Case ID: 1931

17 October 2011

South African Heritage Resources Agency
P.O. Box 4637
Cape Town
8000

Tel: (021) 462 4502

Attention: Ms. Mariagrazia Galimberti

CSIR
our future through science

P. O. Box 17001
Durban
4013
South Africa

Tel: +27 31 242 2378
Fax: +27 31 261 2509

Dear Ms. Galimberti

SCOPING AND EIA FOR A PROPOSED MARINE SERVITUDE AND PIPELINES IN THE COEGA IDZ (Dept of Environmental Affairs EIA reference: 12/12/20/2106)

DRAFT SCOPING REPORT

Attached please find a copy of the Draft Scoping Report (DSR) for the proposed Marine Servitude and Pipelines situated within the Coega Industrial Development Zone (IDZ). The Environmental Impact Assessment being conducted is for the establishment of an integrated marine pipeline servitude. The terrestrial component of the servitude is estimated to be approximately 150m wide while the marine component of the servitude is estimated to be approximately 300m wide. Two intake pipelines and one discharge pipeline and a discharge raceway/channel have been proposed for implementation. The proposed servitude is sufficiently wide to allow for the construction of additional pipelines within the servitude, as required by future investors.

The Draft Scoping Report is being released for a 40 day comment period, which ends on Friday **25 November 2011**. Following the closure of the comment period on the Draft Scoping Report, a Final Scoping Report will be prepared for submission to the Department of Environmental Affairs for decision-making.

Should you wish to comment on the Draft Scoping Report please ensure that your comments reach us no later than **25 November 2011** at the following contact details:

Contact Person:	Ismail Banoo	**Contact Person:**	Sarah Watson
Postal Address:	CSIR P.O. Box 17001 Congella Durban 4013	**Postal Address:**	CSIR P.O. Box 17001 Congella Durban 4013
Tel:	031 242 2378	**Tel:**	031 242 2340
Fax:	031 261 2509	**Fax:**	031 261 2509
Email:	ibanoo@csir.co.za	**Email:**	swatson@csir.co.za

Yours sincerely

Ismail Banoo
CSIR Project Leader

Scoping and Environmental Impact Assessment for a proposed Marine Servitude and Pipelines in the Coega Industrial Development Zone, Nelson Mandela Bay Municipality, Eastern Cape Province:

Draft Scoping Report

CSIR Report No.: CSIR/CAS/EMS/ER/2011/0002/B

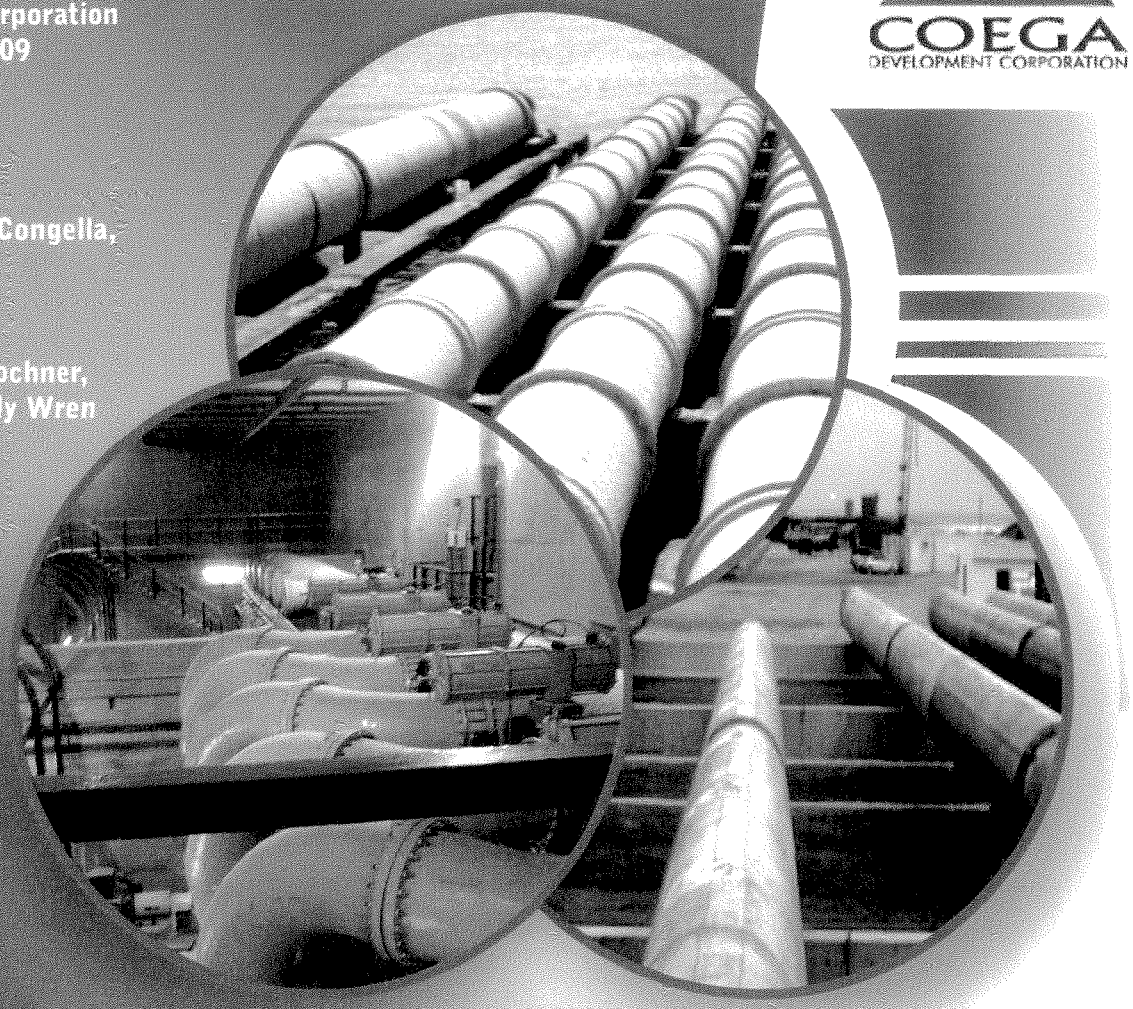
DEA Reference No.: 12/12/20/1982

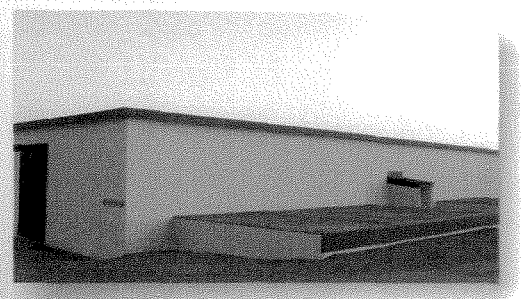
Prepared for:
Coega Development Corporation
Private Bag X6009
Port Elizabeth
6100

Published by:
CSIR, P O Box 17001, Congella,
Durban, 4013

Lead authors:
Ismail Banoo, Paul Lochner,
Sarah Watson & Sandy Wren

October 2011





Public Process Consultants

our future through science

Scoping and Environmental Impact Assessment for a proposed Marine Servitude and Pipelines in the Coega Industrial Development Zone, Nelson Mandela Bay Municipality, Eastern Cape Province:
DRAFT SCOPING REPORT

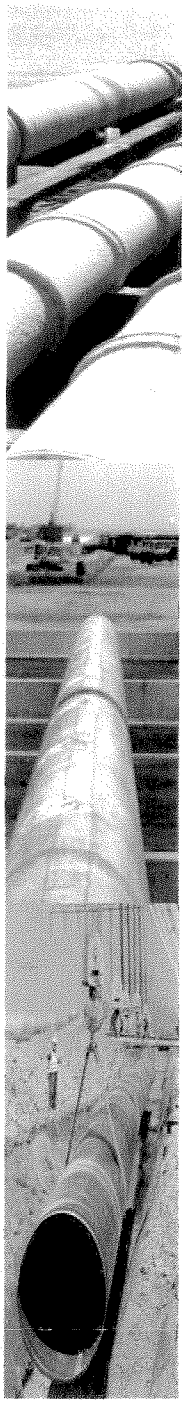
Report details

Title:	**ENVIRONMENTAL IMPACT ASSESSMENT FOR A PROPOSED MARINE PIPELINE SERVITUDE IN THE COEGA INDUSTRIAL DEVELOPMENT ZONE: DRAFT SCOPING REPORT**
Purpose of this report:	*This Draft Scoping Report forms part of a series of reports and information sources that are being provided during the Environmental Impact Assessment (EIA) process for the proposed Marine Pipeline Project in the Coega IDZ. In accordance with the EIA Regulations, the purpose of the Scoping Report is to:* ▪ *Provide a description of the proposed project, including a sufficient level of detail to enable stakeholders to identify relevant issues;* ▪ *Describe the local environmental and development context within which the project is proposed, to assist further in identifying issues for assessment in the EIA;* ▪ *Provide an overview of the process being followed in the Scoping Phase, in particular the public participation process, as well as present the draft Plan of Study for EIA that would be followed in the subsequent EIA phase;* ▪ *Present the issues identified to date from the stakeholder engagement process, together with an explanation of how these issues will be addressed through the EIA process.* *This Draft Scoping Report is being made available to all stakeholders for a 40 day review period, with comments to reach Public Process Consultants by 28 November 2011. The Final Scoping Report will include all the comments received during this period.*
Prepared for:	Coega Development Corporation Contact person: Andrea von Holdt
Prepared by:	CSIR, P.O. Box 17001, Congella, Durban, 4013, South Africa Tel: +27 (031) 242 2378 Fax: +27 (031) 261 2509
Authors:	Ismail Banoo, Paul Lochner, Sarah Watson & Sandy Wren
CSIR Report Number: CSIR Project Number:	CSIR/CAS/EMS/2011/0002/B CASKG72
DEA Ref Number:	12/12/20/1982
Date:	October 2011
To be cited as:	CSIR, 2011. Environmental Impact Assessment for the proposed Marine Pipeline Project in the Coega Industrial Development Zone: Draft Scoping Report. CSIR Report Number: CSIR/CAS/EMS/2011/0002/B

Contents

APPENDICES:

Summary



Project overview

The Coega Industrial Development Zone (IDZ), situated near Port Elizabeth within the Nelson Mandela Bay Metropolitan Municipality of the Eastern Cape Province, is South Africa's premier development location for new industrial investments. The Coega IDZ covers an area of approximately 11 000 hectares of which approximately 8690 ha is available for development focused around industry clusters. The IDZ's proximity to the newly established deep water Port of Ngqura, and its locality with respect to major transport routes and other predominant development centres such as Johannesburg and Cape Town, offers a platform for global exports by attracting foreign and local investment in manufacturing, export orientated and other industries. As part of one of its development initiatives, the Coega Development Corporation (CDC) has proposed the establishment of an integrated common user marine pipeline servitude within the Coega Industrial Development Zone. The proposed servitude will provide for the abstraction of sea water and the release of treated effluent to the marine environment. The location of the servitude within the Coega IDZ will be determined during the EIA process. A number of alternative locations have been evaluated and assessed as part of the scoping phase of this EIA.

Need for the Project

The establishment of an integrated marine pipeline servitude negates the need for the establishment of several dispersed pipelines randomly crossing the beach into the sea, thereby facilitating proper visual, economic, and environmental considerations associated with the planning and design. It is for this reason that environmental authorities such as DWA have encouraged such an integrated pipeline management approach. Additionally, the CDC is currently negotiating with a number of investors who have a requirement for abstracted seawater and the disposal of treated wastewater and/or effluent as part of their operations. The establishment of the pipeline servitude and its associated components can cater for these demands by facilitating seawater abstraction for cooling processes, mariculture activities, desalination, and the subsequent discharge of wastewater and/or effluent, whilst reducing reliance on associated municipal services and infrastructure.

Project description

The key components of the project are presented below:

Servitude:
The implementation of the proposed project will result in the establishment of a marine component of the servitude which will extend approximately 2.5km out to sea and be approximately 300m wide, and a land component of the servitude which will be approximately 150m wide. The final size, extent and location is yet to be determined pending specialist input from within the CSIR team in conjunction with inputs from relevant stakeholders. The servitude will be sufficiently wide to allow for the construction of additional pipelines.

Given the uncertainty with regards to potential users of seawater at this stage, four scenarios (wastewater, thermal, mariculture and desalination) were identified for the proposed project during the preliminary planning phase. These scenarios provide an indication of the typical types of industrial activities which are likely to occur in the IDZ, and have a need for abstracted seawater and the disposal of treated wastewater and/or effluent as part of their operations.

Intake pipeline:
Two intake pipelines with a combined capacity of approximately 250 Ml per day are proposed. The two pipelines will abstract seawater of different qualities and quantities from the marine environment depending on the usage requirements. The larger of the two pipelines will abstract a high volume of lower quality seawater, while the smaller pipeline will abstract a low volume of higher quality seawater. The seawater will be pumped onshore via the two intake pipelines to the headworks situated within the land based component of the servitude.

Associated Infrastructure:
Associated infrastructure consisting of two sets of pump stations, fitted with pump equipment, dry and wet wells, sumps and underground storage tanks will be housed in a housing building, and situated on an area of land approximately 150m x 150m in extent. The larger of the two systems will cater to the thermal scenario, while the smaller system will cater to the remaining wastewater, desalination and mariculture scenarios.

Discharge pipeline and Open Channel:
The proposed project will consist of a low volume discharge pipeline which will cater to the disposal of wastewater effluent, desalination effluent and mariculture effluent, and a high volume open discharge channel/raceway which will dispose of thermal effluent. The project will have a combined discharge capacity of approximately 180 Ml of discharge water per day.

Need for an EIA

In terms of the Environmental Impact Assessment Regulations published in GNR 386 on 21 April 2006, a full Scoping and Environmental Impact Assessment (EIA) process is required for the proposed

project. The need for the full Scoping and EIA is triggered by, amongst others, the inclusion of activities listed in GNR 387, in particular:

1 *The construction of facilities or infrastructure, including associated structures or infrastructure, for –*
(e) *any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R. 386 of 2006;*

Environmental Impact Assessment Regulations published in GNR 543 on 18 June 2010, also require a full Scoping and Environmental Impact Assessment be conducted for the project. The need for Scoping and EIA in this regard is triggered by the inclusion of activities listed in Listing Notice 2 (GNR 545), particularly:

5 *The construction of facilities or infrastructure for any process or activity which requires a permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent and which is not identified in Notice No. 544 of 2010 or included in the list of waste management activities published in terms of Section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case that Act will apply.*

10 *The construction of facilities or infrastructure for the transfer of 50 000 cubic metres or more water per day, from and to or between any combination of the following:*
(i) Water catchments,
(ii) Water treatment works, or
(iii) Impoundments
Excluding treatment works where water is to be treated for drinking purposes.

14 *The construction of an island, anchored platform or any other permanent structure on or along the sea bed excluding construction of facilities, infrastructure or structures for aquaculture purposes.*

Purpose of the Scoping Report

The purpose of the Scoping Phase of the EIA is to identify issues which would require assessment during the EIA process, to inform stakeholders about the proposed development, and to present an opportunity for public participation to occur at an early stage, allowing for a transparent and inclusive process. It is hoped that the outcome of the Scoping Phase would provide sufficient information to enable the authorities to reach a decision regarding the scope of issues to be addressed in the EIA process.

Within this context, the objectives of this Scoping process are to:

- Identify and inform a broad range of stakeholders about the proposed development;
- Clarify the scope and nature of the proposed activities and the alternatives being considered;
- Conduct an open, participatory and transparent approach and facilitate the inclusion of stakeholder concerns in the decision-making process;

- Identify and document the key issues to be addressed in the forthcoming Environmental Impact Reporting Phase of the EIA, through a process of broad-based consultation with stakeholders; and
- Ensure due consideration of alternative options in regard to the proposed development, including the "No development" option.

The Draft Scoping Report is being made available to all Registered Interested and Affected Parties for a 40 day review period, with comments to reach Public Process Consultants by **28 November 2011**. The Final Scoping Report will then contain all the comments received, and this will be submitted to the Department of Environmental Affairs for decision making purposes.

Identification of issues

The Draft Scoping Report includes the issues identified to date from the scoping process. The project and associated EIA process was advertised in two regional newspapers and letters with personal notification regarding the EIA process were mailed to all pre-identified key stakeholders on the database, which at the time consisted of 12 I&APs. The I&AP register was updated during the scoping phase. At the time of producing this report, the database stands at 81 registered I&APs. A synthesis of these issues is provided in the Issues & Response Trail (Chapter 5), which includes an explanation of how the issues will be addressed through the EIA.

In summary, the following issues have been identified to date:

Potential Impacts on the Marine Ecology:

- Impact of construction activities on the marine ecology.
- Impact of the pipeline location and structure on ocean flow dynamics.

Potential Impacts on Wetlands and Rivers:

- Impact of the servitude on erosion and siltation of the river banks.
- Impact of the establishment of alien invasive vegetation in disturbed areas.
- Delineation of wetlands and establishment of water use licences where necessary.

Potential Impacts on Vegetation:

- Impacts of pipeline leaks on surrounding vegetation.

Potential Impacts on Dune Ecology:

- Impacts on sensitive and endangered species which are restricted to the dune habitats.
- Impacts on sand movement

Potential Socio-Economic Impacts:

- Contribution to boosting economic development in the region.
- Creation of employment opportunities within the community.
- Impacts of blasting and dredging on surrounding communities.

Potential Heritage Impacts:

- Impact on heritage, e.g. graves and burial sites.

- Impact on items of historical importance when encountered.

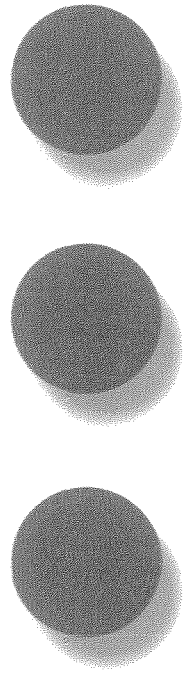
The *Plan of Study for EIA* (Chapter 6) presents the approach to the forthcoming EIA phase. This includes the Terms of Reference for the various specialist studies that are proposed to address the issues raised, where necessary.

Glossary

BID	*Background Information Document*
CDC	*Coega Development Corporation*
CSIR	*Council for Scientific and Industrial Research*
DEA	*National Department of Environmental Affairs*
DSR	*Draft Scoping Report*
DWA	*Department of Water Affairs*
FSR	*Final Scoping Report*
EAP	*Environmental Assessment Practitioner*
EIA	*Environmental Impact Assessment*
EMP	*Environmental Management Plan*
I&AP	*Interested and Affected Party*
IDP	*Integrated Development Plan*
IDZ	*Industrial Development Zone*
MI	*Mega litres*
NEMA	*National Environmental Management Act (Act 107 of 1998)*
NHRA	*National Heritage Resources Act (Act 25 of 1999)*
NMBM	*Nelson Mandela Bay Municipality*
PPC	*Public Process Consultants*
PSEIA	*Plan of Study for EIA*
SDF	*Spatial Development Framework*
TNPA	*Transnet National Ports Authority*
ToR	*Terms of Reference*

CHAPTER 1

Introduction



Contents

1 INTRODUCTION

1.1 Background

The Coega Development Corporation (CDC) plans to establish a 300 metre wide marine pipeline servitude within the Coega Industrial Development Zone (IDZ) (See figure 1.1). The location of the servitude within the Coega IDZ will be determined during the EIA process. A number of alternative locations have been evaluated and assessed as part of the scoping phase of this EIA. It is likely that the servitude will include a total of three pipelines and one open raceway/channel. Two pipelines will be utilized for the intake of seawater and the remaining pipeline and open channel for discharge into the marine environment. In addition to the pipelines there will also be land-based facilities such as a pump station, dry and wet wells and other associated infrastructure which will form the headworks for the proposed project.

1.2 Requirements for an Environmental Impact Assessment (EIA)

Environmental Impact Assessment Regulations as promulgated under Chapter 5 of the National Environmental Management Act (No. 107 of 1998) ("NEMA") provide listings of activities which may have a detrimental effect on the environment and therefore require Environmental Authorisation be obtained from the relevant authority. The previous Environmental Impact Assessment Regulations of 21 April 2006 have been repealed and they have been replaced by the Environmental Impact Assessment Regulations of 18 June 2010, which came into effect on 02 August 2010.

Given the fact that the application for environmental authorisation for the proposed project was submitted to the Department of Environmental Affairs (DEA) prior to the enforcement of the new Environmental Impact Assessment Regulations of 18 June 2010, the Scoping and Environmental Impact Assessment process will subscribe to the previous regulations.

However, the approach to the Environmental Impact Assessment process will satisfy the requirements of the EIA Regulations of 21 April 2006, while also taking cognisance of the current EIA Regulations of 18 June 2010.

In terms of the Environmental Impact Assessment Regulations published in GNR 386 on 21 April 2006, a full Scoping and Environmental Impact Assessment (EIA) process is required for the proposed project. The need for the full Scoping and EIA is triggered by, amongst others, the inclusion of activities listed in GNR 387, in particular:

1 *The construction of facilities or infrastructure, including associated structures or infrastructure, for –*

(e) *any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R. 386 of 2006;*

The Environmental Impact Assessment Regulations published in GNR 543 on 18 June 2010, also require a full Scoping and Environmental Impact Assessment be conducted for the project. The need for Scoping and EIA in this regard is triggered by the inclusion of activities listed in Listing Notice 2 (GNR 545), particularly:

5 *The construction of facilities or infrastructure for any process or activity which requires a permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent and which is not identified in Notice No. 544 of 2010 or included in the list of waste management activities published in terms of Section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case that Act will apply.*

10 *The construction of facilities or infrastructure for the transfer of 50 000 cubic metres or more water per day, from and to or between any combination of the following:*
- *(i) Water catchments,*
- *(ii) Water treatment works, or*
- *(iii) Impoundments*

Excluding treatment works where water is to be treated for drinking purposes.

14 *The construction of an island, anchored platform or any other permanent structure on or along the sea bed excluding construction of facilities, infrastructure or structures for aquaculture purposes.*

Chapter 4 of the Draft Scoping Report contains a list of activities contained in GNR 386 and GNR 387 of the EIA Regulations of 21 April 2006, and GNR 544 and GNR 546 of the EIA Regulations of 18 June 2010 that are triggered by the various project components and which form part of this Scoping and Environmental Impact Assessment process. These listed activities require authorisation from the National Department of Environmental Affairs (DEA). The environmental assessment needs to show the responsible authority, DEA, and the project proponent, CDC, what the consequences of their choices will be in terms of impacts on the biophysical and socio-economic environment; and how such impacts can be managed.

1.3 EIA Team

The CSIR has been appointed by CDC to undertake the Environmental Impact Assessment (EIA) required for the project. Public Process Consultants (PPC) has been appointed by CSIR to manage the public participation component of the EIA. Public involvement forms an important component of this process, by assisting with the identification of issues and alternatives to be evaluated. The EIA team involved in this EIA

is listed in Table 1.1, which includes specialists that have either been involved to date, or are planned to provide inputs during the EIA process.

Table 1.1: EIA Team

EIA Management Team		
Paul Lochner	CSIR	Project Leader (EAPSA)
Ismail Banoo	CSIR	Project Manager (EAPSA)
Sarah Watson	CSIR	Project Consultant
Specialist Team		
Jamie Pote	Private Consultant	Terrestrial Ecology Assessment
Dr Robin Carter	Lwandle Technologies	Marine Ecology Assessment
Roy van Ballegooyen	CSIR	Marine Modelling Assessment
Robert Vonk	CSIR	Geophysical and Bathymetric Survey
Willem Botes	WAMTechnology	Marine Pipeline Engineering
Public Participation Process		
Sandy Wren	Public Process Consultants	Public Participation Process

1.4 Details and Expertise of the Environmental Assessment Practitioner (EAP)

In terms of Section 18 of the EIA Regulations (2006), an EAP must have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity.

In fulfilment of this requirement, CSIR wishes to point to the following expertise of the study team, which includes Mr Paul Lochner (Project Leader) and Mr Ismail Banoo (Project Manager).

The CSIR has been involved in numerous projects in Africa and South Africa over the past 30 years. The South African offices are based in Stellenbosch, Pretoria and Durban. With experience in 32 sub-Saharan African and Indian Ocean Island countries, the CSIR has been involved in the management of numerous environmental projects and programmes for a range of public and private sector clients. CSIR staff offer a wealth of experience and appreciation of the environmental and social priorities, and national policies and regulations in South Africa.

Paul Lochner - Paul Lochner has 17 years experience in environmental assessment and management studies. He is a certified Environmental Assessment Practitioner for South Africa (EAPSA). He was the project leader for the Coega SEA conducted in 1997 that provided the environmental framework for development within the IDZ and Port. He was the project manager for the EIA for the Coega Aluminium Smelter, Port of Ngqura

container terminal EIA (for Transnet, 2007), Coega LNG-to-Power EIA (for iGas) and the Coega Crude Oil Refinery EIA (for PetroSA) which has been placed on hold.

Ismail Banoo – Ismail Banoo has 11 years of experience in environmental assessment and management studies. He holds a Master's degree in Environmental Science from the University of KwaZulu-Natal. His involvement in several industrial and port related Environmental Impact Assessments (EIAs) has afforded him an in-depth understanding of the sustainability issues facing development in South Africa and Africa. He has been involved in a number of private sector and development agency funded projects in South Africa, Botswana, Mozambique and Angola. He is a registered Environmental Assessment Practitioner in South Africa (EAPSA Certified).

1.5 Objectives of the Draft Scoping Report

The Scoping Phase of the EIA refers to the process of determining the spatial and temporal boundaries for the EIA. In broad terms, this involves three important activities:

- Confirming the process to be followed and opportunities for stakeholder engagement;
- Clarifying the project scope and alternatives to be covered; and
- Identifying the key issues to be addressed in the impact assessment phase, and the approach to be followed in addressing these issues.

This is done through parallel initiatives of consulting with the lead authorities involved in the decision-making for this EIA application; consulting with the public to ensure that local issues are well understood; and consulting with the EIA specialist team to ensure that "technical" issues are identified. The scoping process is supported by a review of relevant background literature on the local area. Through this comprehensive process, the environmental assessment can identify and focus on **key issues** requiring assessment and identify **reasonable alternatives**.

The primary objective of the Draft Scoping Report is to present key stakeholders (including affected organs of state) with an overview of the project and key issues that require assessment in the EIA Phase; and allow the opportunity for the identification of additional issues that may require assessment.

Issues raised in response to the Draft Scoping Report will be captured in an Issues and Response Trail and will be included in the Final Scoping Report and Plan of Study for EIA. These documents will be submitted to the competent authority, the DEA, for approval. This approval is planned to mark the end of the Scoping phase, after which the EIA process moves into the impact assessment and reporting phase.

In terms of legal requirements, a crucial objective of the Draft Scoping Report is to satisfy the requirements of Regulations 29 and 30 of the 2006 NEMA EIA Regulations. These sections regulate and prescribe the content of the Scoping Reports and specify the type of supporting information that must accompany the submission of the Scoping Report to the

authorities. An overview of where the requirements of Sections 29 and 30 of the 2006 NEMA EIA Regulations, and Sections 28 and 29 of the 2010 NEMA EIA Regulations are addressed in this Draft Scoping Report is presented in Table 1.2.

Furthermore, this process is designed to satisfy the requirements of Regulations 57, 58 and 59 of the NEMA 2006 EIA Regulations and Regulations 55, 56 and 57 of the NEMA 2010 EIA Regulations relating to the public participation process and, specifically, the registration of, and submissions from, interested and affected parties.

Table 1.2: Summary of where the requirements of a Scoping Report in terms of Sections 29 and 30 of the 2006 NEMA EIA Regulations, and 28 and 29 of the 2010 NEMA EIA Regulations are provided in this Draft Scoping Report

Section as per NEMA Regulations GNR 385 of 21 April 2006	Section as per Amended NEMA Regulations, GNR 543 of 18 June 2010	Requirement for Scoping Report	Where this is provided in this Draft Scoping Report
29 (1)(a)	28 (1)(a)	Details of the EAP who prepared the report.	Chapter 1
29 (1)(b)	28 (1)(b) / 28(1)(c)	Description of the proposed activity and reasonable alternatives	Chapter 2 & 4
29 (1)(c)	28 (1)(d)	Description of the property and the location of the activity on the property.	Chapter 1 &2
29 (1)(d)	28 (1)(e)	Description of the affected environment	Chapter 3
29 (1)(e)	28 (1)(f)	Identification of all legislation and guidelines considered for the preparation of Scoping Report	Chapter 4
29 (1)(f)	28 (1)(g)	Description of environmental issues and potential impacts, including cumulative impacts	Chapter 6
29 (1)(g)		Information on the methodology that will be adopted in assessing the potential impacts that have been identified	Chapter 6
29(1)(h)	28(1)(h)	Details of the public participation process	Chapter 4 & 5
29 (1)(h)(i)	28 (1)(h)(i)	Steps taken to notify potential interested and affected parties (I&APs) of the application	Appendix D & E
29 (1)(h)(ii)	28 (1)(h)(ii)	Proof of notice boards, advertisements and notices to I&APs	Appendices D, E & F
29 (1)(h)(iii)	28 (1)(h)(iii)	List of all persons or organizations identified in terms of Regulation 57 (2006) or 55 (2010)	Appendix C
29 (1)(h)(iv)	28 (1)(h)(iv)	Summary of issues raised by I&APs, date received and response by EAP	Chapter 5
29(1)(i)	28(1)(i)	Description of the need and desirability of the proposed activity	Chapter 1
	28(1)(j)	Description of identified potential alternatives to the proposed activity	Chapter 4
	28(1)(n)	Plan of Study for EIA setting out the proposed approach to the EIA	Chapter 6
29 (1)(i)(i)	28(1)(n)(i)	Description of tasks undertaken as part of the EIA, including specialists reports and the manner in which tasks will be undertaken	Chapter 6
29 (1)(i)(ii)	28(1)(n)(ii)	Indication of stages at which competent authority will be consulted	Chapter 6
29 (1)(i)(iii)	28 (1)(n)(iii)	Description of proposed method for assessing environmental issues and alternatives, including no-go alternative	Chapter 2
29 (1)(i)(iv)	28 (1)(n)(iv)	Particulars of public participation process to be conducted during EIA	Chapter 4

Section as per NEMA Regulations GNR 385 of 21 April 2006	Section as per Amended NEMA Regulations, GNR 543 of 18 June 2010	Requirement for Scoping Report	Where this is provided in this Draft Scoping Report
29 (1)(j)	28 (1)(o)	Specific information required by competent authority	No specific information was required
	28(1)(p)	Any other matters required in terms of Sections 24(4)(a) and (b) of the Act.	No other matters were required
29 (2)	28 (2)	Guidelines applicable to the kind of activity which is the subject of the application	Chapter 4
	28(3)	Detailed written proof of an investigation as required by 24(4)(b)(i) of the Act and motivation if no reasonable or feasible alternatives as contemplated in subregulation (1)(c) exist	Chapter 2
30 (a)	28(1)(k) / 29 (a)	Copies of representations, objections and comments received in connection with application or SR	Appendix G
30 (b)	28(1)(l) / 29 (b)	Copies of the minutes of meetings held by the EAP with I&APs and other role players	Appendix H
30 (c)	28(1)(m) / 29 (c)	Any responses by the EAP to those representations, objections, comments and views	Chapter 5

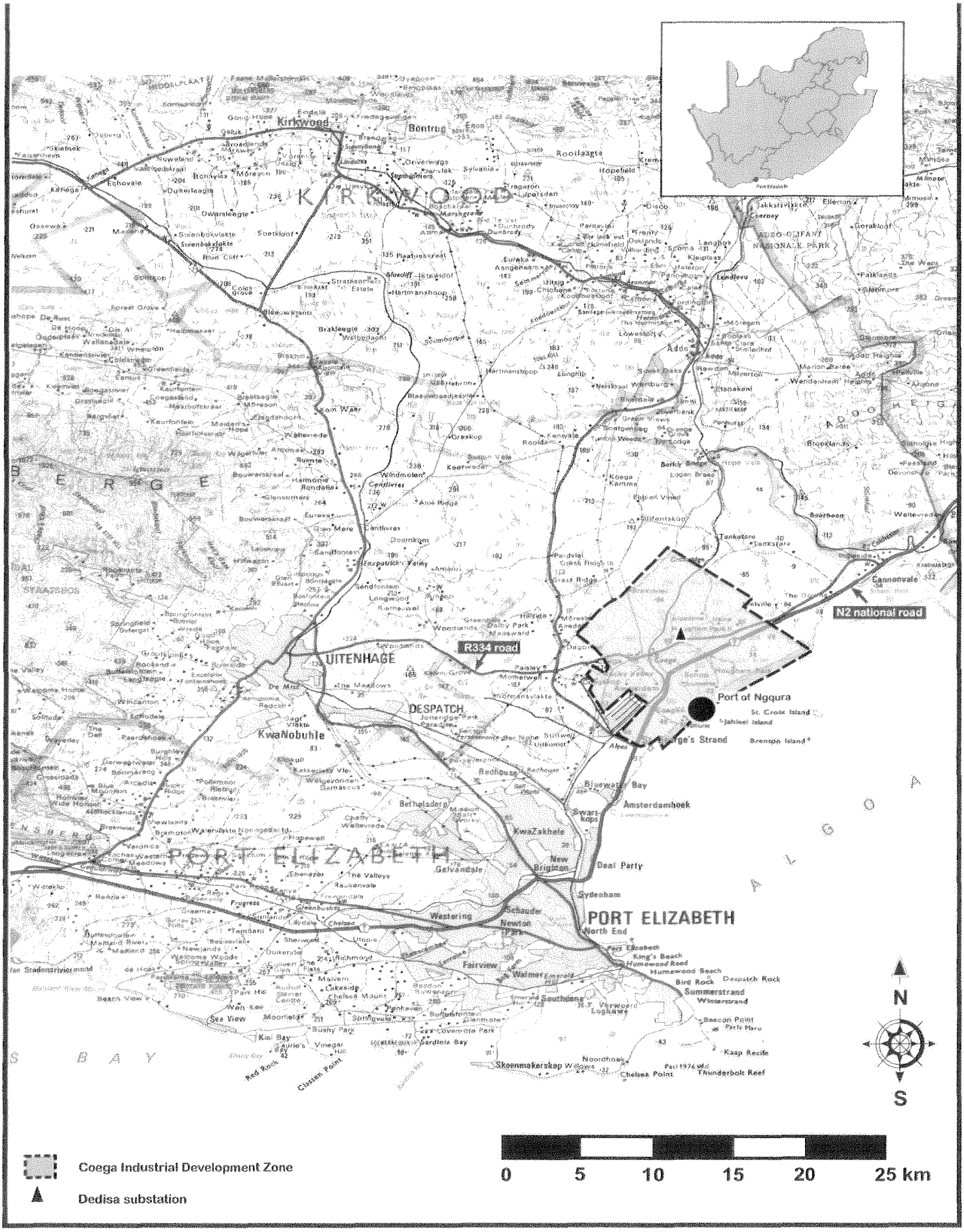
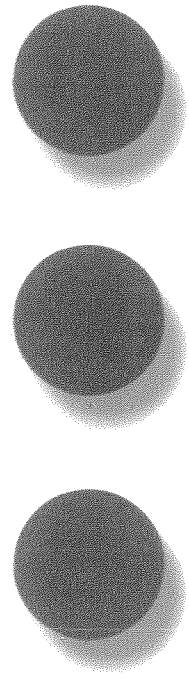


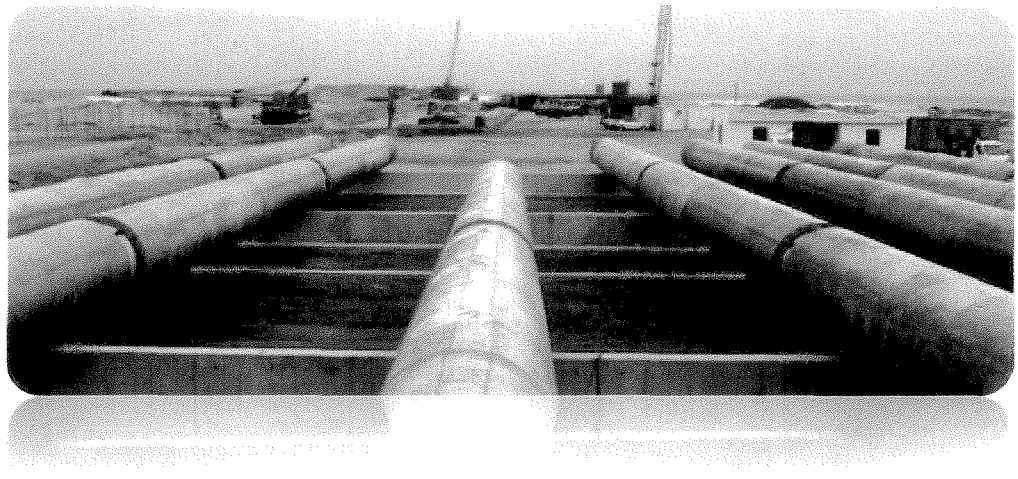
Figure 1.1: Location of the Coega IDZ outside Port Elizabeth in the Eastern Cape

CHAPTER 2

Project Description



Contents



This chapter is based on information provided by CDC, and relevant input from the CSIR's marine modelling team.

2 PROJECT DESCRIPTION

2.1 Introduction

The Coega Industrial Development Zone (IDZ) is South Africa's premier location for new industrial investments covering an area of approximately 11 000 hectares of which approximately 8690 Ha is available for development. The Coega IDZ constitutes a phased development which is focused around industry clusters. The IDZ has been divided up into a total of 14 different zones. Sectors which have been identified for the IDZ consist of Automotive, Agro Processing, Metallurgical, Educational and Training, Petro Chemical, General Manufacturing, Business Process Outsourcing and Energy. The IDZ's proximity to the newly established deep water Port of Ngqura, and its locality with respect to major transport routes and other predominant development centres such as Johannesburg and Cape Town, offers a platform for global exports by attracting foreign and local investment in manufacturing, export orientated and other industries.

2.2 Motivation for Project: Need and desirability

The need and desirability for the provision of an integrated/common-user marine pipeline servitude in the Coega IDZ has been identified for the following reasons:

- Numerous investors that the CDC is negotiating with have a requirement to utilise seawater and to discharge treated effluent as part of their operational activities. Examples for the use of the pipeline servitude may include: use for cooling processes, use for mariculture activities, use for desalination, and the discharge of wastewater or effluent.
- Environmental Authorities (e.g. DWA) have urged the CDC to investigate an integrated approach for the location and management of pipelines rather than having various pipelines throughout the IDZ at different locations.
- The development of an integrated marine pipeline servitude negates the need to have several pipelines crossing the beach into the sea, thereby confining the visual, economic, planning and environmental impacts associated with it.
- The abstraction of seawater for use in industrial activities reduces industries reliance on municipal services and infrastructure in terms of large scale supply of potable water and subsequent discharge of effluent.
- The discharge of wastewater to the marine environment poses less of a risk when properly managed than discharging to fresh water environments.

2.3 Overview of the project

The Coega Development Corporation (CDC) proposes the establishment of an integrated common user marine pipeline servitude within the Coega IDZ. The servitude will be sufficiently wide to allow for growth and expansion as required over time. Based on the findings of pre-feasibility engineering studies conducted by CDC the preliminary specifications for the marine component of the servitude is expected to be approximately 300m wide and the land component of the servitude is expected to be approximately 150m wide, with an area of approximately 150m x 150m for housing the pump station and headworks. The servitude will include structures such as pipelines (intake and discharge), pipe collars, a construction yard, a service road and headworks. The proposed servitude is sufficiently wide to allow for the construction of additional pipelines within the servitude, as required by future investors.

Additionally, the pre-feasibility engineering studies and a risk assessment study was undertaken to assess a number of alternative locations for siting the proposed marine servitude. According to these studies, the optimal locations for siting the marine pipeline servitude are situated east of the Port (Figure 2.1). Based on the findings of the risk assessment which took into account environmental, technological, cost and social aspects, site alternatives situated at the General Utilities Corridor between Zones 8 and 10 in the IDZ, the former Marine Growers facility (Abalone Farm, Zone 10) and the former SeaArk pilot prawn facility in Zone 10 of the IDZ (approximately 4.5 km east of the Port) were found to be the most favourable alternatives. While all of the site alternatives had their own set of benefits and constraints, the benefits associated with these alternatives were found to out rank their associated constraints. It is recommended that these three sites be considered for further investigation in the impact assessment phase. This would allow for a more detailed impact assessment process and will allow the EIA team to focus their efforts on identifying the key environmental impacts on these potentially suitable locations. The details of the site alternatives/risk assessment findings are presented in Chapter 4, Section 4.6 respectively.

Construction activities are likely to include the clearing of land, excavation, pipe laying, embedment, anchoring and if necessary, blasting. Operational activities will include the abstraction of seawater and the discharge of effluent to the marine environment via the pipeline system. Two intake pipelines will abstract seawater from the marine environment and pump it to a storage tank / wet well situated at the headworks. From there pipelines situated on the land component of the servitude will convey seawater to respective users within the IDZ. Processed wastewater from tenants activities will be discharged to the marine environment via a communal discharge pipeline(s).

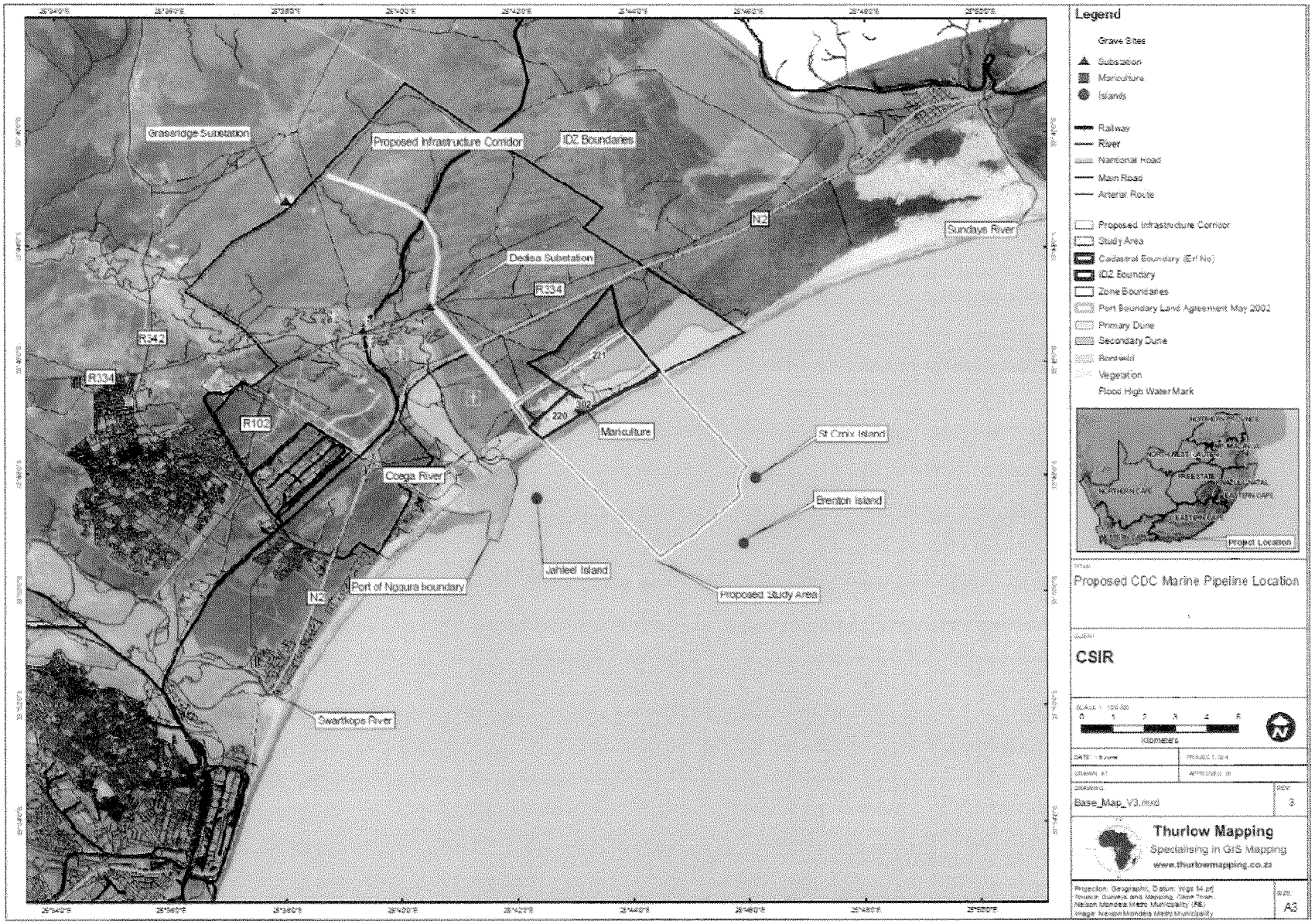


Figure 2.1: Proposed study area

2.4 Description of project components

There are two components of this proposed development that are the subject of this EIA. This includes the establishment of the marine servitude and the construction of the pipelines and associated infrastructure within the servitude. An overview of each component is provided below.

2.4.1 Overview of Servitude

The CDC has undertaken preliminary feasibility studies (including environmental, financial and technical components) to determine the most suitable location for a marine pipeline servitude within the IDZ. The findings of these studies indicate the preferred location for a marine pipeline servitude to be between the eastern breakwater of the Port of Ngqura and the former Marine Growers abalone farm in Zone 10 of the IDZ. However, for the purposes of this EIA, a wider study area has been included, extending approximately two kilometres east of the former Marine Growers abalone farm. The marine component of the servitude will be approximately 300 m wide and the land component of the servitude will be approximately 150 m wide. The marine servitude is expected to extend approximately 2.5 km out to sea however the final size and extent is yet to be determined. Two intake pipelines and a discharge pipeline and open discharge channel/raceway are proposed as part of the project. However, the servitude is sufficiently wide enough to allow for the construction of additional pipelines as required by investors in the future.

It is also important to note that as part of the scoping phase the specialists on the CSIR team will provide environmental inputs to inform the identification and selection of reasonable location alternatives for inclusion in the EIA phase, together with inputs from relevant stakeholders. In particular, factors such as the bathymetry, extent of the proposed marine protected area, dynamic coastal dunes, occurrence of already disturbed sites and available access roads will therefore be investigated in further detail.

2.4.2 Overview of Development Scenarios

Given the uncertainty with regards to potential users of the seawater at this stage, the approach to this EIA has been one of developing anticipated intake and discharge scenarios likely to occur in the short to medium timeframe (5 -10 years). In line with this, four scenarios were identified for the proposed project during this preliminary planning phase. These scenarios provide an indication of the typical types of industrial activities which are likely to occur in the IDZ and that which would have a need for abstracted seawater and the disposal of wastewater and/or effluent as part of their operations. Each of these scenarios is discussed briefly below:

1. *Wastewater*

The wastewater discharge scenario pertains to the release of treated industrial wastewater from the IDZ to the marine environment. Wastewater discharge will emanate from industries within the area, and if approved, the proposed Coega Waste Water Treatment Works Project (CWWTW) could potentially discharge into the CDC outfall pipeline. Water from the CWWTW will be treated to a minimum of Category 4 level discharge parameters in terms of the Department of Water Affairs Water Quality Guidelines. The concentrations associated with Category 4 water are as follows:

Table 2.1: Department of Water Affairs Water Quality Guidelines

Category 4		
Alkalinity	mg/l	1200
COD	mg/l	75
Cl	mg/l	500
Fe	mg/l	10
Mg	mg/l	10
pH	-	5 - 10
Silica	mg/l	150
Sulphate	mg/l	500
SS	mg/l	25
TDS	mg/l	1600
T Hardness	mg/l	1000

2. *Thermal*

A thermal intake/discharge scenario pertains to the abstraction of high volumes of seawater for industrial cooling processes, and the subsequent release of high volumes of thermal effluent, often with a higher chlorine load back into the marine environment. Water required for cooling processes does not have to be of a high quality, and therefore the positioning of the intake pipeline does not have to take water quality into account. Factors such as average sea temperature and the desired temperature of seawater required for cooling processes however, will invariably influence the position and depth of the intake pipeline, while the high volumes of water required for cooling processes will influence the size and capacity of the intake and discharge systems. Wastewater generated as a result of cooling processes (i.e. thermal effluent) contains little waste, and therefore does not require high amounts of dispersal associated with other types of effluent. Thermal effluent can therefore be safely discharged directly to the surf zone. Due to the high volumes of lower quality water associated with a thermal intake and discharge scenario a separate intake and discharge system has been proposed.

3. *Desalination*

Industries which require large amounts of clean (potable) water of a high enough quality to be used in industrial processes may make use of desalination plants as part of their operations. Seawater of a high quality is therefore abstracted from the marine environment, following which it undergoes a desalination process. Effluent generated as a result of the desalination process comprising predominantly of brine is then released. The impact associated with desalination is therefore the release of wastewater with a higher salinity. Changes in salinity pose an impact to the natural marine environment and associated marine organisms.

4. *Mariculture*

Mariculture industries likely to occur within the Coega IDZ may include Molluscs such as abalone and mussels, Crustaceans such as prawns and shrimp, or various marine Piscean species. The abstraction needs of any mariculture industry are dependent on the specific type of marine organism grown. This relates amongst other things to water temperature, quantity and quality, which will influence the positioning and depth at which seawater is abstracted. Seawater abstracted from the marine environment is required to fill tanks, ponds, raceways or any other storage facility required for the production of marine organisms, while treated waste water or effluent generated by mariculture activities is then discharged back to the marine environment. Effluent produced by mariculture industries is likely to have a higher nutrient content due to the presence of biotic elements. Mariculture effluent could lead to biological production within the discharge pipeline and could affect the receiving marine environment (primarily from an ecology perspective), for example, via algal blooms.

Although the proposed project will assess the four intake/discharge scenarios described above, it is important to note that any future tenants who may require the discharge of treated wastewater (with any other components/constituents not discussed above) will be required to undertake an independent environmental assessment during which the impacts associated therewith will be assessed accordingly.

2.4.3 Overview of Intake/ Discharge Pipelines and Associated Structures

The CDC marine pipeline servitude consists of land based and marine components. A brief description of these components is provided below.

Intake Pipelines

Two intake pipelines with a combined capacity of approximately 250 Ml per day have been proposed for this project. The two pipelines will abstract seawater of different qualities and quantities from the marine environment. The larger of the two pipelines will abstract a high volume of lower quality seawater, while the smaller pipeline will abstract a low volume of higher quality seawater. The seawater will be pumped onshore via the two

intake pipelines to the headworks situated within the land based component of the servitude.

Associated Infrastructure

Associated infrastructure consisting of two sets of pump stations, fitted with pump equipment, dry and wet wells, sumps and underground storage tanks will be housed in a housing building, and situated on an area of land approximately 150m x 150m in extent. The larger of the two systems will cater to the thermal scenario, while the smaller system will cater to the remaining wastewater, desalination and mariculture scenarios.

Discharge Pipeline and Open Channel

The proposed project will consist of a low volume discharge pipeline which will cater to the disposal of treated wastewater effluent, desalination effluent and mariculture effluent, and a high volume open channel/raceway which will dispose of the thermal effluent. The project will have a combined discharge capacity of approximately 180 Ml of discharge water per day.

2.5 Detailed Description of Pipeline Infrastructure and Site Requirements

2.5.1 Introduction

Based on the preliminary engineering studies and desktop marine modelling assessment (more detailed modelling will be undertaken in the impact assessment phase), and in accordance with the development scenarios identified for the proposed project, the marine pipeline servitude will make use of two intake pipelines, one open discharge channel, and one discharge pipeline. Associated infrastructure in the form of two separate pump stations housed within a single building will form the headworks of the proposed development.

Description of intake pipelines

Two lateral intake pipelines will be constructed. The two intake pipelines will be sized accordingly based on user needs. One intake pipeline will be designed specifically for high volume abstraction, of water of a lower quality, while the second intake pipeline will be designed for low volume abstraction, of water of a higher quality. It is important to note that the final design i.e. pipeline diameters and extent out to sea, will be informed by the coastal engineering and marine modelling study which will be undertaken during the impact assessment. A number of factors such as bathymetry, location, water quality, and engineering and environmental opportunities and constraints will inform the final design. An updated project description will be provided in the Draft Environmental Impact Report.

At this stage it is expected that the two intake pipelines will be designed with a combined intake capacity of 250 Ml of seawater per day. Seawater will be pumped via the intake

pipelines to a storage tank/wet well situated at the headworks of the development, from where the pipelines situated on the land based component of the servitude will convey seawater to the respective users. The smaller of the two intake pipelines will ultimately provide lower volumes of higher quality water to industrial users for desalination and mariculture activities in particular, while the larger of the two pipelines will provide high volumes of lower quality water exclusively for industrial cooling processes.

2.5.2 Description of pump station and dry and wet wells

The associated infrastructure will include headworks i.e. a pump station, sump, and dry and wet wells. Given the difference in water quality and quantity likely to be abstracted by the respective intake pipelines, two separate systems comprising of storage tanks, wet and dry wells, sumps and pump equipment will be constructed. The size and capacity of each of the two systems will be proportionate with the specifications of the respective intake pipelines. Both systems will be housed inside a building of 150m x 150m area on the land component. Alternative locations are being investigated for the headworks, ranging from above the high-water mark (which reduces pumping costs) to locations further inland to be out of the dynamic coastal dune belt (provided this is technically possible in terms of pumping requirements). Further details on these siting alternatives are provided in Chapter 4 Section 4.6.1.2.

The larger of the two systems will cater exclusively to the thermal scenario, while the smaller system will cater to the requirements of the remaining 3 scenarios. It is anticipated that the sump could potentially be gravity fed and may be located below the water mark. The underground tank/sump will be fitted with a pump situated above it which will then pump water up from the sump/tank. Electricity for the pump station will be obtained from the Sonop Substation via overhead 132 kV electricity lines which will be accommodated within the linear pipeline servitude. Construction activities are likely to include clearing of land, excavation, pipe laying, embedment and anchoring.

2.5.3 Description of discharge pipeline and open channel

A combination of two discharge methods are proposed for the project. The first comprises an open channel (possibly in the surf-zone) discharge (or raceway), while the second comprises a lateral discharge pipeline. The open channel discharge will dispose of high volumes of water while the second pipeline will discharge low volumes of water into the marine environment. The open channel system is expected to consist of an open concrete channel. The two discharge systems have been designed with a combined discharge capacity of approximately 180 Ml of seawater per day. This combined figure is equivalent to approximately three quarters of the combined intake volume of 250 Ml/day. Based on the fact that thermal effluent can be fairly safely discharged to the surf zone, the open channel discharge system will most likely dispose high volumes of wastewater generated as a result of industrial cooling processes, while the discharge pipeline will dispose of treated effluent treated possibly arising from desalination and mariculture activities.

It is important to note that the final design i.e. pipeline diameters and extent out to sea will be informed by the coastal engineering and marine modelling study which will be undertaken in the impact assessment. A number of factors such as bathymetry, location, water quality, and engineering and environmental opportunities and constraints will inform the final design.

2.5.4 Construction

Construction activities will be focused on:

- The marine intake and disposal pipelines and raceway, and an associated temporary jetty if required,
- The headworks i.e. sumps, pumps, dry and wet wells.
- The transfer pipelines to users if users are present at the point of construction
- Access roads; and
- Powerlines to the sub-station.

The construction period for the sea ward components is expected to be approximately 24 months while the construction period for the land ward components is anticipated to be 12 months. Construction of the temporary jetty (should one be required) is expected to take a period of 6 months. Powerline installations and connections to the sub-station will be completed at the end of the construction phase.

2.5.4.1 Contractor Management

Contractors will be employed to construct the project and associated infrastructure. The following wording forms part of the Contract Documentation:

"The contractor shall submit to the Engineer a Method Statement regarding the construction activities. The Contractor shall not commence any activity until the Method Statement has been approved by the Engineer. Except in the case of emergency activities, a period of one working week shall be allowed for written approval of the Method Statement by the Engineer. Such approval shall not be unreasonably withheld."

The Engineer may require changes to a Method Statement if the proposal does not comply with the specification, or if, in the reasonable opinion of the Engineer, the proposal may result in, or carries a greater than reasonable risk of, damage to the environment in excess of that permitted by the specifications.

Method Statements will state clearly:

- The timing of activities
- Materials to be used
- Equipment and staffing requirements
- The proposed construction procedure (as designed with recognition of the relevant environmental and social specifications)

- The system to be implemented to ensure compliance with the above, and
- Any other information deemed necessary by the Engineer.

Method Statements will have to comply with the requirements of the EMP. Due to changing circumstances, it may be necessary to modify Method Statements. In such cases, the proposed modifications will be indicated and agreed upon in writing between the Contractor and the Engineer. Approved Method Statements shall be readily available on the site and shall be communicated to all relevant personnel. The Contractor shall carry out the Works in accordance with the approved Method Statement, as audited by the Engineer. Approval of the Method Statement shall not absolve the Contractor from any of his obligations or responsibilities in terms of the Contract.

2.5.4.2 Marine Intake and Discharge Pipelines

The method of construction depends on the sea bed condition encountered in the area selected for installing the pipe. The bathymetry shows a uniformly sloped bottom with a gradient of 1:120 to 1:140. The bathymetry steepens in the shallow water from about -10m to shoreline. The surfzone and beach are also fairly steep. The bathymetry shows an undulated rough seafloor, indicative of the absence of a sandy bottom. The bathymetry shows undulation of 10 to 60m of the seafloor. Rock reefs run mostly parallel to the coastline.

The marine pipelines may be positioned directly above rock reefs and may be stabilised by means of concrete weight collars. Construction of the sea water intake pipelines and discharge pipeline will be carried out by a number of main activities, namely:

- The erection of a temporary jetty to facilitate the surfzone crossing,
- Erection of a launchway,
- Pulling or dragging in of long lengths of pipe,
- Securing the pipe into position and finally
- The connection of the intake structure at the point of water entry.

The anticipated equipment that would be needed for these activities is summarised below:

Plant	Activity
15 t Mobile Crane	Precast Yard
70 t Jetty Crane	Construct Jetty
70 t Crane on barge	Assist Pipe laying and dredging
50 x 20 m barge	As above
Tug/work boat	As above
Small work boat	As above
300t Linear winch	As above
Welders	Power/weld
Compressor	Drill and Dredge

Drilling and blasting equipment	Removal of rock, concrete
Dive equipment	Encasement

2.5.4.3 Reagents and other chemicals

During the construction phase, small quantities of cleaning and lubricating chemicals will be used. These are PVC glue, acetone, grease and lubricating oils for drilling and machining equipment. PVC glue and acetone are supplied in small 250 ml cans, while lubricating oils and grease are normally supplied in 20 litre drums. All containers will be stored in dedicated, bunded and fenced chemical storage areas. Empty containers shall be collected and disposed of in waste bins for later disposal at a suitable waste disposal site.

2.5.4.4 Fuel and Lubricants

Diesel fuel will be used to power diesel generators and other machinery. Fuel shall not be stored on site or at the contractor's camp, but shall be transported to the site as and when required. Where reasonably practical, plant equipment shall be refuelled at a designated re-fuelling area or at the workshop as applicable. If it is not reasonably practical, then the surface under the temporary refuelling area shall be protected against pollution to the reasonable satisfaction of the Engineer, prior to any refuelling activities, and where possible be designed to encapsulate minor hydrocarbon spillage. The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/ break down spillages. The quantity of such materials shall be able to handle a minimum of 200 litre of hydrocarbon liquid spill. This material must be approved by the Engineer prior to any refuelling or maintenance activities.

2.5.4.5 Waste

Waste is to be managed according to the requirements of the EMP that will be developed in the impact assessment report. The majority of waste will be domestic, with some hazardous waste, primarily containers of chemicals, also being generated.

2.5.4.6 Contaminated Water

Potential pollutants of any kind and in any form shall be kept, stored, and used in such a manner that any escape can be contained.

2.5.4.7 Sewage

During construction, portable chemical toilets will be used. These will be cleaned by contractors at appropriate intervals.

2.5.4.8 Proposed Expansions

The proposed project is being designed to allow for future anticipated expansion in the IDZ. An incremental design philosophy has been incorporated into the design, to make this future requirement possible.

2.5.4.9 Handover

Handover will be carried out in accordance with standard quality control procedures, where the necessary completion certificates are signed off by the engineer and contractor.

2.5.4.10 Health and Safety

Health and safety issues will be managed according to the requirements of the EMP and any in-house guidelines that may be relevant. The HSE implementation will be monitored, controlled and reported on each month.

2.5.5 Operations

Due to the lack of specific design information available at this stage, it is not possible to provide a summary of the operational activities. However, based on experience from similar projects it is anticipated the key operational activities will include but are not limited to the following:

- Sea Water Intake and Discharge
- Marine growth maintenance
- Facility for Pigging
- Sediment Screening
- Ultrafiltration
- Scaling and Fouling Control

The details of these activities will be presented in the Draft Impact Report (as applicable) in the context of the final design of the proposed infrastructure associated with the project.

CHAPTER 3

Description of the Affected Environment

Contents

3 DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.1 Introduction

This chapter describes the environment of the Coega Industrial Development Zone (IDZ) within which the Marine pipeline servitude project is proposed. The aim of this chapter is to provide the reader with sufficient information on the affected environment in order to identify issues as part of the Scoping process for this project. The receiving environment is understood to include biophysical, marine, socio-economic and heritage aspects which could be affected by the proposed development or which in turn might impact on the proposed development. The majority of information used in this chapter was sourced from studies conducted by the Coega Development Corporation (CDC) and recent EIAs conducted in the Coega area.

3.2 Site location

The Coega IDZ is situated along the southern coast of South Africa at the mouth of the Coega River, between the Sundays River in the East and the Swartkops River in the West, approximately 20 km north-east of Port Elizabeth in the Eastern Cape Province. The IDZ falls within the boundaries of the Nelson Mandela Bay Metro which includes the former municipalities of Port Elizabeth, Uitenhage and Dispatch.

The footprint of the proposed marine pipeline servitude and the proposed pipelines is anticipated to be located east of the eastern breakwater, in either Zone 8 or Zone 10 of the IDZ (Figure 3.1).

Figure 3.1: Demarcated zones within the Coega IDZ

3.3 Biophysical Environment

3.3.1 Climate

The Coega IDZ is located in a transition zone between the temperate southern coastal belt and the subtropical eastern coast and subsequently enjoys warm summers and temperate winters. Rainfall is distributed throughout the year with peaks in autumn (May to June) and spring (August to September) and an annual average rainfall of 400mm (Coetzee *et al.*, 1996). The study area experiences gradient winds for the majority of the year with the wind direction varying between West to west-south-westerly (14% of the time) and Easterly (15% of the time). Wind speed and duration increase during summer (October to February) with 55% of wind with a speed of 3.3 meters per second originating from the west and west-south-westerly direction. Temperature at the study area ranges from an annual average maximum of 24° Celsius to an average minimum of 15° Celsius.

3.3.2 Landscape and Geology

Two major landscape types are distinguishable in the project's zone of ecological disturbance and visual influence:

The sandy coastline and coastal dunes: This area includes the lower reaches of the Coega River, the Port of Ngqura and the immediate shoreline along the Algoa Bay area. The dunes along the coastline and at the lower reaches of the Coega River can be divided into vegetated (fixed) dunes and mobile dunes respectively and rise up to an elevation of 50 to 60 m on the eastern side of the port. The dunes lead to a coastal plain and visually separate the coastline from the inland area of the Coega IDZ and the N2 highway.

The raised coastal plain: This area, comprising the main inland area of the IDZ, is located 50 to 70 m above mean sea level and is characterised by coastal limestone overlain by windblown calcareous sands.

3.3.3 Vegetation

On a regional scale, the study area is located within the Subtropical Thicket Biome, known for its role in separating northern (summer rainfall) and southern (winter rainfall) floral regions. The Terrestrial Ecology Research Unit (TERU) estimates this biome to include in excess of 1558 plant species of which 322 are endemic (Vlok & Euston-Brown, 2002). This biome extends from Mossel Bay in the West to Buffalo City in the East and reaches inland for roughly 100 to 200 km from the coast. On a local scale, two vegetation types can be identified in the study area:

Coastal and inland vegetation type: Vegetation along the coastal band includes Algoa Dune Thicket and Colchester Strandveld, while inland vegetation consists of Grassy Ridge Bontveld, Sunday Valley Thicket, Motherwell Karroid Thicket and Sundays Doringveld Thicket. Of these vegetation types Colchester Strandveld and Motherwell Karroid Thicket are classified as endangered while all the other mentioned vegetation types are classified as vulnerable. Inland vegetation in an undisturbed state tends to form dense thickets in low-lying areas and valleys, while flat and ridged areas are characterised by grassland, fynbos and/or Karroid species interspersed with clumps of thicket species (Eyethu Engineers, 2006).

Dune vegetation type: Dune vegetation can be classed into three units common to the Eastern Cape coast, namely; Foredunes and Hummocks, Dune Woodlands and Dune Grasslands. Dune vegetation tends to be highly invaded by Rooikrans (*Acacia cyclops*) with only a few remaining pockets of indigenous vegetation remaining (Eyethu Engineers, 2006).

3.3.4 Fauna

- **Birds** - The coastal birds and seabirds of Algoa Bay rely on the scattered special habitats provided by estuaries and river mouths, rocky shores, dunefields, reefs and the offshore islands. The Algoa Bay Island Nature Reserve consists of the Bird and St Croix (St Croix, Jahleel, Seal and Brenton island) Island groups, each of which has been declared an Important Bird Area as they are inhabited by threatened and endangered species (Barnes, 1998). The islands support globally significant populations of Cape gannets (*Morus capensis*), African Penguins (*Spheniscus demersus*) and Roseate Terns (*Sterna dougallii*). The largest gannet colony in the world is at Bird Island, the largest African Penguin colony in southern Africa is at St Croix, and the only confirmed sites where Roseate Terns breed in South Africa are at Bird and St Croix Islands, with a further possible breeding site being Jahleel Island. There are also breeding Damara terns in the dunes in Zone 10 of the IDZ.

- **Reptiles** - The reptile fauna of the Coega area is particularly diverse, with 56 species of lizards, chameleons, snakes, tortoises and sea turtles represented. Of these, 22 species are either Red Data taxa, listed under the Convention on the Illegal Trade in Endangered Species (CITES), or are endemic to the area or peripheral to the usual range of the species (CES, 2001). These include eight lizards, two monitors, one gecko, one chameleon, three snakes, three tortoises and the four globally endangered sea turtle species. The species with the most restricted range is the Albany dwarf adder (*Bitis albanica*), recently described from the Coega area (Branch, 1999).

- **Invertebrates** - Information on the invertebrate fauna, apart from butterflies, is scarce. One endemic grasshopper and three butterflies of interest have been recorded from the Coega area. The grasshopper, *Acrotylos hirtus*, is endemic to the dunefields of Algoa Bay. Three Lycaenid butterflies (coppers and blues) have been identified as rare or have very restricted distributions in the Coega area. These are *Aloeides clarki* and *Peocilimitis pyroeis* (small coppers) and *Lepidochrysops bacchus* (a small blue).

- **Terrestrial mammals** - Only two mammal species are endemic to the wider Coega area: Duthie's golden mole (*Chlorotalpa duthiae*) and the pygmy hairy-footed gerbil (*Gerbillurus paeba exilis*), which occur in dune thicket (CES, 2001). Both of these species are protected in terms of the conditions attached to the Rezoning EIA and the Port of Ngqura EIA. The remaining 13 Red Data listed mammal species are widespread species, not restricted to the Coega area.

3.4 Marine environment

Algoa Bay is the largest of a series of eastward-facing bays along the south coast of South Africa. The Bird Island group of islands demarcates the eastern boundary of Algoa

Bay, with Jahleel, St Croix and Brenton islands situated in the shallower central area. The mouth of the bay is some 60 to 70km wide, with a depth generally less than 70m.

3.4.1 Physical oceanography of Algoa Bay

The Agulhas Current, flowing southwestward with its core offshore of the continental shelf edge, forms the major open ocean influence (Schumann 1998). Speeds in excess of 2 ms^{-1} are common, and the structure extends well below 2000 m depth. The continental shelf width increases with distance southwestwards and concurrently the Agulhas Current also moves farther offshore.

3.4.2 Marine sediments

The palaeo-valley of the Coega River is filled with discontinuous gravel, sand, silt, and clay layers (CES 2001). The composition of the offshore sediments of Algoa Bay is dominated by quartzose terrigenous detritus (60%) and calcium carbonate (30%). The calcium carbonate content increases significantly (45 to >90%) in the areas surrounding the rocky outcrops of St Croix, Jahleel and Brenton Islands. In general, coarse-grained sediments predominate in the deep water. Very fine sand and mud are also abundant in this region. Fine-grained sand (0.125 0.250 mm) is dispersed right around the bay in shallow water. Gravels and gravely sands are abundant in the vicinity of the islands (Bremner 1991).

3.4.3 Nearshore marine biotic communities

Surfzone communities

A distinctive feature of the surfzone along the eastern sector of Algoa Bay is the regular occurrence of visible accumulations of the diatom *Anaulus australis*. *Anaulus* accumulations occur near Coega, although not in the extreme concentrations of millions of cells per milliliter found farther east (du Preez 1996). *Anaulus* accounts for over 95% of the plant production (Campbell & Bate 1988) and is the basic food source on which the rest of the foodweb in the surfzone and adjacent beach is based.

The macrofauna consists of a large number of animals, although the number of species is relatively low. The foodweb is centred in the surfzone and comprises the benthic community living in the sand and a pelagic community present in the water column. Generally, molluscs dominate the finer-grained beach sands of Algoa Bay, with biomass largely attributed to sand mussels and plough snails. Benthic organisms include the filter feeding sand mussels *Donax serra* and *D. sordidus*, scavenging snails of the genus *Bullia* and the three-spotted swimming crab *Ovalipes trimaculatus*. *Donax* sandmussels are key organisms in the foodweb and are preyed on by a variety of organisms, including Kelp Gull (*Larus dominicanus*), African Black Oystercatcher (*Haematopus moquini*), Sanderling (*Calidris alba*), crabs, sandsharks, rays, bony fish and humans. *Donax* produce large numbers of planktonic larvae that

first circulate in nearshore and bay currents before returning to sandy beaches to settle. The mysid shrimp *Gastrosaccus psammodytes* is extremely abundant in the subtidal breaker zone forming an important link between the primary food supply and higher levels of the macrofaunal foodweb. Two other species of mysid, *Mesopodopsis wooldridgei* and *M. slabberi,* form huge swarms in the water column. Off the Coega River mouth, densities of up to 1300 individuals per m^3 of water have been recorded behind the breakers (Wooldridge *et al.* 1997).

Feeding behaviour of fishes in the surfzone is characterized by opportunism. The mullet *Liza richardsoni* feeds primarily on surf diatoms, crowding into patches during the day, but also feeding on mysids when they are abundant. Important predatory fish include the White Steenbras *Lithognathus lithognathus* which feeds on Donax, and the Sandshark *Rhinobatus annulatus* that predates on *Gastrosaccus* and Donax. Lasiak (1983) recorded 30 species of fish using Eastern Cape surfzones as nursery areas. About half of these species were also recorded as adults. All juveniles recorded were zooplankton feeders, consuming large quantities of mysid shrimps. The rich supply of zooplankton food (especially at night) may be an important feature of sandy beach nursery areas.

Pelagic communities

Pelagic communities comprise the plants and animals inhabiting the open water column. Close to 130 species of diatoms, dinoflagellates and silicoflagellates were recorded (Klages & Bornman 2005a). *Chlorophyll A* concentrations range between 1 - 10 $\mu g l^{-1}$. According to information received from Derek du Preez (Botany Dept., Nelson Mandela Metropolitan University) the observed chlorophyll A ranges convert to a production of 200 – 400 g carbon under each m^2 of nearshore ocean (10 – 30 m depth) per year. Probyn *et al.* (1994, 1995) have published for the Agulhas Bank (of which Algoa Bay is a part) a mean primary production rate of 2035 mg C m^{-2} day^{-1} for peak summer conditions and an annual rate of 656 g C m^{-2} yr^{-1}. Irrespective of their considerable range, the order of magnitude of these rates emphasise the status of the northwestern quadrant of Algoa Bay as a productive and biologically rich area. The neritic (shallow inshore) zooplankton community of Algoa Bay has been poorly studied.

Benthos and demersal fishes

Benthic communities live on or burrow into the soft sediments of the seafloor. The Ngqura Port marine biomonitoring programme (Newman 2001, Klages & Bornman 2003, 2005a, 2005b, Klages *et al.*, 2006) results showed a remarkable diversity, topping 156 in the number of species. Approximately 35 % of them were rare. Most (48 %) were arthropods (mainly crustaceans of the orders Amphipoda and Isopoda), although errant polychaete annelids were also well represented (27 %), as were ophiuroid echinoderms (6.5 %). The remaining species included cnidarians,

platyhelminths, nematodes, nemerteans, sipunculids, sedentary polychaetes, molluscs, other echinoderms and protochordates. The number of individuals per unit area sampled was high. For instance, amphipods and polychaetes reached 2830 in January 2003 and 7040 individuals in September 2004, respectively, per m^2 of seafloor. Results of the biomonitoring programme provided a strong signal that the benthic infauna was impacted in terms of species richness and community structure by port development. Observed changes in infaunal community structure were consistent with an environment that in 2004 had experienced high turbidity and the release of dredging fines from the dredge spoil dump site near Brenton Island. Depending on the approach used to lay the marine pipelines, this may be of significance regarding the proposed project.

Birds and marine mammals

All South African coastal seabirds are protected under the Seabirds and Seals Protection Act (46 of 1973) and the Islands of the Cross are classed as Important Bird Areas (Barnes 1998). About 28 of the 104 seabird species recorded off South Africa occur frequently in the northwestern sector of Algoa Bay. The rest are vagrant or rare. Four of the 15 South African resident seabird species, as well as two herons, breed on the Islands of the Cross while for several more they are important roost sites (Klages & Whittington 2006).

Most seabirds in the area feed in the top metres of the water column, and largely on epipelagic fish. Anchovy *Engraulis japonicus* and Sardine *Sardinops sagax* are the most important prey species, Horse Mackerel *Trachurus trachurus*, Saury *Scomberesox saurus* and Redeye.

Roundherring *Etrumeus whiteheadi* play a lesser role. Many migrants readily take offal provided by fishing boats. Zooplankton and micronekton are important prey constituents for the smaller species, such as prions, storm petrels and terns (Smale *et al.* 1994). The African Penguin and the Roseate Tern are arguably of the highest conservation concern. The African Penguin is classified as Vulnerable to Extinction because its population decreased in a dramatic and sustained fashion during the 20th century and continues to do so after the turn of the millennium (Underhill *et al.* 2006). As a non-volant visual hunter the African Penguin is particularly vulnerable to increases in water turbidity from construction activities. Roseate Tern numbers have been depressed by sealers and guano scrapers for a very long time and the species appears to battle to recover from this severe impact (Tree & Klages 2003). The breeding population is just 250 pairs, making it South Africa's second rarest breeding seabird after Leach's Storm Petrel.

The marine mammal fauna of South Africa comprises in excess of 30 whale, dolphin and seal species. Nine species (4 whales, 4 dolphins, 1 seal) are relatively common in the area, albeit some only seasonally (CSIR 2001). The two largest cetaceans are present in winter and spring only, when Southern Right Whales give birth and nurse

their young in shallow waters, and when Humpback Whales migrate through to their more tropical nursery areas. Humpback Dolphins (nationally a Critically Endangered species) and Bottlenose Dolphins use the surfzone extensively as a feeding ground. Common and Risso's Dolphins are usually encountered somewhat further offshore. The Cape Fur Seal has a wide at-sea distribution (Smale *et al.* 1994).

Two broad foraging guilds are recognisable in the assemblage, based on where marine mammals pursue their prey: inshore and reefs, or epipelagic. As is the case with seabirds, Anchovy and Sardine are the most important prey species for the open-water species of cetaceans, whereas a wide variety of perciform reef fish (such as *Sparidae*, *Lutjanidae*, *Mugilidae*) form the common prey of the inshore feeders.

3.5 Socio-Economic

The proposed project is to be developed within the Coega IDZ, which is situated in the NMBMM. There are no people living within the IDZ, and those persons who were resident in the area were relocated prior to the development of the IDZ. Because the area is designated as an IDZ the landscape quality has been significantly impacted through the establishment of the Port and, over time, various industries in the IDZ. The proposed project will not require the relocation of any persons. However, the development of the project will have indirect socio-economic impacts on the municipal area and its population. Accordingly the discussion that follows provides a brief socio-economic profile of the municipal area.

3.5.1 Population, Employment and Income

NMBMM is situated in the Eastern Cape Province, the second largest province in South Africa, covering approximately 169 580 square kilometres, or 13.9% of South Africa's total land area. With more than six million people, the Eastern Cape has the third largest provincial population. According to the StatSA (Census 2001) the statistics reflect a large black population, with low incomes and high levels of unemployment.

According to the NMBMM Integrated Development Plan, 2008 (IDP, 2008), Nelson Mandela Bay has a population of about 1.1 million people, and covers an area of 1 950 square kilometres. Port Elizabeth, which forms part of the NMBMM, is South Africa's second oldest city and is also the commercial capital of the Eastern Cape. Uitenhage and Despatch also form a part of the NMBMM. Altogether, 52 percent of the NMBMM population are female and 37 per cent are below the age of 20, highlighting the importance of education, job creation and youth programmes. Decades of distorted development in the city have manifested in highly skewed distribution of income and wealth. The unemployment rate among the economically active sector of the community is approximately 28 percent (IDP, 2008). Although the unemployment rate in Nelson Mandela Bay has shown a steady decline since 1994, it remains higher than the national average for South Africa. The NMBMM continues to provide relief to impoverished households through its Assistance to the Poor Scheme, increasing its monthly contribution

for water and electricity from 6 kl to 8 kl and from 50 kWh to 75 kWh respectively in 2007 (IDP, 2008). 93 111 households receive free basic water, sanitation and refuse removal services, while 94 823 households receive free electricity every month. Job creation is a priority, given the need to increase the prosperity of the community and ensure a more equitable distribution of wealth among residents. Consequently the Municipality has invited all local stakeholders and social partners to make a contribution to the economic growth and development of the area.

Nelson Mandela Bay is the economic powerhouse of the Eastern Cape Province, and has experienced a 20 percent increase in Gross Geographic Product (GGP) over the last five years (IDP, 2008). It is the hub of automotive manufacturing in South Africa, which accounts for 50 percent of local manufacturing. The motivation behind the Coega IDZ development, regarded as a keystone development in the Eastern Cape, came from the National Governments Growth, Employment and Redistribution (GEAR) strategy. It is the largest single infrastructure development project undertaken in South Africa since 1994. When fully functional, the port is expected to become a significant catalyst to the economic growth of Nelson Mandela Bay and the region. Current and future investments are expected to create more jobs and stimulate the economy. The economy of the Eastern Cape has grown faster than the national economy over the past few years.

According to the Eastern Cape Development Corporation (ECDC), the manufacturing sector grew by 21 percent in real terms from 1998 to 2001, compared to 9 percent for South Africa as a whole. The EC province manufacturing sector is well integrated into the world economy. Nearly half of the 120 large enterprises are part of international corporations, and over 50 percent of the large enterprises are exporting more than 25 percent of their output (CDC, 2004).

It is clear from the discussion above that unemployment in the Eastern Cape Province is high and it is therefore highly likely that this would be one of the main issues that would be raised during public participation. In addition, considering that the IDZ is earmarked to increase the manufacturing sector and is one of the main contributors to the GGP – the proposed marine pipeline is of particular relevance in the context of supporting much needed growth in the manufacturing sector thereby increasing employment opportunities.

3.5.2 Labour Management

- All construction activities on the Coega IDZ and at the Port of Ngqura require full compliance to the Coega Zone Labour Agreement (the Coega ZLA);

- The Coega ZLA was negotiated between the Construction Industry Employer Associations and the Construction Industry Trade Unions and concluded on 25 September 2002. This agreement was subsequently endorsed by both the Coega Development Corporation and Transnet National Ports Authority for application on all construction sites within the confines of the Coega IDZ and the Port of Ngqura;

- In order to maximise local labour opportunities, preference for employment in Civils and Building Task Grades A to D (Annexure H1 of the Coega ZLA) and MEI

Category 1 to 3 (Annexure H2 of the Coega ZLA) shall be given to local candidates residing in Nelson Mandela Bay who are in possession of appropriate qualifications, skills or experience in the construction or contracting industries.

- Recruitment of all additional local labour shall only take place through the Recruitment & Induction Centre provided by the Coega Development Corporation.

- Contractors will be entitled to staff a project on the IDZ with seconded labour for core skills in categories other than those referred to here above, through the Secondment approval process as managed by the Recruitment & Induction Centre provided by the Coega Development Corporation.

- The wage schedules to the Coega ZLA are updated annually to reflect Industry wage increases granted. Annexure H1 is based on the SAFCEC–NUM Agreement which is typically effected from 01 September annually, whilst the Annexure H2 increases negotiated through the Metal & Engineering Industries Bargaining Council, which is typically effected from 01 July annually.

CHAPTER 4

Approach to EIA Process and Public Participation

Contents

4 APPROACH TO EIA PROCESS AND PUBLIC PARTICIPATION

This chapter presents the EIA process for the proposed development with particular attention to the steps in the Scoping and public participation component of the EIA.

4.1 Legal context for this EIA

Section 24(1) of NEMA states:

"In order to give effect to the general objectives of integrated environmental management laid down in this Chapter, the potential impact on the environment of listed activities must be considered, investigated, assessed and reported on to the competent authority charged by this Act with granting the relevant environmental authorization."

The reference to "listed activities" in section 24 of NEMA relates to the Environmental Impact Assessment Regulations promulgated respectively in Government Notices R 385, R 386 and R 387 in Government Gazette 28753, dated 21 April 2006, which came into effect on 3 July 2006. The relevant Government Notices published in terms of NEMA that comprise collectively the NEMA EIA Regulations also list activities that require either a Basic Assessment, or Scoping and Environmental Impact Assessment (that is a "full EIA"). The Marine Pipelines Project requires a full EIA, in particular because it includes, inter alia, the following activity listed under Activity Number 1 in GN R 387 in Government Gazette No 28753 of April 2006:

1 The construction of facilities or infrastructure, including associated structures or infrastructure, for –

e) any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R. 386 of 2006;

Also considered are the amended EIA regulations promulgated on 18 June 2010 which came into effect on 2 August 2010. Although the new regulations are highlighted here, it is important to note that the application was submitted for authorisation under the 2006 EIA regulations, and although repealed these Regulations are therefore applicable.

All the listed activities potentially forming part of this proposed development and therefore requiring environmental authorization are included in the application form prepared and submitted to the Department of Environmental Affairs (DEA) and attached as Appendix B of this report. The listed activities as contained in the application are indicated in Table 4.1, while Table 4.2 highlights the applicable 2010 regulations.

Table 4.1: Listed activities in GN R386 and GN R387 that trigger an EIA for the proposed Marine Pipeline Project at Coega

The number and date of the relevant notice:	Activity No (s) (in terms of the relevant Government notice) :	Description of each listed activity:	Relevance to the Project
Government Notice 386, Government Gazette No. 28753 21 April 2006	2	Construction or earth moving activities in the sea or within 100 meters inland of the high water mark of the sea, in respect of – (d) embankments; (f) buildings; or (g) Infrastructure.	Construction of the pipelines and the associated infrastructure e.g. pump station
	5	The removal or damaging of indigenous vegetation of more than 10 square meters within a distance of 100 meters inland of the high-water mark of the sea.	The alignment of the proposed pipelines and the head works on the landward side may require some removal of existing vegetation.
	6	The excavation, moving, removal, depositing or compacting of soil, sand, rock or rubble covering an area exceeding 10 square meters in the sea or within a distance of 100 meters inland of the high-water mark of the sea.	The construction of the pipeline and associated infrastructure will require that these activities be undertaken.
Government Notice 387, Government Gazette No. 28753, 21 April 2006	1	The construction of facilities or infrastructure, including associated structures or infrastructure, for –	
	e	any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R. 386 of 2006;	Permits for discharge into the marine environment will be required as the operational policy for marine disposal promulgated under the Water Act but now enforced under the ICM Act provides that seawater abstracted and brought onto land and then subsequently discharged back to sea (treated or untreated) is deemed as effluent and therefore requires a permit for discharge.

Table 4.2: Listed activities in GN R544, GN 545 and GN R546 (of 2010) that trigger an EIA for the proposed Marine Pipeline Project at Coega

The number and date of the relevant notice:	Activity No (s) (in terms of the relevant Government notice) :	Description of each listed activity:	Relevance to the Project
Government Notice 544, Government Gazette No. 33306 18 June 2010 (Listing Notice 1)	9	The construction of facilities or infrastructure exceeding 1000 meters in length for the bulk transportation of water, sewage or storm water – (i) with an internal diameter of 0.36 meters or more; or (ii) with a peak throughput of 120 litres per second or more	Construction of the pipelines and the associated infrastructure e.g. pump station
	14	The construction of structures in the coastal public property where the development footprint is bigger than 50 square meters, excluding - ...	Construction of the pipelines and the associated infrastructure e.g. pump station
	16	Construction of earth moving activities in the sea, an estuary, or within the littoral active zone or a distance of 100 meters inland of the high-water mark of the sea or an estuary, whichever is the greater, in respect of – (v) buildings of 50 square meters or more; or (vi) infrastructure covering 50 square meters or more -	The construction of the pipeline and associated infrastructure will require that these activities be undertaken.
	18	The infilling or depositing of any material of more than 5 cubic meters into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit. Pebbles or rock from: (ii) the sea; (iii) the seashore (iv) the littoral zone, an estuary or a distance of 100 meters inland of the high-water mark of the sea or an estuary, whichever distance is the greater -	The alignment of the proposed pipelines and the head works on the landward side may require some removal of existing vegetation.
	24	The transformation of land bigger than 1000 square meters in size, to residential, retail, commercial, industrial or institutional use, where, at the time of the coming into effect of this schedule such land was zoned open space, conservation or had an equivalent zoning.	Construction of the pipelines and the associated infrastructure e.g. pump station
	26	Any process or activity identified in terms of Section 53(1) of the National Environmental Management: Biodiversity Act, 2004 (Act	The alignment of the proposed pipelines and the head works on the landward

The number and date of the relevant notice:	Activity No (s) (in terms of the relevant Government notice) :	Description of each listed activity:	Relevance to the Project
		No. 10 2004).	side may require some removal of existing vegetation.
Government Notice 545, Government Gazette No. 33306 18 June 2010 (Listing Notice 2)	5	The construction of facilities or infrastructure for any process or activity which requires a permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent and which is not identified in Notice No. 544 of 2010 or included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in which case that Act will apply.	Permits for discharge into the marine environment will be required as the operational policy for marine disposal promulgated under the Water Act but now enforced under the ICM Act provides that seawater abstracted and brought onto land and then subsequently discharged back to sea (treated or untreated) is deemed as effluent and therefore requires a permit for discharge.
Government Notice 546, Government Gazette No. 33306 18 June 2010 (Listing Notice 3)	12 (c)	The clearance of an area of 300 square meters or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation. (c) within the littoral active zone or 100 meters inland from high water mark of the sea or an estuary, whichever distance is the greater, excluding where such removal will occur behind the development setback line on erven in urban areas.	Construction of the pipelines and the associated infrastructure e.g. pump station
	16	The construction of: (iii) buildings with a footprint exceeding 10 square meters in size; or (iv) infrastructure covering 10 square meters or more Where such construction occurs within a watercourse or within 32 meters of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line. (a) In Eastern Cape, (ii) Outside urban areas, in: (jj) Areas seawards of the development setback line or within 1 kilometer from the high-water mark of the sea if no such development setback line is determined.	Construction of the pipelines and the associated infrastructure e.g. pump station

The EIA process is a planning, design and decision making tool used to demonstrate the biophysical, social and economic impacts (both positive and negative) and consequences of the proposed project to facilitate informed decision-making. Furthermore, the EIA process is also a future-directed practice which recommends management actions to mitigate potential negative impacts and maximise the benefits associated with the project.

4.2 Legislation and Guidelines Pertinent to this EIA

The scope and content of this Draft Scoping Report has been informed by the following legislation, guidelines and information series documents:

4.2.1 National Legislation

- National Environmental Management Act (NEMA) (Act 107 of 1998);
- EIA Regulations published under Chapter 5 of the NEMA on 21st April 2006 (GN R385, GN R 386 and GN R387 in Government Gazette 28753);
- Guidelines published in terms of the NEMA EIA Regulations, in particular:
  - Guideline 3: General Guide to Environmental Impact Regulations, 2006 (DEAT, June 2006);
  - Guideline 4: Public Participation in support of the Environmental Impact Assessment Regulations, 2006 (DEAT, May 2006);
  - Guideline 5: Assessment of alternatives and impacts in support of the Environmental Impact Assessment Regulations, 2006 (DEAT, June 2006);
  - Integrated Environmental Management Information Series (Booklets 0 to 21) published by DEA over the period 2002 to 2005;
- National Environmental Management: Biodiversity Act (NEMBA) (Act 10 of 2004);
- National Heritage Resources Act (NHRA) (Act 25 of 1999);
- Promotion of Administrative Justice Act (Act 2 of 2000);
- Records of Decision issued by national DEA and/or the provincial DEDEA for activities in the Port of Ngqura and Coega IDZ.

Other Acts, standards and/or guidelines such as the Zone Employment Relations Policy and the Zone Labour Agreement may also be applicable and will be reviewed in more detail as part of the specialist studies to be conducted for the EIA.

4.3 Principles for Scoping and Public Participation

The public participation process for this Scoping and EIA process is being driven by a stakeholder engagement process that will include inputs from authorities, interested and affected parties (I&APs), technical specialists and the project proponent. Guideline 4 on "Public Participation in support of the EIA Regulations" published by DEA in May 2006, states that public participation is one of the most important aspects of the environmental

authorisation process. This stems from the requirement that people have a right to be informed about potential decisions that may affect them and that they must be afforded an opportunity to influence those decisions. Effective public participation also improves the ability of the competent authority to make informed decisions and results in improved decision-making as the view of all parties are considered (DEAT, 2006: pg 9).

An effective public participation process could therefore result in stakeholders working together to produce better decisions than if they had worked independently. The DEA (2006) Guideline on Public Participation further notes that:

"The public participation process:

- Provides an opportunity for interested and affected parties (I&APs) to obtain clear, accurate an comprehensive information about the proposed activity, its alternatives or the decision and the environmental impacts thereof;
- Provides I&APs with an opportunity to indicate their viewpoints, issues and concerns regarding the activity, alternatives and /or the decision;
- Provides I&APs with the opportunity of suggesting ways of avoiding, reducing or mitigating negative impacts of an activity and for enhancing positive impacts;
- Enables the applicant to incorporate the needs, preferences and values of affected parties into the activity;
- Provides opportunities to avoid and resolve disputes and reconcile conflicting interests; and
- Enhances transparency and accountability in decision making."

To the above, one can add the following universally recognised principles for public participation:

- Inclusive consultation that enables all sectors of society to participate in the consultation and assessment processes;
- Provision of accurate and easily accessible information in a language that is clear and sufficiently non-technical for I&APs to understand, and that is sufficient to enable meaningful participation;
- Active empowerment at grassroots level to understand concepts and information with a view to active and meaningful participation;
- Use of a variety of methods for information dissemination in order to improve accessibility, for example, by way of discussion documents, meetings, workshops, focus group discussions, and the printed and broadcast media;
- Affording I&APs sufficient time to study material, to exchange information, and to make contributions at various stages during the assessment process;
- Provision of opportunities for I&APs to provide their inputs via a range of methods, for example, via briefing sessions, public meetings, written submissions or direct contact with members of the Environmental Impact Assessment (EIA) Team.
- Public participation is a process and vehicle to provide sufficient and accessible information to I&APs in an objective manner to assist I&APs to identify issues of concern, to identify alternatives, to suggest opportunities to reduce potentially

negative or enhance potentially positive impacts, and to verify that issues and/or inputs have been captured and addressed during the assessment process.

At the outset it is important to highlight two key aspects of public participation:

- There are practical and financial limitations to the involvement of all individuals within a public participation programme (PPP). Hence, public participation aims to generate issues that are representative of societal sectors, not each individual. Hence, the PPP will be designed to be inclusive of a broad range of sectors relevant to the proposed project.

- The PPP will aim to raise a diversity of perspectives and will not be designed to force consensus amongst I&APs. Indeed, diversity of opinion rather than consensus building is likely to enrich ultimate decision making. Therefore, where possible, the public participation process will aim to obtain an indication of trade-offs that all stakeholders (i.e. I&APs, technical specialists, the authorities and the development proponent) are willing to accept with regard to the ecological sustainability, social equity and economic growth associated with the project.

4.4 Objectives of the Scoping Process

This Scoping process is being planned and conducted in a manner that is intended to provide sufficient information to enable the authorities to reach a decision regarding the scope of issues to be addressed in this EIA process, and in particular to convey the range of specialist studies that will be included as part of the Environmental Impact Reporting Phase of the EIA, as well as the approach to these specialist studies.

Within this context, the objectives of this Scoping process are to:

- Identify and inform a broad range of stakeholders about the proposed development;
- Clarify the scope and nature of the proposed activities and the alternatives being considered;
- Conduct an open, participatory and transparent approach and facilitate the inclusion of stakeholder concerns in the decision-making process;
- Identify and document the key issues to be addressed in the forthcoming Environmental Impact Reporting Phase of the EIA, through a process of broad-based consultation with stakeholders;
- Ensure due consideration of alternative options in regard to the proposed development, including the "No development" option.
- To gain an understanding regarding the needs for licensing and permits for the proposed development and its industrial users from relevant authorities.

4.5 Tasks in the Scoping Phase

This section provides an overview of the tasks being undertaken in the Scoping Phase, with a particular emphasis on providing a clear record of the public participation process followed.

TASK 1: I&AP IDENTIFICATION, REGISTRATION AND THE CREATION OF AN ELECTRONIC DATABASE

Prior to advertising the EIA process in the local and regional print media an initial database of I&APs was developed for the Scoping process. This was supplemented with input from the EIA Project Managers, CSIR and the Project Applicant, the CDC. A total of 65 I&APs were included on the project database in this manner. Appendix C contains the current I&AP database, which has been updated to include participation by I&APs at meetings and in response to requests to register their interest in the project. At the time of producing this report, the database contained 81 registered I&APs.

While I&APs have been encouraged to register their interest in the project from the start of the process, following the public announcements (see Task 2), the identification and registration of I&APs will be ongoing for the duration of the study. Stakeholders from a variety of sectors, geographical locations and/or interest groups can be expected to show an interest in the development proposal, for example:

- Provincial and Local Government Departments
- Local interest groups, for example, Councillors and Rate Payers associations
- Marine based interest groups
- Environmental Groups and NGO's
- Grassroots communities and structures.

I&AP details are being captured and automatically updated as and when information is distributed to or received from I&APs. This ongoing and up-to-date record of communication is an important component of the public participation process. It is important to note that I&APs proactively identified and included on the project database at the outset of the process will remain on the database unless they specifically request to deregister their interest in the project.

TASK 2: ANNOUNCEMENT OF THE SCOPING PROCESS

In order to notify and inform the public of the proposed project and invite members of the public to register as I&APs, the project and EIA process was advertised in three regional newspapers, as shown in Table 4.3. Copies of the advertisements placed are contained in Appendix D of this report. Included in this media announcement was information on the website address where information available on the project could be downloaded, namely, www.publicprocess.co.za.

Table 4.3: Media announcements of the commencement of this EIA process

Newspaper	Area of distribution	Language	Date placed
EP Herald	*Provincial Distribution*	*English*	*21 July 2010*
Weekend Post	*Regional distribution beyond the NMBM area*	*English*	*24 July 2010*
Die Burger	*Regional distribution beyond the NMBM area*	*Afrikaans*	*21 July 2010*

In addition to the newspaper advertisements, letters with personal notification regarding the EIA process were mailed to all pre-identified key stakeholders on the database, which at the time consisted of 65 I&APs (Letter 1). I&APs were provided a 30 day period within which to raise issues and/or register their interest on the project database. This period extended from the 19th of July 2010 to the 20th August 2010. Appendix E contains copies of correspondence and information distributed to I&APs prior to the release of the Draft Scoping Report. Letter 1 to I&APs included the Background Information Document (BID) developed for the project as well as a registration and comment form. The purpose of the BID is to inform the public of the proposed project and the EIA process as well as providing an overview of the opportunities and mechanisms for public participation.

The EIA Regulations require that a notice board providing information on the project and EIA process is placed at the site. As the Coega Industrial Development Zone is a restricted area a notice board was not placed at the site but rather on an electronic notice board at the reception area of the Coega Development Corporation offices. A copy of the e-notice board is included in Appendix F.

TASK 3: ONGOING COMMUNICATION AND CAPACITY BUILDING

In accordance with the principles of bodies such as the International Association for Public Participation (IAP2), the process for this EIA aims to ensure that people are involved from the outset, that we proactively solicit the involvement of stakeholders representing all three dimensions of sustainability (i.e. biophysical, social and economic dimensions), and that we provide them with sufficient and accessible information to contribute meaningfully to the process. In this manner, the public participation process aims to build the capacity of stakeholders to participate.

Within the context of the EIA process, capacity building is not viewed as a "once off" event, but rather a series of events and/or information sharing which provides information on a continuous basis, thereby building the capacity and knowledge of I&APs to effectively participate in the EIA process and raise issues that require further investigation during the EIA.

One of the challenges facing the participation process is the diversity of South African society. Public participation by its very nature is a dynamic process with various sectors of society having varying needs, values and interests. The core question for public participation is "How can I, the interested and affected party, meaningfully participate in the process?" This varies according to the needs of I&APs. The public participation process should be inclusive of all I&APs, and afford them the opportunity to raise their issues in a manner that suites them. Coupled with this South African society is characterized by varying socio-economic, literacy and language levels all of which need to be considered in the participation process. For example, certain I&APs may want to receive documentation only and not attend meetings, some I&APs may want to only attend meetings, other I&APs may not want to attend meetings and send their comments in writing, and some I&APs may want to be actively involved throughout the process.

In order to accommodate the varying needs of I&APs and develop their capacity to participate in the process, information sharing forms an integral and ongoing component of the EIA process to ensure effective public participation. The following provides an overview of information sharing throughout the EIA process in order to develop the capacity of I&APs to effectively engage in the public participation process:

- *Website* – placing EIA related project information on the website www.publicprocess.co.za
- *Language* – encouraging I&APs to use the language of their choice at meetings and providing translations at meetings in English, Afrikaans and Xhosa, when required
- *Background Information Document* (July 2010) – which contains information on the project, EIA and public participation process
- *Newspaper Advertisements* placed requesting I&APs to register their interest in the project, raise issues of concern or notifying I&APs of public meetings to be held
- *Letters to I&APs* notifying them of the various stages of the EIA process, availability of reports for comment and inviting them to attend public meetings to be held
- *Report Distribution* – providing hard copies of the Scoping and EIA reports at local libraries for viewing by I&APs as well as providing key I&APs with copies of the report
- *Public Meetings* – where representatives of the project applicant and EIA team are present to interact and engage with members of the public
- *Focus Group Meetings* – to target key I&AP groups (Councillors, ratepayers association, surrounding landowners, affected organs of state, environmental organisations) and proactively invite them to attend a meeting where they are provided with an overview of the project and EIA process.

Documentation will be posted onto the website as and when it becomes available and I&APs will be notified accordingly.

TASK 4: CONSULTATION WITH AUTHORITIES

All public participation documentation will reach the lead authority (National DEA) as well as other relevant authorities included on the I&AP database. Additionally, consultation with relevant authorities on a one-on-one basis will be effected where necessary.

Given the project location in the Coega IDZ, a key approach to authority consultation will be to communicate via the Coega Environmental Liaison Committee, which meets quarterly and includes all authorities from national, provincial and local government involved in environmental decision-making regarding projects in the IDZ.

During the course of the EIA process, the CSIR EIA project team, will seek to hold meetings as necessary with the key authorities at various milestones throughout the process.

TASK 5: TECHNICAL SCOPING WITH PROJECT PROPONENT AND EIA TEAM

The Scoping process has been designed to incorporate two complementary components: a stakeholder engagement process that includes the relevant authorities and wider interested and affected parties (I&APs); and a technical process involving the EIA team and the proponent.

The purpose of the technical Scoping process is to draw on the past experience of the EIA team and the project proponent to identify environmental issues and concerns related to the proposed project, and confirm that the necessary specialist studies have been identified.

TASK 6: CONSULTATION WITH WIDER I&APS (PUBLIC) TO IDENTIFY ISSUES

I&APs were provided a **30 day period** within which to raise issues and/or register their interest on the project database. This period extended from the 19th July 2010 to the 20th of August 2010. In order to accommodate the varying needs of I&APs as well as capture their views, issues and comments regarding the project, various opportunities have been provided for I&APs to have their issues noted prior to the release of the Draft Scoping Report for public review, as follows:

- Letter 1 to I&APs (dated 19 July 2010) notifying them of the initiation of the Scoping process and providing them with a Background Information Document (BID) on the project and comment form

- Focus Group Meetings – one-on-one consultation meetings with key I&APs ongoing for the Scoping Process
- Written, faxed or email correspondence.

Appendix G of this document contains a copy of the all the written comments received to date on the project as well as notes taken at meetings held.

TASK 7: FOCUS GROUP MEETINGS

One-on-one focus group meetings will be held with key stakeholders to inform them of the proposed project, the EIA process and obtain their issues and comments for inclusion in the Draft Scoping Report. The purpose of these meetings is to develop their capacity to participate in the process as well as identify issues for inclusion in the Draft Scoping Report and later phases of the EIA process. The table below provides an overview of the focus group meetings that have been held prior to the release of the Draft Scoping Report.

Table 4.4: Focus group meetings held prior to the release of the Draft Scoping Report

Meeting	Date	No of Participants
ANC Region	*29 July 2010*	*1*
Cllr Vusani, Ward 53	*5 August 2010*	*1*
COPE Metro Region	*3 August 2010*	*2*
SANCO PE	*18 August 2010*	*6*
Ocean Messengers	*23 August 2010*	*2*

The notes from the meetings held are included as Appendix H and the registration forms as Appendix I. The issues raised have been summarised for inclusion in the Issues and Responses Trail as Chapter Five of this report.

TASK 8: ISSUES AND RESPONSE TRAIL

Issues raised by I&APs have been synthesized into the Issues and Responses Trail (Chapter 5), and have been identified through the following mechanisms:

- written submissions in response to advertisements and communications with I&APs
- issues raised at focus group meetings
- issues raised through written correspondence received from I&APs (fax, email and mail).

The Issues Trail (Chapter 5) includes responses from members of the EIA Team (and, in some cases, the project proponent) to the issues raised. In general, the responses indicate how the issues will be addressed in the EIA process. In some cases, immediate responses and clarification can be provided. Where issues are raised that the EIA team

considers beyond the scope and purpose of this EIA process, clear reasoning for this view is provided.

The Scoping process is currently at this stage, when I&APs are invited to review the Draft Scoping Report. This stage and the forthcoming steps in the Scoping process are presented below:

TASK 9: REVIEW OF THE DRAFT SCOPING REPORT (CURRENT STAGE)

This stage in the process entails the release of the Draft Scoping Report for a 40 day public review period. All I&APs on the project database will be notified in writing of the release of the Draft Scoping Report for review and will be invited to attend a Public Meeting to be held during the review period.

The following mechanisms and opportunities will be utilised to notify I&APs of the comment period, provide I&APs access to information and submit any additional issues they may have on the Draft Scoping Report:

- Newspaper Advertisements (two regional newspapers) – to notify I&APs of the release of the Draft Scoping Report, the comment period and the public meeting
- Letter 2: to notify I&APs of the release of the Draft Scoping Report, the comment period and the public meeting, to include an executive summary of the report and comment form
- Public Meeting
- Placement of Draft Scoping Report on project website
- Placement of Draft Scoping Report in public libraries
- Distribution of copies of the Draft Scoping Report to key I&APs
- Continuation of one-on-one focus group meetings.

All issues identified through the review of the Draft Scoping Report will be captured in the updated Issues and Responses Trail, which will be included in the Final Scoping Report for submission to the authorities for decision making.

TASK 10: FINAL SCOPING REPORT

Letter 3 to I&APs will include notification of the submission of the Final Scoping Report to the authorities for their decision making, with table of changes to the Draft Scoping Report. To ensure ongoing access to information, copies of the Final Scoping Report will be placed in libraries and be hosted on the project website. I&APs will be given a reasonable period to comment on the Final Scoping Report.

This step marks the end of the public participation process for the Scoping Phase. The publication participation programme for the subsequent Environmental Impact Reporting Phase is presented in the Plan of Study for the EIA (Chapter 6).

4.6 Approach to the Assessment of Alternatives

Regulation 29 of the 2006 NEMA EIA Regulations and Regulation 28 of the 2010 NEMA EIA Regulations stipulate that a scoping report must contain a description of any feasible and reasonable alternatives that have been identified. Alternatives, in this regard relate to a proposed activity, and are described as a different means of meeting the general purpose and requirements of the activity. These may therefore include alternatives to:

- The site, location or property on which an activity was proposed to be undertaken
- The type of activity to be undertaken
- The design or layout of the activity
- The option of not implementing the activity i.e. the "no-go" alternative.

I&APs must also be provided with an opportunity of providing inputs into the process of formulating alternatives. The assessment of alternatives should, as a minimum, include the following:

- The consideration of the no-go alternative as a baseline scenario;
- A comparison of the selected alternatives; and
- The providing of reasons for the elimination of an alternative.

4.6.1 Alternatives Identified

Where appropriate, alternatives were identified for the proposed project and these are discussed in more detail below.

4.6.1.1 Site Alternatives

One of the most important factors pertaining to the proposed project is the location of the servitude, pipelines and headworks. An appropriate project site needs to take cognisance of social, environmental, technological, design and cost factors. Therefore careful selection of a site which is suitable from an integrated perspective is vital to the success of any project. Given this context the CSIR has considered a number of site alternatives with a view to satisfy the key factors above as well as recognising any other projects (e.g. proposed Coega WWTW) and their respective intake and discharge requirements. This will obviate the need for multiple servitudes and marine outfalls/discharge points to be developed in the IDZ and surrounds. The Coega WWTW project and associated EIA is being run independently and does not form part of this project, however, discussions have been held with the appointed engineering and environmental teams for the Coega WWTW to foster collaboration where appropriate.

Based on discussions with the applicant (CDC), key stakeholders and CSIR project team members a total of 7 possible site alternatives have been identified for the abstraction and discharge of seawater for the Coega IDZ. The alternatives are as follows:

1. Fishwater Flats WWTW between the IDZ and Port Elizabeth
2. Stormwater Outlet on the western boundary of Zone 1 (for Zones 1 and 2)
3. Coega River (i.e. Back of Port)
4. Eastern Boundary of the Port of Ngqura and the IDZ (approximately 1.5 km east of the Port)
5. General Utilities Corridor between Zones 8 & 10 in the IDZ
6. Former Marine Growers Facility (Abalone Farm, Zone 10)
7. Former SeaArk pilot prawn facility in Zone 10 of the IDZ (approximately 4.5 km east of the Port)

Figure 4.1 below depicts the approximate locations of these alternatives.

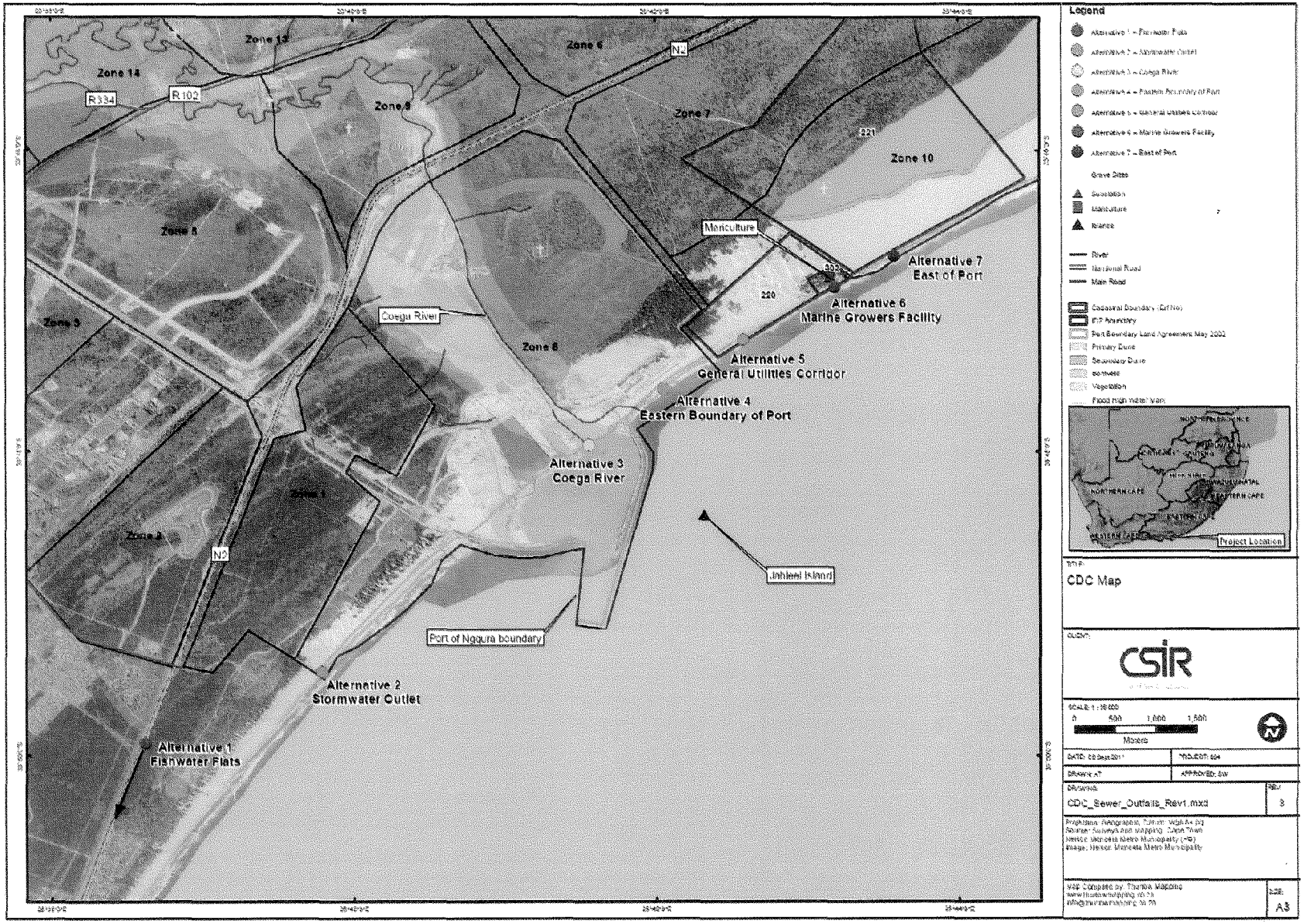


Figure 4.1: Location of Site Alternatives

4.6.1.1.1 Overview of Site Alternatives

A brief synopsis of each of the site alternatives including a discussion on the opportunities and constraints that have been identified in the context of siting the proposed servitude and pipelines is provided below. Some of the information presented has been derived from the Coega Wastewater Treatment Works Outfall Sewer Feasibility Study Report: Terrestrial (Aurecon, 2011). Additionally, numerous meetings with key stakeholders currently or previously involved (e.g. SSI, BKS, Aurecon, CDC Engineers) in projects with an explicit interaction with the proposed project were conducted and this information is also contained below.

1. Fishwater Flats WWTW between the IDZ and Port Elizabeth

This alternative involves making use of the existing Fishwater Flats Waste Water Treatment Works. Fishwater Flats is situated approximately 7 km southwest of the Port of Ngqura, and is located outside the boundary of the Coega IDZ.

Constraints:

- Due to its remote location, the distance which would have to be covered by the pipeline is greater than all of the other alternatives, and is approximately 5.5 km longer than the next longest alternative.
- As a result of the length of pipeline and associated infrastructure requirements, this alternative would prove to be the most costly alternative to implement and would impact on the financial feasibility of the project.
- Landowner consent and approval from the South African National Roads Agency Ltd. (SANRAL) would be required which may prove to be complicated in terms of the technical challenges of establishing marine pipelines in a road servitude.
- This alternative would require crossing of the Swartkops Estuary, which would result in environmental, technological, cost and social implications. The Zwartkops Trust has indicated major concern with this alternative with regards to possible pipe bursts and any construction efforts which may impact on the Swartkops River estuary.
- The Fishwater Flats WWTW would need to be almost completely "rebuilt" in order to support the proposed marine pipeline and servitudes project. This would have an impact on the financial feasibility of the project.
- This site alternative is also not ideal for the planned Coega WWTW routing and mariculture activities in the IDZ. It is associated with an excessive pumping distance which would be reflected in a high cost for users of sea water. The distance of this alternative from potential users make it costly and technically unsuitable.

Opportunities:

- This alternative would make use of an existing pipeline servitude (i.e. that of the Fishwater Flats WWTW), and would therefore not require any additional servitudes to be established. Intake and discharge pipelines can be constructed within the

existing Fishwater Flats WWTW servitude, thereby reducing the proposed projects footprint on the terrestrial land based component.

2. Stormwater Outlet on the western boundary of Zone 1 (for Zones 1 and 2)

This site alternative is situated adjacent to the proposed stormwater outlet for Zones 1 and 2 of the Coega IDZ. It is situated southwest of the Port just inside the southern boundary of Zones 1 and 8 of the IDZ i.e. within the Port boundary.

Constraints:

- This alternative is situated a long distance away from anticipated users of seawater in the IDZ. It is anticipated that users of seawater will largely be situated east of the Coega River. The distance of this alternative from such future users would have technological and cost implications as a result of the length of the pipelines that would be required as well as extensive pumping costs from the west to east of the IDZ.
- This alternative and all other alternatives except alternatives 3 and 1 have potential heritage related issues/impacts. The recent Heritage Impact Assessment for the Coega IDZ (Eastern Cape Heritage Consultants, 2010) indicates that development at this location would require involvement of an archaeologist and/or SAHRA in order to determine whether a Phase 2 assessment would be required. The study also recommends that no heavy excavation machinery be used within this area. This has implications to cost and technological/engineering and could significantly constrain construction activities that are required for the project of this magnitude.
- Sensitive dunes would need to be crossed as part of this alternative and all other alternatives except for alternative 1 and 3. Given the fact that dune areas along the NMBM coastline have been identified as Critical Biodiversity Areas (CBA) this alternative poses a high negative environmental impact from a biodiversity perspective.
- The land on which this alternative is proposed belongs to Transnet National Ports Authority (TNPA). The key implications are landowner consent and approval, and TNPA future expansion plans for the Port of Ngqura. Transnet have also indicated that they are unlikely to permit pipe routes over their property on the east bank of the Coega River, as well as to the west due to the proposed port expansion, and the potential impact of any discharges on the Port's sediment quality (TNPA is a signatory to the London Convention and therefore must meet the stringent standards set by the London Convention. If these standards are not met TNPA will not be able to dump sediment at sea, and will have to investigate land based dumping which is costly and environmentally unsustainable).
- Limited Bathymetry data is currently available for this site and therefore the suitability of siting the pipelines is not well understood at this stage.

Opportunities:

- This alternative potentially optimizes the stormwater and marine servitude requirements thereby reducing the need for multiple servitudes.

3. Coega River (i.e. Back of Port)

The Coega River site alternative is situated at the back of the Port. This alternative proposes routing the discharge pipeline into the Coega River. This alternative would not be able to accommodate any intake pipelines and therefore requires an additional pipeline servitude for intake.

Constraints:

- This alternative would require land owner consent/approval from Transnet National Ports Authority (TNPA). The implications of this are described in alternative 2 above.
- This site alternative would not meet the abstraction requirements of the proposed project. An additional location would be required in order to site the intake pipelines. Due to the fact that two separate servitudes would be required, the development footprint of this alternative is expected to be larger than the other alternatives. This has environmental, technological and cost implications.

Opportunities:

- This alternative is situated within closer proximity of potential future users. This is beneficial with regards to technological and cost factors associated with the proposed project. Similarly the pumping distance is expected to be shorter than alternatives 1 and 2.
- Due to the fact that this alternative proposes discharge directly into the Coega River and not to the marine environment, no sensitive dunes would need to be crossed. This is a key environmental benefit in the context of the dunes potentially forming part of a Critical Biodiversity Area (CBA).

4. Eastern Boundary of the Port of Ngqura and the IDZ (approximately 1.5 km east of the Port)

This alternative is situated approximately 1.5 km north-east of the Port in Zone 8 of the Coega IDZ.

Constraints:

- This alternative crosses through environmentally sensitive areas. Sensitive vegetation is likely to be negatively impacted on. Similarly to alternatives 2, 4, 5, 6 and 7, the coastal dunes which are potentially part of a CBA and the Coega Open Space Management Plan (OSMP) would need to be crossed. It must be noted that crossing of the Coega OSMP should as far as possible be avoided. With regards to this, alternatives to crossing the OSMP must be investigated as part of the impact assessment phase.
- The marine environment to the east of the Port of Ngqura may be declared a Marine Protected Area (MPA). Discharging of effluent into a MPA could have negative environmental implications.

- This alternative would require land owner consent/approval from Transnet National Ports Authority (TNPA). The implications of this are described in previous alternatives discussed above.

Opportunities:

- This alternative is situated within closer proximity of potential future users. This is beneficial with regards to technological and cost factors associated with the proposed project. Similarly the pumping distance is expected to be shorter than the other site alternatives.
- Bathymetry data is available for the area and indicates suitability for the establishment of the project at this site.

5. General Utilities Corridor between Zones 8 & 10 in the IDZ

The General Utilities Corridor site alternative is situated north-east of the Port, directly down from the existing services utility corridor which is situated between Zones 8 and 10 of the Coega IDZ.

Constraints:

- This alternative would require that the coastal dunes be crossed. Implications have been described above. Other associated environmental sensitivities with crossing the dunes and vegetation include potential impacts of Damara terns as well as heritage remains and grave sites situated inland of the primary dunes.
- The marine environment to the east of the Port of Ngqura may be declared a Marine Protected Area (MPA). The implications of this have been described above.

Opportunities:

- This alternative is situated within closer proximity of potential future users. This is beneficial with regards to technological and cost factors associated with the proposed project. Similarly the pumping distance is expected to be shorter than the other site alternatives.
- This alternative would make use of an existing servitude i.e. the general utilities corridor, and would allow for optimal use of planned servitudes in the IDZ. By making use of an already designated servitude, this alternative would not require any new servitudes to be established, thereby minimizing the projects development footprint.
- Bathymetry data is available for the area and indicates suitability for the establishment of the project at this site.
- A potential industry requiring high cooling water for process is likely to pose a major benefit for this alternative (CCGT).

6. Former Marine Growers Facility (Abalone Farm, Zone 10)

This site alternative is situated north-east of the Port at the former Marine Growers Facility (Abalone farm) in Zone 10 of the Coega IDZ. This is an already disturbed site

and currently has some infrastructure present for a marine intake and discharge project of this nature.

Constraints:

- This alternative would require that the coastal dunes be crossed. Implications have been described above. Other associated environmental sensitivities with crossing the dunes and vegetation include potential impacts of Damara terns as well as heritage remains and grave sites situated inland of the primary dunes.
- Longer pumping distance may be required over the coastal dune system should the headworks be situated behind the dunes. This is likely to pose technological and cost implications.
- The portion of land on which the Marine Growers facility is situated is owned by Transnet. This alternative would require land owner consent/approval from Transnet.
- The marine environment to the east of the Port of Ngqura may be declared a Marine Protected Area (MPA). The implications of this have been described above.

Opportunities:

- Due to the presence of the existing mariculture facility, this alternative presents a principle benefit of establishing the proposed project within an already disturbed site. The environmental impacts associated with this alternative are therefore expected to be less significant than those associated with undisturbed sites.
- This site alternative is situated within close proximity of potential future users which is beneficial from a technological and cost perspective.
- Bathymetry data is available for the area and indicates suitability for the establishment of the project at this site.
- This alternative is situated within close proximity of potential future users, and is also situated a sufficient distance from the Port (approximately 4.5 km) such that it may negate the possibility of substantial negative impacts on TNPA's sediment quality in the port.

7. Former SeaArk pilot prawn facility in Zone 10 of the IDZ (approximately 4.5 km east of the Port)

This site alternative is situated approximately 4.5 km north-east of the Port in Zone 10 of the Coega IDZ. This alternative is situated within an area characterized as primary coastal dunes.

Constraints:

- This alternative would require that the coastal dunes be crossed. Implications have been described above. Other associated environmental sensitivities with crossing the dunes and vegetation include potential impacts of Damara terns as well as heritage remains and grave sites situated inland of the primary dunes.

- The marine environment to the east of the Port of Ngqura may be declared a Marine Protected Area (MPA). The implications of this have been described above.
- Longer pumping distance may be required over the coastal dune system should the headworks be situated behind the dunes. This is likely to pose technological and cost implications.

Opportunities:

- Bathymetry data is available for the area and indicates suitability for the establishment of the project at this site.
- This alternative is situated within close proximity of potential future users, and is also situated a sufficient distance from the Port (approximately 4.5 km) such that it may negate the possibility of substantial negative impacts on TNPA's sediment quality in the port.

4.6.1.1.2 Environmental Sensitivity and Risk Assessment

Given the description of the constraints and opportunities of the various alternatives highlighted above, an environmental sensitivity/risk assessment process was undertaken in order to identify appropriate locations that could be taken forward in the impact assessment phase of this EIA. The following risk assessment process has been adopted from the methodology used for a desalination project in Namibia i.e. Trekkopje Desalination EIA (Turgis Consulting, 2008) which has very similar infrastructure requirements to this proposed project, and also needed to investigate optimal site locations for the desalination plant. The following factors/risk assessment criteria were taken into consideration as part of the risk assessment process:

Social	:	Social constraints and/or benefits likely to arise as a result of the proposed activity.
Environmental	:	Environmental constraints and/or benefits likely to arise as a result of the proposed activity.
Technological	:	Technological/design implications associated with the activity.
Cost	:	Cost implications associated with the activity.

Each factor was then awarded an impact rating in accordance with the following:

Table 4.5: Table Impact Rating for Siting Factors

Impact Rating	Description	Social	Environmental	Technological/Design	Cost
1	Low	Minor nuisance effect / minor positive benefits	Ecological systems continue to function	No specific technological /design specialisation needed	Low
2	Medium	Occasional significant impacts (either positive or negative)	Occasional recoverable impacts	Some degree of specialised technology/design required	Medium
3	High	Significantly impairs/enhances social functioning or activities	Ecosystem functioning significantly impaired	High level technology /design required	High

The probability of the impact occurring was then attached a probability rating, which are defined as follows:

Table 4.6: Probability Ratings

Probability Rating	Assessment
1	Low/Unlikely
2	Medium/Likely
3	High / Unknown

The risk significance was then calculated for each possible site, across each of the risk assessment factors, as follows:

Risk Significance = (Probability of Impact) x (Level of Impact)

Using this risk approach, the possible combinations of these various options were rated by adding the significance of each area of effect (social, environmental, etc.) to each other, to get a final significance rating for the various location options. The location optimisation process was therefore based on the pre-mitigation risk significance for each area of effect.

Based on the methodology above a series of tables depicting the risk significance of each of the site alternatives are provided below. It should be noted that a risk assessment process is a subjective process and the results are therefore qualitative in nature. The ratings provided below were informed primarily by the findings of

similar environmental reports for projects within the surrounding area, input received from the CDC as project applicant, and the experience and expertise of the EIA team.

4.6.1.1.2.1 Assumptions and Limitations to the Risk Assessment

In undertaking this risk assessment we have made the following **assumptions**:

- The conceptual infrastructure development as provided to the CSIR team is accurate or, at a minimum, will not deviate significantly from that supplied to the CSIR team;
- The development horizons and associated industrial development have been accurately specified;
- The specification of the discharges to the marine environment from the industries suggested by CDC is sufficiently comprehensive to allow for the execution of such a comparative marine environmental risk assessment.
- The discharges to the marine environment have been assessed in a non-optimised configuration. Whilst an optimised situation can be assumed for a single industrial development or coherent suite of industries, we do not deem it wise to make the assessment based on optimised effluent flows where individual developments may be phased in over time or where there is a risk of a particular industry not becoming part of the development. We will however consider situations where the waste effluents have been optimised based on the simultaneous development of a suite of integrated industries. However, where such optimisation of waste effluents forms part of the project specification it should be realised that this provides a constraint in that the assessment then only remains valid for that optimised development scenario(s).
- The location of the headworks (land based components) will be sited on the coastline where the intake/discharge pipelines will be located. The nett negative environmental impact of siting the headworks in front of or behind the sensitive dunes will effectively be zero as a connecting pipeline from the IDZ to the servitude will cross the dunes regardless.
- In assigning impact ratings we have applied the same score for common constraints and opportunities as applicable to the various alternatives.

The **limitations** associated with this study are as follows:

- The study comprises a comparative risk assessment to inform decisions around the potential siting of the proposed development.
- The robustness of the study is constrained by available information on the

development horizons, the proposed mix of industries and specifically the likely nature and magnitude of the intakes and discharges from industries located within the IDZ that would enter the coastal and marine environments. The study is not able to assess effluent streams that are unknown or not specified as part of the project description, the identification of which remains the responsibility of the project proponent CDC.

- Whilst care has been taken to identify all waste streams entering the marine environment from the proposed servitude, it is possible that waste discharges to the marine environment may contain some constituents that have neither been specified as being present or have not been identified as constituents of specific concern.
- Due to the uncertainties associated with the methods of construction and associated impacts, construction risks and any issues around de-commissioning of the proposed industries/marine infrastructure are excluded. We have assumed here that all construction activities will be managed according to an approved Environmental Management Plan to be developed as part of the Environmental Impact Assessment process.

Alternative 1: Location at Fishwater Flats WWTW between the IDZ and Port Elizabeth				
Area of Impact +ve	Description	Probability	Impact	Significance
Technological	Would allow for optimal use to be made of the servitude	2	2	4
Environmental/Design	Bathymetry	1	2	2
OVERALL RATING				6
Area of Impact –ve	Description	Probability	Impact	Significance
Cost	Fishwater flats much longer in terms of pipeline length compared with other alternatives. Needs major upgrade to support project.	2	3	6
Environmental	Crossing of the Swartkops Estuary would be required.	3	3	9
Social, Environmental	Zwartkops Trust has concerns regarding possible pipe bursts and construction efforts which may impact on the Swartkops River estuary	2	3	6
OVERALL RATING				21

Alternative 2: Location at Stormwater Outlet on the western boundary of Zone 1 (for Zones 1 & 2)				
Area of Impact +ve	Description	Probability	Impact	Significance
Technological	Would allow for optimal use to be made of the servitude	2	2	4
Environmental/Design	Bathymetry	1	2	2
OVERALL RATING				6
Area of Impact –ve	Description	Probability	Impact	Significance

Environmental	Dune area along the NMBM coastline has been identified a Critical Biodiversity Area in the draft Bioregional Plan. Heritage Impacts anticipated.	2	3	6
Social	Located within proximity to St. Georges Strand which is a recreational beach.	3	3	9
Technological	Future Port expansion could pose limitation. Possible Sediment quality issues for TNPA	2	3	6
OVERALL RATING				21

Alternative 3: Location at Coega River (i.e. Back of Port)				
Area of Impact +ve	**Description**	**Probability**	**Impact**	**Significance**
Technological	Situated within close proximity to potential future users	3	2	6
Environmental	No crossing of sensitive dunes would be required and no Heritage issues anticipated	2	2	4
Environmental/Design	Bathymetry	1	2	2
OVERALL RATING				12
Area of Impact –ve	**Description**	**Probability**	**Impact**	**Significance**
Cost/Environmental	Need to construct an additional servitude for seawater intake	3	3	9
Environmental	Future Port expansion could pose limitation. Possible Sediment quality issues for TNPA	2	3	6
OVERALL RATING				15

Alternative 4: Location at Eastern Boundary of Port of Nqura and the IDZ (approximately 1.5 km east of the Port)				
Area of Impact +ve	**Description**	**Probability**	**Impact**	**Significance**
Technological	Situated within close proximity to potential future users	3	2	6
Environmental/Design	Bathymetry	1	2	2
OVERALL RATING				8
Area of Impact –ve	**Description**	**Probability**	**Impact**	**Significance**
Environmental	Dune area along the NMBM coastline has been identified a Critical Biodiversity Area in the draft Bioregional Plan. Heritage Impacts anticipated. OSMP	2	3	6
Environmental	May possibly form part of Marine Protected area offshore of Zone 8	2	3	6
OVERALL RATING				12

Alternative 5: Location at General Utilities Corridor between Zones 8 & 10 in the IDZ				
Area of Impact +ve	**Description**	**Probability**	**Impact**	**Significance**
Technological	Situated within close proximity to potential future users	3	2	6
Technological	Would allow for optimal use to be made of the existing services utility corridor	2	2	4

Environmental/Design	Bathymetry	1	2	2
OVERALL RATING				12
Area of Impact –ve	**Description**	**Probability**	**Impact**	**Significance**
Environmental	Dune area along the NMBM coastline has been identified a Critical Biodiversity Area in the draft Bioregional Plan. Heritage Impacts anticipated. OSMP.	2	3	6
Environmental	May possibly form part of Marine Protected area offshore of Zone 8.	2	3	6
OVERALL RATING				12

Alternative 6: Location at Former Marine Growers Facility (Abalone Farm, Zone 10)				
Area of Impact +ve	**Description**	**Probability**	**Impact**	**Significance**
Technological	Opportunity exists to make use of existing infrastructure optimising land use and physical disturbance	3	3	9
Technological	Situated within close proximity to potential future users	3	2	6
Environmental/Design	Bathymetry	1	2	2
OVERALL RATING				17
Area of Impact –ve	**Description**	**Probability**	**Impact**	**Significance**
Environmental	Dune area along the NMBM coastline has been identified a Critical Biodiversity Area in the draft Bioregional Plan. Heritage Impacts anticipated. OSMP	2	3	6
Environmental	May possibly form part of Marine Protected area offshore of Zone 10	2	3	6
OVERALL RATING				12

Alternative 7: Location at Former SeaArk pilot prawn facility in Zone 10 of the IDZ (approximately 4.5 km east of the Port)				
Area of Impact +ve	**Description**	**Probability**	**Impact**	**Significance**
Technological	Situated within close proximity to potential future users	3	2	6
Environmental	Less impact on sediment quality from TNPA perspective	3	2	6
Environmental/Design	Bathymetry	1	2	2
OVERALL RATING				14
Area of Impact –ve	**Description**	**Probability**	**Impact**	**Significance**
Environmental	Dune area along the NMBM coastline has been identified a Critical Biodiversity Area in the draft Bioregional Plan. Heritage Impacts anticipated.	2	3	6
Environmental	May possibly form part of Marine Protected area offshore of Zone 10	2	3	6
OVERALL RATING				12

4.6.1.1.3 Interpretation of Results

Table 4.7 provided below provides an overview of the total risk significance allocated to each of the alternative sites. From this table it is evident that locational alternatives situated west of the Port i.e. alternatives 1 and 2, have a higher negative risk significance and are therefore considered to be unsuitable locations.

Similarly alternatives 3 and 4 also reflect a negative risk significance. This is primarily due to the perceived negative environmental impact of effluent discharge on sediment quality within the Port (alternative 3) and negative environmental impact on the proposed Critical Biodiversity and Marine Protected areas (alternative 4).

Alternative 5 reflects a neutral risk significance. Although this alternative does pose potential negative environmental impacts, its location (i.e. proximity to potential users), coupled with an opportunity to make use of an existing servitude deems it a favourable alternative requiring further investigation.

Alternatives 6 and 7 both reflect an overall positive risk significance. While these site alternatives also contain the negative environmental impacts as applicable to alternatives 3, 4 and 5, they are considered more suitable due to the reduced concern around land ownership issues and the distance from the Port in relation to impacts on sediment quality. A further positive is the proximity to potential future users.

Table 4.7: Overall Risk Significance

Alternative	Total Risk Significance
Alternative 1 – Fishwater Flats WWTW	-15
Alternative 2 – Stormwater Outlet (for Zones 1 and 2)	-15
Alternative 3 – Coega River (Back of Port)	-3
Alternative 4 – Eastern Boundary of Port (approximately 1.5 km east of Port)	-4
Alternative 5 – General Utilities Corridor	0
Alternative 6 – Marine Growers (Abalone Farm, Zone 10)	+5
Alternative 7 – East of Port (approximately 4.5 km east of Port)	+2

Least Suitable Alternative (Negative impacts outweigh positive impacts, i.e. –ve rating)
Suitable Alternative (Negative impacts are equal to positive impacts i.e. neutral rating)
Most Suitable Alternative (Positive impacts outweigh negative impacts, i.e. +ve rating)

4.6.1.1.4 Recommendation on Location Alternatives

Based on the findings of the risk assessment, it is the EAP's recommendation that only site alternatives 5, 6 and 7 are considered further in the impact assessment phase of this EIA. While each of the site alternatives have their own set of constraints and opportunities, the opportunities associated with these alternatives out rank the constraints and they are therefore considered to be more suitable locations and should be considered further as the proposed location for siting the servitude, pipelines and headworks.

4.6.1.2 Design or Layout Alternatives

A detailed project design and layout is yet to be finalised. Aspects such as project design are dependent on the requirements of the proposed project. Similarly the layout of the proposed project will depend on several factors, including the selected site alternative, the presence of areas of environmental sensitivity, existing infrastructure, and design requirements.

However, at this stage the project constitutes a linear development and it is assumed that the following layout conditions will prevail. It is expected that 150m x 150m land component will house the headworks and pump stations for the development. The land based component of the pipeline is expected to be approximately 150 m wide to allow for future development by potential future users/expansion within the integrated/common servitude. The marine based component is expected to be approximately 300 m wide and extend approximately 2.5 km out to sea.

Two intake pipelines and two discharge pipelines are proposed. The combined abstraction capacity will be approximately 250 Ml of water per day, and will have a discharge capacity of approximately 180 Ml of effluent/wastewater per day.

It is proposed that two lateral surface or subsurface intake pipelines will need to be constructed. One intake pipeline will be designed specifically for high volume abstraction of water of a lower quality, while the second intake pipeline will be designed for low volume abstraction, of water of a higher quality. Two discharge methods have been proposed for the project. The first comprises an open channel (possibly in the surf-zone) discharge (or raceway), while the second comprises a lateral surface of subsurface discharge pipeline. The open channel discharge will dispose of high volumes of water while the subsurface pipeline will discharge low volumes of water into the marine environment. The design of these pipelines and raceway will be informed by the coastal engineering and marine modelling study which will be undertaken during impact assessment phase.

There are also three possible pipeline construction layouts and these include:

- Making use of a pipeline with the points of discharge and intake being routed above and below ground. The opportunity to make use of gravitational forces to discharge wastewater and effluent does exist with this alternative.

- Making use of a pipeline above or underground to just beyond the surf zone, following which the remainder of the length of the pipeline will either be left to "float", lie along the seabed, or be anchored to the seabed.
- Making use of a trestle structure which will suspend the entire length of the pipeline above the water's surface with just the ends of the pipelines being submerged under the surface of the water.

Due to the fact that no preferred layout and/or design has been finalised, there is an opportunity for both design and layout alternatives to be further investigated in the impacts assessment phase. These will largely depend on the requirements of the proposed project and will need to be determined by engineering studies and marine modelling assessments. Potential design and layout alternatives will only be identified once more detailed project information is obtained. Such alternatives will therefore form part of the impact assessment process and will be discussed in future reports.

4.6.1.3 "No-go" Alternative

The main implication of the no-go option is a lack of a co-ordinated approach for seawater intake and discharge for industrial use within the IDZ. A multi-user servitude and pipeline will obviate the need to conduct multiple EIA's and reduce the amount of space required for marine pipelines. In addition, management of discharge from an authorities perspective will be more easily controlled as a single discharge point than multiple points.. The no-go alternative would not allow for IDZ tenants water requirements to be met (contrary to the intent of the established IDZ as a key industrial hub in Eastern Cape and South Africa), and will also prevent the opportunity for optimal use to be made of a single integrated servitude.

CHAPTER 5

Issues and Responses Trail

Contents

5 ISSUES AND RESPONSES TRAIL

5.1 Identification of Issues

An important element of the Scoping process is to evaluate the issues raised through the Scoping interactions with authorities, the public, the specialists on the EIA team and the project proponent. In accordance with the philosophy of Integrated Environmental Management, it is important to focus the EIA on the **key issues**.

To assist in the identification of key issues, a decision-making process is applied to the issues and concerns raised, based on the following criteria (Figure 5.1):

1) Whether or not the issue falls within the scope and responsibility of the Pipeline EIA process;
2) Whether or not sufficient information is available to respond to the issue raised without further specialist investigation.

Issues were sourced by the CSIR team from the following Scoping interactions:

- *Meetings* – issues raised by I&APs during focus group meetings and project team meetings between CSIR, CDC and specialist consultants (refer to Chapter 4)
- *Letters and faxes* – issues sent to PPC via fax or posted correspondence
- *Email* – issues sent to PPC via email correspondence
- *Comment Form* – issues submitted to PPC via the Comment Form that was provided at the focus group meetings and with Letter 1 and the BID mailed to I&APs.

Where I&APs have raised the same issue via different means (e.g. same issues raised at a meeting, in writing and by e-mail) these issues have been grouped together in Section 5.2 and the source of the issue provided. Appendices G and H of the Draft Scoping Report (DSR) contain the supporting meetings notes and all detailed correspondence received. Comments received that are not relevant to or part of this EIA process have not been included in the Issues Trail below, but are included in the Appendices. The issues are grouped according to the following categories (number in brackets indicates the number of issues raised):

1. Potential Impacts on the Marine Ecology (7)
2. Potential Impacts on Wetlands and Rivers (2)
3. Potential Impacts on Vegetation (1)
4. Potential Impacts on Dune Ecology (1)
5. Socio Economic Issues of Concern (3)
6. Potential Heritage Impacts (3)
7. Project Detail (5)
8. EIA and Public Participation Process (including alternatives) (13)
9. General and Project Motivation (2)

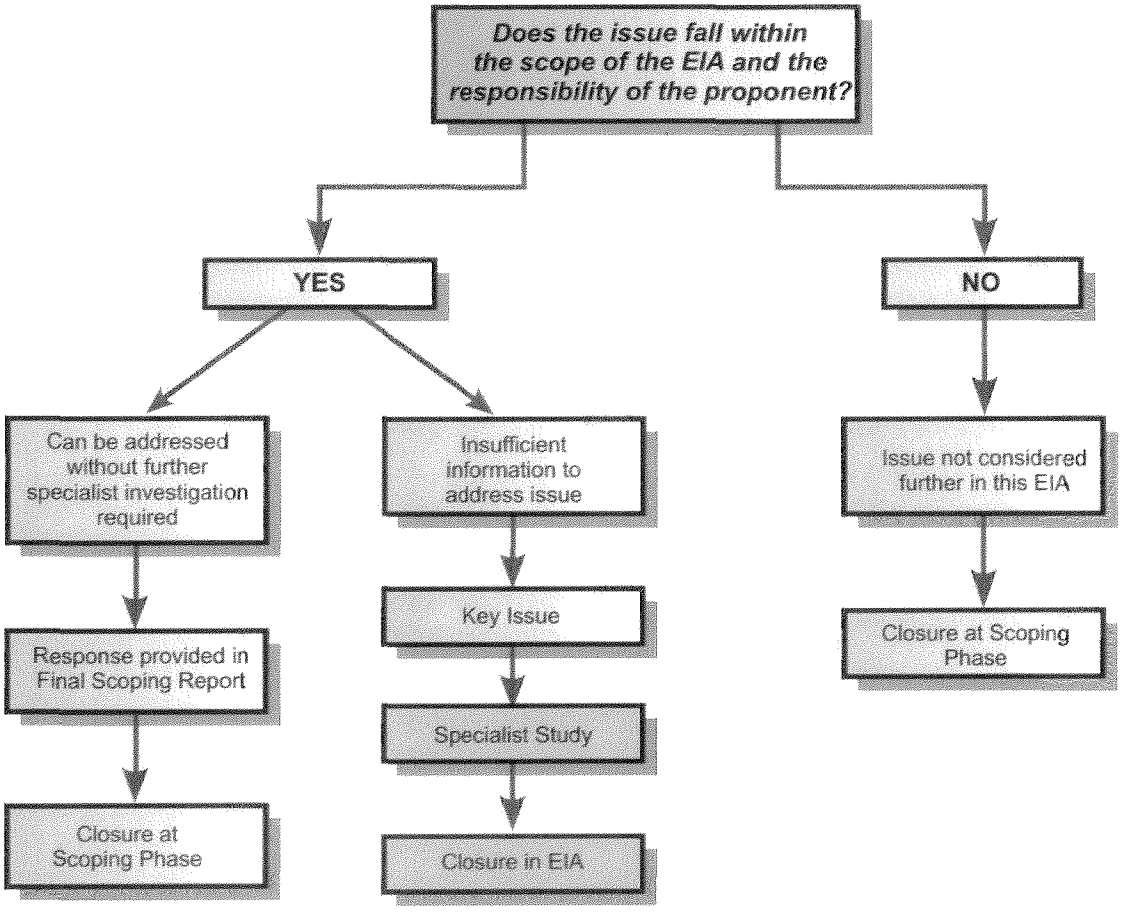


Figure 5.1: Decision-making framework for identification of key issues for the EIA

5.2 Issues and Responses Trail

Issues raised to date in the Scoping processes are provided below, together with a response from the EIA team. A synthesis of issues to be addressed in the Specialist Studies is provided in the Plan of Study for EIA (Chapter 6). The results of the Specialist Studies will be made available to I&APs for comment as part of the Draft EIA Report. All comments received prior to the release of the Draft Scoping Report, through meetings and written correspondence are attached as Appendices to this report.

1) Potential Impacts on the Marine Ecology

	Issue	*Commentator*	Date	Response
1.1	If the development will involve blasting and dredging, how will this affect the marine environment?	Mlamli Tsotsi, COPE Region	3Aug10 net mtg	The Marine Ecology Specialist Study will deal with this concern.
1.2	What will be the impact of the noise from the pumps on the marine ecology of the area?	Alan Straton, Ocean Messengers	23Aug10 net mtg	The Marine Ecology Specialist Study will deal with this concern.
1.3	Our concern is the proximity of the pipeline to the St Croix and Brenton Islands and the impact of the pipeline on the islands especially the bird populations. The penguin colonies on the islands are constantly declining. As Jaheel is already degraded would it not be more appropriate to locate the pipeline as close as possible to this island.	Rainer Schimpf, Ocean Messengers	23Aug10 net mtg	The Marine Ecology Specialist Study will deal with this concern.
1.4	The bird life on the islands is declining rapidly, the installation of the pipeline will hasten the decline and eventual demise of the penguin population.	Rainer Schimpf, Ocean Messengers	23Aug10 net mtg	The comment is noted. The Marine Ecology Specialist Study will deal with this concern.
1.5	How will the installation of the pipeline impact on the bottom current in this area, the surface current runs in a north easterly direction along the shoreline of the bay, but the bottom current runs in the opposite direction? The pipeline would be a longitudinal structure perpendicular to the flow of the bottom current.	Rainer Schimpf, Ocean Messengers	23Aug10 net mtg	The options considered for assessment include a high volume thermal discharge in the nearshore and a potential outfall extending into deeper waters. One or more intake pipelines are also part of the scenarios being assessed. In terms of the outfall pipeline, various options exist such as a trestle structure which will have little influence on the large-scale flows. A pipeline on the seabed would have a localised effect, however there is a strong possibility that the pipeline would be trenched at the shoreline

				crossing and in shallow waters where there is the highest probability of flow disturbances. Trenching would limit any such flow disturbance. The consequences of potential flow disturbances of pipeline structures and discharge flows will form part of the marine specialist assessments.
1.6	The beach is immediately adjacent to the proposed area has been noted as a nesting area for turtles which are CITIES listed species, the area between the islands have whale sharks which are also CITIES listed species. This entire area is a highly sensitive, dynamic and vulnerable environment.	Rainer Schimpf, Ocean Messengers	23Aug10 net mtg	The Marine Ecology Specialist Study will deal with this concern.
1.7	I assume penguins, marine mammals and island and shore intertidal / marine life will be adequately covered in the marine ecology study. Oystercatchers breed all along this area of coast, especially abalone farm to Eastern Breakwater.	Dr Paul Martin, Environmental Control Officer Coega IDZ / Port of Ngqura	30Jul10 email	Yes these will be assessed as part of the Marine Ecology Specialist Study.

2) Potential Impacts on Wetlands and Rivers

	Issue	*Commentator*	Date	Response
2.1	The proposed infrastructure corridor will cross the Coega River tributary, therefore, will require water use authorization from the department in terms of Section 21 (c) & (i) of the National Water Act, 1998 (Act 36 of 1998) for impeding or diverting the flow of water in a watercourse and altering the bed, banks or characteristics of a watercourse, respectively. If the proposed development is likely to affect a wetland, a water use license will be required. Therefore, wetlands if any must be delineated.	Joseph Jacobs, Dept of Water Affairs, Water Use Authorisation	23Aug10 Email	Comment Noted. The final location of the pipelines is yet to be confirmed. If possible, crossing the Coega River will be avoided in design and siting of the pipelines. If the pipelines cross the river then the requisite water use authorisation will be applied for from the Department of Water Affairs.
2.2	During and after construction the following will need to be adhered to: ▪ Strict erosion control measures are to be taken to ensure no erosion of the bed and the banks takes	Joseph Jacobs, Dept of Water Affairs, Water Use	23Aug10 Email	Comment noted. See note above for response. In addition should the water course be crossed these measures will be factored in the EMP for the project.

	place; ▪ Rehabilitation of the watercourse including riparian and instream habitat is to be undertaken after construction and only indigenous shrubs and grasses are to be used in restoring biodiversity. ▪ Effective control measures should be in place during rehabilitation to avoid infestation of the disturbed areas by alien vegetation.	Authorisation		

3) Potential Impacts on Vegetation

	Issue	*Commentator*	Date	Response
3.1	Safeguards are required to detect and prevent brine leaks on land during the operation of the pipeline (salt will kill any vegetation in the area of the leak), normal connections and valves will rust quickly.	Dr Paul Martin, Environmental Control Officer Coega IDZ / Port of Ngqura	30Jul10 email	The terrestrial vegetation specialist study will address this concern.

4) Potential Impacts on Dune Ecology

	Issue	*Commentator*	Date	Response
4.1	The consultants must take into consideration the breeding colony of Damara Terns (3-5 pairs), classified in the SA Red Data Book as Endangered", in the dunes and dune slacks west of Marine Growers. I can show them the area. It will be critical to leave the dunes and dune slacks in this area undisturbed. Breeding is late September to early January and there should be no disturbance (including in the nearshore) in the area during this period.	Dr Paul Martin, Environmental Control Officer Coega IDZ / Port of Ngqura	30Jul10 email	The Marine Ecology Specialist Study will deal with this concern.

	Tony Tree & Phil Whittington are doing a project on the Algoa Bay Damara Terns for DEA Oceans & Coast (formerly MCM)			

5) Socio Economic Issues of Concern

	Issue	*Commentator*	Date	Response
5.1	We support the development as long as it will not impact on the environment and will create job opportunities in the region.	Zandisilė Qupe, ANC Region	29Jul10 net mtg	Comment Noted. Employment opportunities may be generated during the construction and operation phases of the project. Employment generated during the construction phase will be of a temporary nature, while the operational phase would require permanent employment. Permanent employment would however be limited.
5.2	If the development will involve blasting and dredging, what will be the impact of this on communities?	Mlamli Tsotsi, COPE Region	3Aug10 net mtg	No impact to communities will be experienced. The project is located within the IDZ and there are no communities in the surrounding environment which would be at risk from any blasting or dredging activities.
5.3	We would like to see the involvement of communities and SMME's during the construction phase of the development.	Cllr Vusani, Ward 53	5Aug10 Net mtg	Comment Noted.

6) Potential Heritage Impacts

	Issue	*Commentator*	Date	Response
6.1	We will appreciate the identification of potentially affected graves on site be taken very seriously and communities that might be affected are involved.	Samuel Ngona, SANCO Region	18Aug10 net mtg	The EIA reports will provide details of any heritage related aspects(e.g. grave sites) that maybe present in the proposed project area. The IDZ wide heritage assessment study will be used to determine this and the relevant authorities will be consulted prior to any development taking place.
6.2	Will the development entail the conservation of any items of historical importance in the area?	Ndumiso Peter, SANCO	18Aug10 net mtg	No. However, the EIA reports will provide details of any heritage related aspects that maybe present in the proposed project area. The IDZ wide

		Region		heritage assessment study will be used to determine this and should any items of historical importance be found then these will be communicated to the relevant authorities for further auctioning prior to any development taking place.
6.3	Please find attached a letter acknowledging the development of the marine pipeline servitude in the Coega IDZ. As a HIA has already been compiled for the area, SAHRA does not require a new one, but please keep us informed of the different step of the project and we will let you know if more information is required at any stage. SAHRA would like to be registered as an interested and affected party in this project. Please note that full Heritage Impact Assessment for the Coega IDZ has already been compiled and SAHRA is in the process of revising it. Should more information be required for this specific project, Public Process Consultants will be informed.	Mariagrazia Galimberti, APM Impact Assessor, South African Heritage Resources Agency	20Aug10 email	Thank you for the letter. Receipt Acknowledged. SAHRA has been registered as an I&AP and we look to your response regarding any further heritage related requirements in relation to this project.

7) Project Detail

	Issue	*Commentator*	Date	Response
7.1	Why are two uptake pipes required?	Alan Straton, Ocean Messengers	23 Aug10 net mtg	Two intake pipelines are required due to the different abstraction needs. One small volume intake pipeline is required for the intake of smaller quantities of high quality water (required for mariculture and desalination processes), while the second large volume intake pipeline is required for the intake of large quantities of lower quality seawater (required for industrial cooling processes).
7.2	What kind of material will be used to construct the pipeline, and what is the most preferred type of pipeline, one solid pipeline or a pipe made of sections?	Rainer Schimpf, Ocean Messengers	23 Aug10 net mtg	As the pipelines will have to be corrosion resistant, it will most likely be a HDPE pipeline. Sea bed pipelines are normally continuous in-situ welded lines while trestle supported pipelines may be flanged sections bolted together.

7.3	How will the uptake and discharge pipelines be maintained, e.g. mechanical maintenance	Rainer Schimpf, Ocean Messengers	23 Aug10 net mtg	Maintenance of pipelines should be limited to keeping the insides clean from marine growth and to attend to the fixing or anchoring of the lines to the seabed or trestle structures.
7.4	Will there be a diving exclusion zone around the uptake and discharge pipelines?	Rainer Schimpf, Ocean Messengers	23 Aug10 net mtg	Exclusion zones are not foreseen. The pipe inlets and outlets will be covered to such an extent that larger objects and divers will not be able to enter the pipelines.
7.5	How will you prevent the uptake of foreign articles/ objects and sand into the pipeline?	Rainer Schimpf, Ocean Messengers	23 Aug10 net mtg	The design of the intake pipelines will ensure that these as well as intake water quality concerns are adequately addressed.

8) EIA and Public Participation Process (including alternatives)

	Issue	*Commentator*	Date	Response
8.1	The report will be taken to the subcommittee on the environment of the ANC and they will make any further submissions.	Zandisile Qupe, ANC Region	29Jul2010, net mtg	Comment Noted.
8.2	We would appreciate receiving copies of the report which will explain how the development will work.	Mlamli Tsotsi, COPE Region	3Aug2010, net mtg	Comment Noted.
8.3	The following alternative should be considered for locating the pipeline; on the seaward side of the western breakwater wall. Would this area not be more suitable to service the clients of the Coega IDZ?	Alan Straton, Ocean Messengers	23 Aug2010, net mtg	A total of seven site alternatives were investigated. Sites situated west of the Port were investigated and these proved to be unsuitable. Please see Chapter 4 Section 4.6.1.1 for further details of the site alternatives considered and the associated risk assessment.
8.4	Have you considered a land based discharge system versus directly into the ocean? Possibly into a wetland area which would clean the water and the water could then flow overland into the sea? The dune system could act as a natural filtration system.	Alan Straton, Ocean Messengers	23 Aug2010, net mtg	A total of seven site alternatives were investigated. Sites situated east and west of the Port were investigated. Please see Chapter 4 Section 4.6.1.1 for further details of the site alternatives considered and the associated risk assessment.
8.5	How did you arrive at the area that is being considered, what factors influenced this decision?	Alan Straton, Ocean Messengers	23 Aug2010, net mtg	A total of seven site alternatives were investigated. Sites situated east and west of the Port were investigated. Please see Chapter 4 Section 4.6.1.1 for further details of the site alternatives considered and the

				associated risk assessment.
8.6	The following alternative should be considered for locating the pipeline; the area immediately adjacent to the eastern breakwater wall. If the pipeline were installed on the outside of the eastern breakwater wall the construction of the pipeline could incorporate components to facilitate the sand bypass system for the port.	Rainer Schimpf, Ocean Messengers	23 Aug2010, net mtg	This is not a feasible option as it would mean discharging into relatively quiescent waters adjacent to the breakwater which will result in reduced effluent dispersal. This is also unfeasible due landownership, access rights and engineering constraints. The breakwater was never designed to accommodate any marine infrastructure such as that proposed by the project.
8.7	The uptake pipes area is supposedly 2.5km long, the area assessed in the Bathometric survey appears to be smaller than this.	Rainer Schimpf, Ocean Messengers	23 Aug2010, net mtg	The Bathymetric survey covered an area of 4km by 4km which was sufficiently larger than the 2,5 km zone required for the pipeline. Details of the survey area can be verified on request.
8.8	The pipeline is currently proposed inside a designated ship traffic zone, what are the implications of this for the project?	Rainer Schimpf, Ocean Messengers	23 Aug2010, net mtg	There will be an exclusion zone around the pipeline to prevent damage from anchors and ships etc.
8.9	It has been noted that a preferred location for the proposed marine pipeline servitude is between the eastern breakwater of the Port of Ngqura and the existing Marine Growers abalone farm in Zone 10 of the IDZ. TNPA would like to bring into your attention that the identified area will be impacted by the port operations which could significantly affect the quality of seawater intake required for the sea water intake.	Elliot Motsoahole, Environmental Manager, TNPA	19Aug10 Letter & comment form	The intake pipelines will be designed and positioned in such a manner that the port operations will not impact on the quality of seawater intake.
8.10	TNPA has concerns regarding the potential legal liability related to the anticipated impact on the operations of investors who require seawater. It is for this reason that TNPA will recommend extensive investigations for a preferred location on the eastern side of the Marine Growers further away from the port.	Elliot Motsoahole, Environmental Manager, TNPA	19Aug10 Letter & comment form	A total of seven site alternatives were investigated. Sites situated east and west of the Port were investigated. Please see Chapter 4 Section 4.6.1.1 for further details of the site alternatives considered and the associated risk assessment.
8.11	We operate a Sand Quarry in the IDZ, and are concerned as the way in which the project might affect our business.	Gavin Eales, General Manager, Glendore Sand and Stone	21July10 email	Comment Noted. The impact of this project on the operations at the sand quarry will be dependent on the final location and layout selected for implementation. More information regarding the location of the project will only be obtained during the impact assessment phase, however any potential impacts on the sand quarry operations will be taken into consideration.
8.12	Potential investor with interest in using the servitude, as	Jessica	26Jul10	Comment Noted.

	well as ensuring the servitude has no effect on potential project.	Courtoreille, Environmental Leader, PetroSA	Email and comment form	
8.13	I wish to register my interest due to project related interest.	Michael Manson-Kullin, Jeffares & Green	16Aug10 Email and Comment form	This I&AP was registered on the project database and sent a copy of the Background Information Document for the project.

9) General and Project Motivation

	Issue	*Commentator*	Date	Response
9.1	Page 101 of Bulletin 100, published in 1991, indicates different depths to the bathometric survey, which indicates that this area has changed over time. We have seen this area change over the past few years and it is our opinion that it is as a result of the construction of the Port of Ngqura.	Rainer Schimpf, Ocean Messengers	23 Aug2010, net mtg	Comment Noted.
9.2	(Comment greatly shortened, detailed comment is attached as Appendix G) To list my comments and concerns and confirm that I have a product which is environmentally friendly. The product TIO2/Titanium Deoxide is a potent photocatalyser agent. By adding to ordinary cement can break down most organic compounds which it touches by a natural process, becomes highly reactive when exposed to ultraviolet lights.	Charles Bary, Naphtali: Earth Technology products	12Aug10, fax	Comment acknowledged however this does not relate directly to the proposed project. Please contact the public participation consultant for further clarity relating to the project scope.

CHAPTER 6

Plan of Study for EIA

Contents

6 PLAN OF STUDY FOR EIA

6.1 Identification of issues

The Plan of Study for EIA (PSEIA) sets out the process to be followed in the EIA phase and is shaped by the findings of the Scoping process. The EIA phase consists of three parallel and overlapping processes:

- Central assessment process involving the authorities where inputs are integrated and presented in documents that are submitted for approval by authorities (Sections 6.2 and 6.4)
- Public participation process whereby findings of the EIA phase are communicated and discussed with I&APs and responses are documented (Section 6.3)
- Specialist studies that provide additional information required to address the issues raised in the Scoping phase (Sections 6.5 and 6.6).

6.2 Overview of approach to preparing the EIA Report and EMP

The results of the specialist studies and other relevant project information will be summarized and integrated into the Draft EIA Report. The Draft EIA Report will be released for a 40 day I&AP and authority review period, as outlined in Sections 6.3 and 6.4. All I&APs on the project database will be notified in writing of the release of the Draft EIA for review. It is proposed that during this review period a public meeting is held as well as focus group meetings with key I&APs. The purpose of these meetings will be to provide an overview of the outcome and recommendations from the specialist studies, as well as provide opportunity for comment. Comments raised, through written correspondence (emails, comments, forms) and at meetings (public meeting and focus group meetings) will be captured in a Comments and Responses Trail for inclusion in the Final EIA Report. Comments raised will be responded to by the CSIR EIA team and/or the applicant. These responses will indicate how the issue has been dealt with in the EIA process. Should the comment received fall beyond the scope of this EIA, clear reasoning will be provided. All comments received will be attached as an appendix to the Final EIA Report.

The Draft EIA Report will include a draft Environmental Management Plan (EMP), which will be prepared in compliance with the relevant regulations. This EMP will be based broadly on the environmental management philosophy presented in the ISO 14001 standard, which embodies an approach of continual improvement. Actions in the EMP will be drawn primarily from the management actions in the specialist studies for the construction and operational phases of the project. If the project components are decommissioned or re-developed, this will need to be done in accordance with the relevant environmental standards and clean-up/remediation requirements applicable at the time.

6.3 Public Participation Process

The key steps in the public participation process for the EIA phase are described below. This approach will be confirmed with the DEA through their review of the PSEIA. The participation process for the Scoping Process is described in Chapter 4 of this report.

TASK 1: REVIEW OF DRAFT EIA REPORT AND EMP

The first stage in the process will entail the release of a Draft EIA Report for a 40 day public and authority review period. Relevant organs of state and I&APs will be informed of the review process in the following manner:

- Advertisements placed in one local and one regional newspaper,
- Letter 4 to all I&APs (including authorities), with notification of the 40 day public review period for the Draft EIA and invitation to attend the public meeting (this letter will include the summary of the Draft EIA Report and a Comment Form);
- Public Meeting on the Draft EIA Report, where key findings of the EIA report will be communicated and I&APs will have the opportunity to provide comments and engage with the EIA team and project proponent;
- Focus Group Meeting(s) with I&APs, if requested;
- Meeting(s) with key authorities involved in decision-making for this EIA.

The Draft EIA Report and EMP will be made available and distributed through the following mechanisms to ensure access to information on the project and to communicate the outcome of specialist studies:

- Copies of the report will be placed at the main library in Port Elizabeth (Govan Mbeki Ave) and in the Motherwell library;
- Relevant organs of state and key I&APs will be provided with a hard copy or CD version of the report;
- Report to be placed on the project website: www.publicprocess.co.za

TASK 2: COMMENTS AND RESPONSES TRAIL

A key component of the EIA process is documenting and responding to the comments received from I&APs and the authorities. The following comments on the Draft EIA Report and EMP will be documented:

- Written and email comments (e.g. letters and completed comment forms)
- Comments made at public meetings
- Comments made at focus group meetings
- Telephonic communications with CSIR contact person

- One on one meetings with key authorities and/or I&APs.

The comments received will be compiled into a Comments and Responses Trail for inclusion in the Final EIA Report. The Comments and Responses trail will indicate the nature of the comment, when and who raised the comment. The comments received will be considered by the EIA team and appropriate responses provided by the relevant member of the team and/or specialist. The response provided will indicate how the comment received has been considered in the Final EIA Report, in the project design or EMP for the project.

TASK 3: COMPILATION OF FINAL EIA REPORT FOR SUBMISSION TO AUTHORITIES

The Final EIA Report, including the Comments and Responses Trail and EMP, will be submitted to the authorities for decision making. Letter 5 will be sent to all I&APs on the project database notifying them of the submission of the final report. The Final EIA Report will be distributed as follows:

- Copies of the report will be placed at the main library in Port Elizabeth (Govan Mbeki Ave) and in the Motherwell library;
- Relevant organs of state and key I&APs will be provided with a hard copy or CD version of the report;
- Report to be placed on the project website.

TASK 4: ENVIRONMENTAL AUTHORISATION AND APPEAL PERIOD

All I&APs on the project database will be notified of the issuing of the Environmental Authorisation and the Appeal period via Letter 6. The following process will be followed for the distribution of Environmental Authorisation and notification of appeal period:

- Copies of the Environmental Authorisation will be placed at the main library in Port Elizabeth (Govan Mbeki Ave) and in the Motherwell library.
- Letter 6 to be sent to all I&APs (including organs of state), with information on the Appeal Procedure.
- Environmental Authorisation to be placed on the project website.

All I&APs on the project database will be notified of the outcome of the appeal period. This notification will be included in Letter 7 to I&APs.

6.4 Authority Consultation during the EIA phase

Authority consultation is integrated into the public consultation process, with additional one-on-one meetings held with the lead authorities where necessary. It is proposed that the competent authority (DEA) as well as other lead authorities be consulted at various stages during the EIA process. This consultation will primarily take place through the quarterly meetings of the Coega Environmental Liaison Committee (ELC), which includes the lead authorities mandated to issue environmental authorisations and licences/permits. The authority consultation process for the Scoping Process is outlined in Chapter 4 of this report. Table 6.1 indicates the proposed consultation schedule for the EIA phase.

Table 6.1: Authority consultation schedule for the EIA phase

Stage in EIA Phase	Form of Consultation (including provisional dates)
SCOPING PHASE	CSIR to present DSR to authorities at the Coega ELC meeting of 25 Nov 2011 for comment.
SPECIALIST STUDIES PHASE	CSIR to present draft findings from the specialist studies to the Coega ELC meeting of Jan/Feb 2012 for comment.
REVIEW OF DRAFT EIA REPORT AND DRAFT EMP	**Review of draft reports:** Authorities, together with other stakeholders, will have the opportunity to review the Draft EIA and EMP reports during the 40 day review period; and to attend the public meeting planned for March 2012. If requested, CSIR can present the Draft EIA and EMP reports to the authorities at a dedicated authority meeting during this review period. **Site visit:** Offer a site visit for authorities, as and when required. We suggest that, if required, this take place at the same time of the public meeting for the Draft EIA and EMP reports (i.e. March 2012).
FINAL EIA REPORT PHASE	CSIR to present Final EIA Report to the Coega ELC meeting of May/June 2012 and discuss any queries. Meetings with dedicated departments, if requested by DEA, with jurisdiction over particular aspects of the project (e.g. Local Authority) and potentially including relevant specialists.

6.4.1 Coega Environmental Liaison Committee Meetings

The Coega Environmental Liaison Committee (ELC) comprises of representatives from various government authorities and these include (but are not limited to) the national Department of Environmental Affairs (DEA), including the Oceans and Coast Division, the provincial Department of Economic Development, Environmental Affairs and Tourism (DEDEAT), the Department of Water Affairs (DWA), the Nelson Mandela Bay Municipality (NMBM), the Transnet National Ports Authority (TNPA) and the Coega Development Corporation (CDC). The ELC meets on a quarterly basis to discuss and assess proposed development projects within the IDZ.

The EIA for the marine pipeline project has been presented at the ELC meetings since the beginning of the process. Presentations were given at the May 2010, November 2010, February 2011 and August 2011 ELC meetings respectively. This Draft Scoping Report will also be presented to the ELC at the ELC meeting scheduled for November 2011.

Although not a formal requirement of Public Participation requirements as detailed in Regulations 57, 58 and 59 of the NEMA 2006 EIA Regulations and Regulations 55, 56 and 57 of the NEMA 2010 EIA Regulations, the comments raised at the ELC form an important component in ensuring environmental issues are raised timeously during the EIA process and ensures and promotes the sustainability of projects from an environmental perspective. Given this context, the valuable comments provided at the ELC meetings need to be addressed and acknowledged in the EIA reports produced for the project. In line with this, the CSIR has reviewed all the comments raised at ELC meetings (via the minutes of the meetings) and a summary of the key aspects raised is provided below.

- Clearly highlighting the scope of the project and the level of environmental assessment required (e.g. regulatory requirements, synergies with the proposed Coega WWTW project);
- Adequate consideration of alternatives for this project (examples include impacts on coastal dune systems (primary), impacts on the Open Space Management Plan, location/site alternatives and design alternatives for proposed infrastructure).
- Monitoring requirements for pipelines and associated discharges,

The CSIR has prepared an ELC specific comment document from which all the salient points raised were distilled into this DSR. Specific attention was given to the ToR for specialists in the Plan of Study for EIA chapter where comments raised by the ELC could be adequately addressed in the next phase of the EIA. Additionally, feedback has been provided at follow up ELC meetings, from comments raised at previous meetings.

6.5 Approach to Specialist Studies and Impact Assessment

This section outlines the assessment methodology and legal context for specialist studies.

6.5.1 Generic Terms of Reference for the assessment of impacts

The identification of potential impacts should include impacts that may occur during the construction and operational phases of the activity. The assessment of impacts is to include direct, indirect as well as cumulative impacts.

In order to identify potential impacts (both positive and negative) it is important that the nature of the proposed activity is well understood so that the impacts associated with the activity can be understood. The process of identification and assessment of impacts will include:

- Determine the current environmental conditions in sufficient detail so that there is a baseline against which impacts can be identified and measured.
- Determine future changes to the environment that will occur if the activity does not proceed.
- An understanding of the activity in sufficient detail to understand its consequences; and

- The identification of significant impacts which are likely to occur if the activity is undertaken.

As per *DEA Guideline 5: Assessment of Alternatives and Impacts* the following methodology is to be applied to the predication and assessment of impacts. Potential impacts should be rated in terms of the direct, indirect and cumulative:

- **Direct impacts** are impacts that are caused directly by the activity and generally occur at the same time and at the place of the activity. These impacts are usually associated with the construction, operation or maintenance of an activity and are generally obvious and quantifiable.

- **Indirect impacts** of an activity are indirect or induced changes that may occur as a result of the activity. These types of impacts include all the potential impacts that do not manifest immediately when the activity is undertaken or which occur at a different place as a result of the activity.

- **Cumulative impacts** are impacts that result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present or reasonably foreseeable future activities. Cumulative impacts can occur from the collective impacts of individual minor actions over a period of time and can include both direct and indirect impacts.

- **Spatial extent** – The size of the area that will be affected by the impact:
  - Site specific
  - Local (<2 km from site)
  - Regional (within 30 km of site)
  - National.

- **Intensity** – The anticipated severity of the impact:
  - High (severe alteration of natural systems, patterns or processes)
  - Medium (notable alteration of natural systems, patterns or processes)
  - Low (negligible alteration of natural systems, patterns or processes).

- **Duration** – The timeframe during which the impact will be experienced:
  - Temporary (less than 1 year)
  - Short term (1 to 6 years)
  - Medium term (6 to 15 years)
  - Long term (the impact will cease after the operational life of the activity)
  - Permanent (mitigation will not occur in such a way or in such a time span that the impact can be considered transient).

Using the criteria above, the impacts will further be assessed in terms of the following:

- **Probability** – The probability of the impact occurring:

- Improbable (little or no chance of occurring)
- Probable (<50% chance of occurring)
- Highly probable (50 – 90% chance of occurring)
- Definite (>90% chance of occurring).

- **Significance** – Will the impact cause a notable alteration of the environment?
  - Low to very low (the impact may result in minor alterations of the environment and can be easily avoided by implementing appropriate mitigation measures, and will not have an influence on decision-making)
  - Medium (the impact will result in moderate alteration of the environment and can be reduced or avoided by implementing the appropriate mitigation measures, and will only have an influence on the decision-making if not mitigated)
  - High (the impacts will result in major alteration to the environment even with the implementation on the appropriate mitigation measures and will have an influence on decision-making).

- **Status** - Whether the impact on the overall environment will be:
  - positive - environment overall will benefit from the impact
  - negative - environment overall will be adversely affected by the impact
  - neutral - environment overall not be affected.

- **Confidence** – The degree of confidence in predictions based on available information and specialist knowledge:
  - Low
  - Medium
  - High.
- Management Actions and Monitoring of the Impacts (EMP)
- Where negative impacts are identified, mitigatory measures will be identified to avoid or reduce negative impacts. Where no mitigatory measures are possible this will be stated
- Where positive impacts are identified, augmentation measures will be identified to potentially enhance positive impacts
- Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set. This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.

The Table below is to be used by specialists for the rating of impacts.

Table 6.2: Table for rating of impacts

Direct Impacts							
Mitigation	Spatial Extent	Intensity	Duration	Probability	Significance & Status		Confidence
					Without Mitigation	With Mitigation	
Avifauna: Impact of the pipeline on colonial seabird populations							
Include best practice in pipeline siting as well as deterring mechanisms for birds.	Site	Medium	Permanent	High	Medium	Low	High

Other aspects to be taken into consideration in the assessment of impact significance are:

- Impacts will be evaluated for the construction and operation phases of the development. The assessment of impacts for the decommissioning phase will be brief, as there is limited understanding at this stage of what this might entail. The relevant rehabilitation guidelines and legal requirements applicable at the time will need to be applied.
- The impact evaluation will, where possible, take into consideration the cumulative effects associated with this and other facilities/projects which are either developed or in the process of being developed in the local area.
- The impact assessment will attempt to quantify the magnitude of potential impacts (direct and cumulative effects) and outline the rationale used. Where appropriate, national standards are to be used as a measure of the level of impact.

6.6 Specific Issues to be addressed in Specialist Studies

Based on an evaluation of issues to date, the following Specialist Studies are proposed as part of the EIA phase:

Specialist Study	Proposed specialist
Hydrographical and Geophysical Dynamics Assessment	Robert Vonk (CSIR)
Marine Modelling Assessment and Pipeline Design	Roy van Bolleygooyen (CSIR)/ Willem Botes (WAMTech)
Marine Ecology Assessment	Dr Robin Carter (Lwandle Technologies)
Terrestrial Ecology	Jamie Pote (Private Consultant)

Note: The CSIR will draw on the heritage study conducted by CDC for the whole IDZ in order to address queries and issues raised regarding the heritage impacts of the proposed project. It is also important to note that a shipwreck/marine archaeology study will be proposed as part of the Environmental Management Plan (EMP) for the project. This is due to the fact that the exact location of the proposed project has not yet been determined.

The Terms of Reference (TORs) for the specialist studies will essentially consist of the generic assessment requirements and the specific issues identified for each study. These issues have been identified through the baseline studies, I&AP and authority consultation, as well as input from the proposed specialists based on their experience. As part of the review of the Draft Scoping Report, specialists are to propose any additional issues for inclusion in the specialist studies. Additional issues, identified through public and authority consultation during the Scoping phase, as well as specialist inputs, will be included in the final Terms of Reference for specialists (i.e. in the PSEIA of the Final Scoping Report).

6.6.1 Hydrographical and Geophysical Dynamics

The significant environmental aspects to be addressed in this specialist study include:

- Identification of the most suitable alignment of the seawater intake and outfall pipelines through a detailed and site specific bathymetric survey with a view to minimise sea bed preparation, and
- Description of the bathymetry of the area and sourcing information on the presence of sand, gravel and sea-bottom and sub-bottom reefs (and rocky outcrop features).

6.6.2 Coastal Processes, Physical Characteristics and Shoreline Dynamics (the Modelling Component)

The significant environmental aspects to be addressed in this specialist study include:

- The design of the marine pipeline should be established to ensure limited impact on the surrounding environment;
- Identification of the preferred corridor based on a simulation of four intake/discharge options;
- Assessment of hydrodynamics and effect of discharge on water quality. This means that the discharge constituents will be assessed against appropriate water quality guidelines;
- Assessment of potential shoreline stability effects associated with the intake and discharge infrastructure. As only pipeline infrastructure is assumed, the shoreline stability assessment will comprise a desktop assessment. Should (high-volume) shoreline discharges be considered, a more detailed shoreline stability assessment may be required that takes into account the existing sediment bypass scheme for the port and as well as natural sediment transports in the region;
- The possible loss of substratum as a result of the pipeline installation, and
- Flow distortion while the pipeline is trenched through the shore-crossing.
- Assess alternative locations/sites for all proposed infrastructure.
- Assessment of the impacts associated with the sand bypass system on the marine components of the proposed project at each of the locations being investigated.
- Recommendations regarding the type of monitoring and control measures which could be implemented and used for the proposed project.
- Identify any permit requirements, if any, following from impacts identified.

- Consult with local experts regarding appropriate water qualities for discharge to the marine environment.

6.6.3 Marine Ecology

The significant environmental aspects to be addressed in this specialist study include:

- Physical disturbance to inter- and subtidal zones due to construction and the physical presence of pipelines on the seafloor. Note that here it is assumed that the pipeline beach crossing will be trenched and covered but that offshore pipes will lie exposed on the seafloor;
- Constraints that may be placed on discharges due to limits imposed by the requirements for the maintenance of the integrity of the natural environment and linked conservation issues including marine protected areas and colonial seabird populations, together with beneficial use aspects such as commercial fishing.
- Identification and description of the biological communities that may be at risk from the construction infrastructure in the servitude and their distributions in the alternative localities for the servitude;
- Assess alternative locations/sites for all proposed infrastructure.
- Identification of natural environmental linked current and possible future beneficial uses that may be compromised by the servitude;
- Identification and description of biological communities and environmentally sensitive areas that may be at risk from seawater intake and/or effluent discharges from the servitude;
- Identification of natural environmental linked current and possible future beneficial uses that may be compromised by seawater intake and/or effluent discharges from the servitude;
- Assessments of the risks posed by the servitude and its future utilisation;
- Identification of environmental boundaries that may limit effluents discharged via pipelines in the servitude
- Investigation into whether treated effluent can be discharged into the same pipeline as treated seawater
- Definition of baseline environmental studies that may need to be executed prior to the installation and operation of infrastructure in the servitude and environmental monitoring thereafter.
- Recommendations regarding the type of monitoring and control measures which could be implemented and used for the proposed project.

6.6.4 Terrestrial Ecology

The significant environmental aspects to be addressed in this specialist study include:

- Describe the vegetation on the study area;

- Determine species composition of each vegetation type, and potential protected species;
- Describe current state of the vegetation on site;
- Describe conservation status and value;
- Describe transformations and alien invasive species;
- Provide a vegetation sensitivity map of the site;
- Include Faunal Assessment (Mammal, avifauna, amphibian and reptile);
- Assess the impact of the development on the coastal dune system and investigate the impact of the pipelines through the dunes;
- Assess alternative locations/sites for all proposed infrastructure.
- Identify and rate potential impacts, outline mitigatory measures and outline additional management guidelines;
- Identification of any possible 'red-flags' or risks for the development (i.e. wetlands or other sensitive landscape features), and
- Evaluation of the development concept (and alternatives) with its impacts on the environment (significance, duration, probability etc), as well as mitigating measures for minimizing detrimental impacts and/or recommendations to amend the development concept to avoid impacts.
- Indicate potential no go areas;
- Provide Environmental Management Plan (EMP).
- Recommendations regarding the type of monitoring and control measures which could be implemented and used for the proposed project.

6.6.5 Archaeology

Inputs will be obtained from the CDC heritage study to address the following issues:

- Describe the type and location of known archaeological features in the study area.
- Evaluate the potential for occurrence of archaeological features within the study area.
- Specify the potential impact as well as potential cumulative impact of the development.
- Provide management actions (mitigation) for inclusion in the EMP for the construction of the marine pipeline servitude.
- An outline of additional management guidelines.

6.6.6 Palaeontology

Inputs will be obtained from the CDC heritage study to address the following issues:

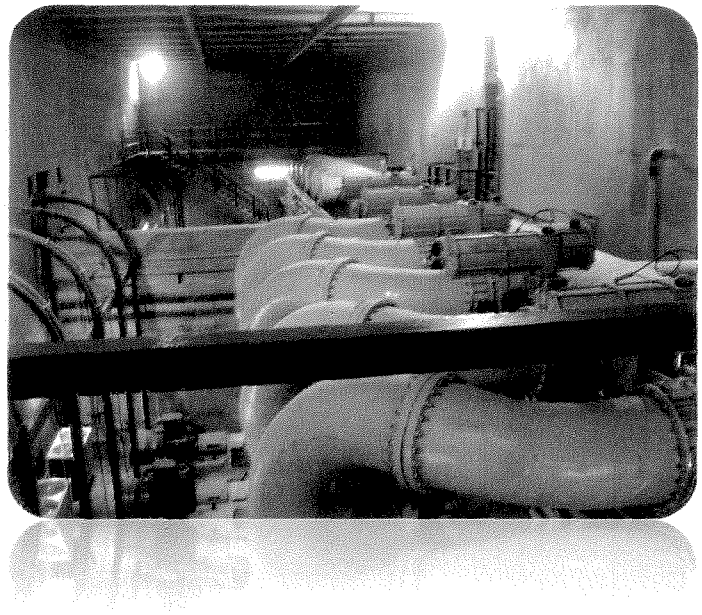
- Describe the type and location of known fossil occurrences in the study area.
- Confirm the importance of any palaeontological features within the study area.

- Specify the potential impact as well as potential cumulative impact of the development.
- Provide management actions (mitigation) for inclusion in the EMP for the construction of the marine pipeline servitude.
- An outline of additional management guidelines.

CHAPTER 7

References

Contents



7 REFERENCES

Barnes KN (ed) (1998). *The important bird areas of southern Africa.* BirdLife South Africa, Johannesburg.

Branch W.R. 1999. *Save our species: Threatened small adders*. Africa Environment and Wildlife 7(4): 36-37.

Bremner, J.M. 1991. *Properties of surficial sediment in Algoa Bay*. Bulletin of the Geological Survey 100: 23-74. Government Printer, Pretoria.

Campbell E.E. & G.C. Bate, 1988. *The estimation of annual primary production in a high energy surf zone*. Bot. Mar. 31: 337-343.

Coastal & Environmental Services (CES), 2001. *The subsequent Environmental Impact Report for the Proposed Port of Ngura*. Report prepared by Coastal & Environmental Services, Grahamstown for the Coega Development Corporation, Port Elizabeth. September 2001.

Coetzee, P.S., Kerley, G.I.H., Campbell, E.E., de Ruyck, A., Wooldridge, T., Boshoff, A. and Bate, G. (1996). *Zinc smelter environmental impact assessment: Flora and fauna baseline study for the Coega precinct.* SAB Institute for Coastal Research, Port Elizabeth.

CSIR, 2001. *Final report on the proposed Marine Protected Area for the Greater Addo Elephant National Park. Aquatic conservation planning (component 4.2).* CSIR Report No: ENV 2002-002. 134 pp.

DEAT, 2006. *Guideline 3: General Guide to Environmental Impact Regulations; Guideline 4: Public Participation in support of the Environmental Impact Assessment Regulations; and Guideline 5: Assessment of alternatives and impacts in support of the Environmental Impact Assessment Regulations.* Government Gazette, Pretoria.

Du Preez, D. R. 1996. *The structure and ecophysiology of the surf diatom, Anaulus australis Drebes et Schulz*. PhD thesis. University of Port Elizabeth, South Africa. 324 pp.

Klages, N.T.W. & Bornman, T.G. 2003. *Port of Ngqura Marine Biomonitoring Programme. Annual Report 2002 – 2003*. Prepared for National Ports Authority. IECM Report C86: 165.

Klages, N.T.W. & Bornman, T.G. 2005a. *Port of Ngqura Marine Biomonitoring Programme. Annual Report 2004 – 2005*. Prepared for National Ports Authority. IECM Report C114: 185.

Klages, N.T.W. & Bornman, T.G. 2005b. *Port of Ngqura Marine Biomonitoring Programme.Winter 2005.* Institute for Environmental & Coastal Management Report C128: 36 pp.

Klages, N.T.W. & Whittington, P.A. 2006. *Threats to coastal seabirds of the Greater Addo Elephant National Park and their mitigation.* Institute for Environmental & Coastal Management Report C134: 1-43.

Klages, N.T.W., Campbell, E.E. & Steyn, P.-P. 2006. *Port of Ngqura Marine Biomonitoring Programme.* Summer 2005/06. Institute for Environmental & Coastal Management Report C138: 41 pp.

Lasiak, T.A. 1983. *Recruitment and growth patterns of juvenile marine teleosts caught at Kings Beach, Algoa Bay.* S. Afr. J. Zool. 18: 25-30.

Newman, B, (ed). 2001. *Marine baseline biomonitoring for the proposed Ngqura port development: Final Report.* Institute for Environmental & Coastal Management Report C66. 105 pp.

Probyn, T.A., Mitchell-Innes, B.A. & Searson, S. 1995. *Primary productivity and nitrogen intake in the subsurface chlorophyll maximum on the Eastern Agulhas Bak.* Continental Shelf Res. 15: 1903-1920.

Probyn, T.A., Mitchell-Innes, B.A., Brown, P.C., Hutchings, L. & Carter, R.A. 1994. *A review of primary productivity and related processes on the Agulhas Bank.* S. Afr. J. Science 90: 166-173.

Schumann, E H. 1998. *The coastal ocean off southeast Africa, including Madagascar.* (Eds: A R Robinson and K H Brink) The Sea 11: 557-582.

Smale, M.J., Klages, N.T.W., David, J.H.M. & Cockcroft, V.G. 1994. *Predators of the Agulhas Bank.* S. Afr. J. Sci. 90: 135-142.

Tree, A.J. & Klages, N.T.W. 2003. *Status, biometrics, moult and possible relationships of the South African population of Roseate Tern.* Ostrich 74(1&2): 74–80.

Underhill, L.G., Crawford, R.J.M., Wolfaardt, A.C., Whittington, P.A., Dyer, B.M., Leshoro, T.M., Ruthenberg, M., Upfold, L. & Visagie, J. 2006. *Regionally coherent trends in colonies of African penguins Spheniscus demersus in the Western Cape, South Africa, 1987–2005.* African Journal of Marine Science 28: 697–704.

Vlok, J.H.J. & Euston-Brown, D.I.W., 2002. *The patterns within, and the ecological processes that sustain, the Subtropical Thicket Vegetation in the planning domain for the Subtropical Thicket Ecosystem Planning (STEP) Project.* Terrestrial Ecology Research Unit, Report No. 40. University of Port Elizabeth, Port Elizabeth.

Wooldridge, T.H., Klages, N.T.W. & Smale, M.J. 1997. *Nearshore marine flora and fauna.* Report for the Coega Industrial Development Zone SEA and Coega harbour EIA. SAB Institute for Coastal Research, University of Port Elizabeth, Port Elizabeth.

APPENDICES

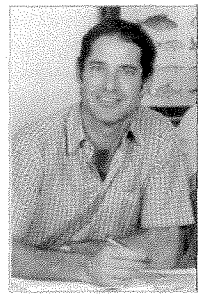
Appendix A –	Curriculum Vitae: Paul Lochner and Ismail Banoo
Appendix B –	EIA Application Form for the Marine Pipeline Servitude Project at the Coega IDZ
Appendix C –	I&AP Database for the Marine Pipeline Servitude Project at the Coega IDZ
Appendix D –	Copies of Newspaper Advertisements placed
Appendix E –	Copies of Correspondence sent to I&AP's prior to the release of the Draft Scoping Report
Appendix F –	Copy of E-Notice Board placed in the CDC's Offices
Appendix G –	Copies of Comments Received from I&AP's prior to the release of the Draft Scoping Report
Appendix H –	Notes from Meetings held prior to the release of the Draft Scoping Report
Appendix I –	Copies of Registration Forms received registering I&AP's for the Marine Pipeline Servitude Project at Coega IDZ

Appendix A

Curriculum Vitae - Paul Lochner and Ismail Banoo

CSIR
Jan Cilliers Street
PO Box 320
Stellenbosch 7600
South Africa

Phone: +27 21 888 2400
Fax: +27 21 888 2693
Email: plochner@csir.co.za



Curriculum Vitae

Paul Lochner

Name of firm	CSIR
Name of staff	Paul Andrew Lochner
Profession	Environmental Assessment and Management
Position in firm	Project Leader in Environmental Assessment & Management
Date of birth	13 June 1969
Years with firm	18 years
Nationality	South African

Biographical sketch

Paul Lochner commenced work at CSIR in 1992, after completing a degree in Civil Engineering and a Masters in Environmental Science, both at the University of Cape Town. His initial work at CSIR focused on sediment dynamics and soft engineering applications in the coastal zone, in particular, beach and dune management. He conducted several shoreline erosion analyses and prepared coastal zone management plans for beaches. He also prepared wetland management plans.

As the market for environmental assessment work grew, he led Environmental Impact Assessments (EIAs), in particular for coastal resort developments and large-scale industrial developments located on the coast; and Environmental Management Plans (EMPs), in particular for wetlands, estuaries and coastal developments. He has also been involved in researching and applying higher-level approaches to environmental assessment and management, such as Strategic Environmental Assessment (SEA). In 1998 and 1999, he coordinated the SEA research programme

within the CSIR, and was a lead author of the Guideline Document for SEA in South Africa, published jointly by CSIR and the national Department of Environmental Affairs and Tourism in February 2000.

In 1999 and 2000, he was the project manager for the legal, institutional, policy, financial and socio-economic component of the Cape Action Plan for the Environment ("CAPE"), a large-scale multi-disciplinary study to ensure the sustainable conservation of the Cape Floral Kingdom. This was funded by the Global Environmental Fund (GEF) and prepared for WWF-South Africa. The study required extensive stakeholder interaction, in particular with government institutions, leading to the development of a Strategy and Action Plan for regional conservation.

In July 2003, he was certified as an Environmental Assessment Practitioner by the Interim Certification Board for Environmental Assessment Practitioners of South Africa. In 2004 he was lead author of the *Overview of IEM* document in the updated Integrated Environmental Management (IEM) Information Series published by national Department of Environmental Affairs and Tourism (DEAT). In 2004-2005 he was project manager for an Environmental and Social Impact Assessment (ESIA) conducted for a bauxite mine and alumina refinery in the Komi Republic (Russia), prepared in accordance with World Bank and EU policies, guidelines and standards.

In 2004-2005, he was part of the CSIR team that coordinated the preparation of the series of *Guidelines for involving specialists in EIA processes* prepared for the Western Cape Department of Environmental Affairs and Development Planning (DEADP); and authored the *Guideline for Environmental Management Plans* published by the Western Cape government in 2005.

Over the past 6 years has been closely involved with several environmental studies for industrial and port-related projects in Coega Industrial Development Zone (IDZ), near Port Elizabeth. This included an EIA and EMP for a proposed aluminium smelter, and assistance with environmental permit applications for air, water and waste. He has also conducted environmental assessments for port development, manganese export and rail development at the Coega IDZ and port.

He is currently leading the EIA for a desalination plant in Namibia; an EIA for a wind energy facility near Jeffreys Bay, South Africa; and an EIA for a proposed crude oil refinery at Coega.

Education

1990	B.Sc. Civil Engineering (awarded with Honours)	University of Cape Town
1992	M. Phil. Environmental Science	University of Cape Town

Employment record

January 1992 to June 1992: Completed Masters thesis, working in conjunction with the Environmental Evaluation Unit at the University of Cape Town. The thesis investigated the potential future ecological and socio-economic impacts resulting from the closure of a large diamond mining operation, and developed actions to mitigate these impacts.

October 1992 to present: Employed by the CSIR in Stellenbosch. Involved in coastal engineering studies; and various forms of environmental assessment and management studies. (A track record of experience is listed below).

PROFESSIONAL INVOLVEMENT IN COMMITTEES:

1996/97:	Committee Member of the Western Cape Branch of the International Association for Impact Assessment (IAIA)
1997/98:	Chairperson of the Western Cape Branch of IAIA and member of the national IAIA committee
1998/99:	Committee Member of the Western Cape Branch of IAIA
1996 to present:	Chairperson of the Intaka Island/Blouvlei Environmental Committee at Century City, Cape Town (This committee is tasked with overseeing the management of a wetland in the midst of a new mixed-use urban development)

Experience record

The following table presents an abridged list of projects that Paul Lochner has been involved in, indicating his role in each project:

Completion Date	Project description	Role	Client
2009/2010 *(in progress)*	**EIA for the proposed Biotherm wind energy project,** Overberg region, South Africa	Project leader	Biotherm South Africa (Pty) Ltd
2009/2010 *(in progress)*	**Basic Assessment (BA) for monitoring masts for the proposed Biotherm wind energy project,** Overberg region, South Africa	Project leader	Biotherm South Africa (Pty) Ltd
2009/2010 *(in progress)*	**EIA for the proposed InnoWind wind energy project,** Western Cape, South Africa	Project leader	InnoWind South Africa (Pty) Ltd
2009/2010 *(in progress)*	**BA for the proposed InnoWind test turbines and monitoring masts,** Western Cape, South Africa	Project leader	InnoWind South Africa (Pty) Ltd
2009/2010 *(in progress)*	**EIA for the proposed Electrawinds Phase 2 wind energy facility,** Coega IDZ, Eastern Cape	Project leader	Electrawinds N.V. (Belgium)
2009/2010 *(in progress)*	**BA for the national wind Atlas for South Africa**	Project leader	SANERI and SA Wind Energy Programme, Dept of Energy
2009/2010 *(in progress)*	**EIA for the proposed Gecko soda plant,** Otjivalunda and Arandis, Namibia	Project leader	Gecko, Namibia
2009	**BA for the proposed Electrawinds test turbine and monitoring mast,** Coega IDZ, Eastern Cape	Project leader	Electrawinds N.V. (Belgium)
2009	**EIA for the proposed desalination plant** at Swakopmund, Namibia	Project leader	NamWater, Namibia
2009	**EMP for the Operational Phase of the Berg River Dam**, Franschoek, South Africa	Project leader and report co-author	TCTA, South Africa
2009/2010 *(in progress)*	**EIA for the proposed crude oil refinery** at Coega, South Africa	Project leader and lead author	PetroSA, South Africa
2008	**Environmental Risk Review** for proposed LNG/CNG import to Mossel Bay, South Africa	Project leader and lead author	PetroSA, South Africa
2008	**Review of the Business Plan** for catchment management for the Berg Water Dam Project, Franschoek, South Africa	Project reviewer and co-author	TCTA, South Africa
2007 – 2008 *(in progress)*	**EIA for proposed Jacobsbaai Tortoise Reserve eco-development**, Saldanha, Western Cape	Project Leader and co-author	Jacobsbaai Tortoise Reserve (Pty) Ltd
2007 – 2008 *(in progress)*	**Independent reviewer** for the EIA proposed Amanzi lifestyle development, Port Elizabeth	Independent reviewer appointed to advise EAP	Public Process Consultants and Pam Golding
2007 – 2008 *(in progress)*	**EIA for proposed Kouga wind energy and pumped storage scheme**, Eastern Cape	Project Leader and co-author	Genesis Eco-Energy

Completion Date	Project description	Role	Client
2007	**Review of EIA for the proposed Hanglip Eco-Development**, Plettenberg Bay, Western Cape	Co-author of review of EIA, undertaken on behalf of DEADP	Dept of Environmental Affairs & Development Planning, Western Cape
2006-2007 *(in progress)*	**Environmental Impact Assessment for the proposed Coega LNG-to-Power Project** at the Port of Ngqura, Coega IDZ	Project Leader and co-author	Eskom and iGas
2006-2007 *(in progress)*	**Guideline** for Scoping, Environmental Impact Assessment and Environmental Management Plans for mining in South Africa	Project leader and co-author	Dept of Minerals and Energy (DME), South Africa
2006	**Environmental Impact Assessment (EIA)** for the extension of the Port of Ngqura, Eastern Cape	Project Leader and co-author	Transnet
2006	**Integrating Sustainability Into Strategy: Handbook** (Version 1)	Project Leader and co-author	CSIR (STEP research report)
2005	**Technology Review** for the proposed aluminium smelter at Coega, South Africa	Project Leader and lead author	Alcan, Canada
2005	**Environmental and Social Impact Assessment (ESIA) report** for the proposed alumina refinery near Sosnogorsk, Komi Republic, Russia	Project manager and co-author	Komi Aluminium, Russia, IFC, EBRD
2005	**Guideline for Environmental Management Plans (EMPs)** for the Western Cape province, including conducting a training course for provincial government	Author	Dept of Environmental Affairs & Development Planning, Western Cape
2005	**Guideline for the review of specialist studies** undertaken as part of environmental assessments	Member of Steering Committee and project facilitator	Dept of Environmental Affairs & Development Planning, Western Cape
2004	**Review of Strategic Management Plan** for Table Mountain National Park (2001-2004)	Reviewer and co-author	South African National Parks
2004	**Strategic Needs Assessment Process** for mainstreaming sustainable development into business operations	Researcher and co-author	CSIR (internal research)
2004	**Environmental Monitoring Committees** booklet in the IEM Information Series for DEAT	Contributing author	Department of Environmental Affairs and Tourism (DEAT)
2004	**Overview of Integrated Environmental Management** (IEM) booklet in the IEM Information Series	Lead author and researcher	DEAT
2003	**Environmental Screening Study** for gas power station, South Africa	Project Manager and lead author	Eskom, iGas and Shell
2003	**Environmental Management Programme** (EMP) Framework for the proposed Coega Aluminium Smelter; and assistance with preparing permit and	Project Manager and lead author	Pechiney, France

Completion Date	Project description	Role	Client
	licence applications		
2003	**Environmental Management Plan** for the Operational Phase of the wetlands and canals at Century City, Cape Town	Project leader and lead author	Century City Property Owners' Association
2002	**Environmental Impact Assessment** for the proposed Pechiney aluminium smelter at Coega, South Africa	Project Manager and lead author	Pechiney, France
2002 - 2003	**Research project:** Ecological impact of large-scale groundwater abstraction on the Table Mountain Group aquifer	Project Manager	Water Research Commission
2002	**Environmental Management Plan** for the Eskom Wind Energy Demonstration Facility in the Western Cape	Co-author	Eskom
2001-2002	**Environmental Impact Assessment** for the Eskom Wind Energy Demonstration Facility in the Western Cape	Quality control & co-author	Eskom
2001	**Environmental Due Diligence** study of four strategic oil storage facilities in South Africa	Project manager and co-author	SFF Association
2000	**Cape Action Plan for the Environment**: a biodiversity Strategy and Action Plan for the Cape Floral Kingdom - legal, institutional, policy, financial and socio-economic component	Project manager and contributing writer	World Wide Fund for Nature (WWF): South Africa
1999	**Environmental Management Plan** for the establishment phase of the wetlands and canals at Century City, Cape Town	Project manager and lead author	Monex Development Company
1999	**Environmental Management Programme** for the Thesen Islands development, Knysna	Process design and Co-author	Chris Mulder Associates Inc; Thesen and Co.
1999	***Management Plan*** *for the coastal zone between the Eerste and Lourens River, False Bay, South Africa*	Project manager and lead author	Heartland Properties and Somchem (a Division of Denel)
1998	**Environmental Assessment** of the Mozal Matola Terminal Development proposed for the Port of Matola, Maputo, Mozambique	Project manager and author.	*SNC-Lavalin-EMS*
1998	**Strategic Environmental Assessment (SEA)** for the Somchem industrial complex at Krantzkop, South Africa	Project manager and co-author	Somchem, a Division of Denel
1997	**Strategic Environmental Assessment (SEA)** for the proposed Industrial Development Zone and Harbour at Coega, Port Elizabeth, South Africa	SEA project manager and report writer	Coega IDZ Initiative Section 21 Company
1996	**Environmental Impact Assessment** of Development Scenarios for Thesen Island,	Project manager and	Thesen and Co.

Completion Date	Project description	Role	Client
	Knysna, South Africa	report writer	
1996	**Environmental Impact Assessment** of the Management Options for the Blouvlei wetlands, Cape Town	Project manager and report writer	Ilco Homes Ltd (now Monex Ltd)
1995	**Environmental Impact Assessment** for the Saldanha Steel Project, South Africa	Report writing and management of specialist studies	Saldanha Steel Project
1994	**Environmental Impact Assessment** for the upgrading of resort facilities on Frégate Island, Seychelles	Member of the project management team, co-author, process facilitator	Schneid Israelite and Partners
1994	**Environmental Impact Assessment** for exploration drilling in offshore Area 2815, Namibia	Project manager and co-author	Chevron Overseas (Namibia) Limited
1994	**Management Plan** for the Rietvlei Wetland Reserve, Cape Town	Project manager and lead author	Southern African Nature Foundation (now WWF-SA)
1993	**Beach management plan** for Stilbaai beachfront and dunes, South Africa	Project manager and lead author	Stilbaai Municipality
1993	**Beach and dune management plan for Sedgefield** for the beach east of the mouth of the Swartvlei estuary	Project manager and lead author	Nel and De Kock Planners, George
1993	**Coastal Stability analysis and beach management plan** for the Table View coastline north of Blaauwberg Road, Cape Town	Project manager and lead author	Milnerton Municipality

Publication record

A comprehensive list of publications, book chapters and contract reports is available upon request, with a summary provided below.

Publications in journals, peer reviewed conference proceedings and CSIR internal research reports:

Lochner P, Munster F and Burns M, 2006. Integrating Sustainability into Strategy (ISIS): a process to inform sustainability strategies and frameworks, *In:* IAIA South Africa Annual Conference proceedings, South Africa.

Rossouw N and Lochner P, 2006. Environmental Monitoring Committees (EMCs): purpose, function and structure. *In:* IAIA South Africa Annual Conference proceedings, South Africa.

Munster F and Lochner P, 2006, Integrating Sustainability Into Strategy: Handbook (Version 1) – describing a process to inform sustainability strategies, frameworks and reports, *CSIR Report ENV-*

S-I 2005-001, ISBN 0-7988-5560-6, Stellenbosch.

Van Zyl H, de Wit M, Munster F, Lochner P, Gerber G, 2005. Economics in Environmental Impact Assessment: demystifying the theory and practice, *In:* Conference Proceedings of the IAIA South Africa 2005 Annual National Conference. South Africa.

Lochner P, Weaver A, Gelderblom C, Peart R, Sandwith T and Fowkes S, 2003. Aligning the diverse: the development of a biodiversity conservation strategy for the Cape Floristic Region. *Biological Conservation Vol. 112, ISSN:* 0006-3207.

Lochner P, Münster F, Msutu M, Wren S, 2003. The role of stakeholder engagement in the EIA for the Coega Aluminium Smelter. *In:* Conference Proceedings of the IAIA South Africa 2003 Annual National Conference. ISBN 1-919891-04-8. South Africa.

Lochner P, Brooks W, Pesch P & Münster M. 2003, Stakeholder engagement process in the EIA of an aluminium smelter, Published in *Light Metals* 2003 (Ed. Paul Crepeau), Published by TMS (the Minerals, Metals & Materials Society), ISBN Number 0-87339-531-X, USA.

Rossouw N, Audouin M, Lochner P, Heather-Clark S and Wiseman K, 2000. Development of strategic environmental assessment in South Africa. *Impact Assessment and Project Appraisal.* Vol 18, no. 3, pp 217-223. United Kingdom.

Lochner P and Fowkes S, 2000. Building partnerships for the conservation of the biodiversity of the Cape Floral Kingdom: experiences and lessons learnt from the Cape Action Plan for the Environment. IAIA-SA Conference Proceedings 2000. South Africa.

Lochner P and Rossouw N, 1997. The development of an Environmental Management Plan for incorporating a wetland into a large mixed use development: the Century City example. IAIA-SA Conference Proceedings 1997. South Africa.

Language capability

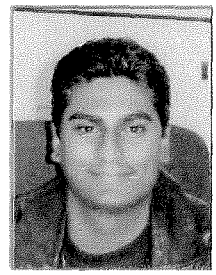
	Speaking	*Reading*	*Writing*
English	Excellent	Excellent	Excellent
Afrikaans	Average	Average	Average

Paul Lochner

27th May 2010

CSIR
PO Box 17001
Congella Durban
4013South Africa

Phone: +27 31 242 2378
Fax: +27 31 261 2509
Email: ibanoo@csir. co.za



Curriculum Vitae

Ismail Banoo

Name of firm	CSIR
Name of staff	Ismail Banoo
Profession	Environmental Assessment and Management
Position in firm	Senior Environmental Assessment Practitioner
Nationality	South African

Ismail Banoo is a Senior Environmental Assessment Practitioner and Manager of the CSIR Environmental Management Services team based in Durban, South Africa.

Ismail's involvement in several industrial and port related Environmental Impact Assessments (EIAs) has afforded him an in-depth understanding of the sustainability issues facing development in Africa. He has been involved in private sector and development agency funded projects in Botswana, Mozambique and Angola. All of these projects involved interaction with a wide variety of stakeholders and key to these interactions has been managing and facilitating public participation processes and effective stakeholder engagement.

With over 10 years experience in the environmental assessment and management field, Ismail has participated in various international conferences and workshops. He has also facilitated numerous EIA/SEA training courses for universities as well as the private and public sector in South Africa and other African countries.

Fields of Competence	▪ Environmental impact assessments ▪ Strategic environmental assessments ▪ Environmental management capacity building ▪ EIA project management ▪ Environmental policy analysis and governance ▪ Environmental management systems and auditing ▪ Experience in management of integrated product development and integration of multidisciplinary teams. ▪ Facilitation and strategy development
Professional Affiliations & Registrations	▪ International Association for Impact Assessment. ▪ International Association for Impact Assessment (South African Affiliate). ▪ Certified Environmental Assessment Practitioner in South Africa – (EAPSA Certified).
Education	▪ BA, University of Durban Westville, South Africa, 1998 ▪ BA Honours University of Durban Westville, South Africa, 2000 ▪ MA (Environmental Science), University of Durban Westville, South Africa, 2002 ▪ Basic Environmental Assessment and Management Course, University of Free State, South Africa. 2002 ▪ Basic and Intermediate Project Management Course, CSIR, Innovation Leadership and Learning Academy, 2003 ▪ Advanced Project Management Course II, CSIR Innovation Leadership and Learning Academy, 2004 ▪ UNIDO International Cleaner Production Training Course, National Cleaner Production Centre, 2005
Languages	▪ English ▪ Afrikaans, basic ▪ Zulu, basic ▪ Urdu, basic
Key Industry Sectors	▪ Ports and harbour developments ▪ Large industrial and infrastructure developments ▪ Corporates ▪ Municipalities
Awards	▪ National Research Foundation (SA), 2000 – 2002, Awarded research scholarship for undertaking Masters Degree ▪ CSIR 2006 – Young Researchers Establishment Fund, awarded an internal research scholarship for undertaking research on integrating sustainability imperatives into strategic decision making for sustainable business operations in South Africa.

Recent Key Project Experience

2009

EIA for a Proposed Wellfield Development Project in Botswana
Project Leader
The client is conducting a detailed feasibility study and EIA for the Mmamabula Energy Project (MEP), a combined coal mine and power plant development in Botswana. In addition to these activities there are also a number of ancillary projects which are required to support the MEP. One such project includes the investigation of groundwater reserves located within close proximity to the MEP referred to as the Bonwapitse Proposed Wellfield Area (PWA) as a potential sustainable source of water for the construction and operational phases of the MEP. This project is the subject of the EIA that has been conducted to international as well as Botswana regulatory standards.

Durban International Airport (DIA) Environmental Due Dilligence Assessment
Project Leader
The DIA has been identified by Transnet as a possible site for the development of a new port, largely in order to increase the capacity of the existing Port of Durban. The client wished to investigate the potential environmental liability associated with purchasing the DIA site and subsequently constructing a new port. The study focused on reviewing all existing information followed by an analysis of the key environmental sensitivities in the vicinity of the site.

Environmental and Social Evaluation of Eastern Port Rail Corridor Proposed Port Layout Options
Project Leader
As part of the Ports and Rail Corridor Project, Transnet are investigating future port layout options that reflect the economic demand expected over the next 30 years. Various criteria where being evaluated. Core to these criteria were various environmental and social criteria. The study undertaken was to analyse and rate the environmental and social criteria for each port. The report included the outcome of this process for the ports within the Eastern Port and Rail Corridor (EPRC) which include the Port of Durban and Port of Richards Bay.

Environmental Review Eastern Port and Rail Corridor
Project Manager
The scope of this study was to review previous Environmental Impact Assessments (EIAs) and associated Records of Decision (RODs), Strategic Environmental Assessments (SEAs) and other planning documents to identify environmental and social drivers and assess their impact on future port planning, development and operations. Associated with the above was the need to consult with key stakeholders on the environmental and social issues that they may consider important for future port planning, development and operation. The final report was collated with incorporating these key imperatives of the study.

EIA for Proposed Grass Roots Crude Oil Refinery in Lobito, Angola
Project Manager
The client is proposing to build a new refinery with a refining capacity of 200,000 barrels per day. The primary goal of the project is to add value to heavy and acidic Angolan crude by refining it to produce high quality transportation fuels.The EIA is currently on-going and is being conducted with support from other international technical partners and local Angolan consultants including the Angola Research Institute (A-IP) and Holisticos.

I was responsible for all project management requirements on the project. This included all specialist investigation co-ordination as well as public consultation activities. I was also part of the social team (in-conjunction with local partners) who were involved in a comprehensive social impact assessment for all components of the project.

Environmental and Social Evaluation of Long Term Coal Supply Rail Routing Options
Project Manager
The scope of this study is to conduct a desktop environmental and social baseline study for a number alternative rail routing options in the greater Gauteng and Mpumalanga provinces. The proposed project area encompass the municipalities of Eastvaal District Municipality, Nkangala District Municipality, Seme Municipality, Lekwa Municipality and Gert Sibande District municipality, and will intend to transport coal to, Grootvlei, Kendal, Majuba, Tutuka and Camden power stations respectively.

The objective of the study is to identify and map key resource sensitivities in order to support spatial planning for the development of railway corridors for transportation of coal on a long term basis. I am the project manager on the project with overall responsibility for the completion of the project.

Environmental Impact Assessment for Block 15 (Kizombo Satelites Project) - Esso Exploration Angola Ltd.
Project Reviewer
The project involved the undertaking an Environmental Imopact Assessment for EEAL's Plan Satelite Fields Sub-sea tiebacks to existing oil and gas production facilities in offshore Angola (Block 15).

2008

State of Environment Report for the Nkangala District Municipality
Project Leader
Principal author of a specialist report on Integrated Waste Management Planning for the Nkangala district. Project involved addressing key issues raised by stakeholders and maximising resource use through improved waste stream management.

EIA for the Expansion of the Port of Ngqura – Port Elizabeth – South Africa
Project Manager
The client is proposing to expand the existing quay wall as well as construct an admin craft building in order to complete the final phases of the pre-feasibility studies as part of the Port of Ngqura development. The completion of these components will facilitate the operation of the Port of Ngqura by 2007/8.

2007

National Cleaner Production Strategy
Project Leader
The Department of Environmental Affairs and Tourisms Branch for Environmental Quality Protection embarked on developing a national strategy and implementation plan for Cleaner Production. The strategy was prepared for DEAT as part of the South African implementation of the Johannesburg Plan of Implementation (JPOI), with particular reference to the implementation of recommendations as contained in Chapter 3 on sustainable consumption and production. The key emphasis of the strategy was on the cleaner production aspect. Involvement was as a Principle Drafter and overall Project Leader and Manager of the project.

Environmental Due Diligence Assessment for 18 pots expansion project at BHP Billiton –Hillside Smelter
Project Manager
The client is investigating the development of new technology for aluminium smelting by adding 18 additional pots to existing operations at the plant. The project involved evaluating the key environmental parameters associated with the proposed expansion and included the development of an integrated environmental report to be submitted to the authorities for approval.

Science of Climate Change
Researcher
The project involved undertaking a detailed literature review of climate change for the Municipality. Assisted with developing and writing up the scenarios for climate change for the city. The project also identified a series of additional parameters which formed part of the scenario development process.

Environmental Site Suitability Study –Proposed Manganese Smelter
Project Leader
The client wished to establish a ferro-alloy manganese smelter within Southern Africa. Project investigated four industrial sites and evaluated the suitability of each site for the proposed development project. Key findings include the capacities and constraints associated with the project.

Courses/Presentations/ Training Events	**2010** **University of Kwa-Zulu Natal – Durban Campus** ***Guest Lecturer*** Lectured on topics pertaining to EIA application to second and third year students in the Environmental Science Department for the first semester environmental management module. **2009** **University of Kwa-Zulu Natal – Durban Campus** **Client: Department of Agriculture and Environmental Affairs (DAEA)** ***Course presenter/Overall Co-ordinator*** Presented a two day environmental assessment and management course to DAEA (KZN Provincial environmental authority). **Department of Economic Affairs, Environment and Tourism** ***Course Co-ordinator and Lead Presenter*** Presented an intensive course to the environmental impact assessment directorate in the Eastern Cape Region. The content covered IEM and environmental assessment and management topics **IQPC (South African Branch)** ***Team Leader/ Chief Presenter*** Presented a one day workshop on a Step-by-Step guide to completing an effective Environmental Impact Assessment. **2008** **University of Durban Westville, Centre for Development Management** ***Course Presenter*** Presented a one day course on environmental management and local government – The role of and objectives of Agenda 21 in local development planning **University of Kwa-Zulu Natal – Pietermaritzburg Campus, Centre for Environment and Development** ***Course Presenter*** Presented a five day course for Masters students on EIA and IEM as part of university of curriculum. **University of Kwa-Zulu Natal – Durban Campus, Department of Geography and Environmental Studies** ***Lecturer*** Lectured on IEM topics to Honours and Masters students as part of the Environmental Management Semester Module (2005 – 2006)

Appendix B

EIA Application Form for the Marine Pipeline Servitude Project at the Coega IDZ

CSIR Consulting and Analytical Services
PO Box 320 Stellenbosch 7599 South Africa
Tel: +27 21 888 2400
Fax: +27 21 888 2693

1 July 2010

Attention: Ms Lene Grobelaar

Department of Environmental Affairs
315 Pretorius street,
Fedsure building,
Cnr van der Walt & Pretorius street
Pretoria
0001

Dear Madam

APPLICATION FORM: EIA FOR A PROPOSED MARINE SERVITUDE AND PIPELINE(S) IN THE COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ), PORT ELIZABETH.

Please find herewith the completed EIA application form for a proposed marine servitude and pipeline(s) in the Coega Industrial Development Zone in Port Elizabeth.

I trust the requisite information is contained here and please do not hesitate to contact me if you have any queries regarding this application.

We look forward to your prompt allocation of the EIA Reference Number.

Regards,

Ismail Banoo – EAPSA (Certified)
EIA Project Manager

EIA FOR A PROPOSED MARINE SERVITUDE AND PIPELINE(S) IN THE COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ), PORT ELIZABETH.

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998)

environment & tourism

Department:
Environmental Affairs and Tourism
REPUBLIC OF SOUTH AFRICA

(For official use only)

File Reference Number:						
Application Number:						
Date Received:						

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2005

Kindly note that:

1. This application form is current as of 1 July 2006. It is the responsibility of the EAP to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
2. The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. It is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **black out** the boxes that are not applicable in the form.
4. Incomplete applications may be returned to the applicant for revision.
5. The use of "not applicable" in the form must be done with circumspection as if it is used in respect of material information that is required by the competent authority for assessing the application, and may result in the rejection of the application as provided for in the regulations.
6. This application must be handed in at the offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed applications will be accepted.
8. The application must be completed by an independent environmental practitioner.
9. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.

SITE IDENTIFICATION AND LINKAGE

Please indicate all the Surveyor-general 21 digit site (erf/farm/portion) reference numbers for all sites (including portions of sites) that are part of the application.

C	0	7	6	0	0	2	3	0	0	0	0	0	2	2	0	0	0	0	0	0
C	0	7	6	0	0	2	3	0	0	0	0	0	2	2	1	0	0	0	0	0
C	0	7	6	0	0	2	3	0	0	0	0	0	3	0	2	0	0	0	0	0

(if there are more that 10, please attach a list with the rest of the number)
(These numbers will be used to link various different applications, authorisations, permits etc. that may be connected to a specific site)

1. BACKGROUND INFORMATION

Project applicant:	Coega Development Corporation (Pty) Ltd		
Trading name (if any):	CDC		
Contact person:	Andrea Von Holdt		
Physical address:	Cnr Alcyon Road & Zibuko Street Zone 1 Coega IDZ Port Elizabeth		
Postal address:	As above		
Postal code:	6100	**Cell:**	082 657 4648
Telephone:	(041) 403 0401	**Fax:**	(041) 403 0401
E-mail:	Andrea.VonHoldt@coega.co.za		

Project consultant:	Council for Scientific and Industrial Research (CSIR)		
Contact person:	Ismail Banoo		
Postal address:	PO Box 17001, Congella, Durban		
Postal code:	4013		
Telephone:	+27 31 242 2378 (office) Cell: 084 667 8680	**Fax:**	+27 31 261 2509
E-mail:	ibanoo@csir.co.za		
Professional affiliation(s) (if any)	EAPSA (Certified)		

Landowner:	Coega Development Corporation (CDC)		
Contact person:	Andrea Von Holdt		
Postal address:	Cnr Alcyon Road & Zibuko Street Zone 1 Coega IDZ Port Elizabeth		
Postal code:	6100	**Cell:**	082 657 4648
Telephone:	(041) 403 0400	**Fax:**	(041) 403 0401
E-mail:	Andrea.VonHoldt@coega.co.za		

In instances where there is more than one landowner, please attach a list of landowners with their contact details to this application.

Local authority in whose jurisdiction the proposed activity will fall:	Nelson Mandela Bay Municipality (NMBM)		
Contact person:	Joram Mkosana		
Postal address:	P O Box 11, Port Elizabeth		
Postal code:	6000	**Cell:**	0827821014
Telephone:	(041) 5065464	**Fax:**	(041) 505 4491
E-mail:	jmkosana@mandelametro.gov.za		

In instances where there is more than one local authority involved, please attach a list of local authorities with their contact details to this application.

Project title:	EIA FOR A PROPOSED MARINE SERVITUDE AND PIPELINE(S) IN THE COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ), PORT ELIZABETH.
Property description:	Coega IDZ, Zone 10

(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.

Town(s) or district(s):	Port Elizabeth
Physical address:	Zone 10 Coega IDZ Port Elizabeth

In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.

Current land-use zoning:	Special Purposes

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to , to this application.

Is a change of land-use or a consent use application required?	~~YES~~	NO
Must a building plan be submitted to the local authority?	~~YES~~	NO

Locality map:

A locality map must be attached to the back of this document, as **Appendix A**. The scale of the locality map must be at least 1:50 000. The scale must be indicated on the map. The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow.

Owners consent:

In line with the requirements of the EIA regulations, letters of consent of all landowners or a detailed explanation by the applicant explaining why consent is not possible must be attached to the back of this document as **Appendix B.**

2. Activities applied for

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed.

Indicate the number and date of the relevant notice:	**Activity No (s) (in terms of the relevant or notice) :**	**Describe each listed activity:**	**Relevance to the Project**
Government Notice 386, Government Gazette No. 28753 21 April 2006	2	Construction or earth moving activities in the sea or within 100 meters inland of the high water mark of the sea, in respect of – (d) embankments; (f) buildings; or (g) infrastructure.	Construction of the pipelines and the associated infrastructure e.g. pump station
	5	The removal or damaging of indigenous vegetation of more than 10 square meters within a distance of 100 meters inland of the high-water mark of the sea.	The alignment of the proposed pipelines and the head works on the landward side may require some removal of existing vegetation.
	6	The excavation, moving, removal, depositing or compacting of soil, sand, rock or rubble covering an area exceeding 10 square meters in the sea or within a distance of 100 meters inland of the high-water mark of the sea.	The construction of the pipeline and associated infrastructure will require that these activities be undertaken.
Government Notice 387, Government Gazette No. 28753, 21 April 2006	1	The construction of facilities or infrastructure, including associated structures or infrastructure, for –	
	e	any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R. 386 of 2006;	Permits for discharge into the marine environment will be required as the operational policy for marine disposal promulgated under the Water Act but now enforced under the ICM Act provides that seawater abstracted and brought onto land and then subsequently discharged back to sea (treated or untreated) is deemed as effluent and therefore requires a permit for discharge.

Notes from CSIR:

1) *A precautionary approach has been adopted, whereby if there is uncertainty at this conceptual design phase whether a listed activity is part of the proposed project, then it is included in the Table above. This set of listed activities will be refined during the course of the EIA process and certain activities may be excluded or added as required.*
2) *The CSIR also acknowledges that new EIA regulations are expected to be promulgated in June 2010. The CSIR will review listed activities when published and a process of updating the activities applied for will be undertaken with the relevant authorizing body at such time.*

Please note that any authorisation that may result out of this application will only cover activities applied for. Omissions may render any authorisation that is based on incomplete information to be nil and void.

3. Type of application

3.1 Application for Basic Assessment

Is this an application for conducting a basic assessment (as defined in the regulations)?	~~YES~~	NO
If, YES, is a basic assessment report attached?	YES	NO

If, NO, please indicate when the basic assessment report will be submitted:

N/A

3.2 Application for Scoping and Environmental Impact Assessment (EIA)

Is this an application for Scoping and EIA (as defined in the regulations)?	YES	~~NO~~
If, YES, is a Scoping Report and Plan of Study for EIA attached?	~~YES~~	NO

If, NO, please indicate when the Scoping Report and Plan of Study for EIA will be submitted:

END SEPTEMBER 2010

The scoping report and/or the plan of study for EIA will be submitted after consultation with the competent authority:	YES	~~NO~~
A consultation with the competent authority is hereby requested:	YES	~~NO~~

4. Declarations

4.1 The independent Environmental Assessment Practitioner

I, **Ismail Banoo**, declare under oath that I –

- act as the independent environmental practitioner in this application ;
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2005;
- have and will not have no vested interest in the proposed activity proceeding;
- have no, and will not engage in, conflicting interests in the undertaking of the activity;
- undertake to disclose, to the competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the Environmental Impact Assessment Regulations, 2005;
- will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- will keep a register of all interested and affected parties that participated in a public participation process; and
- will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not.

Signature of the environmental practitioner:

Council for Scientific and Industrial Research (CSIR)

Name of company:

3/06/10

Date:

Signature of the Commissioner of Oaths:

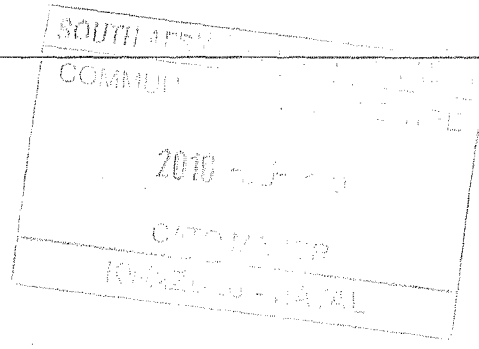
2010-06-15

Date:

constable

Designation:

Official stamp (below)



4.2 The Applicant

I, ANDREA VON HELDT ,declare under oath that I -

- Am, or represent, the applicant in this application;
- appointed the environmental assessment practitioner as indicated under point 4.1 above to act as the independent environmental assessment practitioner for this application;
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment Regulations, 2005, including but not limited to –
  - costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
  - costs incurred in respect of the undertaking of any process required in terms of the regulations;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the regulations;
  - costs in respect of specialist reviews, if the competent authority decides to recover costs; and
  - the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;
- will ensure that the environmental assessment practitioner is competent to comply with the requirements of these regulations;
- am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;
- hereby indemnify, the government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which the applicant or environmental assessment practitioner is responsible in terms of these regulations; and
- will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to an appeal being decided in terms of these regulations.

Signature of the applicant:

Coega Development Corporation (Pty) Ltd

Name of company:

COEGA DEVELOPMENT CORPORATION

Date:

3 JUNE 2010

Signature of the Commissioner of Oaths:

2010/06/03

Date:

Designation:

Official stamp (below):

SOUTH AFRICAN POLICE SERVICE
THE STATION COMMANDER
SWARTKOPS, P.E.
2010 -06- 03
DIE STASIEBEVELVOERDER
SWARTKOPS, P.E.
SUID-AFRIKAANSE POLISIEDIENS

Appendices

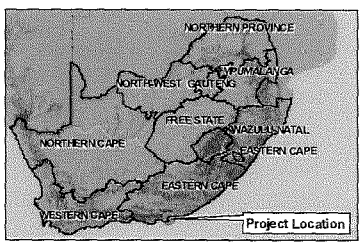
A: Locality map

B: Letter(s) of consent from landowners

Appendix A – Site Locality Map

Legend

- Grave Sites
- Substation
- Mariculture
- Islands
- Railway
- River
- Nantional Road
- Main Road
- Arterial Route
- Proposed Infrastructure Corridor
- Study Area
- Cadastral Boundary (Erf No)
- IDZ Boundary
- Zone Boundaries
- Port Boundary Land Agreement May 2002
- Primary Dune
- Secondary Dune
- Bontveld
- Vegetation
- Flood High Water Mark



TITLE:

Proposed CDC Marine Pipeline Location

CLIENT:

CSIR

SCALE: 1 : 100 000

0 1 2 3 4 5

Kilometers

DATE: 15 June	PROJECT: 024
DRAWN: AT	APPROVED: IB

DRAWING: Base_Map_V3.mxd | REV: 3

Thurlow Mapping
Specialising in GIS Mapping
www.thurlowmapping.co.za

Projection: Geographic, Datum: Wgs 84.prj
Source: Surveys and Mapping, Cape Town,
Nelson Mondela Metro Municipality (PE)
Image: Nelson Mondela Metro Municipality

SIZE: A3

C:\Documents and Settings\Andrew\My Documents\Andrew Gis\Thurlow Mapping\PRIVATE WORK\Ismail Banoo\PE PROJECT\MXD\Base_map_V3.mxd

Appendix B – Landowner Consent Form

CONSENT IN TERMS OF REGULATION 15(2) OF THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2006 BY THE LANDOWNER AUTHORISING AN APPLICANT, OTHER THAN THE LANDOWNER, TO UNDERTAKE IDENTIFIED ACTIVITIES ON THAT LAND

CONTACT INFORMATION

Name of land owner	Transnet Limited		
Trading name (if any):	Transnet National Ports Authority		
Contact person:	Sujit Bhagattjee		
Physical address:	112 Green Street, 5th Floor, Port Admin Building, Port Elizabeth,6001		
Postal address:	P O BOX 162, Port Elizabeth		
Postal code:	6000	Cell:	082 961 3787
Telephone:	041 507 1762	Fax:	041 507 1966
E-mail:	Sujit.bhagattjee@transnet.net		
	If there is more than one landowner, please attach a list of their contact details to this application and tick the box ☐ Extra page attached		

CONSENT

1 I/we the undersigned *(insert the name/s of the owner/s of the land)*

MR SUJIT BHAGATTJEE

of identity number/registration number *(insert the owner/s ID number/s or the registration number of the legal entity)* i

ID: 720 720 5067 089

am/ are the registered owner/s of the property *(insert description of the property/ies and title deed numbers)*
NOTE: SALE TRANSFER IS PENDING FROM MARINE GROWERS TO TRANSNET AT DEEDS OFFICE

located at *(insert physical address or a brief description of the location of the property)*
ERF 302 COEGA

2. I/ we hereby give consent to the applicant *(insert the name/s of the applicant/s)*
COEGA DEVELOPMENT CORPORATION

of identity number/registration number *(insert the owner/s ID number/s or the registration number of the legal entity)* _____

_____

to undertake the following activity/ies on the property *(insert a brief description of the project and identified activity/ies that will be applied for)*:

i. ENVIRONMENTAL IMPACT ASSESSMENT FOR A MARINE PIPELINE SERVITUDE ON TRANSNET LAND.

ii. _____

iii. _____

Signature of land owner or authorised representative _____

Name of authorised person if the landowner is a legal entity _____

02/06/2010
Date

LANDOWNER CONSENT FORM

CONTACT INFORMATION

Name of land owner	Coega Development Corporation (CDC)		
Trading name (if any):	CDC		
Contact person:	Andrea von Holdt		
Physical address:	Coega Business Centre Cnr Alcyon & Zibuko Street Zone 1 Coega IDZ Port Elizabeth 6100		
Postal address:	Private Bag X6009 Port Elizabeth		
Postal code:	6000	**Cell:**	082 657 4648
Telephone:	(041) 403 0400	**Fax:**	(041) 403 0401
	If there is more than one land owner, please attach a list of their contact details to this application and tick the box ☐ Extra page attached		

CONSENT

1. ~~I~~/we the undersigned (insert the name/s of the owner/s of the land)

Coega Development Corporation

of ~~identity number~~/registration number (insert the owner/s ~~ID number~~/s or the registration number of the legal entity)

Registration number: 1982/03891/07

~~am~~/are the registered owner/s of the property (insert description of the property/ies and title deed numbers)

Property Located at ERF 221 with the 21 Digit Survey General Number as follows:

C	0	7	6	0	0	2	3	0	0	0	0	0	2	2	1	0	0	0	0	0

And ERF 220 with the 21 Digit Survey General Number as follows:

located at (insert physical address or a brief description of the location of the property)

Zone 10
Coega IDZ
Port Elizabeth

2. ~~I~~/we hereby give consent to the applicant (insert the name/s of the applicant/s)

Coega Development Corporation

of ~~identity number~~/registration number (insert the owner/s ID number/s or the registration number of the legal entity)

Registration number: 1982/03891/07

to undertake the environmental assessment for the following activity/ies on the property (insert a brief description of the project and identified activity/ies that will be applied for):

Establishment of a marine pipeline servitude and construction and operation of marine pipelines and its associated infrastructure in the Coega IDZ.

Signature of land owner or authorised representative ____________

Name of authorised person if the landowner is a legal entity ____________

ALLAN ZEISS

15 . 6 . 10 .

Date

Appendix C

I&AP Database for the Marine Pipeline Servitude Project at the Coega IDZ

Title	First Name	Surname	Company/ Organisation	Position	Interest
Mr	Ismail	Banoo	EAP Manager	CSIR	EAP
Mr	Charles	Barry	Naphtali: Earth Technologies	Manager	Business
Ms	Aphiwe	Bewana	Marine Intern	SANParks	SANParks
Ms	Viwe	Biyana	Coega Development Corporation	Project Manager SHEQ	CDC
Mr	Len	Chandler	Cerebos	Manager	IDZ Tenant
Mr	Willie	Claasen	EC Biomass	CEO	IDZ Tenant
Dr	Mike	Cohen	CEN IEM	Director	Business
Mrs	Jessica	Courtoreille	PetroSA	Environmental Manager	Parastatal
Mr	Len	Cowely	PE Cold Storage	Manager	IDZ Tenant
Mr	Patrick	Cull	The Herald	Assistant Editor	Media
Mr	Mlungisi	Daniel	National Ports Authoridy	???	Portnet
Ms	Renee	de Klerk	HMG JV	Ngqura Env Manager	Ngqura Port
Cllr	Fikile	Desi	Nelson Mandela Bay Municipality	Ward 56 Councillor	Councillor
Mr	John	Drinkwater	Cerebos	Manager	IDZ Tenant
Mr	Gavin	Eales	Glendore Sand & Stone	Manager	Affected Business
Mr	George	Efstratiou	PK Cold Storage	Director	IDZ Tenant
Mr	Nceba	Faku	ANC Region	Regional Charperson	Civil Society
Ms	Lizna	Fourie	DWAF, East London	Permit officer	National Dept. for NWA, 1998
Cllr	Friday	Frans	Nelson Mandela Bay Municipality	Ward 58 Councillor	Councillor
Ms	Mariagrazia	Galimberti	SAHRA	APM Impact Assessor	Authority
Mr	Vuyani	Gaxela	SANCO Region		Civil Society
Mr	John	Geeringh	DWEA		National Authority
Mr	Danie	Gerber	UTI Sun Couriers	Branch Manager	IDZ Tenant

Title	First Name	Surname	Company/ Organisation	Position	Interest
Mr	Jeff	Govender	DEDEA	Regional Manager	Provincial Authority
Mr	Morgan	Griffiths	EIA Manager	WESSA	Environmental NGO
Ms	Lené	Grobbelaar	DWEA	Assistant Director: Parastatals	National Authority
Mr	Iqbal	Hoosen	SANRAL - Southern Region	Project Manager	
Mr	Joseph	Jacobs	Dept of Water Affairs	Snr Admintrative Offficer	Authority
Cllr	Nomakhwezi	Jantjies	Nelson Mandela Bay Municipality	Ward 57 Councillor	Councillor
Mr	Zukile	Jodwana	SACP District	District Secretary	Civil Society
kai	Mike	Keizer	SANRAL		Roads Agency
Mr	Marius	Keyser	EC Dept. of Roads and Transport	District Roads Engineer	Provincial Authority
Mr	Vien	Kooverji	DWAF	Manager	Provincial Authoridy
Mr	Themba	Koza	CDC	Executive Manager	CDC
Mr	Jerome	Kritzinger	NMBM	Waste Water	Local Authority
Mr	Marc	Larter	Dynamic Commodities	Financial Manager	IDZ Tenant
Mr	Pierre-Louis	Lemercier	Renewable Energy Centre		Environmental NGO
Mr	Paul	Lochner	EAP Leader	CSIR	EAP Manager
Prof	SS	Long	Dept of Civil Engineering	Nelson Mandela Metropolitan University	Education
Ms	Thanduxolo	Lungile	SAHRA		Provincial Authority
Cllr	T	Mafana	Nelson Mandela Bay Municipality	Ward 60 Councillor	Councillor
Cllr	N	Magopeni	Nelson Mandela Bay Municipality	Ward 55 Councillor	Councillor
Mr	Michael	Manson-Kullin	Jeffares & Green (Pty) Ltd	Engineer	Business
Ms	Jill	Miller	NMBM	Environmental Sub Directorate/ CETT Committee	Local authority
Dr	Paul	Martin	CDC	ECO	CDC
Ms	Thilivhali	Meregi	Oceanographer: land-based sources of marine pollution	DEA/MCM	National Authority
Mr	Luvuyo	Mkontwana	CDC	Manager: Business Development	CDC

Title	First Name	Surname	Company/ Organisation	Position	Interest
Mr	Joram	Mkosana	NMBM	Environmental Manager	Local Authority
Cllr	Sicelo	Mnyaka	Nelson Mandela Bay Municipality	Ward 59 Councillor	Councillor
Mr	Elliot	Motsoahole	Port of Ngqura Environmental Manager	TNPA	Transnet
Ms	Kithi	Ngesi	NMBM	Environmental Manager	Local Authority
Mr	Samual	Ngoma	SANCO Region		Civil Society
Ms	Nokuphumla	Ngqungwana	SANCO Region		Civil Society
Mr.	Phumzile	Nodongwe	COSATU Region	Regional Charperson	Civil Society
Ms	Bongiswa	Ntetha	COPE Region		Civil Society
Mr	Roro	Ntsinde	SANCO Region	Regional Deputy Charperson	Civil Society
Mr	Eric	Offerman	Algoa Brick	Managing Director	Adjacent Landowner
Dr	Ane	Oosthuizen	SANParks	National Marine Coordinator	National Parks
Mr	Roald	Pearson	Central Executive Ratepayers		Ratepayers
Mr	Ndumiso	Peter	SANCO Region		Civil Society
Ms	Dorothy	Phejane	National Ports Authoridy	????	Portnet
Mr	Wayne	Poultan	Bosun Brick	Regional Manager	IDZ Tenant
Mr	Zandisile	Qupe	ANC Region	Regional Secretary	Civil Society
Mr	Prince	Radzuma	DEAT/MCM		National Authority
Mr	Pieter	Retief	DWAF		Provincial Authoridy
Ms	Lumka	Salumntu	Coega Development Corporation	Analyst	CDC
Mr	Rainer	Schimpf	Ocean Messengers		Environmental NGO
Mr	Sithando	Shongwe	SANCO Region		Civil Society
Mrs	Gillian	Solomon	Acoustex	HR Manager	IDZ Tenant
Mr	Mike	Spearpoint	Zwartkops Trust	Chairperson	Environmental NGO
Mr	Johan	Steyn	ABSA		IDZ Tenant

Title	First Name	Surname	Company/ Organisation	Position	Interest
Mr	Alan	Straton	Ocean Messengers		Environmental NGO
Mr	Andries	Struwig	DEDEA	Asst. Director: IEM	Provincial Authority
Ms	Rochelle	Swartz	CDC		
Ms	Linah	Tshikororo	DEAT/MCM		National Authority
Mr	Mulalo	Tshikotshi	DEAT/MCM		
Mr	Mlamli	Tsotsi	COPE Region		Civil Society
Ms	Nontombi	Vena	SANCO Region		Civil Society
Ms	Andrea	von Holdt	CDC	Project Manager (EIA)	CDC
Cllr	TG	Vusani	NMBM Councillor	Councillor Ward 53	Ward Cllr
Mr	Brett	Williams	Digistics	DC Manager	IDZ Tenant

Appendix D

Copies of Newspaper Advertisements placed

NOTICE OF SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The Coega Development Corporation (CDC) (the applicant) plans to establish a marine pipeline servitude within the Coega Industrial Development Zone (IDZ), located in the Nelson Mandela Bay Municipality (NMBM), near Port Elizabeth, Eastern Cape Province. There are two components of the proposed development which are the subject of this Scoping and Environmental Impact Assessment Process, the establishment of an approximate 300 metre wide marine servitude and a land-based pipeline servitude of approximately 150 metres wide.

In terms of the regulations GN R. 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1998) in Government Gazette 28753 published on 21 April 2006 an Environmental Assessment is required, as the project includes, amongst others, the following listed activity in GN R. 387;

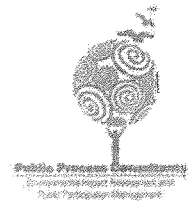
1. "The construction of facilities or infrastructure, including associated structures or infrastructure, for –
(e) "any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R. 386 of 2006".

The listed activity above, as well as the following activities in GN R. 386, 2 (d), (f) and (g), 5. and 6, require authorisation from the National Department of Environmental Affairs (DEA) ***(DEA Reference Number 12/12/20/1982)***. The CSIR has been appointed by the Coega Development Corporation to undertake the Scoping and Environmental Impact Assessment (EIA) required for the project and Public Process Consultants will manage the public participation component of the EIA.

In order to ensure that you are placed on the project register as well as to raise issues for inclusion in the Draft Scoping Report, you are kindly requested to submit any comments you may have, within 30 days of this notification, to the participation consultant at the address details indicated below. Available information on the project can be downloaded from www.publicprocess.co.za. For further information or to register as an I&AP contact Sandy Wren, Public Process Consultants, P.O. Box 27688, Greenacres, 6057, phone 041 374 8426, fax 041 373 2002, e-mail sandy@publicprocess.co.za.

PUBH2107/10/Q

Herald, 21 July 2010



NOTICE OF SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The Coega Development Corporation (CDC) (the applicant) plans to establish a marine pipeline servitude within the Coega Industrial Development Zone (IDZ), located in the Nelson Mandela Bay Municipality (NMBM), near Port Elizabeth, Eastern Cape Province. There are two components of the proposed development which are the subject of this Scoping and Environmental Impact Assessment Process, the establishment of an approximate 300 metre wide marine servitude and a land-based pipeline servitude of approximately 150 metres wide.

In terms of the regulations GN R. 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1998) in Government Gazette 28753 published on 21 April 2006 an Environmental Assessment is required, as the project includes, amongst others, the following listed activity in GN R. 387;

1. "The construction of facilities or infrastructure, including associated structures or infrastructure, for –
(e) "any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R. 386 of 2006".

The listed activity above, as well as the following activities in GN R. 386, 2 (d), (f) and (g), 5. and 6, require authorisation from the National Department of Environmental Affairs (DEA) ***(DEA Reference Number 12/12/20/1982)***. The CSIR has been appointed by the Coega Development Corporation to undertake the Scoping and Environmental Impact Assessment (EIA) required for the project and Public Process Consultants will manage the public participation component of the EIA.

In order to ensure that you are placed on the project register as well as to raise issues for inclusion in the Draft Scoping Report, you are kindly requested to submit any comments you may have, within 30 days of this notification, to the participation consultant at the address details indicated below. Available information on the project can be downloaded from **www.publicprocess.co.za**. For further information or to register as an I&AP contact Sandy Wren, Public Process Consultants, P.O. Box 27688, Greenacres, 6057, phone 041 374 8426, fax 041 373 2002, e-mail sandy@publicprocess.co.za.

Weekend Post, 24 July 2010

KENNISGEWING VAN OMVANGSBEPALING EN OMGEWINGSIMPAKSTUDIEPROSES

Die Coega Ontwikkelingskorporasie (CDC) (die applikant) is van voorneme om 'n mariene pyplynserwituut binne die Coega Industriële Ontwikkelingsone (IDZ), geleë in die Nelson Mandelabaai-munisipaliteit (NMBM), naby Port Elizabeth, Provinsie Oos-Kaap, te vestig. Daar is twee komponente van die voorgestelde ontwikkeling wat die onderwerp van hierdie Omvangsbepaling en Omgewingsimpakstudieproses vorm: die vestiging van 'n ongeveer 300 meter wye mariene serwituut en 'n landgebaseerde pyplynserwituut van ongeveer 150 meterwyd.

Kragtens regulasies GN R 385, 386 en 387 gepromulgeer kragtens Hoofstuk 5 van die Wet op Nasionale Omgewingsbestuur (Wet 107 van 1998) in Staatskoerant 28753 gepubliseer op 21 April 2006, word 'n Omgewingsevaluasie benodig, aangesien die projek o.a. die volgende gelyste aktiwiteit in GN R 387 insluit:

1."Die konstruksie van geriewe of infrastruktuur, insluitend verwante strukture of infrastruktuur, vir (e) "enige proses of aktiwiteit wat 'n permit of lisensie vereis kragtens wetgewing wat die generering of vrystelling van emissies, besoedeling, afloopwater of afval bestuur, en wat nie in Staatskennisgewingnr. R. 386 van 2006 geïdentifiseer is nie."

Die bogemelde gelyste aktiwiteit, sowel as die volgende aktiwiteite in GN R 386, 2(d), (f) en (g), 5, en 6, benodig magtiging van die Nasionale Departement van Omgewingsake (DEA) ***(DEA verwysingsnommer: 12/12/20/1982)***. Die CSIR is deur die Coega Ontwikkelingskorporasie aangestel om die vereiste Omvangsbepaling en Omgewingsimpakstudie (OIS) vir die projek te onderneem, en Public Process Consultants sal die openbare deelname-komponent van die OIS bestuur.

Ten einde te verseker dat jy op die projekregister geplaas word, sowel as om vraagstukke vir insluiting in die Konsep-omvangbepalingsverslag uit te lig, word jy vriendelik versoek om enige kommentaar wat jy mag hê binne 30 dae van hierdie kennisgewing aan die deelnamekonsultant by die onderstaande adres te rig. Beskikbare inligting oor die projek kan afgelaai word by www.publicprocess.co.za. Vir meer besonderhede of om as 'n B&GP te registreer, kontak Sandy Wren, Public Process Consultants, Posbus 27688, Greenacres, 6057, tel. 041 374 8426, faks 041 373 2002, e-pos: sandy@publicprocess.co.za

COEGA DEVELOPMENT CORPORATION

CSIR our future through science

Public Process Consultants

4479212(1A16FQQ) 21/7(180)

1A16FQQ-210710-OS-dl-coega

Die Burger, 21 July 2010

Appendix E

Copies of Correspondence sent to I&AP's prior to the release of the Draft Scoping Report

Copy of Letter 1 to I&APs:

PO Box 27688 Greenacres 6057
120 Diaz Road Adcockvale, PE 6001
Phone 041 374 8426 Fax 041 373 2002
Email sandy@publicprocess.co.za
Ck 97/32984/23 VAT 44601 68273

19 July 2009

«Title» «First_Name» «Surname»
«Company_Organisation»
«Address_1»
«Adress_2»
«City»
«Code»

Dear «Title» «Surname»

RE: NOTICE OF SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR A PROPOSED MARINE PIPELINE SERVITUDE IN THE COEGA INDUSTRIAL DEVELOPMENT ZONE, NELSON MANDELA BAY MUNICIPALITY *(DEA Reference Number 12/12/20/1982)*

In terms of Government Regulations 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act, you have been identified as an interested and/ or affected party (I&AP) for the above project and have been included on the project I&AP database.

This letter serves as notification that the Coega Development Corporation (CDC) (the applicant) plans to establish a marine pipeline servitude within the Coega Industrial Development Zone (IDZ), located in the Nelson Mandela Bay Municipality (NMBM), near Port Elizabeth, Eastern Cape Province. There are two components of the proposed development which are the subject of this Scoping and Environmental Impact Assessment Process, the establishment of an approximate 300 meter wide marine servitude and a land based pipeline servitude of approximately 150 meters wide.

In terms of the regulations GN R 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1998) in Government Gazette 28753 published on 21 April 2006 an Environmental Assessment is required, as the project includes, amongst others, the following listed activity in GN R 387;

1. "The construction of facilities or infrastructure, including associated structures or infrastructure, for –
(e) "any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R. 386 of 2006".

The listed activities require authorisation from the National Department of Environmental Affairs (DEA) (see full list of activities contained in the attached Background Information Document). The CSIR has been appointed by the Coega Development Corporation to undertake the Scoping and Environmental Impact Assessment (EIA) required for the project and Public Process Consultants will manage the public participation component of the EIA.

In terms of regulation 56 (1) (b) of Government Notice R 385 interested and affected parties are to request, in writing, that their names be placed on the I&AP register. In order to ensure that you are placed on the project register as well as to raise issues for inclusion in the Draft Scoping Report, you are kindly requested to submit any comments you may have to the participation consultant at the address details indicated above, by no later than **20th August 2010.**

To assist you in the submission of your comments we have enclosed with this correspondence a Background Information Document (BID) on the project as well as a comment form. Copies of the BID and comment form can be downloaded from the following website www.publicprocess.co.za. Additional issues may be raised once the Draft Scoping Report is released for a 40 day I&AP review. As a registered I&AP on the project database you will be notified of this comment period in writing.

Should you have any queries or require additional information please contact Sandy Wren or Paul-Pierre Steyn using the contact details provided above.

Yours sincerely

SANDY WREN

SCOPING PHASE

PUBLIC INVOLVEMENT PROCESS REPLY FORM

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ) MARINE PIPELINE SERVITUDE (*DEA Reference Number 12/12/20/1982*)

The Coega Development Corporation (CDC) proposes to establish a 300 meter wide marine pipeline servitude as well as a land based pipeline servitude of approximately 150 meters within the Coega Industrial Development Zone (IDZ), Nelson Mandela Bay Municipality

Key Listed Activities: **GN R387 Activity 1 (e) and GN R 386 2. (d), (f) and (g), 5. And 6.**

Return Completed Reply Form to:

Public Process Consultants, PO Box 27688, Greenacres 6057

Phone: 041 – 374 8426 or Fax 041-373 2002 or Email sandy@publicprocess.co.za

Please Complete all Relevant Sections Below and Return By:

20 August 2010

Please provide your full contact details:

FIRST NAME:	*SURNAME:*
ORGANISATION:	*DESIGNATION:*
POSTAL ADDRESS:	
CODE:	
PHONE:	*FAX:*
CELL:	*EMAIL:*

Email:

Would you like to register as an interested and affected party? (please tick the appropriate box)

NOTE: You are required to register as an I&AP in order to receive further correspondence regarding the EIA process.	**YES**
	NO

Please clearly state any interest you may have in the project and/or list your issues or questions you may have (use additional pages if required)

Registration and comments form for Issues & Concerns

Background Information Document:

ENVIRONMENTAL IMPACT ASSESSMENT

Background Information Document, July 2010

COEGA DEVELOPMENT CORPORATION
MARINE PIPELINE SERVITUDE

(DEA Reference Number 12/12/20/1982)

INTRODUCTION
The Coega Development Corporation (CDC) plans to establish a marine pipeline servitude within the Coega Industrial Development Zone (IDZ). The intent of establishing the servitude is to accommodate the infrastructural requirements of present and as well as future tenants that may require the abstraction of seawater and/or the discharge of seawater as part of their operations within the Coega IDZ.

NEED FOR THE PROJECT
The motivation for the provision of an integrated, common-user marine pipeline and servitude in the Coega IDZ is as follows:

- Numerous investors with whom the CDC is currently negotiating may have a requirement to utilise seawater within their proposed operations;
- The government authorities, in particular the departments responsible for water and environmental affairs, have urged the CDC to investigate an integrated servitude for pipelines, rather than having multiple pipelines crossing the beach and entering the sea;
- The benefits of an integrated marine pipeline servitude far outweigh the approach of constructing multiple pipelines within the IDZ at different zones.

WHAT DOES THIS DOCUMENT TELL YOU?
This document provides you, as an interested and or affected party (I&AP) with background information on the proposed project as well as the Environmental Assessment and Public Participation process that will be undertaken for the project.

It indicates how you can become involved in the project, receive information and raise issues for inclusion in the EIA process. The sharing of information forms an important component of the Public Participation process and provides you with the opportunity to become actively involved in the environmental assessment process from the outset. The input received from I&APs together with scientific investigations assists the responsible authority, in this instance the national Department of Environmental Affairs (DEA), with their decision-making.

ALTERNATIVES AND SITE SELECTION
The CDC has undertaken preliminary feasibility studies (including environmental, financial and technical components) to determine the most suitable location for a marine pipeline servitude within the IDZ. The findings of these studies indicate the preferred location for a marine pipeline servitude to be between the eastern breakwater of the Port of Ngqura and the existing Marine Growers abalone farm in Zone 10 of the IDZ. However, for the purposes of this EIA, a wider study area has been included, extending approximately two kilometres east of Marine Growers (Figure 1).

It is important to note that as part of the scoping phase the specialists on the CSIR team will provide environmental inputs to inform the identification and selection of reasonable alternatives (including siting) for inclusion in the EIA process, together with inputs from relevant stakeholders. In particular, factors such as bathymetry, the extent of the proposed marine protected area, dynamic coastal dunes, the occurrence of already disturbed sites and available access roads will be investigated in further detail. This will inform the selection of the final site for the proposed servitude and pipelines.

OVERVIEW OF THE PROJECT

There are two components of this proposed development which are the subject of this EIA, i.e. the establishment of the marine servitude and the construction of the pipelines and associated infrastructure. An overview of each component is provided below.

Marine Servitude

The marine component of the servitude will be approximately 300m wide and the land based component of the servitude will be approximately 150m wide. The marine servitude is expected to extend approximately 2.5km out to sea (Figure 1), however the final size and extent is yet to be determined. Two intake pipelines and one discharge pipeline are proposed by the CDC as part of this project (refer to the section below for more detail). However, the servitude is sufficiently wide to allow for the construction of additional pipelines (in addition to the two intake and one discharge pipeline that has been proposed as part of this project), as required by investors in the future, and noting that should these additional pipelines be proposed they would require separate environmental authorisation.

Intake and Discharge Pipelines

Two intake pipelines and one discharge pipeline will be constructed and operated by the CDC.

Intake Pipelines

The two intake pipelines are expected to be approximately 800 mm in diameter. The length of the pipeline is yet to be determined. Seawater will be abstracted for use by any investor(s) requiring seawater. Seawater will be pumped at a rate of approximately 0.5 m/s to a reservoir / wet well situated near the pump station from where the pipelines situated on the land component of the servitude will convey seawater to different users.

Associated Infrastructure

The associated infrastructure will include headworks i.e. a pump station and dry and wet wells. Alternative locations are being investigated for the headworks, ranging from above the high-water mark (which reduces pumping costs) to locations further inland to be out of the dynamic coastal dune belt (provided this is technically possible in terms of pumping requirements). This associated infrastructure will be housed within a 150m^2 area on the land component of the proposed servitude. Construction activities are likely to include clearing of land, excavation, pipe laying, embedment and anchoring.

Discharge Pipeline

The discharge volume will be in line with the abstraction volume i.e. approximately 0.5 m/s (depending on the use of the intake seawater) and this will be discharged via the discharge pipeline. Various discharge scenarios are briefly discussed below within the context of their potential impact to the receiving marine environment.

Scenario 1 - Discharge of sea water with elevated temperature.

Sea water with elevated temperature will be discharged to the sea. Specific focus will be placed on evaluating the impacts associated with any increase in temperature of the seawater being discharged, in line with the guidelines in South Africa for discharge of water to marine environments.

Scenario 2 - Discharge of sea water containing chlorine (chlorination).

Chlorine will be added to the seawater to prevent biofouling of the discharge pipeline (i.e. marine growth in the pipeline). This will need to be done as part of on-going operation of the pipeline. Different chlorination options will be considered in the EIA.

Scenario 3 - Discharge of sea water with a higher concentration of nutrients.

Seawater that has been utilised in mariculture or aquaculture operations may have a higher nutrient value. This could lead to biological production within the discharge pipeline and could impact on the receiving marine environment (primarily from an ecology perspective), for example, via algal blooms.

Scenario 4 - Discharge of sea water with higher salinity
If a desalination plant was proposed for the IDZ, then seawater with a high salinity would need to be discharged. Alternatively, a tenant may require to discharge water with higher salinity (e.g. if seawater was used for cooling water).

It is important to also note that future tenants who require discharge of treated water (with other components/constituents not discussed above) will be requested to undertake an environmental assessment and the impacts of that treated water being discharged via the discharge pipeline will be assessed accordingly.

ENVIRONMENTAL ASSESSMENT PROCESS
In terms of Regulations 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (NEMA, Act 107 of 1998) in Government Gazette 28753 on 21 April 2006, an *environmental assessment process* is being conducted for the proposed servitude and pipeline project. The proposed project requires full Scoping and Environmental Impact Assessment (EIA), in particular because it includes the following activities under GN R 386 and R 387:

Government Notice 386
2. Construction or earth moving activities in the sea or within 100 meters inland of the high water mark of the sea, in respect of – (d) embankments; (f) buildings; or (g) infrastructure.
5. The removal or damaging of indigenous vegetation of more than 10 square meters within a distance of 100 meters inland of the high-water mark of the sea.
6. The excavation, moving, removal, depositing or compacting of soil, sand, rock or rubble covering an area exceeding 10 square meters in the sea or within a distance of 100 meters inland of the high-water mark of the sea.
Government Notice 387
1. The construction of facilities or infrastructure, including associated structures or infrastructure, for – (e) any process or activity which requires a permit or license in terms of legislation governing the generation or release of emissions, pollution, effluent or waste and which is not identified in Government Notice No. R. 386 of 2006.

The listed activities require authorisation from the National Department of Environmental Affairs (DEA). The environmental assessment needs to show the responsible authority, DEA, and the project proponent, CDC, what the consequences of their choices will be in biophysical, social and economic terms. The CSIR has been appointed by CDC to undertake the EIA required for the project and Public Process Consultants will manage the public participation component of the process. Public involvement forms an important component of this process, by assisting in the identification of issues and alternatives to be evaluated. The Environmental Assessment Process being implemented can be summarised as follows:

Stage 1: Environmental Scoping
This Scoping process is being planned and conducted in a manner that is intended to provide sufficient information to enable the authorities to reach a decision regarding the scope of issues to be addressed in the EIA, and in particular to convey the range of specialist studies that will be included as part of the Environmental Impact Reporting Phase of the EIA, as well as the approach to these specialist studies. Within this context, the objectives of this Scoping process are to:

- Identify and inform a broad range of stakeholders about the proposed development;
- Clarify the scope and nature of the proposed activities and the alternatives being considered;

- Through a process of broad-based consultation with stakeholders, conduct an open, participatory and transparent participation process and facilitate the inclusion of stakeholder issues in the decision-making process;
- Identify and document the key issues to be addressed in the forthcoming Environmental Impact Reporting Phase of the EIA.

Stage 2: Environmental Impact Assessment
The purpose of this stage of the EIA is to undertake specialist investigations to address the issues identified through the Scoping Process. The specialists will build on the information that was gathered for stage 1, but will focus their studies on the area under assessment. The specialist studies will include the assessment of alternatives, identification of impacts and the determination of the significance of impacts. Specialists will, where appropriate, formulate mitigatory measures to maximize positive benefits or avoid/minimise potential negative impacts. The following specialist assessments have been identified, at this stage, to form part of the environmental assessment stage of the project:

- Marine Ecology – Dr Robin Carter – Lwandle Technologies
- Marine Modelling – Roy van Ballagoyen – CSIR
- Geo-physical and Bathymetric Survey – Robert Vonk – CSIR
- Botanical – Jamie Pote – Private Consultant

Note: For heritage impacts, the recent CDC heritage impact assessment study for the IDZ will be used. However, if additional heritage related inputs are required, then Dr Johann Binneman (Private Consultant) is available to join the CSIR team.

PUBLIC PARTICIPATION PROCESS
Public Participation forms an integral component of the scoping and environmental impact assessment process. The following outlines the steps in the public participation process which will be undertaken to run in parallel to stage one and two of the EIA process.

Step 1: Notify Authorities of Environmental Assessment Process
An application for Scoping and EIA has been submitted to the National Department of Environmental Affairs (DEA).

Step 2: Notification to I&APs and Identification of Issues
Step two entails providing notification to I&APs of the project proposal as well as the identification of any issues they may have. I&APs are provided with a Background Information Document (BID) on the project, including a locality map and a comment form. I&APS are required to register their interest in the project to receive further project information. One on one meetings will be conducted with relevant stakeholders during this phase of the process. I&APs will be provided with a minimum of a 30 day period within which to raise any issues for inclusion in the Draft Scoping Report.

Step 3: I&AP Review of the Draft Scoping Report
Issues raised by I&APs are compiled into an Issues and Responses Trail for inclusion in the Draft Scoping Report which is released for a 40 day comment period. This report will also include the Plan of Study for EIA. All registered I&APs on the project database are notified in writing of the opportunity to comment. In order to assist I&APs with their understanding of the project and to facilitate the identification of issues for inclusion in the Final Scoping Report, a public meeting, to which all I&APs are invited, will be held during the review period. Copies of the report will be made available on the website www.publicprocess.co.za

Step 4: Final Scoping Report
The comments received from I&APs during the review process are considered in the compilation of the Final Scoping Report before it is submitted to DEA for their decision making. All I&APs on the project database will be notified in writing of the submission of the Final Scoping Report to the authorities (DEA). The Final Scoping Report will include the Plan of Study for EIA (PSEIA) and Terms of Reference for specialist studies to be undertaken as part of the EIA process. The PSEIA is subject to the approval of the authorities.

Step 5: Draft EIA Report and Draft EMP
When DEA accepts the Final Scoping Report and PSEIA, the environmental assessment phase may commence. The purpose of the EIA is to:

- Address issues that have been raised through the Scoping Process
- Assess reasonable and feasibility alternatives that form part of the proposed activity (including No Go Option)
- Assess potential impacts
- Recommend management actions to enhance benefits or avoid/minimise negative impacts.

This stage in the process entails the compilation and release of a Draft EIA Report (including the draft EMP) for a 40 day I&AP review period. A public meeting, to which all I&APs are invited, will be held during the review period. All comments received from I&APs and authorities via meetings held or via written correspondence are compiled into a Comments and Responses Trail for inclusion in the Final EIA Report. The Comments and Responses Trail will indicate the nature of the comment, when and who raised the comment as well as indicate how the comment received has been considered in the Final EIA Report, in the project design or EMP for the project.

Step 6: Final EIA Report & Draft EMP
The Final EIA Report, including the Comments and Responses Trail and Draft EMP will be compiled for submission to the authorities for decision making (DEA). All I&APs of the project database will be notified in writing of the submission of the Final EIA Report.

Step 7: Notification of Environmental Authorisation and Appeal Period
All I&APs on the project database will be notified in writing regarding the environmental authorisation for the project and the appeal period, as well as the manner of appeal.

HOW CAN YOU GET INVOLVED?

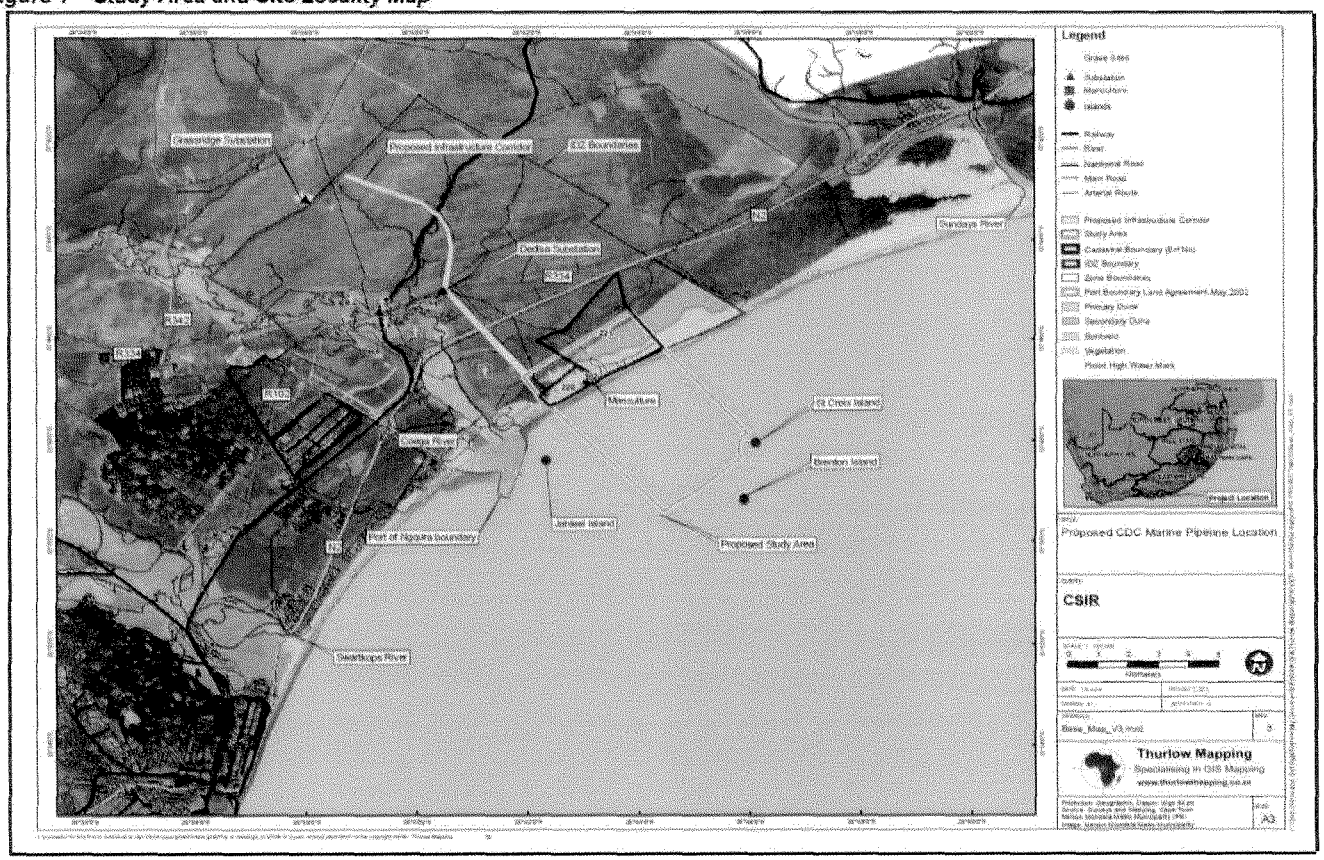
1. By registering your interest in the project with the consultant indicated below
2. By responding to our invitation for your involvement advertised in local newspapers.
3. By mailing or faxing a comment form to the participation consultant indicated below.
4. By telephonically contacting the public participation consultant if you have a query, comment, or require further project information.
5. By reviewing the various reports within the specified comment periods.
6. By attending any feedback meetings, which may be held during the review period. Should you be registered as an I&AP you will be invited to attend these meetings.

WHO SHOULD YOU CONTACT?

Sandy Wren, Public Process Consultants
PO Box 27688, Greenacres, 6057
Phone 041 - 374 8426
Fax 041 - 373 2002
Cell 082 4909 828
Email sandy@publicprocess.co.za

Website for information on this EIA process: www.publicprocess.co.za

Figure 1 – Study Area and Site Locality Map



Appendix F

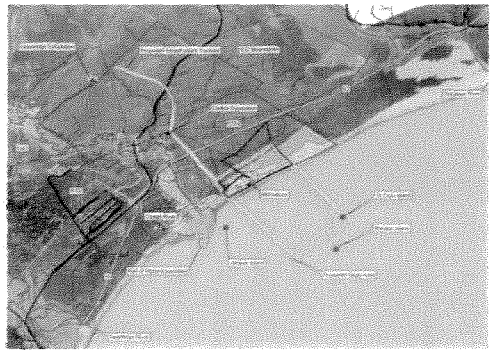
Copy of E-Notice Board placed in the CDC's Offices

MARINE PIPELINE SERVITUDE IN THE COEGA INDUSTRIAL DEVELOPMENT ZONE

NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

In terms of the regulations GN R 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1998) in Government Gazette 28753 published on 21 April 2006, the Coega Development Corporation (CDC) (the applicant) plans to establish a marine pipeline servitude within the Coega Industrial Development Zone (IDZ), located in the Nelson Mandela Bay Municipality (NMBM), Eastern Cape Province. There are two components of the proposed development which are the subject of this Scoping and Environmental Impact Assessment Process, the establishment of an approximate 300 meter wide marine pipeline servitude and a land based pipeline servitude of approximately 150 meters wide.

In terms of the EIA regulations, the proposed development will require a full Scoping and Environmental Impact Assessment (EIA) as it triggers, amongst others, listed activity 1. (e) in GN R 387, as well as the following activities in GN R 386, 2. (d), (f) and (g), 5. and 6, which require authorisation from the National Department of Environmental Affairs (DEA) (DEA Reference Number 12/12/20/1982. The CSIR has been appointed by the Coega Development Corporation to undertake the Scoping and Environmental Impact Assessment (EIA) required for the project and Public Process Consultants will manage the public participation component of the EIA.



Location Plan
The study area being assessed in this EIA is indicated in yellow in the map.

For further information or to register as an I&AP contact:
Sandy Wren
Public Process Consultants
PO Box 27688, Greenacres, 6057
Phone 041 374 8426
Fax 041 373 2002
Cell 082 4909 828
email sandy@publicprocess.co.za

CSIR

Copy of the E-Notice Board placed at the entrance the CDC offices

Appendix G

Copies of Comments Received from I&AP's prior to the release of the Draft Scoping Report

Appendix G: Copies of comments received from I&APs

From: Jacobs Joseph (PLZ) [JacobsJ2@dwa.gov.za]
Sent: 23 August 2010 10:43 AM
To: sandy@publicprocess.co.za
Cc: Fourie Lizna (ELS)
Subject: FW: RE: NOTICE OF SCOPING AND ENVIRNMENTAL IMPACT ASSESSMENT PROCESS FOR A PROPOSED MARINE PIPELINE SERVITUDE IN THE COEGA INDUSTRIAL DEVELOPMENT ZONE, NELSON MANDELA BAY MUNICIPALITY

Good day Sandy,

Please find bellow DWA's comments for the proposed project.

Regards,

Joseph Jacobs
Water Use Authorisation
P/Bag X6041
Port Elizabeth
6000
Tel No: 041 586 4884
Cell No: 082 807 5649
Fax2email: 086 547 2500

From: Tshatshu Portrait
Sent: 20 August 2010 10:30
To: Jacobs Joseph (PLZ)
Cc: Ntshebe Lorna
Subject: RE: NOTICE OF SCOPING AND ENVIRNMENTAL IMPACT ASSESSMENT PROCESS FOR A PROPOSED MARINE PIPELINE SERVITUDE IN THE COEGA INDUSTRIAL DEVELOPMENT ZONE, NELSON MANDELA BAY MUNICIPALITY

Joseph

After the evaluation of the Background Information Document received yesterday for the above mentioned proposed development, the Resource Protection unit has the following comments:

The proposed infrastructure corridor will cross Coega River tributary, therefore, will require water use authorization from the department in terms of Section 21 (c) & (i) of the National Water Act, 1998 (Act 36 of 1998) for impeding or diverting the flow of water in a watercourse and altering the bed, banks or characteristics of a watercourse, respectively.
If the proposed development is likely to affect a wetland, a water use license will be required. Therefore, wetlands if any must be delineated.

During and after construction the following will need to be adhered to:

Strict erosion control measures are to be taken to ensure no erosion of the bed and the banks takes place;
Rehabilitation of the watercourse including riparian and instream habitat is to be undertaken after construction phase and only indigenous shrubs and grasses are to be used in restoring biodiversity.
Effective control measures should be in place during rehabilitation to avoid infestation of the disturbed areas by alien vegetation.

Kind regards,

Portrait Tshatshu
National Aquatic Ecosystem Health Monitoring Programme - EC
Dept. of Water Affairs
Tell: 041 586 4884
Cell: 078 459 3058
Fax: 041 586 4210

Department: Environment

TRANSNET

national ports authority

Date: August 2010

To:

Sandy Wren
PO Box 27688
120 Diaz Road Adcockvale, PE 6001

Dear Sandy,

RE: NOTICE OF SCOPING AND EIA – CDC MARINE PIPELINE

With reference to the above notification dated 19 July 2010.

Please find herewith a completed public involvement process reply form for your attention and note the following comments:

It has been noted that a preferred location for the proposed marine pipeline servitude is between the eastern breakwater of the Port of Ngqura and the existing Marine Growers abalone farm in Zone 10 of the IDZ. TNPA would like to bring into your attention that the identified area will be impacted by the port operations which could significantly affect the quality of seawater intake required for the sea water intake.

TNPA has concerns regarding the potential legal liability related to the anticipated impact on the operations of investors who require seawater. It is for this reason that TNPA will recommend extensive investigations for a preferred location on the eastern site of the Marine Growers further away from the port.

Kind Regards,
Elliot Motsoahole
Environmental Manager

cc. Neil Chetty
Port Manager

Transnet Limited
Registration Number
1990/000900/06

Port Administration Bldg
N2 - Neptune Road
Port of Ngqura
6212

P O Box 612054,
Bluewater Bay
South Africa 6212
T +27 41 507 8220
F +27 41 507 8232

www.transnet.net

From: Sandy Wren [sandy@publicprocess.co.za]
Sent: 21 July 2010 08:37 AM
To: 'Gavin Eales'
Subject: RE: Marine Pipeline Servitude
Attachments: CDC Marine Pipeline - comment form - final - 16July2010.docx; CDC Marine Pipeline - Let1 Final - for merging - 16July2010.pdf; CDC Marine Pipeline - BID - final - 19July2010.pdf

Hi Gavin

Please find attached the public participation documents that are available on the project, you can also download these from our website www.publicprocess.co.za. Can you please send me your postal address so that I can place you on the database.

Regards

Sandy Wren
Public Process Consultants
PO Box 27688, Greenacres, 6057
120 Diaz Road, Adcockvale, PE, 6001
Phone: 041 374 8426
Fax: 041 373 2002
Cell: 082 4909 828
www.publicprocess.co.za

From: Gavin Eales [mailto:gavin@glendoresand.co.za]
Sent: 21 July 2010 07:58 AM
To: sandy@publicprocess.co.za
Subject: Marine Pipeline Servitude

Good Day

Please register Glendore Sand and Stone as an interested and affected party for the above project.

We operate a Sand Quarry in the IDZ, and are concerned as the way in which the project might affect our business.

Regards

Gavin Eales
General Manager
Fax2Email: 086 615 7937
Cell: 082 373 6960

GLENDORE SAND & STONE
Tel: 041 366 1957
Fax: 041 366 1193
Email: info@glendoresand.co.za
Web: www.glendoresand.co.za
We deliver !

From: Manson-Kullin, Michael [mansonkullinm@jgi.co.za]
Sent: 16 August 2010 05:34 PM
To: sandy
Subject: CDC Marine Pipeline registration as an I&AP
Attachments: 2199_0001.pdf

Good day Sandy

Enclosed please find my completed reply form.

Regards

Michael Manson-Kullin

Jeffares & Green (Pty) Ltd
Consulting Engineers
P.O. Box 38561
Pinelands 7430

Phone: +27 21 532 0940
Fax: +27 21 532 0950
Website: www.jgi.co.za
e-mail: mansonkullinm@jgi.co.za

From: Sandy Wren [sandy@publicprocess.co.za]
Sent: 26 July 2010 08:22 AM
To: 'Mike Cohen'
Subject: RE:
Attachments: CDC Marine Pipeline - comment form - final - 16July2010.pdf; CDC Marine Pipeline - Let1 Final - for merging - 16July2010.pdf; CDC Marine Pipeline - BID - final - 19July2010.pdf

Mike, will do, I have attached copies of the public documents which are available at this stage of the project.

Sandy Wren
Public Process Consultants
PO Box 27688, Greenacres, 6057
120 Diaz Road, Adcockvale, PE, 6001
Phone: 041 374 8426
Fax: 041 373 2002
Cell: 082 4909 828
www.publicprocess.co.za

From: Mike Cohen [mailto:steenbok@aerosat.co.za]
Sent: 23 July 2010 04:55 PM
To: sandy@publicprocess.co.za
Subject:

Hi Sandy

Please register me as an Interested Party for the proposed marine pipelines in the IDZ

Many thanks and best regards

Mike

Working to conserve South Africa's dwindling natural resources

Dr Mike Cohen
Director

CEN IEM Unit
36 River Road
Walmer
Port Elizabeth
South Africa 6070

steenbok@aerosat.co.za
www.environmentcen.co.za

tel: +27 (041) 5812883
fax: +27 (086) 504 2549
mobile: 0823203111

From: Paul Martin [pmartin@axxess.co.za]
Sent: 30 July 2010 03:57 PM
To: Sandy J Wren
Subject: Marine Pipeline Servitude, Coega IDZ

Sandy,

Please register me as an I&AP for the Marine Pipeline Servitude, Coega IDZ.

My initial comments are below:

1. The consultants must take into consideration the breeding colony of Damara Terns (3-5 pairs), classified in the SA Red Data Book as "Endangered", in the dunes and dune slacks west of Marine Growers. I can show them the area. It will be critical to leave the dunes and dune slacks in this area undisturbed. Breeding is late September to early January and there should be no disturbance (including in the nearshore) in the area during this period. Tony Tree & Phil Whittington are doing a project on the Algoa Bay Damara Terns for DEA Oceans & Coast (formerly MCM)

2. I assume penguins, marine mammals and island and shore intertidal / marine life will be adequately covered in the marine ecology study. Oystercatchers breed all along this area of coast, especially abalone farm to Eastern Breakwater.

3. Safeguards are required to detect and prevent brine leaks on land during the operation of the pipeline (salt will kill any vegetation in the area of the leak), normal connections and valves will rust quickly.

Dr Paul Martin
Environmental Control Officer
Coega IDZ / Port of Ngqura
PO Box 61029
Bluewater Bay 6212
Tel: 041 4665698
Cell: 0732524111
email: pmartin@axxess.co.za

From: MARIAGRAZIA GALIMBERTI [MGALIMBERTI@sahra.org.za]
Sent: 20 August 2010 03:01 PM
To: sandy@publicprocess.co.za
Subject: Marine pipeline servitude Coega IDZ
Attachments: NoticeOfScopingPipelineServitude.pdf; Arcadia_letter_exemption_AIA.pdf

Dear Sandy,

please find attached a letter acknowledging the development of the marine pipeline servitude in the Coega IDZ. As a HIA has already been compiled for the area, SAHRA does not require a new one, but please keep us informed of the different step of the project and we will let you know if more information is required at any stage.

Please find attached also an exemption for Arcadia 139 which I only sent to Mr Steyn by mistake.

Many thanks
Kind regards

Mariagrazia

Mariagrazia Galimberti
APM Impact Assessor
South African Heritage Resources Agency
111 Harrington Street
PO Box 4637, Cape Town 8000,
South Africa
E-mail: mgalimberti@sahra.org.za
Phone : +27 (0)21 462 4502
Fax : +27 (0)21 462 4509
Web : www.sahra.org.za

SOUTH AFRICAN HERITAGE RESOURCES AGENCY

111 HARRINGTON STREET, CAPE TOWN, 8000
PO BOX 4637, CAPE TOWN, 8000
TEL: (021) 462 4502 FAX: (021) 462 4509

DATE: 20 August 2010
ENQUIRIES: Mariagrazia Galimberti
Archaeology, Palaeontology and Meteorite Unit
E-mail: mgalimberti@sahra.org.za
Web site: www.sahra.org.za

DEA REF: 12/12/20/1982
OUR REF: 9/2/073/0059

Ms Sandy Wren
Public Process Consultants
PO Box 27688
Greenacres 6057
Port Elizabeth
6001

Dear Ms Wren

NOTICE OF SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS FOR A PORPOSED MARINE PIPELINE SERVITUDE IN THE COEGA IDZ, NELSON MANDELA BAY MUNICIPALITY

SAHRA would like to be registered as Interested and Affected Party in this project. Please note that a full Heritage Impact Assessment for the Coega IDZ has already been compiled and SAHRA is in the process of revising it. Should more information be required for this specific project, Public Process Consultants will be informed.

Many thanks for your co-operation
Yours sincerely

MGalimberti

Pp Mrs Nonofho Ndobochani
SAHRA: Archaeology, Palaeontology and Meteorite Unit
For: CHIEF EXECUTIVE OFFICER

Copy: PHRA **Provincial** Office

From: Sandy Wren [sandy@publicprocess.co.za]
Sent: 26 July 2010 03:19 PM
To: 'roald.pearson@go-dove.com'
Subject: CDC Marine Pipeline Servitude
Attachments: CDC Marine Pipeline - BID - final - 19July2010.pdf; CDC Marine Pipeline - comment form - final - 16July2010.pdf; CDC Marine Pipeline - Let1 Final - for merging - 16July2010.pdf

Roald

As per our discussion of this morning this is to confirm that you will be placed on the database for the CDC Marine Pipeline Servitude. In order to assist you with the submission of your comments please find attached a Background Information Document on the project, a comment form and a copy of the most recent letter sent to I&APs. As discussed I urge you to read the documents on the project and familiarise yourself with the scope of this EIA.

With regards to the Regional Hazardous Waste Site project documentation is available on www.bohlweki.co.za Please note this project does not deal with issues pertaining to the regional hazardous waste site or other waste sites in the Metro.

Contrary to your claims of this morning that the Aluminium Smelter was done based on the Zinc Refinery EIA and did not do any new specialist studies, I reiterate that this was a separate EIA with no less than 10 separate independent specialist studies being undertaken. Again, it is not within the scope of this project to address any outstanding issues that you may have on the Aluminium Refinery EIA.

Again, please note this is a separate EIA process for the potential registering of a Marine Pipeline Servitude and corridor, companies which may trigger listed activities and intend to make use of the servitude, should one be authorised, will be subject to a separate environmental authorisation process.

Further, please ensure that you have the approval of the Central Executive Committee Ratepayers Association to submit any comments that you may submit on their behalf as you have registered yourself as a representative of this organisation.

Sandy Wren
Public Process Consultants
PO Box 27688, Greenacres, 6057
120 Diaz Road, Adcockvale, PE, 6001
Phone: 041 374 8426
Fax: 041 373 2002
Cell: 082 4909 828
www.publicprocess.co.za

Naphtali:
Earth Technology Products

P.O. Box 10239
Linton Grange
Port Elizabeth
6015
R.S.A
Tel. +27 41 360 4382
Fax +27 41 368 1053
Mobile +27 84 304 1820

12/08/2010

SANDY WREN
PUBLIC PROCESS CONSULTANTS
P.O BOX 27688, GREENACRES, 6057,
FAX: 041 373 1001, OR 041 376 416.

RE; NOTICE OF SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS
THE NATIONAL DEPT OF ENVIRONMENTAL AFFAIRS (DEA) DEA REF Nº 12/12/20/1982
ESTABLISHMENT ± 300M WIDE MARINE SERVITUDE AND LAND BASED SERVITUDE ± 150M WIDE.

IN TERMS OF OUR TELEPHONE CONVERSATION ON 06/08/2010, IN RESPECT OF ABOVE I'D LIST MY COMMENTS, AND CONFIRM THAT I HAVE PRODUCT WHICH IS ENVIRONMENT FRIENDLY, AND WISH LIST UNDER ACTIVITY IN GN R. 387;

- (E) "ANY PROCESS OR ACTIVITY WHICH REQUIRES A PERMIT OR LICENSE IN TERMS OF LEGISLATION GOVERNING THE GENERATION OR RELEASE OF EMISSIONS, POLLUTION, EFFLUENT OR WASTE WHICH IS NOT IDENTIFIED IN GOVERNMENT NOTICE Nº R 386 OF 2006."

THE PRODUCT TiO_2 / TITANIUM DIOXIDE IS A POTENT PHOTO-CATALYST AGENT BY ADDING TO ORDINARY CEMENT CAN BREAK DOWN MOST ORGANIC COMPOUNDS WHICH IT TOUCHES BY A NATURAL PROCESS, BECOMES HIGHLY REACTIVE WHEN EXPOSED TO ULTRAVIOLET LIGHTS, THESE UV RAYS HITS THE PHOTO-CATALYST, TRIGGERING A CATALYTIC REACTION THAT DESTROYS THE MOLECULES OF POLLUTANTS, REDUCING NITROGEN OXIDES, NITRIC OXIDES. THE ENHANCEMENT OF THIS PRODUCT BREAKS DOWN THE POLLUTANTS, AND THEN LEAVES IT UP TO RAIN TO WASH AWAY THE LEFT OVER ELEMENTS INTO MORE ENVIRONMENTLY FRIENDLY SUBSTANCES.
A HETEROGENEOUS PHOTO CATALYSIS APPLIED TO ANY CONCRETE CONSTRUCTION FOR AIR REMEDIATION GAS-PHASES PHOTOCATALYTIC OXIDATION OF NITROGEN MONOXIDE GAS, SUCH AS NORMALLY EMITTED BY THE BURNING OF FOSSIL FUELS, CREATING SMOG, COMBINED WITH OTHER VOLATILE COMPOUNDS, GLOBAL WARMING, THE CEMENT INDUSTRY PRODUCES ± 7% OF CARBON DIOXIDES, SO BY INTRODUCING THIS PRODUCT, HELP YOUR GREENHOUSE GAS EMISSIONS INCREASES YOUR COMPANY'S VALUE TO THE CLEAN AIR DEVELOPMENT MECHANISM, OF KYOTO PROTOCOL (CERS) CERTIFIES EMISSION REDUCTIONS.
PLUS WHEN PHOTOCATALYST ABSORBS ULTRAVIOLET LIGHT, WHEN IT MAKES CONTACT WITH CONCRETE'S SURFACE, KILL BACTERIA AND FUNGI, LIKE NITROGEN, NITRIC, SULFUR DIOXIDES AND MANY OTHER VOLATILE ORGANIC COMPOUNDS, THAT CONTRIBUTE TO CONCRETE DARKENING.
TRUSTING THAT THIS WOULD BE IN ORDER AND LOOK FORWARD TO VALUED RESPONSE.

MANY THANKS,

Charles de P. Barry

Appendix H

Notes from Meetings held prior to the release of the Draft Scoping Report

NOTES FROM MEETINGS HELD PRIOR TO THE RELEASE OF THE DRAFT SCOPING REPORT

29 July 2010
ANC Nelson Mandela Region

Zandisile Qupe, ANC Region
We support the development as long as it will not impact on the environment and will create job opportunities in the region.
The report will be taken to the subcommittee on the environment of the ANC and they will make any further submissions.

---

03 August 2010
COPE Nelson Mandela Region

Mlamli Tsotsi, COPE Region
If the development will involve blasting and dredging, what will be the impact of this on communities?
If the development will involve blasting and dredging, how will this affect the marine environment?
We would appreciate receiving copies of the report which will explain how the development will work.

---

05 August 2010
Cllr. Ward 53 Ikamvelihle

Cllr Vusani, Ward 53
We would like to see the involvement of communities and SMME's during the construction phase of the development.

---

18 August 2010
SANCO Nelson Mandela Region

Samuel Ngona, SANCO Region
We will appreciate if the identification of potentially affected graves on site be taken very seriously and communities that might be affected are involved.

Ndumiso Peter, SANCO Region
Will the development entail the conservation of any items of historical importance in the area?

NOTES FROM MEETINGS HELD PRIOR TO THE RELEASE OF THE DRAFT SCOPING REPORT

29 July 2010
ANC Nelson Mandela Region

Zandisile Qupe, ANC Region
We support the development as long as it will not impact on the environment and will create job opportunities in the region.
The report will be taken to the subcommittee on the environment of the ANC and they will make any further submissions.

---

03 August 2010
COPE Nelson Mandela Region

Mlamli Tsotsi, COPE Region
If the development will involve blasting and dredging, what will be the impact of this on communities?
If the development will involve blasting and dredging, how will this affect the marine environment?
We would appreciate receiving copies of the report which will explain how the development will work.

---

05 August 2010
Cllr. Ward 53 Ikamvelihle

Cllr Vusani, Ward 53
We would like to see the involvement of communities and SMME's during the construction phase of the development.

---

18 August 2010
SANCO Nelson Mandela Region

Samuel Ngona, SANCO Region
We will appreciate if the identification of potentially affected graves on site be taken very seriously and communities that might be affected are involved.

Ndumiso Peter, SANCO Region
Will the development entail the conservation of any items of historical importance in the area?

---

23 August 2010
Ocean Messengers

Rainer Schimpf and Alan Straton

Alan Straton, Ocean Messengers
The following alternative should be considered for locating the pipeline; on the seaward side of the western breakwater wall. Would this area not be more suitable to service the clients of the Coega IDZ.

Rainer Schimpf, Ocean Messengers
The following alternative should be considered for locating the pipeline; the area immediately adjacent to the eastern breakwater wall. If the pipeline were installed on the outside of the eastern breakwater wall the construction of the pipeline could incorporate components to facilitate the sand bypass system for the port.

Rainer Schimpf, Ocean Messengers
Page 101 of Bulletin 100, published in 1991, indicates different depths to the bathometric survey, which indicates that this area has changed over time. We have seen this area change over the past few years and it is our opinion that it is as a result of the construction of the Port of Ngqura.

Rainer Schimpf, Ocean Messengers
Our concern is the proximity of the pipeline to the St Croix and Brenton Islands and the impact of the pipeline on the islands especially the bird populations. The penguin colonies on the islands are constantly declining. As Jaheel is already degraded would it not be more appropriate to locate the pipeline as close as possible to this island.

Rainer Schimpf, Ocean Messengers
The bird life on the islands is declining rapidly, the installation of the pipeline will hasten the decline and eventual demise of the penguin population.

Rainer Schimpf, Ocean Messengers
What kind of material will be used to construct the pipeline, and what is the most preferred type of pipeline, one solid pipeline or a pipe made of sections?

Alan Straton, Ocean Messengers
Have you considered a land based discharge system versus directly into the ocean? Possibly into a wetland area which would clean the water and the water could then flow overland into the sea? The dune system could act as a natural filtration system.

Rainer Schimpf, Ocean Messengers
How will the installation of the pipeline impact on the bottom current in this area, the surface current runs in a north easterly direction along the shoreline of the bay, but the bottom current runs in the opposite direction? The pipeline would be a longitudinal structure perpendicular to the flow of the bottom current.

Rainer Schimpf, Ocean Messengers
The beach is immediately adjacent to the proposed area has been noted as a nesting area for turtles which are CITIES listed species, the area between the islands have whale sharks which are also CITIES listed species. This entire area is a highly sensitive, dynamic and vulnerable environment.
Alan Straton, Ocean Messengers
How did you arrive at the area that is being considered, what factors influenced this decision?

Rainer Schimpf, Ocean Messengers
The uptake pipes area is supposedly 2.5km long, the area assessed in the Bathometric survey appears to be smaller than this.

Rainer Schimpf, Ocean Messengers
The pipeline is currently proposed inside a designated ship traffic zone, what are the implications of this for the project?

Alan Straton, Ocean Messengers
What will be the impact of the noise from the pumps on the marine ecology of the area?

Rainer Schimpf, Ocean Messengers
How will the uptake and discharge pipelines be maintained, e.g. mechanical maintenance

Rainer Schimpf, Ocean Messengers
How will you prevent the uptake of foreign articles/ objects and sand into the pipeline?

Alan Straton, Ocean Messengers
Why are two uptake pipes required?

Rainer Schimpf, Ocean Messengers
Will there be a diving exclusion zone around the uptake and discharge pipelines?

Appendix I

Copies of Registration Forms received registering I&AP's for the Marine Pipeline Servitude Project at Coega IDZ

SCOPING PHASE

PUBLIC INVOLVEMENT PROCESS REPLY FORM

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ) MARINE PIPELINE SERVITUDE (*DEA Reference Number 12/12/20/1982*)

The Coega Development Corporation (CDC) proposes to establish a 300 meter wide marine pipeline servitude as well as a land based pipeline servitude of approximately 150 meters within the Coega Industrial Development Zone (IDZ), Nelson Mandela Bay Municipality

Key Listed Activities: GN R387 Activity 1 (e) and GN R 386 2. (d), (f) and (g), 5. And 6.

Return Completed Reply Form to:

Public Process Consultants, PO Box 27688, Greenacres 6057

Phone: 041 – 374 8426 or Fax 041-373 2002 or Email sandy@publicprocess.co.za

Please Complete all Relevant Sections Below and Return By:

20 August 2010

Please provide your full contact details:

FIRST NAME: Elliot	*SURNAME:* Motsoahole
ORGANISATION: TNPA	*DESIGNATION:* Environmental Manager
POSTAL ADDRESS: P.O Box 612054	
CODE: 6212	
PHONE: 041 507 8450	*FAX:* 0866747729
CELL: 0835425619	*EMAIL:* elliot.motsoahole@transnet.net
Email:	

Would you like to register as an interested and affected party? (please tick the appropriate box)

NOTE: You are required to register as an I&AP in order to receive further correspondence regarding the EIA process.

~~YES~~

NO

Please clearly state any interest you may have in the project and/or list your issues or questions you may have (use additional pages if required)

SCOPING PHASE

PUBLIC INVOLVEMENT PROCESS REPLY FORM

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ) MARINE PIPELINE SERVITUDE (*DEA Reference Number 12/12/20/1992*)

The Coega Development Corporation (CDC) proposes to establish a 300 meter wide marine pipeline servitude as well as a land based pipeline servitude of approximately 150 meters within the Coega Industrial Development Zone (IDZ), Nelson Mandela Bay Municipality

Key Listed Activities: GN R387 Activity 1 (e) and GN R 386 2. (d), (f) and (g), 5. And 6.

Return Completed Reply Form to:

Public Process Consultants, PO Box 27688, Greenacres 6057

Phone. 041 – 374 8426 or Fax 041-373 2002 or Email sandy@publicprocess.co.za

Please Complete all Relevant Sections Below and Return By:

20 August 2010

Please provide your full contact details:

FIRST NAME: Jessica	SURNAME: Courtoreille
ORGANISATION: PetroSA	DESIGNATION: Environmental Leader
POSTAL ADDRESS: Private Bag X5 Parow	
CODE: 7499	
PHONE: 021 929 3216	FAX: 021 929 3018
CELL: 083 253 6614	EMAIL: jessica courtoreille@petrosa co za
Email:	

Would you like to register as an interested and affected party? (please tick the appropriate box)

NOTE. You are required to register as an I&AP in order to receive further correspondence regarding the EIA process.

✓	YES
	NO

Please clearly state any interest you may have in the project and/or list your issues or questions you may have (use additional pages if required)

Potential investor with interest in using the servitude, as well as ensuring servitude has no effect on potential project

SCOPING PHASE

PUBLIC INVOLVEMENT PROCESS REPLY FORM

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ) MARINE PIPELINE SERVITUDE (*DEA Reference Number 12/12/20/1982*)

The Coega Development Corporation (CDC) proposes to establish a 300 meter wide marine pipeline servitude as well as a land based pipeline servitude of approximately 150 meters within the Coega Industrial Development Zone (IDZ), Nelson Mandela Bay Municipality

Key Listed Activities: **GN R387 Activity 1 (e) and GN R 386 2. (d), (f) and (g), 5. And 6.**

Return Completed Reply Form to:

Public Process Consultants, PO Box 27688, Greenacres 6057

Phone: 041 – 374 8426 or Fax 041-373 2002 or Email sandy@publicprocess.co.za

Please Complete all Relevant Sections Below and Return By:

20 August 2010

Please provide your full contact details:

FIRST NAME: Lumka	*SURNAME:* Salamntu
ORGANISATION: CDC	*DESIGNATION:* Analyst
POSTAL ADDRESS: 72 Mendi Roaad, New Brighton, Port Elizabeth	
CODE: 6200	
PHONE: 041 403 0545	*FAX:* N/A
CELL: 072 4994 697	*EMAIL:* Lumka.Salamntu@coega.co.za

Email:

Would you like to register as an interested and affected party? (please tick the appropriate box)

NOTE: You are required to register as an I&AP in order to receive further correspondence regarding the EIA process.	**YES** x
	NO

Please clearly state any interest you may have in the project and/or list your issues or questions you may have (use additional pages if required)

SCOPING PHASE

PUBLIC INVOLVEMENT PROCESS REPLY FORM

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ) MARINE PIPELINE SERVITUDE (*DEA Reference Number 12/12/20/1982*)

The Coega Development Corporation (CDC) proposes to establish a 300 meter wide marine pipeline servitude as well as a land based pipeline servitude of approximately 150 meters within the Coega Industrial Development Zone (IDZ), Nelson Mandela Bay Municipality

Key Listed Activities: GN R387 Activity 1 (e) and GN R 386 2. (d), (f) and (g), 5. And 6.

Return Completed Reply Form to:

Public Process Consultants, PO Box 27688, Greenacres 6057

Phone: 041 – 374 8426 or Fax 041-373 2002 or Email sandy@publicprocess.co.za

Please Complete all Relevant Sections Below and Return By:

20 August 2010

Please provide your full contact details:

FIRST NAME: MARC SURNAME: LARTER

ORGANISATION: DYNAMIC COMMODITIES. DESIGNATION: FINANCIAL MANAGER

POSTAL ADDRESS: PO Box 7671 NEWTON PARK PE

CODE: 6055

PHONE: 041 405 9888 FAX: 041 405 9889

CELL: 082 495 7796. EMAIL: MARC@DYNAMICFOOD.COM

Email

Would you like to register as an interested and affected party? (please tick the appropriate box)

NOTE: You are required to register as an I&AP in order to receive further correspondence regarding the EIA process.

YES ✓

NO

Please clearly state any interest you may have in the project and/or list your issues or questions you may have (use additional pages if required)

SCOPING PHASE

PUBLIC INVOLVEMENT PROCESS REPLY FORM

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ) MARINE PIPELINE SERVITUDE (*DEA Reference Number 12/12/20/1982*)

The Coega Development Corporation (CDC) proposes to establish a 300 meter wide marine pipeline servitude as well as a land based pipeline servitude of approximately 150 meters within the Coega Industrial Development Zone (IDZ), Nelson Mandela Bay Municipality

Key Listed Activities: GN R387 Activity 1 (e) and GN R 386 2. (d), (f) and (g), 5. And 6.

Return Completed Reply Form to:

Public Process Consultants, PO Box 27688, Greenacres 6057

Phone: 041 – 374 8426 or Fax 041-373 2002 or Email sandy@publicprocess.co.za

Please Complete all Relevant Sections Below and Return By:

20 August 2010

Please provide your full contact details:

FIRST NAME: Michael	*SURNAME:* Manson - Kullin
ORGANISATION: Jeffares & Green	*DESIGNATION:* Engineer
POSTAL ADDRESS: PO Box 38561, Pinelands, Cape Town 7430	
CODE:	
PHONE: 021 5320940	*FAX:* 021 532 0950
CELL:	*EMAIL:* Manson-kullinm@jgi.co.za
Email:	

Would you like to register as an interested and affected party? (please tick the appropriate box)

NOTE: You are required to register as an I&AP in order to receive further correspondence regarding the EIA process.

YES	✓
NO	

Please clearly state any interest you may have in the project and/or list your issues or questions you may have (use additional pages if required)

I wish to register as an I&AP due to project related interest.

SCOPING PHASE

PUBLIC INVOLVEMENT PROCESS REPLY FORM

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ) MARINE PIPELINE SERVITUDE (*DEA Reference Number 12/12/20/1982*)

The Coega Development Corporation (CDC) proposes to establish a 300 meter wide marine pipeline servitude as well as a land based pipeline servitude of approximately 150 meters within the Coega Industrial Development Zone (IDZ), Nelson Mandela Bay Municipality

Key Listed Activities: GN R387 Activity 1 (e) and GN R 386 2. (d), (f) and (g), 5. And 6.

Return Completed Reply Form to:

Public Process Consultants, PO Box 27688, Greenacres 6057

Phone: 041 – 374 8426 or Fax 041-373 2002 or Email sandy@publicprocess.co.za

Please Complete all Relevant Sections Below and Return By: 20 August 2010

Please provide your full contact details:

FIRST NAME: Joseph	SURNAME: Jacobs
ORGANISATION: Water Affairs	DESIGNATION: Snr Administrative Office
POSTAL ADDRESS: P. Bag X6011	Port Elizabeth
CODE: 6000	
PHONE: 041 586 4884	FAX: 086 547 2500
CELL: 082 807 5649	EMAIL: jacobsj2@dwa.gov.za

Email:

Would you like to register as an interested and affected party? (please tick the appropriate box)

NOTE: You are required to register as an I&AP in order to receive further correspondence regarding the EIA process.

YES ☐
NO ☐

Please clearly state any interest you may have in the project and/or list your issues or questions you may have (use additional pages if required):

3. Aug. 2010 11:54 DEPT OF WATER AFF & FOREST No. 3839 P. 2

Registration and com...

16-08-10;10:24 ; ;27 41 5043491 # 1/

SCOPING PHASE

PUBLIC INVOLVEMENT PROCESS REPLY FORM

SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

COEGA INDUSTRIAL DEVELOPMENT ZONE (IDZ) MARINE PIPELINE SERVITUDE (*DEA Reference Number 12/12/20/1982*)

The Coega Development Corporation (CDC) proposes to establish a 300 meter wide marine pipeline servitude as well as a land based pipeline servitude of approximately 150 meters within the Coega Industrial Development Zone (IDZ), Nelson Mandela Bay Municipality

Key Listed Activities: GN R387 Activity 1 (e) and GN R 386 2. (d), (f) and (g), 5. And 6.

Return Completed Reply Form to:

Public Process Consultants, PO Box 27688, Greenacres 6057

Phone: 041 – 374 8426 or Fax 041-373 2002 or Email sandy@publicprocess.co.za

Please Complete all Relevant Sections Below and Return By:

20 August 2010

Please provide your full contact details:

FIRST NAME:	Stan	*SURNAME:*	Long
ORGANISATION:	NMMU	*DESIGNATION:*	Prof
POSTAL ADDRESS:	P.O. Box 5226, Walmer, PE, 6065		
CODE:	6065		
PHONE:	041 581 5588	*FAX:*	086 555 3089
CELL:	083 728 5494	*EMAIL:*	stan.long@nmmu.ac.za.

Email:

Would you like to register as an interested and affected party? (please tick the appropriate box)

NOTE: You are required to register as an I&AP in order to receive further correspondence regarding the EIA process.

YES	✓
NO	

Please clearly state any interest you may have in the project and/or list your issues or questions you may have (use additional pages if required)

Academic