

BACKGROUND INFORMATION DOCUMENT

EVANDER GOLD MINES LIMITED

Mining Right Ref.: MP 30/5/1/2/3/2/1/126

Application in terms of NEMA, NEM:WA and NWA
for the re-processing of tailings, and associated
expansion of the Kinross Dump

August 2016



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PURPOSE OF THIS DOCUMENT

To provide Interested & Affected Parties (I&APs) with information on the proposed project, and the associated licensing process.

INVITATION TO A PUBLIC MEETING

Date: 19 October 2016

Time: 11:00-13:00

Venue: Evander Rec Club, Evander

(Please note that this meeting will be held in English)

INTRODUCTION:

Evander Gold Mines Limited ("EGM") has been operational since 1958, and has an approved mining right and Environmental Management Programme ("EMP") report in terms of the Minerals and Petroleum Resources Development Act, Act 28 of 2002 ("MPRDA") for the underground mining of gold and its associated activities.

EGM intend to install a second plant to reclaim the existing Tailings Storage Facilities (TSFs); ultimately consolidating them into one, large TSF at the end of the life of mine.

These operational changes will require authorisation in terms of the National Environmental Management Act, Act 107 of 1998 ("NEMA"); National Environmental Management Waste Act, Act 59 of 2008 ("NEM:WA"); and the National Water Act, Act 36 of 1998 ("NWA") prior to commencement. As such Cabanga has been appointed as the independent Environmental Assessment Practitioner ("EAP") to oversee and manage the application process.

LOCALITY:

Evander Gold Mine (Pty) Ltd ("EGM") has an approved mining right and Environmental Management Programme ("EMP") report for its operations. The mining right spans over numerous properties within the Govan Mbeki Local Municipality, of the Mpumalanga Province and comprises 31,783.07 Ha (see Plan 1). EGM is situated, 120km east of Johannesburg near the towns of Evander, Kinross, and Leandra and is serviced by the N17, R547, R546, R50 and R29.

The overall mining right area falls within two primary catchment areas namely the Vaal Catchment and Olifants Catchment. Surface mining infrastructure (including activities associated with this project) fall within the C12D quaternary catchment of the Vaal Catchment area.

The mining right area falls within the Grassland Biome, specifically the Soweto Highveld Grassland (Gm8) which is classed as a vulnerable/threatened. The vegetation within the specific project area can largely be considered as modified.

PROJECT DESCRIPTION:

EGM can be divided into three complexes (see Plan 2), namely:

1. Winkelhaak;
2. Kinross; and
3. Leslie.

Table 1 below summarises the current status for each of these areas:

Table 1: Operational Areas

Complex	Winkelhaak
Shaft #	1, 2, 3, 4, 5 – all shafts are dormant. The production of gold from these shafts has ceased.
Plant Status	Plant demolished.
TSF Status	Receives waste tailings from the Kinross Metallurgical Plant.

Complex	Kinross
Shaft #	#7 – active, currently used for hoisting ore and pumping fissure water. #8 – active.
Plant Status	Operational, located adjacent to the Kinross TSF at Shaft #7. Receives ore from the underground, as well as tailings from the Kinross TSF for re-processing as part of the Evander Tailings Recycling Project (ETRP).
TSF Status	No deposition is currently taking place. However, may receive waste tailings from the ETRP.
Complex	Leslie
Shaft #	#9 – on care and maintenance. #10 – decommissioned and sealed.
Plant Status	Plant demolished.
TSF Status	Dormant.

EGM intends to install a second plant ("the Elikhulu Plant"), adjacent to the Kinross Metallurgical Plant, in order to reclaim the existing 3 TSFs at a rate of 1 million tons per month. The three TSFs will be reclaimed in the following sequence:

1. Kinross;
2. Leslie; and
3. Winkelhaak.

Services and infrastructure associated with the proposed project include:

- **Elikhulu Plant:**
 - Carbon in leach ("CIL") plant, including smelt house to be constructed adjacent to the Kinross Metallurgical Plant within the mine's disturbed footprint area.
 - Additional storage of Cyanide, Hydrogen Chloride and Caustic will be required. These will be stored as per the applicable Material Safety Data Sheet ("MSDS").
- **Tailings Storage Facility (TSF):**
 - A new TSF will be required to receive the tailings from the Elikhulu Plant.
 - A penstock pipeline will run underneath the TSF to drain water into a return water dam ("RWD"). This RWD will be sized in accordance with GN704 of the NWA.
 - The sites of the Winkelhaak and Leslie TSFs will be decommissioned and rehabilitated.
- **Slurry reticulation:**
 - Pump and piping systems will be constructed to transfer mined slurry to the Elikhulu plant (at a rate of ±595 litres/second). This will include the construction

of a new pump station at each of the existing TSFs, as well as the installation of new pipelines within existing servitudes.

- **Water supply:**
 - Water for the project will be sourced from the mine's evaporation dam, known as the Leeuwpan Dam, as well as from the mine's underground workings.
 - This water will be piped to each of the reclamation sites as well to the Elikhulu plant at a rate of ± 165 litres/second. New pipelines will be installed however these will be located within existing servitudes.
 - A 15,000m³ reservoir will be constructed at the Elikhulu plant area to facilitate plant feed.
 - A pump station will be constructed at the Leeuwpan Dam.
- **Power supply:**
 - Power will be supplied by Eskom, by means of existing substations.
 - Additional power lines may be required however, these will remain under 33kV.

No changes are proposed to the underground mine areas or access points.

SITE ALTERNATIVES:

Site alternatives considered for the new TSF position are briefly discussed below (see Figure 1).

- **Option 1 (Preferred Alternative):**

Location: Proposed site is immediately adjacent to the existing, Kinross TSF. It is proposed that the new TSF will total 460Ha, eventually encompassing the footprint of the current Kinross TSF as reclamation progresses. Three alternatives for the layout of the TSF are currently being considered, these are indicated in Figure 2. Option 1C is the preferred alternative.

Current land use: Existing TSF with partially open but disturbed veld.

The new TSF and RWD will intrude on two drainage lines, these will be diverted where possible.

Benefits associated with this site include shorter pumping distances, with the possibility of using existing servitudes and crossings for pipelines.

- **Option 2 (Alternative):**

Location: Proposed site is located west south west of Kinross.

Current land use: Farmland.

Pipelines would need to cross three perennial rivers as well as irreplaceable and important biodiversity areas.

- **Option 3 (Excluded):**

Location: Proposed site located west of Kinross.

Current land use: Farmland and open veld.

A portion of the site falls within a critical biodiversity area; and a number of wetlands and water resources would be affected by the proposed TSF and associated pipelines. As such Option 3 has been excluded and will not be considered further.

- **Option 4 (Excluded):**

Location: Proposed site located north west of Kinross.

Current land use: Farmland and open veld with dwellings.

The majority of the site falls within a critical biodiversity area; and a number of wetlands and water resources would be affected by the proposed TSF and associated pipelines. As such Option 4 has been excluded and will not be considered further.

REGULATORY REQUIREMENTS:

South African law requires that the environmental authorisation be sought for certain activities prior to commencement. As part of the application process for environmental authorisation it is necessary to assess the environmental and social impacts associated with the activities, so as to identify any potential negative and/or positive consequences as result thereof. Following which measures must be proposed to avoid or minimise these impacts.

In terms of NEMA and its EIA Regulations (GNR 983/GNR 984/GNR 985) the following listed activities may be applicable to the proposed project, as such the application is subject to a full Scoping and Environmental Impact Assessment report ("S&EIR") process:

- **GNR 983, Activity 9:** The development of infrastructure exceeding 1km for the transportation of water or storm water with an internal diameter of >36cm; or with a throughput >120 litres/second.
- **GNR 983, Activity 10:** The development of infrastructure exceeding 1km for the transportation of process water, waste water, return water, or slimes with an internal diameter of >36cm; or with a throughput >120 litres/second.
- **GNR 983, Activity 12:** The development of infrastructure or structures with a footprint of >100m² where such development occurs within a watercourse.
- **GNR 983, Activity 13:** Off stream storage of water including dams and reservoirs with a combined capacity of >50,000m³.
- **GNR 983, Activity 19:** The infilling or depositing of any material >5m³ into or the dredging, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more >5m³ from a watercourse.
- **GNR 983, Activity 30:** Any process or activity identified in terms of the National Environmental Management: Biodiversity Act, Act 10 of 2004.
- **GNR 983, Activity 34:** The expansion or changes to existing facilities for any process or activity where such expansion or changes will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation.
- **GNR 984, Activity 4:** The development of facilities for the storage and handling of dangerous goods with a combined capacity of >500m³.
- **GNR 984, Activity 15:** The clearance of an area of >20 Ha of indigenous vegetation.
- **GNR 985, Activity 2:** The development of reservoirs for bulk water supply of more than 250m³.

The following listed activities as per NEM:WA's Waste Activities Regulation (GNR921) are applicable to the application and also subject to a full S&EIR process:

- **Category A, Activity 13:** The expansion of a waste management activity listed in Category A or B of this schedule.

- **Category A, Activity 14:** The decommissioning of a facility for a waste management activity listed in Category A or B of this Schedule.
- **Category B, Activity 3:** The recovery of hazardous waste in excess of 1 ton per day.
- **Category B, Activity 7:** The disposal of any quantity of hazardous waste to land.
- **Category B, Activity 10:** The construction of a facility for a waste management activity listed in Category B of this Schedule (not in isolation to associated waste management activity).
- **Category B, Activity 11:** The establishment or reclamation of a residue stockpile or residue deposit resulting from activities which require a mining right in terms of the MPRDA.

The Department of Mineral Resources ("DMR") is the Competent Authority for mining related activities in terms of both NEMA and NEM:WA. As such the processes will be combined into one application.

In terms of Section 102 of the MPRDA an application must also be submitted to the Minister to amend the EMP/environmental authorisation.


An application will also be made to DWS for an integrated water use licence application ("IWULA"). This will be accompanied by an Integrated Water and Waste Management Plan ("IWWMP").

ENVIRONMENTAL AUTHORISATION PROCESS:

The application process will be approached as follows:

- **Initiation & Application Phase:**

- Conduct pre-application meeting with DMR;
- Compile and submit application form(s) to DMR;
- Identify Interested and Affected Parties ("I&APs");
- Notify I&APs and relevant stakeholders of the proposed project (circulate BIDs); and
- Place site notices and advertisements;



We are here

- **Scoping Phase:**

- Looks at the baseline environment on a desktop level and identifies potential impacts associated with the project;
- Assesses preliminary disadvantages and advantages of alternative project aspects.
- Specialist studies are proposed where significant impacts are anticipated or where insufficient information is available;
- Scoping Report is made available for public review and comment;
- Public meeting held to identify additional impacts and concerns;
- Scoping Report is updated to include all comments prior to submission to the DMR; and
- DMR approves the Scoping Report or requests additional information.

- **EIA / EMP Phase:**

- Specialist studies undertaken;
- Consolidates the findings of the various specialist studies, I&AP and stakeholder input;
- Potential impacts are rated and mitigation measures proposed;
- Monitoring programmes proposed to ensure mitigation measures are efficient;

- EIA / EMP report is made available for public review and comment;
- 2nd Public meeting is held to present the EIA / EMP report and note any additional comments and concerns;
- EIA / EMP Report is updated to include all comments prior to submission to the DMR; and
- DMR accepts the EIA / EMP Report or requests additional information.
- **Record of Decision:**
 - DMR makes a decision and either approves or rejects the application for environmental authorisation; and
 - All I&APs are notified of the outcome of application, and their right to appeal.

PRELIMINARY IMPACTS:

The following aspects of the environment will be assessed in the S&EIR:

- Topography;
- Climate;
- Terrestrial Ecology;
- Aquatic Ecology;
- Wetland Characteristics;
- Surface Water;
- Groundwater;
- Air Quality;
- Soils, land use and land capability;
- Cultural heritage; and
- Social impacts.

A number of specialist studies have been completed for EGM in the past, these will be utilised as far as possible and supplemented where necessary.

PUBLIC PARTICIPATION PROCESS (PPP) – Your Involvement:

You are hereby invited to participate freely and submit any questions or information you feel may contribute to the S&EIR process.

Public involvement is an essential component of the process. It addresses the right of Interested and Affected Parties (I&APs) to be informed of the proposed activities and to be involved in decisions that affect them. It also affords the EAP the opportunity to assess and address the issues and concerns raised by I&APs thus allowing us to assess all the potential impacts of the proposed project.

- **Invitation to Register:**

Should you wish to register as an I&AP and kept informed on this project kindly complete the attached questionnaire and return to Cabanga or alternatively register on www.cabangaenvironmental.co.za

- **Invitation to Public Meeting:**

You are hereby invited to attend the Scoping Phase Public Meeting:

Date: 19 October 2016

Time: 11:00-13:00

Place: Evander Rec Club, Evander

(Please note that this meeting will be held in English)

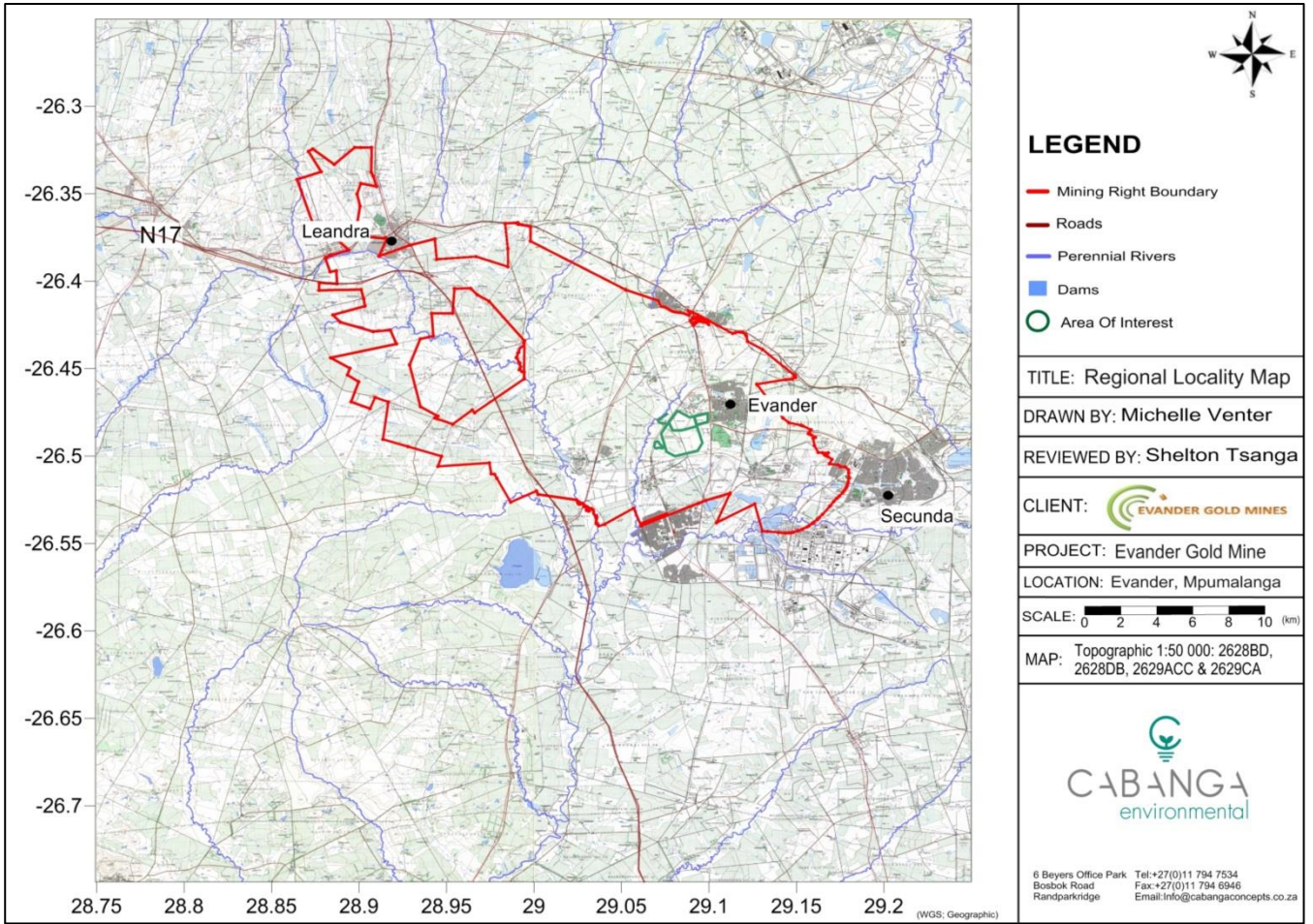
Please RSVP on or before the 12th October 2016

- **Invitation to comment:**

The Scoping report will be made available for public review and comment for a period of thirty (30) days from the **4 October 2016**. The report will be available on www.cabangaenvironmental.co.za under the tab marked "Public Participation"; as well as at the following locations:

LOCATION:	CONTACT PERSON:	CONTACT DETAILS:
Public Library	Agnes	017 620 6318
EGM Main Offices	Boet Conradie	017 620 1634

Plan 1: Regional Map indicating the overall mining right area



Plan 2: Locality Map indicating the mine infrastructure areas

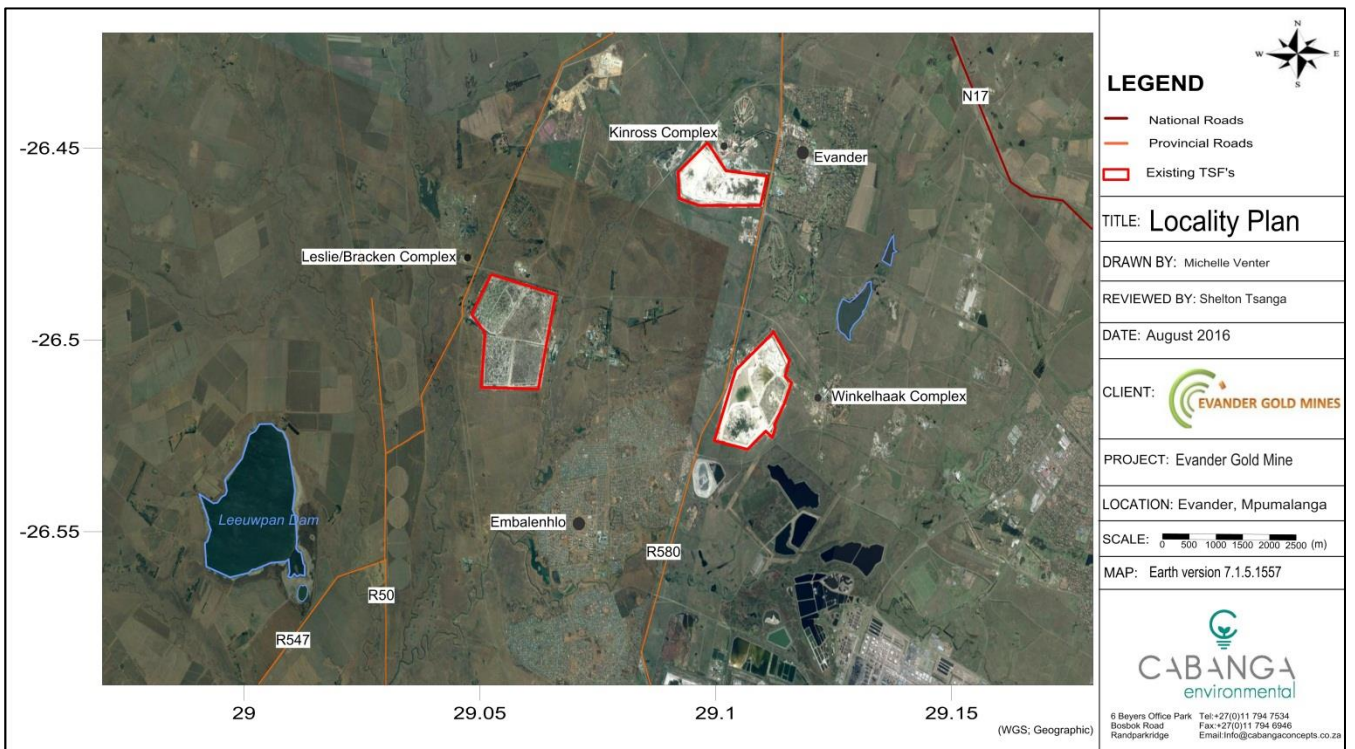


Figure 1: Site Alternatives

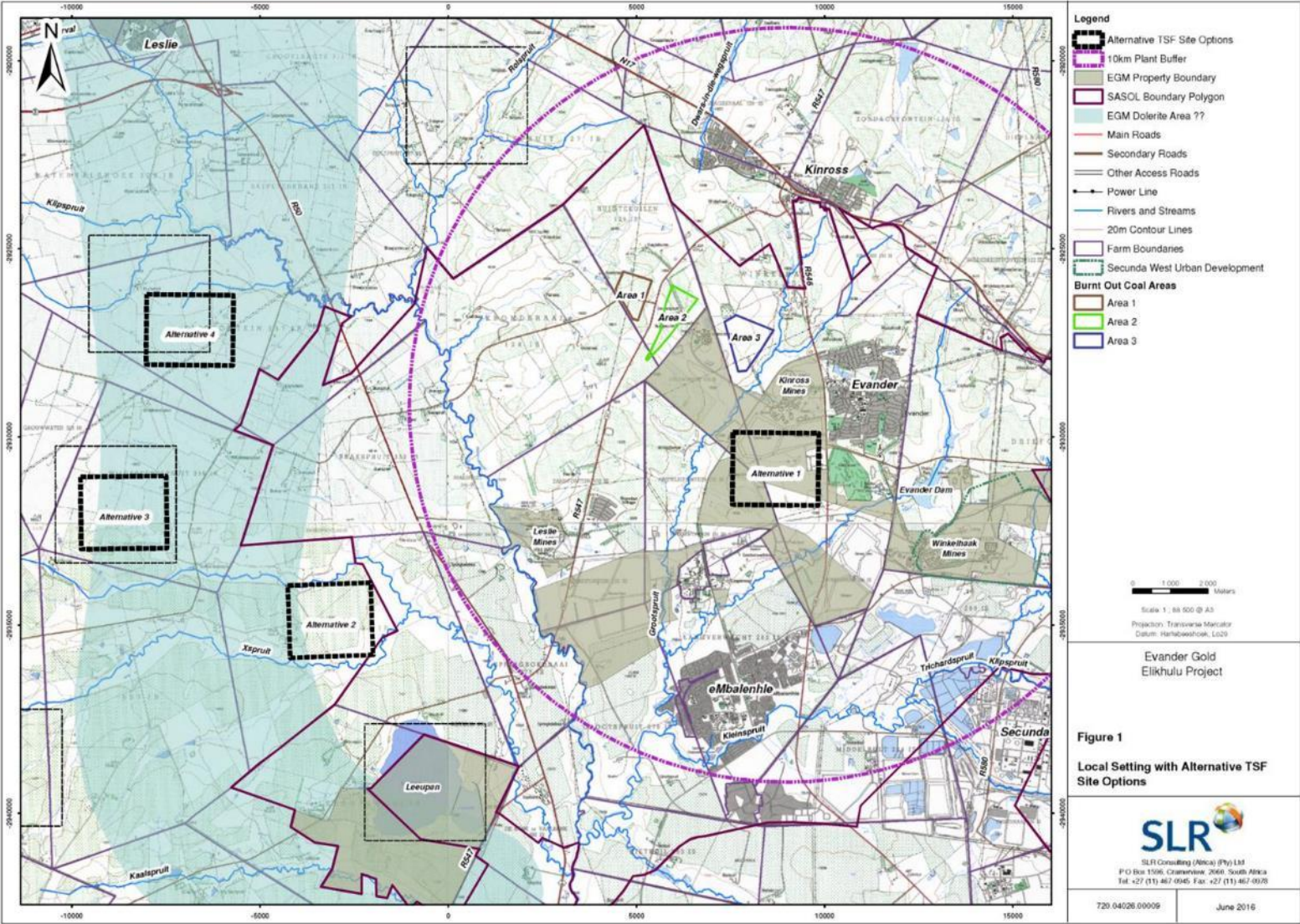
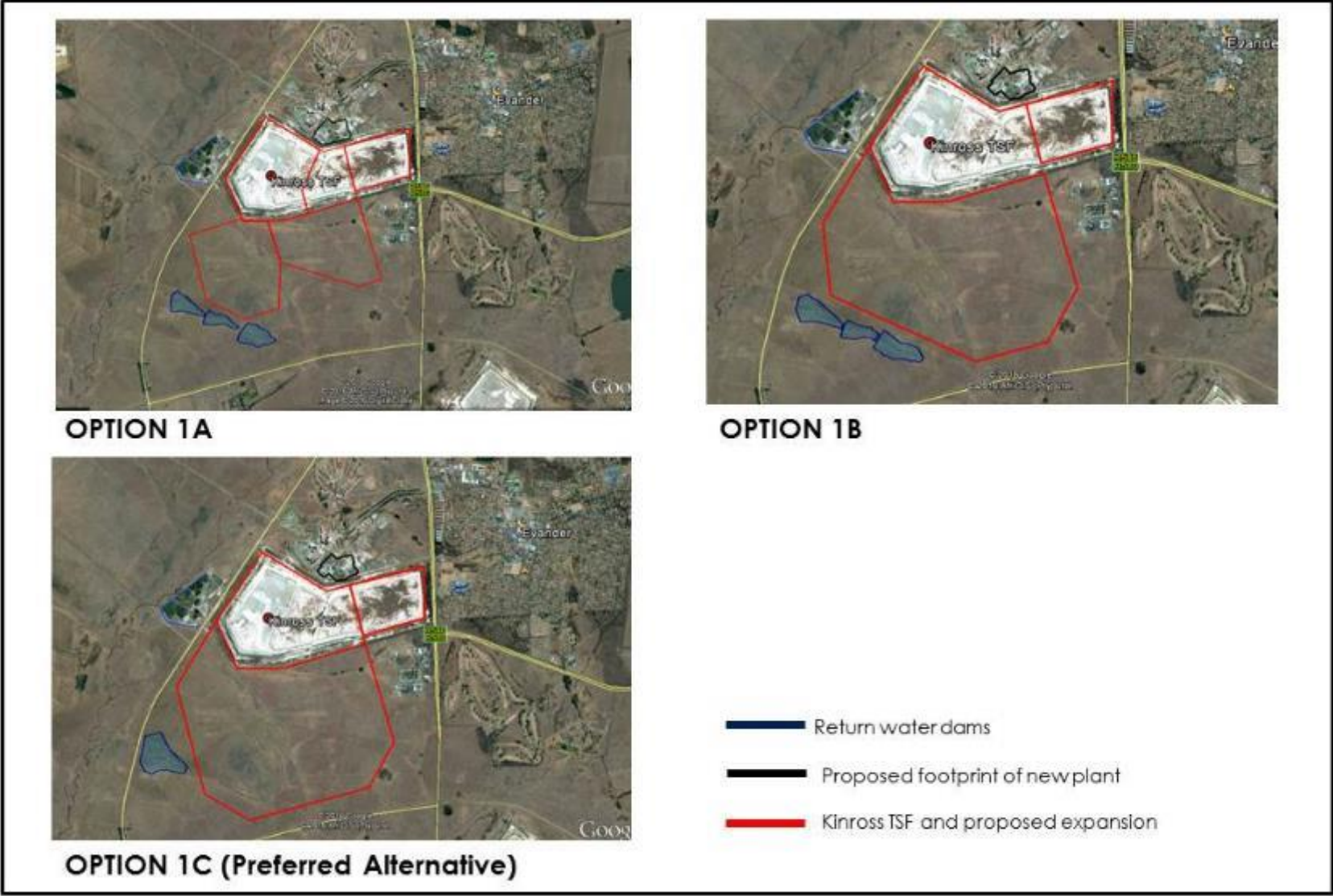


Figure 2: Kinross TSF Expansion, Layout Alternatives



PUBLIC PARTICIPATION QUESTIONNAIRE: EVANDER GOLD MINE

Please complete and return to Cabanga via e-mail: michelle@cabangaenvironmental.co.za;

Fax: (011) 794 6946 or Postnet Suite 470, P/Bag X3, Northriding, 2162

Name:		Surname:	
Telephone No.:		Fax No.:	
Post:			
E-mail:			
How would you prefer to be contacted:	<input type="checkbox"/> E-mail <input type="checkbox"/> Fax <input type="checkbox"/> Post <input type="checkbox"/> Telephone <input type="checkbox"/> SMS		
Are you an immediately affected or adjacent landowner or user? If no, what is your interest in the project? If yes, please indicate your farm / property name as well as details on the current land use.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Do you have any vested interest in the approval or refusal of this project? If yes, please elaborate.	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Do you feel that the proposed activities will impact on you and / or your socio-economic conditions? How?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Do you have any specific concerns with regards to the project (e.g. water, air pollution)?			
Are you aware of any sensitive areas that should be avoided (i.e. graves, cultural sites, endangered species, special environmental features or areas etc.)			
Do you have any other questions or concerns regarding the project?			
Do you know of any other persons, organisations or parties that should be notified? Please provide contact details.	<input type="checkbox"/> Yes <input type="checkbox"/> No		