BASIC ASSESSMENT FOR THE IMPLEMENTATION OF SEEPAGE REDUCTION ACTIVITIES AND THE CONSTRUCTION OF STREAM FLOW MONITORING WEIRS WITHIN SASOL SYNFUELS INDUSTRIAL COMPLEX LOCATED IN SECUNDA, MPUMALANGA PROVINCE.

MDEDET Reference Number: 17/2/3 GS-144

BACKGROUND INFORMATION DOCUMENT

DECEMBER 2012

srk consulting

PURPOSE OF THIS DOCUMENT

The purpose of this Background Information Document (BID) is to provide stakeholders with information about the proposed implementation of seepage reduction measures and monitoring weirs by Sasol Synfuels (Pty) Ltd (Synfuels) in Secunda, Mpumalanga Province. Interested and Affected Parties (I&AP) are requested to register and provide their comments by completing the attached form and returning it via email or fax to the responsible personnel as indicated in this document.

Environmental Authorization (EA) is required for the construction of the Seepage Reduction measures and Monitoring Weirs taking place within 32 m of a water course. An EA will be applied for in terms of the National Environmental Management Act (Act No 107 of 1998) (NEMA). The amendment to the Water Use License (WUL) for Synfuels will be conducted in terms of the National Water Act (Act No 36 of 1998) (NWA) within a separated process to this Basic Assessment Report (BAR).

A BAR will be undertaken and an Environmental Management Plan (EMP) will be prepared for this project by SRK Consulting, as the appointed independent environmental consultants. This BAR and EMP will be submitted to the decision-making authorities, Mpumalanga Department of Economic Development, Environment and Tourism (MDEDET), on behalf of the applicant, Sasol Synfuels (Pty) Ltd.

Stakeholders now have the opportunity to register as an I&AP. Comments on any aspect of the proposed project will help to focus the Environmental Assessment Practitioner (EAP), to ensure that relevant issues are evaluated in the Basic Assessment process, and will assist the authorities to make an informed decision.

Please complete the enclosed registration and comment sheet, write a letter, provide a written submission, call or email the Public Participation Office with your contributions, by **23rd January 2013.**

INTRODUCTION AND BACKGROUND

The WUL issued to Synfuels by the Department of Water Affairs (Reference Number 16/2/7/C121/B028/1) includes requirements regarding the mitigation of seepage and monitoring of the effectiveness of mitigation measures. Synfuels conducted a study on the potential seepage entering the surface water resources from the waste ash disposal site facilities and process water dams located within the western vicinity of Sasol Secunda Industrial Complex (SSIC).

A number of possible seepage contributions to surface water contamination were established. Reduction activities have thus been proposed in order to reduce seepage and position of new monitoring weirs and a still well identified in adherence to monitoring requirements of the Synfuels WUL.

SRK Consulting has been appointed to conduct the BAR and compile the EMP for the proposed project

LOCATION

Seepage reduction has been identified to be required at north of the Van Niekerk Dam and to the east of the course ash dump. Two monitoring weirs are to be placed at strategic positions north of the Van Niekerk Dam and a still well along a tributary of the Groot Brandspruit. The proposed project will take place within the Gert Sibande District and Govan Mbeki Local Municipality of the Mpumalanga Province of South Africa. The proposed project activities will take place on the following farm portions:

- Portion 9. 10 and 13 of the farm Middelbult 284 IS;
- Portion 4, 7, 8, and 10 of the farm Twistdraai 285 IS;
- Portion 8 of the farm Goedehoop 290IS;
- Portion 20 of the Farm Rietvley 320 IS
- Portion 3 of the farm Brandspruit 318 IS; and
- Secunda Extension 35.

All farm portions except portion 3 of the farm Brandspruit 318 IS are the property of Synfuels. Portion 3 of the farm Brandspruit 318IS is owned by Sasol Mining (Pty) Ltd. Notification has been sent to Sasol Mining on the proposed seepage reduction and water Monitoring activities and infrastructure.

WHO TO CONTACT ABOUT THIS PROJECT?

Should you wish to be registered as a stakeholder or wish is discuss your concerns further with the SRK project team or receive further information, please contact:

Mr Andrew Caddick
P.O. Box 35290
Menlo Park
0102
Tel: 012 361 9821
Fax: 012 361 9912
E-mail: acaddick@srk.co.za

Dr. Laetitia Coetser
P.O. Box 35290
Menlo Park
0102
012 361 9821
012 361 9912
lcoetser@srk.co.za

PROJECT DESCRIPTION

Synfuels propose to implement certain seepage mitigation measures in order to reduce the current and projected potential future seepage impact on downstream surface water resources.

The two areas of interest, namely seepage from the western side of the course ash dump and downstream from the Van Niekerk Dam, require seepage intervention measures, which will be constructed within 32 metres of the Brandspruit, Trichardtspruit and Kleinspruit.

EASTERN SIDE OF THE COARSE ASH DUMP

Seepage from the ash stack is occurring and ponding against the fine ash pipe route and access road. To improve surface drainage and to prevent ponding of seepage water, the flow will be piped. The proposal is to extend the existing drainage pipework system, which has worked well since installation in 2001, to tie into the piped system running through the conveyors stacking areas at Outside Ash. The advantage of the pipe system is that it eliminates the reed growth that causes the problems in the open drain system. In addition to the improved drainage system, a bentonite slurry cut-off trench will be installed along the edge of the existing ash/dolerite access road to reduce migration of seepage, not intercepted by the 600 mm pipe drain, to the Brandspruit.

VAN NIEKERK DAM

The proposed seepage cut-off trench downstream of the Van Niekerk Dam should be effective in reducing seepage to the Trichardtspruit. The seepage cut-off trench will be installed to a nominal depth of 5 m and will extend from the south-western corner of the Van Niekerk Dam, along the perimeter of the dam and link into the existing cut-off trench constructed along the north-eastern flank of the Botha Dam, thereby ensuring continuous seepage reduction between the Van Niekerk and Botha Dams. Two sumps will be constructed along the length of the trench from where collected seepage water will be pumped back into the Van Niekerk Dam. Access is very limited between the Trichardtspruit and most of the Van Niekerk Dam perimeter necessitating provision of two permanent access ramps using coarse ash from the crest of the dam down towards the two sumps.

MONITORING WEIRS AND STILL WELL

Also part of the scope is the installation of two stream flow and quality monitoring weirs in the adjacent water course. An additional still well will be constructed along the Groot Bossiespruit adjacent to the Sasol Nitro fertilizer dams, in order to allow for continual monitoring of electrical conductivity enabling Synfuels to improve monitoring and subsequent management plans to maintain their water footprint.

POTENTIAL ISSUES ASSOCIATED WITH THE PROJECT

Outlined below is a list of the preliminary potential social and biophysical issues associated with the proposed construction of seepage reduction measures and monitoring weirs. These potential impacts have been identified prior to the incorporation of mitigatory measures and it is envisaged that all impacts will be prevented through rehabilitation and the incorporation of appropriate mitigatory measures:

- Positive impact on pollution prevention of surrounding surface water resources;
- Positive impact on water quality monitoring and impact determination of Synfuels operations;
- Potential local and construction phase only, traffic and access impacts; and
- Potential temporary impact on riverine and wetland ecosystems.

ENVIRONMENTAL AUTHORIZATION PROCESS

The EIA process will be conducted in terms of the NEMA and the NWA. The key competent authority is the MDEDET, and the Department of Water Affairs (DWA). Synfuels are required by law to appoint independent consultants to undertake an EIA and prepare an EMP to assess the potential biophysical and social impacts of the proposed project.

Environmental Authorisation has been applied for in terms of Regulation 544 and 546 printed in terms of the NEMA. The proposed project triggers a number of listed activities as stipulated in GN 544. These activities include the following;

- Regulation 544 activities: 11, 18, 28, 37, 39 and 40.

PUBLIC PARTICIPATION PROCESS AND PROJECT SCHEDULING

Public Involvement is seen as an integral part of the Basic Assessment Process and will aim to include I&AP's in the process by notifying them of the proposed project and encouraging them to raise their issues and concerns. This will aid the Environmental Assessment Practitioner (EAP) to gather local knowledge on the area and identify the common concerns. The following section details the methodology SRK proposed to undertake the Public Participation Process during the Basic Assessment Process. Should the MDEDET authorize the BAR, Synfuels propose to initiate construction in November 2013.

NOTIFICATION

An advertisement has been lodged in the Echo Ridge and Ekazi newspaper on the 28th and 30 November 2012 respectively. This was conducted in order to ensure broad spectrums of stakeholders are notified of the proposed project.

In addition, I&AP's will be notified of the project and opportunities for interaction by means of:

- The placement of site notices;
- Distribution of BID's (this document) to I&AP's.

INTERACTION WITH I&AP'S

It is important that the I&AP's are afforded ample opportunity to understand the technical issues associated with the project so they can add valuable contributions to the Basic Assessment Process. The following is proposed:

- Invitation to all identified I&AP's to register and submit their comments on the Draft BAR;
- Draft BAR will be made available for public review and comment for a 40 day review period;
- Incorporation of comments into the Final BAR will be submitted to the competent authority and made available for public review and comment. This commenting period will be decided on by the competent authority, although not exceeding 21 days.
- Comments received during this period will be incorporated into the Final BAR and submitted to the MDEDET.

The following entities have been identified as to date as key stakeholders in the project:

- Govan Mbeki Local Municipality;
- Gert Sibande District Municipality;
- The Department of Water Affairs;
- Sasol Mining (Pty) Ltd;
- Owners and residents of the surrounding residential areas.

Additional I&AP's will be identified during the course of the Public Participation Process.

FEEDBACK

Feedback will be provided to I&AP's via letters, emails and fax. The Public Participation Process for the Basic Assessment Process has been designed to ensure that interaction with I&AP's is focused yet comprehensive. Feedback will be provided to registered I&AP's during the BAR phases as well as the final decision made by the competent authority. Following receipt of I&AP comments on the BAR, the BAR and associated documentation will be submitted to the competent authority for a decision on the project. Once a decision has been made, registered I&AP's will be notified of the outcome, as well as the procedure to appeal the decision, should they wish to do so.

SPECIALIST STUDIES AND ALTERNATIVES

SRK Consulting will evaluate and identify potential environmental and social impacts of the project and provide mitigation and management measures to minimise negative impacts and enhance benefits, within the context of the project situational analysis. The Final BAR and EMP will be submitted to the MDEDET for a decision and authorisation regarding the project.

Considering the nature of the proposed seepage reduction measures and construction of monitoring weirs project, no specialist studies are envisaged. As the installation of seepage reduction measures and monitoring system is a condition of the Water Use Licence, Synfuels is obliged to implement these proposed measures. Whilst alternative alignment and construction of the seepage reduction measures are possible, as with location of the monitoring weirs and still well, the operational requirement to maintain the Van Niekerk dam and the coarse ash facility limits alternatives to the provision of the proposed seepage interception trenches. The technical evaluations undertaken by Synfuels have identified the proposed measures as the most practical measures to reduce the seepage impact of the facilities. SRK will independently assess the proposed measures within the context of the project situational analysis.

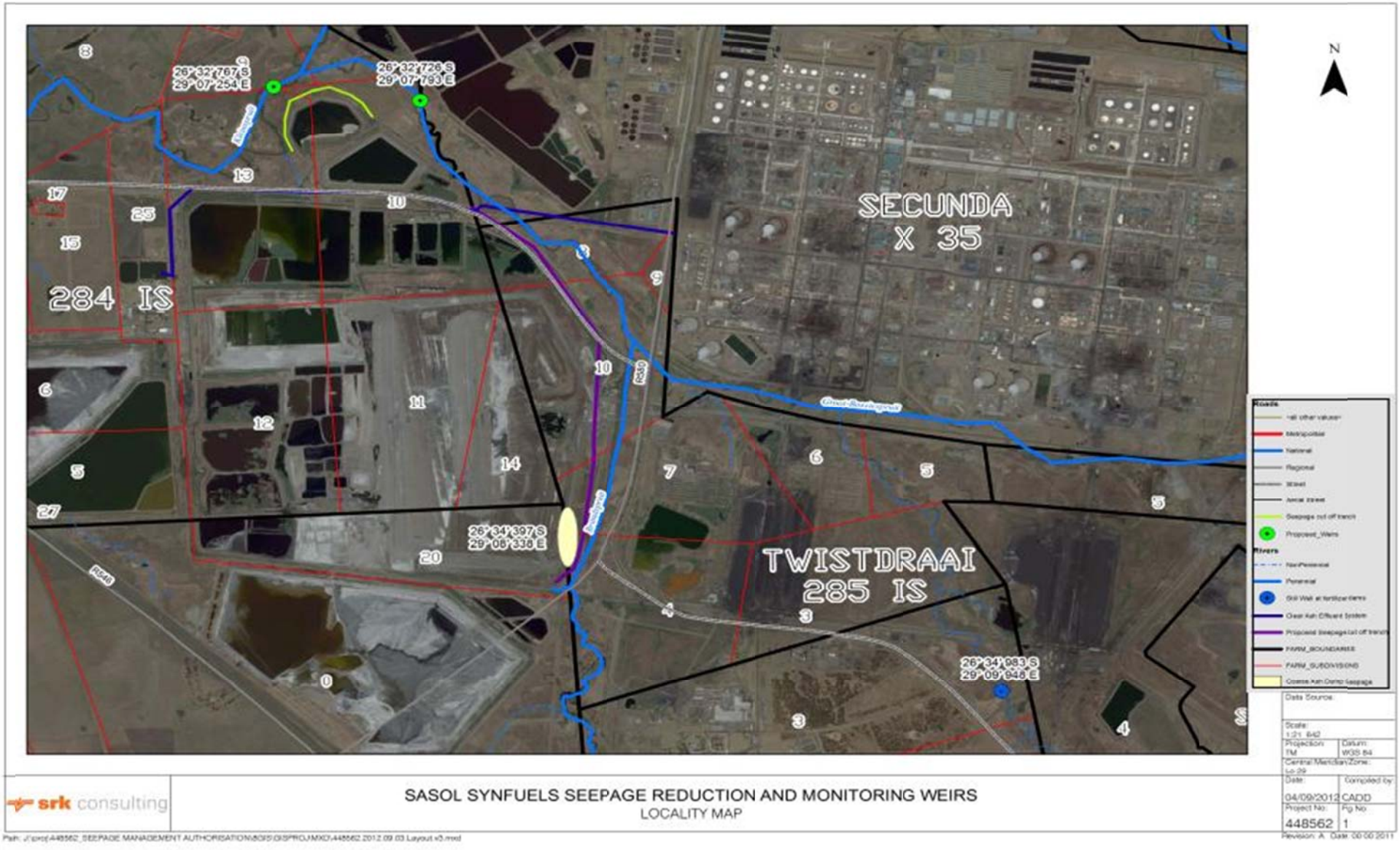

Figure 1: Location of the proposed seepage reduction measures, monitoring weirs and still well.

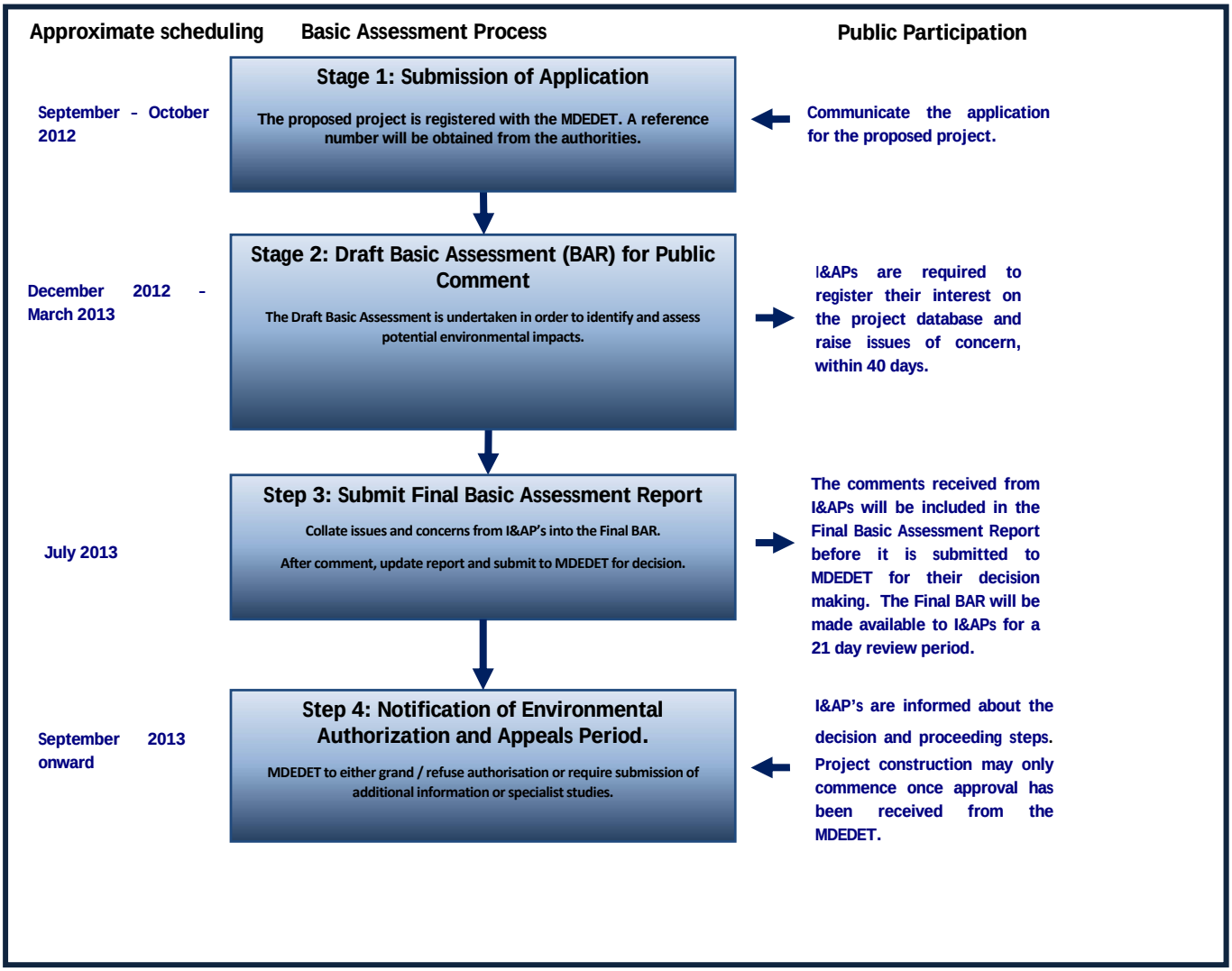

Figure 2: Basic Assessment process and proposed scheduling

SUMMARY ON HOW AN I&AP CAN PARTICIPATE

I&AP's can participate in the Basic Assessment Process by submitting their comments in the following ways:

1) Respond (by phone, fax or e-mail) to our invitation for your participation, which will be advertised in local newspapers and through site notices.
2) Mail, fax or e-mail the attached Registration and Comment form to the relevant personnel at SRK Consulting.
3) Review and comment on the Draft and Final BAR that will be made available to the public for a 40 and 21 day commenting period respectively.

COMMENTS / RESPONSE FORM

STAKEHOLDER REGISTRATION / COMMENT FORM		**DATE:**	
FULL NAME			
ORGANISATION AND ROLE			
POSTAL ADDRESS			
	POSTAL CODE:		
WORK / DAY TEL NO.		**WORK/DAY FAX NO.**	
CELL PHONE NO.		**E-MAIL ADDRESS**	

I would like to receive further information and notifications during this process and request that you please register me on your database as an interested and affected party.	**YES**
	NO

I would like to receive notifications by:	**EMAIL**	**FAX**	**POST**	**TELEPHONE**

Please let us have your comments on the proposed project:(please feel free to attach additional sheets if required):

In terms of EIA process regulations, I hereby disclose any direct business, financial, personal or other interests I may have in the approval or denial of this application:

NAME: _____ **SIGNATURE:** _____ **DATE:** _____

THANK YOU FOR TAKING THE TIME TO EXPRESS YOUR VIEWS. YOUR CONTRIBUTION IS APPRECIATED