

BACKGROUND INFORMATION DOCUMENT - FULL-SCALE COMPOSTING OF SLUDGE WASTE STREAMS PROJECT, SASOL SECUNDA, MPUMALANGA PROVINCE

MDEDET REF: 17/2/3 GS-277 DEA REF:12/9/11/L45317/6

1 What does this document tell you?

This document aims to provide you, as an Interested and Affected Party (I&AP), with background information regarding the proposed full-scale composting of sludge waste streams project, Sasol Secunda in Mpumalanga. The document also provides information regarding the Environmental Impact Assessment (EIA) process to be undertaken. Furthermore, the document advises how you can become involved in the project, receive information and/or raise issues, which may concern and/or be of interest to you. The sharing of information forms the basis of the public participation process and offers you the opportunity to become actively involved in the project from the outset. Public participation plays an important role in informing the environmental impact assessment process as input from I&APs ensures that all potential issues are considered within the study.

2 What is the proposed project all about?

The Sasol Secunda Operations generates various sludge streams which are either recovered, incinerated or treated and/or disposed of at landfills. Composting is an environmentally sustainable option for waste treatment/disposal of waste sludges. Sasol proposes to construct the following:

- The full-scale composting plant will be either be developed on the farm Goedehoop 290 IS (Ptn 6 and remaining extent) or Grootvlei 293 IS (Portion 13 and 29) which will cater for a composting area of up to 45 ha (refer to the Locality Map).
- The composting area will be able to handle up to 300 000 t/a of sludge producing approximately 125 000 t/a of compost.

Composting is a controlled biological process in which organic materials are broken down by micro-organisms. However, the challenge faced

by the project team was the fact that composting of industrial waste sludges is not widely practiced world-wide and that a method had not yet been developed to adequately break down metals and other harmful components found in these industrial sludges.

Sola Fidei Manufacturing (SFM), working for Sasol, introduced a unique synergistic composting process whereby the waste sludge (a blend of industrial and domestic sludge) is converted into compost, by absorption into the biomass, which grants the environment needed for the bio-conversion (using micro-organisms) of the waste streams into a final product i.e. compost. The current approach is to reuse the compost on the agricultural land for growing the biomass. A basic flow diagram of the process is provided as Figure 1.

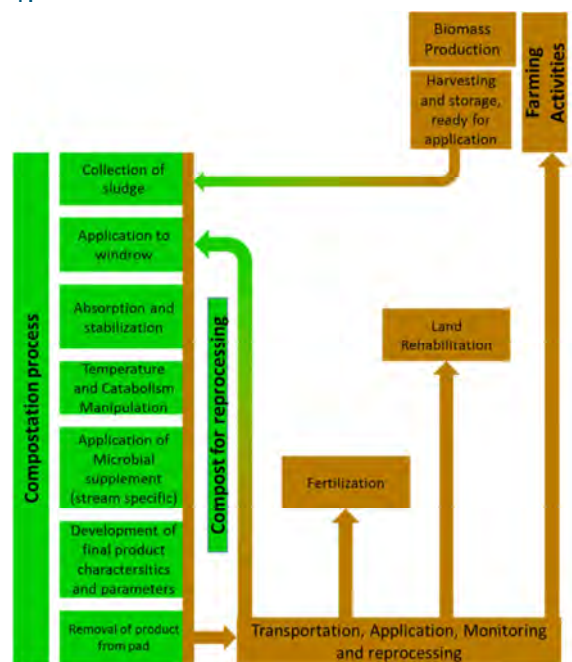


Figure 1: Flow diagram of the composting process

The composting process is further shown in Figures 2 – 6.



Figure 2: Composting pad preparation



Figure 3: Sludge collection



Figure 4: Composting



Figure 5: Windrow turning



Figure 6: Compost product

3 Alternatives

In terms of the EIA Regulations (2010), feasible alternatives are required to be considered within the EIA process. All identified, feasible alternatives are required to be evaluated in terms of social, biophysical, economic and technical factors. The EIA study will determine the preferred site as well as the positioning of the composting plant within the preferred site.

4 What are the potential environmental impacts associated with the proposed project?

A number of potential environmental impacts associated with the project have been identified. As part of the EIA study, these potential impacts will be assessed through the following specialist studies:

- Soils and Agricultural Potential Assessment
- Geohydrological Assessment
- Hydrological Assessment
- Biodiversity (fauna & flora) Assessment
- Heritage Impact Assessment
- Air Quality Assessment

5 Why are environmental studies needed?

An EIA is an effective planning and decision-making tool, which allows for the identification of potential environmental consequences of a proposed project, and its management through the planning process.

In order to obtain the necessary environmental approval from the Department of Environmental Affairs (DEA) and Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET), a Scoping and Environmental Impact Assessment study will be undertaken in terms of Government Notice No. R. 543, R.544, and R.545 of the EIA Regulations (2010) as well as Government Notice 921 of 2013 of the National Environmental Management: Waste Act, 2008.

EIA Regulations (2010)

Listing Notice	Activities
Listing Notice 1, GN. R.544	37 and 56
Listing Notice 2, GN. R.545	15

GN R.921 of the NEM: Waste Act

GN R.921	Activities
Category B	3, 4 and 10

Sasol Chemical Industries has appointed the environmental team from Royal HaskoningDHV, as the independent Environmental Assessment Practitioners (EAPs), to undertake environmental studies to identify and assess all potential environmental impacts associated with the proposed project. As part of these environmental studies, all I&APs will be actively involved through a public participation process.

6 What is your role?

If you consider yourself an I&AP for the proposed project, we encourage you to make use of the opportunities created by the public participation process to become involved in the process and raise the issues and concerns which affect and/or interest you, and about which you require more information.

By completing and submitting the accompanying registration form, we will ensure that you are registered as an I&AP for the project, and that your concerns or queries regarding the project will be noted. We will also ensure that you are

provided with future information pertaining to the project as well as the availability of the draft and final Environmental Reports (i.e. Scoping and EIR) for comment.

7 Comments and Queries

Direct all comments, queries or questions to:

Royal HaskoningDHV – Nicole Botham





📄 PO Box 25302, Monument Park 0105

☎ 012-367 5800

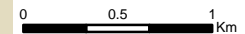
📠 012-367 5878

✉ nicole.botham@rhdhv.com

LOCALITY MAP

-  Site Alternative 1
-  Site Alternative 2
-  Pilot Plant
-  Grootvlei Farm - Areas for cultivation of bulking material
-  Goedehoop Farm - Cultivation of bulking material for pilot plant operations
-  Property Boundaries

Scale



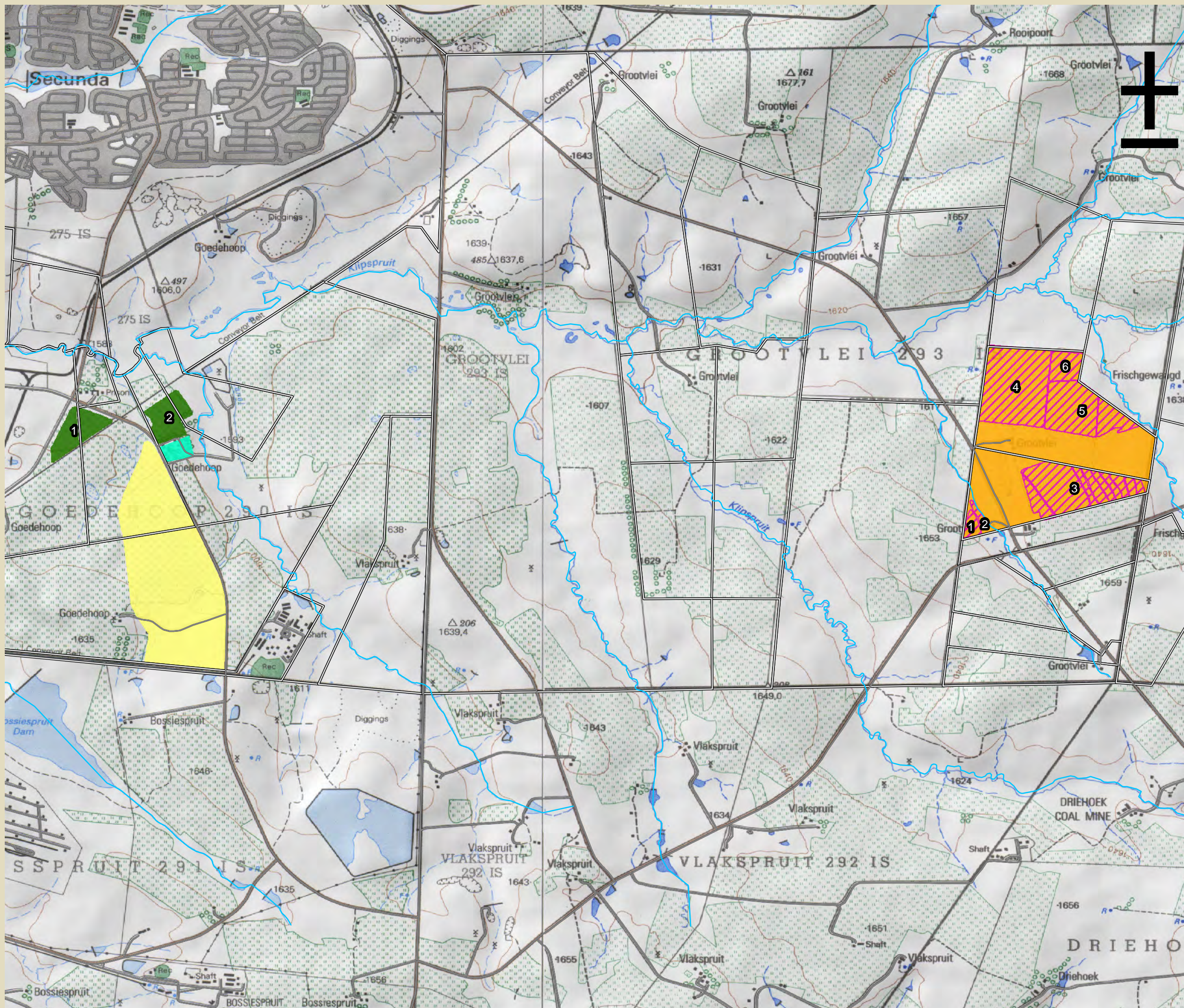
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Data Sources:
Municipal Demarcation Board
SANBI

Date: 05 March 2015
RHDHV Ref: E02.PTA.000589

Coordinate System: GCS Hartebeesthoek 1994
Datum: Hartebeesthoek 1994
Units: Degree

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PROVINCE**

MDEDET REF: 17/2/3 GS-277 DEA REF:12/9/11/L45317/6

REGISTRATION AND COMMENT FORM

Please **complete** in full and return to:

Nicole Botham

✉ PO Box 25302, Monument Park, 0105 ☎ Phone: (012) 367 5800

✉ E-mail: nicole.botham@rhdhv.com ☎ Fax: (012) 367 5878

TITLE (Prof/Mr/Mrs)		FIRST NAME	
SURNAME			
CAPACITY (Landowner, member etc.)			
ORGANISATION (if applicable)			
POSTAL ADDRESS		POSTAL CODE	
TEL:		CELL:	
FAX:		E-MAIL:	

1. What is your main area of interest with regards to the proposed project?

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.....

2. Are there any concerns you would like to raise, at this stage, regarding the proposed project?

.....
.....

3. Are there any additional role-players whom we should involve in the process?

YES/NO

If “**yes**”, please provide us with their contact details (Name, address & telephone no):

.....
.....

NAME:	SIGNATURE:
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THANK YOU FOR YOUR TIME