



GAUTENG PROVINCE

AGRICULTURE AND RURAL DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (Version 1/2022)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by GDARD in terms of the EIA Regulations, 2014.
2. This template is current as of April 2022. It is the responsibility of the EAP to ascertain whether subsequent versions of the template have been published or produced by the competent authority.
3. A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.
4. **A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to a Competent Authority (uploaded to the EIA online system) empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application. The EIA online system can be accessed at <https://eia.gauteng.gov.za>.**
5. **A copy (PDF) of the final report and attachments must be uploaded to the EIA online system. The EIA online system can be accessed at <https://eia.gauteng.gov.za>.**
6. **Draft and final reports submitted in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) must be emailed to environmentsue@gauteng.gov.za.**
7. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
8. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.
9. An incomplete report may lead to an application for environmental authorisation or Waste Management License being refused.
10. Any report that does not contain a titled and dated full colour large scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorization or Waste Management License being refused.
11. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the application for environmental authorisation or Waste Management License being refused.
12. The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 10 days of receipt of the application.
13. Unless protected by law, and clearly indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.
14. Although pre-application meeting with the Competent Authority is optional, applicants are advised to have these meetings prior to submission of application to seek guidance from the Competent Authority.

DEPARTMENTAL DETAILS

Gauteng Department of Agriculture and Rural Development
Attention: Administrative Unit of the Sustainable Utilisation of the Environment (SUE) Branch
P.O. Box 8769
Johannesburg
2000

Ground floor, Umnotho House, 56 Eloff Street, Johannesburg

Administrative Unit telephone number: (011) 240 3051/3052
Department central telephone number: (011) 240 2500

(For official use only)

NEAS Reference Number:						
File Reference Number:						
Application Number:						
Date Received:						

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

N/A

Is a closure plan applicable for this application and has it been included in this report?

No

if not, state reasons for not including the closure plan.

Closure requirements are included in Section 4 of the Environmental Management Programme (EMPr) which is attached in Appendix H..

Has a draft report for this application been submitted to a competent authority and all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

No

Is a list of the State Departments referred to above attached to this report including their full contact details and contact person?

Yes

If no, state reasons for not attaching the list.

This is the draft Basic Assessment Report (BAR) which will be provided to applicable state departments for comment during the public participation process (PPP) commenting period. Proof of correspondence will be included in the final BAR when submitted to the Department. The stakeholder database is included in Appendix E.

Have State Departments including the competent authority commented?

No

If no, why?

This is the draft BAR which will be provided to applicable state departments for comment during the PPP commenting period. Proof of correspondence will be included in the final BAR when submitted to the Department.

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

Project title (must be the same name as per application form):

Application for Activity 28 for the 200 Megawatt (MW) Sibanye Gold Limited Photovoltaic Energy Facility on Portion 1, 2, 4, 5 and 6 of the Farm Uitval 280 within the Westonia Local Municipality in the Gauteng Province.

Note: Sibanye Gold was granted an environmental authorisation (EA) to construct a 200MW photovoltaic (PV) solar energy facility on portions 1, 2, 4, 5 & 6 of Farm Uitval 280, on 16 January 2017 (reference number 14/12/16/3/3/2/919).

This application and BAR must be considered along with the Part 2 amendment application (ref no GAUT 002/22-23/E3298). Amongst others, the amendment application details the request for the Department to issue multiple environmental authorisations (EAs) per phase of the proposed development, to which GDARD has agreed in previous meetings. Any decision resulting from this application is requested to be administered in the same way (i.e. in four separate EAs).

Select the appropriate box

The application is for an upgrade of an existing development

The application is for a new development

Other, specify

This application is regarded as an extension to the existing EA for this project.

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES NO

If yes, describe the legislation and the Competent Authority administering such legislation

- 1) EA (Department of Forestry, Fisheries and the Environment) and Part 1 amendment to the EA (GDARD).
- 2) Rezoning of Portions 1, 2, 4, 5 and 6 of Farm Uitval 280 IQ from "Undetermined" to "Special" approval (Rand West City Local Municipality)
- 3) General Authorisation for Category 21(c) and (i) water uses
- 4) Section 53 of the Mineral and Petroleum Resources Development Act (Act 28 of 2002) approval of rezoning from the Department of Mineral Resources and Energy
- 5) SAHRA approval of the Heritage Impact Assessment

Approvals are attached in Appendix F.

If yes, have you applied for the authorisation(s)?

YES NO

If yes, have you received approval(s)? (attach in appropriate appendix)

YES NO

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations:

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
National Environmental Management Act, 1998 (Act No. 107 of 1998 as amended) (NEMA)	National & Provincial	27 November 1998
Environmental Impact Assessment (EIA) Regulations 2014, published under Government Notice (GN R) No. 982 in Gazette No. 3822	National & Provincial	4 December 2014
Conservation of Agricultural Resources Act (Act No. 43 of 1983) (CARA)	National & Provincial	21 April 1983

Description of compliance with the relevant legislation, policy or guideline:

Legislation, policy or guideline	Description of compliance
NEMA	<p>NEMA establishes the principles for decision-making on matters affecting the environment. Section 2 of the Act sets out the National Environmental Management principles which apply to the actions of organs of state that may significantly affect the environment.</p> <p>Furthermore, Section 28(1) states that "every person who causes or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring".</p>

	<p>If such pollution or degradation cannot be prevented then appropriate measures must be taken to minimise or rectify such pollution or degradation.</p> <p>The applicant has the responsibility to ensure that the proposed activity and basic assessment (BA) process conform to the principles of NEMA. In developing the BA report, Aurecon has been cognisant of this need, and accordingly the BA process has been undertaken in terms of NEMA and the EIA Regulations.</p>
EIA Regulations	<p>Three versions of these Regulations have been gazetted under the NEMA since 2006, with the 2014 version being the latest.</p> <p>The project commenced under the 2010 Regulations (GN No. R545 and R546 (those requiring a Scoping/EIA process) in 2016 after which an environmental authorisation (EA) was granted in 2017. However, Activity 28 of GN R 983 was not included as a listed activity. The proposed project will trigger this activity. Therefore, this application is for authorisation of Activity 28 of Listing Notice 1 is required to add this listed activity to the other activities that had been authorised in 2017, which is required to follow the BA process as per the EIA regulations.</p>
CARA	<p>The CARA makes provision for the conservation of agricultural resources through limiting the sub-division of agricultural land, maintaining the production potential of land, combating and preventing erosion, preventing the weakening or destruction of water sources, protecting vegetation, and combating weeds and invader plants. As such, as part of the EIA process, recommendations should be made to ensure that measures are implemented to maintain the agricultural production of land (if possible). Since portions of the project are proposed to take place on cultivated land, an agricultural impact assessment has been undertaken to determine the impact of the loss in agricultural potential.</p>

3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment.

The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Please describe the process followed to reach (decide on) the list of alternatives below

No alternatives have been considered for this application.
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Provide a description of the alternatives considered

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other (provide details of "other")	Description
1	Proposal	The proposed site for development is within the Westonaria Local Municipality on Farm Uitval 280 (portions 1, 2, 4, 5, and 6) near the Sibanye Gold Driefontein and Kloof mining operations. The site is located approximately 8 km southwest of Westonaria, in the Gauteng Province and 50 km southwest of Johannesburg. The proposed site area is located directly north of the R501.
2	Alternative 1	
3	Alternative 2	
	Etc.	

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

<p>Sibanye Gold was granted an environmental authorisation (EA) to construct a 200MW photovoltaic (PV) solar energy facility on portions 1, 2, 4, 5 & 6 of Farm Uitval 280, on 16 January 2017 (reference number 14/12/16/3/3/2/919). Alternatives sites were assessed of part of the initial EIA process. At the time of the EA application in 2016, the impact of the loss of agricultural land was assessed in a specialist study, and this was taken into account by the Competent Authority when issuing the EA. However, Activity 28 of Listing Notice 1 was not included as an applicable listed activity¹ in the EIA process for the PV Facility, due to a misinterpretation of the applicability of the listed activity. The proposed solar PV project may trigger this activity. Therefore, an application for authorisation of Activity 28 of Listing Notice 1 is required to add this listed activity to the other activities that had been authorised in 2017.</p>
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¹ Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare (Zutari's underlining)

Therefore, the consideration of alternatives for this application is not feasible.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

Proposed activity (**Total environmental (landscaping, parking, etc.) and the building footprint**)

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Size of the activity:

840 ha

Ha/ m²

or, for linear activities:

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Length of the activity:

m/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

Proposed activity

Alternatives:

Alternative 1 (if any)

Alternative 2 (if any)

Size of the site/servitude:

844 ha

Ha/m²

5. SITE ACCESS

Proposal

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
Approx. 100m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

The R501 will be used to access the site with the addition of two short gravel access of approximately 6m wide to join the two access control gates and the R501. This site access is authorised by the existing EA.

Include the position of the access road on the site plan (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 1

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Not applicable

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?

YES	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Not applicable

Include the position of the access road on the site plan. (if the access road is to traverse a sensitive feature the impact thereof must be included in the assessment).

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated

0

Number of times

(only complete when applicable)

6. LAYOUT OR ROUTE PLAN

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
 - A4 size for activities with development footprint of 10sqm to 5 hectares;
 - A3 size for activities with development footprint of > 5 hectares to 20 hectares;

- A2 size for activities with development footprint of >20 hectares to 50 hectares);
- A1 size for activities with development footprint of >50 hectares);
- The following should serve as a guide for scale issues on the layout plan:
 - A0 = 1: 500
 - A1 = 1: 1000
 - A2 = 1: 2000
 - A3 = 1: 4000
 - A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
 - Rivers and wetlands;
 - the 1:100 and 1:50 year flood line;
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and
- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

7. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix. It should be supplemented with additional photographs of relevant features on the site, where applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity to be attached in the appropriate Appendix.

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)

Instructions for completion of Section B for linear activities

- 1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
- 2) Indicate on a plan(s) the different environments identified
- 3) Complete Section B for each of the above areas identified
- 4) Attach to this form in a chronological order
- 5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route times

Instructions for completion of Section B for location/route alternatives

- 1) For each location/route alternative identified the entire Section B needs to be completed
- 2) Each alternative location/route needs to be clearly indicated at the top of the next page
- 3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives times (complete only when appropriate)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then
- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B - Section of Route (complete only when appropriate for above)

Section B – Location/route Alternative No. (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description:
(Including Physical Address and Farm name, portion etc.)

The approved site for development is within the Westonaria Local Municipality on Farm Uitval 280 (portions 1, 2, 4, 5, and 6) near the Sibanye Gold Driefontein and Kloof mining operations. The site is located approximately 8 km southwest of Westonaria, in the Gauteng Province and 50 km southwest of Johannesburg. The proposed site area is located directly north of the R501.

The site proposed for development belongs to the Far West Rand Dolomitic Water Association (FWRDWA), of which Sibanye Gold is a majority member.

2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

	Latitude	Longitude
North - eastern corner	26°20'24.61"S	27°34'26.63"E
South - eastern corner	26°21'46.04"S	27°35'20.54"E
South – western corner	26°21'49.17"S	27°32'59.32"E
North – western corner	26°20'36.13"S	27°32'52.19"E
Centre point	26°21'11.41"S	27°34'1.54"E

Note: The Department is requested to issue the decision per each of the four phases. While the above coordinates represent the project as a whole, the resulting authorisations should reference the applicable coordinates of the representative phase as per the details contained in the Part 2 amendment application submission.

In the case of linear activities:

Alternative:

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Latitude (S):	Longitude (E):
◦	◦
◦	◦
◦	◦

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached

No

The 21 digit Surveyor General code of each cadastral land parcel

Erf Number	Surveyor General 21 Digit Code
1/280	T0IQ00000000028000001
2/280	T0IQ00000000028000002
4/280	T0IQ00000000028000004
5/280	T0IQ00000000028000005
6/280	T0IQ00000000028000006

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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4. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site.

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	Undulating plain/low hills	River front
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5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

a) Is the site located on any of the following?

Shallow water table (less than 1.5m deep)

Dolomite, sinkhole or doline areas

Seasonally wet soils (often close to water bodies)

Unstable rocky slopes or steep slopes with loose soil

Dispersive soils (soils that dissolve in water)

Soils with high clay content (clay fraction more than 40%)

Any other unstable soil or geological feature

An area sensitive to erosion

YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO
YES	NO

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

The following information regarding the condition of the dolomites is obtained from the Dolomite Stability Investigation for the Proposed Photovoltaic Plant undertaken by Sibanye Gold's Ground Stability Unit (Sibanye Gold, 2016a), and peer-reviewed by the Council for Geoscience. This is based on extensive drilling and a gravity survey. These reports are included in Appendix G.

Dolomite bedrock was encountered on average from 20-60 mbs, indicating a high potential for development of sinkholes. The presence of Karoo age clay is found across nearly half the boreholes (and by implication nearly half the site) which provides a significant impermeable barrier typically 10-20 m thick. Additionally, the clays and chert rock layers (chert residuum) are even more laterally extensive which provide an additional 10-20 m of consistent, largely, impermeable material. The significant clay percentage in this layer is expected to impede the flow of water into the ground profile and the chert rock layer is expected to offer reasonable resistance to upwards migration of voids. The presence of zones of weakness (high penetration rates, wad, and some cavities) is regularly present across the site, indicating void (underground cavity) development is present already.

The most significant sinkhole is situated in the south central portion of the main site and measures approximately 30m in diameter. Being greater than 15m it is classified as a 'very large sinkhole'. It is not known when this sinkhole developed however the presence of existing vegetation within the sinkhole, suggests it is greater than 20 years old (aerial photos indicate between 1988 and 2013). With no obvious source of ingress water in the vicinity its' formation is presumed to be related to dewatering of the Bank Groundwater Compartment. A second event, consisting of concentric cracks occurred in 1990 which are situated approximately 200m north of the previous event. A third sinkhole is situated approximately 350m west of the western boundary and has a diameter of approximately 9m. Again the date of origin is unknown but believed to be from a similar era.

The original water table (64 mbs) is uniformly situated well below dolomite bedrock (35-98 m below surface) and no additional affects due to dewatering are considered possible. Thus, there is a low probability of new sinkhole formation. Even though the proposed site has been assigned a moderate to high susceptibility to sinkhole formation, very few sinkholes have formed over the last 60 years from a similar land use (agriculture).

Note that there are no open sinkholes (open holes in the ground leading to an underground chamber) on the site. There are two enclosed depressions on the site.

b) are any caves located on the site(s)

YES	NO
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If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	°	Longitude (E):	°

c) are any caves located within a 300m radius of the site(s)

YES	NO
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If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	°	Longitude (E):	°

d) are any sinkholes located within a 300m radius of the site(s)

YES	NO
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If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	Longitude (E):
26°21'19.59"S	27°33'24.40"E
26°21'41.06"S	27°33'46.39"E

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 4)?

YES	NO
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Please note: The Department may request specialist input/studies in respect of the above.

7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site

Natural veld - good condition % =	Natural veld with scattered aliens % =	Natural veld with heavy alien infestation % =	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	Cultivated land 97%	Paved surface (hard landscaping) % =	Building or other structure 3%	Bare soil % =

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site

YES	NO
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If YES, specify and explain:

Not applicable. The site was assessed during the 2016 EIA process and again in June 2022. No sensitive flora or fauna species were found on the site.

Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.

YES	NO
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If YES, specify and explain:

Not applicable. The site was assessed during the 2016 EIA process and again in June 2022. No sensitive species were found within 200m of the PV plant site.

Are there any special or sensitive habitats or other natural features present on the site? YES NO

If YES, specify and explain:

Not applicable. The site was assessed during the 2016 EIA process and again in June 2022. No sensitive habitats or special features were found.

Was a specialist consulted to assist with completing this section YES NO

If yes complete specialist details

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify:

If YES, is such a report(s) attached? YES NO

If YES list the specialist reports attached below

Agricultural Agro-ecosystem Specialist Assessment (Rehab-Green, August 2022)
 Memorandum to serve as a summary of Sibanye's contributions to agricultural initiatives (Rehab-Green, August 2022).
 Professional opinion and peer review addendum (Johann Lanz, August 2022).

Signature of specialist: _____ Date: _____

Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated

NOTE: Specialist report and declaration is included in Appendix G.

8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial ^{AN}	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport ^N	23. Train station or shunting yard ^N	24. Railway line ^N	25. Major road (4 lanes or more) ^N
26. Sewage treatment plant ^A	27. Landfill or waste treatment site ^A	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33. Spoil heap or slimes dam ^A	34. Small Holdings	
Other land uses (describe):				

NOTE: Each block represents an area of 250m X 250m, if your proposed development is larger than this please use the appropriate number and orientation of hashed blocks

	NORTH					
	7	7	7	7	7	
	7	7	7	7	7	
WEST	7	7	7	7	7	EAST
	7	7	7	7 & 34	7	
	SOUTH					

= Site

Note: More than one (1) Land-use may be indicated in a block

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "A" and with an "N" respectively.

Have specialist reports been attached?

YES	NO
-----	----

If yes indicate the type of reports below

Agricultural Agri-ecosystem Specialist Assessment (Rehab-Green, Aug 2022) Memorandum of Sibanye's contribution to agriculture (Rehab-Green, Aug 2022) Peer review and professional opinion as an addendum to the above reports (Johann Lanz, Aug 2022)
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9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

<p>The Merafong City Local Municipality (MCLM) Integrated Development Plan (IDP) was consulted to populate this section and reference for the below statistics can be made thereto.</p> <p>MCLM is a Category B municipality with an Executive mayor Governance system. The area size of the municipality is 1631, 7km² and it comprises of twenty eight (28) wards. MCLM is situated in the south western part of Gauteng Province and form a part of West Rand District Municipality which consists of four local municipalities namely: Mogale City, RandWest Municipality and Merafong City. MCLM incorporates the following areas:</p> <ul style="list-style-type: none"> • Carletonville • Khutsong • Fochville • Kokosi • Greenspark • Welverdiend • Wedela • Blybank • Mining Towns <p>According to Statistics South Africa Community Survey (CS) 2016 the population of Merafong was 188 843 with 66 525, whilst according to Census 2011, Merafong's population was 197 520. The average household size was estimated to be 2.8 persons per household, which is slightly less than the average household size in the Gauteng Province of 3.1 persons. This is attributable to the living conditions in the mining area, where the settlement structures are less convenient to raise families. The majority of the settlement structures (such as hostels) in this municipality were designed to accommodate the working people in the mining industry.</p> <p>The male population exceeds the females by 14.2%, as opposed to the national statistics of 48.8% and 51.2% of males and females, respectively. Most of the people in the municipality (predominately males) are within the working age population (15-64 years of age). This is due to the mining activities that the residents and in-migrants to this area rely on.</p> <p>The education profile of Merafong shows some improvements from Census 2011 outlook. For instance in 2011 12.8% of the population had no schooling at all in 2016, figures show only 4% which is a considerable improvement. In terms of matric, in 2011 only about 16.6% of the population had matric, while in 2016 the figure shows 28.8% of the population have obtained matric, again a noticeable progress. Those with a higher educational qualification accounted for 9.35% as opposed to 4.4% of the population in 2011. The only setback is an increase from 35.9% to 57.82% for the incomplete secondary schooling but it can be that there's more of the population attempting secondary education but could not complete.</p>

Approximately 84% of the working persons in Merafong have jobs in the formal sector. Nearly 60% of the formally employed persons are semi-skilled. Highly skilled people accounted for the smallest share (16%), while 27% have lower level skills. Essentially, majority of the working people in the MCLM have basic education.

Most of the households in the MCLM earned an income of between R19 201 and R76 800 per annum. On average, households in the MCLM earn around R6 750 per month.

For the past 11 years, the unemployment rate in the MCLM has been ranging between 17% and 20%. The low unemployment rate observed in the MCLM is linked to job opportunities in mining related activities and high out-migration rates in the municipality, which means that people looking for work, but those who are unable to find work in the MCLM tend to move out from the MCLM.

The main employers in the MCLM are the mining sector, with the mining sector dominating the economy of the Merafong City by contributing 54.9% to GDP in 2011 and 29.1% in 2016. The successful implementation of this project will reduce the potential future risk to the Sibanye-Stillwater Gold operations and the sustainability of the industry and the jobs it provides. Unreliable electricity and above-inflation tariff increase are one of the primary threats to the sustainability of their operations. Electricity comprises over 20% of their gold operations' operating costs, having grown from 7% in 2007. The project will enable decarbonisation of its operations, thereby increasing international competitiveness and assisting in mitigating climate change.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m2 in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000 m2 in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?

YES

NO

If YES, explain:

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

Nine heritage sites were identified by the specialist during the 2016 EIA process for the 200MW solar PV Facility. Five sites are considered of heritage value and are all located outside of the proposed development site. Four sites have no heritage significance. Three of these four sites occur within Phases 1 and 2 of the proposed footprint of the PV facility (Figure 1) and are described as:

1. **Recent historic farmstead with two sets of farmhouses and outbuildings:** The buildings and structures are constructed from modern building materials such as steel, corrugated iron and fired clay bricks. The farmstead is occupied by a farmer and his son. They have lived on the farm for the past 25 years. The site has no heritage significance. These buildings will not be directly impacted by the proposed solar PV facility.
2. **Farm labourers' homesteads:** The site is currently utilised as the farm labourers' homesteads and consist of corrugated iron houses, a large shed and some prefabricated structures, all utilised as housing. The site has no heritage significance.
3. **Two ruined structures:** The first structure was utilised as the main house and consisted of three bedrooms, a kitchen, lounge, and bathroom. The second structure was the shed and garage, consisting of a storeroom and single garage. A small midden is situated on the side of the garage building. The site is not depicted on the 1957 topographical map of the area. The site has no heritage significance.

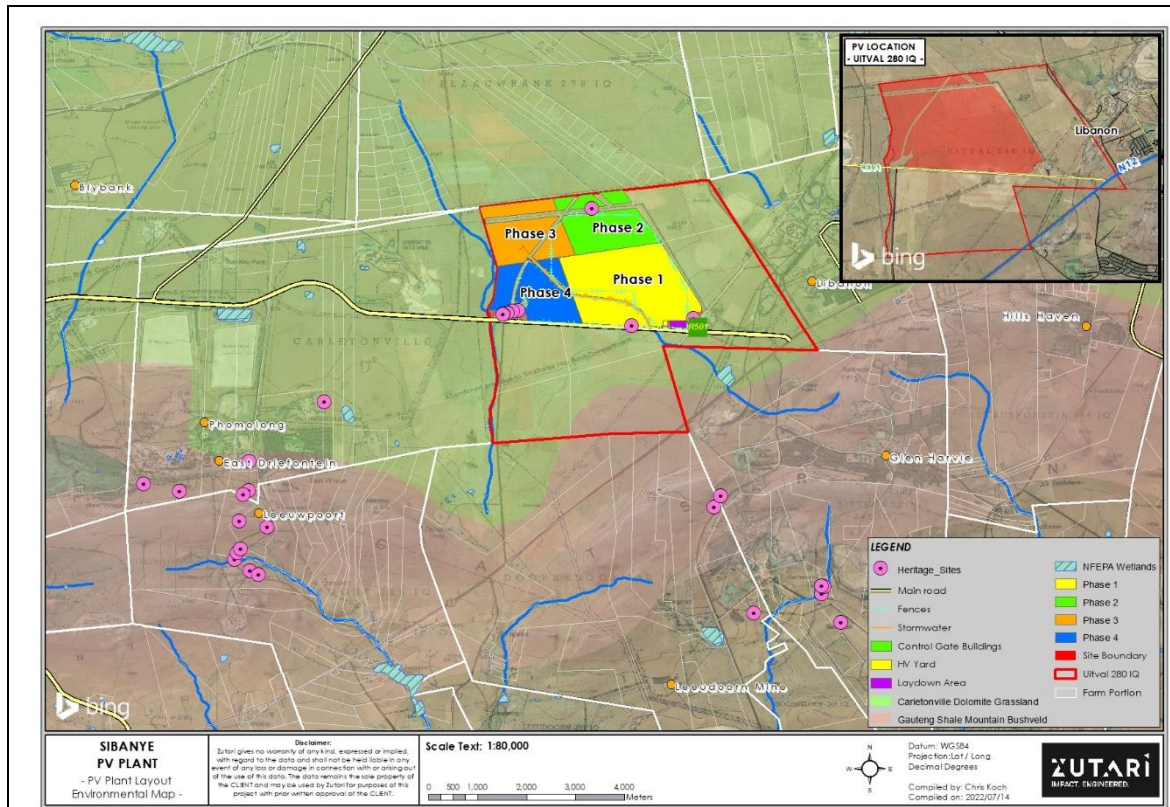


Figure 1: Project layout map indicating heritage sites identified during the 2016 EIA process

The SAHRA approval letter obtained for the project's 2016 EIA process is attached in Appendix F.

Will any building or structure older than 60 years be affected in any way?
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?
If yes, please attached the comments from SAHRA in the appropriate Appendix.

YES	NO
YES	NO

SECTION C: PUBLIC PARTICIPATION (SECTION 41)

1. The Environmental Assessment Practitioner must conduct public participation process in accordance with the requirement of the EIA Regulations, 2014.

2. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority.

Was the draft report submitted to the local authority for comment?

YES	NO
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If yes, has any comments been received from the local authority?

YES	NO
-----	----

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

Not applicable

If "NO" briefly explain why no comments have been received or why the report was not submitted if that is the case.

This is the draft report for this application which will be submitted to local authorities for comment. It should, however, be noted that local authorities were involved in the 2016 EIA process during which comments were received and considered by the competent authority in decision making. Furthermore, the local authorities were again consulted during the rezoning application, which was granted by the municipality.

All comments related to this application will be included in the final BA report as part of the comments and response report.

3. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least **thirty (30) calendar days** before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES	NO
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If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

All directly affected parties, including local authorities, have been involved in the project from the pre-application phase of the initial EIA process in 2016 and have been kept informed of the project's progress throughout. Issues and comments received during the 2016 EIA process were detailed in the comments and response report and have been included in Annexure E. All further communication related to this application will be included in the final BAR after the public commenting period has been completed. The commenting period is proposed to run from 2 September 2022 to 3 October 2022.

If "NO" briefly explain why no comments have been received

No applicable

4. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation process is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was flawed.

The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice

Appendix 2 – Written notices issued as required in terms of the regulations

Appendix 3 – Proof of newspaper advertisements

- Appendix 4 – Communications to and from interested and affected parties
- Appendix 5 – Minutes of any public and/or stakeholder meetings
- Appendix 6 - Comments and Responses Report
- Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report
- Appendix 8 –Comments from I&APs on amendments to the BA Report
- Appendix 9 – Copy of the register of I&APs

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)

Instructions for completion of Section D for alternatives

- 1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
- 4) Each alternative needs to be clearly indicated in the box below
- 5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives times
(complete only when appropriate)

Section D Alternative No. (complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	NO
50m ³	

If yes, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

Low quantities of solid waste would be created during the construction period. Excavated soil will be reused as backfill and no spoil is expected. There are no construction related waste components that would require continuous recycling and there are no processes that would generate a significant amount of waste. The quantities of waste produced would vary significantly from month to month and therefore a quantity cannot be accurately estimated at this stage. However, measures have been included in the EMPr to ensure efficient management of solid waste.

Construction solid waste would be disposed of at a licensed landfill site, as dealt with in the EMPr. The disposal of construction waste would also incorporate waste minimisation strategies including reduction, recycling, and re-use principles. As mentioned above, there are no components that would require continuous recycling and there are no processes that would generate a significant amount of waste. It is envisaged that the construction waste would be transported to and disposed of at the Libanon Landfill Site in Westonaria, or other appropriate, licensed waste disposal facility. The contractor shall ensure that waste generated at working areas is collected and disposed at a licensed facility at least once a week, or as needed to ensure proper waste management on site in accordance with the EMPr. Items such a cable spools and excess cable would be returned to the suppliers or reused elsewhere as far as possible.

It is envisaged that any waste generated would be transported to and disposed of at a local licensed landfill by the Engineering, Procurement, and Construction (EPC) contractor, as stated in the EPC contract. The contractor shall ensure that waste generated at working areas is collected and disposed at a licensed facility at least once a week or as needed (depending on the volume of waste generated).

Where will the construction solid waste be disposed of (describe)?

It is envisaged that the construction waste would be transported to and disposed of at the Libanon Landfill Site in Westonaria, or other appropriate, licensed waste disposal facility Note that solid waste will be re-used or recycled as far as possible, in order to minimise the volume of waste directed for disposal.

Will the activity produce solid waste during its operational phase?

YES	NO
10m ³	

If yes, what estimated quantity will be produced per month?

How will the solid waste be disposed of (describe)?

Only domestic/ general waste will be produced on a monthly basis by the staff on site during the operational phase. The waste will be disposed of at the Libanon landfill site, or other appropriate, licensed waste disposal facility. Note that solid waste will be re-used or recycled as far as possible, in order to minimise the volume of waste directed for disposal.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?

YES	NO
-----	----

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

The generated waste is expected to feed into the municipal waste stream.

Note: If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

YES	NO
-----	----

If yes, inform the competent authority and request a change to an application for scoping and EIA.

NOTE: No waste permit is required as the proposed development will not produce hazardous waste as a by-product on an on-going basis. It is only in the event that any PV solar panels (which are considered hazardous) are broken, will the need arise to dispose of the broken panels at a registered hazardous waste disposal site.

Should any panels be broken they will be sent to the nearest registered hazardous waste disposal site.

Limited hazardous waste (such as used oil, lubricants, oily rags etc) normally associated with any construction activity will be produced during construction, and will be disposed of at a hazardous waste facility as required.

Safe disposal requirements of all applicable waste types are included in the EMPr.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	NO
-----	----

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:

Low quantities of solid waste would be created during the construction period. Excavated soil will be reused as backfill and no spoil is expected. Items such as cable spools and excess cable would be returned to the suppliers or utilised on other sites. To the extent reasonably possible, solid waste will be recycled or re-used, in order to reduce the volume of waste directed to landfill. There are no components that would require continuous recycling and there are no processes that would generate a significant amount of waste.

Liquid effluent (other than domestic sewage)

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

YES	NO
-----	----

If yes, what estimated quantity will be produced per month?

m³

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?

YES	NO
-----	----

Will the activity produce any effluent that will be treated and/or disposed of on site?

Yes	NO
-----	----

If yes, what estimated quantity will be produced per month?

m³

If yes describe the nature of the effluent and how it will be disposed.

Not applicable

Note that if effluent is to be treated or disposed on site the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES	NO
-----	----

If yes, provide the particulars of the facility:

Facility name:

Contact person:

Postal address:

Postal code:

Telephone:

E-mail:

Cell:

Fax:

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Water would be trucked in as needed for washing the PV panels. This will be obtained from water service providers. The only wastewater expected to be produced is related to the regular washing of the PV panels. No further reuse or recycling measures are proposed.

Liquid effluent (domestic sewage)

Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?

YES	NO
-----	----

If yes, what estimated quantity will be produced per month?

m³

If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?

YES	NO
-----	----

Will the activity produce any effluent that will be treated and/or disposed of on site?

YES	NO
-----	----

If yes describe how it will be treated and disposed of.

Conservancy tanks will be serviced by a contractor. No French drains will be installed, since the dolomitic nature of the site is unsuitable for this, and the waste will be disposed of at a licensed sewage treatment plant.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?

YES	NO
YES	NO

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

Solar technologies result in negligible emissions since no fuels are combusted. However, limited air pollution in the form of dust emissions may occur during the construction phase. The EMPr contains mitigating measures to minimise the amount of dust produced during the construction phase.

2. WATER USE

Indicate the source(s) of water that will be used for the activity

Municipal	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

0 liters

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Does the activity require a water use permit from the Department of Water Affairs?

YES NO

If yes, list the permits required

A section 21 (c) and (i) General Authorisation (GA) has been obtained from the Department of Water and Sanitation and is attached in Appendix F (ref no: 16/2/7/C231/C120)

If yes, have you applied for the water use permit(s)?

YES NO

If yes, have you received approval(s)? (attached in appropriate appendix)

YES NO

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

Electricity for construction purposes will be obtained from mobile diesel generators. Electricity for the operation of the PV facility will be reverse fed on the 132kV lines that will connect from the PV facility to Sibanye Gold's mines.

If power supply is not available, where will power be sourced from?

Electricity for construction purposes will be obtained from mobile diesel generators. Electricity for the operation of the PV facility will be reverse fed on the 132kV lines that will connect from the PV facility to Sibanye Gold's mines.

4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Not applicable due to the nature of the project, which is the generation of renewable energy. The proposed PV facility would generate renewable electricity rather than use electricity. Electricity for construction purposes (if needed) would be obtained from mobile diesel generators.

Security lighting around the boundaries of the PV plant will be low-energy LED or similar energy-efficient lighting.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

The project serves to supply renewable energy to Sibanye Gold's Driefontein and Kloof mining operations. The proposed project would thereby reduce the demand for fossil fuel energy sources, especially during peak times during the day and the winter months when Eskom tariffs are high.

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4)(b)(i)).

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

No issues have yet been raised. This draft BA report will be made available for public review. All issues raised by interested and affected parties will be included in the final BA report.

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)

(A full response must be provided in the Comments and Response Report that must be attached to this report):

A comments and response report will be attached in the final BA report.

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilised in the rating of significance of impacts

For each predicted impact, certain criteria are applied to establish the likely **significance** of the impact, firstly in the case of no mitigation being applied and then with the most effective mitigation measure(s) in place.

These criteria include the **intensity** (size or degree scale), which also includes the **type** of impact, being either a positive or negative impact; the **duration** (temporal scale); and the **extent** (spatial scale). These numerical ratings are used in an equation whereby the **consequence** of the impact can be calculated. Consequence is calculated as follows:

Consequence = type x (intensity + duration + extent)

To calculate the significance of an impact, the **probability** (or likelihood) of that impact occurring is applied to the consequence.

Significance = consequence x probability

Depending on the numerical result, the impact would fall into a significance category as negligible, minor, moderate or major, and the type would be either positive or negative.

The different criteria are rates as per below table.

Criteria	Numerical Rating	Category	Description
Duration	1	Immediate	Impact will self-remedy immediately
	2	Brief	Impact will not last longer than 1 year
	3	Short term	Impact will last between 1 and 5 years
	4	Medium term	Impact will last between 5 and 10 years
	5	Long term	Impact will last between 10 and 15 years
	6	On-going	Impact will last between 15 and 20 years
	7	Permanent	Impact may be permanent, or in excess of 20 years
Extent	1	Very limited	Limited to specific isolated parts of the site
	2	Limited	Limited to the site and its immediate surroundings
	3	Local	Extending across the site and to nearby settlements
	4	Municipal area	Impacts felt at a municipal level
	5	Regional	Impacts felt at a regional level
	6	National	Impacts felt at a national level
	7	International	Impacts felt at an international level
Intensity	1	Negligible	Natural and/ or social functions and/ or processes are negligibly altered
	2	Very low	Natural and/ or social functions and/ or processes are slightly altered
	3	Low	Natural and/ or social functions and/ or processes are somewhat altered
	4	Moderate	Natural and/ or social functions and/ or processes are moderately altered
	5	High	Natural and/ or social functions and/ or processes are notably altered
	6	Very high	Natural and/ or social functions and/ or processes are majorly altered

	7	Extremely high	Natural and/ or social functions and/ or processes are severely altered
Probability	1	Highly unlikely / None	Expected never to happen
	2	Rare / improbable	Conceivable, but only in extreme circumstances, and/or might occur for this project although this has rarely been known to result elsewhere
	3	Unlikely	Has not happened yet but could happen once in the lifetime of the project, therefore there is a possibility that the impact will occur
	4	Probable	Has occurred here or elsewhere and could therefore occur
	5	Likely	The impact may occur
	6	Almost certain / Highly probable	It is most likely that the impact will occur
	7	Certain / Definite	There are sound scientific reasons to expect that the impact will definitely occur

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the construction phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Note: The potential impacts below are only related to the site's agricultural potential, since this application is specifically for approval of activity 28 of listing notice 1. Please keep in mind that all other potential impacts related to the project in its entirety have been thoroughly assessed during the project's EIA process in 2016 after which the applicant received environmental authorisation in 2017. Furthermore, the impact on agricultural potential was also assessed as part of the 2016 EIA process. Due to the time lapsed between applications, the impact assessment has been re-assessed as detailed below.

Proposal

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Loss of agricultural land – Long term loss of productive agricultural land and productive capability of the soil at the total extent of the development site, which translates to 851 ha.	High - Negative	The specialist states, in his report, that there are no mitigation measures that can be applied during the operational phase within the footprint of the solar PV plant to continue the current agricultural production. However, the following mitigation measures are possible: <ul style="list-style-type: none"> mitigation measures to return the site to agricultural use should the PV plant not be upgraded to continue its use after it has reached the end of its life cycle. See decommissioning phase impacts. Proper storm water management will prevent the further loss of topsoil on the site. The farmer currently cultivating the land has been provided with alternative land to continue farming. 	High - Negative	Not applicable, since there are no mitigation measures proposed by the specialist. However, mitigations measures to return the site to agricultural use should the PV plant not be upgraded to continue its use after it has reached the end of its life cycle are recommended. This is expected to reduce the high negative impact as the impact will no longer be considered as permanent.
Loss of agricultural production and food supply at the total extent of the development site, which will cause an average annual loss of 4 460 tons of maize in the food supply chain.	High Negative	No mitigation measures that can enable a continuation of crop farming during the operational phase at the development site were recommended by the specialist. However, it should be noted that Sibanye has reached an	Moderate Negative	Low, since this agreement is currently in place.

		<p>agreement with the affected farmer and alternative land has been leased to the farmer for continued agricultural production and food supply. In addition to this, the contributions of Sibanye to the Bokamosa Ba Rona agri-industrial and community development project 30,000 ha of agricultural land for commercial agriculture have been donated by Sibanye Stillwater for this project.</p> <p>In light of the above, although <u>the specialist's assessment of a high negative without the opportunity for mitigation on the site is true, Sibanye's agricultural initiatives offsets this loss off-site and reduces the negative impact to moderate negative, mainly due to the reduction in intensity and extent of the project.</u></p>		
<p>Potential loss of agricultural job opportunities although the farming activities on the development site is part of a larger farming enterprise and only some of the current employment opportunities may be lost</p>	<p>Medium negative -</p>	<p>Considering that the agricultural tenant has been provided with alternative land to continue with cultivation, this impact will be mitigated. Current employees may still work at the remaining farming enterprise on the alternative land.</p> <p>The proposed development will generate a number of employment opportunities that will certainly exceed the number of jobs that may be lost. The project will also indirectly help sustain and prolong Sibanye's mining operations and their employment of over 25,000 people in the West Rand region.</p>	<p>Low - negative</p>	<p>Low risk</p>

No Go

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
<p>Loss of potential job opportunities related to the proposed project.</p>	<p>Low – negative</p>	<p>None. Since the no-go option would prevent the proposed project from being developed, there can be no new opportunities.</p>	<p>Low – negative</p>	<p>Not applicable.</p>
<p>Continuation or worsening of the viability of the Sibanye mines to continue due to the increasing cost and decrease in reliability of Eskom-generated electricity. Reduced global competitiveness and appeal of the mined commodities due to the high carbon intensity associated with Eskom generated power as the only alternative source. This impact relates to large numbers of employment and economic growth for the municipality.</p>	<p>High – negative</p>	<p>The objective of the PV plant is to reduce the Sibanye mines' dependence on Eskom-generated power, being intermittent, increasingly expensive and of high carbon intensity. The no-go option will nullify this objective and the risk of the mines' viability to continue and longevity will likely worsen. No mitigation measures can be proposed for this impact, other than obtaining a cheaper and more reliant electricity source, such as the proposed PV plant.</p>	<p>High – negative</p>	<p>Low, should this application be approved.</p>

Potential discontinuation of Sibanye's contributions to agricultural initiatives and benefits. This impact relates to the above impact – should the Sibanye mines become unviable, their contributions to these benefits and initiatives will cease.	Medium - negative	Since Sibanye's contributions to agriculture in the area is funded by their mines, such contributions will inevitably cease should the mines need to close. The only mitigation is to obtain a cheaper and more reliant electricity source, such as the proposed PV plant.	Medium – negative	Low, should this application be approved.

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Agricultural Agri-ecosystem Specialist Assessment (Rehab-Green, Aug 2022) Memorandum of Sibanye's contribution to agriculture (Rehab-Green, Aug 2022) Peer review and professional opinion as an addendum to the above reports (Johann Lanz, Aug 2022)
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Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

<p>This report and impact assessments are related only to the agricultural potential impact that is expected for this project as part of the application to obtain authorisation for activity 28 of listing notice 1.</p> <p>It is assumed that all other environmental and social impacts related to the project have been thoroughly assessed during the 2016 EIA process and as approved by the EA.</p> <p>The attached specialist reports in Appendix G were conducted as an update to the 2016 agricultural impact assessment. As such, the EAP is confident that the above impact assessment is representative of the current site conditions and the expected impact that the project will have on the agricultural potential of the site.</p> <p>Since this impact was also assessed during the 2016 EIA process and considered by the Competent Authority as part of the submitted final Environmental Impact Report, after which environmental authorization was granted, the EAP is not aware of any gaps in knowledge related to this application.</p>
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3. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal

Potential impacts:	Significance rating of impacts(positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented
Return of land use of the site to agriculture	Minor-positive	The site must be returned to agricultural use once the solar PV plant reaches the end of its life cycle and cannot be upgraded to continue generating electricity. The site must be demolished, all building materials, rubble and waste removed and legally disposed of. The site must be rehabilitated to its former state (pre-construction) and returned to agricultural use.	Moderate-positive	Medium risk, since it can be expected that the PV plant may be upgraded in the future to continue its purpose of producing electricity.

Alternative 1

Potential impacts:	Significance rating of impacts(positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

Alternative 2

Potential impacts:	Significance rating of impacts (positive or negative):	Proposed mitigation:	Significance rating of impacts after mitigation:	Risk of the impact and mitigation not being implemented

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Agricultural Agri-ecosystem Specialist Assessment (Rehab-Green, Aug 2022)
 Memorandum of Sibanye's contribution to agriculture (Rehab-Green, Aug 2022)
 Peer review and professional opinion as an addendum to the above reports (Johann Lanz, Aug 2022)

All reports are listed in Appendix G.

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

The scrap value of the PV panels, cables, transformers and overhead lines is deemed sufficient to decommission and rehabilitate the site, as is common practice in South Africa.

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

The potential of additional similar projects being developed on surrounding agricultural land in the future could result in a cumulative impact of the development of land of high agricultural potential. However, the current application relates to an already authorised solar PV facility, the cumulative impacts of which have previously been assessed and authorised.

Cumulative positive impacts of the project include the contribution that renewable energy generation makes to the financial viability of Sibanye's mines on the West Rand, and the resultant support of livelihood opportunities for 25,000 miners and their families. Considering the low employment rate in the affected municipalities and the high percentage contribution of mines to the gross geographic product in these areas, these are highly significant positive cumulative impacts.

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Proposal

The impact of the withdrawal of the soil within the project footprint from agricultural production and the related loss of food supply for the lifespan of the project was assessed by the appointed specialist and determined to be high-negative. The specialist did not propose any mitigation measures and considered the impact to be permanent. However, it is recommended that the project site be decommissioned, rehabilitated and returned to agricultural use if/once the development has reached the end of its life cycle and is no longer required. The impact is therefore considered permanent before mitigation and long-term after mitigation, but with a likelihood of "certain" before mitigation and "likely" after mitigation. The impact, however, remains high negative after mitigation, mainly due to the specialists rating of a high intensity.

The potential loss of agricultural jobs opportunities was also assessed. Taking into account the positive social impact (assessed during the 2016 EIA process) of the job opportunities related to the proposed development as well as the risk of the closure of the Sibanye mines should this PV plant not be developed (i.e. the no-go option impacts) the significance of the impact after mitigation is low negative.

Johann Lanz (agricultural specialist) was also appointed to provide a professional opinion for this application due to the high negative impact of the development on agriculture. His opinion is attached in Appendix G. His review of the Rehab-Green (Aug, 2022) report agrees that from the narrow perspective of ensuring the conservation of scarce arable land, which is the focus of an agricultural impact assessment, the potential impact could be considered as unacceptable. However, the final approval decision needs to be a broader assessment and weigh the loss of arable land against potential benefits of the proposed development, both to agriculture and to the wider society.

There are other factors which the reviewer believes to weigh the decision in favour of the approval of the proposed solar development. The most important of these that has direct agricultural benefits, and that can therefore serve to off-set the loss of arable land resulting from the proposed solar facility, is the Bokamosa Ba Rona agri-industrial and community development project led by Sibanye in partnership with the Gauteng Province. The proposed solar facility is an integral part of this project that is necessary for the project's initiation phase. This project will create regenerative primary agricultural production in the West Rand that is supported by renewable energy and green hydrogen integration. Thirty thousand (30,000) hectares of agricultural land will be donated by Sibanye-Stillwater and the Far West Rand Dolomitic Water Association (of which Sibanye is the main member) for this project. Sibanye-Stillwater has already availed land to the Gauteng Province for a green hydrogen hub as part of this programme. It should be noted that there are significant, additional economic and societal benefits associated with this project that

are not directly agricultural. Further to the Bokamosa Ba Rona agri-industrial and community development project, Sibanye-Stillwater has several other agricultural initiatives, including donation of buildings and 1000 hectares near Carletonville to UNISA for the establishment of experimental farms for UNISA students, a joint-venture to develop a 2,000 hectare commercial agricultural development and the Marikana Agricultural Economic Renewal, which aims to create over 1,000 agriculturally related jobs. Sibanye-Stillwater is also working jointly with the Gauteng Province to establish the West Rand and Bojanala special economic zones (SEZs), which include agro-processing facilities, dairy farming and distribution centres.

Another agricultural benefit of the proposed solar facility that, according to Johann Lanz, off-sets the loss of arable land is that all renewable energy development in South Africa decreases the need for coal power and thereby contributes to reducing the large agricultural impact that open cast coal mining has on highly productive agricultural land throughout the coal mining areas of the country.

Furthermore, change in land use to "special" has already been approved by the local authority. Local authorities are obliged to provide agricultural authorities with an opportunity to comment on such changes of land use where farming land is rezoned.

Ultimately the decision of whether or not to authorise the proposed solar facility is beyond the narrow scope of the agricultural assessment, as was the case in the 2016 EIA process, which was granted an EA. The final approval decision for this application must consider the multiple costs and benefits of the project. In the end it must ask: which choice offers the most benefit to South Africa? – the proposed solar facility, or the retention of the 851 hectares of agricultural land on the site (i.e. the no-go alternative) in the absence of the off-site cumulative benefits that the project would realise.

In conclusion, the EAP is of the opinion that the impact, although high negative, can be considered acceptable due to the substantial benefits associated with the proposed project and subsequent continued viability of the Sibanye mines and contribution initiatives. Further, the designation as a Strategic Integrated Project (SIP) demonstrates that the project contributes to the objectives of National Government and will be of benefit to all South Africans. This should be considered, together with the fact that agricultural impacts were assessed in the 2016 EIA. As such, there should be no reason for the same impact on the same site, for the same development to be refused.

Alternative 1

Alternative 2

No-go (compulsory)

Impacts related to the no-go alternative are mainly related to social and socio-economic aspects. Sibanye employs over 80,000 workers at their South African mines, of which 25,000 are on the West Rand in the vicinity of the solar PV project. The carbon-intensiveness, unreliability and increasing costs of Eskom-generated electricity is currently putting Sibanye-Stillwater mines under immense pressure, thereby risking their viability to remain operational. Since the objective of this project is to power these local mines with clean, renewable and reliable electricity, the no-go option would result in the continued use of Eskom-generated electricity, thereby risking potential closure of the mines and a substantial loss of employment and economic income to the municipal area.

Further, the project is designated as a SIP, which demonstrates value to South Africans. If the project did not go ahead, it would not aid in closing the national electricity supply deficit and would exacerbate national load shedding.

While the loss of potential job opportunities related to the proposed development itself is rated as low (due to the low number of opportunities required for such a project, resulting in a low intensity), the potential loss of current jobs related to the potential closure of the mines is rated as a high negative impact.

An additional negative impact related to the no-go option and, resultantly, the possible closure of the Sibanye mines is the discontinuation of their positive and substantial contribution to agricultural related initiatives. The most important of these that has direct agricultural benefits, is the Bokamosa Ba Rona agri-industrial and community development project. This project will create regenerative primary agricultural production in the West Rand that is supported by renewable energy integration. 30,000 hectares of agricultural land have been donated by Sibanye Stillwater for this project. It should be noted that there are significant, additional economic and societal benefits associated with this project that are not directly agricultural.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

Loss of agricultural land, agricultural production and food supply of the development site footprint is rated as a high negative impact. Except for recommending that the site be returned to agricultural use after decommissioning, it is not possible to say with certainty when this would be, or even if the development will ever be regarded as redundant. As such, the impact has a low potential for mitigation of direct negative agricultural impacts, and the significance remains high after mitigation.

The loss of current employment on the development site (mainly farm workers) is rated as low, since the development will also create and preserve job opportunities.

For alternative:

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

A rigorous alternative site selection process was conducted for the 2016 EIA process (site selection report attached in Appendix I), after which the preferred site for the solar PV energy facility was chosen and approved by the competent authority in the EA (EA attached in Appendix F). This application and resulting decision will supplement the existing EA by including authorization of activity 28 of listing notice 1. As such, no alternatives were assessed as part of this BA process and the preferred site can therefore be considered as the existing authorised site.

The impact on agricultural potential and land was also assessed as part of the 2016 EIA process. The high negative impact was considered in the site selection process. The existing site conditions have not changed and the impact on agricultural aspects was also rated as high negative during since the 2016 assessments.

Approval was granted by the Rand West City local municipality to rezone the land from "undetermined" to "special".

Taking this into account, together with the fact that the competent authority already authorised this site with a high negative impact on agriculture, it is the EAPs opinion that there is no reason to consider any additional alternative sites.

7. SPATIAL DEVELOPMENT TOOLS

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

Spatial development tools were applied and considered during the 2016 EIA process and site selection process. As mentioned above, no alternative sites were considered for this application as the proposed site is currently authorised.

8. RECOMMENDATION OF THE PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner as bound by professional ethical standards and the code of conduct of EAPASA).

YES	NO
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If "NO", indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

All conditions contained in the existing EA dated 16 January 2017 (ref no 14/12/16/3/3/2/919) and all respective EA amendments must be made applicable for any authorisation resulting from this application.

9. THE NEEDS AND DESIRABILITY OF THE PROPOSED DEVELOPMENT (as per notice 792 of 2012, or the updated version of this guideline)

This project has been granted strategic importance as a Strategic Integrated Project (SIP) 20c Embedded Generation Investment Programme project (attached in Appendix I).

The following detail has been taken from the final EIR (Aurecon, 2016) and updated where necessary for applicability to this application:

The Sibanye-Stillwater mining operations run 24 hours a day, utilising energy-intensive machinery. Much of this machinery (e.g. ventilation and cooling) is used to provide safe and comfortable working conditions to underground mine workers. As a result, Sibanye-Stillwater is a large consumer of grid-supplied electricity from Eskom. Therefore, Sibanye-Stillwater wishes to develop a 200 MW PV facility in order to offset the energy usage from the mining operations. Currently, Eskom's power supply is uncertain, inconsistent and increasingly expensive. It is anticipated that Eskom's tariffs will escalate rapidly in the short to medium-term. This, together with the uncertainty of reliable electricity supply poses a risk to the future of Sibanye-Stillwater, which is considered to be the largest individual producer of gold and platinum group metals from South Africa= and an employer of over 80,000 people in South Africa, including around 25,000 on the West Rand.

The need and desirability of the proposed PV facility and transmission lines from Sibanye Gold is based on the high percentage (20%) that electricity comprises of Sibanye Gold's total input costs:

- To offset Sibanye-Stillwater's energy consumption from Eskom's network for the Driefontein and Kloof mining operations, so as to reduce the total cost of electricity consumption, especially during the higher tariff period during peak hours and during winter;
- The offset in energy and reduced reliance on the uncertain and expensive Eskom power supply would assist in providing greater job security to all employees, thus improving the sustainability of the Sibanye-Stillwater's mines and industry at large;
- To provide energy from a renewable energy supply for the mining operations, which is aligned with the Sibanye Gold endorsement of the "Strong Sustainability" concept and Government's drive to accelerate the introduction and development of the renewable energy industry in the country;
- The cost of development of the proposed 200 MW PV facility and associated infrastructure is considered by Sibanye-Stillwater to be more cost-effective than Eskom grid-supplied power in the long run, which would lead to a more favourable portion of overall operating costs;
- Reducing greenhouse gas (GHG) emissions. The PV facility is expected to reduce carbon emissions by approximately 363,000 tonnes of carbon dioxide equivalent and contribute to South Africa's national desired emissions reduction outcome;
- Reduce the carbon tax burden on Sibanye-Stillwater. The projected reduction in carbon tax liability from the PV facility is estimated to be R15.2 million per annum. A study conducted in 2015 (Sibanye Gold 2016b) found that the introduction of the carbon tax will affect the viability of five shafts, potentially affecting approximately 8,000 employees; and
- Contribute to closing the national electricity supply deficit and ending national load shedding, as per the President's plan announced in July 2022

Utilising resources available to South Africa:

The Johannesburg and Soweto areas received between 1975 kW/ hour/ m² and 2050 kW/ hour/ m² radiation in the period from 1994 to 2013. The proposed site is located approximately 30 km south west of Soweto and has a considerable solar resource potential.

South Africa generates most of its electricity from coal, of which there is currently a ready supply. However, the 2010 Integrated Resource Plan (Department of Energy, 2010) has highlighted the need for rapid expansion of renewable energy power generation.

Meeting nationally appropriate Emission Targets in line with Global Climate Change commitments:

Due to concerns such as climate change, and the on-going exploitation of non-renewable resources, there is increasing international pressure on countries to increase their share of renewable energy generation. As a result, the South African Government has set a target to supply 17.8 GW of the electricity supply from renewable energy sources, of which 8.4 GW will be solar energy, over a 20 year period from 2010 to 2030 (Department of Energy, 2010). The proposed PV project will contribute positively towards climate change mitigation.

Renewable energy is recognised internationally as a major contributor to preventing climate change and provides a wide range of environmental, economic and social benefits that can contribute towards long-term global sustainability.

Solar energy is a source of "green" electricity, as for every unit of "green" electricity used instead of traditional coal powered stations, the following benefits area realised:

- Saving water;
- Avoiding Sulphur Dioxide (SO₂) emissions;
- Avoiding Carbon Dioxide (CO₂) emissions including transmission losses;
- Avoiding ash production; and
- Contributing to social upliftment

Enhancing energy security by diversifying generation:

The proposed PV facility would assist in the sustainable provision of electricity. Although this electricity would be generated for the sole use of Sibanye-Stillwater, it would result in a nett gain in electricity to the grid, helping end national load shedding and its economic and social harm. It would further assist to ease the pressure on the grid during peak periods, when demand for electricity is highest. Moreover, the project would contribute towards meeting the national energy target for the introduction of renewable energy into South Africa, as set by the Department of Energy (DoE). Should the proposed current application be approved, the resultant grid stability would benefit the community in the West Rand region.

The proposed project would also have international significance as it contributes to South Africa being able to meet some of its international obligations, by aligning domestic actions with internationally agreed strategies and standards, such as those set by the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol, to both of which South Africa is a signatory.

Creating a more sustainable economy:

The West Rand District Municipality, within which the Westonaria Local Municipality is located, has drafted a Green IQ Strategy document to support the Gauteng Green Strategic Programme. The aim of the West Rand District Municipality Green IQ Strategy is to:

- Create sustainable economic participation and growth;
- Facilitate ranges of new Green jobs and Small, Medium and Micro-sized Enterprises (SMME) business opportunities;
- Reduce the carbon footprint of the District; and
- Instill knowledge systems and practices that reduce the environmental impacts of human activity.

The Green IQ Strategy specifically states that there needs to be a switch away from fossil fuels and to significantly increase the use of renewable energy sources in order to pro-actively support Gauteng's vision of becoming a renewable energy and energy efficient hub in South Africa.

Need and desirability checklist:

Need (Timing) Question:	Response:
<p>1. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority i.e. is the proposed development in line with the projects and programmes identified as priorities within the Integrated Development Plan (IDP)?</p>	<p>The municipality has approved the rezoning of the proposed area from Undetermined to Special.</p> <p>Electricity is a basic service. The proposed PV facility would assist in the sustainable provision of electricity. Although this electricity would be generated for sole use by Sibanye Gold, it would result in a nett gain in electricity to the grid since some of Sibanye Gold's mining operations would be operating 'off the grid'. Another objective of the IDP is to "promote sustainable local, economic and social development". The construction of the proposed PV facility will result in direct and indirect employment opportunities.</p>
<p>2. Should development, or if applicable, expansion of the town/ area concerned in terms of this land use (associated with the activity being applied for) occur at this point in time?</p>	<p>Yes, the activity is in line with the IDP, which states that the Merafong City Local Municipality has committed itself to ensure provision of sustainable basic service delivery and promote integrated sustainable development. It also recognises the need for job creation.</p>
<p>3. Does the community/ area need the activity and the associated land use concerned (is it a societal priority)?</p>	<p>Yes. The proposed PV facility would create job opportunities for the local community as the construction and operation of the PV facility requires a wide range of skill levels and would contribute to the security of existing jobs at Sibanye-Stillwater's mines in the area, since these mines would be less dependent on Eskom-generated electricity.</p> <p>Secondary economic impacts may include an increased demand for services through the need for accommodation and other services.</p> <p>Renewable energy that is produced from sustainable natural sources will contribute to sustainable development not only in the Gauteng Province, but throughout South Africa.</p>
<p>4. Are there necessary services with appropriate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?</p>	<p>Water would be trucked in as needed for washing of the PV panels. This will be obtained from municipal water service providers. During the construction phase, diesel generators will be used for electricity. Conservancy tanks will be serviced by a contractor (no French drains will be installed, since the dolomitic nature of the site is unsuitable for this) and the waste will be disposed of at a licenced sewage treatment plant.</p> <p>Overall, it is anticipated that no additional pressure would be placed on existing services.</p>
<p>5. Is this development provided for in the infrastructure planning of the municipality, and if not, what will the implication be on the infrastructure planning of the municipality (priority and placements of services)?</p>	<p>No. Once the proposed PV facility is operational, there would be a very limited requirement for municipal services. Hence the project is anticipated to have minimal implications for municipal infrastructure planning.</p> <p>During the 2016 EIA process, the municipality indicated that it has no objections to the project. This application and accompanying reports will similarly be provided to the municipality for comment. Furthermore, the Municipality granted the change in land use (i.e. rezoning approval) for the project – as discussed above.</p>
<p>6. Is this project part of a national programme to address an issue of national concern or importance?</p>	<p>Yes. The establishment of the proposed Sibanye Gold PV facility would assist in easing the pressure on the grid in the area during peak period when demand for electricity is highest, since some of the Sibanye Gold mining operations would be operating 'off the grid'. It would also contribute to the achievement of renewable energy generation targets in the Integrated Resource Plan and to South Africa's carbon emission reduction targets. The project has also been designated a SIP by National Government.</p>
Desirability (Placing) Question:	Response:
<p>1. Is the development the best practicable environmental option (BPEO) for this land/ site</p>	<p>Yes. Although the site is currently used for agriculture and the findings of the Agricultural Assessment (Annexure G) indicated that the site is predominantly classified as having soils of high agricultural potential suitable for crop farming, this project has project holds a valid EA which already approves the development of this project.</p>

	The proposed site will not be permanently transformed and can be returned to agricultural use, should the facility be decommissioned and all infrastructure is removed from the site.
2. Would the approval of this application compromise the integrity of the existing approved Municipal IDP and SDF as agreed to by the relevant authorities?	No. Firstly, the development has already been granted authorisation. Furthermore, the development is in line with the Merafong City IDP, which recognizes the need for sustainable local, economic and social development. This IDP does not identify any competing or incompatible land used on the site or in its surroundings. The proposed PV facility would create job opportunities for the local community as the construction and operation of the proposed PV facility would require a wide range of skill levels.
3. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in Environmental Management Framework (EMF)), and if so, can it be justified in terms of sustainability considerations?	One of the objectives of the Gauteng EMF is to focus on the sustainability of development through the implementation of initiatives such as energy efficiency programmes, plans and designs. The proposed project would contribute to energy efficiency in the province. According to the EMF the site area is mapped as Environmental Management Zone 4. This is a "Normal Control Zone". No mention of renewable energy development is given for this zone.
4. Do location factors favour this land use (associated with the activity applied for) at this place?	The current land use of the site is agriculture. The development of the PV plant will result in the withdrawal of the site from contributing to food supply. However, this aspect was considered as part of the site selection process during the 2016 EIA process, together with a wide range of other environmental and social factors. The site selection report is attached in Appendix I which provides more detail on the selection of this site as the preferred site. This site was subsequently granted an EA and it is therefore not feasible to consider alternative sites.
5. How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural/ natural environment)?	Various potential impacts associated with the proposed project were assessed in the 2016 EIA and are summarised in the bullet points below. Impacts related specifically to the agricultural potential of the site were again assessed in this report. The proposed development is expected to have a significance of high negative for the loss of agricultural land and loss of agricultural production and food supply. <ul style="list-style-type: none"> • No naturally sensitive sites will be affected by the proposed PV facility, since it is proposed to be established on cultivated land. • The three buildings found to be within the PV facility's proposed footprint have no heritage significance, and no protected status.
6. How will the development impact on people's health and wellbeing (e.g. in terms of noise, odours, visual character and sense of place, etc.)?	Nuisance-related impacts were assessed during the 2016 EIA process. The project is not expected to affect the health of well-being negatively in any way.
7. Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?	The only potential opportunity cost of the proposed project is the loss of future agricultural production from the cultivated areas where the facility is proposed to be constructed. However, to compensate for this impact, the applicant has provided the farmer with alternative farm land where the farmer can continue his agricultural production. As such, the EAP is of the opinion that the impact, although high negative before mitigation and moderate negative after mitigation, can be considered acceptable due to the substantial benefits associated with the proposed project and subsequent continued viability of the Sibanye-Stillwater mines and the contribution this makes to livelihoods in the region. This should be considered together with the fact that this impact was weighed and considered in the site selection process and assessed in the previous EIA after which an EA was granted.
8. Will the proposed land use result in unacceptable cumulative impacts?	No, significant negative cumulative impacts are not expected to occur. Cumulative positive impacts of the project include the contribution that renewable energy generation makes to the financial viability of Sibanye's mines on the West Rand, and the resultant support of livelihood opportunities for 25,000 miners and their families. Considering the low employment rate in the affected municipalities and the high percentage contribution of mines to the gross geographic product in these areas, these are highly significant positive cumulative impacts.

10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED
(CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)

10 years

11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) (must include post construction monitoring requirements and when these will be concluded.)

If the EAP answers "Yes" to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached

Yes

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive):

It is required that if more than one item is enclosed that a table of contents is included in the appendix

Appendix A: Site plan(s) – *(must include a scaled layout plan of the proposed activities overlain on the site sensitivities indicating areas to be avoided including buffers)*

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: Specialist reports

Appendix H: EMPr

Appendix I: Other information

CHECKLIST

To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed.