water & sanitation
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Private Bag X313, Pretoria, 0001, Sedibeng Building, 185 Francis Baard Street, Pretoria,
Tel: (012) 336-7500 Fax: (012) 323-4472 / (012) 326-2715

WATER USE LICENCE APPLICATION SUMMARY

NAME OF APPLICANT: Glencore Trade and Invest (Pty) Ltd

Compiled by: Monica Niehof

Signature:
Date : 24 June 2025

11. Section 27 (1)

The requirements contained in Section 27(1) of the National Water Act, 1998 (Act 36 of 1998) have been considered and are discussed further below.

a) Existing lawful water uses

The Applicant has various existing water uses for its operations in the greater West Wits region. These uses include but are not limited to plant activities, TSF facilities, pipelines, return water dams etc.

The Water Use License that is required to be amended is dated 27 September 2022 with license number: 08/C23E/AFGJCEI/12157. The existing water use to be amended is described in the table below.

Table 1: Existing licensed water use to be amended.

Water use	Description	Property Description	Coordinates	Volumes discharged – tonnes/annum
Section 21(g)	Savuka TSF	Portio 5, 6, 7, 8 & 9 of the Farm Doornfontein 118 IQ and Portion 16, 17, 48 & 93 of the Farm Blyvooruitzicht 116 IQ.	Lat: S 26°25' 18.213" Long: E 27°22' 20.511"	3 600 000 t/a

b) Need to redress the results of past racial and gender discrimination

One objective of the NWA is to address past racial and gender discrimination and to alleviate poverty in South Africa; therefore, it is of utmost importance to support and stimulate economic development in order to realise the upliftment of previously disadvantaged groups and/or individuals.

The Savuka TSF forms part of the greater Mponeng Mining Operations in the West Wits region of Harmony's operations. The Mponeng Mining Operations has created a significant number of employment opportunities and the height extension of the TSF ensure that these employment opportunities are not interrupted or lost, as it will allow for the continuation of mining by providing licensed deposition space and mitigated deposition of tailings. The mine will also create a significant number of employment opportunities during the decommissioning phase of the project. The Mpononeg operation continues to provide employment opportunities for the surrounding residential areas, which are Carletonville, Westonaria, Fochville, Potchefstroom and Randfontein. These residential areas do house many historically disadvantaged South Africans that required employment. Elandsridge and Wedela residential areas were developed as part of the Mine's housing development and are located on the farm Buffelsdoorn 143 IO. It should be noted that the Applicant is subject to the requirements of the Mining Charter which is aimed to redress historical socio-economic inequalities, ensure broad-based economic empowerment (BBEE) and the meaningful participation of Historically Disadvantaged Persons in the mining and minerals industry within South Africa.

c) Efficient and beneficial use of water in the public interest

The water management system at Mponeng operations is based on the principles of pollution prevention, management of affected water at source, optimal re-use / recycling of affected water as well as minimal discharge of affected water to the natural surface water environment.

The current Integrated Water and Wastewater Management Plan (IWWMP) for the Mponeng mine has been developed in accordance with the Department of Water and Sanitation's (DWS) hierarchy of water use. Recommendations stemming from the IWWMP document have been incorporated in setting the relevant objective, targets and management plans steering towards a goal of efficient and beneficial use of water in the public interest. The primary objective of the Mponeng operations water management strategy is to recycle as much water as possible, to minimise losses as far as possible, to prevent spillage and wastage of water and to minimise the volumes of raw water intake. The water management system is based on the principles of pollution prevention, management of affected water at source, optimal re-use / recycling of affected water as well as zero discharge of affected water to the natural surface water environment.

d) Socio-economic impact –

The proposed height extension will result in a number of socio-economic benefits within the affected local municipalities and its' communities and prevention of negative socio-economic impacts. The details regarding the socio economic impacts are described below.

i) Of water use or uses if authorised:

The socio economic impacts resulting from the existing authorised water uses and the proposed water uses (if authorised) are as follows:

- During the operational and decommissioning phase, the Mponeng operation provides work for a large number of contractors and employees;
- Permanent employment opportunities during the operational phase employees at the Mponeng operation will continue, subsequently ensuring that families can sustain themselves. Similarly the multiplication factor is applicable to the local Merafong City Municipality;
- A large number of jobs are created for Historically Disadvantaged South Africans;
- Job creation at Mponeng operation benefits relatives of the people employed through the increased household income;
- The benefit of sustained income is realised in the local economy as there will be continued money available for households to purchase essential and possible luxury items; and
- The generation of business sales and employment opportunities has initiated an ongoing ripple effect through the sub-region, resulting in an increase in product and service value measured in Gross Geographical Product (GGP).

ii) Of the failure to authorise water use or uses:

Failure to authorise the proposed water uses will result to the following socio economic impacts:

- Mponeng Mine will not be able to proceed with operations unless the indicated water use activities are authorised. Mponeng mine is an existing operation, which includes the appointment of contractors and employees. Without the necessary authorisation contractors and employees will be without a job and therefore further increase in poverty of this region.

- It must be noted that Golden Core Trade and Invest (Pty) Ltd (The Applicant) has already invested significantly in the mine over the years. The investments made include the construction and maintenance of all infrastructures, obtaining authorisation from the local government for mining and water use activities.

e) Any catchment management strategy applicable to the relevant water resource

The Savuka TSFs is situated within quaternary catchment C23E, the Wonderfontein Spruit (a tributary of the Mooiriver) Catchment– within the Upper Vaal WMA. Two non-perennial river systems occur to the north and south of the TSFs, both of which converge to the west of the site. The southern system is larger than the northern system, however, neither area is sufficiently sized to enable perennial flows (per the NGI's classification). The southern system is associated with a vlei and has upstream furrows directing runoff from part of the greater Mponeng Operation (south of the Old North Complex TSF). The TSF is situated within a mining area, however, it is also close to a number of residential areas.

The catchment management agency for the Vaal River System was established on 29 January 2016, through the promulgation of GNR 81 in terms of the NWA and is called the Vaal River Catchment Management Agency. This notice specified the following amongst others:

- The Vaal Water Management Area (WMA) is the result of the consolidation of the Upper, Middle and Lower Vaal catchments. The Vaal Water Management Area occupies the Central North Eastern area of South Africa. It extends to Ermelo in Mpumalanga, just west of Swaziland in the east across to Kuruman in the Northern Cape to the West. To the northwest, the WMA borders Botswana and the Crocodile (West) and Olifants Catchments. Johannesburg sits on the boundary of the CMA. To the south east it is bounded by Lesotho;
- The major water uses in the water management area include industrial, mining sectors, power generation, commercial agriculture (including stock watering, small and large irrigation schemes, dry land farming and forestry), nature conservation, as well as urban and rural human settlements;
- The business case of the Vaal River Catchment Management Agency has been approved;
- All initial, inherent and delegated functions will be performed in the Vaal River CMA; and
- A Water Resource Management charge will be billed by the Vaal River CMA in accordance with Section 57(2) of the NWA.

f) Likely effect of the water use to be authorized on the water resource and on other water users.

The economy of the Upper Vaal Management area consists of widespread urbanisation, mining and industrial activity, which relate to gold and coal deposits in the area occur in the northern part of the water management area. Collectively, mining and industrial development in the Upper Vaal River water management area produce a total of 45% of South Africa's Gross Domestic Product (GDP). Economic activity in the rest of the Upper Vaal water management area mostly relates to livestock farming and rain fed cultivation (Hall and Jennings, 2007; NWRS, 2004). Due to ongoing economic growth and continued urbanisation, further growth in water demand is expected in the area. It is therefore paramount that water allocation decisions are made, taking cognisance of only marginal potential for further resource development. The main water use in the Upper Vaal is, therefore, shared by the industrial, urban and mining sectors, which account for 80% of water usage. Irrigation accounts for 9% of water usage and power generation accounts for 7%. The remainder is used for supply to rural areas. These percentages do not include water transfer in and out of the management areas. Aside from these usages, water is also transferred in and out of the Management areas. The Upper Vaal area transfers water out to the Crocodile, Marico and Olifants Management areas and transfers water in from the Thukela, Usutu & Mhlatuze Management areas as well as from Lesotho as per the agreement between South Africa and Lesotho via the Lesotho Highlands Water Project. The Upper Vaal area has an impact on Botswana, Lesotho, Namibia, Zimbabwe, Mozambique and Swaziland (DWA, 2014).

The mine has an existing WUL. It is not likely that the new proposed water uses at the Mponeng mine would alter the impact of the mine on the receiving environment, significantly. The proposed

new water uses are driven by need to find deposition space for the remaining Life of Mine (LoM). The Applicant ensures that water is re-cycled and re-used in the process, therefore reducing the need for excessive reliance on natural water resources that supply the mine with water and preventing the wastage of water during the process.

g) Class and the resource quality objectives of the water resource

The Vaal River downstream of Vaal Dam to the outlet of C23J (Integrated Unit of Analysis (IUA) UM) includes the urban areas of Vereeniging, Vanderbijlpark, Sasolburg and Parys. In the reach between Vaal Dam and the Vaal Barrage the three main tributaries (Suikerbosrand, Klip and Rietspruit rivers) discharge into the Vaal Barrage, each conveying significant volumes of treated waste water and mine discharge water. Management of the flow entering this reach is from Vaal Dam and is influenced by the water users in and downstream of the Vaal Barrage, the urban return flows and mine dewatering discharges as well as the releases form Vaal Dam to maintain the Total Dissolved Solids (TDS) concentration at 600 mg/l (DWA, 2012).

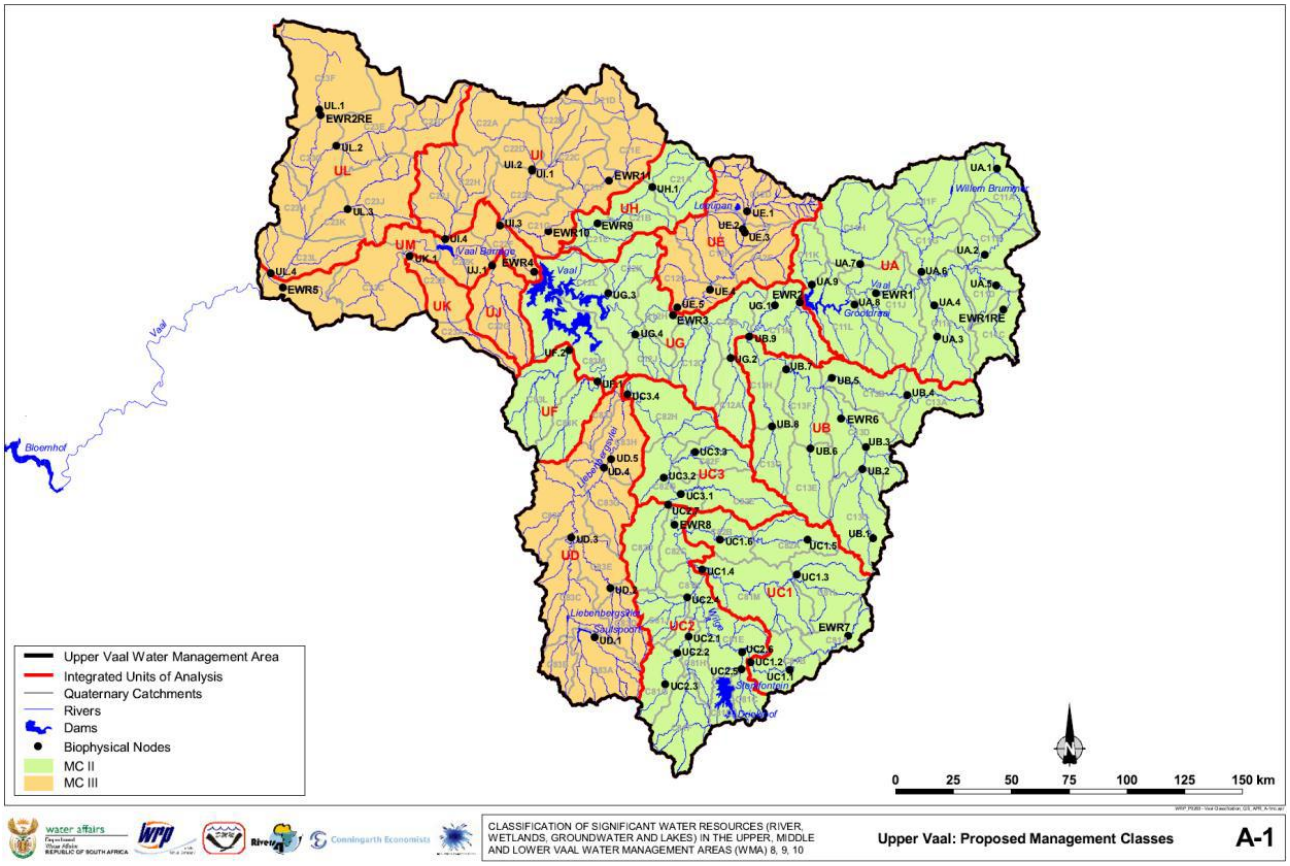

Figure 1: Classification of significant water resources (river, wetlands, groundwater and lakes) in the upper, Vaal water management areas (WMA)

Two EWR sites were defined in this IUA, one with a C Ecological Categories (EC) and the other a C/D EC state, both with a HIGH EI providing motivation that the Recommended Ecological Category (REC) should be an improvement of the Present Ecological Status (PES). However, the assessment of this scenario as part of the Reserve study indicated that the implications of this improvement have significant impacts on the economy. The operational scenario accepted for the purpose of defining the Reserve was therefore to maintain the PES. The scenarios evaluated during this study still do not achieve the REC and for that reason the PES was used in the catchment configuration for this IUA (DWA, 2012).

h) Investments already made and to be made by the water user in respect of the water use in question

At this current stage, no capital investments besides those associated with the water use licensing processes, specialist studies, designs etc. have been made.

i) Strategic importance of the water use to be authorised

As demonstrated from the mining and Savuka plant activities, the mine would not be able to proceed its' underground activities without the proposed water uses and their licensing thereof. The mine provides important socio-economic advantages to the community and to South Africa.

j) The quality of water in the water resource which may be required for the Reserve and for meeting international obligations

The following reservations apply with respect to the transfer of water into and out of the water management area, and the provision of water for future growth:

- The existing transfer of 491 million m³/a from Lesotho, which is to be increased to 835 million m³/a after the commissioning of Mohale Dam in Lesotho. – reserved by international agreement for use in and transfer from the Upper Vaal water management area;
- Existing transfers from the Thukela water management area up to the installed capacity of 630 million m³/a. The yield benefit in the Vaal System is 736 million m³/a – reserved in the Thukela water management area;
- Future large-scale water resources development on the Thukela River is reserved mainly for transfer to the Upper Vaal water management area. Current planning allows for an additional transfer of 475 million m^3/a – reserved in the Thukela water management area;
- Existing transfer of 55 million m^3/a from the Buffalo River in the Thukela water management area to the Upper Vaal water management area – reserved in the Thukela water management area;
- Transfers from the Usutu to Mhlatuze water management area at the current capacity of 63 million m³/a – reserved in the Usutu to Mhlatuze water management area;
- Existing transfers from the Upper Vaal water management area to the Olifants water management area of 36 million m³/a for power generation, plus an allowance of 38 million m3/a for future growth. (Included in Tables D8.3 to D8.6.) – reserved in the Upper Vaal water management area;
- Transfers from the Upper Vaal water management area through the Rand Water distribution system to meet requirements in the Crocodile (West) and Marico water management area which are in excess of the capacity of the local resources in the Crocodile (West) and Marico water management area. Currently this amounts to 514 million m³/a and is projected to increase to 723 million m³/a. As an upper high growth scenario, transfers may need to increase to 1 125 million m³/a. (Figures included in Tables D 8.5 and D 8.6.) – reserved in the Upper Vaal water management area;
- Releases from the Upper Vaal water management area along the Vaal River to users in the Middle Vaal and Lower Vaal water management areas to meet their realistic needs that cannot be supplied from own resources. Little change is expected from the current transfer of 828 million m³/a, although it may increase to about 910 million m3/a in 2025 under the high growth scenario – reserved in the Upper Vaal water management area;
- Current surplus transfer capacity into the Upper Vaal water management area is to be reserved for growth in urban, industrial and mining water requirements in the Upper Vaal and Crocodile (West) and Marico water management areas, and is not to be used for commercial irrigation;
- The allocation of surplus yield in the Upper Vaal water management area will be subject to national authorisation as it can be allocated to users in the Upper, Middle, Lower Vaal as well as Crocodile (West) and Marico and Olifants water management areas; and
- The Upper Vaal water management area forms the central component of the Vaal River System, which extends over several water management areas. As water resources management in the Vaal River System impacts to some degree on the water quantity and quality in all the interlinked water management areas, management of the Vaal River System is to be controlled at a national level.

k) Probable duration of any undertaking for which a water use is to be authorised

The proposed new water uses are intended to service Mponeng Operations for the current LoM estimated at five years after the plant is put under care and maintenance. It is important to bear in mind that the current LoM is only an estimation and could be extended in the future should the need arise.

[END OF WATER USE LICENCE APPLICATION SUMMARY]