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AMENDMENT LICENCE IN TERMS OF SECTION 50 OF THE NATIONAL WATER ACT, 1998 (ACT NO 36 OF 1998)

I, Trevor Balzer, in my capacity as Deputy Director-General: Special Projects in the Department of Water and Sanitation: and acting under authority of the powers sub-delegated to me by the Acting Director- General of Water and Sanitation, hereby authorises the amendment of licence: Rooipoort Developments Pty Ltd: Rooipoort Mine, dated 19 November 2015, licence no: 10/C92B/AG/4017.

SIGNED:

DATE:

22/02/2079

The above mentioned licence is amended as follows:

Amendment of property in respect of which this licence is issued

- 1. Property in respect of which this licence is issued is hereby amended
 - a by adding the following properties:
 - "3.2 Vogelstruis Pan 101, portion 0
 - 3.3 Bergplaats 100, portion 0
 - 3.4 Klipfontein 99, portion 0"

Amendment of condition 1 of Appendix II

- 2. Condition 1 of the licence is hereby amended
 - a. by the substitution in condition 1 for Table 1 of the following Table:

Table 1: Abstraction of water

Water use(s)	Purpose	Capacity/ Volume (m³, tonnes and/or m³/annum)/Area(ha)	Property Description	Co-ordinates
Section 21(a)				
Taking water from Vaal River	Used for mineral processing at the plant	248 628 m³/a	Vogelstruis Pan 101, portion 0	S28 ⁰ 38'.466" E24 ⁰ 5'.239"
Taking water from Vaal River	Used for mineral processing at the plant		Bergplaats 100, portion 0	S28 ⁰ 37'.763" E24 ⁰ 05'.439"
Taking water from Vaal River	Used for mineral processing at the plant		Bergplaats 100 R d ri 8n 7 08	S28 ⁰ 35'.8" 5E24 ⁰ 7'.415"





Water use(s)	Purpose	Capacity/ Volume (m³, tonnes and/or m³/annum)/Area(ha)	Property Description	Co-ordinates
Taking water from Vaal River	Used for mineral processing at the plant		Klipfontein 99, portion 0	S28 ⁰ 33'.129" E24 ⁰ 10'.311"
Taking water from groundwater through borehole 1	Use in the offices for domestic use	50 m³/a	Vogelstruis Pan 101, portion 0	S28° 38'.857" E24° 5'.399"
Taking water from groundwater through borehole 2	Used for domestic use at the plant	50 m³/a	Vogelstruis Pan 98, portion 0	S28 ⁰ 38'.083" E24 ⁰ 5'.932"

Amendment of condition 1 of Appendix III

- 3. Condition 1.1 of the licence is hereby amended
 - a. by the substitution in condition 1.1 for Table 1 of the following Table:

Table 4: Details of Waste Water Management Facilities

Water use(s)	Purpose	Capacity/ Volume (m³, tonnes and/or m³/annum)/Area(ha)	Property Description	Co-ordinates
Section 21(g)				
Storage of water and fine tailings into FTSF/ Puddle dam	Recovery of water and disposal of fines	Area : 4 ha 250 000m³/a	Bergplaats 100, portion 0	\$28 ⁰ 37'.705" E24 ⁰ 5'.899"
Storage of return water from FTSF/ Puddle dam into PWD	For used before re-used in the process plant or dust suppression	3 200 m³/a Area: 0.15ha	Bergplaats 100, portion 0	S28 ⁰ 37'.807" E24 ⁰ 5'.979"
Dust Suppression with wastewater from PWD	Dust Suppression	97 500m³/a	Bergplaats 100, Vogelstruis Pan 101 and Vogelstruis Pan 98	*

Amendment appendices of the licence

- 4. Appendices of the licence is hereby amended
 - a. by addition of Appendix IV

Appendix IV

Section 21(c) of the Act: Impeding or diverting the flow of water in a watercourse

and

Section 21(i) of the Act: Altering the bed, banks, course or characteristic of a

watercourse



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1. GENERAL

1.1 This licence authorises the Section 21(c) or (i) water use activities within unnamed tributaries of Vaal River as set out in Table 1 of Appendix IV and in the water use licence application reports submitted to the Provincial Head.

Table 3: Water Use Activities

Water use(s)	Purpose	Dimensio ns (m)	Property Description	Co-ordinates
Section 21(c) and (i)			
Road crossing 1 through unnamed tributary of Vaal River	To access mining areas	0.5m	Zand Plaats 5/102	S28° 41.784' E24° 4.949'
Road crossing 2 through unnamed tributary of Vaal River	To access mining areas	0.5m	Zand Plaats 5/102	S28° 41.611' E24° 4.885'
Road crossing 3 through unnamed tributary of Vaal River	To access mining areas	0.5m	Vogelstruis Pan 101	S28° 39.618' E24° 5.042'
Road crossing 4 through unnamed tributary of Vaal River	To access mining areas	0.5m	Vogelstruis Pan 101	S28° 39.283' E24° 5.317'
Road crossing 5 through unnamed tributary of Vaal River	To access mining areas	0.5m	Zand Plaats 5/102	S28° 41.197' E24° 4.581'
Road crossing 6 through unnamed tributary of Vaal River	To access mining areas	0.5m	Zand Plaats 5/102	\$28° 41.586' E24° 4.896'
Road crossing 7 through unnamed tributary of Vaal River	To access mining areas	0.5m	Zand Plaats 5/102	S28° 41.744' E24° 5.051'
Road crossing 8 chrough unnamed cributary of Vaal River	To access mining areas	0.5m	Zand Plaats 5/102	S28° 41.282' E24° 4.426'
Road crossing 9 through unnamed tributary of Vaal River	To access mining areas	0.5m	Zand Plaats 5/102	S28° 40.914' E24° 4.291'
Road crossing 10 hrough unnamed ributary of Vaal River	To access mining areas	0.5m	Zand Plaats 5/102	S28° 40.910' E24° 4.345'
Road crossing 11 hrough unnamed ributary of Vaal River	To access mining areas	0.5m	Bergplaats 100	S28° 37.693' E24° 6.112'

Water use(s)	Purpose	Dimensio ns (m)	Property Description	Co-ordinates
Road crossing 12 through unnamed tributary of Vaal	To access mining areas	0.5m	Bergplaats 100	S28° 37.455' E24° 6.280'
River				

- 1.2 The licensee must carry out and complete all the activities listed under condition 1.1 according to the following:
 - 1.2.1 Reports submitted to the Provincial Head.
 - 1.2.2 All the conditions of this licence; and
 - 1.2.3 Any other written direction issued by Provincial Head in relation to this licence.
- 1.3 No activity must take place within the extent of a watercourse/s, unless authorised by this licence.
- 1.4 No fundamental alterations of the work method statements, site plan/s and drawings are allowed, unless a modification is requested and granted by the Provincial Head in writing; and
- 1.5 No site activities must occur beyond the proposed site location of the erosion and sedimentation controls and marked limits of disturbance.

2. **FURTHER REQUIREMENTS**

- 2.1 An Environmental Management Plan (EMP) for the decommissioning of any of the water use activities listed in Table 1 must be submitted five (5) years before commencing with closure to the Provincial Head for written approval.
- 2.2 For all the activities listed under condition 1.1, Table 3, "as-built" plans and engineering drawings prepared by a registered professional engineer, must be submitted Provincial Head within six (6) months of the date of issuing of this licence. These plans and drawings must indicate the watercourse/s including wetland boundaries and layout and structure location/s of all infrastructure impeding and/or diverting flow of water in the watercourse/s as well as alternations to watercourse/s on the property/ies.

3. PROTECTIVE MEASURES

3.1 **Storm Water Management**

- Storm water management practices must be constructed, operated and maintained in a sustainable manner throughout the project and for the water use activities set out in condition 1.1 and as detailed in the Storm Water Management Plan;
- Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that storm water does not lead to bank instability and excessive levels of silt entering any watercourse/s:
- 3.1.3 Storm water must be diverted from mining areas and must be managed in such a manner as to disperse runoff and to prevent the concentration of storm water flow;
- 3.1.4 The velocity of storm water discharges must be attenuated and the banks of the watercourse/s protected; and
- 3.1.5 Storm water leaving the licensee's premises must in no way be contaminated



by any substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises.

3.2 Structures, Construction Plant and Materials

- 3.2.1 Structures must not be damaged by floods exceeding the magnitude of floods occurring on average once in every 100 years.
- 3.2.2 <u>Structures must be non-erosive, structurally stable and must not induce any flooding or safety hazard.</u>
- 3.2.3 Structures must be inspected regularly for accumulation of debris, blockage, erosion of abutments and overflow areas debris must be removed and damages must be repaired and reinforced immediately.

3.3 Water Quality

- 3.3.1 The licensee shall sample the water quality monthly at monitoring points for the following variables:
- 3.3.1.1 pH;
- 3.3.1.2 Electrical conductivity (mS/M);
- 3.3.1.3 Suspended solids (mg/l);
- 3.3.1.4 Turbidity; and
- 3.3.1.5 Total dissolved solids (mg/l)
- 3.3.2 Monitoring must be undertaken as set out in condition 4.
- 3.3.3 Activities must be scheduled to take place during the dry seasons when flows are lowest where reasonably possible.
- 3.3.4 The licensee must ensure that the quality of the water to downstream water users does not decrease because of the of the water use activities listed under condition 1.1.
- 3.3.5 Pollution of and disposal/spillage of any material into the watercourse/s must be prevented, reduced, or otherwise remediated through proper operation, maintenance and effective protective measures.
- 3.3.6 <u>Vehicles and other machinery must be serviced outside the extent of the watercourse/s. Oils and other potential pollutants must be disposed off at a licensed site, with the necessary agreement from the owner of such a site.</u>

3.4 **Flow**

- 3.4.1 The diversion activities must be conducted in a manner that does not negatively affect catchment yield, hydrology and hydraulics. The licensee must ensure that the overall magnitude and frequency of flow in the watercourse/s does not decrease, other than for natural evaporative losses and authorised attenuation volumes.
- 3.4.2 Where flow in watercourse/s is permanent, the trench must be staged across part of the channel to maintain flows. Flows must not be stopped unless essential, if necessary to stop flows it must be for a minimal time only.

3.5 Riparian and Instream Habitat (Vegetation and Physical Structure)

3.5.1 Activities must start up-stream and proceed into a down-stream direction where feasible, so that the recovery processes can start immediately, without further disturbance from upstream works.

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- 3.5.2 Operation and storage of equipment within the riparian habitat must only take place within the approved limits of disturbance indicated in the site plans and work method statements.
- 3.5.3 Activities must not occur in sensitive riffle habitats unless authorised by this licence.
- 3.5.4 Indigenous riparian vegetation, including dead trees, outside the limits of disturbance indicated in the Report must not be removed from the area.
- 3.5.5 Alien and invader vegetation must not be allowed to further colonise the area, and all new alien vegetation recruitment must be sustainably eradicated or controlled.
- 3.5.6 Soils that have become compacted through the water use activities must be loosened to an appropriate depth to allow seed germination.
- Stockpiling of removed soil and sand must be stored outside the extent of the watercourse/s, to prevent being washed into the watercourse/s and must be covered to prevent wind and rain erosion.
- 3.5.8 The use of machinery within the instream and riparian habitat will lead to compaction of soils and vegetation and must be restricted to demarcated areas only.

3.6 **Biota**

- 3.6.1 The licensee must allow movement of aquatic species, including migratory species where applicable.
- Ensure implementation of all mitigation measures not to disturb the breeding, nesting and/or feeding habitats and natural movement patterns of aquatic biota.

3.7 **Other Water Users**

The licensee must attempt to prevent adverse effect on other water users. All complaints must be recorded in complaints register and be investigated by a suitable qualified person and if investigations prove that the licensee has impaired the rights of other water users, the licensee must initiate suitable compensative measures.

3.8 Rehabilitation and Management

- The licensee must implement the rehabilitation programme to restore the watercourse/s to environmentally acceptable and sustainable conditions after completion of the activities as outlined in the rehabilitation plan;
- 3.8.2 Wetland crossing/s must be visited by a wetland specialist prior to construction to determine baseline conditions. This should be repeated after rehabilitation measures have been implemented to assess the success of rehabilitation and erosion control measures.
- 3.8.3 This programme must in particular address remedies for surface cracks and settlement which must be reported to the responsible authority;
- A photographic record must be kept as follows and submitted with reports as 3.8.4 set out in condition 4:
 - 3.8.4.1 Dated photographs of all the sites to be impacted before construction commences:
 - 3.8.4.2 Dated photographs of all the sites during construction on a monthly basis; and
 - 3.8.4.3 Dated photographs of all the sites after completion of construction.

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seasonally.

3.8.5 All disturbed areas must be re-vegetated with indigenous plants in consultation with an indigenous plant expert, ensuring that during rehabilitation only indigenous shrubs, trees and grasses are used in restoring the biodiversity.

4. MONITORING AND REPORTING

- 4.1 The Provincial Head must be notified in writing one week prior to commencement of the licensed activity/ies and again upon completion of the activity/ies as set out in this Appendix.
- 4.2 The monitoring plan must be implemented and reporting done to the Provincial Head as stipulated under section 4.3.
- 4.3 Six (6) monthly monitoring reports must be submitted to the Provincial Head for the duration of the construction phase and yearly thereafter or until otherwise agreed in writing with the Provincial Head.
- 4.4 A qualified environmental management specialist must be retained by the licensee who must give effect to the various licence conditions and to ensure compliance thereof pertaining to all activities impeding and/or diverting flow of watercourse/s as well as alternations to watercourse/s on the property/ies as set out in condition 1.1 of this Appendix.
- 4.5 The licensee must apply in writing to the Provincial Head for alternative monitoring and reporting arrangements for which written approval must be provided.



