

1. INTRODUCTION

AGES was appointed by Frontier Separation (Pty) Ltd to facilitate the Environmental Impact Assessment (EIA) for an Environmental Authorisation, Waste Management Licence, Atmospheric Emission Licence and Water Use Licence for the proposed Rare Earths Separation Plant on Portion 6 of the Farm Langeberg 188 in the Western Cape Province (the Project). This Background Information Document (BID) is distributed to all known parties who may potentially be interested and/or affected by the proposed Project, in the interest of information-sharing and the initiation of an open and transparent consultation process.

2. PURPOSE OF THE BACKGROUND INFORMATION DOCUMENT

This BID's purpose is to provide you, as a potential interested and/or affected party (I&AP) with:

- An overview of the proposed Project
- An overview of the EIA Process
- Details on how you can become involved in the EIA Process, receive information, and voice issues or concerns regarding the proposed Project, for inclusion in the environmental reports.

3. PROJECT DESCRIPTION

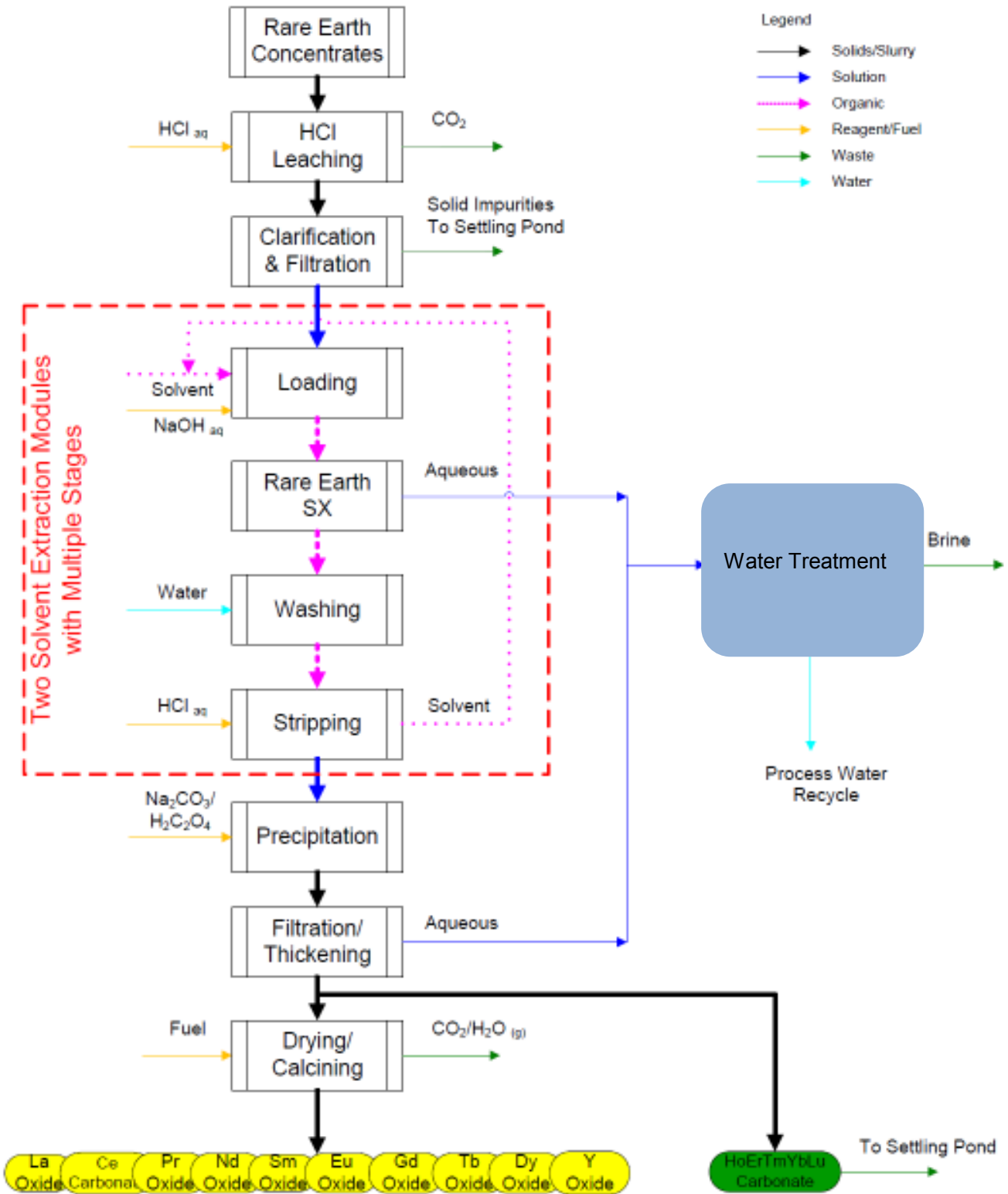
The proposed Project entails the construction of a Rare Earths Separation Plant on portion 6 of the Farm Langeberg 188 near Saldanha and Vredenburg in the Western Cape Province. The site is situated in the Saldanha Bay Local Municipality which forms part of the West Coast District Municipality. The site is located approximately 6 km south-east of Vredenburg, 9 km north-east of Saldanha and 10 km north of Langebaan within a proposed Industrial Corridor.

Bulk mixed rare earth carbonates from a rare earth mine (currently earmarked as the proposed Zandkopdrifts mine) will be transported by road to the proposed Separation Plant, which is intended to produce 20,000 tonnes per annum (tpa) of refined rare earth products. The currently saleable rare earth elements (REEs) will be separated either as rare earth oxides (REOs) or carbonates with a purity equal to or greater than 99%. The currently non-saleable or non-profitable elements will be precipitated as carbonates and then temporarily stored in a settling pond for 6 months prior to further disposal or possible future sales.

Major unit operations for the separation plant include the following:

- hydrochloric acid leaching and clarification;
- solvent extraction;
- precipitation;
- filtration/dewatering;
- drying / calcining; and
- product packaging

A process flow diagram is provided below:



4. WHAT ARE RARE EARTHS?

'Rare Earths' is a series of 15 chemically similar elements that occur and are recovered together. The distribution of the different Rare Earth Elements varies from deposit to deposit. Rare earths are widely recognized as being among the most valuable and strategically important minerals in the world. Among their key properties, rare earths have high thermal and electrical conductivity, magnetism, luminosity, catalytic and optical properties.

Rare Earth Elements are critical to the green technology economy, and are used in hybrid electric motor and battery technology as well as wind power generation. Uses also include cell phones, mp3 players,

personal digital assistant devices, fibre optics, computer and television screens, compact fluorescent lighting, defence applications and transport. Most of these elements have no substitutes and are indispensable in many of the applications mentioned.

Demand growth for rare earths averaged 5% per annum between 2005 and 2011 and is expected to grow at 7-9% per annum overall through 2016, and potentially grow at a higher rate beyond. It was estimated that in 2011 China produced 94 % of the world’s REEs. The supply of rare earths has been dramatically impacted by new trade restrictions and policies introduced by China, and have raised international concerns about future supply shortages. There is a widely forecasted supply deficit in REEs worldwide. This presents significant opportunities for new producers of separated rare earth oxides outside of China.

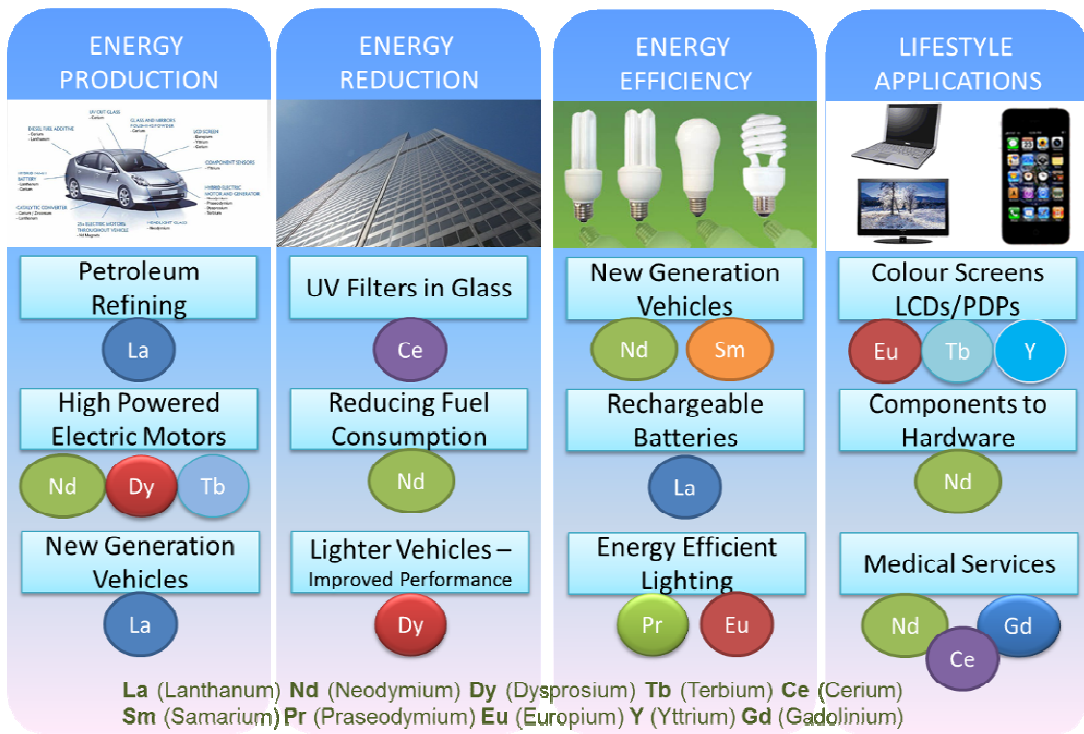


Figure 1: Uses of Rare Earth Elements (<http://enercar2.wordpress.com/tag/rare-earth-elements/>)

A picture of a typical Rare Earths separation plant is provided below:



Figure 2: Picture of a typical Rare Earth Separation Plant

5. ENVIRONMENTAL AUTHORIZATION PROCESS

As part of the planning phase of the proposed Project, the following authorisations/licences must be obtained from the relevant Government Departments:

Environmental Authorization: An Environmental Impact Assessment in terms of the National Environmental Management Act (Act no. 107 of 1998) (NEMA) read with the Environmental Impact Assessment Regulations, 2010 (GNR 543 of 18 June 2010) must be undertaken for the proposed construction and operation of the Separation Plant and associated infrastructure. The following activities listed in GNR 544 (Listing Notice 1), GNR 545 (Listing Notice 2) and GNR 546 (Listing Notice 3) of 18 June 2010 are applicable to the proposed Project and require an environmental authorization: Listing Notice 2: Activities 3, 5, 15, and 26; as well as Listing Notice 3: Activities 2 and 4. The environmental authorization application is subject to a scoping and environmental impact reporting process and has been submitted to the Western Cape Department of Environmental Affairs and Development Planning (Reference number: **16/3/1/2/F4/17/3004/13**).

Waste Management Licence: In terms of section 20 of the National Environmental Management: Waste Act (Act no. 59 of 2008) (NEMWA) read with the Environmental Impact Assessment Regulations 2010 (GNR 543 of 18 June 2010) for the undertaking of the following waste management activities listed in GNR 718 of 3 July 2009: Category A: Activities 2 & 18; Category B: Activities 1, 7 & 11 (Reference number: **12/9/11/L1262/9**).

Atmospheric Emission Licence: In terms of section 22 of the National Environmental Management: Air Quality Act (Act no. 39 of 2004) (NEMAQA) read with GNR 964 of 23 November 2012 for the conducting of activities listed according to Category 4 (Sub category 4.1). The application for the provisional atmospheric emission licence has been submitted to the West Coast District Municipality (Ref: **12/3/1/11 (WC/WC/026)**).

Water Use Licence: An application in terms of section 40 of the National Water Act, 36 of 1998 (NWA) will be submitted to the Department of Water Affairs for consideration. The proposed Project involves a number of water uses in terms of section 21 of the NWA.

The Environmental Authorization Process is described in the Figure below (currently in Phase 1). After each phase there will be an opportunity to comment:



6. PRELIMINARY PROPOSED SPECIALIST STUDIES

The following studies are currently anticipated to be conducted as part of the EIA process. The terms of reference for these studies will only be finalised after the scoping phase. Should any additional studies be required after the public participation phase, it will form part of the EIA.

Air Quality Assessment and Management

The potential impact of the proposed plant on air quality in the area will be evaluated and designs will be incorporated to ensure that emissions standards are complied with.

Noise Impact Assessment

The potential noise impacts on the surrounding area as a result of the construction and operation of the proposed plant will be quantified, evaluated and mitigated.

Ecological Assessment (Flora and Fauna)

The proposed plant is likely to impact on ecological features present on the site and surrounds. The study will identify and quantify possible impacts and suggest management measures to minimize impacts on ecology.

Storm Water Management

Recommendations will be made with regards to storm water management so as to prevent pollution and erosion.

Economic Impact Assessment

The Economic Impact Assessment will determine the current economic baseline characteristics within the study area and the influence of the project on the surrounding economic activities and communities.

Visual Impact Assessment

The Visual Impact and zone of influence of the proposed plant will be determined and evaluated. Measures will be suggested to minimise the visual impacts.

Surface and Groundwater Impact Assessment

The potential for impacts on ground- and surface water quality will be evaluated. Measures will be identified to prevent possible adverse impacts on water resources.

Heritage Impact Assessment

The impacts of the activities on heritage resources identified will be evaluated and mitigation measures proposed to limit negative impacts.

Archaeological Impact Assessment

Archaeological features present on the site or in the surrounding areas will be identified and their significance determined. Possible impacts on these features will be identified and mitigated.

Social Impact Assessment

The potential influences of the proposed plant on the existing social environment in the vicinity of the site will be identified and investigated. Both positive and negative social impacts will be included in the evaluation.

Palaeontological Assessment

The occurrence of palaeontological material on the proposed development site and the potential impacts of the development thereon will be investigated, and management and mitigation measures proposed.

Health Impact Assessment

The study will consider the potential human health risks associated with the project and will consider the sources, pathways and receptor populations.

7. YOUR RESPONSIBILITY

Information sharing forms the basis of the public involvement process. Comments and inputs from individuals or organizations who may be affected by the proposed Project are incorporated into the EIA in order to ensure that effective communication can influence the decision-making process.

According to the EIA Regulations, the roles of Interested and Affected Parties (I&APs) include:

- Assisting in the identification and prioritisation of issues that need to be investigated;
- Making suggestions on alternatives and means of prevention, minimising and managing negative impacts and enhancing project benefits;
- Assisting or commenting on the development of mutually acceptable criteria for the evaluation of decision options;
- Contributing information on public needs, values and expectations;
- Contributing local and traditional knowledge; and
- Verifying that their issues have been considered.

The following diagram briefly describes the Public Participation Process in light of the roles and responsibilities of AGES, acting as the environmental consultants, and you, the potential I&AP.



8. HOW TO BECOME INVOLVED

In order to ensure that you are identified as an I&AP or if you require further information on the application and/or activity, please submit your name, contact information, interest and relevant issues on the matter by completing the attached registration form by 5 August 2013 to:

<p>Environmental Consultant: Chantal Smith AGES Environmental Unit</p> <p>Telephone number: 012 751 2160</p> <p>Fax Number: 086 607 2406</p> <p>E-Mail: csmith@ages-group.com</p>	<p>AGES Reference: Saldanha Separation Plant EIA</p> <p>Postal Address: Postnet Suite 74, Private Bag X07 Arcadia 0007</p>
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9. OPEN DAY

For more information on the proposed Project, an open day will be held after the initial public participation period. The information for the open day will be sent to all registered I&APs.



Proposed Saldanha Rare Earths Separation Plant	
Site Locality Map	
	Legend Roads Proposed site
Client: Frontier Separation (Pty) Ltd	
 GAITENG OFFICE Plot 356 Zwaanspoort, Zwaanspoort Pretoria 0084 Tel: +27 12 751 2160 Fax: +27 86 607 2406	
Project: Rare Earths Separation Plant EIA	
Date: 07-06-2013	
Datum: WGS 84	Version: 1
Compiled by: HD Gildenhuys	