The reader is requested to note the following:

- ***The Public Participation Process (PPP) described in this chapter is a component of the Revised Draft Environmental Impact Report (EIR) Version 2.***
- ***Sections 7.1 - 7.4 provide an account of the process undertaken during the Scoping Phase, and therefore has not changed.***
- ***Section 7.5 has been updated and provides an account of the Public Participation Process undertaken for the review of the Draft EIA Report in 2010.***
- ***Section 7.6 outlines the Public Participation Process that was undertaken for the Revised Draft EIR in 2011.***
- ***Section 7.7 has been updated and provides an account of the Public Participation Process to be undertaken during the review of the Revised Draft EIR Version 2.***

I&APs wishing to obtain information only on the activities that have been undertaken since the release of the Revised Draft EIR in 2011 are advised to focus on Sections 7.6 and 7.7 of this Chapter.

APPRECIATION TO INTERESTED AND AFFECTED PARTIES FOR THEIR PARTICIPATION

To date, many Interested and Affected Parties (I&APs) have participated actively during this Environmental Impact Assessment process, by attending meetings and by making written submissions. I&APs have contributed significant local knowledge and shared information on studies undertaken within the study area (Western and Eastern Cape). The EIA team would like to express its sincere thanks and appreciation for these efforts and the contributions of Interested and Affected Parties.

Contents

LIST OF TABLES

LIST OF FIGURES

7 PUBLIC PARTICIPATION

This chapter discusses the methodology that was followed in terms of the public participation process. The scoping phase identified environmental issues that needed to be addressed and investigated in the EIA phase and identified three sites that were taken forward for investigation into the EIA phase. The issues identified include all environmental issues, including potential social and biophysical impacts associated with all phases of the project, namely construction, operation and decommissioning. This section further discusses the methods that were followed to keep interested and affected parties (I&APs) informed throughout the scoping and EIA phases and to obtain their comments.

The scoping phase commenced in September 2006 and ended in November 2008 with the approval of the final scoping report by the then DEAT. The EIA phase commenced thereafter. The EIA process, including the Scoping and EIA Phases, and where the Revised Draft EIR (Version 2 fits into the process, are indicated in **Figure 7-1.**

The DEA approved the Plan of Study for EIA in January 2010 (Appendix B2). The Draft EIR was prepared and provided for public comment from 6 March 2010. The period for comment on the Draft EIR was lengthened twice, and the end of the lengthened comment period was 30 June 2010. Owing to concerns from the public about the quality and inclusivity of some of the specialist reports, the EIA team decided to revise selected specialist reports and provided a Revised Draft EIR for public review from 6 March to 07 August 2011. After consideration of the comments on the Revised Draft EIR, and owing to the consideration of changes in the access roads to the Thyspunt site, the EIR and a selection of specialist studies were further revised and hence the Revised Draft EIR Version 2 was prepared. This version of the EIR will also be made available for public comment. Once the public comment period for the Revised Draft EIR Version 2 is over, a final EIR will be prepared and submitted to the DEA for decision-making.

7.1 Public Participation Process

The principles that govern communication with society at large are best embodied in the principles of the National Environmental Management Act (NEMA) (Act No. 107 of 1998, Chapter 1), South Africa's overarching environmental law. Public participation for environmental authorisation is guided by the EIA Process Regulation (GN R. 385 of 2006) and Guideline 4: *Public Participation in support of the EIA Regulations,* which is one of a number of guidelines for the implementation of Environmental Impact Assessment Regulations in terms of section 24(5) of the NEMA.

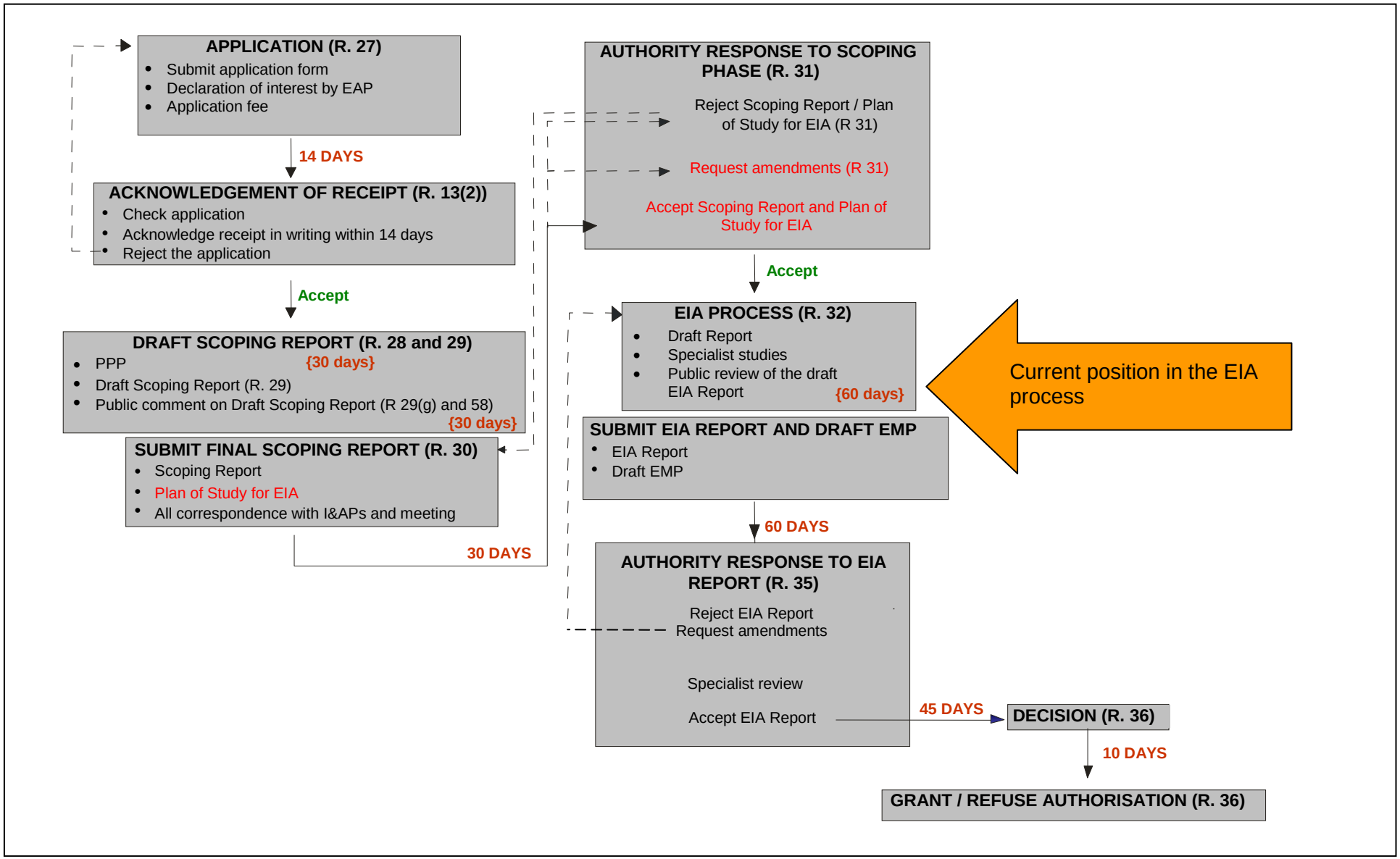

Figure 7-1: Flowchart of the Scoping and EIA process, indicating the current stage in the process

7.2 Objectives of public participation in an EIA

Public participation is the involvement of all parties who potentially have an interest in a development or project, or may be affected by it, directly or indirectly. It is a process leading to a joint effort by stakeholders, technical specialists, the authorities and the applicant who work together to produce better decisions than if they had acted independently.

The objectives of public participation in an EIA are to provide sufficient and accessible information to stakeholders in an objective manner to assist them to:

- **During the Scoping Phase**
  - raise issues of concern and suggestions for enhanced benefits;
  - verify that their issues have been recorded;
  - assist in commenting on feasible alternatives; and
  - contribute relevant local information and knowledge to the environmental assessment.

- **During the EIA Phase**
  - contribute relevant local information and knowledge to the environmental assessment;
  - verify that their issues have been considered in the environmental investigations; and
  - comment on the findings of the environmental assessment.

- **During the Decision-making Phase**
  - be notified of the decision by the competent environmental authority on whether or not the project may proceed, and provide the opportunity for appeal.

One of the objectives of public participation was to ensure that social impacts are addressed appropriately. To this end, the social impact assessment specialist was kept informed of the outcome of the public interactions throughout the process. He also attended a number of public meetings and workshops in order to be kept informed of the issues of social importance, so that he could address these issues in the Social Impact Assessment (SIA). The SIA specialist was also provided with the minutes of all public, key focus group and meetings and key stakeholder workshops. This is in addition to the direct interactions (e.g. one-on-one interviews) that this specialist had with selected key stakeholders.

7.3 Public participation during the Scoping Phase

During the Scoping Phase, various public participation activities were undertaken, aimed at:

- Ensuring that all relevant stakeholders have been identified and invited to engage in the scoping process;
- Raising awareness and increasing understanding of stakeholders about the proposed project, the affected environment and the environmental process being undertaken;
- Creating open channels of communication between stakeholders and the project team;
- Providing opportunities for stakeholders to identify issues or concerns and suggestions for enhancing potential benefits and to prevent or mitigate impacts;
- Accurately documenting all opinions, concerns and queries regarding the project; and
- Ensuring the identification of feasible alternatives and significant issues related to the project.

7.3.1 Identification of Interested and Affected Parties

In terms of the EIA Regulations under NEMA, stakeholders are required to formally register as I&APs for the EIA. The Public Participation Office started this process **(Text Box 4)** by developing an initial stakeholder list and advising stakeholders by letters addressed to them personally, of the opportunity to register for the EIA. **Text Box 5** shows that these I&APs represented a broad spectrum of sectors of society.

Text Box 4:
Identification of Interested and Affected Parties (I&APs)

I&APs were identified through:

- Stakeholders that participated in 400 MW Pebble Bed Modular Reactor Demonstration Power Plant (PBMR) (2005/2006);
- Liaison with district and local municipalities within the three provinces (Eastern, Northern and Western Cape);
- Advertisements in national newspapers, regional newspapers (all provinces where nuclear sites are proposed) and local publications in three languages (Afrikaans, English and isiXhosa);
- The registration process via a registration and comment sheet accompanying a Background Information Documents (BID); and
- Requesting I&AP's to suggest on the comment sheet the names of other stakeholders who may have an interest should be involved in the EIA process.

All I&APs identified in May 2007 received personalised letters, which were accompanied by a Background Information Document printed in three languages (Afrikaans, English and isiXhosa).

Text Box 5:
Sectors of society represented by I&APs on the direct mailing list

- National Government
- Provincial Government (Eastern, Northern and Western Cape Provinces)
- Local Government (local and district municipalities)
- Agriculture (landowners, unions, farmers' associations)
- Tourism (tourism associations, landowners, operators, managers)
- Conservation authorities, including provincial nature reserves
- Residents' and Ratepayers' Associations
- Local residents
- Environmental groups
- Statutory and regulatory groups
- Public enterprises, utilities and agencies
- Organised business/commerce
- Landowners
- Industry
- Media
- Libraries
- Educational organisations and institutions
- Academics and consultants

7.3.2 Registration of I&APs

The registration of I&APs has been an on-going activity. During the Scoping Phase (up to August 2008), there were approximately 5,500 stakeholders registered as I&APs. These included landowners near the proposed sites, residents surrounding the proposed sites, all the authorities at the three spheres of government, I&APs that attended meetings, or had submitted comment or completed the registration sheet distributed with the BID, general public from various provinces (over and above the directly affected) in South Africa and representatives of interest groups living abroad.

A database of I&APs, indicating I&AP names and affiliations, is provided as **Appendix D7**. In order to protect the privacy of the I&APs, only names and affiliations are indicated, but full contact details (e.g. email addresses and telephone numbers) are not provided in the version of the database that is publicly available.

7.3.3 Announcement of opportunity to become involved

The opportunity to participate in the EIA and to register as an I&AP was announced in May 2007 in three languages (Afrikaans, English and isiXhosa) as follows[1]:

Placement of newspaper advertisements in 25 newspapers **(Table 7-1)** including national, regional and local newspapers. The advertisements were placed during the period 25 May 2007 - 28 September 2007.

[1] Proof of these is contained in Appendices of the Draft and Final Scoping Reports.

Table 7-1: Paid newspaper advertisements for project announcement

No	Advertisements	Distribution	Language	Publication Date
1	*Sunday Times*	National	English	27 May 2007
2	*Rapport*	National	Afrikaans	27 May 2007
3	*Argus*	Regional	English	25 May 2007
4	*Cape Times*	Regional	English	25 May 2007
5	*Burger*	Regional	Afrikaans	25 May 2007
6	*Kaap Rapport*	Regional	Afrikaans	27 May 2007
7	*The Herald*	Regional	English	25 May 2007
8	*Gansbaai Courant*	Local	Afrikaans	06 June 2007
9	*Gansbaai Herald*	Local	English	06 June 2007
10	*Hermanus Times*	Local	English	31 May 2007
11	*Table Talk*	Local	English	30 May 2007
12	*Tygerburger Table View*	Local	English	30 May 2007
13	*Kouga Express*	Local	English	31 May 2007
14	*Our Times*	Local	English	31 May 2007
15	*PE Express*	Local	English	30 May 2007
16	*Algoa Sun*	Local	English	31 May 2007
17	*Ons Kontrei*	Local	Afrikaans	1 June 2007
18	*Gemsbok*	Local	Afrikaans	30 May 2007
19	*Swartland Weskus Herald*	Local	Afrikaans	02 August 2007
20	*Tygerburger Milnerton Classified*	Local	English	01 August 2007
21	*Table Talk*	Local	English	01 August 2007
22	*Hermanus Times*	Local	English	09 August 2007
23	*Suidernuus*	Local	Afrikaans	10 August 2007
24	*Die Plattelander*	Local	Afrikaans	28 September 2007
25	*Die Namakwalander*	Local	Afrikaans	28 September 2007

- Distribution of a letter of invitation to become involved, personally addressed to initially registered I&APs, accompanied by a BID and a registration/ comment sheet. The BID contained details of the proposed project, maps showing the South African coastline and the proposed nuclear sites, and a registration and comment sheet for I&APs to register for the EIA. The registration and comment sheet also provided the opportunity for I&APs to indicate if they wished to receive further project correspondence.
- Delivering BIDs, accompanied by comment and registration sheets, at various public libraries (June 2007 - August 2007). **Table 7-2** and **Table 7-3** show the distribution of the BID at public libraries and other public venues, respectively.

Table 7-2: Distribution of BIDs at public libraries during the Scoping Phase

Province	Public Libraries	Contact Person
Western Cape	Atlantis Public Library	Mr A Davids
Western Cape	Beaufort West Public Library	Mrs A van Niekerk
Western Cape	Bredasdorp Public Library	Ms Danelle Rossouw
Western Cape	Cape Town Central Library	Librarian In Charge
Western Cape	Clanwilliam Public Library	Mrs N Leens
Western Cape	Elim Library Depot	Ms A Engel
Western Cape	Gansbaai Public Library	Ms Sharman Geldenhuys
Western Cape	Hermanus Public Library	Ms Alette Olwage
Western Cape	Koeberg Public Library	Mrs R Brown
Western Cape	Laingsburg Public Library	Mr F van Wyk
Western Cape	Malmesbury Public Library	Ms van der Vyver
Western Cape	Milnerton Public Library	Mrs Marietha Eyssen
Western Cape	Pearly Beach Public Library	Mrs Sharman Geldenhuys
Western Cape	Piketberg Public Library	Ms Rounelle McKnight
Western Cape	Vredenburg Public Library	Ms Salome Visagie

Western Cape	Welverdiend Public Library	Ms Lilian Newman
Western Cape	Wesfleur Library, Atlantis	Ms Jennifer Daniels
Eastern Cape	Humansdorp Public Library	Ms Marilyn Loggenberg
Eastern Cape	Jeffrey's Bay Public Library	Ms Linda Jack
Eastern Cape	Kareedouw Public Library	Ms Geraldine Kleinbooi
Eastern Cape	Kruisfontein Public Library	Ms Cathy Damons
Eastern Cape	St Francis Bay Public Library	Mrs Marie Brown
Eastern Cape	Ukhanyisa Public Library	Ms Precious Vumasonke
Eastern Cape	Plettenberg Bay Public Library	Mrs M Johnston
Northern Cape	Richtersveld Public Library	Mrs Cecilia Rossouw
Northern Cape	Springbok Public Library	Mrs S Victor

Table 7-3: Distribution of BIDs at additional public venues during the Scoping Phase

Province	Local Public Venues	Contact Person
Western Cape	GIBB (Cape Town Offices) 14 Kloof Street, Cape Town	Reception
Western Cape	Baardskeerdersbos Winkel	Mr Manie Groenewald
Western Cape	Cape Agulhas Tourism Bureau, Bredasdorp	Ms Sanet Stemmet
Western Cape	Palmiet Pumped Storage Scheme, Visitors Centre	Ms Jenny Holthausen
Western Cape	Wolvengat Community	Ms Kali Griffin
Eastern Cape	Oesterbaai Eiendomme	Ms Elmarie Meyer
Eastern Cape	Jeffrey's Bay Business Forum	Mr Jannie Kruger
Eastern Cape	Jeffrey's Bay Tourism Office	Reception
Northern Cape	Komaggas Advice Office	Mr Jerry Landrew
Northern Cape	Houthoop Shed	Ms Veronica van Wyk

- Posting the invitation letter, BID, registration and comment sheet on the Eskom website www.eskom.co.za/eia under the "Nuclear-1" link.
- Erecting notice boards at all five sites (**Figures 7-2** to **7-6**).

Figure 7-2: On site Notice at Duynefontein

Figure 7-3: On site Notice at Bantamsklip

Figure 7-4: On site Notice at Brazil, Northern Cape

Figure 7-5: On site Notice at Schulpfontein, Northern Cape

Figure 7-6: On Site Notice at Thyspunt site, Eastern Cape

Since the announcement of the project in May 2007, the EIA process has had extensive media coverage (Media Inserts 1 and 2). Several media articles have also encouraged the public to register as I&APs by publishing the contact details of the GIBB Public Participation Office.

Town angry over nuclear power station plans

ANÉL POWELL

CAPE TOWN: Despite assurances by Eskom three years ago that there were no plans to build a nuclear power plant at the Western Cape coastal resort of Pearly Beach, the parastatal has again named the area as a potential site for a new power station.

The inclusion of Bantamsklip, just 10km south-east of Pearly Beach, outside Gansbaai, as one of five potential sites for the second nuclear power station has enraged environmental group Earthlife Africa and has residents of the

fontein in the Northern Cape and Thyspunt, near Cape St Francis in the Eastern Cape.

Maya Aberman, the co-ordinator of Earthlife Africa, said the organisation would monitor the public participation process.

"If we feel it is necessary to take action, whether by protest or by litigation, we will do so. This is a signal from the government to put in nuclear power stations all over South Africa," she said.

The Eskom Board has approved the investigation of a nuclear capacity of up to 20 000MW in the next 20 years,

struction of the station could start in 2009/2010, with the first unit being commissioned in 2016.

But Aberman said Pearly Beach was a pristine site devoid of the infrastructure needed to build a plant the size of Koeberg.

"A pressurised water reactor will have a far greater impact than a pebble bed modular reactor, which requires a smaller piece of land," she said.

In 2005, Eskom spokeswoman Carin de Villiers confirmed that Eskom had bought the 1 838ha farm Bantamsklip

A feasibility study on possible sites for a pebble bed modular reactor found that two threatened vegetation species occur in Bantamsklip, as well as the one of South Africa's rarest endemic coastal breeding bird species, the African black oystercatcher.

Eskom had not replied to questions by the time of going to press.

Elrina Versfeld, chairman of the Pearly Beach Conservation Society, said residents were being urged to take part in public meetings to be held in June.

She said the construction of

Figure 7-7: Article in *The Mercury*, 29 May 2007

Erwin announces plan for 14 pebble-bed reactors

HERALD CORRESPONDENT

PUBLIC Enterprises Minister Alec Erwin revealed yesterday that the state power utility Eskom was planning to open as many as 14 pebble-bed modular reactors (PBMRs) around the country to combat the country's dire electricity shortage.

This statement was according to a written reply to a parliamentary question.

He told Lance Greyling of the Independent Democrats that Eskom had submitted applications for an environmental authorisation and a nuclear installation licence respectively, for a PBMR demonstration power plant to be constructed on the Koeberg site outside Cape Town.

"The plan is to order 14 units, but decisions regarding future PBMR units are dependent on the PBMR demonstration power plant being authorised, constructed and successfully commissioned," said Erwin. – I-Net Bridge

Eskom 'must halt nuclear investigation at Thyspunt'

Power utility needs to prove it can evacuate population in emergency

Guy Rogers
ENVIRONMENT & TOURISM EDITOR

rogersg@avusa.co.za

ESKOM must halt all investigations into the feasibility of Thyspunt as a nuclear site until it has proved that it can evacuate 25 000 residents along a single road, in 11 minutes, through the epicentre of a nuclear disaster.

That was the call yesterday from the St Francis Bay Ratepayers' Association whose chairman, Hylton Thorpe, was addressing a meeting about the Thyspunt nuclear project at a Port Elizabeth beachfront hotel.

The "key stakeholder feedback meeting" was hosted by Eskom with the stated aim of capturing all outstanding concerns about the project, which envisages the construction of a 4 000MW pressurised water reactor – more than twice the size of South Africa's only other nuclear power station at Koeberg.

Five possible sites were identified for this development last year when the scoping process started. Two of them are in the Northern Cape, two in the Western Cape – including Koeberg's Duynefontein site – and the last is at Thyspunt, on the Cape St Francis side of Oyster Bay, in the Eastern Cape.

One of the key issues highlighted at the meeting was the finding by Eskom's consultant Arcus Gibb, in their draft scoping report, that the two Northern Cape sites, at Kleinzee and Hondeklip Bay are "unfeasible".

Eco-cost of interfering with an ancient dune system could far exceed any other problems

Arcus Gibb project leader Jaana-Maria Ball said the reasons for this decision related to the lack of a power corridor up the West Coast to which these two sites could be linked.

The financial cost and time lag in having to erect a whole new transmission line system, and then having to connect it to the country's main north-south grid, were two of the reasons for the decision, she said.

She said the environmental cost of having to install all this new infrastructure had also weighed against the two Northern Cape sites.

Trudy Malan, operations manager of the Cape St Francis seabird rehabilitation centre Ajubatus, contested Ball's environmental argument, saying detailed studies first needed to be completed at all the sites before such a judgment had any value.

The eco-cost of interfering with an ancient dune system or causing marine pollution at Thyspunt could far exceed any other problems elsewhere, she noted.

Thorpe said his association was concerned that Eskom "continues to use the everything keeps going right type of slogan", focusing only on the best-case scenario and failing to probe the worst-case scenario.

He said the existence of the Thyspunt bypass headland dunefield was proof of a major factor that seemed to have been ignored by the consultants.

"With a bypass headland dunefield, wind picks up sand from the beach and transports it overland, returning it to the sea on the eastern side. It is an indication of consistent wind direction and very high wind energy," he noted.

"In the case of the St Francis area, these winds blow from a south-westerly direction, directly from Thyspunt towards Sea Vista and St Francis Bay, which is what they've been doing for thousands of years."

The distance from Thyspunt to the township of Sea Vista is about 11km "so, in the event of an accident, when a 60km south-wester is blowing, as is not uncommon, the people of Sea Vista would have 11 minutes in which to evacuate their homes and shacks."

"It is estimated that there are in excess of 5 000 people living in Sea Vista, and very few even have bicycles, let alone cars."

There is also only one escape route, the road to Humansdorp, to serve the five communities of Rebelsrus, Mostert's Hoek, Cape St Francis, Sea Vista and St Francis Bay.

The population of these over peak holiday seasons could be as high as 25 000, and growing every year, he said.

Figure 7-8: Article in *The Herald*, 6 March 2008

CAPE TIMES TUESDAY, MAY 7, 2013 ★

NEWS 7

NO NUKES: This Greenpeace demonstration held in Sea Point in March last year highlighted the nuclear risks posed by Koeberg. Picture: NEIL BAYNES

THE PRICE OF POWER

Electricity plan 'out of date'

Melanie Gosling
Environment Writer

SOUTH AFRICA'S electricity plan is out of date and could lead to the building of unneeded power stations at great cost – and higher electricity prices.

The proposed expansion of nuclear power stations should be delayed because more nuclear power would not be needed before at least 2029, and perhaps not until 2040.

These are some of the findings of a study, "Towards a New Power Plan", commissioned by the National Planning Commission and compiled by UCT's Energy Research Centre.

A key finding is that the 2010 Integrated Resource Plan – the electricity blueprint for the next

The resource plan is so out of date it is no longer valid for planning

20 years – is so out of date it is no longer valid for planning. If the 2010 plan continues to be a basis for investment decisions on electricity it would result in South Africa being left with "surplus, stranded, expensive" power plants. Findings include:

● The growth in electricity demand has been much lower than forecast, and is still below 2007 levels.

● Future growth in electricity demand is expected to be lower than those forecast in the 2010 plan.

● Nuclear costs are higher than those quoted in the 2010 plan.

● Natural gas generation should be commissioned now to add extra power to the grid within three years, allowing Eskom time to catch up with maintenance on existing power stations which are breaking down more frequently.

Because the out-of-date assumptions in the 2010 IRP include those made on costs, electricity demand, technology and availability of fuel, it is critical that a new plan is developed, the report says.

The costs of nuclear in the 2010 IRP are $5 000 (R45 000) a kilowatt, but recent publications put the cost at $7 000 a kW.

The modelling study says very little further investment in power generation would be needed before 2025 because of lower demand and because the government has already invested in Medupi, Kusile, Ingula power stations and in renewable energy.

It says new power generation between 2025 and 2030 would be dominated by gas, with solar thermal, wind and imported electricity meeting the remaining requirements.

In their modelling, "no nuclear comes online before 2040, and it is economical to bring imported hydro online as soon as possible. Even if much lower costs are assumed for nuclear, plus much higher demand growth, the earliest that nuclear might be required is 2029".

The 2010 plan puts the need for new nuclear to come online in 2023.

The study puts forward a number of modelling scenarios, including those with higher growth in demand.

The IRP is meant to be revised every two years, and is due to be revised this month, but the Department of Energy has said it will not be done until the Integrated Energy Plan has been finalised.

The Department of Energy was asked to comment but had not replied at the time of publication.

Figure 7-9: Article in *The Cape Times*, 7 May 2013

7.3.4 Obtaining comment – Scoping Phase

Initial comment was based on the BID and verbal explanations of the proposed project during public meetings. I&APs could contribute comment in writing by either completing and returning comment sheets to the Public Participation Office, or attending public meetings, or through one-on-one interactions and focus group meetings.

7.3.4.1 Written contributions

Numerous[2] written submissions were received either by mail, email or fax during the Scoping Phase up to August 2008. Issues were captured in an Issues and Response Report (IRR) that accompanied the Final Scoping Report. Submissions referred to as "lengthy submissions" also accompanied the categorised IRR and have been included in the Draft EIR.

7.3.4.2 One-on-one interactions

One-on-one interactions were held by various team members with individuals and representatives of relevant sectors prior and after scheduled meetings. These interactions were particularly useful in identifying key issues and other relevant stakeholders.

Any information provided by I&APs during an interaction was provided to the Public Participation Team to capture on record and/or utilise it for stakeholder referrals and information dissemination.

7.3.4.3 Meetings (Public, Open Days, Focus Group, Key Stakeholder and Authorities)

A combined total of 50 meetings (**Tables 7-3a** to **7-3e**) with stakeholders were convened between June 2007 and March 2008, attended by over 1 700 I&APs. Records of all these meetings were appended to the Draft and Final Scoping Reports. All meetings took place in the language of choice of participants.

Subsequent to each meeting, minutes were distributed to attendees to verify that their contributions have been captured accurately. Information presented at the meetings was provided to all I&APs upon request and by making it available on Eskom website www.eskom.co.za/eia/nuclear 1 Generation and on the GIBB website http://projects/gibb.co.za. Additional requests for project information were also addressed by making this information available on the website as and when requested by I&APs **Figure 7-10** to **Figure 7-13** show some of the meetings held during the Scoping Phase.

7.3.5 Issues and Response Report

Issues raised during the Scoping Phase were captured in an Issues and Response Report and appended to the Draft Scoping Report (January 2008). Issues raised during the Draft Scoping Report review period were included in the Issues and Response Report appended to the Final Scoping Report, issued in August 2008.

The Issues and Response Report <u>includes</u> all comments raised at the various meetings and I&AP interactions as per Table 7-4 to Table 7-8.

[2] It is not the intention of this chapter to quantify submissions received during the Scoping Phase. However, all submissions have been captured in the relevant Issues and Response Reports of the Draft Scoping Report and Final Scoping Report, and filed both as hard and electronic copies for record-keeping purposes.

7.3.6 Draft Scoping Report availability and Public Review

A letter was distributed to all registered I&APs informing them of the availability of the Draft Scoping Report. An Executive Summary (available in both English and Afrikaans) of the Draft Scoping Report accompanied all personalised letters. In addition, executive summaries were made available at all Public Open Days and Key Stakeholder Feedback Meetings.

Public Open Days were held to present and obtain comment on the Draft Scoping Report. **Table 7-4** to **Table 7-8** lists these meetings, their times and venues. The main purpose of the Public Open Days was to reflect back to the public in terms of the following:

- Has the EIA team accurately captured issues raised by the public during Scoping?
- Has the EIA team understood the issues?
- Has the EIA properly contextualised and interpreted the issues?
- Are the proposed specialist studies going to provide answers to the questions raised by the public?

Assistance, where required, was provided to I&APs to facilitate understanding of the Draft Scoping Report so that I&APs had the opportunity to provide meaningful comment.

Both the draft and final Scoping Reports were made available at public venues as presented in **Table 7-9**:

Table 7-4: Public Meetings held during the Scoping Phase

No.	Province	Area	Venue	Date
1	Northern Cape	Houthoop	Houthoop Shed	06 June 2007
2		Koingnaas	Castle Hill	06 June 2007
3		Kleinsee	Blue Diamond	06 June 2007
4	Western Cape	Atlantis	Saxonsea Hall	08 June 2007
5		Duynefontein	Atlantic Beach Golf Estate	08 June 2007
6		Milnerton	Summergreens Hall	08 June 2007
7	Eastern Cape	Oyster Bay	Oyster Bay Hall	11 June 2007
8		Humansdorp	Humansdorp Community Centre	11 June 2007
9		Jeffery's Bay	Jeffreys Bay Hall	12 June 2007
10	Western Cape	Gansbaai	Pretorius Hall	13 June 2007
11		Pearly Beach	Pearly Beach Club	13 June 2007
12		Elim	Elim Church Hall	13 June 2007
13	Northern Cape	Komaggas	Komaggas Community Hall	11 July 2007
14		Houthoop	Houthoop Shed	12 July 2007
15	Eastern Cape	St Francis Bay	St Francis Links	25 July 2007
16		Sea Vista	Sea Vista Community Hall	26 July 2007
17	Western Cape	Atlantis	Thusong Service Centre	06 August 2007
18		Milnerton	Milnerton Golf Club	07 August 2007

No.	Province	Area	Venue	Date
19		Hermanus	Overstrand Municipality Auditorium	13 August 2007
20		Struisbaai	Struisbaai North Community Hall	14 August 2007
21	Northern Cape	Nababeep	Nababeep Junior Saal	09 October 2007
22		Port Nolloth	Port Nolloth Stadsaal	10 October 2007
23		Spoegrivier	Spoegrivier Gemeenskapsaal	11 October 2007
24		Soebatsfontein	Soebatsfontein Gemeenskapsaal	11 October 2007
25		Hondeklipbaai	Hondeklipbaai Gemeenskapsaal	11 October 2007

Table 7-5: Meetings - Key Stakeholder Workshops

No.	Province	Area	Venue	Date
1	Eastern Cape	Port Elizabeth	The Beach Hotel	27 July 2007
2	Northern Cape	Kimberley	Kalahari Lodge	31 July 2007
3	Northern Cape	Springbok	Kokerboom Motel	09 October 2007
4	Western Cape	Durbanville, Cape Town	Durbanville Golf Course	13 August 2007

Table 7-6: Meetings - Focus Group Meetings

No.	Province	Area	Stakeholder Group	Date
1	Western Cape	Cape Town	DEA, DEA&DP and DTEC	14 June 2007
2	Eastern Cape	St Francis Bay	Thyspunt Anti-Nuclear Group	26 July 2007
3	Eastern Cape	Port Elizabeth	DEDEA	27 July 2007
4	Western Cape	Cape Town	Cape Town City Council	06 August 2007
5	Eastern Cape	Port Elizabeth	Eastern Cape Regional Coastal Working Group	30 August 2007
6	Eastern Cape	Jeffrey's Bay	Kouga Local Municipality	30 August 2007
7	Eastern Cape	Port Elizabeth	Coega Development Corporation	31 August 2007

Table 7-7: Public Meetings and Public Open Days

No.	Province	Area	Day and Date	Venue	Time
1	Northern Cape	Springbok	Tuesday, 12 February 2008	Kokerboom Motel	14h30 – 18h30
2		Garies	Wednesday, 13 February 2008	Garies Town Hall	15h00 – 19h00
3		Hondeklipbaai	Thursday, 14 February 2008	Community Hall	15h30 – 19h30
4	Western Cape	Duynefontein	Tuesday, 19 February 2008	Koeberg Conservation Centre	15h00 – 19h00
5		Cape Town Central	Wednesday, 20 February 2008	Vineyard Hotel, Newlands	15h00 – 19h00
6		Gansbaai	Tuesday, 26 February 2008	Pretorius Hall	15h00 – 19h00
7		Pearly Beach	Wednesday, 27 February 2008	Pearly Beach Club	15h00 – 19h00
8		Bredasdorp	Thursday, 28 February 2008	Glaskasteel Hall	15h00 – 19h00
9	Eastern Cape	Oyster Bay	Monday, 03 March 2008	Oyster Bay Hall	15h00 – 19h00
10		St Francis Bay	Tuesday, 04 March 2008	St Francis Links	15h00 – 19h00
11		Port Elizabeth	Wednesday, 05 March 2008	Kelway Hotel	14h30 – 18h30

Table 7-8: Key stakeholder and Authorities Feedback Meetings

No.	Province	Area	Day and Date	Venue	Time
1	Northern Cape	Springbok	Tuesday, 12 February 2008	Kokerboom Motel	11h00 – 14h00
2	Western Cape	Durbanville	Thursday, 21 February 2008	Durbanville Golf Club	09h30 – 12h30
3	Eastern Cape	Port Elizabeth	Wednesday, 05 March 2008	Kelway Hotel	11h00 – 14h00

Figure 7-10: Public Meeting at Duynefontein

Figure 7-11: Public Meeting at Gansbaai

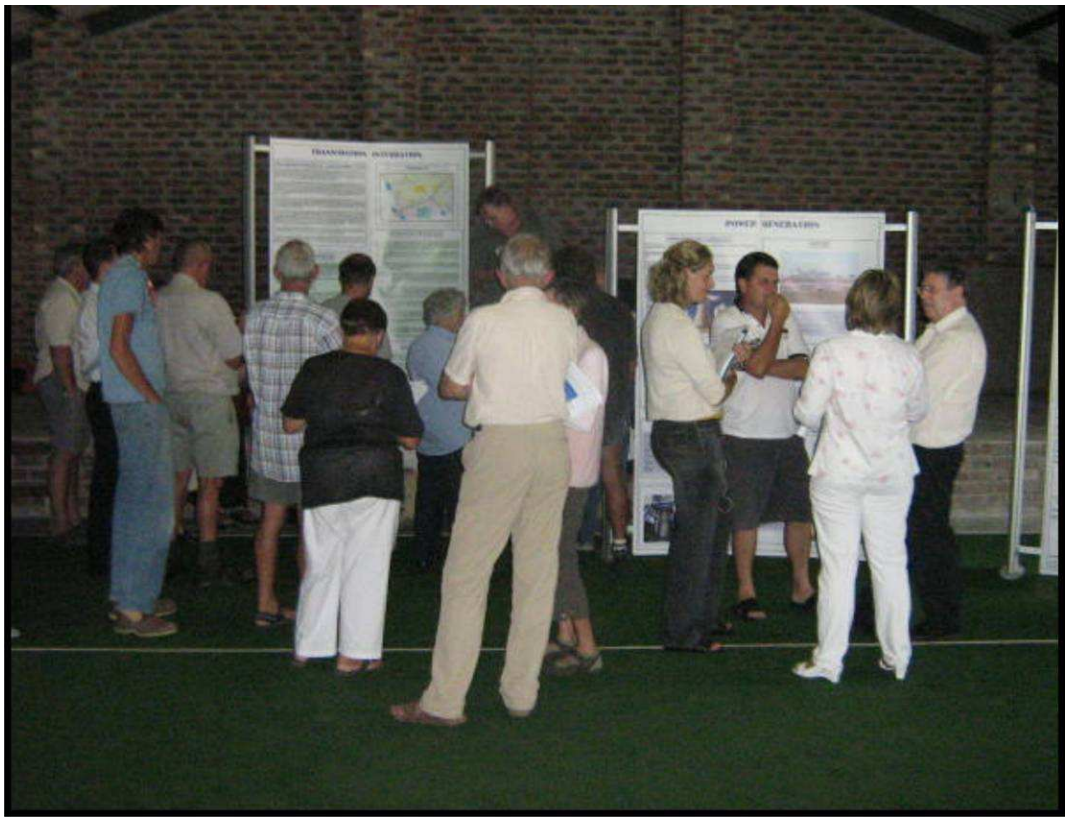

Figure 7-12: Public Open Day at Pearly Beach

Figure 7-13: Discussion session with Hondeklipbaai residents at a Public Open Day

Table 7-9: Availability of the Draft and Final Scoping Reports

Area	Venue	Street Address
EASTERN CAPE		
Humansdorp	Humansdorp Public Library	9 Vureau Street
Humansdorp	Ukhanyiso Public Library	Nanto Street, Humansdorp
Jeffery's Bay	Jeffrey's Bay Public Library	33 Da Gama Road
Jeffery's Bay	Jeffrey's Bay Business Forum	Sandown Buildings, Jeffrey Street
Jeffery's Bay	Jeffrey's Bay Tourism Office	De Gama Road, Shell Museum Complex, Jeffrey's Bay
Kareedouw	Kareedouw Public Library	5 Keet Street
Oyster Bay	Oesterbaai Eiendome	6 Tornyn Street, Oyster Bay
Plettenberg Bay	Plettenberg Bay Public Library	Building No 29, Spar Centre, Marine Drive
St Francis Bay	St Francis Bay Public Library	No 1 Assissi Drive, St Francis Bay
St Francis Bay	St Francis Bay Tourism Centre	1 Lyme Road South, St Francis Bay
Kruisfontein	Kruisfontein Public Library	Cucido Street, Kruisfontein
NORTHERN CAPE		
Kamieskroon	Succulent Karoo Knowledge Centre	Charlotte Street, Kamieskroon
Kleinsee	Houthoop Shed	Houthoop Guest Farm, Komaggas Road
Komaggas	Komaggas Advice Office	Van den Heever Street
Port Nolloth	Richtersveld Public Library	Main Road, Port Nolloth
Springbok	Springbok Public Library	Makua Street
WESTERN CAPE		
Cape Town	GIBB (Cape Town Offices)	14 Kloof Street, Cape Town
Atlantis	Atlantis Public Library	Civic Centre, Grosvenor Avenue
Baardskeerdersbos	Baardskeerdersbos Winkel	22km from Gaansbaai on the Elim Road
Beaufort West	Beaufort West Public Library	15 Church Street
Bredasdorp	Bredasdorp Public Library	Church Street, Bredasdorp
Cape Town	Cape Town Central Library	City Hall, 2nd Floor, Darling Street
Bredasdorp	Cape Agulhas Tourism Bureau, Bredasdorp	51 Long Street, Bredasdorp
Clanwilliam	Clanwilliam Public Library	Main Street, Calnwilliam
Elim	Elim Library Depot	3 Waterkant Street, Elim
Gansbaai	Gansbaai Public Library	Main Road, Municipal Buildings
Hermanus	Hermanus Public Library	Civic Centre, Magnolia Street
Koeberg	Koeberg Public Library	Merchant Walk, Duynefontein
Laingsburg	Laingsburg Public Library	Van Riebeck Street
Malmesbury	Malmesbury Public Library	Voortrekker Road
Milnerton	Milnerton Public Library	Pienaar Road
Grabouw	Palmiet Pumped Storage Scheme, Visitors Centre	Rockview Dam Road, off N2 South, Grabouw
Piketberg	Piketberg Public Library	13 Church Street
Vredenburg	Vredenburg Public Library	12 Main Street
Bredasdorp	Welverdiend Public Library	Ou Meule Street, Bredasdorp
Atlantis	Wesfleur Library, Atlantis	Wesfleur Centre, Atlantis
Wolvengat	Jenny's Handelaar	Main Road, Wolvengat
GAUTENG		
Bryanston	Bryanston Public Library	Cnr New & Pyne Streets, Bryanston
Rosebank	Rosebank Public Library	8 Keyes Avenue, Rosebank
Blackheath	Blackheath Public Library	Heathway Centre, Blackheath
Johannesburg	Johannesburg Public Library	Dr Beyers Naude Square, Cnr Market & Fraser Streets

7.3.7 Distribution of the Draft Scoping Report to State Departments

The Draft Scoping Report was directly submitted to the following State Department:

- National Department of Environmental Affairs;
- Western Cape Department of Environmental Affairs and Development Planning; and
- Eastern Cape Department of Economic Development and Environmental Affairs.

In addition, a number of other government departments are on the I&AP stakeholder distribution list for the Nuclear-1 EIA.

7.4 Public Participation for the Draft EIR

7.4.1 Public review of the Draft EIR and EMP

Public participation during the Impact Assessment Phase of the EIA focused on:

- A review of the findings of the EIA, presented in the Draft EIR and its accompanying specialist reports; and
- Distribution of relevant reports and EIA information to the public.

7.4.2 Announcing opportunity to comment on the findings of the Draft EIR

The announcement of the availability of the Draft EIR was undertaken as follows:

- All I&APs on the project database were notified through personalised letters of the Draft EIA Report availability.
- All reports, including Specialist Study reports were uploaded on the following websites:
    - Eskom website: www.eskom.co.za/eia under 'Nuclear 1 Generation' link
    - GIBB website: http://projects.gibb.co.za under 'Nuclear-1 -Draft Environmental Impact Report ' link

- Media advertisements (**Table 7-10**) were placed in various local, regional and national newspapers advising the general public of the availability of the Draft EIA Report as well as opportunities for participation during the review period.
- Key Stakeholders were notified of the availability of the Draft EIA Report and also invited to Key Stakeholder Feedback Meetings.

Furthermore, all registered I&APs were notified of extensions to the review period via mail, email and through telephonic notifications. Telephone calls were made to representatives of interest groups to advise them of additional opportunities to comment on the Draft EIA Report.

Table 7-10: Newspaper advertisements announcing availability of the Draft EIR

PUBLICATION	DISTRIBUTION	LANGUAGE	INSERTION DATE
Sunday Times	National	English	14 March 2010
Cape Times	Regional, Western Cape	English	11 March 2010
Die Burger	Regional, Eastern and Western Cape	Afrikaans	10 March 2010
Hermanus Times	Local, Southern Cape	English	11 March 2010
Table Talk	Local, Western Cape	English	10 March 2010
Tygerberger Milnerton	Local, Western Cape	English	17 March 2010
Tygerberger Tableview	Local, Western Cape	English	17 March 2010
Easi Ads	Local, Western Cape	English	12 March 2010
Die Gansbaai Courant	Local, Southern Cape	Afrikaans	12 March 2010
Suidernuus	Local, Southern Cape	Afrikaans	12 March 2010
The Herald	Regional, Eastern Cape	English	18 March 2010
Kouga Express	Local, Eastern Cape	English	11 March 2010
Our Times	Local, Eastern Cape	English	11 March 2010
P E Express	Local, Eastern Cape	English	10 March 2010

7.4.3 Distribution of the Draft EIR for public comment

Printed copies of the Draft EIR were made available for public review at the venues indicated in **Table 7-11:**

Table 7-11*: Venues where copies of the Draft EIR were made available*

No	*Area*	*Venue*	*Street Address*
		EASTERN CAPE	
1	Humansdorp	Humansdorp Public Library	9 Bureau Street
2	Jeffrey's Bay	Jeffreys Bay Public Library	33 Da Gama Road
3	Kareedouw	Kareedouw Public Library	5 Keet Street
4	Kruisfontein	Kruisfontein Public Library	Cupido Street, Kruisfontein
5	Oyster Bay	Oesterbaai Eiendomme	6 Tornyn Street, Oyster Bay
6	Plettenberg Bay	Plettenberg Bay Public Library	Building No 29, Spar Centre, Marine Drive
7	St Francis Bay	St. Francis Bay Public Library[3]	No 1 Assissi Drive, St. Francis Bay
		WESTERN CAPE	
8	Atlantis	Atlantis Public Library	Civic Centre, Grosvenor Avenue
9	Bredasdorp	Bredasdorp Public Library	Church Street, Bredasdorp
10	Baardskeerderbos	Baardskeerderbos Winkel	22km from Gansbaai on Elim Road
11	Cape Town	GIBB Cape Town Offices	14 Kloof Street, Cape Town
12	Cape Town	Table View Public Library	Birkenhead Road, Table View
13	Elim	Elim Library Depot	3 Waterkant Street, Elim
14	Gansbaai	Gansbaai Public Library	Main Road, Municipal Buildings
15	Hermanus	Hermanus Public Library	Civic Centre, Magnolia Street
16	Koeberg	Koeberg Public Library	Merchant Walk, Duynefontein
17	Milnerton	Milnerton Public Library	Pienaar Road
18	Welverdiend	Welverdiend Public Library	Ou Meule Street, Bredasdorp

[3] The copy of the Draft EIA Report was later removed by public members from the public library to the Municipal Offices in St Francis Bay to facilitate better access for the general public. An additional copy of the report was later made available at the same venue in June 2010.

No	Area	Venue	Street Address
19	Wolvengat	Jenny's Handelaar	Main Road, Wolvengat
		GAUTENG	
20	Johannesburg	GIBB Sunninghill Office	14 Eglin Road, Sunninghill, Johannesburg

7.4.4 Review period of the Draft EIA Report

The Draft EIA Report was made available for public review during the following periods as indicated in **Table 7-12: .**

Table 7-12: Review period for the Draft EIR

Period	Explanation	Duration/Days
06 March – 10 May 2010	Comment Period	66 days
10 May – 31 May 2010	1st extension to comment period	21 days
31 May – 30 June 2010	2nd extension to comment period	30 days

In total, the Draft EIA Report was available in the public domain for 116 days.

7.4.5 Opportunities provided to comment on the findings of the Draft EIR

The following methods of public review of the Draft EIA Report were available:

- An English Executive Summary of the Draft EIA Report accompanied all notification letters, which were distributed to registered Interested and Affected Parties (I&APs) by mail and/or email. Afrikaans and isiXhosa Executive Summaries of the Draft EIA report were made available at all meetings with I&APs.
- Submitting comments in writing to the Public Participation Office by mail, fax or email.
- Printed copies of reports were made available for viewing at the public venues, including libraries (**Table 7-7)**.
- CD copies of reports were also distributed to key stakeholders during the review period and also made available to I&APs on request.
- Attending meetings held to discuss the contents of the Draft EIA Report.

7.4.6 Meetings held to review Draft EIR

There was a range of meetings, which included Public Meetings (**Table 7-13),**Focus

Group Meetings (**Table 7-14**), Key Stakeholder Feedback Meetings (**Table 7-15**) and Focus Group Meetings with Specialists (**Table 7-16**)

The three key objectives of the meetings held as part of the Draft EIA review were to:

- present and discuss findings of the various specialist studies undertaken during the Impact Assessment Phase.
- present the conclusions and recommendations of the Draft Environmental Impact Assessment Report; and
- provide an opportunity to I&APs to comment on the specialist study findings and the outcomes of the EIA.

Table 7-13*:* List of meetings held to facilitate the review and obtain comments on the Draft EIR

PROVINCE	*AREA AND LANGUAGES OF MEETING*	*DAY AND DATE*	*VENUE*	*TIME*
		BANTAMSKLIP SITE		
Western Cape	Hermanus (English and Afrikaans)	23 March 2010	Overstrand Municipal Auditorium	18h00 – 20h00
Western Cape	Pearly Beach (English and Afrikaans)	24 March 2010	Pearly Beach Club	18h00 – 20h00
Western Cape	Bredasdorp (English and Afrikaans)	25 March 2010	Overberg Agri Hall	18h00 – 20h00
		THYSPUNT SITE		
Eastern Cape	Oyster Bay (English and Afrikaans)	13 April 2010	Oyster Bay Hall	18h00 – 20h00
Eastern Cape	Humansdorp (English and Afrikaans)	14 April 2010	Humansdorp Country Club	18h00 – 20h00
Eastern Cape	St. Francis Bay (English and Afrikaans)	15 April 2010	St. Francis Links Golf Club	18h00 – 20h00
Eastern Cape	Sea Vista (English, Afrikaans and isiXhosa)	16 April 2010	Sea Vista Community Hall	18h00 – 20h00
		DUYNEFONTEIN SITE		
Western Cape	Cape Town (English and Afrikaans)	19 April 2010	Vineyard Hotel, Newlands	18h00 – 20h00
Western Cape	Duynefontein (English and Afrikaans)	20 April 2010	Atlantic Beach Golf Club	18h00 – 20h00
Western Cape	Atlantis (English and Afrikaans)	21 April 2010	Thusong Community Centre	18h00 – 20h00

Table 7-14: List of Focus Group Meetings held to facilitate the review and obtain comments on the Draft EIR

PROVINCE	*DATE*	*GROUP AND LANGUAGES OF MEETING*	*VENUE*	*TIME*
Eastern Cape	24 May 2010	Coega Development Corporation (English)	CDC offices	09h30 – 11h30
Eastern Cape	24 May 2010	Kouga Local Municipality (English and Afrikaans)	Municipal Offices , Jeffery's Bay	13h30 – 15h30
Eastern Cape	24 May 2010	Rebels Rus Nature Reserve landowners (English and Afrikaans)	Protea Hotel Marine	17h00 - 20h00

Table 7-15: List of Key Stakeholder Meetings

PROVINCE	*DATE*	*PROVINCE AND TOWN*	*VENUE*	*TIME*
Eastern Cape	12 April 2010	Port Elizabeth (English and Afrikaans)	Protea Hotel, Marine	10h00 – 13h00
Eastern Cape	16 April 2010	Cape St Francis (English and Afrikaans)	Cape St Francis Resort	09h00 – 12h00
Western	20 April 2010	Melkbosstrand	Atlantic Beach Golf	10h00 –

PROVINCE	DATE	PROVINCE AND TOWN	VENUE	TIME
Cape		(English and Afrikaans)	Club, Melkbosstrand	13h00

Table 7-16: List of Focus Group Meetings with specialists held to facilitate the review and obtain comments on the Draft EIR

PROVINCE	DATE	GROUP / STAKEHOLDERS	VENUE	TIME
Eastern Cape	25 May 2010	St Francis Bay/Cape St Francis Stakeholders (English and Afrikaans)	St Francis Links	09h30 - 16h00
Eastern Cape	25 May 2010	Sea Vista Public Meeting (English, Afrikaans and isiXhosa)	Sea Vista Community Hall	18h00 - 20h00

Meetings with specialists were arranged in the Eastern Cape for the Greater St. Francis Bay community, including St. Francis and Sea Vista. This was in response to I&APs in the St. Francis Bay area having expressed concern over the specialist findings and requested to be provided an opportunity to engage with the specialists who undertook the investigations. The objective of focus group meetings with specialists was to allow the specialists to respond to queries raised by stakeholders. Therefore, specialists who attended meetings were those relevant to the questions raised at the public meetings.

At all meetings, I&APs were encouraged to use the language of their choice. Languages used at each meeting are reflected in the relevant tables.

Similarly to the Scoping Phase, the contents of the Draft EIA report were visually presented (PowerPoint presentations) and verbally presented and discussed.

Contributions received at these meetings were recorded and transcribed and are contained in the minutes of each meeting (Appendix D6) and incorporated into the Issues and Response Reports (Appendix D8). At the request of I&APs, electronic recordings of the meetings were also made available to those who requested such recordings.

7.4.7 Consultation with Authorities

Meetings with Authorities have been held as indicated in **Table 7-17**:

Table 7-17: Authority meetings held for the Draft EIR

Date	Authority	Area	Time
03 June 2010	Eastern Cape Department of Economic Development and Environmental Affairs	Port Elizabeth	10h00 – 13h00
07 July 2010	South African Heritage Resources Agency	Cape Town	11h00 – 13h00

The objectives of meetings held with Authorities were to
(a) update them on the EIA process; and
(b) present and discuss the findings of the Draft EIA report and the specialist reports.

7.5 Public Participation for the Revised Draft EIR

As indicated above, owing to concerns from the public about the quality and inclusivity of some of the specialist reports, the EIA team decided to revise selected specialist reports and provide a Revised Draft EIR for public review. The Revised Draft EIR is the result of this revision.

7.5.1 Public review of the Revised Draft EIR and EMP

The Revised Draft EIR and EMP were made available simultaneously at various public places identified in consultation with I&APs for their review and comment. The Revised Draft EIR was made available for public review and comment from 09 May 2011 to 07 August 2011 (i.e. 90 days).

Public participation during the Impact Assessment Phase of the EIA was focused on:

- A review of the findings of the EIA, presented in the Draft EIR and its accompanying specialist reports, with specific emphasis on the reports that have been amended since the Draft EIR was provided for public review; and
- Distribution of relevant reports and EIA information to the public.

7.5.2 Distribution of the Revised Draft EIR and EMP to the public

Public participation during the Impact Assessment Phase of the EIA focused on:

- A review of the findings of the EIA, presented in the Draft EIR and its accompanying specialist reports; and
- Distribution of relevant reports and EIA information to the public.

Public venues where the Revised Draft EIR was made available for public review are indicated in **Table 7-18**.

Table 7-18*: Venues where the Revised Draft EIR was made available*

No	*Area*	*Venue*	*Street Address*
		EASTERN CAPE	
1	Humansdorp	Humansdorp Public Library	9 Bureau Street
2	Jeffrey's Bay	Jeffreys Bay Public Library	33 Da Gama Road
3	Kareedouw	Kareedouw Public Library	5 Keet Street
4	Kruisfontein	Kruisfontein Public Library	Cupido Street, Kruisfontein
5	Oyster Bay	Oesterbaai Eiendomme	6 Tornyn Street, Oyster Bay
6	Plettenberg Bay	Plettenberg Bay Public Library	Building No 29, Spar Centre, Marine Drive
7	St Francis Bay	St. Francis Bay Public Library	No 1 Assissi Drive, St. Francis Bay
		WESTERN CAPE	
8	Atlantis	Atlantis Public Library	Civic Centre, Grosvenor Avenue
9	Bredasdorp	Bredasdorp Public Library	Church Street, Bredasdorp
10	Baardskeerderbos	Baardskeerderbos Winkel	22km from Gansbaai on Elim Road
11	Cape Town	GIBB Cape Town Offices	14 Kloof Street, Cape Town
12	Cape Town	Table View Public Library	Birkenhead Road, Table View
13	Elim	Elim Library Depot	3 Waterkant Street, Elim
14	Gansbaai	Gansbaai Public Library	Main Road, Municipal Buildings

No	Area	Venue	Street Address
15	Hermanus	Hermanus Public Library	Civic Centre, Magnolia Street
16	Koeberg	Koeberg Public Library	Merchant Walk, Duynefontein
17	Milnerton	Milnerton Public Library	Pienaar Road
18	Welverdiend	Welverdiend Public Library	Ou Meule Street, Bredasdorp
19	Wolvengat	Jenny's Handelaar	Main Road, Wolvengat
GAUTENG			
20	Johannesburg	GIBB Sunninghill Office	14 Eglin Road, Sunninghill, Johannesburg

7.5.3 Announcing opportunity to comment on the Revised Draft EIR

The announcement of the availability of the Revised Draft EIR was undertaken as follows:

- All I&APs on the project database were notified through personalised letters of the Revised Draft EIA Report availability;
- All reports, including Specialist Study reports were uploaded on the following websites:
  - Eskom website: www.eskom.co.za/eia under 'Nuclear 1 Generation' link; and
  - GIBB website: http://projects.gibb.co.za under 'Revised Draft EIA Report' link;
- Media advertisements (**Table 7-19**) were placed in various local, regional and national newspapers advising the general public of the availability of the Revised Draft EIR as well as opportunities for participation during the review period. and
- Key Stakeholders were notified of the availability of the Revised Draft EIR and also invited to Key Stakeholder Feedback Meetings.

Table 7-19: Newspaper advertisements announcing the availability of the Revised Draft EIR

PUBLICATION	DISTRIBUTION	LANGUAGE	DATE
Sunday Times	National	English	08 May 2011
Cape Times	Regional, Western Cape	English	03 May 2011
Die Burger	Regional, Eastern and Western Cape	Afrikaans	04 May 2011
Hermanus Times	Local, Southern Cape	English	05 May 2011
Table Talk	Local, Western Cape	English	04 May 3011
Tygerberger Milnerton	Local, Western Cape	English	04 May 2011
Tygerberger Tableview	Local, Western Cape	English	04 May 2011
Easi Ads	Local, Western Cape	English	06 May 2011
Die Gansbaai Courant	Local, Southern Cape	Afrikaans	04 May 2011
Suidernuus	Local, Southern Cape	Afrikaans	06 May 2011
The Herald	Regional, Eastern Cape	English	04 May 2011
Kouga Express	Local, Eastern Cape	English	06 May 2011
Our Times	Local, Eastern Cape	English	05 May 2011
P E Express	Local, Eastern Cape	English	04 May 2011

Furthermore, all registered I&APs were notified of extensions to the review period via mail, email and through telephonic notifications and telephone calls were made to representatives of interest groups to advise them of this extension.

In view of concerns raised about the accessibility of the information in the Revised Draft EIR, especially to communities who have home languages other than English, the Revised Draft EIR included an Executive Summary in Afrikaans and isiXhosa, as well as isiXhosa and Afrikaans versions of the executive summaries of all specialist reports. Open house meetings

were also held in communities that have requested this due to is a high degree of illiteracy, in order to promote understanding of the findings of the EIA.

7.5.4 Opportunity provided to comment on the findings of the Revised Draft EIR

The following methods of public review of the Revised Draft EIA Report were available:

- An English Executive Summary of the Revised Draft EIA Report accompanied all notification letters, which were distributed to registered Interested and Affected Parties (I&APs) by mail and/or email. Afrikaans and isiXhosa Executive Summaries of the Revised Draft EIA report were made available at all meetings with I&APs;
- Submitting comments in writing to the Public Participation Office by mail, fax or email;;
- Printed copies of reports were made available for viewing at the public venues, including libraries (**Table 7-18**);
- CD copies of reports were distributed to key stakeholders during the review period and made available to other I&APs on request; and
- Attending meetings held to discuss the contents of the Revised Draft EIR.

7.5.5 Meetings held to facilitate review the Revised Draft EIR

There was a range of meetings, which included public meetings, open house meetings and key stakeholder meetings. The three key objectives of the meetings held as part of the Revised Draft EIR review were to:

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

The meetings held to facilitate review of the Revised Draft EIR during the time when it was available for public comment are indicated in **Table 7-20.**

Table 7-20: **List of public meetings and open houses to facilitate the review on the Revised Draft EIR**

VENUE	DATE	TIME
Western Cape, Pretorius Hall, Main Road, Gansbaai	Monday 23 May 2011	17h00 - 18:00 Public Open House and 18h00 - 20h00 Public Meeting
Western Cape: Atlantic Beach Golf Club, Melkbostrand	Wednesday 25 May 2011	17h00 - 18:00 Public Open House and 18h00 - 20h00 Public Meeting
Sea Vista Community Hall, Sea Vista	Sunday 29 May 2011	14h00 - 17h00 Public Open House
Eastern Cape, Oyster Bay Hall, Oyster Bay	Monday 30 May 2011	17h00 - 18:00 Public Open House and 18h00 - 20h00 Public Meeting
Eastern Cape, St. Francis Links Golf Club, St. Francis Bay	Tuesday 31 May 2011	17h00 - 18:00 Public Open House and 18h00 - 20h00 Public Meeting
Eastern Cape, Sea Vista Community Hall, Sea Vista	Wednesday 01 June 2011	16h30 - 18h00 Public Open House and 18h00 - 20h00 Public Meeting
Eastern Cape, Humansdorp	Thursday 02 June 2011	17h00 - 18:00 Public Open

Country Club, Humansdorp		House and 18h00 - 20h00 Public Meeting

7.5.6 Consultation with authorities for the Revised Draft EIR

The Revised draft EIR was distributed to the following state Departments:

- National Department of Environmental Affairs;
- Eastern Cape Department of Economic Affairs, Environment and Tourism; and
- Western Cape Department of Environmental Affairs and Development Planning.

Meetings with Authorities during the time that the Revised Draft EIR was available for public comment are indicated in
Table 7-21 below:

Table 7-21: Authority meetings for the Revised Draft EIR

Date	Authority	Area
07 June 2011	Eastern Cape Department of Economic Development and Environmental Affairs	Port Elizabeth
24 May 2011	Western Cape Department of Environmental Affairs and Development Planning	Cape Town
24 May 2011	South African Heritage Resources Agency	Cape Town
28 July 2011	Department of Environmental Affairs and its independent review panel for the Nuclear-1 EIA[4]	Port Elizabeth

The objectives of meetings held with authorities were to
- update them on the status of the EIA process; and
- present and discuss the findings of the Revised Draft EIR and the specialist reports.

7.6 Summary of issues raised

The contributions received to date during the Scoping and EIA Phases have greatly enriched the EIA process. A range of issues was raised as reflected in the extensive written comments, minutes of meetings and workshops and in the Issues and Response Reports that have accompanied the Draft and Final Scoping Reports and the Draft EIRs. These issues have guided the approach to the EIA and the Terms of Reference for specialist studies.

7.6.1 Selected thematic issues and responses

Although individual responses are provided to issues that have been raised in the Issues and Response Reports (IRRs) (Appendix D8), the volume of individual IRRS and the number of IRRs makes the amount of information difficult to digest for I&APs and authorities alike. Review of every individual response would not facilitate understanding of the key issues and the EIA team's response to these issues. Although cross-references are provided between the EIR to the individual IRRs, this can be easily missed by readers. A thematic approach is therefore followed, whereby issues that have been raised by I&APs are grouped thematically and responses are provided to the most common and significant issues that have been raised

[4] GIBB did not minute this meeting as it was called at the DEA's request.

or issues that are likely to be raised. The most significant issues that have been raised most frequently by I&APs have been summarised thematically in **Table 7-22**. This table provides a succinct but coherent response in respect of the major themes of the EIA process.

Issues that have been raised that are common to all sites are the following:

- Concerns about nuclear technology in general and opposition to nuclear energy generation in principle[5];
- Consideration of alternative electricity generation alternatives, with a specific emphasis on renewable energy (solar and wind power) and the comparative costs of nuclear vs. renewable generation;
- Financial implications of the proposed nuclear power stations (including economic implications to the consumer and impacts on electricity prices);
- Provision for insurance for a nuclear disaster;
- Economic impact of a nuclear power station;
- Risks associated with human health including the potential impacts of a catastrophic incident;
- The impact of Emergency Planning Zones around the power station on land use and land use planning; and
- Concerns around waste disposal (including high-level nuclear waste).

Issues that have been raised have reflect the concerns of a wide range of different people, groups and organisations, special interest groups and private individuals.

[5] The majority of I&APs who have actively engaged in the EIA process are those who are opposed to nuclear technology in principle or opposed to large a development close to the area where they live. .

Table 7-22: Common thematic issues and responses

Issues/comments	Response	Reference: Revised Draft EIR Version 2 and Appendices
EIA process and related authorisation processes		
1. Authorisation in terms of the NNR licensing process	There is a degree of duplication and overlap in the legislation applying to authorisation of a nuclear power station, in that radiological issues for a nuclear power station are required to be addressed by the NEMA and the NNR Act. This situation is not unique in environmental legislation. There are a number of environmental issues that are governed by different acts or sets of legislation and there may be significant overlaps between the responsibilities of different authorities with respect to a single resource or issue. For instance, authorisations for activities that may impact on water resources are governed by both the NEMA (and its subsidiary EIA regulations) and by the National Water Act, 1998 (NWA). The NWA requires a Water Use License for certain activities specified in Section 21 of the NWA, and the procedural requirements for issuing of a Water Use License are different to those for an environmental authorisation under NEMA. Thus, the legal mandates of different authorities overlap with respect to water resources. The overlap of legal mandates also applies to the Department of Environmental Affairs and the NNR with respect to the authorisation of nuclear facilities. The approach in previous versions of this Draft EIR has been to defer radiological issues to the NNR licensing process and provide only high level compact versions of certain aspects/ chapters of the Site Safety Reports, as agreed in the plan of study approved by the DEA, that are required for NNR licensing in the EIR. However, this approach carries the risk that the EIA process may not provide relevant and sufficient information on the impacts of radiological issues to the DEA, which as a decision-making authority needs to apply its mind to the acceptability of all relevant potential environmental impacts of a proposed development. Refer in this regard to Regulation 31(2)(k) of the EIA regulations (Government Notice No. R 543 of 2010), which states the following: "*An Environmental Impact Assessment Report must contain all information that is necessary for the competent authority to consider the application and to reach a decision contemplated in regulation 35, and must include - a description of all environmental issues that were identified during the environmental impact assessment process, an assessment of the significance of each issue and an*	Chapter 6 of the Revised Draft EIR Version 2, Appendix B4

	indication of the extent to which the issue could be addressed by the adoption of mitigation measures." An assessment of radiological impacts (**Appendix E32**) has therefore been included in this Revised Draft EIR Version 2. The purpose of this assessment will be to quantify and assess the environmental (health) impacts of normal operational process and "Design Basis Accidents" (DBAs) for Nuclear-1. This assessment will also assess whether the series of external events that happened in Japan in March 2011 could reasonably be expected to cause impacts similar to those of the Fukushima Daiichi nuclear accident to a Generation III nuclear power station constructed at any of the alternative sites considered for Nuclear-1.	
2. Mandate of the NNR	In addition to the EIA process, which is only one of a number of authorisation processes required for a nuclear power station, the license issued by the National Nuclear Regulator (NNR) is arguably the key license required for a nuclear power station. In terms of the National Nuclear Regulator Act 1999 (Act No. 47 of 1999, "the NNRA"), the NNR is responsible for regulating the management of radiation hazards from nuclear facilities. The National Nuclear Regulator Act therefore regulates the safety of nuclear activities. As specified in Chapter 2, section 5 of the NNRA (1999), the object/mandate of the NNR is to: *(a) provide for the protection of persons, property and the environment against nuclear damage through the establishment of safety standards and regulatory practices:* *(b) exercise regulatory control related to safety over-* *(i) the siting, design, construction, operation, manufacture of component parts, and decontamination, decommissioning and closure of nuclear installations; and* *(ii) vessels propelled by nuclear power or having radioactive material on board which is capable of causing nuclear damage, through the granting of nuclear authorisations;* *(c) exercise regulatory control over other actions, to which this Act applies, through the granting of nuclear authorisations;* *(d)\ provide assurance of compliance with the conditions of nuclear authorizations through the implementation of a system of compliance inspections;* *(e) fulfill national obligations in respect of international legal instruments concerning nuclear safety; and* (f) ensure that provisions for nuclear emergency planning are in place.	Chapter 6 of the Revised Draft EIR Version 2

	License requirements Nuclear installation licences are required by section 21(1) of the Nuclear Energy Act, 1999. The process of applying for a licence to site, construct, operate, decontaminate or decommission a nuclear installation may be made by any person, who (or which) may apply in the prescribed format to the Chief Executive Officer of the National Nuclear Regulator. That person "…must furnish such information as the board requires." In the interest of transparency of the process, the NNR Chief Executive Officer is obliged, by virtue of the provisions of section 21(3) to direct the applicant for a nuclear installation licence to: • Serve a copy of the application upon (i) every municipality affected by the application; and (ii) any other body or person as the Chief Executive Officer determines; and • to publish a copy of the application in the Government Gazette and two newspapers circulating in the area of every such municipality. Regarding responses to the initiation of that process and the licensing process itself, the National Nuclear Regulator Act prescribes the entitlement of any person "who may be directly affected by the granting of a nuclear installation licence pursuant to an application in terms of section 21" to make representations to the board, relating to health, safety and environmental issues connected with the application, within a prescribed period of the publication of the application. The board, if it is of the opinion that further public debate is necessary, may arrange for such further hearings on health, safety and environmental issues as it determines. The Chief Executive Officer's powers to either refuse or grant a nuclear installation licence is subject to the board's approval, and the grant of a licence must be on such conditions as the Chief Executive Officer and the board may determine in terms of section 23 of the National Nuclear Regulator Act. **DEA / NNR Co-operative Governance Agreement** In recognition of the dual but distinct responsibility with respect to the assessment of radiation hazards, the NNR and the then DEAT signed a Cooperative Governance	

	Agreement (CGA) on 15 June 2006. This CGA has subsequently been superseded by a new DEAT-NNR Cooperative Agreement that was signed on 31 August 2007 and 6 September 2007 by DEAT and NNR respectively. According to the CGA, the scope of the agreement was intended to achieve the following: • Ensuring the effective monitoring and control of the nuclear hazard; • Coordinating the exercise of such functions; • Minimising the duplication of such functions and procedures regarding the exercise of such functions; and • Promoting consistency in the exercise of such functions. The CGA essentially provides a framework within which DEAT will consult with NNR on issues related to radiological aspects of the proposed nuclear power station. **Other associated regulations required by the NNR** Government Notice No. 287 of March 2004 provides for Regulations made by the Minister, on the development surrounding any nuclear installation to ensure the effective implementation of any nuclear emergency plan. • Regulation 3 provides that the Regulator shall lay down, where appropriate, specific requirements relating to the control and/or monitoring of development within the formal emergency planning zone surrounding a specific nuclear installation, after consultation with the relevant provincial and/or municipal authorities. • Regulation 4 provides, inter alia, that the relevant provincial and/or municipal authorities must – "(a) develop and implement processes, based on the requirements contemplated in section 3, including associated acceptance criteria, for the conduct of periodic assessment of: (i) current and planned population distribution; (ii) disaster management infrastructure; and (iii) new development, to ensure that the emergency plan, as contemplated in section 38 of the Act, can be effectively implemented at all times. In terms of section 38(2) of the NNRA, the Regulator must ensure that the emergency plan established, in terms of section 38(1), by agreement between the holder of the nuclear authorisation and the relevant municipalities and provincial authorities, is	

	effective for the protection of persons and the environment. Section 38(4) of the NNRA deals with the development surrounding a nuclear installation and provides that the Minister may, on recommendation of the Board of the Regulator and in consultation with the relevant municipalities, make regulations on the development surrounding any nuclear installation to ensure the effective implementation of any applicable emergency plan.	
3. Change in approach regarding assessment of radiological impacts in the Revised Draft EIR Version 2	As indicated above, duplication of environmental legislation is a reality of the South African legal regime. Up to the Revised Draft EIR, the EAP's approach was that radiological issues should be deferred to the NNR licensing process and that there should be minimal information on radiological issues in the EIR. However, an analysis of legal precedents (judgements in court cases) as well as a suite of environmental and administrative legislation indicated that this approach may carry significant legal risks and that a more cautious and inclusive approach should be followed. Thus, the approach of the EIA has changed to include a radiological assessment to determine the potential radiation exposure from the proposed nuclear power station during normal operational conditions and upset conditions. This revised approach is based on the following: • Legal precedents that have addressed the issue of overlap in legal mandates and failure to address relevant substantive issues in the EIA process. Courts have recognised the dual mandates or roles of government institutions in these precedents; • The requirement, in administrative legislation such as the Promotion of Administrative Judgement Act, 2000 (Act No. 3 of 2000) that all substantially relevant considerations must be taken into account. In the context of an application for authorisation of a nuclear power station, potential health impacts of radiation should be understood to be within the ambit of the wide definition of environmental impacts in the NEMA; • Exclusion of substantive issues such as radiological impacts from the EIA may not stand the test of the Equator Principles, which are used by lenders to evaluate whether a project has met all relevant environmental requirements and legislation. In summary, potential conflict and overlap between legal mandates is not seen as an issue that would justify one authority not considering an issue on the basis that another one has done so or will do so. Thus, the fact that the NNR will consider radiological issues of Nuclear-1 during its licensing process does not mean that the DEA can	

	ignore these issues within the scope of the EIA process. By implication, radiological impacts must be considered in the EIA so that the DEA can apply its mind to the issue to ensure compliance to the applicable legislation.	
4. EIA method – weighting and ranking of sites	Weighting of the three alternative sites has been removed from the Revised Draft EIR Version 2, as it gives a perception of bias. A qualitative approach and not a quantitative approach to the comparison of alternative sites has been used on the recommendations in the Revised Draft EIR Version 2. Judgement is an imperative and a necessary part of EIA, as the EIA regulations (2006) and the NEMA (Act no. 107 of 1998) require the EAP to exercise professional judgement in the process on undertaking his/her duties. All specialists also exercise judgement based on their professional background, experience and the findings relative to the project and the particular sites.	Chapter 10 of the EIR
5. Apprehension of bias	GIBB is an independent environmental consultancy with the expertise in conducting environmental impact assessment, including knowledge of the National Environmental Management Act, the EIA regulations and relevant guidelines. GIBB has performed work related to the application in an objective manner. The EAP and all specialists have signed written declarations of independence to affirm their independence from Eskom.	
6. Insufficient information for decision-making, particular with respect to the squid fishery	The Marine Ecology Assessment (Appendix E15 of the Revised Draft EIR) has been substantially revised to ensure that it is based on the most up to date knowledge and it has additionally been reviewed by the Scientific Squid Working Group (SSWG), an advisory body of foremost scientists that advises the Department of Agriculture Forestry and Fisheries (DAFF) on the management of the South African squid fishery. The findings of the Marine Ecology Assessment are based on confirmed and objective commercial data provided by the DAFF. These data indicate the areas where activities of the squid fishing fleets are known to occur. Claims have been made by the SA Squid Management Industry Association (SASMIA) that declines of up to 30% in squid catches may occur as a result of Nuclear-1. This figure appears to have been calculated using only four selected vessels, which is a gross under-representation of the chokka squid fleet. Commercial data for the same area provided by DAFF (i.e. the commercial database) was analysed by the SSWG (Appendix 6 of the Marine ecology Assessment. In this analysis the SSWG assumed a 'worst-case' scenario i.e. that any area covered by more than 0.5 cm of sediment	Marine Ecology Assessment and its Appendix 6

	would be permanently lost as suitable spawning habitat. This conservative approach thus considered the loss of 18.1 km² of habitat (i.e. it includes the area to where spoil will move through time). This represents a loss of 20.5% of nearshore squid spawning sites that have been recorded between Tsitsikamma and Algoa Bay (Sauer et al. 1992). It should be born in mind that the species is also known to spawn in deep off-shore waters. Information provided by the SSWG indicated that the two fishing blocks adjacent to Thyspunt (quarter degree squares are themselves much larger than the actual area where fishing is performed) that will be affected by spoil disposal accounted for an average of 13.43% of total catches between 2006 and 2011. **By applying the precautionary principle and assuming that all spawning grounds in this these blocks would be lost due to spoil disposal**, it is predicted that 13.45% of catches would be displaced to other fishing blocks, as adult squid move to new spawning grounds. After its review of the Marine Ecology Assessment, the SSWG made the following statements regarding this assessment: • The recommendations were found to be well researched and well-articulated. • The conclusion of the study was found to be satisfactory in relation to the likely impact on squid, although there are some reservations around the accuracy of the statement made regarding the discharge of brine into the breaker zone[6].	
7. Use of "envelope" design	It is common practice in EIA processes, especially for installation of industrial plants, to consider the performance of the systems and type of technology proposed to be installed, without referring to specific suppliers or manufacturers of this technology, of which there may be a range available in the market. As long as the inputs and outputs of the proposed technology are known and the environmental impacts can be predicted or deduced from these inputs and outputs with reasonable certainty, it is not necessary to know the brand name of the technology to make a reasonable assessment of impacts. It may be appropriate to explain the envelope of criteria in colloquial terms, as has been done in public meetings during the Nuclear-1 EIA process. If the envelope of criteria is compared to the specifications for buying a vehicle, this envelope may	

[6] The Marine Ecology Assessment contained a recommendation that brine produced by desalination of seawater should be discharged into the surf zone during construction. However, based on experience of other projects where this practice has been followed, it has been concluded that in some circumstances, brine is not dispersed in the surf zone but tends to be retained, resulting in higher salinity. The recommendation in the Revised Draft EIR Version 2 has therefore been changed to discharge of brine beyond the surf zone in the construction phase. Discharge beyond the surf zone has always been recommended for the operational phase.

	contain requirements with respect to top speed, fuel type, fuel efficiency, catalytic convertor performance, type of tyres and wheels, fuel tank size, effective range, CO2 emission limits, cruise control, numbers and positions of airbags and a number of other safety systems such as ABS and EBD. The only thing that isn't specified is the brand of vehicle. Providing such a list of criteria would ensure that only a luxury vehicle with certain characteristics could qualify, but that a base model (entry-level vehicle) would not qualify. Similarly, if a vendor proposes a power station design that fails to comply with the criteria established in the Consistent Dataset (Appendix C of the EIR), that design will not qualify for consideration. Assuming that an authorisation is granted by the DEA, a power station design that deviates significantly from that specified in the Consistent Dataset in the Nuclear-1 EIR would render the design incapable of meeting the requirements of the EIR and the authorisation. Hence such a non-confirming design could not be considered for construction.	
Consideration of alternative generation technologies		
8. Alternative generation options (including renewables)	A significant number of comments have been received during the period of availability of the Draft and Revised Draft EIRs that wind-generated power must be considered as an alternative to a nuclear power station. This is especially true in the Eastern Cape around the Thyspunt site, as EIA processes are currently being undertaken for a number of wind energy facilities in the area. According to the DEA's database of applications (data updated in December 20120), there have been at least 16 wind farm applications in the Kouga region and according to other unconfirmed sources, at least eight wind farms in this regions have been authorised. At least two wind farms were under construction in this region during September 2013. In order for Eskom to achieve its objective of providing reliable power to all sectors of South African society, it requires reliable sources of power generation that will supply a consistent **base load** power that can be efficiently integrated into the existing South African power network. Only certain electricity generation technologies are presently commercially available as base load generation alternatives. Some renewable alternatives are not necessarily financially viable in South Africa, based largely on the availability of resources (fuel) and geographical constraints. The then DEAT's approval of the Final Scoping Report and the Plan of Study for EIA for the Nuclear-1 EIA accepted that different power generation technologies such as renewables do not need to be investigated in the EIA phase of the Nuclear-1 EIA.. It	Chapter 5 of the Revised EIR Version 2

	needs to be emphasised that **nuclear power is not being pursued as an alternative to any form of renewable power generation or to the exclusion of any other power generation technology.** All forms of power generation have an appropriate role in the mix of generation alternatives. No technological alternative for power generation can be assumed to be ideal for all purposes in all circumstances, and their application is dependent on their characteristics. The relative contributions of different generation technologies have been determined by the Integrated Resource Plan (IRP) 2010, based on the needs of the South African energy market.	
9. Spatial implication of alternative renewable technologies	The possible spatial implications of wind power as an alternative to nuclear power is provided for comparison below, since as indicated above, many comments suggest that wind generation should be pursued instead of nuclear. A number of wind energy facilities are currently being considered in South Africa, especially in the coastal regions where the wind regime is suitable. The location / space required for wind farms is dependent on a large number of variables such as wind speed, wind direction, turbine size / capacity, topography (i.e. small hills, valleys), land conditions (i.e. sensitive areas, fauna), surface roughness (it is preferable to avoid trees and bushes, etc.), ground conditions and human settlements. Generally, based on some rules of thumb, a spacing of eight turbine rotor diameters downwind and four turbine diameters across wind can be applied. If one has a prevailing wind direction where the wind originates from for the majority of the time, wind turbines can be placed four diameters apart (cross wind). However, if the wind direction varies more (as is the case with most coastal areas with pressure driven wind systems), then the turbines need to be placed eight rotor diameters apart down wind and cross wind. Areas with a unidirectional or bi-directional wind are generally thermally driven systems typically found in regions such as at Sutherland or on escarpments. Turbine rotor diameters vary from 80 m to 120 m. In this instance, a 90 m diameter has been used an as example and capacity of 2 MW per turbine has been assumed. If a spacing between turbines of eight rotor diameters by eight rotor diameters is assumed, then an area of 345 600 ha will be required for 13 333 MW of installed capacity. This	Chapter 5 of the Revised Draft EIR Version 2

	increased installed capacity will be required due to the fact that wind is not available at all times and a capacity factor[7] of 30 % is assumed. The effective power produced from 13 333 MW of installed capacity will be 4 000 MW. The actual space that will be used will inevitably be greater than these estimates due to not all pieces of land within this area being suitable for turbine placement. For comparative purposes, it is estimated that the total area required for Nuclear-1 to generate the same output is approximately 200 - 280 ha, depending on the topography of the site. This footprint includes the reactor and auxiliary buildings and laydown areas required during construction (including temporary topsoil storage areas). The actual space that the wind turbines would render unusable for activities such as farming is less than 1 % of the affected area. This is the footprint of the turbines (an area of approximately 18 x 18 m per turbine foundation), a clearance area around each turbine (for fires, etc.), roads, sub-stations, etc. Potential environmental impacts that typically need to be considered for wind turbines include the footprints of the wind turbines and associated infrastructure such as access roads, electric lines and substations, noise of the rotating turbines, visual impacts (which are usually substantial due to the height or the turbines and the movement of the blades) and impacts on birds and bats (usually substantial). Traffic impacts during construction could also be expected to be significant due to extra heavy vehicles that would need to be used to transport the large masts and blades. Thus, apart from the potential high significance impacts of very low probability associated with a nuclear power station, other impacts such as the physical footprint of wind turbines, visual impacts, impacts on birds and bats could be expected to be greater than a nuclear power station, whilst impacts on biota such as birds and bats can be expected to be greater than nuclear for wind generation.	
10. Consideration of energy efficiency as an alternative to increased electricity generation	Many suggestions have been made by interested and affected parties that energy efficiency should be pursued as an alternative to generating more electricity. The growth in the demand for electricity is expected to continue into the future, despite Government and Eskom having initiated energy efficiency (Demand Side Management or DSM) and electricity conservation programmes. Although DSM has already realised	Chapter 4 of the Revised Draft EIR Version 2

[7] Percentage of time that the system can generate full capacity

	demand savings of 2,997 MW for the combined financial years 2005 to 2012 (Eskom 2012), and DSM must form an essential part of the strategy to meet South Africa's energy demand, the IRP 2010 has predicted that DSM would be able to provide savings of only up to 3,422 MW by 2020 (Department of Energy 2010b). DSM is therefore only one of a number of solutions to increasing demand that needs to be implemented and is not sufficient on its own to ensure security of electricity supply for the next two decades. Additional generation capacity is therefore required.	
Nuclear safety issues		
11. What is a Generation III nuclear power station and why is it regarded to be safer than older designs of nuclear power station?	Generation III/III+ reactors are advancements of Generation II reactors largely due to safety enhancements to the Generation II reactors. The Generation III design salient features are (World Nuclear Association 2009): • A standardised design for each type to expedite licensing, reduced capital cost and reduced construction time; • A simple and rugged design, making them easier to operate and less vulnerable to operational upsets; • High availability and longer operating life than Generation II reactors - typically 60 years; • Reduced possibility of core melt accidents; • Minimal effect on the environment; • Higher burn-up to optimise fuel use and reduce the amount of waste; • Burnable absorbers to extend fuel life; and • These plants have more defence in depth and diversity in meeting their safety functions and hence ensuring safety. • In general a Generation II reactor is expected to have a possibility of core damage of less than 1 in 10,000 operating years, with a 1 in 10 chance of subsequent containment failure. For a Generation III reactor core damage frequency is up to two orders of magnitude better and the containment performance an order of magnitude better. The most significant inherent safety feature of Generation III plants is that they require fewer active controls or operational intervention to mitigate accidents and may rely on passive safety features like gravity, natural convection or resistance to high temperature in the event of loss of power in order to maintain cooling to the power station.	Chapter 3 of the Revised Draft EIR Version 2

12. Precedents for Generation III nuclear power stations – under construction and in operation	A number of comments have been received regarding the number of Generation III power stations currently in operation or under construction. Power stations using Generation III designs are currently being constructed in a number of countries e.g. China, Japan, Finland, France, Russia and the USA. Worldwide, no Generation III / III+ PWR power plants are yet in operation. Generation III/III+ Boiling Water Reactors (BWR) have been in operation in Japan since 1996 and two are under construction in Taiwan.	Chapter 3 of the Revised Draft EIR Version 2
13. Radioactive waste management	Radioactive waste management practices envisaged for Nuclear-1 are consistent with the IAEA guidelines for a Radioactive Waste Management Programme for nuclear power stations, from generation to disposal. The Nuclear-1 Nuclear Power Station strives to minimise production of all solid, liquid and gaseous radioactive waste, both in terms of volume and activity content, as required for new reactor designs. This is being done through appropriate processing, conditioning, handling and storage systems. In addition, production of radioactive waste is minimised by applying latest technology and best practices for radiological zoning, provision of active drainage and ventilation, appropriate finishes and handling of solid radioactive waste. Where possible, the Nuclear-1 power station will reuse or recycle materials. Three types of waste will be generated at the proposed Nuclear-1 power station, irrespective of the location of the plant and its associated infrastructure. These are gaseous, liquid and solid radioactive waste. The latter can be divided further into: • High level waste (HLW); • Intermediate-level waste (ILW); and • Low-level waste (LLW). The potential impacts on human health and the environment associated with radioactive waste relate principally to health effects associated with the irradiation of living tissue in humans and non-human biota. For this impact to occur, humans and non-human biota have to be exposed (in sufficient quantity and time) to the radionuclides associated with the waste either through direct ingestion or inhalation of the radionuclides or through external exposure (gamma radiation). All forms of radioactive wastes are strictly controlled and numerous specialised systems and management practices are in place to prevent uncontrolled contact with these substances. These controls and practices differ for the different forms of radioactive waste.	Chapter 3 and 10 of the EIR Version 2, Appendix E29 of the EIR

	Gaseous and liquid wastes are almost exclusively associated with the operation of the proposed Nuclear-1 Nuclear Power Station. Specific systems are included in the design and operation of the Nuclear Power Station to control releases under Normal Operation and Anticipated Operational Occurrences. Annual Authorised Discharge Quantities (AADQs) are defined so that discharges do not exceed a fraction of the dose limit for the public (dose constraint) when applied to the critical group. Low and intermediate level waste (LILW) solid waste will be managed according to predefined systems and management practices. These include procedures for the predisposal management (processing, storage and transport) of the waste. Generally, it will be handled similar to the operational waste generated at the Nuclear-1 Nuclear Power Station, after which it will be disposed of at the national radioactive waste disposal facility at Vaalputs. The transport of LILW to Vaalputs is done by road according to the provisions of the IAEA Regulations for the Safe Transport of Radioactive Material (IAEA, 2009). South Africa still has to formally release a strategy for the long-term management of HLW, including spent fuel. Until such time, all spent fuel is stored temporarily either in spent fuel pools (wet storage), or in dry cask storage facilities (dry storage). This allows the shorter-lived isotopes to decay before further handling, a management strategy that is acceptable from a safety perspective. It must be noted however that as per the Department of Energy's Media Statement on Nuclear Procurement Process Update as released on 14 July 2015 strategies are complete to develop an approach for South Africa to deal with Spent Fuel/High Level Waste disposal. Disposal of radioactive waste at an authorised facility is being done according to an approved disposal concept, defined and developed with due consideration of the nature of the waste to be disposed of and the natural environmental system, collectively referred to as the disposal system. The disposal system developed for this purpose makes provision for the containment of radionuclides until such time that any releases from the waste no longer pose radiological risks to human health and the environment. The safety assessment process used as basis for this purpose considers both intentional (as part of the design criteria) and unintentional (natural or human induced conditions) releases of radionuclides. Unintentional releases include consideration of unintentional human or animal intrusion conditions, which might lead to direct access and external exposure to radiation. Once released into the environment, radionuclides might migrate through the	

	environmental system along three principle pathways: atmospheric, groundwater and surface water. Due to the physical nature of LILW and HLW disposal concepts, migration along the atmospheric pathway is highly unlikely. The principle environmental pathway of concern is thus the groundwater pathway, with the surface water pathway of secondary concern as an extension of the groundwater pathway. Disposal systems are designed so that releases to groundwater or surface water are highly unlikely.	
14. How large are the Emergency Planning Zones (EPZs) for Nuclear-1?	At this stage, the exact delineation of the Emergency Planning Zones (EPZs) is unknown and the sizes of the EPZs have been assumed, based on current international practice for Generation III reactors. The extent of the emergency planning zones will be set by the NNR licensing process. EPZs assist in accomplishing the emergency response goals by careful controlling the activities in the region closest to a nuclear power station. In order to provide some clarity on the purpose of such zones, the existing Koeberg power station emergency zones are briefly discussed below as an example. Given that the technology of nuclear reactors has changed significantly since the commissioning of Koeberg, it is likely that the EPZ will be reduced in comparison to Koeberg Nuclear Power Station's EPZs. The emergency planning zones for Koeberg are characterised by 5 km and 16 km radii around the power station. The 5 km radius around Koeberg is referred to as the Protective Action Zone (PAZ) and the zone between 5 - 16 km radius is referred to as the Urgent Protective Zone (UPZ). It is likely that the corresponding EPZs for the new nuclear power station will be reduced to 800 m and 3 km respectively. The EPZs for the KNPS should, therefore, be regarded as worst case scenarios, which are unlikely to be applied to the new Generation III technology. The reduced EPZs are based on European Utility Requirements (EUR) standards, which prescribe that modern nuclear power plants should have no or only minimal need for emergency interventions (e.g. evacuation) beyond 800 m from the reactor.	Chapter 3 of the EIR Version 2
15. Has Eskom provided insurance for nuclear disasters?	South Africa has not signed the Vienna Convention on Civil Liability for Nuclear Damage. However, Section 29 of the National Nuclear Regulator Act requires Eskom to make financial provision for insurance for a nuclear disaster. Regulations that are issued by the Minister of Energy stipulate how much financial provision must be made (Regulation promulgated in Government Notice No. R 581 of 2004). Section 29 of the NNR Act also allows for the Minister to require additional financial provision beyond what is stipulated by the Regulation. Section 33 of the NNR Act also makes provision	

	for the Minister to go back to Parliament to appropriate more funds if this is required. The current figure stipulated in GN R 581 of 2004 is R2.4 billion. Eskom makes the financial provision through insurance obtained from the international nuclear insurance pools. This is in dollar denomination, resulting in a current financial provision in excess of R3 billion. Every year Eskom has to provide proof that the financial provision (insurance) has been obtained.	
16. Is sufficient provision made for response to a nuclear emergency?	Eskom proposes to construct and operate a nuclear power station in line with the safety philosophy of the European Utility Requirements (EUR) for Light Water Reactor (LWR) Nuclear Power Plants. This safety philosophy requires enhanced safety features of LWRs and which result in less restrictive requirements for emergency planning than those older generation power stations such as the KNPS. Emergency preparedness in the context of an NPS can be defined as the measures that enable individuals and organisations to stage a rapid and effective emergency response in the context of nuclear emergencies. Protective actions include measures to limit the exposure of the public to radioactive contamination through external exposure, inhalation and ingestion. The objectives of these actions are to prevent early acute radiation effects referred to as deterministic effects and to reduce the likelihood of late radiation effects referred to as stochastic effects, principally cancer. For nuclear emergencies, two sets of requirements have to be fulfilled. • Functional (response) requirements; and • Infrastructure (preparedness) requirements. Functional response requirements refer to the “capability” to perform an activity. The “capability” includes having in place the necessary authority and responsibility, organisation, personnel, procedures, facilities, equipment and training to effectively perform the task or function when needed during an emergency. The importance of these site related factors are dependent on the nuclear hazard posed by a nuclear power station (NPS). Safety objectives of the new generation NPS envisaged for Eskom entail enhanced safety design features when compared to most existing operating nuclear reactors in the world today. Design features are included in these reactors to practically eliminate severe accidents and to enable simplification of the emergency planning and off-site countermeasures in the following manner: • Minimal emergency protection action beyond 800 m from the reactor during early releases from the reactor containment; • No delayed action such as temporary transfer of people at any time beyond	Chapter 3 of the Revised EIR Version 2, Appendix 26: Emergency Response Assessment

	approximately 3 km from the reactor; • No long term action involving permanent (longer than 1 year) resettlement of the public at any distance beyond 800 m from the reactor; • Restriction on the consumption of foodstuff and crops should be limited in terms of timescale and ground area in order to limit the economic impact. The key findings and recommendations of this Emergency Response Assessment (Appendix 26 of the EIR) are summarised as follows: a. Infrastructure Considerations The Duynefontein Site includes the existing Koeberg Nuclear Power Station, therefore the emergency response infrastructure and systems are in place. The outcomes of the Safety Analyses, done prior to commissioning as part of the Safety Analysis Report has to confirm that the current infrastructure would be adequate to cope with the demands of the additional and proposed Nuclear-1 Power Station. The Bantamsklip and Thyspunt sites may require only limited upgrading of infrastructure, for example roads leading to and from the NPS. b. Population Distribution The Thyspunt and Bantamsklip sites are located in low population areas. The Duynefontein site has a higher population density. However, an extensive nuclear emergency plan is already in place for the KNPS. A new nuclear power station will be integrated into this emergency plan.	
Spatial planning		
17. Impact on spatial planning in the areas surrounding the proposed power stations, especially in the City of Cape Town	The proposed Nuclear-1 power station will have smaller emergency planning zones (EPZs) than the Koeberg Nuclear Power Station (as indicated with respect to emergency planning zones in this table above). This assumption is supported by statements by the NNR. For instance, in a presentation to the Parliamentary Select Committee on Economic Development on 1 June 2010, the Chief Executive Officer of the NNR stated the following: “One major outcome of these new designs is that the emergency planning zones, specifically the Urgent Planning Zone, which is the zone within which evacuation of the public has to be catered for, would in all likelihood be reduced from 16 km in the case of Koeberg, to a much smaller radius which could fall within the property owned by the holder”. Should the existing EPZs of the KNPS continue to exist, the EPZs for Nuclear-1 would, therefore, have no impact on spatial planning or expansion of the city of Cape Town along the West Coast Corridor.	

	Similarly, at the Bantamsklip and Thyspunt sites, imposition of the proposed emergency planning zones would impose little restriction on urban expansion. Cape St. Francis and St. Francis Bay are more than 10km from the proposed location of the power station at Thyspunt and Oyster Bay is more than 4km from the site. No urban development could therefore be expected to take place within the 800m radius Protective Action Zone (PAZ) or the 3km radius Urgent Protective Zone (UPZ). At Bantamsklip the closest settlements (Pearly Beach and Buffeljagsbaai) are respectively approximately 7km and 5km from the proposed location of the power station, thus also far outside the PAZ and UPZ.	
Impacts of associated infrastructure		
18. Roads	Existing off-site access routes will be used and upgraded for the Duynefontein and Bantamsklip sites, but the Thyspunt site will require significant upgrading of existing public roads. The environmental impacts of off-site access roads are not assessed in this EIA. Two on-site roads from public roads will be required for access to all sites for emergency purposes. Three alternative on-site routes are under consideration at Thyspunt: an eastern, western and northern access route. The northern access road was rejected for environmental reasons. The environmental impacts associated with the route identification for Thyspunt's new access route formed part of this EIA process. The EIA and specialist studies assessed the impacts of the power station and all associated on-site infrastructure, including internal access roads, cumulatively for each site, taking into account the footprints of all elements of infrastructure and the cumulative footprint of all infrastructure.	Chapter 4 on the Revised Draft EIR Version 2
19. Construction camps / staff villages	Listed activities relating to the construction of construction camps / staff villages is not included in the Nuclear-1 EIA. The accommodation requirements do not form part of the scope of this EIA and may therefore require separate applications for environmental authorisation. A decision on the location of staff villages will only be made once certainty has been obtained on the preferred location of the power station. It has been stated in the Draft EIR and in public meetings that the areas where accommodation will be required will be integrated as far as possible with areas dedicated for housing in the existing planning processes of the local authorities within which the power station is proposed to be located. Where	Chapter 3, IRR133 & Appendix E18: Social Impact Assessment

	possible, employees (especially operational employees) will obtain accommodation in existing settlements. If new urban development has already been approved in the area of the nearby human settlements, it would be Eskom's preference to make use of the opportunities provided by this rather than create a new for residential development which would then require an EIA. The Social Impact Assessment (Appendix E18 of the Revised Draft EIR) noted the following with respect to the establishment of construction villages close to the Bantamsklip site: "The establishment of a Construction Village (where construction workers will reside), will have a major impact on the social environment, especially in Pearly Beach and Gansbaai. These towns are situated in fairly rural and remote areas with a limited number of permanent residences and a large number of tourists and holiday makers, especially in season." As such, the potential social impact at the Bantamsklip site is expected to be more significant than at either of the other two alternative sites, since these alternative sites are close to larger established settlements that would be better able to cope with an influx of employees.	
20. Environmental impacts of transmission lines	There are three separate EIA applications for the transmission lines (3 X 400 kV/ 765 kV Transmission lines) that will transmit power into the national grid from each of the three proposed power station sites (refer to www.eskom.co.za). One of these EIA (for Bantamsklip) was conducted by GIBB but the EIA for the other alternative sites was conducted by other consultants. The details of the routes for these lines are, therefore, not discussed in this report. It should be noted that the environmental impacts associated with new transmission power lines (400 kV and 765 kV) transmitting power from the HV yard off the Eskom property are not assessed in this EIA and are therefore subject to separate applications for environmental authorisation The only transmission lines that are assessed in the Nuclear-1 EIA are those between the power station and the HV yard at the Thyspunt site. These transmission lines had to be assessed at the Thyspunt site as it is the only site where the transmission lines are separated from the power station. At Bantamsklip and Duynefontein, the HV yard is directly adjacent to the power station. The DEA has indicated that its decision-making will be based on the assessment of the impacts of the power station and the transmission lines i.e. it will consider cumulative impacts.	Chapter 3 of the Revised Draft EIR Version 2
Geotechnical and seismic feasibility of the power station		

21. Seismic design of the power station	The ground shaking hazard from earthquakes represents the most serious geological hazard impacting on the design of a new Nuclear Power Station site. There is a perception amongst some members of the public that the seismic design of the power station at Thyspunt will be inferior since the Peak Ground Acceleration (PGA) value is lower at Thyspunt than at Bantamsklip and Duynefontein. This perception is not correct. The Nuclear-1 power stations, irrespective of its location, will be designed to certain minimum standards. One of these standards is that the power station will be able to withstand peak ground PGA of 0.3g, which corresponds approximately to an earthquake with a magnitude of 7 on the Richter Scale. This design standard is sufficient to withstand recorded earthquakes that have taken place in South Africa. If the seismic conditions of a site are such that the potential peak ground acceleration is close to or above 0.3g, additional seismic designs will be put in place to improve the ability of the power station to withstand earthquakes that could lead to a PGA beyond 0.3g. This is why the KNPS is built on a seismic raft, as the potential PGA of this site is close to 0.3g.	Seismic Hazards Assessment (Appendix E4)
22. Need for lateral support systems in excavations	The soils at all three alternative sites are generally sandy and lack fines (clay and silt), thus the soils have little cohesion. Excavations within these soils will therefore require either lateral support (where this is practical – e.g. when excavations are less than say 20 m deep and no groundwater is present) or they will need to be battered back to safe angles (in the region of 20º) when groundwater is present. Long-term integrity of excavations in this material can also only be attained if the cut slopes are dewatered. Dewatering is therefore a definite requirement in stabilisation of excavations that probe founding depths on (or in) bedrock. The Geotechnical Suitability Assessment (**Appendix E5** of the EIR) indicated that the excavations in sandy soils may cause disturbance of potentially large areas because of: • The confirmed need to found structures on (or in) bedrock in environments where bedrock is overlain by significant sand deposits, meaning that large volumes of overburden sand will need to be removed; • Potentially challenging groundwater management scenarios rendering lateral support of excavations (in thick sand deposits) risky and demanding shallow (in the region of 20º) cut back slope angles in thick overburden soil deposits; • this increasing the size of foundation excavations and thus surface;	Geotechnical Suitability Assessment (Appendix E5) and Geo-hydrological Assessment (Appendix E7)

	• disturbance footprints; and • The potential need to dispose of large volumes of unusable spoil (excavated sand) material. Questions have therefore been raised whether the anticipated footprints will not be larger than planned and whether there is confidence in the ability of the lateral support systems to provide a safe working environment in the excavations, especially in the light of the above-mentioned statement of potentially challenging groundwater scenarios and a statement that design alternatives aimed at minimising site disturbance in excavations must be explored at the Duynefontein site. Section 5.2 of the revised Geo-hydrological Assessment (Appendix E7 of the EIR) therefore addresses the technical feasibility of these lateral support systems and the design of the excavations within the context of a potentially challenging groundwater environment, with reference to examples where these systems have been used successfully. A system of cut-off walls, boreholes and wellpoints was successfully used for dewatering/groundwater control for the excavation for the KNPS. This enabled the bedrock surface exposed in the base of the excavation to be mapped for geotechnical engineering purposes and for the foundations to be laid safely and in dry conditions. The thickness of saturated sands at this site was about 14 m and the base of the excavation was at an average of 10 m below sea level. The excavation, including the stable side walls and dry floor, are shown in **Figure 7-14**. Trucks can be seen on side ramps into the excavation. The time taken for full excavation of the KNPS site was 5.5 months. A similar system was successfully used for dewatering/groundwater control for excavations for Coega Harbour near Port Elizabeth. This site was particularly demanding from a safety/design point of view as excavations took place in the tidal zone and below sea level. Men and machinery were working many metres below sea level with only a cut-off wall and some boreholes / wellpoints stopping the excavation from collapsing, which would have had disastrous consequences. The height of the cut-off wall at Coega was approximately 10 m. The effectiveness of this type of integrated groundwater control design has therefore been well demonstrated.	

	 **Figure 7-14: Aerial view of the KNPS excavation during construction**	
23. Further seismic studies in terms of the SSHAC process that may change the EIA's seismic findings	SSHAC (1997) addresses why and how multiple expert opinions and the intrinsic uncertainties that attend them should be used in Probabilistic Seismic Hazard Analyses (PSHA) for critical facilities such as commercial nuclear power plants. The need for additional studies stems from changing requirements in the international nuclear licensing regulatory environment. The nuclear licensing methodology previously used to conduct a Probabilistic Seismic Hazard Assessment (PSHA) for the three proposed nuclear sites (termed the Parametric-Historic approach), is based predominantly on statistical inference from the seismic catalogue, and was developed to deal with the uncertainty and incompleteness of the seismic catalogues (which is often the case). At the time of implementation the Parametric-Historic approach was peer-reviewed and accepted internationally, as well as by the National Nuclear Regulator.	

	However, regulations for the siting of nuclear facilities are subjected to a process of continuous improvement and hence the publication of the US NRC published regulatory guide (RG) 1.208 in 2007 had a direct impact on the siting of nuclear sites in South Africa from a nuclear licence perspective. US regulations represent an important benchmark since there are at present no specific South African regulations regarding the licensing of nuclear power plant sites. Eskom therefore follows the regulations of the United States Nuclear Regulatory Commission (US NRC), which is considered to be the most stringent and detailed (and tested) set of regulations in the world. Also, by following US NRC regulations Eskom will also comply to IAEA regulations (which represents the second of the two sets of internationally accepted regulations used for the siting of nuclear power stations). RG 1.208 described a new approach to define site specific ground motion and dictated that multiple experts be involved in the geological, geophysical, and seismological data, as well as the need to address the uncertainties that are inherent to all geological and seismological models. The Parametric-Historic approach does not fully conform to the requirements of this newly released internationally accepted guideline and could therefore no longer provide the necessary level of nuclear licensing regulatory assurance. Hence the Seismic Hazard Analysis for the three sites has to be repeated. The new PSHA represents an improvement on the previous work and will better define and constrain uncertainties contained in geological and seismological models, but does not invalidate the work done to date. Hence the existing seismic hazard results can be used to make recommendations regarding site suitability in this EIA. The results of a PSHA, which will be done according to the SSHAC Level 3 methodology, will form the baselines in the updated relevant Chapter of the Site Safety Report (SSR). The SSR is a document that is to be submitted to the South African National Nuclear Regulator who will then, based upon this data, decide whether or not to authorise a nuclear installation at any of the sites.	
24. Impact of a tsunami on the proposed power station	The risk of tsunamis to the proposed power station has been assessed in the Oceanographic Assessment (Appendix E16 of the Draft EIR). The finding of this study was that there is a potential for water levels to exceed the proposed elevation of the nuclear power station at all three sites should a tsunami coincide with extreme meteorological conditions (a meteo-tsunami event). The occurrence of a tsunami is, however, highly improbable given the low risk of seismic activity in the surrounding oceans. The impacts of these will therefore be considered and incorporate in the Site Safety Reports. Thyspunt is the only site where extreme high water levels resulting purely from meteorological factors are predicted to exceed + 10 m MSL during the	Oceanographic Assessment (Appendix E16)

	expected lifetime of the installation. Consequently, the predicted water levels at Thyspunt during a meteo-tsunami are also higher than at Bantamsklip and Duynefontein. The design of the power station will ensure that the probability of impacts from a tsunami or meteo-tsunami is minimised. The design incorporates a high platform (at least 12 m above sea level) on which the nuclear island will be built, as well as a number of backup power supplies at higher heights above sea level to ensure that power can continue to be supplied to the power station's cooling systems in the event of a tsunami or meteo-tsunami.	
Summary of changes to specialist studies		
25. What are the most significant changes in specialist study findings between the 2011 Revised Draft EIR and the 2015 Revised Draft EIR Version 2?	As a result of the public input and recommendations received on the Revised Draft EIR and other factors, the following amendments have been made to the specialist studies: **Marine Ecology Assessment**[8] • Descriptions and assessment of impacts on marine mammals have been included in the revised report for all three sites. • It is recommended that a piped outlet should be used to dispose brine beyond the surf zone should be used during construction instead of disposing of it into the surf zone. • The marine assessment's assessment of the impact on squid has been re-assessed in the light of concerns from the squid fishing industry. This included detailed consideration of the commercial fishing data provided by the Department of Agriculture Forestry and Fisheries (DAFF) and a review of the available data and findings of the marine assessments by the Scientific Squid Working Group (SSWG), which provides advice to the DAFF on the management of the squid fishery. The SSWG also compiled assessments of its own in order to test the veracity of the marine assessment's findings. Accordingly, comments of the SSWG are included in Appendix 6 of the marine assessment. The SSWG's findings broadly support those of the marine assessment. **Heritage Impact Assessment:** At the time that the revised Draft EIR was published for public comment in May 2011,	Appendix E

[8] See more detailed explanation further down in this table.

	the heritage sites along the coastline at the Thyspunt had been well-surveyed but there was still uncertainty about the heritage sites in the central portion of the power station footprint at this site, since the density of vegetation had prevented access to the majority of this portion of the site. While the presence of archaeological material was relatively visible in the immediate coastal areas and open dune fields, the densely vegetated areas formed a knowledge gap. This was resolved by means of an additional phase of heritage surveys (test excavations), which was carried out between 30 October and 15 December 2011 under an excavation permit issued by the SAHRA. This second study involved conducting trial excavations/ground surface examinations at 113 localities throughout the proposed nuclear corridor where ground surface visibility was poor. This covered the proposed power station foot print and potential laydown areas. The purpose of the work was to check below surface sediments in densely vegetated areas where previous sampling had been poor. Once it became apparent that there was very little archaeological material in this area of vegetated dunes, SAHRA requested that the sampling level be reduced to one excavation per 400 m grid intersection. This allowed the heritage assessment team to exercise some latitude to avoid impacting indigenous thickets and wetland areas. These test excavations found that the central portion of Thyspunt site where the power station footprint is proposed contains very few heritage sites and that the majority of the sites occur along the coastline or in the mobile dune field, where fresh water is available. The findings indicate that it is possible to largely avoid impacts to physical heritage, provided that infrastructure is set back from the shoreline by 200 m and confined to the archaeologically "dead zone'' in the vegetated dunes (south of the Oyster Bay Mobile Dune Field). **Transport:** The Thyspunt site requires transport route upgrades with regard to public roads, access and emergency evacuation during the construction phase. The recommended routes in Version 9 of Transport Report were revised after the Revised Draft EIR was provided for public comment in May 2011. Based on this revision, the R330 is now proposed to be used only for passenger vehicle traffic and abnormal load transport, and sections will require upgrading for this purpose. The Oyster Bay Road is now proposed to be upgraded to a surfaced road to be used during the construction and operations phases for staff access and heavy vehicle traffic and as an emergency evacuation route for areas such as Oyster Bay. The DR1762, which links the R330 and Oyster Bay Road is now proposed to be surfaced to provide improved east-west connectivity. Bypass roads to the east and west of Humansdorp are also now proposed to be constructed to reduce the traffic impact on central Humansdorp.	

	Dune geomorphology: Lauren Elkington, a Masters student at Rhodes University, has published a thesis on the Oyster Bay mobile dune field in June 2012 and the results of this thesis have been considered with respect to Nuclear-1. The dune geomorphology assessment has also considered the causes of major flood events in 2011 and 2012, further investigated whether there is evidence for the claims of debris flows in the dune field and investigated the impacts of flooding on the Sand River and the Sand River delta in the Kromme River estuary. The assessment of the Sand River delta in the Kromme Estuary was also conducted and it was found that the Kromme estuary is typically sand-choked. The sand is derived from the Sand River and from tidal currents that carry sand into the estuary from the sea. The Sand River delta has never blocked the Kromme estuary completely, and it is not likely to do so. It further was found that the supposed debris flow in the Sand River is a bulldozer deposit, which was made when a berm was built to protect a dam ("Lionel's Dam") from the Sand River. **Emergency response:** A brief discussion on the Fukushima Disaster has been included into the report to provide some perspective and how it impacts on emergency planning for the proposed Nuclear-1 power station. **Geohydrology:** At the time that Revised Draft EIR was provided for public comment in 2011, the study considered groundwater monitoring results that had been collected in the 2010 calendar year. The geo-hydrological assessment has been updated with groundwater monitoring data that has been collected since then. This improves the confidence in the predictions of impact on groundwater and wetlands and further improves the confidence in the effectiveness of the proposed mitigation measures, especially for the Thyspunt site. The additional data collected through the on-going groundwater monitoring programme at all three sites confirm the impact predictions for groundwater and wetlands, and confirms that a hydrological cut-off wall in the excavation for the nuclear island of the proposed power station will be effective to mitigate the impact on important wetlands, such as the Langefonteinvlei wetland at the Thyspunt site.	

	Town planning (new study not included in previous versions of the EIR: A town planning study was undertaken to assess the potential impact the proposed power station will have on the surrounding land use. The proposed sites were evaluated in terms of a development matrix which assessed the institutional, economic, social and physical environment. **Radiological Assessment (new study not included in previous versions of the EIR:** A radiological assessment was undertaken to assess the potential radiological impact the proposed power station could have on the adjacent areas. The study looked at the existing background radiation from the sites, potential impact on humans and non-humans during normal operations. **Beyond Design Accident Report (new study not included in previous versions of the EIR:** This study looks at a worst case scenario, in the event that a nuclear accident occurs. Incidents such as Three mile island, Chernobyl and Fukushima are considered.	
Biophysical specialist studies		
26. Conservation value of the Western Cape sites - both sites are regarded as Critical Biodiversity Areas (CBAs) by local authorities	It has been pointed out by a number of I&APs that the areas within which the Duynefontein and Bantamsklip sites are located as Critical Biodiversity Areas (CBAs). A CBA refers to an area of land as that is designated by local authorities, typically with the assistance of provincial environmental and conservation authorities, to assist in the protection of biodiversity and the functioning of ecosystems in particular municipalities. CBAs incorporate: (i) areas that need to be safeguarded in order to meet national biodiversity thresholds; (ii) areas required to ensure the continued existence and functioning of species and ecosystems, including the delivery of ecosystem services; and/or (iii) important locations for biodiversity features or rare species. CBAs have no legal status as they are not referred to in either of the national acts dealing with biodiversity conservation or protected areas, namely the National Environmental Management: Biodiversity Act (Act No. 10 of 2004) [NEM:BA] or the National Environmental Management: Protected Areas Act, 2004 (Act No. 57 of 2003) [NEM:PAA]. The NEM: PAA does define critically endangered ecosystems but the	Botany and Dune Ecology Assessment (Appendix E11)

	term CBA is not mentioned in either of these Acts. CBAs therefore serve as guidelines with the intention of integration into the spatial planning of local authorities and to inform Strategic Environmental Assessments, Environmental Management Frameworks and EIAs. Although CBAs have no legal status, their intent is supported by the NEM:BA and the NEM:PAA. There are a number of large scale policy tools related to these Acts that are supported by CBAs, including The National Biodiversity Strategy and Action Plan (NBSAP), the National Spatial Biodiversity Assessment, the National Protected Area Expansion Strategy and the National Biodiversity Framework. Although CBAs act as guidelines, the scale of their planning is relatively coarse and the data they contain are not necessarily corroborated by ground-truthing of data. Thus, although CBAs provide valuable contextualisation of a site's conservation value on a regional scale, and have been used for this purpose in this EIA, detailed scale mapping of biodiversity (as has been carried out for the Nuclear-1 sites during this EIA), provides a more accurate and realistic representation of the actual value of a site's biodiversity assets. The biodiversity assessment carried out for the Nuclear-1 EIA confirmed that the bulk of the vegetation communities on the sites (and especially those within the proposed power station footprints) are common along the affected portions of coastline. Although ecologically sensitive zones have been identified on each of the Nuclear-1 sites, the extent and location of these sensitive zones are such that the footprint of the power station can be adjusted to avoid these ecologically sensitive zones.	
27. Biodiversity offsets – perception that Koeberg Nature Reserve was a biodiversity offset when Koeberg was built	There is a perception that Koeberg Nature Reserve was created as an offset conservation area when Koeberg Nuclear Power Station (KNPS) was constructed. This is a false perception. Koeberg Nature reserve was established by Eskom at the time of construction of the KNPS in the late 1970s and early 1980s to ensure control of land around the KNPS and to act as a security and emergency control buffer. There was no agreement with conservation authorities at the time to create the Koeberg Nature Reserve to compensate for the KNPS's biophysical impacts. Nevertheless now that the Nature Reserve is formally pretected the Deparment of Environmental Affairs has requested the EAP to consider conservation off-sets at the Duynefontein site. Although at the date of publication of the Revised Draft EIR (Version 2) no clear instruction had been received from the Department in terms of the	

	manner in which conservation offsets should be considered. A conservation off-set guiline has therefore been developed in conjunction with a selected group of specialists (flora, vertebrate and invertebrate fauna and wetlands). The specialists were tasked to produce criteria for identification of a suitable off-set conservation site based on their knowledge of the Duynefontein site and taking into consideration the DEA&DP Provincial Guidelines on Biodiversity Off-sets (2011). The document identified criteria in terms of (but not necessarily limited to) the following: o Size of the offset site; o Location; o Ecosystems represented on the site; o Habitat quality/ integrity; and o State of alien plant invasion.	
28. Conservation benefits of development at Bantamsklip & Thyspunt	All the biophysical specialists indicated in their assessments that the establishment of a de facto nature conservation area on the power station sites would be of benefit to terrestrial conservation at Thyspunt and Bantamsklip. This benefit to conservation is questioned by interested and affected parties. The Duynefontein site, which encompasses the Koeberg Nature Reserve (KNR), houses the KNPS. All undeveloped parts of this site are managed as part of the KNR. The KNR was identified as one of 11 priority conservation sites in a study encompassing the region along the West Coast between Blouberg and Silwerstroomstrand, inland to the N7. However, prior to the establishment of the KNR, the land was poorly managed and overrun by alien vegetation, much the same as the status at Bantamsklip and Thyspunt before Eskom took over control of the land and began running a programme of alien plant eradication on these properties. At both Bantamsklip and Thyspunt, the most prevalent land use apart from agriculture is coastal residential development. The majority of the land north of the Thyspunt site has been transformed by agriculture. Residential development in St. Francis Bay and Cape St. Francis (east of Thyspunt), which started in the late 1950s and early 1960s, has transformed large portions of coastal habitat and portions of the mobile dune system have also been stabilised with alien vegetation to prevent the spread of sand into the settlements. For instance, the Santareme dune field near Cape St. Francis has completely disappeared in the 1980s due to being stabilised. In recent years there has also been a significant development of a residential golf estate on what was, until then, part of the easternmost section of the Oyster Bay mobile dune system. The western-most extremity of the mobile dune system has been partially stabilised by	Chapter 3 and 8 of the Revised Draft EIR Version 2 Dune Geomorphology Assessment (Appendix E2 of the EIR)

	the development of Oyster Bay. The majority of the area around Thyspunt (with the exception of the coastal portions of the Rebelsrus Private Nature Reserve) is heavily infested by alien vegetation. Owing to the threats of residential development and alien plants to ecosystem conservation, the creation of a de facto conservation area that would allow natural processes to continue and provide a significant public recreational resource, which would be regarded to be a significant benefit to society, as is the case with the KNR. One of the most significant benefits to the mobile dune system would be the removal of alien vegetation, which would enable re-mobilisation of the sand. At Bantamsklip, residential development has occurred at Pearly Beach and Franskraal, approximately 7km northwest of the site. Agricultural transformation of the land is not as significant at Bantamsklip as at Thyspunt, since there is a scarcity of water at Bantamsklip. However, the land is generally poorly managed with respect to alien vegetation, even the so-called "nature reserves"[9] to either side of Eskom's land. As indicated in Chapter 3, the footprint of the power station and all associated on-site infrastructure will be a small portion of the entire site, which leaves the majority of the site available for conservation. At Bantamsklip and Thyspunt respectively, the ratios of the development footprint vs. the entire site are 283 of 1638 ha and 250 of 1708 ha (or 17% and 14.6% of the sites). This ratio will decrease further at Thyspunt (i.e. the portion of conserved land would increase), since Eskom is buying additional land (at its own risk) to extend its property, thus creating a larger area available for conservation. It must also be stressed that it is the ecologically and culturally most valuable portions of the site that will be conserved, because the power station footprints have been placed on the portions of the site that have been confirmed by the EIA specialist team to be the least ecologically sensitive (see sensitivity mapping at the end of Chapter 8 of the EIR).	
29. Protection status of the sites	The current protection status of all three alternative sites for Nuclear-1 is explained below, since many comments have questioned the status of the sites. **Duynefontein** The Duynefontein area forms part of the KNR. This nature reserve has been officially declared as such in terms of protected area legislation.	.

[9] See item 29 where it is explained that there are no official nature reserves adjacent to the Bantamsklip site.

Bantamsklip

The portion of the Bantamsklip site owned by Eskom has been registered as a Natural Heritage Site with the Department of Environment Affairs (refer to item 30 regarding terminology for Natural Heritage Sites). The farm Groot Hagelkraal 318 to the north of the R43 is a registered Private Nature Reserve and a Natural Heritage Site. The central portion of coastal part of the site is owned by Eskom, with two coastal portions on either side being state-owned land administered by CapeNature. The portions of state-owned land are not officially declared as nature reserves, but have become popularly and erroneously known as such because Cape Nature manages these properties on behalf of the state and has erected nature reserve signage (which it is not a nature reserve on these sites (**Figure 7-15**).

Figure 7-15: Signage for "Walker Bay Nature Reserve", which is in fact not a nature reserve, but state land administered by CapeNature

	Thyspunt The Thyspunt site is registered as a Natural Heritage Site, but has no official conservation status in terms of protected area or conservation legislation. As indicated above, Eskom is in the process of purchasing additional land to extend this property.	
30. Terminology: Natural Heritage Site status vs. Nature Reserve status vs. World Heritage Site status vs. National Heritage	There appears to be confusion amongst some I&APs about the differences between the terms Natural Heritage Site, Nature Reserve, National Heritage and World Heritage Site due to the similarity between some of these terms. Thus, the differences between these terms are outlined below. • The **Natural Heritage Site** Programme is a now defunct scheme that was run by the National Department of Environmental Affairs and the provincial conservation departments. The scheme allowed private landowners to voluntarily register their properties and get recognition for the conservation status of their land, without necessarily applying for formal registration of a Private Nature Reserve in terms of protected area legislation. The scheme no longer exists and is due to be replaced. However, private landowners still refer to the sites that were registered as **Natural Heritage Sites** as it provides an indication of the conservation status of the land. Eskom has registered the Bantamsklip and Thyspunt sites as Natural Heritage sites. • **Nature reserves** are legally declared as such and have official conservation status in terms of the NEM: Protected Areas Act and /or through an applicable provincial nature conservation ordinance. Koeberg Nature Reserve is an example of such a nature reserve. • **World Heritage Sites** are declared in terms of the World Heritage Convention (WHC) to protect human and natural landscapes of outstanding value to humanity. The WHC has been taken up into SA domestic law by the World Heritage Convention Act, 1999 (Act No. 49 of 1999). South Africa currently has eight World Heritage Sites. • **National Heritage** is a term used in the context of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) [NHRA] and refers to human-made objects and/or natural landscapes and human-made places that have a particular meaning to people due to their history. • The NHRA refers to a "**heritage site**" (in the context of heritage management as "a place declared to be a national heritage site by SAHRA or a place declared to be a provincial heritage site by a provincial heritage resources authority".	Chapter 6 of the Revised EIR Version 2

31. Impacts on the squid fishery at Thyspunt	The impact of the construction and operation of a proposed nuclear power station at the Thyspunt site on squid is dependent on a number of factors, these being primarily the release of warmed cooling water, temporary disruption / disturbance of the benthic environment during construction, elevated turbidity and potential loss of spawning grounds due to the proposed offshore disposal of spoil. The Marine Ecology Assessment re-assessed the impacts on squid, in consultation with the Scientific Squid Working Group (SSWG) of the Department of Agriculture Forestry and Fisheries (DAFF). In order to assess the impacts of elevated turbidity on squid paralarvae, the SSWG undertook Individual Based Modelling (IBM). The modelling approach was very conservative and considered a 'worst-case' scenario, whereby turbidity levels above 20 mg/l resulted in 100% mortality of paralarvae. Results of this process show that even under this 'worst-case' scenario, only 5% of paralarvae are expected to encounter the turbidity plume and suffer mortality. This mortality can be further decreased by disposing of spoil during the winter months, when spawning is at a minimum. With respect to the spread of sediment due to spoil disposal, it was found that It is possible that adult squid will avoid the area to which the sediments spread during spawning. This would in turn result in no spawning aggregations forming in the impacted area and a displacement of aggregations targeted by the squid fishery. In predicting the significance of the impact on squid, a 'worst-case' (very conservative) scenario was assumed i.e. that any area covered by more than 0.5 cm of sediment (18.1 km²) would be permanently lost as spawning habitat. This represents a loss of 20.5% of nearshore spawning sites that have been recorded between Tsitsikamma and Algoa Bay, although it should be born in mind that the species is also known to spawn off-shore (as opposed to "in-shore" / close to shore). The two fishing blocks (areas of roughly 21 km by 25 km) adjacent to Thyspunt that will be affected by spoil disposal accounted for an average of 13.43% of total catches between 2006 and 2011. By applying a very conservative approach and assuming that all spawning grounds in these blocks would be lost, it is predicted that 13.45% of catches would be displaced to other fishing blocks as adult squid move to new spawning grounds.	Marine Ecology Impact Assessment (Appendix E15) and Appendix 6 to that assessment
32. Change in the recommendation for disposal of brine during the construction phase	The recommendation for brine disposal during the construction phase in the 2011 version of EIR was to dispose of it in the surf zone. However, based on experience with other projects, it has been found the disposal in the surf zone does not encourage mixing and dissolving of brine and may actually results in brine being concentrated in	Marine Ecology Assessment (Appendix E15)

	the surf zone under certain circumstances. Thus, the amended recommendation states that during construction, limited volumes of hypersaline effluent (brine) must be released beyond the surf zone via an angled diffuser, where high energy water movement will result in adequate mixing with surrounding seawater to ensure minimal impact on the marine environment. During the operational phase the desalinisation effluent will be co-released with high volume of cooling water. As brine will be diluted to undetectable levels prior to release, no impact on the marine environment is predicted from this effluent during the operational phase.	
33. Source of fresh water during construction	Previous planning indicated that all water for the construction and operational phases would be obtained from the proposed desalinisation plant. However, Eskom intends to use groundwater resources and supplemental supplies from municipal supply (where available) for a period of approximately one year prior to commissioning of the desalination plant during construction.	Chapter 3 of the Revised Draft EIR Version 2
Social specialist studies		
34. Thyspunt's potential qualification as a World Heritage Site	A finding was made in the 2011 version of the Heritage Impact Assessment (HIA) that Thyspunt could potentially qualify as a World Heritage Site due to the value of the "cultural landscape", which as ascribed to "its superb natural heritage, pre-colonial heritage, setting and contribution to the wilderness quality of the region". The current version of the HIA in the Revised Draft EIR Version 2 is that the value of the cultural landscape continues to be significant, but no specific finding is made regarding potential qualification as a World Heritage Site, as this is dependent on a number of processes and compliance with strict criteria that are interpreted by the UNESCO.	Heritage Impact Assessment (Appendix E20)
35. Employment/ training	The nuclear power station offers the potential for unemployed people to gain meaningful employment during the construction phase. It is estimated that the construction phase could take up to 9 years from the commencement of construction until commissioning of the last unit. During this period it is foreseen that an estimated 8 737 staff, including construction workers, will be employed on site. It is envisaged that at least 25% of the construction workers will be sourced from the local labour force.	Social Impact Assessment (Appendix E18)
36. Impact of surfing conditions close to Thyspunt	Claims have been made by the surfing community who frequent Jeffreys Bay and St. Francis that marine disposal of spoil would result in a negative impact on surf breaks and a resultant negative impacts on the surfing tourism industry, particularly on the international surf competitions (e.g. the Billabong Pro), which used to be held at Jeffreys Bay and formed a major part of the international professional surfing circuit.	Oceanographic Assessment (Appendix E16)

	These claims are based on the visual impacts of the proposed nuclear power station and the marine disposal of spoil. The proposed power station will not be visible from Jeffreys Bay or from St. Francis, from where the proposed power station is more than 10 km distant. Modelling of the movement of spoil, based on reliable data of ocean currents, indicates that spoil will not move as far as Jeffreys Bay (a distance of 18 km from Cape St. Francis) and would at most result in an increased sediment thickness in the bay between Seal Point and Cape St Francis if a deep offshore spoil disposal site is used, as recommended. If a shallow nearshore disposal site is used (this is not the recommended alternative), then the spoil layers deposited on the ocean floor would be deeper. However, spoil would still not move northwards along the coastline to Jeffreys Bay if a nearshore disposal site is used.	
37. Affordability of nuclear power and impact on electricity prices	The regulation of electricity prices is performed by the National Energy Regulator of South Africa. NERSA's objective is to ensure availability of electricity to customers on an efficient and cost-effective basis. Whilst it is not the purpose of the EIA process to deal with the impact on electricity prices and make a recommendation on this issue to the environmental decision-making authority (DEA), a comparison of Levelised Cost of Electricity (LCOE) is provided in the Chapter 5 of the EIR. No single electricity generating technology can be expected to be the cheapest in all situations. The preferred generating technology for a particular purpose will depend on a number of key parameters and the specific circumstances of each project. A number of different technologies, including technologies like gas turbines, which have very expensive operational costs in the South African context, are used for specific purposes in South Africa i.e. to provide short-term dispatchable power during peak periods. The choice of a specific portfolio of power generation technologies will depend on factors such as financing costs, fuel and carbon prices, as well as the specific energy policy context as well as whether the technology can supply reliable base load electricity or whether it is meant only for irregular supplementary power supply during peak periods, for instance. It is important to note that the financial cost of generation alternatives excludes externalities such as environmental costs. It also needs to be considered that nuclear energy tends to have a high start-up (capital) cost but a lower operational cost compared to coal. The Integrated Resource Plan 2010 (IRP 2010) provided LCOEs for a number of	Chapter 5 of the Revised Draft EIR Version 2

	different generation technologies in South Africa, projected for the construction of a power station is 2020. These include: • Coal: R 464 / MWh; • Nuclear: R 426 – R 531 / MWh; • Wind: R 562 - R661 / MWh; • Concentrated Solar: R 551 – R 1178 / MWh; and • Photovoltaic: R 630 – R 1307 / MWh. Ranges of costs provided above are based on 'learning rates' i.e. the longer the technology has been in use, the greater the experience with that kind of technology and it can accordingly be expected to become cheaper over time. The South African figures have been compared to the figures provided by the United States and UK governments below. Care should be exercised when comparing these figures directly, as they are based on different assumptions, but they nevertheless provide an order of magnitude comparison to the IRP 2010 figures. **United States** (US Energy Information Administration 2013)[10] • Conventional Coal: $ 100.1 ($ 89.5 – $ 118.3) / MWh; • Advanced coal (with Carbon Control and Sequestration [CCS]): $ 135.5 ($ 123.9 – $ 152.7) / MWh; • Nuclear: $ 108.4 ($ 104.4 – $ 115.3) / MWh; • Wind (onshore): $ 86.6 ($ 73.5 – $ 99.8) / MWh; • Solar Thermal (Concentrated Solar): $ 261.5 ($ 190.2 - $ 417.6) / MWh; and • Photovoltaic: $ 144.3 ($ 112.5 - $ 224.4) / MWh. **United Kingdom** (UK Department of Energy and Climate Change, 2013)[11]: • Coal (Advanced Super-critical Coal [ASC] [12]): £ 109 (£ 89 - £ 133) / MWh; • Coal (Integrated Gasification Combined Cycle [IGCC] [13]): £ 135 (£ 106 - £ 173) / MWh; • Nuclear: £ 100 (£ 84 - £ 123) / MWh;	

[10] Average costs given with ranges of rates in brackets. These costs exclude any incentives such as government subsidies to promote the introduction of renewable technologies. Values for commissioning in 2018. Values obtained from Table 2 of the source document.

[11] Average costs given with ranges of rates in brackets. Costs for Scenario 3 (commissioning in 2020) with 10% discount rate (from Table 6).

[12] Value for commissioning in 2025. No value is provided in the source document for 2020.

[13] Value for commissioning in 2025. No value is provided in the source document for 2020.

	• Wind (onshore): £ 104 (£ 85 - £ 125) / MWh; • Concentrated Solar: n.a; and • Photovoltaic (Large scale PV): £ 123 (£ 115- £ 132). These figures indicate that coal-fired electricity and nuclear power have comparable costs in South Africa and the USA, but that nuclear is cheaper than coal in the UK and the USA, particularly if modern coal technologies (e.g. Carbon Sequestration and Control or Integrated Gasification Combined Cycle) that reduce greenhouse gas emissions are used. Rates for onshore wind power vary between the USA and UK (it is on average marginally cheaper than nuclear and coal in the USA but marginally more expensive than nuclear in the UK). As in South Africa, concentrated solar is shown to be approximately twice as expensive as either nuclear, coal or other renewables in the USA. No LCOE value for concentrated solar is provided for the UK. Photovoltaic (PV) generation is significantly more expensive than either coal, nuclear or wind power in South Africa and the USA. However, in the UK, the cost of PV is shown to reduce significantly over time. The average value for PV commissioning in the UK in 2014 is £ 158 / MWh, but reduces to £ 123/ MWh for commissioning in 2020. These figures show that the financial costs of nuclear power per MWh remain competitive compared to coal-fired and renewable electricity generation. Although nuclear power has a high initial capital cost, its fuel costs and operational costs per MWh are very low compared to most other alternative technologies. Long-term impacts of nuclear generation on electricity prices can therefore not be expected to be higher than other forms of generation if the LCOE of the technologies is taken into account. Caution should be exercised when making direct comparisons between dispatchable technologies (e.g. coal and nuclear) vs. non-dispatchable technologies (e.g. wind and solar). Dispatchable technologies are available at any time and their outputs can be varied to suit demand, whilst the output of non-dispatchable technologies is dependent on the availability of an intermittent resource like wind.	
38. Impact on spatial planning and urban expansion	Duynefontein: • The proposed development may have an impact on future development of the region i.t.o. land that can be utilised for future development. Areas around the site will need to be protected, densities may need to be lower than if the development was not there and infrastructure upgrades will be required, especially roads.	Appendix E 34

	Bantamsklip: • The proposed site is not in the growth path of future urban development. • The impact of urban expansion will be limited due to the rural character of the towns. Growth of towns as a result of the Nuclear 1 facility being located at the proposed Bantamsklip site will need to be managed and directed to areas where development and expansion can be accommodated. Thyspunt: • The proposed site is not in the growth path of future urban development. • Growth and developments of nearby towns will have to be managed to comply with the restrictions and regulations concerning a nuclear facility in the vicinity.	
39. Compatibility of the power station with IDPs and provincial Spatial Development Plans	Duynefontein: • The Nuclear 1 facility is not specifically mentioned in the Municipal SDF, but existing surrounding land uses are compatible with proposed land use. • There are some conflicts with future land use as the site is located within the growth path of the city. If the proposed development is implemented, this may have an impact on the future growth of the city i.t.o. urban form (densities allowed, etc.) and the existing risk management/ evacuation model. • There are legislative processes in place that will allow for the submission of an application to the Municipality to obtain the rights for the proposed land use. Bantamsklip: • The Nuclear 1 facility is not specifically mentioned in the Municipal SDF • Surrounding land use is compatible with the proposed Nuclear 1. • The future planning suggests that the proposed use could be accommodated on the proposed site. • There are legislative processes in place that will allow for the submission of an application to the Municipality to obtain the rights for the proposed land use Thyspunt: • The Nuclear 1 facility is only briefly mentioned in the Kouga SDF. • Surrounding land use is compatible with the proposed Nuclear 1. • The future planning suggests that the proposed use could be accommodated on the proposed site. • There are legislative processes in place that will allow for the submission of an application to the Municipality to obtain the rights for the proposed land use.	Appendix E 34

40. Summary of findings regarding agricultural impacts	The potential impacts of a nuclear power station on agriculture would be the generation of dust during the construction phase[14], labour shortages and wage increases, and market effects. The estimated impact on produce markets showed that the gross value of production in the Bantamsklip and Thyspunt areas could potentially increase, while no change in production is anticipated in the Duynefontein area. **Duynefontein** From an agricultural production perspective Duynefontein is a mature site because grape and wheat production in the area has progressed alongside the construction and operational phases of the existing KNPS. Dust during construction of the new plant will have little effect on farm lands because the prevailing winds during the dry summer months are in line with the coastal strip. **Bantamsklip** At Bantamsklip there could be short-term negative impacts on agricultural production with regard to dust during the construction phase. There is an insignificant potential for an increase the market for local agricultural produce because of water limitations that restrict agricultural expansion. **Thyspunt** At Thyspunt, there may be short-term negative impact on agriculture in terms of dust during the construction phase. However, there is potential for a positive impact on production by increasing the size of the local market for fresh produce as a result of the influx of population (Nuclear-1 employees and their families and construction workers).	Agricultural Impact Assessment (Appendix E21)
41. Agricultural impacts from radiation during the operational phase	No impacts on agricultural production are predicted during the operational phase. Although there are insignificant airborne and water-borne releases of radionuclides during operation, these releases are strictly in compliance with the Authorised Annual Discharge Quantities regulated and monitored by the National Nuclear Regulator. These releases have been carried out at the KNPS since its commissioning and monitoring of the environment has shown no impact on the quality of agricultural products or on any other environmental media that could affect human health. Radiation level around the plant are far below South African legal limits (which itself is	Agricultural Impact Assessment (Appendix E21)

[14] Thyspunt is the only site where there are off-site dirt roads that could be used by construction traffic. Dust from the roads will be limited to the early construction phase, since the Oyster Bay road would be tarred at the commencement of construction to facilitate the movement of construction traffic.

	below international norms) and do not exceed natural background radiation levels.	
42. Methodology used in the Tourism Report	A number of queries have been received regarding methodology and use of bed nights as a measure of tourism impact. Using the respective perceptions and observations from fieldwork interviews and research for each area in question, a quantification matrix was set up according to the below mention seven identified tourism aspects numerically estimate the relative impacts on the respective tourism value figure for each area. The impacts were categorised into two phases for comparative purposes: • Construction of nuclear power station (Years 1-6). • Operation of nuclear power station (Years 7-20). Although the operational life of a nuclear power station is 60 years, it is impossible to forecast beyond 20 years in a tourism cycle, and hence the analysis does not go beyond Year 20. Seven key aspects that were considered in the tourism assessment are: • Hospitality systems (tourism services and facilities in an area); • General infrastructure (accessibility of an area); • Visual amenity (visual nature and image of an area); • Social amenity (community interests of an area); • Sense of place (character and appeal of an area); • Marine assets (marine-based tourism activities within an area); and • Terrestrial assets (land-based tourism activities within an area). There is only one true economically comparable measure of tourism performance, which is the number of bed-nights spent at a place, categorised by country, province, district, city or town. The monetary value utilising this figure was used to represent a comparable value of tourism for each area.	Tourism Report (Appendix E22)
43. Visual impacts at the alternative sites	The conclusion drawn in the Visual Impact Assessment is that the proposed Nuclear-1 power station will exert a significant visual impact on the existing visual condition and character of the local environment within a radius of 5 km due to the visual bulk of the power station building and its industrial character. If a meteorological and radio mast is installed[15], it will be clearly visible on a cloudless day from a distance of 10 km. The	Visual Impact Assessment (Appendix E19)

[15] The EIR has recommended that SODAR technology be used instead of a meteorological mast. If this technology is used, no mast will be required for metrological purposes.

	red light on top of the 120m tall meteorological mast will be visible at night from beyond 10 km. **Thyspunt** At the Thyspunt site, visibility is contained along the coast by east-west orientated dune fields. This prevents the visibility from the towns of Oyster Bay and St. Francis. The power station and the associated transmission lines and buildings will be visible to some degree from within a 10 km radius of the site, but mainly along the coastal strip e.g. from the privately owned Rebelsrus Nature Reserve. This is due to the landform that includes vegetated and mobile dunes that trend east-west, almost parallel to the coastline. Sky glow could be significant at night due to the intense illumination of the site during construction and operation. However, the general existing coastal night scene is already disturbed by the intense lights on the industrial chokka boats, which fish at night. The visual intrusion on the landscape character will be increased by the HV Yard and the transmission lines. However, if Nuclear-1 is constructed at Thyspunt, the character of the landscape north of the Nuclear-1 site would already have been significantly by the construction of a number of wind energy facilities (WEFs) that are already in the process of construction or which have been authorised for construction. These facilities, with 100 m tall masts and blades of 40 in length, as well as their associated electricity transmission infrastructure and substations, also significantly change the landscape character. The Nuclear-1 infrastructure would therefore not be introduced into a pristine visual landscape. **Bantamsklip** The proposed power station, associated transmission lines and buildings will be visually dominant at the Bantamsklip site as they would all be visible to some degree from within a 10 km radius of the site. This is due to the landform, which slopes down towards the coastline, the wide and flat coastal plain on which the power station would be located and prominent seaside location of the site on the coastal terrace. The visibility will be extended at night by the illumination of the plant. **Duynefontein** The impacts of the Nuclear-1 power station at Duynefontein would be significant, particularly at night. This will extend the existing visual impact of Koeberg NPS on the surrounding landscape. The visually dominant Duynefontein NPS and the associated infrastructure will be visible to some degree from within a 10 km radius of the site. This is due to the landform that slopes gently towards the coastline and the extended	

	visibility at night due to its illumination.	
44. Alternative construction routes from the N2 to the Thyspunt site[16]	The previous version of the Traffic Assessment (2011) recommended that the provincial R330 road, which passes through Humansdorp and St. Francis, be used as the main access route to the Thyspunt site, and that the Oyster Bay Road be used as the secondary construction route (for smaller construction vehicles and construction workers). The impacts of heavy vehicles transporting materials and equipment using the R330 on the existing settlements of Humansdorp, Kwanomzamo (adjacent to Humansdorp), Cape St. Francis and St. Francis Bay is potentially high and the alternative transport routes have therefore been re-assessed since the last version of this report was prepared in 2011. Three alternative routes were investigated: • Route 1: Exiting the N2 at the existing Humansdorp interchange, bypassing Humansdorp and using the existing Oyster Bay Road (DR 1763), which would need to be upgraded to a tarred road; • Route 2: The R330 (exiting the N2 via one of the R102 interchanges north of Jeffreys Bay and then passing through Humansdorp; and • Route 3: Routes west of the Oyster Bay Road. Route 3 follows the N2 to the R62 interchange approximately 16km west of Humansdorp. The route would use this bypass and then use the R102 east of the N2 to join the Oyster bay Road. This route would add considerable additional time and distance to construction trips, is the most costly to upgrade and would be difficult to enforce on construction traffic as some traffic would continue to take a shortcut through Humansdorp. It was concluded that the disadvantages of this route outweigh the advantages and it is not considered as a viable option. It is recommended that a combination of Route 1 (Oyster Bay Road to the western access to the Thyspunt site) and R330 (Route 2 to the eastern access to the Thyspunt site) be used for transportation during the construction phase, which will improve the	Transport Specialist Study (2012) (Appendix E25)

[16] There is greater interest in the traffic impacts at the Thyspunt site than at the other sites due to the need for more significant off-site road upgrades at Thyspunt than at Bantamsklip or Duynefontein, because there are existing tarred roads within close proximity of the latter sites, whilst the existing Oyster Bay Road at Thyspunt would have to be tarred. Traffic-related comments have also been more numerous for the Thyspunt site due to the fact that one of the access routes to this site, the R330, passes through Humansdorp and St. Francis. Traffic along this route could therefore have potentially significant impacts on these settlements if not properly managed.

	impact on traffic congestion, noise and road safety. It is recommended that construction vehicles (normal heavy loads) should ONLY use the upgraded Oyster Bay Road (DR1763 - western access) via Route 1 to minimise the impact of construction traffic on the existing network. Abnormal construction vehicles will utilise the R330 during the night to minimise traffic impacts, since their speeds are very slow. Abnormal vehicles will need to continue to use the eastern access to the Thyspunt site (and hence the R330) because the alignment of the Western Access Road would not accommodate the wide turning circles of the abnormal vehicles.	
45. Bypass of Humansdorp to the Thyspunt site	The 2011 Transport Assessment had assessed several routes to access the construction site from Port Elizabeth harbour via the N2 and R102 as shown: • Route 1 – R102 through Saffery Street, R330 to Oyster Bay Road; • Route 2 - R102 through Saffery Street to the R330; • Route 3 – N2 through the R62 interchange, along the R102 to access road west of the Impofu Dam; and • Route 4 – N2 through the R62 interchange, along the R102 to access road east of the Impofu Dam. The following revised routes were assessed to connect the Oyster Bay Road with the N2, and are shown in: • Central Bypass B and Southern Bypass; • Industrial Bypass C and Southern Bypass; and • Western Bypass G. Of these alternatives, Industrial Bypass C is recommended. It avoids the major Humansdorp intersection with an alignment north and west of the industrial area. While there are gradient design challenges, the re-alignment can be achieved. This proposed bypass is shown in **Figure 7-16** below.	Transport Specialist Study (2013) (Appendix E25)

Figure 7-16: Proposed "industrial bypass C" around Humansdorp

Road (R330) to the north of the Bosbok Street intersection and reconnects with Old Cape Road, bypassing the entire Kruisfontein area. The proposed industrial bypass will cross the railway line before it reaches Old Cape Road. The rail traffic experienced at the railway line is light and therefore considered insignificant. A crossing with traffic signals or booms will be sufficient to ensure safety between conflicting vehicle and railway traffic.

It is proposed that Searle Street be realigned to join Voortrekker Road and become the new entrance to the Kruisfontein area. The proposed industrial bypass will join the new Searle Street / Voortrekker Road intersection as a northern approach to connect with Old Cape Road (southern approach).

	The major technical advantage of this alignment is the bypass of the entrance to Humansdorp for construction traffic. The major technical disadvantage is the substantial upgrading of the Searl Street / Voortrekker / Industrial Bypass / Old Cape Road intersection.	
46. Thyspunt Western Access Roads	Four options for the Western Access Road were initially considered, namely W1, W2, W3 and W4. W1 to W3 all originate to the west of Umzamuwethu (between Umzamuwethu and Oyster Bay), whilst W4 originates from the Humansdorp-Oyster Bay road to the east of Umzamuwethu. W4 was initially rejected by the biophysical specialists on the basis of its potential impact on the western portion of the Oyster Bay Mobile Dunefield and associated sensitive ecosystems, its crossing of a drainage line and its length. Of W1, W2 and W3, W1 was preferred by the majority of the specialists. In recognition of I&AP concerns about the western access road received during the 2011 round of public comments on the Revised Draft EIR, new alternative alignments for the Western Access Road were investigated. These alternatives focused on aligning the Western Access Road to the east of Umzamuwethu to prevent the road creating a divide between Umzamuwethu and Oyster Bay. A number of alternative alignments to this road were investigated in late 2012 and the inland alternative furthest from Oyster Bay (IR2) has been subsequently recommended. This alignment has some biophysical impacts but not of such significance that they constitute fatal flaws.	Figures 5-10 to 5-12 Chapter 5 of the Revised Draft EIR Version 2 Appendix E31
Other		
47. The Bantamsklip site as feasible alternative for the current application for Environmental Authorisation.	With the completion and subsequent approval of the Scoping report in 2008, the intention was to conduct a detailed assessment of three alternative sites for Nuclear 1 namely Duynefontein, Bantamsklip and Thyspunt. All three sites have been investigated in equivalent detail subsequently as part of the assessment phase of the EIA. In those investigations it has become clear that while Bantamsklip remains a viable site for a nuclear power station, it is the least favourable of the three sites for Nuclear 1. Given that the detailed assessment of Bantamsklip has already been presented in the public domain as part of earlier drafts of the Environmental Impact Report, the decision has been made to exclude Bantamsklip from further consideration in this EIR in the interests of brevity. The three primary reasons for excluding Bantamsklip at this point relate to transportation risks, urban planning and the level of assessment available to the Nuclear-1 EIA team on the transmission lines that will be required to evacuate power from the operational power station. In respect of transportation, the route between	Chapter 5 of the Revised Draft EIR Version 2

	Cape Town Harbour and Bantamsklip is both longer and topographically more complex, with the need to traverse Sir Lowry's pass being particularly challenging, in comparison to the access routes to the other two sites. This route therefore poses major technical difficulties to heavy load transportation vehicles and thus has a greater associated safety risk (to other road users and transportation staff) than the other routes. There are also significant bridge obstructions and steep grades along this route, which are not present along the routes that would service the other two sites. The second reason is based on an urban planning perspective. All three sites were considered and investigated by the Urban Town Planners (Appendix E34). The sites were ranked and scored in terms of development criteria for a Nuclear Power Station, in which the Bantamsklip site scored the lowest. The scoring is influenced by the limited workforce available in close proximity to the site which is a challenge experienced on the Bantamsklip site as compared to Duynefontein or Thyspunt. This shows that the site is currently not the best choice for Nuclear-1 from an urban planning perspective. The third reason is because there is a direct obligation (as required by the EIA regulations) to assess the full suite of impacts that would be associated with not just the nuclear power station but associated infrastructure too. A large-scale associated facility is of course the transmission lines that would be needed to supply power during the construction phase, but also to evacuate power from the operational power station. For both Duynefontein and Thyspunt, detailed assessments of the power lines are available to the EIA team but not yet for Bantamsklip. The detailed environmental assessments conducted for Thyspunt and Duynefontein have been taken into consideration with the impact assessment for these sites, giving effect to cumulative impact assessment as shown in Chapter 10. Due to the fact that similar information is not available for Bantamsklip, the EIA team cannot sufficiently assess the cumulative impact for the Bantamsklip site. As such it is simply not possible currently to provide an adequately comparative assessment between the three sites. The EIA team is confident that excluding Bantamsklip from this EIR does not undermine the obligation to thoroughly investigate alternatives or disqualify the site for future nuclear use. The inclusion of the Bantamsklip site would add significant further complexity to an already complex EIR without improving decision-making in any material way. The Bantamsklip site will therefore not be further considered in this EIR. Readers interested in the previous assessment of the Bantamsklip site can access the information at http://projects.gibb.co.za/Projects/Eskom-Nuclear-1-Revised-Draft-EIR.	

	With the above said readers should be cautioned that this does not mean that Bantamsklip can never be considered for a future Nuclear Power Station. The site is not fatally flawed as per the assessments previously conducted; however with the challenges mentioned above Bantamsklip will not be ready to meet the construction timeframe anticipated for Nuclear-1, and as such will not be further considered for this EIA.	
48. The prevailing wind direction at the Thyspunt site.	The Air Quality Report states (Section 2.3.3) that the dispersion of air pollution is largely a function of the wind field. The wind speed determines both the distance of downward transport and the rate of dilution of pollutants. The generation of mechanical turbulence is similarly a function of the wind speed, in combination with the surface roughness. The influence of wind speed on the dispersion of air pollutants is significantly non-linear and is therefore best described through the use of dispersion models and not only through a qualitative description of the wind patterns as depicted by wind roses. An analysis of wind roses provides an indication of the area of most impact (i.e. likelihood), but not necessarily the magnitude. For instance, releases near ground level would result in high ground level concentrations during calm wind conditions at night, whereas the same atmospheric conditions in the case of elevated releases would result in the lowest ground level concentrations. It is therefore also important to consider the wind speed, atmospheric stability and release height together with the wind direction when qualitatively estimating the area of impact. These concepts were also discussed in the Air Quality Report (Section 2.3.2). A significant portion of the Air Quality Report discusses the important result of the assessment, i.e. the predicted ground level concentration patterns, which take into account a number of meteorological parameters in addition to wind speed and direction. A discussion of the latter two parameters alone cannot provide adequate information on the behaviour of the atmospheric dispersion. The sources of the data used in the Air Quality report are indicated below. It is important to source information that would be useful and essential for the prediction of air pollution impacts. The three sources of meteorological data available at the time of the assessment included: • Eskom meteorological stations located at four sites in the vicinity of Thyspunt, namely De Hoek, Thyspunt, Klippepunt, and Brakkeduine (December 1986 to September 1988); • The South African Weather Services' weather station located at Cape St. Francis. Data collection started in 2004; and	Various IRRs.

	• Onsite station which consists of a 10 m mast, fully equipped with meteorological instrumentation to measure the wind vector, air temperature, relative humidity, barometric pressure and rainfall. Data have been collected since 10 January 2008. The reference to the Eskom measurements was included merely to provide background discussion on the historical information. These measurements were not used in any of the calculations. The atmospheric dispersion modelling was done using the onsite data for the period January 2008 to September 2009. The results included the simulations for every hour of this period and therefore considered actual measurements of the meteorological parameters experienced on the site. The results included in the Air Quality Report therefore did not rely on speculation of impacts due to a discussion of specific wind directions based on wind roses, but were based on actual measurements of all meteorological parameters. The results that the National Nuclear Regulator would be reviewing are therefore based on the onsite information available at the time of the assessment. In any event, the National Nuclear Regulator follows a very rigorous procedure, in line with the International Atomic Energy Agency, which requires continually updating onsite information and syntheses of these (including onsite meteorological data and dispersion modelling).	

7.6.2 Individual Issues and Response Reports

Apart from the thematic issues and responses listed above, individual issues and responses are contained in **Appendix D8.** This appendix contains IRRs from the Draft EIR of 2010 and the Revised Draft EIR of 2011. The final EIR will also contain the IRRs that comment on this Revised Draft EIR Version 2.

There are two categories of IRRs in **Appendix D8**:

- **Combined IRRs:** These typically contain condensed / short issues that require a short response. These issues and responses for these IRRs have been placed in a table, which contains the issues and responses from a number of different respondents. These IRRs are not numbered. The tables in which they have been placed indicate the name of the respondent, the issue / question they have raised (reflected verbatim), the EAP's response and a reference to the section of the EIR and/or specialist report where the issue is addressed.
- **Long Submissions**: These contain issues that are relatively complex and require extended responses to the relevant interested and affected parties. These IRRs are numbered and each IRR is an individual response to a specific stakeholder.

7.7 Revised Draft EIR Version 2

The Revised Draft EIR Version 2 and EMP (individual EMPs for each site) will be made available simultaneously at various public places identified in consultation with I&APs for their review and comment. A 60-calendar day period has been allocated for this review to take place.

Public participation during the Impact Assessment Phase of the EIA is focused on:

- A review of the findings of the EIA, presented in the Revised Draft EIR Version 2 and its accompanying specialist reports, with specific emphasis on the reports that have been amended since the Revised Draft EIR was provided for public review; and
- Distribution of relevant reports and EIA information to the public.

7.7.1 Announcing opportunity to comment on the findings of the EIA

All I&APs on the project database will be notified via personalised letters as well as advertisements of the Draft EIR and EMP availability. All reports, including technical specialist reports, will be uploaded on the Eskom website: www.eskom.co.za under "Nuclear-1" link and on GIBB's website http://projects.gibb.co.za.

7.7.2 Public open days / meetings

Public open houses / meetings will be held during the comment period for the Revised Draft EIR Version 2. Notices of dates for these meetings will appear in press advertisements and in individual notifications sent to I&APs.

7.7.3 Distribution of reports for public comment

Printed copies of the Revised Draft EIR Version 2 will be made available at the same venues as indicated in **Table 7-23**, provided that these venues continue to be available. Should there be any change to the venues this will be announced.

Table 7-23*: Venues where the Revised Draft EIR Version 2 will be made available*

No	Area	Venue	Street Address
EASTERN CAPE			
1	Humansdorp	Humansdorp Public Library	9 Vureau Street
2	Jeffrey's Bay	Jeffrey's Bay Public Library	33 Da Gama Road
3	Kareedouw	Kareedouw Public Library	5 Keet Street
4	Kruisfontein	Kruisfontein Public Library	Cucido Street, Kruisfontein
5	Oyster Bay	Oesterbaai Eiendomme	6 Tornyn Street, Oyster Bay
6	Sea Vista	Sea Vista Community Hall Office	Steenbras Street, Sea Vista
7	Sea Vista	Sea Vista Clinic	Steenbras Street, Sea Vista
8	St. Francis Bay	St. Francis Bay Public Library	No 1 Assissi Drive, St. Francis Bay
9	St. Francis Bay	St. Francis Bay Municipal Office	Assissi Drive, St. Francis Bay
WESTERN CAPE			
10	Atlantis	Atlantis Public Library	Civic Centre, Grosvenor Avenue
11	Bredasdorp	Bredasdorp Public Library	Church Street, Bredasdorp
12	Caldon	Caledon Public Library	Church Street (Next to the Court House)
13	Cape Town	GIBB Cape Town Offices	14 Kloof Street, Cape Town
14	Cape Town	Table View Public Library	Birkenhead Road, Table View
15	Gansbaai	Gansbaai Public Library	Main Road, Municipal Buildings
16	Hermanus	Hermanus Public Library	Civic Centre, Magnolia Street
17	Koeberg	Koeberg Public Library	Merchant Walk, Duynefontein
18	Milnerton	Milnerton Public Library	Pienaar Road
19	Welverdiend	Welverdiend Public Library	Ou Meule Street, Bredasdorp
20	Wolvengat	Jenny's Handelaar	Main Road, Wolvengat
GAUTENG			
21	Pretoria	GIBB Pretoria Office	Lynnwood Corporate Park, Block A, First Floor, East Wing, 36 Alkantrank Street, Lynnwood Manor, 0081

7.8 Final EIR and EMP

The Revised Draft EIR Version 2 and accompanying reports will be amended, where appropriate, following comment received during the review period. The final EIR and EMP will then be submitted to the DEA for review and decision-making.

All registered stakeholders will be notified of the submission of the final EIR and EMP via a personalised letter and will therefore have the opportunity to access the final reports on the Eskom and GIBB websites. I&AP comments on the final report must be submitted to the DEA, with a copy to Eskom or GIBB.

7.8.1 Authority review

Once it received the final EIR and EMP, the DEA will consider all the comments received from the public and from other authorities and apply its mind to whether an authorisation should be granted and under what conditions. The DEA has an independent review panel for Nuclear-1 that will advise the DEA during decision-making.

As mentioned in Chapters 1 and 6 of this report, the NNR and DEA signed a co-operative agreement to agree on the way in which these organs of state need to exercise their decision-making powers in EIAs where radiological issues are considered. The DEA and NNR will accordingly liaise with each other and the NNR may provide advice and / or interpretation to the DEA regarding radiological issues dealt with in the EIA.

7.8.2 Notification of authority decision

Stakeholders will be advised in writing of the authority decision on the EIA, in other words, on whether or not environmental authorisation has been granted to the project and the conditions of the authorisation, if the decision is positive. Information will be provided on where the authorisation or refusal to authorise can be obtained. Stakeholders will also be advised that the decision may be appealed, and will be provided with guidance on how to lodge an appeal.