what happens is that the region between Oyster Bay and the Kromme River is a region where the sediment is coarser than the surrounding areas. For that reason, he suspects that the squid are spawning in that area. What is going to happen is that the fine sediment will be re-produced back into the system and it is going to therefore have a major impact on the potential of those squid to spawn. This needs to be carefully considered.</p>	<p>Prof Griffiths said that they would be interested to incorporate this information into the study.</p>

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5	Dr Warwick Sauer Rebels Rus Nature Reserve	Dr Sauer noted that there was a lot of species – fish and shark species both on-shore and off-shore, they are very resident species. He asked if the study had examined the impacts of both construction phase and the on-going operational phase in terms of these resident species.	Prof Griffiths stated that there are resident species on the reef that will be affected. Re-colonisation will take place over a period of time. These environmental impacts on the reef system, the dumping of the spoil and the saline water are impacts, which will take place during the construction phase. The construction phase of the plant is 8 or 9 years. After this phase there will be recovery from these impacts, and he anticipates that there will be re-colonisation as has been seen when marine protected areas have been declared, they are rapidly re-colonised. This might take a period of a decade.
6	Ms Donna Jooste-Coetsee Nature's Calling	Ms Jooste-Coetsee asked how the re-colonisation could take place once the power plant is operational, with the resultant heated water.	Prof Griffiths said that that there would not be changes during operation but during construction there would be due to the dumping of spoil. There will be emission of desalinated water which will have a higher salinity (brine). During the operational phase all that will take place is that warm seawater will be pumped into the ocean and that warm seawater is less dense than the surrounding seawater so it will float to the surface and will dissipate. It is then mixed with the surface water within a distance of one or two kilometres (at the Koeberg Nuclear Power Station it is less than a kilometre). Animals that live on the reef during the operational phase should not come into contact with this warm seawater.
7	Mr Chris Barratt St Francis Kromme Trust	Mr Barratt asked Professor Griffiths where the pipe that will discharge the spoil is to be situated and what consideration was given to the damage that the laying of that pipe will have.	Prof Griffiths stated that the engineering drawings have the location of the pipe and he believes that there will be 5 or 6 pipes that will go out and have fuser heads on the top of them. The outfall will not take place at a single location. At the present Koeberg site the outfall is right on the beach. In this proposed situation the construction is quite different as a coffer dam will be built, the pipes laid and then the spoil from the coffer dam will be used to cover and bury the pipes. The pipes will have a series of risers on them and this will therefore be a dissipated outfall and not a point outfall. The risers will extend some metres above the sea floor.

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		<p>Mr Barratt stated that he was not referring to the water but to the sand discharge. The question was actually what cognisance has the specialist taken in the study of the damage that the laying of the pipe will have. He quoted from the consultants letter that the objectives of the meeting were an opportunity for stakeholders to comment on the findings of the specialists and the specialists to present them. It is therefore the specialists who must present and answer questions and not Ms Ball.</p> <p>Mr Barratt asked if he was then to deduce that there would be an additional specialist study undertaken.</p> <p>Mr Barratt said that he agreed and he would like the distance from the coast and the depth explained.</p>	<p>Ms Ball commented on the scope of work that the specialists were given. With respect to spoil, the specialist was asked to examine the alternatives of on- and off-shore spoiling of sand. There were no specifications supplied at that stage to specialists and they were requested to provide recommendations specific to their discipline regarding what are the preferred methods of disposing of the spoil in order for potential environmental impacts to be avoided or minimised. The Marine Specialist gave specific recommendations in terms of the pumping of spoil to sea, in terms of flow rates and distance of the pipeline from the shoreline.</p> <p>Prof Griffiths said that they were informed of what the volume of spoil would be but his team was not familiar with the engineering structure of the actual pipe.</p> <p>The facilitator asked Mr Barratt if she could park this question and during the next session ask someone from the technical side to explain the pipes.</p> <p>The pipe design will be determined based on the recommendation of the specialist studies and further exploration of technical parameters. This design will only be completed once the vender has been identified. Therefore, as is the case with EIA's recommendations are made by the specialists, the applicant and the vendor will be required to implement these recommendations.</p> <p><u>Post-meeting Note</u> No additional specialist study will be undertaken. However if any new, significant information comes to light the current study will be amended with the information and will</p>
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			be made available to the public and stakeholders for review.
10	Ms Trudi Malan Cape St Francis Civics and Thyspunt Alliance	Ms Malan stated that Prof Griffiths constantly refers to the fact that he is using Koeberg as the baseline study. Ms Malan feels that using Koeberg is like comparing squid with budgies. The values etc. from Koeberg cannot be used for various reasons. Several of the consultants have mentioned this – this is a completely different plant type, it is Generation 3, they are going to pump it out in tunnels. She went on to say that the professor has stated that the sea temperature will not be affected because of Koeberg experiences. The sea temperature in this area is higher, the possibility of the chlorination actually becoming toxic because of the heating and it is going into a heated environment. Prof Griffiths had also stated that because of global warming, everyone should pray for it now because it might cool the water in this area. She said she would like to use something from Prof Griffiths’ report, “although theoretically possible this however, is unsubstantiated.”	Prof Griffiths replied that the construction of the plant is different but that it is a useful comparison to examine what has happened at the Koeberg Nuclear Power Station since its construction and during operation. When the Koeberg Nuclear Power Station was being constructed, there were all sorts of newspaper stories and allegations about the huge impact that was expected to happen on the marine environment. None of these impacts have in fact taken place. The negative environmental impacts of the plant have turned out to be undetectable and even impacts, which are not negative such as the location of warmer water species occurring in the area has not happened. He agrees with Ms Malan that the construction of the plant is different but he feels that the experience of the construction of a nuclear plant should be used when looking through the environmental impacts. This is useful information.
11	Ms Donna Jooste-Coetsee Natures Calling	Ms Jooste-Coetsee noted that Prof Griffiths had said undetectable but there is a death rate of 28% phytoplankton and 43 - 68% zooplankton and the whole ecological chain of the sea starts with those two microorganisms. If that life is killed how many animals living off these organisms that are vital to our oceans will be affected? Ms Jooste-Coetsee said that 28% is more than one quarter.	Prof Griffiths said that they appear to be speaking at cross-purposes because obviously in the volume of water that is pumped through the power station these impacts take place. The impacts are 28% within the volume of water that moves through the station and not 100%. He went on to say that this is a limited volume of water and when that water is pumped back into the ocean - many cubic kilometres of ocean is passing through that area per day. In terms of the food chain, over the region, it is undetectable. He added that the lifecycle of these organisms is replaced

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		<p>Ms Jooste Coetsee said that eventually over time there would be a knock-on effect.</p>	<p>quickly – if you are talking about removal of phytoplankton/ zooplankton once a day then a quarter of the cells that were removed yesterday have now returned to a full complement.</p> <p>Prof Griffiths disagreed and said it would not have a knock-on effect as it was not an accumulative process. These are living cells, which are reproducing and generating themselves. There will be a small mortality rate from a small volume of water – the natural regeneration will replace that cell within a very short period.</p>
12	<p>Dr Peter Inman Coega Development Corporation</p>	<p>Dr Inman said that he has been building harbours for about 40 years in various parts of the world.. There are many power stations all over the world. There is a huge database of material which can be examined.</p> <p>Pipeline construction for undersea and submerged tube tunnels all have the same thing – there is dredging and disturbing. Dredging for a harbour – this has been done at Coega and it has been done off-shore. It is slightly different for Algoa Bay but investigate what has happened since.</p> <p>Re-colonisation normally is very quick, his organisation has placed aqua pods in the sea and the next day there will be something stuck to it. The sea normally re-colonises incredibly quickly, although he is not sure if the same would happen at Thyspunt as it is a unique environment, he has seen it in many places in different parts of the world.</p>	<p>Thank you for your comments.</p>
13	<p>Mr Ryan Donnelley FAST</p>	<p>Mr Donnelley said that it appears that a larger area rather than the localised area has been investigated in the assessment as far as the marine environment is concerned. He asked how Prof Griffiths had structured</p>	<p>Prof Griffiths explained that his task was to examine what impact this particular development would have on the wider area because any construction does cause local disruption. There cannot be a massive construction taking place without</p>

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		<p>his assessment as far as importance when it comes to the conclusion it has. If the localised area is compared to the rest of the world it is not going to show up, whereas if the localised area is the focus, the impacts are greater.</p> <p>If the area is compared to a larger body then of course the impact is reduced.</p> <p>He does not understand how this is now becoming a larger area that is being assessed. He thought the site and the area around the site was being assessed – meaning assessing a localised area.</p>	<p>some environmental impacts on the actual site. He was mostly concerned about any really endangered species on that site with special features which were not replicated in any other areas. Any development has an impact on the footprint of the area in which it is built.</p>
14	Mr Greg Christy SA Squid Management Industrial Association	<p>Mr Christy responded that the Coega dumping was taken and dumped on a muddy substrate. Here it is being dumped on pristine reef intermingled with sandy bottom, intermingled with the environment that is perfect for squid reproduction. With regard to the effects of the dumping in the Kouga area, there have been effects felt in the pelagic fishery and also in the squid fishery. These records are available.</p> <p>He then asked Dr Inman (Coega) if the spoil pumped out to sea or was it pumped on land during the Coega construction?</p>	<p>Prof Griffiths said he is more than happy to include all this type of information into his study.</p> <p>Dr Inman replied that it was not all pumped out to sea. Approximately 10³ m was pumped out to sea.</p>

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No	Name	Comment	Response
1	Mr John Elliott JAB Elliott Horticultural and Landscape Consultant	Mr Elliott stated that everyone is aware that most agricultural land has a set carrying capacity and in terms of the footprint, he thinks it is 35 hectares for the Thyspunt facility. That 35 hectares does not take in the	Ms Ball responded in terms of the footprint, it has been stated what the core reactor building footprint will be but it has always been said that associated infrastructure would be added to this. Roads and all the other associated

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No	Name	Comment	Response
		<p>size of the access road. The access road from St Francis Bay is approximately 10 km long and requires a 20 m wide road surface. The current road is 6 m, so there is a loss of 14 ha. That is a negative impact that was not even calculated in this process.</p> <p>From Cape St Francis to Humansdorp, this road will also be widened, this will result in more loss of agricultural land. The negative impact is therefore growing and was not quantified in this survey (from his understanding).</p> <p>In terms of the crossings, one cannot tell a cow and a farmer when the milk must be turned on and off. Eskom must be told when the trucks can run and when they cannot. There will be a few hundred cows crossing the road every day of the year.</p> <p>There is also loss of habitat in terms of fauna and flora where actual agriculture is not taking place, such as areas of fynbos. There will be a financial impact on the farmer who is losing land and there will be a great traffic effect and a timing effect for dairy farmers.</p>	<p>infrastructure has been assessed by all the specialists. They all received the same diagrams and cut-outs depicting their maximum footprint size.</p> <p>The facilitator said that at the previous evening's meeting Mr Elliott had mentioned the road reserve and does this mean that the vegetation in the road reserve will be maintained or disturbed.</p> <p>Ms Ball said that this would come out of the recommendations of the biophysical specialist reports, particularly the Flora Specialist Study. The detailed alignment of the road would have to be examined quite carefully.</p> <p>Mr Howcroft replied that in terms of the road, the existing servitudes will have to be investigated. The impact on the land will also need to be examined. The crossing of the animals is a valid point and must be mitigated with infrastructure such as underground crossings.</p> <p>The facilitator said that in terms of the road alignment and in terms of the moving of centre pivots, is there would be need to understand the issues and the process that Eskom may go through in terms of their negotiation process with the landowners. These issues will be dealt with by the Social Specialist.</p>
2	Ms Trudi Malan Cape St Francis Civics & Thyspunt Alliance	Ms Malan asked for an explanation on how the specialist had arrived at 10 – 15% positive impact on the agriculture. In the economic assessment there is an R18.7 negative. If the reason is that the farms will be more efficient, that can be done without the nuclear power station. She has spoken to Woodlands and they	Mr Harcourt explained that he had looked at this as a potential positive impact but this will be up to the farmers whether they take this opportunity or not.

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No	Name	Comment	Response
		<p>say they cannot increase their production even though there will be more people in the area. Woodlands do not sell to locals they sell on to the big companies and then this produce gets distributed country-wide.</p> <p>Ms Malan said that Mr Howcroft has put this as a positive in his study because he is assuming an increase but if he studies the dairy industry, this assumption is wrong. She further added that if there was a vegetable industry in this area, it might have been a positive, but in the dairy industry this would not be the case. In the study it looks as though the dairy industry is going to benefit by 10 – 15% and that is a huge increase and it is untrue.</p> <p>Ms Malan said that in the Executive Summary of the report, it is stated very clearly, the production in the area around Thyspunt would increase by 10 – 15% while no change is anticipated in the Duynefontein area. She asked for this wording to be rectified.</p>	<p>Mr Howcroft said it was a potential increase and it was not stated that this would definitely happen. There have been changes in this region, it has not always been a dairy area. It used to be predominantly wheat, so it has changed. The change was due to the market.</p>
3	Ms K Bowler Facilitator	The facilitator asked Mr Howcroft (Agricultural Specialist) if in his discussions with the local dairy farmers, in terms of how they are structured, is there a potential for them to re-look at how they can create a local market in this area. Are they fixed into the market and the structure that Ms Malan is referring to?	Mr Howcroft replied that the impression gained from talking to farmers in the region is that they were positive about the opportunities that a development such as this would create.
4	Mr Joe Oosthuizen St Francis Residents Assoc and FERRRA	Mr Oosthuizen indicated that he was concerned about the potential to the farming industry, it did not make too much sense to him. He also found in the study that in a lot of the farms the head of cattle was specified. In the case of two of the largest diary farms, however, the number of cattle was not specified. This is a very serious study and accurate information is required in order to	Mr Howcroft explained that in terms of the data, he had attempted to get as much data as possible from the farmers. Where this could not be obtained, estimates were made given the known average holding in the area. He feels that a conservative approach was used in the analysis. The bottom line is that it is a significant industry with a high production volume compared to the other proposed sites.

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		<p>make correct decisions. One thing that is very clear, when going through the Agricultural Specialist Report, that this is the highest impact of the three sites that have been identified for Nuclear-1. Virtually double the economic value of the next best option. He feels that this is sacrificing very high potential farming area the way it also seems as though the best squid in the country is also being sacrificed. These are the concerns that local farmers have. His question is therefore, is this a definitive study and is this going into the final report. If this is being used to score on a points system because it is stated that there are benefits to the industry, his background is agricultural extension officer and he knows the economic impacts and he still does not understand how these conclusions were reached.</p> <p>Potential positive is for a very short period of time, during the construction phase only. Then after that all the gains and the infrastructure the farmers have put in to increase their potential, according to this study, could be a very short investment period.</p>	<p>He does not agree that agriculture would be sacrificed. There are potential negative impacts in terms of the roads, but there is also potential positive market impacts.</p> <p>Mr Howcroft said the construction period is 8 – 9 years. He had stated in the report that in terms of the market given the amount of people and economic activity in the region during construction the increase will mostly be during the construction phase.</p>
5	Mr Ryan Donnelley FAST	<p>Mr Donnelley said his question was with regards to the local organic farming enterprises. Have they been included in this study?</p> <p>Mr Donnelley said he would like to be consulted with regards to this agricultural report and as a farmer he has invested 10 years of trying to establish a crop of organic plants. There are also other organic farmers in the area</p>	<p>Mr Howcroft said that he does understand that there is a small-holding in the St. Francis Bay area which is investigating organic farming. Mr Howcroft has contacted organic certification organisations (International Organic Certification organisation) to get confirmation from them and being in the proximity of a nuclear power station would not affect certification. The organisation is more concerned about drift of pesticides from neighbouring non-organic farms.</p>

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		<p>who supply an up-market market and outlets. As far as the actual market for organic farming was concerned, it is an upmarket market and therefore involves tourism. If the tourism industry is going to be impacted, then organic farming will also be impacted. This is therefore a negative and he is still battling to see how Mr Howcroft substantiates a positive impact on the farming in this area.</p> <p>He also enquired as to where in the world there is an organic farm in the same area as a nuclear power station. If you understand anything about organic farming, you will know that these particular people who do this type of farming, would never be farming anywhere near a nuclear power station. Their product is a specific product aimed at a specific market. The market is very sensitive when it comes to organic. He believes that the conclusions in the report are not substantiated.</p> <p>He asked that organic farms be included in the report as they are presently completely omitted.</p> <p>Mr Donnelly said they are practising organic farmers and he believes that they are in the process of being certified. He feels that this is irrelevant as they are practising farmers who have been omitted from the study.</p> <p>Mr Donnelley asked Mr Howcroft to contact him.</p> <p>He then asked regarding radionuclides (he knows there are many of these), have these been taken into account and have they all been taken into account, specifically</p>	<p>Mr Howcroft asked if the organic farms in the area were certified organic farms.</p> <p>Mr Howcroft agreed that the significance of organic farmers should be assessed compared to other agricultural production in the area and wanted to know whether this type of farming has got potential. However perception must be separated from fact. .</p> <p>Post-meeting note: The query will be investigated in more detail by the Agricultural Specialist and if any new, significant information comes to light the current study will be amended with the information and will be made</p>

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No	Name	Comment	Response
		<p>when it comes to plant material and how it is taken up by plant material. Has a study been done on all those different radionuclides and how they individually interact with these vegetable plants?</p> <p>All of the information on air quality comes from the applicant and those who stand to profit from this application. In terms of the information that is being used on which to base conclusions, he is of the view that it is not independent information and conclusions cannot be made on such information.</p> <p>Mr Donnelley objected and said that Areva and Westinghouse who are supplying all the information cannot be classified as good suppliers of information. They have vested interests in the application and they are completely non-independent.</p> <p>Mr Donnelley asked that the draft report be updated to inform the public of these procedures because they are being given information which they need to comment on and it is unclear.</p>	<p>available to the public and stakeholders for review.</p> <p>Mr Howcroft said that a literature review was conducted on the radionuclides. Under normal circumstances the emissions from the proposed Nuclear Power Station are low at 4% of the allowable limits in terms of legislation.</p> <p>Ms Ball said that Mr Donnelley has raised this point before and there is an independent air quality specialist study. As previously stated all health and safety issues around this proposed nuclear power station get taken up in the NNR process.</p> <p>Mr Howcroft said his study was based on information given to them by the Air Quality expert.</p> <p>Ms Ball explained that at the last meeting the envelope of criteria was spoken about, that this conservative set of criteria encompassed all the Pressurised Water Reactors (PWRs) available was provided to Arcus GIBB by Eskom. The specialists used this envelope of criteria in their assessments. If the selected vendor cannot comply with these criteria, the EIA is null and void.</p> <p>Ms Ball continued that there is an international association that checks licensed nuclear installations.</p> <p>Ms Herbst replied that this point has been responded to on previous occasions. The criteria that were given, that the specialists based their studies on, is information that was gathered from a number of PWR technologies. The</p>

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			<p>emissions from the nuclear power station are not something that is decided by Eskom or by the vendors, it is based on years of international experience and is issued by the Regulatory arms in various countries. The International Association for Atomic Energy reviews this information.</p> <p>Ms Ball said that this information is in the report and has also been presented at every meeting held during the last two months.</p> <p>Ms Herbst said that it has also been responded to in the Issues and Response reports as well as in the minutes.</p>
6	Ms K Bowler Facilitator	The facilitator said that Ms Jooste-Coetsee had asked that in the light of the absence of representation of the agricultural industry and the farmers at the meeting, how many of the farmers had been invited to the meeting.	Mr Stan Clarke from Woodlands Farm indicated by hand that he is one of the representatives from the farming industry. A representative from the Department of Agriculture was also in attendance.
7	Prof Richard Cowling FOSTER	<p>Prof Cowling said that markets and perceptions have been mentioned. Markets are largely driven by perceptions. The perception that this massive dairy area is in the lee of a potentially lethal structure surely should have influenced the rating of the impacts of this infrastructure on agriculture.</p> <p>Prof Cowling asked that this be noted in the report that there is a negative impact on how the market could see products grown in the lee of a nuclear power station. A lot of people are anxious and nervous about nuclear and the moment that there is any hint of any kind of contamination in a product, there will be a huge outcry.</p>	<p>Mr Howcroft replied that there are nuclear power stations around the world where there is substantial agricultural development. . Even near the Koeberg Nuclear Power Station there is a dairy industry, wheat and grapes these industries are not negatively impacted by the fact that they are situated close to a nuclear power station.</p> <p>He does not deny that there is a negative perception in terms of nuclear. The facts are that there is agricultural development around nuclear power stations all over the world.</p>
8	Mr Hilton Thorpe St Francis Kromme Trust and	Mr Thorpe said that it is a concern and frustration that the whole radioactivity aspect of this has been handled by the NNR who cannot do anything until the specific	Mr Howcroft replied that in terms of the positive market impact the figure of 10 - 15% is not only on the dairy industry. In terms of the emissions and information, there is an

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No	Name	Comment	Response
	St Francis Bay Residents Association	<p>technology has been announced. So there are two processes being undertaken which should be running in parallel, feeding into each other, and they are not. Stakeholders have to persist in saying they are dissatisfied with this.</p> <p>The impression gained from reading the reports is that they have been written with as favourable as possible a comment in favour of Eskom. It comes up time and time again, it has come up again now with regards to this potential increase in the dairy industry market. It has come up for example in one of the environmental reports where it states that there will be an overall environmental benefit from the development because of the small nature reserve that Eskom would put around the site. This totally disregards the massive environmental impact that the plant itself would have on the area.</p> <p>It is understood that the likelihood of a major accident is very small, but what is unknown is exactly what the quantification is of the emissions. It was stated that there should be absolute transparency about this and people should be given the information. They have tried very hard to get information out of the NNR and out of Eskom regarding the specifics of the emissions at Koeberg and what affect this has on vegetables, fruit and dairy products etc. The answer given is that an application must be made to the Promotion of Access to Information Act. Why do the public have to make such an application, why can a straight answer not be given. He feels that this is another example of spin going on in favour of Eskom with no real facts being forthcoming.</p>	<p>opportunity to make sure that there are procedures in place so that the public can easily get information.</p> <p>Post-Meeting note: Section 32 of the Constitution guarantees to everyone the right of access to information held by the state and other persons or institutions. The Promotion of Access to Information Act 2 of 2000 ('PAIA') provides the framework and procedures for the exercise of the constitutional right to information. As Eskom is a parastatals institution PAIA is the appropriate vehicle to use in order to access the information required in a formalised manner.</p>

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9	Mr Joe Oosthuizen St Francis Residents Assoc and FERRRA	<p>Mr Oosthuizen said that in the report it states that the powerlines are a separate study, that the powerlines will be going in two separate channels right across all the farmlands, from the site to Port Elizabeth. What affect would a high voltage powerline have on agriculture below it, cattle, dairy, sheep etc.</p> <p>He added that he believes that there will be an increase in rainfall in this area of about an inch per year (this is in all three areas) once a nuclear power plant is constructed.</p>	<p>Ms Ball explained that in terms of the transmission lines, it had been made clear from the beginning of the EIA that this is an EIA for a 4 000 MW proposed nuclear power plant. The EIAs for the transmission lines that would come out of the power plants have been undertaken by other environmental consultants and their independent specialists. Therefore she feels it is unfair to ask Mr Howcroft to answer questions relating to powerlines.</p>
10	Ms K Bowler Facilitator	<p>Ms Bowler said that what was actually being asked is who will examine the cumulative impacts of the entire infrastructure in this area in terms of all the specialist studies. This is a process related issue and she asked if this could be parked even though it is a critical question.</p>	<p>This aspect will be referred to the Tx EIA.</p>
11	Mr John Elliott JAB Elliott Horticultural and Landscape Consultant	<p>Mr Elliott asked if there is one EIA currently and this EIA is being dealt with and then there is a separate EIA running for the powerlines. In terms of the process with Department of Environmental Affairs and the government, do they both get assessed at the same time or is Nuclear-1 assessed first, and maybe accepted and then after that the powerlines come in the back door.</p>	<p>The facilitator said that this was one of the first questions asked during these studies. This is a process related issue and we need to park it so that it can be dealt with later.</p> <p>Post meeting Note: The decisions will be made separately however any aspects relevant to the power line EIA in terms of cumulative impacts will be provided to the specialist doing the Agriculture studies for the Tx lines for consideration.</p>

TRAFFIC AND TRANSPORT ASSESSMENT SPECIALIST			
No	Name	Comment	Response
1	Ms Elza van Lingen NCOP – Cape Town, DA MP	<p>Ms van Lingen said that Mr Thorpe had stated that there was a definite slant towards Eskom. She would also like to reiterate that there is a definite slant towards Thyspunt. If you compare what is happening at the other sites, in comparison to what is happening at Thyspunt, it is a pre-conceived decision.</p> <p>She also asked when the minutes of this meeting would be available because on 1 June 2010 there is a Parliamentary Committee who is interviewing the NNR and they are presenting the reasons why Thyspunt is the preferred site.</p> <p>Ms van Lingen said that if the assessment of all three sites is studied, then what is currently happening at Thyspunt, no one could deny that the development is taking place at Thyspunt.</p>	<p>Ms Ball responded that there has been no bias towards any of the alternative sites. The specialist studies examined and assessed all three alternative sites to the same level of detail. She asked Ms van Lingen to please substantiate her comment and send it in writing to the consultants.</p> <p>Regarding minutes that will be discussed in the Way Forward session.</p>
2	Ms Donna Jooste-Coetsee Natures Calling	<p>Ms Jooste-Coetsee pointed out that the specialist had said that the Humansdorp Park road did not require any upgrades. She asked if he had ever examined that road. From the farm stall past Mzamowethu will definitely need upgrades.</p> <p>The locals at the township (bearing in mind some people living there are illiterate) have to be consulted. How many of these people have been told what is going to be happening along that route. They may well be shack dwellers but they are certainly not insignificant.</p>	<p>Mr Frizlar replied that the assessment of the R330 carries all the way into Park Road. It is not only the rural portion. It examines the structural integrity, which will include the extension to Park Road.</p> <p>Ms Ball said that all the technical specialists need to consult relevant groups to undertake their specialist reports. Consultation of members of the public is undertaken through the associated public participation process.</p>
3	Ms K Bowler Facilitator	Ms Bowler said that sometimes understanding impacts was also obtained by consulting	

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		representative groups rather than individuals. The important thing is have representative community groups being informed and has the Municipality been engaged and are they aware of this. They have a legal and constitutional responsibility to make sure that these issues are taken into account together with the Roads Department.	
4	Mr Raymond Parker Private - Assisting the St Francis Bay Residents Association with the Traffic and Transportation Assessment	<p>Mr Parker said that what concerns him is that a lot of the information contained within the presentation is not contained in the detailed report.</p> <p>He said that the specialist has alluded to the fact that some of the construction traffic is excluded from the calculations. That is fatally flawed because if one looks at the construction traffic related issues, particularly the access roads that need to be constructed, it is known that construction materials in the area are extremely poor and most of the road building material, such as aggregate, stone, etc. will come from areas further afield. Those make up vast quantities of heavy traffic. This must be included and mitigation measures put in place.</p> <p>He then said that the analysis deals only with the R330 and that might relate to the fact that there is contradiction between the two routes. This he believes is also fatally flawed as the process which needs to be investigated is the capacity of the road, the safety issues and the impact that this has on the current and future users of the road. When these volumes are examined, then the proposed Oyster Bay Road must be examined for utilisation. This must be clearly</p>	<p>The facilitator explained that what was shown in the presentation at this meeting is a result of constructive and positive engagement and suggestions at previous meetings. Cognisance has been taken of these issues and adjustments have been made.</p> <p>Mr Frizlar replied that when they were appointed they began to understand how the facility would be constructed. He acknowledged that more detail needs to be put into the revised traffic report.</p> <p>He also said that the proposal to have the traffic split (R 330 vs. the Humansdorp – Oyster Bay road) would do the reverse. and would increase the impact on the traffic flow of the road capacity and the intersections. The analysis that was shown last year (i.e. only using the R 330) is more of a worse case scenario than if one distributed some of the traffic to Oyster Bay for example.</p> <p>He said Mr Parker's comments were very valid on the safety</p>

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		<p>addressed in the report. At the moment only capacity analysis along the R330 and the intersections has been investigated.</p> <p>This leads on to the capacity analysis of the intersections and this relates purely to the operational issues on the intersections. It is understood that the road sections between the intersections and particularly on the areas through St Francis Bay and through Humansdorp do not only relate to capacity related issues. Safety issues, driving lanes, the width of the road, all need to be investigated.</p> <p>The access roads within the site should also be assessed. Nowhere in the transportation report are route alignments investigated or the actual positioning of the road and the effect that this would have on the site.</p> <p>He then said that the routing of traffic through Humansdorp CBD is not ideal. Especially if additional traffic is going to be put on the Oyster Bay Road, to mitigate use of the R330. Alternative routes need to be examined, linking through to the N2 specifically, but also then to the sites where the heavy construction material is coming from.</p> <p>The trip distribution has taken the existing trip distribution on the road looking at the existing traffic flow patterns between Jeffrey's Bay and Humansdorp and he thinks it might be wise, in the light of</p>	<p>and the impact side. As a team, there is a need to ensure that the issues addressed in the Social Impact Assessment are brought together in the summary report and properly representing the full picture. He suggested that it might be beneficial to duplicate this and show them in both reports to ensure that they are properly assessed.</p> <p>Regarding the route alignment of the access roads, at this stage there are fairly preliminary alignments that have not been assessed at a conceptual design stage. The assessment has been done in terms of a preferred routing and the more detailed work is currently being undertaken.</p> <p>This is in the brief from the consultants, to have a look at the alignment and he feels that from an EIA point of view, that is what was undertaken. They have not gone to the next level of detail to physically undertake a conceptual design.</p> <p>When examining the proposed alignment, they look for little, medium or large impacts.</p> <p>He said that the issue around the R330 is a valid one and he believes that there is already debate regarding the issue around road upgrading with the relevant road authorities. This is not only about the structural issues but about the revised cross sections. He thanked Mr Parker for highlighting this issue.</p> <p>The trip distribution was done on a worse case scenario and he feels it is likely to come down but he does not think they should be adjusted at this time.</p> <p>Mr Frizlar said that Eskom has a whole range of service</p>

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		<p>comments that have been made, to look at the trip distribution related purely to origins in terms of construction material as well as origins of where you anticipate the residential market to be.</p> <p>Mr Parker then added that regarding the upgrade of the Oyster Bay Road, the Department of Roads and Transport is currently busy with the design of that road to a minor surface road standard. He feels that this needs to be critically dealt with, very quickly so that they do not end up with a road, which is constructed to a sub standard level and cannot carry construction traffic.</p>	<p>providers so consultants have been working for Eskom as part of other assignments. When the Traffic and Transportation Team was appointed to the EIA they asked for the information regarding the proposal. Eskom's service provider had done some work on the access roads within the site and they had done a brief assessment on this in terms of the routing but the service provider is doing the work in much more detail.</p> <p>Mr Frizlar said that this was a very important issue. There is a separate process running and while there is no decision made on Thyspunt or the roads etc, it is important that Eskom start talking to the authorities to ensure that they are aware that there is a possibility that a Nuclear Power facility could be built at Thyspunt. To try and re-do this road in three or four years time would be a waste. Mr Frizlar said that he had raised this issue with Eskom.</p>
5	Dr Shirley Cowling FOSTER	<p>Dr Cowling said that she had concerns about the Oyster Bay Road. There is an alternative on the Oyster Bay Road to Humansdorp where there is a turn-off just before the Elandsjag Dam towards Kakerbeensbos, this way the road would avoid going down the Rosa Drift.</p> <p>Dr Cowling said that she has raised this point previously and wanted an explanation as to why this is being ignored.</p> <p>Dr Cowling also wanted to know about the radioactive material that is going to be transported, how often will that be and what route will be used.</p>	<p>Mr Frizlar said that he had driven some of these roads and was in the process of examining the potential of the road referred to.</p> <p>Ms Ball said that she has discussed this with Mr Frizlar and he has gone out to see the site, but unfortunately he had looked at the incorrect road.</p> <p>The current estimate is a maximum of 2 to 4 trucks per week of medium and low radioactive waste will be transported to Vaalputs. Eskom design staff gave him this information. No final routing has been given for this transport.</p>
6	Prof Richard Cowling	Prof Cowling said that his question relates to the	Ms Ball stated that Arcus GIBB was unaware that the eastern

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No	Name	Comment	Response
	FOSTER	<p>eastern access route. In the earlier processes involved with the nuclear facility at Thyspunt, the eastern access route was ruled out. It was regarded as a non-starter because it went through such a highly sensitive area. If one reads some of the other reports, there is a lot of concern about the eastern access route. He asked if this had been taken into consideration when planning Route 2.</p>	<p>access road had been assessed as part of the Nuclear Site Investigation Process (NSIP).</p> <p>Ms Ball explained that they had examined alternative corridors. In terms of the eastern access road, this was given to Arcus GIBB by Eskom as a road alignment required for heavy vehicles and as such was a road without an alternative. The other two roads, the northern access route and western access route were alternatives to each other.</p> <p>Post-meeting note: Access roads are discussed in section 5.11 of the NSIP Eastern Cape Summary Report where the western access road, from a technical point of view, is identified as the preferred access road.</p>
7	Ms Bridget Elton St Francis Bay Resident	<p>Ms Elton said that in theory Route 1 and Route 2 sounds great. However, the specialist cannot seriously believe that the workers (up to 80 busses per day) are going to accept the fact that they have to go on Route 1, which is an inferior road, when they could travel in comfort on Route 2. After a week of travelling on the inferior road they will protest.</p> <p>The R330 divides the learners from where they live. The traffic will go straight through where the children go to school and where they live. They ride bicycles, they play, and now to suddenly have a high volume and big loads of traffic is a fact that the specialist must take into consideration.</p>	<p>Comments noted.</p> <p>Post meeting note: The safety aspects will be assessed in the traffic and social assessment. Recommendations from these assessments will be incorporated into the final design and will include discussions with the relevant authorities and communities.</p>
8	Mr Edmund Elton Kromme Trust	Mr Elton stated that he has read the report and he had discovered that there was a traffic engineering report,	Mr Frizlar said that the issue around the exceptional loads is a fair question. When they had enquired about this there was a

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No	Name	Comment	Response
		<p>but no where does it go into detailed road design. As there is no detailed road design, there was no detailed costing of alternative routes or roads and strengthening of bridges. In particular the Van Staaden's Bridge. This bridge is not designed for a 100 ton load, neither is the Kromme River Bridge. The report does not allow a very heavy vehicle across a bridge and hope that it will stand up to the load. The two bridges will have to be re-designed, as will all the existing roads. He asked if the costs have ever been considered, from the construction, to the strengthening of the bridges, strengthening the roads.</p> <p>He also noted that last year at a public meeting Ms Ball had stated that the Eskom engineer's had stated that there would be no alternatives to what they had specified. Since when does an engineer have that right to say there will be no alternative. Why has a completely new alternative road not been considered, to the Nuclear Power Station from the N2, avoiding St Francis Bay and Humansdorp?</p> <p>He then stated that an access road is proposed straight across the Sand River, he asked if it has been considered what future water flow across this river and the sand flow which takes 1 000 years from one side to the other. How is a road going to be designed to accommodate those two features across an environmental masterpiece, which can never be rebuilt?</p>	<p>team doing work for Eskom on the exceptional load routing from Port Elizabeth. Some of the preliminary work that they have examined, which includes visual assessment of bridges, measurements, basic calculations, etc. shows that the routing will work. It does require a much more detailed assessment of the quality/degree of degradation of some of the bridges. The second phase of the work he believes has started. The first assessment is not of poor quality as Mr Elton is suggesting.</p> <p>The second phase would require some non-destructive testing of bridges, etc. and that would be more conclusive. He feels sure that when appropriate, that type of information will be made available.</p> <p>The costing would depend on many factors. Everyone needs to understand that vehicles that travel on the roads are, in terms of the Road Traffic Act, so the loading is not as excessive as is believed. These are huge vehicles, and that is exactly why they drive at 5 km per hour (to ensure that they stay within the loading as required by the Act). No authority can allow a vehicle on the road that is outside the Act, therefore the loading is in the order of 10.5 tons per axle although two months ago Parliament approved an increase in the axle load to 13 tons. So it still has to perform on the public road in terms of the Road Traffic Act.</p> <p>Ms Ball said she did not recall the specific statement relating to alternatives being made in a public meeting as part of the EIA process. Ms Ball offered to look up the minutes of the meeting for clarification.</p> <p>Post meeting note: Arcus GIBB has attempted to locate the comment in minutes of meetings associated with the</p>

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			Scoping Phase but has not been able to do this. Arcus GIBB will contact Mr. Elton directly if needed in order to obtain clarification regarding this matter. Various road alternatives are currently being assessed to minimise the potential impacts of increased traffic on the Humansdorp, St Francis Bay, Sea Vista and Cape St. Francis Bay residents.
9	Ms Francis Becker Rebels Rus Conservancy	<p>Ms Becker wanted to make people aware that there is not one school but two or three schools along the route. The traffic from the school from St Francis out to R330 is constant.</p> <p>She also stated that if there is going to be safety in this report, she also wanted a noise assessment done. Eskom is going to buy electricity from a wind farm in front of her property, there is heavy traffic behind her property, the noise impact will be huge. She feels that her property will be greatly devalued due to noise.</p>	<p>Ms Ball explained that the noise specialist had undertaken sampling at various points, including opposite Sea Vista and the Kromme River bridge.</p> <p><u>Post-meeting note:</u> Comment from the Noise Specialist,</p> <p>The sound measurements conducted along the R330 and subsequent predictions and impact assessments of road traffic noise contained in Section 3.6.3 of the Noise Specialist report were representative for all land along the R330 south of Humansdorp including residential land near Kromrivier bridge and Sea Vista.</p>
10	Dr Fred Ellery Rhodes University	<p>Dr Ellery stated that there was no consideration of risk in the study. He is particularly concerned about the issue of risk in the event of a natural disaster. Wetlands and movement of sediment on the Sand River have all been discussed.</p> <p>What is important is the way that the sand moves in the landscape that has a very strong bearing on roads. People who live in the area will remember a debri-flow that occurred in 2007. The lack of consideration of a debri-flow happening and involving the road is a major omission in the study. He feels that</p>	Mr Frizlar said that this would be noted and investigated.

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No	Name	Comment	Response
		this should be seriously considered. If a vehicle is driving on the road and debris-flow happens, that vehicle will be knocked over and transported downstream. This has huge implications for the transportation of nuclear waste.	
11	Mr Stan Clarke Woodlands Farm	Mr Clarke (<i>representing Woodlands Farm which is located on route from Humansdorp to Oyster Bay</i>) stated that the distance of the road which is going to be involved on the farm is from one end of the boundary to the other boundary and it is a distance of about 10 km. He is shocked to hear that this road will be going to carry 85 buses a day. Looking at the terrain, the only place where those buses can park, is on the farm. He is happy that the question of noise has been raised, especially on a dairy farm, dust which affects both animals and human beings and also of concern is the amount of people that are going to be in the vicinity. He is concerned because the people arrived on the farm to do the soil samples and the tests for the bridges to be built, a snare was set by these people and a bushbuck ram was snared. If 10 people can do this type of thing what are 500 to 800 people going to do?	<p>The facilitator said that many of these issues tie back to the previous specialist study in terms of agriculture, the social and economic specialists also need to take note of these concerns.</p> <p><u>Post-meeting note by Mr. Y. Frizlar (Traffic Specialist): The comments is noted. Parking for the buses has not been finalised but strict measures will be put in place controlling the access to and movement of individuals at a parking area.</u></p> <p>Conduct of persons on site will be governed by measures proposed by technical specialists and consultation with Interested and Affected Parties and other stakeholders and incorporated in the Environmental Management Plan.</p>

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No	Name	Comment	Response
1	Ms K Bowler Facilitator	<p>Ms Bowler explained that there had been some issues left over from the previous presentations for the social specialists to deal with. Some of the issues might however fall into the economic specialist study.</p> <p>She added that Mr Thorpe is representing the interests of the Thyspunt Alliance, which comprises most of the civic bodies in the area, and he is going to ask questions and raise issues on their behalf.</p> <p>Ms Bowler asked if anyone had any objections to Mr Thorpe asking these questions, which would take approximately 10 minutes.</p>	<p>There were no objections.</p>
2	Mr Hilton Thorpe Thyspunt Alliance	<p>Mr Thorpe stated that there is a requirement in the final Plan of Study Terms of Reference that accurate demographic figures for the peak holiday population for the greater St Francis area together with future projections be obtained. Mr Thorpe could not find these figures in the report.</p> <p>He then noted that people living in the area are concerned about job-seekers. Every time there has been a project in this area there has been an influx of people looking for work. This often results in squatter camps in Sea Vista, which causes all sorts of social problems. In the SIA it is stated that there will be a probable influx of unskilled and unemployed job-seekers and without mitigation the impact was medium with a high level of probability. With mitigation it reduces to probable. He asked on what hypothetical numbers the risk assessment was based.</p>	<p>Mr Dippenaar replied that the Tourism Study was handled by a separate specialist, this specialist had indicated that in the peak tourism season the figure could be 20 000 people that could potentially move into the area. The specialists had found it difficult to obtain accurate information on this aspect.</p> <p>Mr Dippenaar replied that in terms of job-seekers into the area, one would expect at least 6 000 – 7 000 people who may come to the area. There is a pre-construction period where it must be made well-known through different sources what kind of working opportunities is available, what kind of skills and exactly for what period of time these opportunities are available. People from a wide area must be informed beforehand exactly what is available. There will always be people who do not heed this notification and will come into the area.</p>

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No	Name	Comment	Response
		<p>Mr Thorpe then asked how could local labour be defined or identified.</p> <p>Mr Thorpe then confirmed that the mitigation measures for job-seekers are an information campaign, engagement between the contractor and local authorities to prevent squatting near the construction site, transparent public participation process with I&APs, use of local labour and monitoring of the situation. He asked if Mr Dippenaar believes that these mitigation measures are going to address this particular problem.</p> <p>Mr Thorpe then stated that if Thyspunt is selected, the problem would be created by Eskom, what responsibility do they have to in some way assist in controlling this issue. He asked if it is solely up to the local community to do all policing and monitoring.</p>	<p>Mr Dippenaar responded that local labour has two forms of identification, one is in collaboration with the local authority and other Interested and Affected Parties (I&APs) to draw a specific circle of either 20, 30 or even 80 km and only within this specified municipal area are people classed as local. The other more difficult identification is how long has a person resided in the area before he is considered to be local. This is a similar problem experienced by local municipalities when supplying low cost housing. His experience in general is that the community have a fairly good idea who qualifies as a local resident.</p> <p>Mr Dippenaar replied that when it comes to the employment of people, South Africa is a democratic society, and anyone has the right to work wherever they want to. It would be a gross violation of human rights to start making up criteria to prevent people from freedom of association and freedom to move around. In terms of job-seekers that come into the area and start illegal squatting, there are people that say the municipality will not enforce their own by-laws to make sure that squatting does not occur. This is a challenge and a problem. However, with a project of this nature, if handled correctly, and a specific strategy adopted, dealing with squatters will benefit the area as a whole.</p> <p>Ms Herbst responded that in terms of Eskom's responsibility in the large projects that Eskom is already involved in, Eskom has for example at Medupi, identified an area of 70 km around the site. The project has been quite successful in making sure that they focus on locals. There has been influx and the influx has caused some criminal activities which Eskom work with the Community Police to try and resolve, it is, however, quite a</p>

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No	Name	Comment	Response
		<p>Mr Thorpe said that the main concern is that in theory there are by-laws to control this type of thing but there is no obvious commitment by the local authority to enforce them.</p> <p>Mr Thorpe stated that the specialist had concluded that with mitigation measures the traffic impact would be low. He asked how the traffic can be assessed when the siting of staff and the construction villages have not been determined. The figures shown today by the traffic consultant are totally different from the figures shown in the Traffic Impact Report. There is no consistency with the facts.</p> <p>Mr Thorpe said that part of the problem was that the minutes from the previous meetings only arrived that morning. They therefore do not get feedback in time to prepare for additional meetings.</p>	<p>serious issue. Eskom sets up information centres in the nearest towns and Eskom include criteria in the supplier's contracts. There is therefore a great deal that can be done to implement the mitigation measures. Eskom has been particularly successful at Medupi. Eskom has also found that when employing people, and a non-local has applied, Eskom becomes aware of this fact quickly by the genuine local community. On the Medupi project Eskom has appointed 4,600 of the 6,000 semi-skilled employees from the local area.</p> <p>Ms Herbst added that Eskom works very closely with the contractors, the local authority, the provincial authorities etc. to ensure this policy is implemented.</p> <p>Ms Ball replied that in the beginning of an EIA process, the most conservative figures and estimates are used. Issues have been raised at previous meetings held in April and there have been extensive meetings held with the Traffic Specialist and the Eskom traffic experts. There is therefore now a more detailed breakdown of the impacts that need to be mitigated. The difference in figures is therefore a direct consequence of previous comments.</p> <p>Mr Dippenaar said that he used a basic principle, that anyone who lives or works next to a road for whatever purpose, or crosses a road for whatever purpose, must be safe. Any mitigation in terms of the traffic must make sure that people can</p>

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No	Name	Comment	Response
		<p>Mr Thorpe said that this does not take the noise impact into consideration. He also stated that the Noise Specialist Report states that no noise mitigation is required. That is due to the fact that this report only examines the construction site and does not examine the roads.</p> <p>Mr Thorpe then said that according to the specialist report, "sense of place" is a subjective concept and that everyone has a different view of their own sense of place. Ultimately sense of place is a reality, and is a very important reality; in fact it might be the most important reality in this whole development. This area has a unique sense of place which the community believes needs to be protected. It cannot be dismissed as subjective. He therefore asked is sense of place a purely subjective and theoretical concept or does it represent an important reality.</p> <p>Mr Thorpe said that many of the community had a problem as they saw what happened when Mossgas was constructed in Mossel Bay and what Mossel Bay has become compared to what it was prior to this development. In the SIA there was no reference to industrial development. If there is a huge plant at Thyspunt there will no doubt be ancillary industries that spring up around this development.</p>	<p>use or live safely next to a road. That is the basic principle irrespective of which road is used and even if there is a change in roads the principle remains.</p> <p>Mr Dippenaar said that noise is a different issue, he was discussing the safety issues. The question is to what extent noise can be mitigated with construction activities.</p> <p>Mr Dippenaar replied that sense of place is influenced by the reality around one. In this area people may feel that if there is this development and a large number of people are going to be moving into the area, plus a nuclear power plant, they might want to move as this was not what they came to the area for. Other people may feel differently, and might feel that there are now going to be opportunities for them. He agreed with Mr Thorpe that whether it is a road that is to be built, or a building that is to be constructed or more traffic those are harsh realities that definitely impact on how people experience their sense of place. There is therefore a subjective element placed on the realities.</p> <p>Mr Dippenaar replied that development is strange as sometimes factories are constructed in strange areas and it is difficult to foresee whether any industrial development will occur in this area. This would call for speculation.</p> <p>Dr Bews said that the report is an ongoing study and he feels that what is needed is that issues raised at this meeting need to be investigated and some issues in the Social Assessment</p>

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No	Name	Comment	Response
		<p>Mr Thorpe then asked if it would be correct to state that a nuclear power station at Thyspunt would irrevocably, unmitigably and permanently alter the sense of place of the area, and if so, should this be stated, clearly in the specialist report.</p> <p>Mr Thorpe questioned how this could be assessed when there was no construction traffic and the extra traffic over the bridge would cause huge noise impacts. Noise is completely inadequately addressed in this report.</p>	<p>need to be re-visited.</p> <p>Mr Dippenaar said that everyone is an individual and each person must make their own decision about whether the change will be good or bad, right or wrong, enhance your quality of life or reduce it, improve or lower the standard of living. How the development is viewed leads back to each individual's personal way they conceive reality.</p> <p>Mr Dippenaar said that people moving into the area, even after construction, will cause the area to change. He is fairly confident that he has identified and described the realities, they have identified the mitigation measures and he is confident that if mitigation is applied, life will not be the same, but not necessarily unacceptable for people to remain living in the area.</p> <p>Ms Ball said that the Tourism Specialist Study had examined the bed-nights, both business bed-nights and recreational/tourism bed-nights. If anyone had questions regarding this study they must please submit these in writing and they will be captured in the IRR.</p> <p>Ms Ball added that Mr Thorpe had previously made an accusation about the Noise Specialist Study – a number of data collection points were taken outside the actual Eskom-owned Thyspunt site. One of these collection points was opposite the Sea Vista community on the R330, another one just down the road at the bridge. It is therefore not true that only the potential noise impacts on the actual proposed construction site was assessed.</p>
3	Ms Laura Nixon Oyster Bay Resident	Ms Nixon stated that the reports have changed so substantially in the recent time. During the last three	Ms Ball replied that in terms of the access roads, all the presentations have been placed on the EIA websites. During

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No	Name	Comment	Response
		<p>meetings it has been stated that the road was going to be a northern road from Thyspunt and would not go near Oyster Bay, at the last meeting it was going to be 230m from Mzamowethu. At this meeting the road is shown as going between Mzamowethu and Oyster Bay. Therefore the noise impact studies are going to be totally irrelevant for Oyster Bay as they need to be re-assessed in terms of the latest maps.</p> <p>She asked for an explanation as to why the recommendations change at every meeting.</p> <p>She also mentioned the exclusion zone. Oyster Bay is small, but the residents felt protected because although there are no resources, there is no police station, no fire brigade and there are constant water shortages the community lives harmoniously. What little there is, is stretched. Residents live there purely for the sense of place. It is remarkable and peaceful and beautiful. The reason why residents choose to live in this area will be forever damaged.</p> <p>She appreciates that potential problems have been raised in the report, she wanted to know what solutions have been found and what recommendations there are regarding the financing of increased services, such as medical services, fire services, policing services etc.</p>	<p>the Scoping Phase public meetings it was explained that there would be two access roads to the site required for emergency evacuation purposes in the unlikely event that there is an accident at the Nuclear Power Station, should it be built. Also during the construction phase the Eastern and the Western Access Roads are required to get both the heavy construction vehicles and the workers to site. During the EIA process, from the Scoping to EIA phase, the specialists were requested to examine broad corridors on site and the assessment of the proposed Northern, Eastern and Western Access Routes has been detailed in previous public meetings. The independent specialists held various meetings on site and recommendations for the corridors for each of the specialist disciplines are documented in the Draft EIR and also in all the presentations.</p> <p>With respect to the emergency planning zones (EPZs), originally the Koeberg example was used, but this will be a decision for the NNR. Eskom is now investigating Generation 3 type technology, the more up-to-date European Standards have now been used. The EIA is an iterative process and today concerns over a range of issues are being addressed. Traffic engineers are investigating the roads and should the alignments be changed, the respective specialists that did the assessments such as the Noise Impact Assessment, would have to re-do some of their data collection. The reports would then have to be updated and a Revised Draft EIR would need to be released in the public domain.</p> <p>Mr Dippenaar stated that what is true for Oyster Bay is also true for the whole area. The issue has to be dealt with in a sensitive way as this is a beautiful area.</p>

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No	Name	Comment	Response
			<p>Ms Ball stated that the financing of increased services is more in the domain of the economic specialist and she undertook to check if this has been assessed in the report.</p> <p>Post-meeting note: Comment from Gavin Maasdorp (Imani): The Economic Impact Report did not deal with these items. The costs of these three services would be part of the costs associated with the normal incremental growth of a town, and the presence of a nuclear [power station will not make any difference to that fact. The demands on fire services are unlikely to be greater than they are now, at least on any significant scale, while policing costs fall under the SAPS and medical clinic costs under the provincial government not the municipality – clinics are used by the lower-income groups and there are state subsidies, while Eskom staff would be members of a medical aid scheme and would use private medical services.</p> <p>Water and electricity services would again be part of the normal pattern of urban development, and the costs of providing these services would be covered by user charges (the monthly municipal bills to householders). In addition, the new houses would have to pay municipal rates, and would result in an enhanced revenue stream to the local government.</p>
4	Prof Richard Cowling FOSTER	Prof Cowling said that he appreciates that reality is relative and Mr Dippenaar states that it depends on the context. However, Mr Dippenaar has in his report given stakeholders a piece of his own reality which is to say that the impact on sense of place is low. He has allocated certain categories. What the community	Mr Dippenaar said that he had engaged with the community on all levels, such as organised groups, individuals, groups within Sea Vista, uMzamowethu, Humansdorp, school principals, the unemployed, people living in informal areas. Various interviews were conducted and focus group meetings were held with all strata of the community. That is why he has stated that some

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		would have preferred is some sort of feedback from the community such as a questionnaire survey. There is very little quantitative data in the report. Focus groups in the various communities could also have been consulted to get a sense of their reality. He acknowledges that there are many realities, but what is gained from the SIA is simply their own reality.	people feel that this proposed project can help them obtain a better standard of living and better quality of life they are all for the development going ahead. On the other hand some people feel that there can be development but caution must be exercised so that the surrounds are not destroyed. There are vastly different opinions from the low income to the high-income groups.
5	Ms Cheryl Gibson-Dicks Thyspunt Alliance	<p>Ms Gibson-Dicks said that it was discouraging to note that the report does not refer to sustainable development. This is the key that underpins everything in South Africa, it is the way that the environment is approached, taking a long-term view. This refers to post-construction phase when many thousands of jobs have been created and a level is reached where skilled labour is being brought in.</p> <p>She then asked about methodology regarding comparative studies. When discussing sense of place have other communities been consulted, for example people who live close to nuclear sites, particularly at Koeberg. Has there been any international studies undertaken and communities questioned as to their perspective of living close to nuclear sites. Have any of these communities experienced an improvement in the standard of living.</p>	<p>Mr Dippenaar referred to a document called "Breaking new Ground" as his reference to sustainability. This document sets out that people need sustainable human settlements. In the SIA report Mr Dippenaar refers to sustainable human settlements based on the broad concept of Breaking New Ground. No development in this area, in terms of residential development, can happen if all aspects are not taken into consideration. Through the creation of sustainable human settlements one creates sustainable development.</p> <p>Mr Dippenaar explained that the Koeberg Nuclear Power Station was part of the three alternative sites and so he had spoken to people around the facility. What he had discovered was that a large number of people were not born when the Koeberg Nuclear Power Station was established. They have therefore grown up next to Nuclear Power Station of their own volition. The town of Atlantis was not established in those times. When consulting with people they hardly mention the Koeberg Nuclear Power station, it is there, it is accessible, there are hiking trails in the area and the community regularly visit the reserve.</p> <p>In terms of comparative studies, there was only one study in America and this was more concerning economics. There are a number of studies world-wide that deal with health issues and</p>

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			with economic issues. There are no specific social studies about living near a nuclear power station.
6	Mr Chris Barratt St Francis Kromme Trust	<p>Mr Barratt stated that six weeks ago there were four meetings held in the area. At these meetings a number of errors and omissions were pointed out in the SIA report, have these been conveyed to Mr Dippenaar and if so what action had he taken.</p> <p>He asked if Mr Dippenaar relied solely on the minutes as a form of communication regarding comments raised.</p> <p>Mr Barratt then asked why Mr Dippenaar had received a draft form of the minutes when the public had received them that morning.</p> <p>Mr Barratt said that Mr Dippenaar had stressed many positive factors and appears to neglect negative factors. For example it is stated in the report that after the construction phase, there will be 1,200 – 1,500 permanent jobs available. The fact that there will be 4,000 jobs lost in the Chokka industry, is omitted.</p>	<p>Mr Dippenaar said that all the information from all the meetings have been sent on to him. He added that now that the period for comment had been extended all subsequent comments would also be sent on to him. It is then his responsibility to go through all the comments from the various meetings and make sure that they are addressed. If the issue relates to more than one specialist Mr Dippenaar said that he would also check on the other specialist reports as there was a team of specialists undertaking the studies.</p> <p>Ms Ball confirmed that the minutes were Mr Dippenaar's form of communication. He had received a draft version of the minutes shortly after the last meeting was held.</p> <p>Mr Dippenaar said that the economics and the Chokka Industry were aspects addressed by the economic specialist.</p> <p>Dr Bews added that there are definitely some issues that will have to be re-visited and this is one of them.</p>
7	Mr Joe Oosthuizen St Francis Residents Assoc and FERRRA	<p>Mr Oosthuizen agreed that there are many more negative social impacts than positive. One reality that is not pointed out in the report is that all the mitigations depend on the effectiveness of the Local municipality. In reality, the municipalities are not capable of putting into place any of the mitigation measures that have been suggested. Mr Oosthuizen said that he works with the municipality on a day-to-day basis. He has obtained a copy of the Blue Drop</p>	<p>Mr Dippenaar replied that a question had been raised as to how the municipality is going to fund various items. One of the ways of funding is from additional revenues and not from existing ratepayers. For example what the development will bring to the area. The economic study can investigate this in detail.</p> <p>The other part of funding comes from the part that Eskom is willing to contribute.</p>

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		<p>Report, the municipality has been informed for many years that they are not looking after the infrastructure. In three areas of Jeffrey's Bay where monitoring is undertaken, they are non-compliant with the sewage facilities, non-compliant with water quality, all three categories are totally red. St Francis Bay is slightly better, but other areas are worse.</p> <p>He added that last year there was an increase in rates and taxes of 46% (with incorrect valuations). This year a further 8.5% increase, of which 40% goes to salaries and wages, nothing goes to sustaining the infrastructure. If bigger infrastructure occurs with temporary influx of very few ratepayers, most of the people coming into the area will not be ratepayers. Therefore, the cost of carrying the infrastructure falls on the shoulders of the people living in the Kouga area, that is not acceptable.</p>	
8	Ms K Bowler The Facilitator	Ms Bowler explained that on another project the DEA has investigated the consultation, recommendations and findings and management plans of the local municipality. The DEA would not approve the Draft Environmental Impact Assessment Report without substantive support. The national authority, as a commenting body, pays a great deal of attention to the local municipalities.	
9	Ms Thobeka Petse Sea Vista Forum	Ms Petse said she is very worried as it is easy to state certain things but when it comes to implementation, it is difficult. It has been said that clinics will be built, she asked who is going to build these clinics. Is it the Provincial Government or is it the National Government? In Sea Vista there is a problem, as the	Mr Dippenaar replied that all the social infrastructure, whether it is schools or clinics, are all at full capacity and are even over utilised. If any more people are added to this area and this is not addressed there will be serious social problems, which will accumulate and grow.

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		clinic is highly unsatisfactory.	<p>Ms Herbst responded by explaining that Eskom at the Medupi site Eskom were under the impression that the local clinics would be able to staff themselves and after a year of construction they realised that this was not going to happen. Eskom therefore has built a clinic which services all the workers and their families and they have also re-staffed and re-stocked the other clinics in the area. The other focus has been on education and where possible they have upgraded schools and have initiated crèches. Eskom does not take accountability for everything but obviously there is a great deal that Eskom can and will do within the project from a social perspective.</p> <p>Post-meeting note: Eskom will engage with local and provincial government as well as the Department of Education on a strategy which will ensure that the community is not negatively impacted by the extra demand on local facilities such as schools and clinics.</p>
10	Dr Peter Inman Coega Development Corporation	Dr Inman shared information with regards to the scale of infrastructural requirements associated with Coega. He stated that the crude oil refinery that is being proposed at Coega will require R4.5 billion to be spent on upgrading water supply to the whole metro and the IDZ. An entire new sewage works has to be constructed. The ratepayers even in Nelson Mandela Metro cannot afford it and have asked National Government for a grant.	Information noted.
11	Mr Ryan Donnelly FAST	Mr Donnelly asked if a total population influx study had been done. There is reference to the amount of jobs that will be available, but in terms of total population influx, has this been done.	Mr Dippenaar said that there was no detailed study done because the figures are dependant on what will happen in the area and one can only suggest and come up with certain scenarios. It is similar to growth, some work on 1.8% and some on 2.4%, some off 3.7%. In this area when housing is planned they work off 4.5% growth. Mr Dippenaar said he could give

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No	Name	Comment	Response
			scenarios, but exact figures are difficult to gauge.

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1	Prof Richard Cowling FOSTER	Prof Cowling noted that Mr Rosewarne had made the point that the system was quite buffered when the boreholes fluctuations were examined, there appeared to be no relationship between rainfall and borehole levels. He asked Mr Rosewarne how he could explain the November 2007 event and how could you build the possibility of those type of events into the risk assessment or how was it incorporated into the model?	Mr Rosewarne said that the Sand River is situated quite far away from where most of the work was concentrated in terms of the nuclear footprint. He does not believe that this would have any affect on the nuclear power station. It might have an affect on an access road crossing. The impacts of access roads on groundwater and <i>visa versa</i> had not been investigated. The focus had been to mitigate fears about draining aquifers by pumping to supply irrigation. Further monitoring on the wetlands is continuing, so this could be expanded into the study. The geotechnical study also examines stability type issues and there is also a hydrology study which examines flooding issues.
2	Dr Shirley Cowling FOSTER	Dr Cowling noted that in Mr Rosewarne's model he had used a Koeberg size footprint. She asked if this is appropriate as her understanding is that this power station will be considerably larger. She then noted that his model is based on a certain size of which Mr Rosewarne is unsure.	Mr Rosewarne replied that he had used two scenarios, one is the illustrative footprint, the absolute worst-case scenario. The other is the Koeberg size installation which he feels is realistic. Mr Rosewarne then explained that he had an enveloping footprint area, within that would be the nuclear power station, slightly larger than the Koeberg size plant. He has taken the worst-case scenario, which is vastly bigger than the Koeberg Nuclear Power Station.
3	Mr Graham Moolman St Andrews College	Mr Moolman said that the school had been on the site for in excess of 50 years. He said that Mr Rosewarne has stated that there are no effects of the springs coming into the water, which he feels is incorrect. There has never been a problem with the springs drying up no matter what droughts are being experienced. It has been recorded in the records of	Mr Rosewarne said that drilling had been done and drawdown was created over a short period of a few days. The recovery of the holes had been monitored. The responses from the autographic recorders show a natural response. There is a Table Mountain Group (TMG) aquifer underneath which is full of water, it is under pressure from the Karibu mountains and flows all the way through pushing outwards. Holes were drilled in the

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		<p>the school that there has always been adequate water. However, since the drilling started, it was very noticeable that the springs dried up, the bulrushes and the whole water table coming into the area at the shore levels have been ruined. He feels that there has been a knock-on affect to the other residents in the Rebels Rus area with water having to be brought in. The water flows in a south easterly direction and that is coming out into the coastal zone. What happens is undetected as all the underground rivers that are coming into the spring water and supplying this natural fresh water to the sea. This is very important to the marine ecology of the area, particularly the Chokka fishermen and spawning of the Chokka.</p>	<p>Algoa aquifer and the TMG aquifer next to each other and the water levels are the same. He refutes totally that the drilling has caused a degradation of the flow of the springs.</p>
4	Dr Fred Ellery Rhodes University	<p>Dr Ellery asked if the cobble layer that was mentioned is wide spread and on bedrock. He asked how much of the area it occupied.</p> <p>He asked Mr Rosewarne if he could speculate on the origin of the cobble layer.</p> <p>Dr Ellery then asked about the regional slope on the water surface. He asked what determines the slope.</p> <p>He also asked how this relates to the slope on the land surface.</p>	<p>Mr Rosewarne replied that it is on bedrock and is discontinuous.</p> <p>Mr Rosewarne thinks that it is probably marine and not an old river channel.</p> <p>Mr Rosewarne said that it was fairly natural and he would estimate that it was 0.01%. Basically this depended on the pondability of the aquifer, the less pondable the aquifer the steeper the slope, because the water has been forced through the aquifer. If there is a highly pondable aquifer then there is a lower gradient. Also the contours tend to be fairly uniform in spacing, which shows that the aquifer parameters are fairly similar.</p> <p>Mr Rosewarne explained that it becomes shallower as it goes south because it is getting closer to the discharge point.</p>

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No	Name	Comment	Response
		Dr Ellery explained that the reason he was asking these questions is that he wondered, if when modelling the impact of the extraction, there was a footprint given, does this footprint depend on on-going pumping or can it be pumped once-off.	Mr Rosewarne explained that what would happen is that without the cut-off, pumping would need to be on-going.
5	Ms Frances Becker Rebels Rus Conservancy	Ms Becker noted that she has a property in Rebels Rus and they get their water from a spring. She was never asked about water use and she asked if anyone else was consulted. She also asked what was done about the properties that is within 5 km of the site.	Mr Rosewarne said that there is a table in the report, he would have to check if Rebels Rus was mentioned. If this has not been done it will be rectified. However, this would not affect the modelling or the findings. Ms Ball explained to Mr Rosewarne that the Rebels Rus Nature Reserve is next door to the Thyspunt site, and it comprises a number of narrow properties and the team might have visited one of the other properties.
6	Ms Trudi Malan Cape St Francis Civics & Thyspunt Alliance	Ms Malan stated that Mr Rosewarne had said that this was one of the most comprehensive EIAs he has worked on. She said the reason for this was that Eskom needs this information to build the power station. It saddens her that the same amount of attention is not given to the social, tourist and economic studies. The tourist study mentions that due to budgetary constraints they could not carry out all the work. Ms Malan then asked that if, in Mr Rosewarne's recommendations he states that the site should be closer to the sea. Ms Malan then quoted from the Geotechnical Study, "At the Thyspunt and Bantamsklip sites the final footprint should be placed as close to the sea as	Mr Rosewarne replied that he does not say closer to the sea necessarily as it could be placed anywhere on the site as this can be designed for. Mr Rosewarne said from that aspect he would agree.

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		<p>possible. It is in the area where overburden sand thickness is least". She asked if this was also his recommendation.</p> <p>Ms Malan then said that this would cause a problem because from the climate change impact, the Tsunami height in this area is going to have a huge impact. It seems as though the two studies are not speaking to each other because the other study says that there has got to be at least a certain distance away from the ocean.</p> <p>Ms Malan asked for a definition of "as close to the coast as possible".</p>	<p>Mr Rosewarne said that closer to the sea does not necessarily mean next to the sea.</p> <p>Ms Ball said that each of the specialists had made recommendations in terms of least sensitive places on the site on all three alternative sites. For all three sites a climate change study was undertaken (Appendix E10). The climate change study has made a recommendation as well as other specialist studies regarding the coast. For example the wetland study made a recommendation of a setback line from the coast. The heritage study made a recommendation of a setback line from the coast and these recommendations have been taken into account and an overall recommendation from the EIA process has been made to Eskom that the setback line be 200 m from the coastline. Eskom has accepted this recommendation and it is provided on all the plans of the sites.</p> <p>Mr Rosewarne replied that from a purely groundwater point of view, not taking into account other aspects, 200 m.</p>
7	Ms Bridget Elton St Francis Bay Resident	Ms Elton asked about the monitoring that is taking place on the other proposed sites. She also asked why there was such a concentration of monitoring on the Thyspunt site and it seems as though it has been predetermined that this is the site.	Mr Rosewarne said that all the sites were receiving the same amount of attention. The additional monitoring is taking place at all three alternative sites.
8	Mr Ryan Donnelley FAST	Mr Donnelley stated that he was confused about the size of the footprint that Mr Rosewarne has factored into the report. The actual footprint is designed to	Mr Rosewarne replied that the Koeberg Nuclear Power Station reactors are 30 years old. Modern design is different and sizes are different. He has taken a nominal figure as it is not for

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		accommodate a 10,000 MW nuclear power station. Koeberg Nuclear Power Station is a 1.800 MW power station. This is a significant difference in size. Has this difference been factored into the work that Mr Rosewarne is undertaking.	design purposes, but it is illustrative. He has used the entire illustrative footprint which is approximately 1 200 m x 300 m and is a vast conservative overkill as to what the actual situation will be for this 4 000 MW installation. At this stage the size of the actual footprint is unknown.
9	Ms Renee Royal Environmental Consultant	Ms Royal asked if it would be necessary to put in an application for a water permit to the Department of Water Affairs for dewatering of the underground water sources. Ms Royal stated that the water permit application is a long process.	Ms Herbst replied that at this stage she was unsure as they are busy going through all the processes and permits that they would be needed. Applications are only submitted after Environmental authorisation is obtained. A lot of information that comes out of the EIA process would be used for the water permit process. A water permit application will also be a condition of environmental authorisation, if granted.
10	Mr Chris Barratt St Francis Kromme Trust	Mr Barratt asked if Mr Rosewarne's involvement on this project was purely for the EIA or is he doing other work on the site and is other information being sent to Eskom.	Mr Rosewarne replied that he was doing some other work on the Site Safety Reports, which is obviously for Eskom. Ms Herbst added that there are a few specialist reports that are required for the Site Safety Report and the EIA, the same specialists are used for both processes to avoid duplication.
11	Prof Richard Cowling FOSTER	Prof Cowling stated that he had looked through the report and he could not find the modelled radius drawdown figures. He did manage to find them in Dr Day's reports. Her Figure 4.7b shows the model radius drawdown of a 9,000 MW installation, with mitigation. With mitigation it definitely shows that the drawdown is extending well into the wetland area. Her report suggests that this should be handled with	Mr Rosewarne stated that these figures were in his report and were Figures 2.17 – 2.19, 2.36 – 2.37, 2.58 – 2.61 and 2.63 – 2.64.

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		caution.	
12	Mr Hilton Thorpe St Francis Kromme Trust St Francis Bay Residents Association	Mr Thorpe asked Mr Rosewarne about the eastern access road. This road is going to take a route passing the dunes and then into the dune slack which is the very centre of the flood incident that occurred in November 2007. There seems to be great concern about the possibility of plastic flow when there are very wet conditions in that dune slack and there will be heavy traffic going on the road the entire time. Mr Thorpe asked if Mr Rosewarne was concerned that the road will be stable enough to handle the heavy traffic under those sorts of conditions.	Mr Rosewarne said that this type of issue would not be dealt with in the geohydrology assessment. That issue is more geotechnical, in which case the geotechnical specialist may take the findings of the geohydrology and marry with geotechnical information and then do an assessment (which he presumed has been done). Post-meeting note: The Geotechnical Assessment states that the geotechnical characterisation of the sites has both gained from other studies and provided information to other studies. Of particular significance has been the integration with the geohydrology study where the groundwater profile measured in the hydrogeological investigations and in the geotechnical investigations on the sites has been shared and incorporated into dewatering model scenarios and the geotechnical profiles that have developed for the sites.
13	Dr Fred Ellery Rhodes University	Dr Ellery stated that he needs to understand how a nuclear site is kept dry. Presumably once the site has been built, does the cut-off wall simply allow the water table to rise back to its original level, or is the water continuously pumped down. He asked for confirmation that the cut-off wall goes into bedrock and it comes all the way up the face of the cut sediment surface, and allows the water table to return to its original level.	Mr Rosewarne explained that there will still be some scavenger wells in the cut-off area. There might be areas that are not particularly well drained or well cut-off by the wall. There will most probably have to be some mitigation measures. This is correct.

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1	Mr Helmie Tilders FOSTER	Mr Tilders noted that there were two options regarding dumping of spoil. One was to dump it on the ground, which Dr Day says is a no-go, and the second is to dump it in the sea, which the squid industry say is a no-go. Where will the spoil be dumped?	Dr Day replied that from a wetland point of view and a terrestrial point of view it would be convenient if it could be dumped in the sea. The main impacts are around the transport of large volumes of spoil. The disturbed areas where it could be dumped with little impact along the northern area present a problem in getting the spoil to those areas. All of the options that are technically feasible involve some kind of mass transportation system.
2	Ms Donna Jooste-Coetsee Natures Calling	Ms Jooste-Coetsee explained that she did investigative journalism and she usually ends with conclusions. She asked how Dr Day had arrived at her conclusion. Usually a conclusion is a summary.	<p>Dr Day replied that her assessment has hinged on to what extent can impacts to wetlands systems be mitigated or ideally avoided during mainly the construction phase. This would ensure that the final project is actually going to be a conservation product and not a downgraded or degraded version of what is there at the moment.</p> <p>In terms of conservation the drawdown mitigation, if it is in place in the way that the initial design suggests, it can work. This ought to prevent any impacts on the Langefontein system.</p> <p>If with additional data this can be confirmed, the final product will ensure a better conservation future for wetland systems. Remember that these comparisons are to a no-development scenario in which Eskom pulls out of the site. From a wetlands situation, everywhere where wetlands are not conserved in a coastal system, they are degraded. Degradation is therefore part of the no-development scenario. It is not an ideal scenario. This is assuming that there will be human impact, the most impacted coastal seeps are those closest to areas where they are actively being used by present landowners.</p>
3	Ms Trudi Malan Cape St Francis Civics &	Ms Malan disagreed with Dr Day, there is presently a new Coastal Management Act which unfortunately the	Dr

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No	Name	Comment	Response
	Thyspunt Alliance	Marine Experts did not include in their study as one of the laws. So therefore, even if it is a no-go alternative and Eskom decides to sell the land and it is bought back, there is an option that it can become a conservation area. Therefore, to say no-go is a worse off scenario than putting a nuclear power station on the site is not true. This needs to be qualified. The new act sets down a setback line of 1 km, because it is un-zoned land.	<p>Dr Day replied that one of the problems is that you move off the site, particularly towards the eastern portion of the site, the kind of insidious degradation of all of those wetlands there - I think a probable more realistic long term outcome for that site. I think that without the development of a nuclear system, what you do strongly risk is on-going degradation of these systems.</p> <p>Dr Day said that her report did not address the Coastal Management Act but it is referred to in the Botanical Report, as well as Chapter 6 of the Draft EIR (Volume 1). She said that she could incorporate it into her report.</p>
4	Prof Richard Cowling FOSTER	<p>Prof Cowling said that he was confused about the drawdown issue. In the report there were 4 diagrams which represent two scenarios, one is a 9,000 MW and one is a 4,000 MW, with and without mitigation.</p> <p>Prof Cowling went on to say that there was uncertainty about the size of the plant. If it is 9,000 MW, even with mitigation, there would be a large impact on the wetlands.</p>	<p>Dr Day said that in the report she alludes to the fact that the 9 000 MW is not realistic with the current scenario which is why only the 4 000 was mentioned during her presentation.</p> <p>Ms Ball said that this EIA was assessing a 4 000 MW nuclear plant.</p>
5	Dr Fred Ellery Rhodes University	<p>Dr Ellery stated that one has to realise that this is an incredibly complex set of wetlands that is in this area. There is a lot of the interest in these wetlands as they form an integrated complex and they are dependent on the dynamic landscape. They depend on the movement of sand, on wind and a range of allied processes. His concern is that a lot of the consequences of the nuclear power plant have not been investigated, and these relate to the power lines.</p> <p>Dr Ellery then asked if the power lines would affect the wind patterns and the flow of sediment across the</p>	<p>Dr Day replied that the power lines that she has included in the study are the ones that would span across the dune area. Excluded from the study are any power lines coming into the site or the lines evacuating the power from the station..</p> <p>Ms Ball said that this would be answered by the relevant specialist.</p>

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No	Name	Comment	Response
		landscape.	
6	Ms Frances Becker Rebels Rus Conservancy	<p>Ms Becker said that Dr Day had mentioned the uniqueness of the wetlands yet in the end it all seems mitigatable. Has Dr Day considered loosing this as a unique site?</p> <p>Ms Becker stated that they have been asked to consider the needs of South Africa overall in terms of electricity. We should also then be asking what are the needs of South Africa in terms of water. This is an area that could support itself with this system. She does not understand why the importance of this water system is not being prioritised.</p>	<p>Dr Day explained that this is exactly what the mitigation focuses on. In terms of the wetlands system a conservative approach has been used. Anything that crosses a dune line on which dependant wetlands are located has been rated highly sensitive. The reason for the continued remodelling of the draw down effect is because the risk of any impact to Langefontein would make this a high negative. The mitigation being investigated in avoidance mitigation. There can be a measure that avoids a particular impact. If a nuclear site could be constructed with no impacts on any of the systems and assuming that there would be no impact on the coastal seep systems, from a freshwater position, she could not argue for a no-go over all developments.</p> <p>Dr Day said that from her perspective she is not looking at water as a resource that is utilised by people, she is studying it from an ecological perspective. She would see the use of this water for consumption as having a higher chance of causing degradation of the wetlands.</p>
7	Mr Hilton Thorpe St Francis Kromme Trust and St Francis Bay Residents Association	Mr Thorpe said that all of the presentations are justifying a very undesirable development in the area and they are trying to conform to the minimal requirements. If there is no fatal flaw, it means that it conforms to absolute minimal requirements, it does not mean that it is a good site, for a nuclear plant. He asked if Dr Day considered this site to be suitable from the perspective of her speciality, or is it a site that will need a great deal of money to be spent on mitigation.	Dr Day replied that she had had to think about this. Ideally the site should not be developed at all, this holds true for any development. However, the choices now are a nuclear development which poses a lot of challenges, but would be associated, if the impacts could be avoided, with securing a large area for conservation purposes. She could not see another option available at present that would allow that and which would not threaten on-going piecemeal deterioration. This is already in evidence westwards towards the dunefields. To answer Mr Thorpe's question, would she as a wetland ecologist

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No	Name	Comment	Response
			feel better or worse if the site went away, she believes that the wetlands and the system that they are associated with, would be better served if this could go ahead with all the conditions attached.
8	Mr Ryan Donnelley FAST	<p>Mr Donnelley noted that the Executive Summary seems to have based its conclusions on possible other developments rather than the actual development at hand that the application is dealing with. This makes no sense to him at all. He also noted that regarding the assessment of the site, it is stated as being an overall negative impact, why is that not put into the Executive Summary?</p> <p>Mr Donnelley said that this was an important omission because as a layman reading this, there will be no understanding as to the actual impacts of the applicant's development.</p> <p>Mr Donnelley stated that the consultants are reaching for a solution to get away from negative impacts. The actual application of the impact of the development itself must be examined. That has been omitted in the Executive Summary of the Draft EIA Report.</p>	<p>Ms Ball asked Mr Donnelley if he was referring to the Draft EIR Executive Summary or the Specialist Report's Executive Summary. (It was the Draft EIR Executive Summary). All the specialists were asked to examine the entire Draft EIR and Arcus GIBB's interpretation of the results and the recommendations and to ensure that everything has been correctly captured.</p> <p>The same is expected from the stakeholders and would be captured in the minutes, in the Issues and Response Reports, etc.</p> <p>Dr Day said that she stands by her Executive Summary which states that based on the levels of confidence on existing data, given the importance of the system with which no risks should be taken, the uncertainty has made her give a high negative rating. This has been clarified by saying that if the information gaps can be fine tuned, the certainty can be increased in all of the areas listed so that they confirm the assessment that impacts can actively be avoided, then that assessment would change.</p>
9	Dr Fred Ellery Rhodes University	Dr Ellery asked how much more studying time would Dr Day need to establish more firmly what she has researched.	Dr Day replied that what was put in place from the beginning of this year was a number of bizometres and boreholes that specifically look at measuring water level immediately downstream of the Langefonteinvelei. Previously although the groundwater study had boreholes, a much higher level of

FRESHWATER ECOLOGY ASSESSMENT SPECIALIST			
No	Name	Comment	Response
			resolution around actual flow within and through the wetland was required. This is to try and design a cut-off system that would control de-watering. The monitoring program at present extends into 2011.
10	Dr Shirley Cowling FOSTER	Dr Cowling asked that a third option be considered. If one were to speculate that something arises in the health and safety report and Thyspunt is no longer the preferred site. This report has made many people aware of the ecological value of this site, could a third option in this report state that if the development does not take place that this site becomes a RAMSAR site.	Dr Day said that she has alluded to this. She could be specific and agreed that this would be the ideal for the Thyspunt site.
11	Dr Fred Ellery Rhodes University	Dr Ellery said that maybe an option should be that this site should not be used. Dr Day's report refers to this as one of a kind, irreplaceable, globally unique, is this where this type of infrastructure should be constructed?	Dr Day said that the realistic no development option has to be considered. She agreed to put the option of a RAMSAR site into the report and assessed it as one of three options.
12	Mr John Royal	Mr Royal asked if this was not a perfect opportunity for Eskom to put their best foot forward and do something wonderful for the country.	
13	Ms Renee Royal Environmental Consultant	Ms Royal asked if a wetland delineation and a wetland functionality been done for all of the wetlands. She indicated that in KwaZulu Natal, a wetland delineation has become a requirement for all studies which impact on wetlands.	Dr Day replied that a wetland functionality was conducted, but there has not been a formal wetland delineation done on the site. The delineation shown in the report is based on aerial mapping with local ground-truthing. This is not a requirement for the EIA.

DUNE GEOMORPHOLOGY ASSESMENT SPECIALIST			
No	Name	Comment	Response
1	Dr Fred Ellery	<p>Dr Ellery stated that a debris flow is not just water, it is a mixture of water and sand. The amount of sediment that was moved in that single event was colossal and the impact was severe. Dr Ellery asked Mr Illenberger to explain the reason for this event. If this event should happen again and trucks transporting waste are on the roads this could have very serious impacts.</p> <p>Dr Ellery said that Mr Illenberger had given a figure of 1:85 for the eastern slope on the dune field, and he is sure that this is the same for the southern slope on the water table. This figure of 1:85 is a critical thing. It is important if anything is done in the landscape to over-steep the land surface above this, there will be repeated occurrence of debris floods.</p>	Mr Illenberger replied that if trucks are being moved with radioactive waste and it is raining heavily that they should not move the trucks. The requirement is also for two access roads. In which case one road is damaged in a flood event.
2	Ms Trudi Malan Cape St Francis Civics & Thyspunt Alliance	Ms Malan is concerned about flying the pylons in with helicopters. There has been problems with rescue helicopters along the Oyster Bay dune fields, the helicopters experienced problems with their turbines.	<p>Comment was noted.</p> <p>Post meeting note: Using helicopters is a mitigation measure that can be used. The safety risk of doing this must be considered.</p>
3	Ms Donna Jooste-Coetsee Natures Calling	Ms Jooste-Coetsee wished to red flag the storage of the high level waste and the containers that will be on site. There is the possibility of leakages. There does not seem to be much in the report about the actual waste that is to be stored on site.	<p>Ms Bowler pointed out to Ms Jooste-Coetsee that her question was not related to the Dune Geomorphology specialist study or any of the specialist studies that were being presented.</p> <p><u>Post meeting note:</u> Waste management is discussed in Chapter 3 and 9 of the Draft EIR.</p>
4	Prof Richard Cowling FOSTER	Prof Cowling stated that Dr Illenberger had not mentioned that the deposition of the spoil on the mobile dune field would be fatally flawed.	Dr Illenberger replied that one cannot dump this material on the dunes, there would be fines, huge amounts of dust, the wetlands would disappear, so that is correct, that option is fatally flawed.

DUNE GEOMORPHOLOGY ASSESSMENT SPECIALIST			
No	Name	Comment	Response
			Prof Griffiths said that the spoil has to be disposed of and wherever it is disposed it is going to cause a problem.
5	Ms Cheron Kraak	<p>Ms Kraak stated that the road from the north was a no-go and yet at a meeting yesterday when presentations were made to the council in Jeffrey's Bay, it was stated that this was the probable road.</p> <p>The council must be informed that an error was made in the presentation.</p>	<p>Mr Heydendrych said that he was talking about the Western Access Road.</p> <p>Ms Ball reiterated that the Northern Access Road is not a preferred access road for any of the biophysical studies. All have said no-go. She apologised if there had been any misunderstandings in the presentation. Ms Ball said that she would listen to the transcript and ascertain what road had been mentioned. If an error was made, a letter of clarification will be sent to all attendees.</p>

6. WAY FORWARD

The facilitator stated that there were many issues raised at the beginning of the meeting in terms of the process related issues. She then requested the EIA Project Manager, Ms Ball to give a brief presentation about the way forward.

In mapping the way forward, Ms Ball stated the following key points:

- a) The meeting had been constructive and bringing the specialists to the meeting was positive for the EIA process. There have been additional technical comments raised by attendees who have specific technical expertise and local knowledge to that raised in the previous public and key stakeholder meetings. She thanked all those who had taken the time to attend this meeting.
- b) From the last set of meetings to date, comments on the Draft EIR have been received. Where relevant specialist input into the comments is obtained.
- c) Ms Ball apologised for the late distribution of the Minutes. She explained that Arcus GIBB needed to obtain specialist input into these minutes, as well as include post-meeting notes, and this had taken more time than anticipated. She requested that all attendees of the meeting comment on the minutes that had been distributed within 14 days.
- d) There have been requests for copies of the transcripts of the minutes, she will respond to those requests individually. She also acknowledged that the Thyspunt Alliance has appointed lawyers, Cullinan and Associates, to represent their members. Arcus GIBB has received a number of letters from these lawyers requesting an extension to the Comment Period.
- e) Ms Ball proposed that the comment period remains as 31 May 2010, in order for Arcus GIBB to obtain all comments on the Specialist Reports, and thereby allowing them to make an informed decision about the extension of the Comment Period and need for a Revised Draft EIR. She added that there was a good likelihood that a Revised Draft EIR will have to be released, with revised specialist reports. This Revised Report would have a further Comment Period of 45 days. If the current Comment Period can stand it will give Arcus GIBB a chance to get an idea of detailed comments with respect to the specialist studies.
- f) There is one specialist study wherein some figures were omitted due to human error, this was the Traffic and Transportation Specialist Study, those figures are on the websites and in all the public places. Comment on that particular specialist study has been extended to the end of June 2010.
- g) If there are any groups who cannot make the 31 May 2010 deadline, and want to contact Arcus GIBB via ACER to say they might be late with their comments, they are encouraged to do so as the Comment Period is not absolutely cast in stone.

7. WAY FORWARD - DISCUSSION

No	Name	Discussion Point	Comment/Response/For Action
1	Ms Trudi Malan Thyspunt Alliance	<p>She said that due to the minutes only arriving on the day of meeting she could not comment by the 31 May 2010. Four days to comment is too short. Ms Malan stated that they do not accept the 31 May 2010 as the date for comment on the minutes. If this date is set, they will have no choice but to consult their lawyers.</p> <p>Ms Malan said that they have pointed out several times that there are severe mistakes in the study, that there are omissions, etc. As far back as the Scoping Study, she personally wrote in that there should be a specialist Squid Study for industry, she had put forward Dr Warrick Sauer's name. This was ignored.</p> <p>She asked when these minutes would be available. The Thyspunt Alliance has got their own specialists involved in this development, and their specialists have other work to do. They cannot be expected to comment on the minutes within 4 days.</p>	<p>Ms Ball said that Ms Malan was confusing two issues. With respect to the Minutes (Cape St. Francis Key stakeholder Meeting and the Sea Vista and St. Francis Bay Public Meetings) which were issued on 25 May 2010, there is a 14 day comment period for these minutes. If Ms Malan would like an extension on this comment period to 21 days, that will be acceptable. Ms Ball would like comments on the Draft EIR by 31 May 2010 so that the specialists can begin working on the revisions of their reports.</p> <p>Ms Ball noted that legal action had been threatened.</p> <p>Ms Ball confirmed that Arcus GIBB would consider Ms. Malan's request but currently the Comment Period on the draft EIR ended on 31 May 2010 unless otherwise notified.</p> <p>Post-meeting note: The Comments Period was extended to 30 June 2010 (total 117 days) and all registered parties informed of this decision and the fact that a Revised Draft EIR would be produced and circulated for a 45 day Comment Period, this notification went out on 28 May 2010.</p>
2	Ms Trudi Malan Thyspunt Alliance	<p>She explained that there are issues within the minutes that need to be fed back to their own specialists so that they can look at the EIA specialist reports and this will result in comments being submitted.</p>	<p>Ms Ball stated that Arcus GIBB require feedback earliest, because it is more than likely that another Draft EIR will need to be issued.</p> <p>She would like the comments in because then they can</p>

No	Name	Discussion Point	Comment/Response/For Action
		<p>She asked if Ms Ball could give this meeting the assurance that there will be a second draft EIA Report.</p>	<p>consult with all the specialists and they in turn can begin their revisions.</p>
3	<p>The Facilitator Ms Bowler</p>	<p>She asked Ms Ball in terms of the Issues and Responses document if this document stands as the draft gathering of all the issues at the various meetings. Have the specialists had access to those IRR documents in draft form without the additional input from the public? She asked because it seems as though the specialists are working with one version of the response document. This version seems to be one that the public have not been able to comment on as to whether their issues have been captured correctly. The specialist studies that were presented today, may not accurately reflect the issues that the public have raised in the process to date. The specialists may therefore be disadvantaged as they might not be able to put the correct reports forward in an integrated manner.</p>	<p>Ms Ball responded that throughout the process the specialists were given all the IRRs that have been compiled since Scoping. They were all asked specifically to incorporate the comments into their reports.</p> <p>Post-meeting note: A consolidated Issues and Response Report has been incorporated in the Draft and Final Scoping Reports, as well as the Draft EIR.</p>
4	<p>Mr Chris Barratt St Francis Kromme Trust</p>	<p>Mr Barratt commented and wanted it put on record that minutes are an official record of proceedings at a meeting. The public are not getting minutes, they are receiving documents months later, which are not minutes and which include the specialist comments. The public want minutes so that they can state whether they are a true reflection or not of the meeting.</p> <p>He added that Ms Ball is not prepared to give an extension, he wanted it recorded that he finds this absolutely disgusting. Out of the seven specialists speaking at the meeting, five said further studies are being undertaken or need to be undertaken. However, Ms Ball says that they are still continuing with work, but we must use this information that we have now.</p>	<p>Ms Ball indicated that Mr Barratt is correct in saying that minutes are an official record and part of any EIA process documentation. That is why they are being returned to the stakeholders and members of the public for comment. The post-meeting notes were added to assist in giving information to the public. These notes are all clearly marked as post-meeting notes and are all in bold. If there are any specific comments on the minutes she asked that she be advised.</p>

No	Name	Discussion Point	Comment/Response/For Action
		<p>The people of St Francis Bay asked for additional copies of the EIA Report. This was requested 6 weeks ago, now what he would like is one copy with everything in it. The copy provided here did not have all the specialist reports contained therein.</p>	
5	Ms Trudi Malan Thyspunt Alliance	<p>Ms Malan said there were many documents that had been requested such as the notes from the Integration Meeting, these have not been sent. These had been promised. They have not had access to any of the items that they had requested. There has been no response from Arcus GIBB to the lawyers.</p>	<p>Ms Ball replied that she had acknowledged the email from the lawyers the previous evening.</p>
6	Mr Hilton Thorpe St Francis Kromme Trust St Francis Bay Residents Association	<p>Mr Thorpe asked Ms Ball who makes the decision on the extension of the comment period.</p>	<p>Ms Ball said that extensions of time are requested on most EIAs. In the past, members of the public have approached the DEA to ask for an extension, they replied back to the public that this is not their decision.</p> <p>In this case, Ms Ball said that she has discussed it with the DEA official and has promised to provide a response to the request.</p>
7	Mr Hilton Thorpe St Francis Kromme Trust St Francis Bay Residents Association	<p>Mr Thorpe said he was concerned about the fact that the final Plan of Study for the development was finally approved on 19 January 2010 and all the specialist reports were released in March 2010.</p> <p>He then questioned if all these specialist reports have been prepared in terms of the final Plan of Study or in terms of the original Plan of Study.</p>	<p>Ms Ball explained that the Plan of Study for EIA had been revised twice. Comments had been received from members of the public and the various commenting Authorities. This information had been passed on to the specialists and built it into their Scope of Work as the process proceeded.</p>
8	Mr Ryan Donnelly FAST	<p>Mr Donnelly requested that a copy of the Draft EIR with all specialists' reports be made available so that he is able to comment.</p>	<p>Ms Ball replied that she acknowledges that there have been requests for the audio recordings of the minutes. A 14 day comment period is allowed so that comment can</p>

No	Name	Discussion Point	Comment/Response/For Action
		<p>He stated that all the confusion with the comment period and to have a cut-off date serves no purpose, as it creates added pressure.</p> <p>He has a strong objection about the minutes. What is presented in the minutes is presented in a way that the arguments have been reduced in their wording. He severely objects to this practice. He asked for a copy of the audio minutes, to compare them to the written version. He had had this problem for three years</p>	<p>be passed on how issues have been captured.</p> <p>Post-meeting note: Copies of the Draft EIR have been distributed to the following venues:</p> <ul style="list-style-type: none"> • Humansdorp Public Library • Jeffreys Bay Public Library • Kareedouw Public Library • Kruisfontein Public Library • Oesterbaai Eiendomme • Plettenberg Bay Public Library • St Francis Bay Public Library
9	Mr Chris Barratt St Francis Kromme Trust	Mr Chris Barratt asked if correct copies of the Draft EIR with all the studies would be given to them. For example the Economic Study is not in any of the reports that were distributed earlier.	<p>Ms Ball said that she had requested ACER to make a copy and send it to Mr Barratt and she asked Mr Barratt to discuss this with Ms Shinga.</p> <p>Post-meeting note: The Economic Assessment was attached as Appendix E17 to the Draft EIA Report sent to the Municipal Offices in St Francis Bay (and is on display at the Reception).</p>
10	Mr Chris Barratt St Francis Kromme Trust	<p>Mr Barratt said he would like to quote from the Minutes of Public Meetings distributed that morning, "<i>The facilitator said that there are many issues that still need to be unpacked and still a high level of discomfort in the audience about certain issues. There are debates that need to be held around certain topics. She went on to say that agreement had been reached to close the meeting with the understanding that there would be further meetings</i>".</p> <p>The extract from the minutes refers to public meetings. The</p>	<p>Ms Bowler said that she had not specified public meetings. A commitment was made to further 'meetings', this being one of them.</p> <p>Ms Ball said that the Key Focus Group meeting is a</p>

No	Name	Discussion Point	Comment/Response/For Action
		<p>Key Focus Group Meeting cannot be regarded as a public meeting; it is a Key Stakeholder Meeting. He enquired as to when the public meetings will be held and who was invited to the meeting and how was it advertised (if it is indeed a public meeting)? Other meetings have been held in the area, he questioned if they were public meetings.</p> <p>Mr Barratt said that that was not what the public had been led to believe, particularly when the request was made at a public meeting in St Francis Bay.</p>	<p>consequence of those set of meetings. The meetings are organised to best suit what we need to achieve out of the meeting in terms of the EIA process. To bring seven specialists to a public meeting does not make sense. Ms Shinga has a list of all invitees to key stakeholder meetings, it is a list that keeps growing, as every time there is a meeting, more people attend. Basically it is the key stakeholders that are registered as such on the database that were invited. There are a number of other meetings being held, these are Key Focus Group Meetings with various groups such as Kouga Municipality, Coega Development Corporation (CDC) and Rebels Rus landowners.</p> <p>A public meeting will be held at Sea Vista (in the evening) to which the public is invited. Ms Ball extended the invitation to all present. If there are further requests for any meetings they will be considered by Arcus GIBB.</p>
11	Mr Ryan Donnelly FAST	He stated that to hold a meeting with the Kouga Municipality without the key stakeholders being present is unacceptable.	It was stated that public representatives were invited to the meeting with Kouga Municipality held on 24 May 2010.

In conclusion, Ms Ball advised all present that if the Draft EIR Comment Period is changed, all registered I&APs will be notified. She further encouraged all present to complete the attendance registers.

Subsequent to the Key Focus Group Meeting at St Francis Bay, the Comment Period on the Draft EIR was extended to 30 June 2010.

8. CONCLUDING REMARKS

Ms Bowler encouraged all I&APs to check the Issues and Response Report documents to ensure that issues have been carried forward to the specialist reports. She further requested that if stakeholders are objecting to the process directly to the Environmental Authority, to also send a copy to ACER to ensure that comments are received by the EIA Team.

She thanked all participants and closed the meeting.

SPECIALIST PRESENTATIONS

The sizes of the presentation are as follows:

Presentation	Size
Agriculture	409 KB
Dune Geomorphology	4,298 KB
Geomorphology	232KB
Marine	439 KB
Social	100 KB
Transport	1,026 KB
Wetlands	747 KB

All presentations can either be downloaded from the following websites:

- Eskom's website: www.eskom.co.za/eia under the "Nuclear 1-Generation" link
- Arcus GIBB website: <http://projects.gibb.co.za/> under the "Nuclear 1 EIA – Draft Environmental Impact Report" link

or can be requested from ACER (Africa) at 086 010 4958 or by notifying Bongji Shinga at bongji.shinga@acerafrica.co.za or nuclear1@acerafrica.co.za

ATTENDANCE LIST

Surname	First Names	Title	Co/Org	St Francis Bay Meeting 25 May 2010
Arderne	Richard	Mr & Mrs	Pam Golding Properties	Attended
Arnolds	Randall	Mr	Kouga Local Municipality	Attended
Ball	Jaana-Maria	Ms	ARCUS GIBB	Attended
Barratt	Christopher & Valda	Mr & Mrs	Kromme Trust	Attended
Bews	Neville	Mr	NB&A	Attended
Bornman	Nick & Una	Mr & Mrs	Oyster Bay Rate Payers Association	Attended
Bosman	Yvonne	Mrs	St Francis Kromme Trust	Attended
Bosman	Peter	Mr	St Francis Kromme Trust	Attended
Bouwer	Nicolaas Andre	Mr	St Andrews College	Attended
Breytenbach	Johann	Mr	Eskom	Attended
Christy	Greg	Mr	SASMIA	Attended
Clarke	Stan	Mr	Woodlands Farm	Attended
Cook	Derek	Mr	Macohy Investments CC	Attended
Cowling	Richard	Prof	FOSTER	Attended
Cowling	Shirley	Dr	Friends of the St Francis Nature Reserve	Attended
Cronje	Botha	Mr	Eskom Transmission	Attended
Dale	Jenny	Mrs	Kromme Trust	Attended
Day	Liz	Ms	Freshwater Consulting	Attended
de Villiers	Carin	Ms	Eskom Holdings Limited	Attended
Donnelly	Ryan James	Mr	For A Safe Tomorrow (F. A. S. T.)	Attended
Elliott	John	Mr	JAB Elliott	Attended
Elton	Edmund & Bridget	Mr & Mrs	Kromme Trust	Attended
Fuchter-Wood	Kathleen	Mrs	Pam Golding Properties	Attended
Gibson-Dicks	Cheryl	Ms	Thyspunt Alliance	Attended

Surname	First Names	Title	Co/Org	St Francis Bay Meeting 25 May 2010
Greeff	Gert	Mr	Eskom Nuclear Sites	Attended
Griffiths	Charles	Mr	University of Cape Town: Zoology Dept	Attended
Griffiths	Morgan	Mr	Wildlife & Environment Society of SA : EC	Attended
Hardie	George	Mr	Goed Geloef Farm and St Francis Conservancy	Attended
Hardie	Sandra	Mrs	Goed Geloef Farm and St Francis Conservancy	Apologised
Herbst	Deidre	Ms	Eskom Generation	Attended
Illenberger	Werner	Dr	National Association for Clean Air Eastern Cape	Attended
Inman	Peter	Dr	Coega Development Corporation (Pty) Ltd	Attended
Jooste-Coetsee	Donna	Ms	Natures Calling	Attended
Jordaan	Finney	Mr	Finmed Group	Attended
Kelly	JT	Mr	South African Roads Agency Limited (SANRAL)	Attended
Kraak	Cheron	Ms	Country Feeling / Thyspunt Alliance	Attended
Kuhl	Alison	Mrs	Supertubes Surfing Foundation / Thyspunt Alliance	Attended
Lesch	Donevin	Mr	Coega Development Corporation (Pty) Ltd	Attended
Logie	Caryl	Mrs	Fourcade Botanical Group	Attended
Mabentsela	Nombongo	Ms	Coega Development Corporation (Pty) Ltd	Attended
Malan	Trudi	Mrs	Cape St Francis Civics/Thyspunt Alliance	Attended
Martin	Gay	Miss	I&AP	Attended
Mbusi	Mandla	Mr	Eskom Holdings Limited	Attended
Moolman	Graham	Mr	St Andrew's College	Attended
Mortimer	Bev	Ms	St Francis Chronicle Newspaper	Attended
Mzanywa	Mnikeli	Mr	Sea Vista Community	Attended
Ndala	Lorraine	Ms	Eskom	Attended
Nel	Andre	Mr	Eskom Generation	Attended
Nicholson	Peter	Mr	Billabong SA	Attended
Nixon	Roger & Laura	Mr & Mrs	Oyster Bay Residents	Attended

Surname	First Names	Title	Co/Org	St Francis Bay Meeting 25 May 2010
Norman	Jan	Mr	Koeberg NPS	Attended
Oosthuizen	Joe	Mr	St Francis Residents Assoc / FERRRA	Attended
Papa	Khanya Laduma	Mr	I&AP	Attended
Parker	Raymund	Mr	I&AP	Attended
Petse	Thobeka	Miss	Sea Vista Forum	Attended
Potgieter	Godfried Abel	Mr	Kromme Trust	Attended
Pringle	Lizette	Mrs	I&AP	Attended
Rautenbach	Peter	Mr	Dream Supreme CC	Attended
Rautenbach	Elisabeth	Mrs	St Francis Conservancy	Attended
Rheeder	Ben	Mnr	Kouga Local Municipality	Attended
Rosewarne	Peter	Mr	SRK Consulting Western Cape	Attended
Rowe	Mark	Mr	Balobi Properties	Attended
Royal	Renee	Mrs	Environmental Consultant	Attended
Smith	Tom	Mr	Eskom Holdings Limited	Attended
Spoormaker	Mariska	Ms	Die Burger	Attended
Theron	Mervin	Mr	Eskom Holdings Limited	Attended
Thorpe	Hilton & Julia	Mr & Mrs	St Francis Bay Residents Assoc	Attended
Tilders	Helmie	Mr	FOSTER / Thyspunt Alliance	Attended
van Lingen	Elza	Ms	Democratic Alliance	Attended
Vockerodt	Brian	Mr	Eskom Holdings Limited- Transmission	Attended
Weitz	Frank	Mr	Dept of Agriculture	Attended