water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

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LICENCE IN TERMS OF CHAPTER 4 OF THE

NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998) (THE ACT)

I, **Trevor Balzer,** in my capacity as Acting Director-General in the Department of Water and Sanitation and acting under authority of the powers delegated to me by the Minister of Human Settlements, Water and Sanitation, hereby authorises the following water uses in respect of this licence.

SIGNED: _____

DATE: 9 July 2020

LICENCE NO.: 11/W23A/ABCGIJ/9751

FILE NO.: 27/2/1/W123/1/2/4/5/8/2

1. Licensee

Tendele Coal Mining (Pty) Ltd
PO Box 601
Pietermaritzburg
3200

2. Water Uses

2.1.	Section 21(a) of the Act:	Taking water from a water resource, subject to the conditions as set out in Appendices I and II.
2.2.	Section 21(b) of the Act:	Storing water, subject to the conditions as set out in Appendices I and III.
2.3.	Section 21(c) of the Act:	Impeding or diverting the flow of water in a watercourse, subject to the conditions as set out in Appendices I and IV.
2.4.	Section 21(g) of the Act:	Disposing of waste in a manner which may detrimentally impact on a water resource, subject to the conditions as set out in Appendices I and V.

2.5.	Section 21(i) of the Act:	Altering the bed, banks, course or characteristics of a watercourse, subject to the conditions as set out in Appendices I and IV.
2.6.	Section 21(j) of the Act: if and	Removing, discharging or disposing of water found underground it is necessary for the efficient continuation of an activity or for the of people, subject to the conditions as set out in Appendices I VI.

3. Owners and Properties in respect to which this licence is issued

Table 1: Owners and Properties in respect to which this licence is issued

Property	Owner
Portion 0 No. 15822 Reserve No. 3	Ingonyama Trust

4. Licence and Review Period

This licence is valid for a period of five (5) years from the date of issuance and it may be reviewed at intervals of not more than five (5) years.

5. Definitions

Any word or term and expression as defined in the National Water Act, 1998 (Act No. 36 of 1998) must bear the same meaning when used in this licence, unless specifically stated otherwise.

"Act" means the National Water Act, 1998 (Act No. 36 of 1998).

"characteristics of a watercourse/s" mean the flow regime, water quality, habitat (including the physical structure of the watercourse/s and associated vegetation) and biota found within the extent of the watercourse/s. The Resource Quality characteristics as defined in the National Water Act, 1998 (Act 36 of 1998).

"Extent of the watercourse" means the outer edge of the 1:100 year floodline or the delineated riparian habitat, whichever is the greatest.

"Regulated area of a wetland" is the use of water for section 21 (c) and (i) water uses within 500m radius from the boundary of any wetland.

"wetland" means land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with mustow water, and which land in normal circumstances supports or would support vegetation typically adapted to life in saturated soil.

"report" means *Somkhele Anthracite Mine, Portion 0 No. 15822 Reserve No. 3 GV, Mtubatuba Local Municipality: Integrated Water and Waste Management Plan Report, by GCS Water & Environmental Consultants, dated March 2019.*

"The Provincial Head" / "Responsible Authority'' means the Provincial Head: Kwazulu-Natal, Department of Water and Sanitation (P.O. Box 1018, Durban 4000).

6. Description of the activity

The license authorises Tendele Coal Mining (Pty) Ltd for the Somkhele Anthracite Mine and supersedes the two existing licences (06/W23A/BCGIJ/2549 and 16/2/7W23D/1/1). The development is located on Portion 0 No. 15822 Reserve No. 3. The closest main town to the mine is Mtubatuba which is located 23 km south-east of Somkhele. Somkhele falls within the uMkhanyakude District Municipality and the Mtubatuba Local Municipality. Somkhele is an operational anthracite mine and the current mining areas includes Area 1, Area 2, Area 8 and 9. Area 4 and 5 are proposed future mining areas at the following sites: Ophondweni, Emalahleni and Mahujini. Somkhele's active mining operations are grouped into the following areas: Areas where mining has been completed – Area 2 opencast; Areas where mining activities are currently taking place – Area 1 opencast, Area 8 (Luhlanga) opencast and Area 9 (KwaQubuka) opencast; and Future mining areas – proposed extension of Area 8, and Area 4 and 5.

Existing activities to undertaken on the site as part of the development includes: storing of clean water in the Myenge Dam 2 and in the River Dam; Nkolonkotho Stream Haul Road Crossings 1 and 2; Myenge River Haul Road Crossing; Kwaluhlanga River Haul Road Crossing; Unnamed stream crossing Myenge Dam 1; Plant Header Dam; North Pit Return Water Dam; Dust Suppression Haul Roads Areas 1 and 2; Product Coal Stockpiles; Return Water Dam Pits A and A2; Settling Ponds 1, 2, 3 and 4; Platform Stormwater Dam; Slurry Pit A; Plant Stormwater Dam; Workshop PCDs 1 and 2; Return Water Dam Kwaluhlanga; Discard Dump; RoM Stockpiles; Plant 1 RoM Stockpiles; RoM Stockpiles Area 1, Area 1 South Pit and Area 1 North Pit; Conservancy Tanks Guard, Plant, Workshop, TC; Dewatering North Pit A; and Dewatering Pits A and BDE.

Proposed, new activities to be undertaken on the site as part of the development will include: abstracting water from boreholes A (Community), B, C, D, E, F and G; Myenge Dam 2 (Main Mine Entrance); Mahujini Stormwater Dams 1, 2 and 3; Luhlanga Attenuation Dam; Luhlanga Area, Demolishment of Drainage Lines 1 and 2; Mining infrastructure within 500m of wetlands HGM1 and HGM2; Ophondweni Ring Road Drainage Line Crossings 1, 2, 3, 4 and 5; Ophondweni Pit within Drainage Lines 1, 2 and 3; Ophondweni Waste Rock Dump Drainage Line Crossing; Ophondweni Road Drainage Line Crossing; Ophondweni infilling of wetlands 1, 2 and 3; Emalahleni Ring Road Drainage Line Crossings 1, 2, 3, 4 and 5; Emalahleni Pit within Drainage Lines 1 and 2; Emalahleni Waste Rock Dump 1 Drainage Line Crossing 1; Emalahleni Waste Rock Dump 2 Drainage Line Crossings 1 and 2; Emalahleni Haul Road Drainage Line Crossings 1 and 2; Mahujini Ring Road Drainage Line Crossings 1, 2, 3, 4, 5, 6, 7 and 8; Mahujini Pit within Drainage Lines 1, 2, 3 and 4; Mahujini Waste Rock Dump 1 Drainage Line Crossing 1; Mahujini Waste Rock Dump 2 Drainage Line Crossings 1 and 2; Mahujini Haul Road Drainage Line Crossings 1 and 2; PCDs 1 and 3 Mahujini River crossing; PCD5 Emalahleni River crossing; Wetland Offset (clearing of alien vegetation); Dust suppression for Area 1, 2, 8 and 9; Disposal of slurry and discard in Pit BDE (Area 2) and KwaQubuka Pit (Area 9); Luhlanga Box Cut 0 Waste Rock dump; Dust suppression for Area Ophondweni; Ophondweni RoM Stockpiles 1 and 2; Ophondweni Waste Rock Dump; Ophondweni Hard Parks 1 and 2; PCDs 8 and 9 Ophondweni; Dust suppression for Area Emalahleni; Emalahleni RoM Stockpiles 1 and 2; Emalahleni Waste Rock Dumps 1 and 2; Emalahleni Hard Parks 1 and 2; PCDs 5, 6 and 7 Emalahleni; Dust suppression for Area Mahujini; Mahujini RoM Stockpiles 1 and 2; Mahujini Waste Rock Dumps 1, 2 and 3; Mahujini Hard Parks 1 and 2; Emalahleni Hard Park 2; PCDs 1, 2, 3 and 4

Mahujini; Luhlanga PCDs 1 and 2; KwaQubuka PCD 3; and Dewatering of Luhlanga Pit (Area 8), KwaQubuka Pit (Area 9), Ophondweni Pit, Emalahleni Pit and Mahujini Pit.

APPENDIX I

GENERAL CONDITIONS FOR THE LICENCE

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act No. 36 of 1998).
2. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or body.
3. The Licensee must immediately inform the Provincial Head of any change of name, address, premises and/or legal status.
4. If the property in respect of which this licence is issued is subdivided or consolidated, the Licensee must provide full details of all changes in respect of the property to the Provincial Head of the Department within sixty (60) days of the said change taking place.
5. If a Water User Association is established in the area to manage the resource, membership of the Licensee to this association is compulsory.
6. The Licensee must be responsible for any water use charges or levies imposed by a Provincial Head.
7. While effect must be given to the Reserve as determined in terms of the Act, where a desktop determination of the Reserve has been used in issuance of a licence, when a comprehensive determination of the Reserve has finally been made; it shall be given effect to.
8. The licence shall not be construed as exempting the Licensee from compliance with the provisions of any other applicable Act, Ordinance, Regulation or By-law.
9. The licence and amendment of this licence are also subject to all the applicable procedural requirements and other applicable provisions of the Act, as amended from time to time.
10. The Licensee must appoint an independent external auditor to conduct an annual external audit on compliance with the conditions of this licence. The first audit must be conducted within three (3) months of the date of issuance of this licence and a report on the audit shall be submitted to the Provincial Head within one month of finalization of the audit.
11. Flow metering, recording and integrating devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than two (2) years. Calibration certificates shall be available for inspection by the Provincial Head or his/her designated representative upon request.
12. Any incident that causes or may cause water pollution must be reported to the Provincial Head or his/her designated representative within 24 hours.
13. All waste must be stored in designated areas which are isolated from surface drains. Waste storage facilities should be covered to prevent dust and litter from leaving the containment area and rainwater accumulation.
14. No activity must take place within the 1:100 year flood line or the riparian habitat whichever is the greatest, or within 100m from a borehole or well, unless authorised by this licence.
15. A copy of the water use licence must be on site at all times.
16. A suitably qualified person/s, appointed by the Licensee, and approved in writing by the Provincial Head, must be responsible for ensuring that the activities are undertaken in

compliance with the specifications as set out in reports submitted to the Department or the Provincial Head and the conditions of this licence.

17. Please note the following regarding the proposed water use activities:

17.1 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

17.2 No site activities must occur beyond the proposed site location of the erosion and sedimentation controls and marked limits of disturbance.

18. The Licensee is exempted from compliance with Regulation 4(a) and 4(c) of General Notice 704 (GN704, dated 4 June 1999) regulating the use of water from mining and related activities aimed at the protection of water resources.

19. If the Licensee is not the end user/beneficiary of the water use related infrastructure and will not be responsible for long term maintenance and management of the infrastructure, the Licensee must provide a programme for hand over to the successor-in-title including a brief management / maintenance plan and the agreement for infrastructure along with allocation of responsibilities, within three (3) months of the date of issuing of this licence.

20. The water user must ensure that there is a budget sufficient to complete and maintain the water use and for successful implementation, maintenance and liabilities associated with the rehabilitation and offset programmes as set out in this license.

21. The Department may at any stage of the process request proof of budgetary provisions for rehabilitation, offsetting and closure of project.

22. The Licensee is fully responsible and accountable for any negative impacts on the watercourse(s) and the modeling, monitoring and mitigation thereof; until such time that no negative impacts are experienced and/or foreseen.

23. The methods of analysis shall not be changed without prior notification to and written approval by the Provincial Head.

24. Should the Licensee require any amendment(s) to the licence, an application for such must be submitted to the Department within six (6) months of issuance of the licence.

25. The Licensee must apply for a new Water Use Licence twenty-four (24) months prior to the expiration of this licence.

APPENDIX II

Section 21(a) of the Act: Taking water from a water resource

1. GENERAL

1.1. This licence authorises Tendele Coal Mining (Pty) Ltd for Section 21(a) water uses for the Somkhele Anthracite Mine as tabulated below.

Table 2: Section 21(a) Water Use Activities

Water use(s)	Purpose	Volume	Property Description	Co-ordinates
Section 21(a)	Abstracting water from Borehole A (Community)	114 482 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28° 22'36.85" E 32° 1'32.32"
Section 21(a)	Abstracting water from Borehole B	85 672 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°22'20.58" E 32° 1'21.98"
Section 21(a)	Abstracting water from Borehole C	98 067 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°22'40.41" E 32° 1'34.09"
Section 21(a)	Abstracting water from Borehole D	79 004 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°22'30.75" E 32° 1'28.44"
Section 21(a)	Abstracting water from Borehole E	105 465 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°22'14.64" E 32° 1'17.46"
Section 21(a)	Abstracting water from Borehole F	20 226 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°22'43.23'' E 32° 1'35.37"
Section 21(a)	Abstracting water from Borehole G	20 277 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°22'46.19" E 32° 1'36.95"

1.2. The abstraction method must minimise damage to river bed, river banks and riparian habitat.

1.3. The quantity of water authorised to be taken in terms of this licence may not be exceeded without prior authorisation by the Minister.

1.4. No water taken may be used for any purposes other than intended in this licence, without written approval by the Minister or his/her delegated nominee.

1.5. This licence does not imply any guarantee that the said quantities and qualities of water will be available at present or at any time in the future.

1.6. The abovementioned volume may be reduced when the licence is reviewed.

1.7. The Licensee shall continually investigate new and emerging technologies and put into practice water efficient devices or apply technique for the efficient use of water containing waste, in an endeavour to conserve water at all times.

1.8. The Licensee must establish a programme of formal Information Management System, which maintains a database on water supply, distribution and delivery infrastructure.

1.9. If the water use authorised in this licence is not fully exercised within 3 (three) years of issuance of this licence, the licence may be terminated or amended accordingly. Upon commencement of the water use, the Licensee must inform the Provincial Head in writing.

1.10. The Licensee must install appropriate water measuring devices to measure the amount of water abstracted. The Licensee shall ensure that all measuring devices are properly maintained and in good working order and must be easily accessible. This shall include a programme of checking, calibration, and/ or renewal of measuring devices recorded and reported. All water taken from the resource shall be measured as follows:

1.10.1. The daily quantity of water taken must be metered or gauged and the total recorded at the last day of each month; and

1.10.2. The Licensee shall keep record of all water taken and a copy of the records shall be forwarded to the Provincial Head on or before 25 January and 25 July of each year.

1.11. The Licensee shall be responsible for any water use charges or levies, which may be imposed from time to time by the Department or Provincial Head in terms of the Department's Raw Water Pricing Strategy.

1.12. The Department accepts no liability for any damage, loss or inconvenience, of whatever nature, suffered as a result of:

1.12.1. Shortage of water;

1.12.2. Inundations or flood; and

1.12.3. Siltation of the resource.

1.13. The Licensee shall establish and implement a continual process of raising awareness amongst itself, its workers and stakeholders for the need to for Water Conservation/Water Demand Management (WC/WDM).

1.14. An Operation and Maintenance Plan must be submitted for approval within six (6) months of issuing of this Licence. The river flows must be measured to indicate what quantities can be abstracted at what flows.

APPENDIX III

Section 21(b) of the Act: Storing water

1. GENERAL

1.1. This licence authorises Tendele Coal Mining (Pty) Ltd for Section 21(b) water uses for the Somkhele Anthracite Mine as tabulated below.

Table 3: Section 21(b) Water Use Activities

Water use(s)	Purpose	Capacity	Property Description	Co-ordinates
Section 21(b)	Storing of clean water in the River Dam	3 000 m^3	Portion 0 No. 15822 Reserve No. 3	28° 22' 8.6" S 32° 01' 11" E
Section 21(b)	Myenge Dam 2 (Main Mine Entrance)	200 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18'2.01" E 32°3'39.60"
Section 21(b)	Mahujini Stormwater Dam 1	16 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'53.42" E 32° 3'56.11"
Section 21(b)	Mahujini Stormwater Dam 2	6 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°17'17.35" E 32° 3'46.57"
Section 21(b)	Mahujini Stormwater Dam 3	4 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°17'14.97" E 32° 4'31.13"
Section 21(b)	Luhlanga Attenuation Dam	10 358 m^3	Portion 0 No. 15822 Reserve No. 3	S 28° 19' 17.56" E 32° 4' 43.80"

1.2. The Licensee must obtain any proprietary rights or servitudes at their own cost.

1.3. The Licensee is not exempted from compliance with any applicable Dam Safety Regulations.

1.4. The Licensee is not indemnified from any detrimental effect that the dam may have on any other property. The Department does not accept any responsibility or liability for any damages or losses that may be suffered by any other party as a result of the construction and utilisation of the dams.

1.5. Suitable measuring structures must be constructed to measure the flows entering and leaving the weir / dams and this information must be available to the Provincial Head on request.

1.6. The quantity of water stored shall be recorded as at the last day of each month.

1.7. The dams shall be fitted with an outlet pipe through the base of the wall, with a suitable valve to release low flows.

1.8. A Reserve volume of 10% shall be left in the dam to supply low flows during drought periods.

1.9. Any additional water storage facilities cannot be constructed on the property without prior consent of the Minister or Responsible Authority.

1.10. The Licensee shall establish a monitoring programme and the date and time of monitoring in respect of each sample taken shall be recorded together with the results of the analysis as well as other significant information (low flow, flooding, pollution incident, etc.).

1.11. The construction, operation, and maintenance of all dam facilities classified as a dam with a safety risk, must be carried out under the supervision of a Professional Civil Engineer.

2. OPERATION OF DAM

2.1. The as-built drawing and specifications of the attenuation structures and all river crossings must be submitted to the Provincial Head, three months after completion of construction.

2.2. The Government reserves the right to construct storage works at any time in any stream and to store all surplus water reaching the dams and to control the allocation of such water.

3. FLOW

3.1. The 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.

3.2. The Licensee must maintain the health of the river downstream through minimum releases and high flow releases simulating floods in the catchment. At least 50% of the early season flow entering the dam must be released and this must be formally monitored.

APPENDIX IV

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

Section 21(i) of the Act: Altering the bed, banks, course of characteristics of a watercourse

1. GENERAL

1.1. This licence authorises Tendele Coal Mining (Pty) Ltd for Section 21(c) & (i) water uses for the Somkhele Anthracite Mine as tabulated below.

Table 4: Section 21(c) & (i) Water Use Activities

Water use(s)	Purpose	Dimensions	Property Description	Co-ordinates
Section 21(c) & (i)	Nkolonkotho Stream Haul Road Crossing 1	N/A	Portion 0 No. 15822 Reserve No. 3	S 28°18' 54.482" E 32° 03' 8.103" S 28°18'54.6300" E 32°03' 8.017" S 28°18'54.8892" E 32°03' 8.5211" S 28° 18' 54.73" E 32° 03' 8.62" Central: S 28° 18' 54.482" E 32° 03' 8.103"E
Section 21(c) & (i)	Nkolonkotho Stream Haul Road Crossing 2	N/A	Portion 0 No. 15822 Reserve No. 3	S 28° 19' 10.5852" E 32°02' 56.8644" S 28° 19' 10.8840" E 32° 02' 56.5727" S 28° 19' 10.6175" E 32° 02' 56.2452" S 28° 18' 54.73" E 32° 03' 8.62"

Water use(s)	Purpose	Dimensions	Property Description	Co-ordinates
				Central: S 28° 19' 10.5852" E 32° 02' 56.8644"
Section 21(c) & (i)	Myenge River Haul Road Crossing	N/A	Portion 0 No. 15822 Reserve No. 3	S 28° 18' 48.4308" E 32° 03' 20.30039" S 28° 18' 48.3300" E 32° 03' 20.0591" S 28° 18' 48.0276" E 32° 03' 20.2931" S 28° 18' 48.1601" E 32° 03' 20.5200" Central: S 28° 18' 48.4308" E 32° 03' 20.30039"
Section 21(c) & (i)	Kwaluhlanga River Haul Road Crossing	N/A	Portion 0 No. 15822 Reserve No. 3	S 28° 18' 51.8831" E 32° 04' 6.8159" S 28° 18' 52.8839" E 32° 04' 7.9464" S 28° 18' 53.9892" E 32° 04' 6.9959" S 28° 18' 52.8839" E 32° 04' 6.2004" Central: S 28° 18' 51.8831" E 32° 04' 6.8159"
Section	Unnamed stream	N/A	Portion 0 No. 15822 Reserve No.	S 28° 20' 36.3803"

Water use(s)	Purpose	Dimensions	Property Description	Co-ordinates
21(c) & (i)	crossing		3	E 32° 03' 33.8291" S 28° 20' 36.9060" E 32° 03' 34.4304" S 28° 20' 36.4020" E 32° 03' 35.2871" S 28° 20' 35.8439" E 32° 03' 34.6212" Central: S 28° 20' 36.3803" E 32° 03' 33.8291"
Section 21(c) & (i)	Luhlanga Area, Demolishment of Drainage Line 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°19'14.87" E 32° 4'33.16"" End S 28°18'59.79" E 32° 4'26.85"
Section 21(c) & (i)	Luhlanga Area, Demolishment of Drainage Line 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'59.79" E 32° 4'26.85" End S 28°19'1.27" E 32° 4'41.48"
Section 21(c) & (i)	Mining infrastructure within 500m of wetland, HGM1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°21’40.64” E 32°1’06.03” End S 28°21’27.41” E 32°1’17.35”
Section 21(c) & (i)	Mining infrastructure within 500m of wetland, HGM 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°19’30.57” E 32°3’46.19” End

Water use(s)	Purpose	Dimensions	Property Description	Co-ordinates
				S 28°18'26.92" E 32°4'23.82"
Section 21(c) & (i)	Ophondweni Ring Road Drainage Line Crossing 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'30.84" E 32° 9'21.29" End S 28°15'36.20" E 32° 9'16.56"
Section 21(c) & (i)	Ophondweni Ring Road Drainage Line Crossing 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'47.44" E 32° 9'9.26" End S 28°15'47.85" E 32° 9'10.26"
Section 21(c) & (i)	Ophondweni Ring Road Drainage Line Crossing 3	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'22.45" E 32° 9'27.31" End S 28°15'23.86" E 32° 9'27.10"
Section 21(c) & (i)	Ophondweni Ring Road Drainage Line Crossing 4	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'25.51" E 32° 9'25.56" End S 28°15'31.39" E 32° 9'20.30"
Section 21(c) & (i)	Ophondweni Ring Road Drainage Line Crossing 5	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'33.84" E 32° 9'18.62" End S 28°15'35.82" E 32° 9'18.58"
Section 21(c) & (i)	Ophondweni Pit within Drainage Line 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'25.64" E 32° 9'25.61" End

Water use(s)	Purpose	Dimensions	Property Description	Co-ordinates
				S 28°15'35.53" E 32° 9'30.73"
Section 21(c) & (i)	Ophondweni Pit within Drainage Line 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'37.04" E 32° 9'19.92" End S 28°15'47.12" E 32° 9'24.33"
Section 21(c) & (i)	Ophondweni Pit within Drainage Line 3	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'48.97" E 32° 9'11.76" End S 28°16'2.44" E 32° 9'15.05"
Section 21(c) & (i)	Ophondweni Waste Rock Dump Drainage Line Crossing	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'32.12" E 32° 9'50.56" End S 28°16'6.69" E 32° 9'29.71"
Section 21(c) & (i)	Ophondweni Road Drainage Line Crossing	N/A	Portion 0 No. 15822 Reserve No. 3	S 28°15'48.85" E 32° 9'7.69"
Section 21(c) & (i)	Ophondweni infilling of wetlands 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'26.59" E 32° 9'23.54" End S 28°15'31.37" E 32° 9'28.24"
Section 21(c) & (i)	Ophondweni infilling of wetlands 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'35.13" E 32° 9'17.23" End S 28°15'41.10" E 32° 9'24.88"
Section 21(c) & (i)	Ophondweni infilling of wetlands 3	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'47.09"

Water use(s)	Purpose	Dimensions	Property Description	Co-ordinates
				E 32° 9'8.82" End S 28°15'53.49" E 32° 9'11.32"
Section 21(c) & (i)	Emalahleni Ring Road Drainage Line Crossing 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'51.96" E 32° 6'18.87" End S 28°18'53.48" E 32° 6'19.08"
Section 21(c) & (i)	Emalahleni Ring Road Drainage Line Crossing 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'44.22" E 32° 6'25.63" End S 28°18'45.18" E 32° 6'26.13"
Section 21(c) & (i)	Emalahleni Ring Road Drainage Line Crossing 3	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'53.69" E 32° 6'35.03" End S 28°18'54.41" E 32° 6'35.83"
Section 21(c) & (i)	Emalahleni Ring Road Drainage Line Crossing 4	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'25.30" E 32° 6'48.12" End S 28°18'26.47" E 32° 6'48.66"
Section 21(c) & (i)	Emalahleni Ring Road Drainage Line Crossing 5	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'36.56" E 32° 6'50.93" End S 28°18'37.46" E 32° 6'51.59"
Section 21(c) & (i)	Emalahleni Pit within Drainage Line 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'46.58"

Water use(s)	Purpose	Dimensions	Property Description	Co-ordinates
				E 32° 6'26.82 End S 28°18'52.83" E 32° 6'33.92"
Section 21(c) & (i)	Emalahleni Pit within Drainage Line 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'26.86" E 32° 6'48.86" End S 28°18'35.08" E 32° 6'50.28"
Section 21(c) & (i)	Emalahleni Waste Rock Dump 1 Drainage Line Crossing 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'54.56 E 32° 6'36.05" End S 28°19'2.87" E 32° 6'40.32"
Section 21(c) & (i)	Emalahleni Waste Rock Dump 2 Drainage Line Crossing 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'38.11" E 32° 6'51.48" End S 28°18'47.03" E 32° 6'52.94"
Section 21(c) & (i)	Emalahleni Waste Rock Dump 2 Drainage Line Crossing 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°18'26.36" E 32° 7'4.96" End S 28°18'31.57" E 32° 7'6.98"
Section 21(c) & (i)	Emalahleni Haul Road Drainage Line Crossing 1	N/A	Portion 0 No. 15822 Reserve No. 3	S 28°18'58.20" E 32° 6'8.31"E
Section 21(c) & (i)	Emalahleni Haul Road Drainage Line Crossing 2	N/A	Portion 0 No. 15822 Reserve No. 3	S 28°19'12.60" E 32° 5'32.55"
Section 21(c) & (i)	Mahujini Ring Road Drainage Line Crossing 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°16'52.15" E 32° 3'55.92" End

Water use(s)	Purpose	Dimensions	Property Description	Co-ordinates
				S 28°16'52.69" E 32° 3'56.85"
Section 21(c) & (i)	Mahujini Ring Road Drainage Line Crossing 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°17'10.37" E 32° 3'45.69" End S 28°17'10.09" E 32° 3'47.09"
Section 21(c) & (i)	Mahujini Ring Road Drainage Line Crossing 3	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°17'14.55" E 32° 3'49.05" End S 28°17'15.49" E 32° 3'48.41"
Section 21(c) & (i)	Mahujini Ring Road Drainage Line Crossing 4	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°17'18.69" E 32° 4'11.68" End S 28°17'19.70" E 32° 4'12.09"
Section 21(c) & (i)	Mahujini Ring Road Drainage Line Crossing 5	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°16'58.69" E 32° 4'25.51" End S 28°17'6.10" E 32° 4'23.37"
Section 21(c) & (i)	Mahujini Ring Road Drainage Line Crossing 6	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°16'48.73" E 32° 4'29.16" End S 28°16'51.78" E 32° 4'28.17"
Section 21(c) & (i)	Mahujini Ring Road Drainage Line Crossing 7	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°16'20.52" E 32° 4'19.08" End

Water use(s)	Purpose	Dimensions	Property Description	Co-ordinates
				S 28°16'21.64" E 32° 4'18.35"
Section 21(c) & (i)	Mahujini Ring Road Drainage Line Crossing 8	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°16'17.15" E 32° 4'16.40" End S 28°16'17.95" E 32° 4'17.94"
Section 21(c) & (i)	Mahujini Pit within Drainage Line 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°16'7.35" E 32° 4'7.46" End S 28°16'15.72" E 32° 4'14.69"
Section 21(c) & (i)	Mahujini Pit within Drainage Line 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°16'26.20" E 32° 4'13.27" End S 28°16'31.40" E 32° 4'7.93"
Section 21(c) & (i)	Mahujini Pit within Drainage Line 3	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°16'50.08" E 32° 4'26.37" End S 28°17'14.59" E 32° 3'49.07"
Section 21(c) & (i)	Mahujini Pit within Drainage Line 4	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°17'17.75" E 32° 4'11.13" End S 28°17'5.33" E 32° 4'20.24"
Section 21(c) & (i)	Mahujini Waste Rock Dump 1 Drainage Line Crossing 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°15'48.32" E 32° 4'12.50" End

Water use(s)	Purpose	Dimensions	Property Description	Co-ordinates
				S 28°15'51.66" E 32° 4'19.35"
Section 21(c) & (i)	Mahujini Waste Rock Dump 2 Drainage Line Crossing 1	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°17'6.62" E 32° 4'23.75" End S 28°17'12.55" E 32° 4'30.05"
Section 21(c) & (i)	Mahujini Waste Rock Dump 2 Drainage Line Crossing 2	N/A	Portion 0 No. 15822 Reserve No. 3	Start S 28°16'47.88" E 32° 4'42.77" End S 28°17'7.18" E 32° 4'35.28"
Section 21(c) & (i)	Mahujini Haul Road Drainage Line Crossing 1	N/A	Portion 0 No. 15822 Reserve No. 3	S 28°17'52.14" E 32° 3'33.33"
Section 21(c) & (i)	Mahujini Haul Road Drainage Line Crossing 2	N/A	Portion 0 No. 15822 Reserve No. 3	S 28°17'10.87" E 32° 3'44.41"
Section 21(c) & (i)	PCD 1 Mahujini River crossing	N/A	Portion 0 No. 15822 Reserve No. 3	S 28°16'3.81" E 32° 3'45.54"
Section 21(c) & (i)	PCD 3 Mahujini River crossing	N/A	Portion 0 No. 15822 Reserve No. 3	S 28°16'19.37" E 32° 4'32.67"
Section 21(c) & (i)	PCD5 Emalahleni River crossing	N/A	Portion 0 No. 15822 Reserve No. 3	S 28°18'40.55" E 32° 6'25.71"
Section 21(c) & (i)	Wetland Offset (clearing of alien vegetation)	N/A	Portion 0 No. 15822 Reserve No. 3	S 28°24'1.82" E 32°01'20.79"

1.2. The Licensee must carry out and complete all the activities according to the following:

a. Somkhele Anthracite Mine, Portion 0 No. 15822 Reserve No. 3 GV, Mtubatuba Local Municipality: Integrated Water and Waste Management Plan Report, by GCS Water & Environmental Consultants, dated March 2019;

b. Integrated Water and Waste Management Plan: Somkhele Anthracite Mine, Portion 0 No. 15822 Reserve No. 3 GV, Mtubatuba Local Municipality 30 Day Letter Response, by GCS Water & Environmental Consultants, dated February 2020;

c. Integrated Water and Waste Management Plan: Somkhele Anthracite Mine, Portion 0 No. 15822 Reserve No. 3 GV, Mtubatuba Local Municipality 14 Day Letter Response, by GCS Water & Environmental Consultants, dated March 2020;

d. Integrated Water and Waste Management Plan: Somkhele Anthracite Mine, Portion 0 No. 15822 Reserve No. 3 GV, Mtubatuba Local Municipality 7 Day Letter Response, by GCS Water & Environmental Consultants, dated March 2020;

e. An analysis of the expenditure relatd to moving the open cast pits out of the drainage lines as per DWS request, by Tendele Coal Mining (Pty) Ltd;

f. Somkhele Coal Mine – Conceptual Design Report for the PIT BDE, Area 2 for Waste Deposition Purposes, by GCS Water & Environmental Consultants, dated June 2016;

g. Wetland Assessment Offset Plan for the Ophondweni Wetlands and Boxcut 0 Drainage Areas – Somkhele Mine, by GCS Water & Environmental Consultants, dated March 2020;

h. Proposed Somkhele Mine Expansion in the Hlabisa Local Municipality, KwaZulu-Natal: Preliminary Wetland Impact Assessment Report, by GCS Water & Environmental Consultants, dated May 2014;

i. Wetland Impact Assessment – Proposed Update of existing Water Use Licences pertaining to the Somkhele Anthracite Mine, Mtubatuba Local Municipality, KwaZulu-Natal, by Malachite Ecological Services, dated June 2018;

j. Wetland Assessment for the Ophondweni Area – Somkhele Mine, by GCS Water & Environmental Consultants, dated February 2019;

k. Wetland Habitat Screening Report – Proposed Clean Water Storage Facility for the Somkhele Mine within the Hlabisa Local Municipality, KwaZulu-Natal, by eco-pulse environmental consulting services, dated February 2018;

l. Numerical Modelling Assessment of Pit Wall Stability for Somkhele Colliery, by Latona Consulting (Pty) Ltd, dated June 2018;

m. Geotechnical Materials Report – Centreline & Materials Investigation Emalahleni Haul Road and Intersection Tendele Coal Mine, Somkhele Area, KwaZulu-Natal, by Ground Africa Consulting Geotechnical Engineers cc, dated September 2018;

n. Somkhele Mining Areas Expansion: Emalahleni, Mahujini & Ophondweni Aquatic Rehabilitation Plan: Riparian and Instream Habitats, by eco-pulse environmental consulting services, dated December 2019;

o. Proposed Somkhele Mine Expansion in the Hlabisa Local Municipality, KwaZulu-Natal: Aquatic Assessment Report, by GCS Water & Environmental Consultants, dated March 2014;

p. Somkhele Mine: Summer Aquatic Bio-Monitoring Report, by GCS Water & Environmental Consultants, dated February 2019;

q. Follow-Up Hydrogeological Study for Somkhele Anthracite Mine – Mining Area 4 and 5, by GCS Water & Environmental Consultants, dated March 2019;

r. Geohydrological Model Update for the Somkhele Anthracite Colliery – 2017, by GCS Water & Environmental Consultants, dated March 2018;

s. Follow-Up Hydrogeological Investigation Somkhele Anthracite Mine - Mining Area 8 and 9 Report, by GCS Water & Environmental Consultants, dated February 2019;

t. Somkhele Anthracite Mine Area 4 and 5 Floodline Analysis, by GCS Water & Environmental Consultants, dated March 2019;

u. Somkhele Mine, KwaZulu-Natal: Kwaqubuka and Luhlanga Flood Line Analysis, by GCS Water & Environmental Consultants, dated February 2018;

v. Somkhele Mine, KwaZulu-Natal: Mahujini and Emalahleni Haul Road Flood Line Analysis, by GCS Water & Environmental Consultants, dated January 2018;

w. Somkhele Flood Line Study, by GCS Water & Environmental Consultants, dated March 2011;

x. Somkhele Rehabilitation Strategy and Implementation Plan Report, by Black Rock Environmental, dated April 2018;

y. Water Balance Update for the Somkhele Anthracite Mine, by GCS Water & Environmental Consultants, dated March 2019;

z. Area 4 & 5 (Ophondweni, Emalahleni and Mahujini) Storm Water Management Plan, by GCS Water & Environmental Consultants, dated March 2019;

aa. Area 8 & 9 (Luhlanga and KwaQubuka) Storm Water Management Plan, by GCS Water & Environmental Consultants, dated March 2019;

bb. Somkhele Mine: Storm Water Management Plan Update, by GCS Water & Environmental Consultants, dated April 2015;

cc. Annual Water Quality Monitoring Report for Tendele Coal – Somkhele Colliery – January to December 2018, by GCS Water & Environmental Consultants, dated March 2019;

dd. Tendele Coal Mining – Somkhele Mine 3rd Quarter Water Monitoring Report 2018, by GCS Water & Environmental Consultants, dated November 2018;

ee. Somkhele Waste Classification Report, by GCS Water & Environmental Consultants, dated March 2016;

ff. Hydropedological Assessment for the Somkhele Anthracite Mine, by GCS Water & Environmental Consultants, dated February 2019;

gg. Pit A – Slurry Management Plan, by GCS Water & Environmental Consultants, dated February 2019;

hh. Decant Assessment for the Somkhele Anthracite Mine – 2018, by GCS Water & Environmental Consultants, dated February 2019;

ii. Conceptual Acid Mine Drainage Management Plan (CAMDMP) for the Somkhele Anthracite Mine, by GCS Water & Environmental Consultants, dated February 2019;

jj. Somkhele Area 4 & 5 Flood line Analysis GN704 Exemption Motivation Report, by GCS Water & Environmental Consultants, dated March 2019;

kk. GN704 Motivation Report for in-Pit Disposal of Coal Waste Material for Somkhele Mining Area 9 and Area 8 For IWULA Supplement, by GCS Water & Environmental Consultants, dated February 2019;

ll. Luhlanga Box Cut Zero Motivational Report, by Tendele Coal Mining (Pty) Ltd, dated February 2019;

mm. Somkhele Mines Proposed Diversion Of Storm Water Around The Enlarged Luhlanga Box Cut Zero (Area 8) Preliminary Design Report, by Inqubeko Consulting Engineers, dated February 2019;

nn. Tendele Coal Mining Mahujini & Emalahleni Mining Areas Proposed New Haul Road To Mahujini & Emalahleni Pit Design Report, by Ilifa Africa Engineers (Pty) Ltd, dated February 2020;

oo. Proposed Diversion of Storm Water Around Enlarged Luhlanga Box Cut Zero (Area 8) Design Report for WULA, by InqubekoConsulting Engineers, dated February 2020;

pp. Preliminary AMD Treatment Systems & Business Plan for the Somkhele Anthracite Mine (including AMD and Decant Management Plan -2019), by GCS Water & Environmental Consultants, dated December 2019; and

qq. Somkhele Anthracite Mine Civil Design Report For Proposed Mining Activities, by GCS Water & Environmental Consultants, dated February 2020.

1.3. The conditions of this authorisation must be brought to the attention of all persons (employees, contractors etc.) associated with the undertaking of this activity and the applicant must take such measures that are necessary to bind such persons to the conditions of this authorisation.

1.4. For all the activities listed under condition 1.1 "as-built" plan(s) and engineering drawing(s) prepared by a registered professional engineer, must be submitted to the Provincial Head within six (6) months of completion of new activities and for existing water uses within six (6) months of the date of issuing of this licence. These plan(s) and drawing(s) must indicate the watercourse(s) including wetland boundaries and layout and structure location(s) of all infrastructure impeding and/or diverting flow of watercourses as well as alterations to watercourse(s) on the properties.

1.5. The Licensee must ensure that:

1.5.1. The working area is reduced while working on wetlands, as per recommendations from approved Environmental Management Programme, and Wetland and Functional Assessment reports;

1.5.2. Unnecessary encroachment into riparian zone, wetlands and river / stream is not permitted;

1.5.3. Excavated material is prevented from running into water bodies and other sensitive areas;

1.5.4. Edge effects of activities, including erosion and alien / weed control are strictly managed in the wetland area;

1.5.5. The disturbance of wetlands / riparian zone are minimised as per wetland specialist recommendations or motivation;

1.5.6. A Registered Environmental Professional is appointed to be part of master planning and site layout at watercourses, supervise work through watercourses and rehabilitation;

1.5.7. The recommended ecological class is set as Category C;

1.5.8. A plant search and rescue is performed; and

1.5.9. A nursery is established on site.

2. PROTECTIVE MEASURES

2.1. Stormwater management and erosion control

2.1.1. The Stormwater Management Plan must be updated to separate clean and dirty water, and submitted to the Provincial Head within six (6) months from the date of issuing of this licence and implemented.

2.1.2. The stormwater management water discharge points must be designed as bio-retention ponds as natural as possible outside the wetlands.

2.1.3. Stormwater 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 must include but are not limited to the following:

2.1.3.1. 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 the watercourse(s);

2.1.3.2. Stormwater must be diverted from construction works, infrastructure areas, impoundments and roads and must be managed in such a manner as to disperse runoff and to prevent the concentration of stormwater flow;

2.1.3.3. The velocity of stormwater discharges must be attenuated and the banks of the watercourses protected, notably in this environment of high rainfall;

2.1.3.4. Stormwater 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;

2.1.3.5. Sheet runoff from paved, compacted, hardened surfaces and access roads need to be curtailed;

2.1.3.6. Erosion control measures must be implemented to avoid erosion in areas that are prone to erosion, such as the steep slopes and drainage lines;

2.1.3.7. All erosion control mechanisms need to be regularly inspected and maintained;

2.1.3.8. Stormwater discharge points with energy dissipaters must be constructed strategically in and around infrastructure to discharge storm water into the surrounding area to avoid concentration of discharges;

2.1.3.9. Reduce runoff from hardened surfaces by strategically placing structures such as grassed swales, Hyson Cells or grass blocks to enhance infiltration; and

2.1.3.10. All pipeline trenches dug within the 1:100 year floodlines fo the watercourse must be stabilized with Reno mattresses or similar after the placing of the pipe and the partial backfilling of the trench.

2.1.4. The Licensee must ensure that stormwater does not ingress into the wastewater system, and that wastewater does not ingress into the stormwater system.

2.1.5. Wastewater systems must be properly maintained on a continuous basis.

2.1.6. Sediment and debris / litter must be trapped before entering the main drainage system by constructing retention structures. These structures should be regularly maintained.

2.2. **Structures, construction site and materials**

2.2.1. All sensitive areas must be demarcated and protected prior to construction.

2.2.2. The necessary erosion prevention and protection mechanisms must be employed to ensure the sustainability of structures and activities and to prevent sedimentation within the watercourses.

2.2.3. The height, width and length of structures must be limited to the minimum dimensions necessary to accomplish the intended function.

2.2.4. Structures must not be damaged by floods exceeding the magnitude of floods occurring on average once in every 100 years.

2.2.5. Structures must be non-erosive, structurally stable and must not induce any flooding or safety hazard.

2.2.6. All structures must be inspected regularly for accumulation of debris, blockage, instabilities, erosion of abutments and overflow areas – debris must be removed and damages must be repaired and reinforced immediately.

2.2.7. The construction camp, equipment and material stockpiles must be located outside the extent of the watercourse/s and must be recovered and removed within a period of 1 (one) month after completion of activity.

2.2.8. All areas affected by construction should be rehabilitated upon completion of the construction phase of the development. Areas should be reseeded with indigenous vegetation species as required and the use of seed nets is recommended to prevent erosion.

2.2.9. No construction is allowed within the 1:100 year floodline and/or delineated riparian habitat, whichever is the greatest, or within 500 m radius from the boundary of any wetland unless authorised in this licence.

2.2.10. With respect to any access roads, haul roads or crossings (temporary or permanent) please note the following:

2.2.10.1. Any damage must be repaired immediately to prevent further damage;

2.2.10.2. These must be non-polluting with respect to silt and litter that can be deposited into a watercourse;

2.2.10.3. These must facilitate the movement of aquatic and non-aquatic organisms and fauna where watercourses are crossed; and

2.2.10.4. These must be tarred or concreted in such a way that it minimizes impacts on the characteristics of any watercourses that are crossed.

2.2.11. Where possible, construction activities should be scheduled for dry winter months to decrease the risk of erosion during heavy thunderstorms.

2.2.12. Natural drainage lines and wetlands outside of the structure footprint must be treated as sensitive areas, with highly restricted use. Permissible activities inside these areas must be clearly stipulated and treated as unique situations and exceptions.

2.2.13. The Licensee must:

2.2.13.1. Protect all areas susceptible to erosion and ensure that there is no undue soil erosion resultant from activities within and adjacent to the construction camp and work areas;

2.2.13.2. Not permit vehicular or pedestrian access into the wetland areas;

2.2.13.3. Retain natural indigenous trees, shrubbery and grass species wherever possible;

2.2.13.4. Not drain, fill or alter in any way, any wetland or drainage line, including the riverbanks unless this forms part of the construction works authorised in this licence;

2.2.13.5. Not allow erosion to develop on a large scale before effecting repairs. When in doubt, seek advice from the Environmental Officer / Environmental Control Officer; and

2.2.13.6. Install sedimentation barriers for construction close to the wetland buffers and fence sensitive areas during construction.

2.2.14. Crossings must be constructed to lie perpendicular across a wetland and not diagonally as this will create preferential flow paths which will ultimately desiccate the wetland.

2.2.15. The method used for crossing must prevent the concentration of flow and thus the risk of soil erosion.

2.2.16. Stock piles must be re-vegetated to stabilise the soil, reduce run-off and minimise erosion.

2.2.17. A low temporary berm between the wetlands and stockpiles must be constructed to intercept flows with transported sediment and allow them to settle out.

2.2.18. The volume of stormwater run-off should be minimised by limiting the area of impermeable surfaces and compacting soils.

2.2.19. Gabion structures must be used to reduce the velocity and volume which would dissipate the energy of storm water movement and disperse the flows over a wider area.

2.2.20. Culvert discharges must include a rock packed mattress to prevent gully erosion.

2.2.21. Upslope of the authorised culverts drop down weirs should be incorporated in the construction of the culverts to prevent the formation of head cuts.

2.2.22. Hazardous material must be stored outside the extent of the watercourse and dispose of at a registered landfill site.

2.2.23. No development may be constructed within the delineated (temporary zone) boundary of the wetlands unless authorised in this licence.

2.3. **Water Quality**

2.3.1. Activities that lead to elevated levels of turbidity of any watercourse(s) must be prevented, reduced, or otherwise remediated.

2.3.2. The Licensee must:

2.3.2.1. Ensure that the quality of the water to downstream water users does not decrease because of the of the water use activity undertaken by the Licensee; and

2.3.2.2. Actively participate in any Catchment Management Agency's related activity including Catchment Management Forums.

2.3.3. A qualified person must be appointed to assess the quality of water both upstream and downstream of the activities prior to commencement of construction.

2.3.4. Pollution caused by any disposal/spillage of any material into the watercourse must be prevented, reduced, or otherwise remediated through proper operation, maintenance and effective protective measures especially near watercourse(s).

2.3.5. Construction vehicles and other machinery must be serviced well above the 1:100 year flood line or delineated riparian habitat, whichever is the greatest. Oils and other potential pollutants must be disposed of at an appropriate licensed site, with the necessary agreement from the owner of such a site.

2.3.6. Any hazardous substances must be handled according to the relevant legislation relating to transport, storage and use of the substance and all storage facilities must be equipped with large, clearly readable material safety data sheets (MSDS).

2.4. Flow regime

2.4.1. The Licensee must:

2.4.1.1. Determine flood lines (1:50 and 1:100 year) prior to construction to ensure risks are adequately managed. Flood lines must be clearly indicated on the site plan(s) and drawings along with all wetland boundaries; and

2.4.1.2. Ensure all hydrological and ecological wetland corridors are kept open and in place.

2.5. Riparian and In-stream Habitat (Vegetation and Morphology)

2.5.1. Activities (including spill clean-up) must start up-stream and proceed into a down-stream direction, so that the recovery processes can start immediately, without further disturbance from upstream works.

2.5.2. Operation and storage of equipment must not take place within the 1:100 year flood line or delineated riparian habitat, whichever is the greatest unless authorised in this license.

2.5.3. Indigenous riparian vegetation, including dead trees, outside the limits of disturbance indicated in the site plans must not be removed from the area.

2.5.4. 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.

2.5.5. Existing vegetation composition must be maintained or improved by maintaining the natural variability in flow fluctuations. Rehabilitated areas must have vegetation basal cover of at least 15% at all times.

2.5.6. Recruitment and maintenance of a range of size classes of dominant riparian species in perennial channels must be stimulated.

2.5.7. Encroachment of additional exotic species and terrestrial species within the wetland area and the riparian habitat must be discouraged.

2.5.8. All reasonable steps must be taken to:

2.5.8.1. Minimise noise and mechanical vibrations in the vicinity of the watercourses and especially during night time (17:30 – 06:30) to keep noise below 35 dB within the 20 m wetland buffer zone and the riparian habitat; and

2.5.8.2. Maintain the wilderness qualities of the river. In particular, visual impacts as seen from a boat in the river should be minimized.

2.5.9. Soils that have become compacted through the water use activities must be loosened to an appropriate depth to allow seed germination.

2.5.10. Slope / bank stabilisation measures must be implemented with a 1:3 ratio or flatter and vegetated with indigenous vegetation immediately after the shaping.

2.5.11. The indiscriminate use of machinery within the watercourse areas (including the riparian habitat) will lead to compaction of soils and vegetation and must therefore be strictly controlled.

2.5.12. Operation activities and storage of equipment in the riparian habitat must be prevented as far as possible.

2.5.13. Stockpiles of removed soil and sand must be stored outside of the 1:100 year flood line or 100 m from the delineated riparian habitat, whichever is the greatest distance, to prevent being washed into the river; and must be covered to prevent wind and rain erosion.

2.5.14. The overall macro-channel structures and mosaic of cobbles and gravels must be maintained by ensuring a balance (equilibrium) between sediment deposition and sediment conveyance maintained. A natural flooding and sedimentation regime must thus be ensured as far as reasonably possible.

2.5.15. As much indigenous vegetation growth as possible should be promoted within the proposed development area in order to protect soil and to reduce the percentage of the surface area which is paved.

2.5.16. Where applicable, disturbed riparian zone (i.e. for those areas that will not form part of the operational footprint, but that were disturbed as part of the construction activities) should be re-vegetated using site-appropriate indigenous vegetation.

2.5.17. Rehabilitation of the disturbed riparian zone must occur during and after completion of construction. An aquatic specialist and/or ecologist must oversee this process.

2.5.18. Toilet facilities must be located at least 100 m from the edge of the riparian zone.

2.5.19. Slope / bank stabilization measures must be implemented where necessary, to prevent erosion during both the construction and operational phases.

2.5.20. The use of machinery within the riparian zone may lead to compaction of soils and vegetation. This will lead to decrease of infiltration of rain water, increases in run-off water and will limit re-vegetation from taking place. It is thus recommended that all compacted areas that do not form part of the footprint activity be ploughed, landscaped to approximately the natural slope of the area and aerated followed by re-vegetation.

2.5.21. Methods used during construction of infrastructure must limit turbidity, sedimentation and chemical changes to the composition of the water.

2.5.22. Any disturbance to the riparian zone that can cause undercutting and/or bank slumping must be prevented. Disturbed areas must be rehabilitated.

2.5.23. Alien invasive vegetation must be eradicated and not be allowed to colonize the disturbed riparian and instream areas.

2.5.24. No harvesting of indigenous plants and animals in and adjacent to the construction area.

2.5.25. The possibility of spillages should be catered for in the design of the infrastructure where for example, attenuation ponds prior to the discharge of storm water could be designed in such a way that it can be easily sealed off after the occurrence of a spill. If a spill occurs during the operational phase of the infrastructure, a suitability qualified team of experts will need to be consulted and rehabilitation plan drawn up and implemented.

2.5.26. Construction must take place during the low flow / winter months in order to minimize the risk of sediment and debris being washed into the streams and rivers. Natural instream hydrology must be used to determine which months constitute the low flow months.

2.5.27. Stockpiles and overburden must be removed or rehabilitated after construction.

2.5.28. During the construction and operation phase, erosion and siltation measures such as the use of temporary silt traps must be implemented.

2.5.29. Alteration of the river channel outside of the construction footprint must be avoided.

2.5.30. Where permanent stream diversions lead to a shorter length of river / loss in aquatic habitat; the loss in aquatic habitats must be compensated by an improvement in habitat quality.

2.6. **Biota**

2.6.1. The Licensee must take all reasonable steps to:

2.6.1.1. Allow movement of aquatic species, including migratory species; and

2.6.1.2. Not to disturb the breeding, nesting and/or feeding habitats and natural movement patterns of aquatic biota.

2.6.2. The current level of diversity of biotopes and communities of animals, plants and microorganisms must be maintained.

2.6.3. The Licensee must ensure that any invasive species are not introduced to any quaternary catchment due to its water transfer and any other activities.

2.6.4. Any instream structures used for construction purposes should not stop the natural flow in the river or obstruct to the normal flow of water, impounding water upstream thereof.

2.6.5. The structure of the river crossings / river diversions must maintain flows across the width of the natural river channel (or mimic it) without significantly increasing velocities.

2.6.6. Instream structures must be constructed in such a way that it prevents the build-up of debris.

2.6.7. Culverts must be constructed to allow for instream organisms to migrate during both high-and low flow conditions.

2.6.8. Infrastructure should not prevent the lateral movement of flood waters.

3. REHABILITATION AND MANAGEMENT

3.1. A river / wetland rehabilitation plan must be implemented to enhance the wetlands and river ecological functioning.

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

3.3. An active campaign for controlling invasive species must be implemented within disturbed zones to ensure that it does not become a conduit for the propagation and spread of invasive exotic plants.

3.4. Rehabilitation must be concurrent with construction.

3.5. Shaping of spoils to the original topography is compulsory.

3.6. The Provincial Head must sign off on rehabilitation after he/she is satisfied that it was done according to specifications as per this licence.

3.7. A photographic record must be kept as follows and submitted with reports:

3.7.1. Dated photographs of all the sites to be impacted before construction commences;

3.7.2. Dated photographs of all the sites during construction on a monthly basis; and

3.7.3. Dated photographs of all the sites after completion of construction, seasonally.

3.8. Wetland and riparian habitat crossing(s) must be visited by a(n) wetland, aquatic and/or ecological specialist prior to construction to determine baseline conditions. This should be repeated during and after rehabilitation measures have been implemented to assess the success of rehabilitation and erosion control measure. Areas in and around the watercourses must not be cleared, graded and ditched/trenched more than a week before construction. The aim is to prevent erosion and sedimentation and the collection of run-off trench water that has high sediment content.

3.9. The wetland buffer and other wetland specialist mitigation measures must be implemented to protect the wetlands.

4. MONITORING AND REPORTING

4.1. The Provincial Head must be notified in writing one (1) week prior to commencement of the licensed activities and again one (1) week after completion of the activities.

4.2. Six (6) monthly monitoring reports must be submitted to the Provincial Head until otherwise agreed in writing with the Provincial Head.

4.3. The Licensee must:

4.3.1. Retain a qualified and responsible person who must give effect to the various licence conditions and to ensure compliance thereof pertaining to the activities impeding and/or diverting flow of watercourses as well as alterations to watercourses on the properties;

4.3.2. Apply in writing to the Provincial Head for alternative reporting arrangements for which written approval must be provided;

4.3.3. Submit a long term wetland and river monitoring and audit plan for approval before construction starts. This monitoring and auditing must be ongoing.

4.4. Install flow meters which will need to be maintained and calibrated accordingly.

4.5. The audit reports must include but are not limited to:

4.5.1. Reporting in respect of the monitoring programme referred to in condition 4.2 and all other reporting and compliance conditions outlined in this licence;

4.5.2. A record of implementation of all mitigation measures including a record of corrective actions; and

4.5.3. Compensation measures for damage where mitigation measures have failed to adequately protect the in-stream and riparian habitat or any other characteristic of the watercourses.

4.6. A(n) wetland, aquatic and/or ecological specialist must be appointed to monitor the compliance to the wetland and riparian habitat management and rehabilitation plan and conditions in this licence pertaining to impacts on wetlands and the riparian habitat and provide specialist advise for corrective actions and compile audit reports which must be submitted to the Provincial Head.

5. OTHER WATER USERS

5.1. The Licensee must attempt to prevent adverse effect on other water users. All complaints must 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.

6. POLLUTION PREVENTION, INCIDENTS AND MALFUNCTIONS

6.1. Pollution incidents must be dealt with in accordance with Section 19 and 20 of the Act.

6.2. If surface and/or groundwater pollution has occurred or may possibly occur, the Licensee must conduct, and/or appoint specialists to conduct the necessary investigations and implement additional monitoring, pollution prevention and remediation measures to the satisfaction of the Provincial Head.

6.3. The Licensee must:

6.4. Keep all records relating to the compliance or non-compliance with the conditions of this licence in good order. Such records must be made available to the Provincial Head upon request by the Department for such records; and

6.5. Keep an incident report and complaints register, which must be made available to any external auditors and the Department.

7. SOLID WASTE MANAGEMENT

7.1. In the event of a spill, solid waste must be handled, stored, transported, or disposed of in such a manner as not to cause any odour, flies, health hazard, secondary pollution or other nuisance.

8. SEWER PIPELINES

8.1. The pipelines used for the conveyance of effluent must be painted in a conspicuous colour or manufactured of a coloured material distinctly different from the colour of the pipelines in which drinking water is flowing to avoid the possibility of any cross-connections of the different pipelines.

8.2. All stop-valves and taps on the pipelines conveying water containing waste must be of a type that can be opened and closed by means of a loose wrench. This wrench must be in the safekeeping of a responsible member of the staff to prevent unauthorised use thereof.

8.3. Notices manufactured of a durable weather-proof material warning against the use of water containing waste for drinking and washing purposes must be displayed at prominent places where the waste is being reused and at all taps. Such notices must be worded in the official languages applicable in the area.

9. MANHOLES

9.1. The Licensee must ensure that:

9.1.1. Manholes are covered at all times with a suitable cover that cannot be removed by unauthorised persons;

9.1.2. Manhole covers of a material that is less prone to theft are used; and

9.1.3. No new sewer pipelines lines and manholes must be constructed in the 1:100 year flood line.

9.2. Pollution protection berms must be built around manholes to stop pollution from entering wetlands.

10. CONTINGENCY PLANS AND INCIDENT REPORTING

10.1. The below must be recorded, reported and rectified within 7 days of occurrence:

10.1.1. Illegal disposal of waste and/or littering;

10.1.2. Broken, ruptured or leaking pipelines wasting potable water;

10.1.3. Open or leaking taps on the property of the Licensee;

10.1.4. Open manholes;

10.1.5. Leaking or broken sewerage lines and pipes;

10.1.6. Overflowing manholes and pump stations;

10.1.7. Possible offenders of any environmental regulations, by-laws and/or ordinances; and

10.1.8. Any other aspect that might hamper the effective management of the water resources.

10.2. Statistical summary of malfunctions and incidents must be included in the Annual Report.

11. REPORTING

11.1. The Licensee must compile and submit an annual report including Management Plans indicating compliance with the conditions of this Licence, the corrective measures to address non-compliance, as well as the results of the monitoring programmes.

11.2. Information and data must be submitted in both hard and in a digital format as required by the Provincial Head in the prescribed format to be included in the Provincial database.

12. AUDITING

12.1. The License must appoint an independent qualified person to conduct a wetland audit immediately after construction. The report must include the Present Ecological Status and Ecological Importance and Sensitivity of wetlands before and after construction. The report on the audit must be submitted to the Provincial Head within one (1) month after finalisation of the report.

13. INTEGRATED WATER AND WASTE MANAGEMENT

13.1. The Licensee must update the Integrated Water and Waste Management plan and submit for approval to the Provincial Head on an annual basis.

13.2. The Licensee must make full financial provision for all investigations, designs, construction, operation and maintenance for sewer pipelines and pump stations should it become a requirement as a long term water management strategy.

APPENDIX V

Section 21(g) of the Act: Disposing of waste in a manner which may detrimentally impact on a water resource

1. GENERAL

1.1. This licence authorises Tendele Coal Mining (Pty) Ltd for Section 21(g) water uses for the Somkhele Anthracite Mine as tabulated below.

Table 5: Section 21(g) Water Use Activities

Water use(s)	Purpose	Capacity / Volume	Property Description	Co-ordinates
Section 21(g)	Myenge Dam 1	Volume: 722 334 m^3 / annum Capacity: 49 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 17" E 32°03' 30"
Section 21(g)	Plant Header Dam	Volume: 1 657 972 m^3 / annum Capacity: 3 170 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 6.76" E 32°3' 29.99"
Section 21(g)	North Pit Return Water Dam	Volume: 32 657 m^3 / annum Capacity: 5 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°21' 5.502" E 32°01 '46.92"
Section 21(g)	Dust Suppression Haul Roads Area 1	Volume: 27 760 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28° 21' 5.1080" E 32° 01' 45.1184"
Section 21(g)	Dust Suppression Haul Roads Area 2	Volume: 90 000 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28° 18' 44.4527" E 32° 03' 16.2287"
Section 21(g)	Product Coal Stockpiles	Volume: 26 656 m^3 / annum Capacity: 35 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 13.98" E 32°3' 41.814"
Section 21(g)	Return Water Dam Pit A	Volume: 1 065 365 m^3 / annum Capacity: 4 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28° 18' 44.4527" E 32° 03' 16.2287"
Section 21(g)	Return Water Dam Pit A2	Volume: 1 065 365 m^3 / annum Capacity: 4 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°19' 05.45" E 32°03' 14.91"
Section 21(g)	Settling Pond 1	Volume: 1 678 841 m^3 / annum Capacity: 7 654 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 31.69" E 32°03' 28.31"
Section 21(g)	Settling Pond 2	Volume: 1 678 841 m^3 / annum Capacity: 8 817 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 28.19" E 32°03' 30.87"

Water use(s)	Purpose	Capacity / Volume	Property Description	Co-ordinates
Section 21(g)	Settling Pond 3	Volume: 1 678 841 m^3 / annum Capacity: 1 838 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 25.39" E 32°03' 33.62"
Section 21(g)	Settling Pond 4	Volume: 1 678 841 m^3 / annum Capacity: 2 096 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°20' 53.85" E 32°02' 0.128"
Section 21(g)	Platform Stormwater Dam	Volume: 19 590 m^3 / annum Capacity: 12 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 24.30" E 32°03' 38.95"
Section 21(g)	Slurry Pit A	Volume: 1 123 634 m^3 / annum Capacity: 1 200 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 32° 03' 6.62" E 28°19' 8.57"
Section 21(g)	Plant Stormwater Dam	Volume: 29 768 m^3 / annum Capacity: 4 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28° 18' 21.72" E 32°03' 36.10"
Section 21(g)	Workshop PCD 1	Volume: 2 429 m^3 / annum Capacity: 1 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 25.07" E 32°03' 57.69"
Section 21(g)	Workshop PCD 2	Volume: 2 429 m^3 / annum Capacity: 1 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 26.61" E 32°03' 57.97"
Section 21(g)	Return Water Dam Kwaluhlanga	Volume: 11 960 m^3 / annum Capacity: 5 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 19.042" E 32°04' 6.725"
Section 21(g)	Discard Dump	Volume: 15 180 m^3 / annum Capacity: 20 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 28.50" E 32°03'50.904"
Section 21(g)	RoM Stockpiles	Volume: 15 180 m^3 / annum Capacity: 2 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 25.081" E 32°03' 50.904"
Section 21(g)	Plant 1 RoM Stockpiles	Volume: 40 000 m^3 / annum Capacity: 5 800 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 14.836" E 32°03' 34.62"
Section 21(g)	RoM Stockpile Area 1 Central	Volume: 30 000 m^3 / annum Capacity: 5 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°21' 8.208" E 32°02' 10.100"
Section 21(g)	RoM Stockpile Area 1 South Pit	Volume: 30 000 m^3 / annum Capacity: 5 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°21' 48.982" E 32°01'30.049"
Section 21(g)	RoM Stockpile Area 1 North Pit	Volume: 30 000 m^3 / annum	Portion 0 No. 15822 Reserve No.	S 28°20' 30.969" E 32°02'9.810"

Water use(s)	Purpose	Capacity / Volume	Property Description	Co-ordinates
		Capacity: 5 000 m^3	3	
Section 21(g)	Conservancy Tank Guard	Volume: 72 m^3 / annum Capacity: 3 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 6.295" E 32°03' 46.004"
Section 21(g)	Conservancy Tank Plant	Volume: 192 m^3 / annum Capacity: 20 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 19.251" E 32°03' 34.119"
Section 21(g)	Conservancy Tank Workshop	Volume: 732 m^3 / annum Capacity: 30 m^3	Portion 0 No. 15822 Reserve No. 3	S 28° 18' 21,250" E 32° 3' 54,963"
Section 21(g)	Conservancy Tank TC	Volume: 216 m^3 / annum Capacity: 12 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18' 1.593" E 32°03' 33.493"
Section 21(g)	Dust suppression for Area 1, 2, 8 and 9	412 858.07 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°18'49.46" E 32° 4'3.82"
Section 21(g)	Disposal of slurry and discard in Pit BDE (Area 2)	7 889 161 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°18'46.69"S E 32° 3'35.35"E
Section 21(g)	Disposal of slurry and discard in KwaQubuka Pit (Area 9)	1 814 400 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°19’11.38” E 32°04’22.86”
Section 21(g)	Luhlanga Box Cut 0 Waste Rock dump	55 500 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°19'19.74” E 32° 4'34.55”
Section 21(g)	Dust suppression for Area Ophondweni	105 908 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°15'47.04" E 32° 9'17.32"
Section 21(g)	Ophondweni RoM Stockpile 1	14 320 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°15'54.02" E 32° 9'13.53"
Section 21(g)	Ophondweni RoM Stockpile 2	14 071 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°15'30.91" E 32° 9'27.08"
Section 21(g)	Ophondweni Waste Rock Dump	45 270 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°15'51.89" E 32° 9'33.74"
Section 21(g)	Ophondweni Hard Park 1	8 806 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°15'54.81" E 32° 9'18.12
Section 21(g)	Ophondweni Hard Park 2	9 436 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°15'32.10" E 32° 9'30.75"
Section 21(g)	PCD 8 Ophondweni	16 000 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°15'42.96" E 32° 9'14.82"

Water use(s)	Purpose	Capacity / Volume	Property Description	Co-ordinates
Section 21(g)	PCD 9 Ophondweni	45 270 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°15'25.27" E 32° 9'54.12"
Section 21(g)	Dust suppression for Area Emalahleni	36 539 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°18'54.84" E 32° 6'17.78"
Section 21(g)	Emalahleni RoM Stockpile 1	35 375 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18'37.09" E 32° 6'39.67"
Section 21(g)	Emalahleni RoM Stockpile 2	42 214 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18'56.89" E 32° 6'23.20"
Section 21(g)	Emalahleni Waste Rock Dump 1	262 526 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°19'9.05" E 32° 6'26.54"
Section 21(g)	Emalahleni Waste Rock Dump 2	135 822 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18'38.00" E 32° 6'57.21"
Section 21(g)	Emalahleni Hard Park 1	17 328 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18'52.54" E 32° 6'26.79"
Section 21(g)	Emalahleni Hard Park 2	16 984 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18'39.15" E 32° 6'42.39"
Section 21(g)	PCD 5 Emalahleni	13 010 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18'40.58" E 32° 6'25.88"
Section 21(g)	PCD 6 Emalahleni	17 560 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18'55.57" E 32° 6'37.84"
Section 21(g)	PCD 7 Emalahleni	15 730 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18'28.53" E 32° 6'59.31"
Section 21(g)	Dust suppression for Area Mahujini	95 949 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'45.51" E 32° 3'51.22"
Section 21(g)	Mahujini RoM Stockpile 1	43 286 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'43.44" E 32° 3'58.68"
Section 21(g)	Mahujini RoM Stockpile 2	42 555 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'3.08" E 32° 4'3.28"
Section 21(g)	Mahujini Waste Rock Dump 1	11 113 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°15'58.90" E 32° 4'17.37"
Section 21(g)	Mahujini Waste Rock Dump 2	16 648 m^3	Portion 0 No. 15822 Reserve No.	S 28°16'48.55"

Water use(s)	Purpose	Capacity / Volume	Property Description	Co-ordinates
			3	E 32° 4'36.60"
Section 21(g)	Mahujini Waste Rock Dump 3	10 857 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'10.06" E 32° 3'54.66"
Section 21(g)	Mahujini Hard Park 1	18 337 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'43.63" E 32° 4'3.47"
Section 21(g)	Mahujini Hard Park 2	17 474 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'12.86" E 32° 4'6.12"
Section 21(g)	Emalahleni Hard Park 2	16 984 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°18'39.15" E 32° 6'42.39"
Section 21(g)	PCD 1 Mahujini	16 240 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'3.16"S E 32° 3'46.43"
Section 21(g)	PCD 2 Mahujini	17 360 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'9.44" E 32° 4'22.19"
Section 21(g)	PCD 3 Mahujini	20 630 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'19.61" E 32° 4'32.58"
Section 21(g)	PCD 4 Mahujini	45 960 m^3	Portion 0 No. 15822 Reserve No. 3	S 28°16'48.67" E 32° 4'45.59"
Section 21(g)	Luhlanga PCD 1	27 500 m^3	Portion 0 No. 15822 Reserve No. 3	S 28° 18' 35.4229" E 32° 04' 29.0488"
Section 21(g)	Luhlanga PCD 2	45 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28° 18' 53.1729" E 32° 04' 39.7791"
Section 21(g)	KwaQubuka PCD 3	46 000 m^3	Portion 0 No. 15822 Reserve No. 3	S 28° 19' 09.6328" E 32° 03' 59.3778"

1.2. The Licensee must carry out and complete all the activities according to the following:

a. Somkhele Anthracite Mine, Portion 0 No. 15822 Reserve No. 3 GV, Mtubatuba Local Municipality: Integrated Water and Waste Management Plan Report, by GCS Water & Environmental Consultants, dated March 2019;

b. Integrated Water and Waste Management Plan: Somkhele Anthracite Mine, Portion 0 No. 15822 Reserve No. 3 GV, Mtubatuba Local Municipality 30 Day Letter Response, by GCS Water & Environmental Consultants, dated February 2020;

c. Integrated Water and Waste Management Plan: Somkhele Anthracite Mine, Portion 0 No. 15822 Reserve No. 3 GV, Mtubatuba Local Municipality 14 Day Letter Response, by GCS Water & Environmental Consultants, dated March 2020;

d. Integrated Water and Waste Management Plan: Somkhele Anthracite Mine, Portion 0 No. 15822 Reserve No. 3 GV, Mtubatuba Local Municipality 7 Day Letter Response, by GCS Water & Environmental Consultants, dated March 2020;

e. An analysis of the expenditure relatd to moving the open cast pits out of the drainage lines as per DWS request, by Tendele Coal Mining (Pty) Ltd;

f. Somkhele Coal Mine – Conceptual Design Report for the PIT BDE, Area 2 for Waste Deposition Purposes, by GCS Water & Environmental Consultants, dated June 2016;

g. Wetland Assessment Offset Plan for the Ophondweni Wetlands and Boxcut 0 Drainage Areas – Somkhele Mine, by GCS Water & Environmental Consultants, dated March 2020;

h. Proposed Somkhele Mine Expansion in the Hlabisa Local Municipality, KwaZulu-Natal: Preliminary Wetland Impact Assessment Report, by GCS Water & Environmental Consultants, dated May 2014;

i. Wetland Impact Assessment – Proposed Update of existing Water Use Licences pertaining to the Somkhele Anthracite Mine, Mtubatuba Local Municipality, KwaZulu-Natal, by Malachite Ecological Services, dated June 2018;

j. Wetland Assessment for the Ophondweni Area – Somkhele Mine, by GCS Water & Environmental Consultants, dated February 2019;

k. Wetland Habitat Screening Report – Proposed Clean Water Storage Facility for the Somkhele Mine within the Hlabisa Local Municipality, KwaZulu-Natal, by eco-pulse environmental consulting services, dated February 2018;

l. Numerical Modelling Assessment of Pit Wall Stability for Somkhele Colliery, by Latona Consulting (Pty) Ltd, dated June 2018;

m. Geotechnical Materials Report – Centreline & Materials Investigation Emalahleni Haul Road and Intersection Tendele Coal Mine, Somkhele Area, KwaZulu-Natal, by Ground Africa Consulting Geotechnical Engineers cc, dated September 2018;

n. Somkhele Mining Areas Expansion: Emalahleni, Mahujini & Ophondweni Aquatic Rehabilitation Plan: Riparian and Instream Habitats, by eco-pulse environmental consulting services, dated December 2019;

o. Proposed Somkhele Mine Expansion in the Hlabisa Local Municipality, KwaZulu-Natal: Aquatic Assessment Report, by GCS Water & Environmental Consultants, dated March 2014;

p. Somkhele Mine: Summer Aquatic Bio-Monitoring Report, by GCS Water & Environmental Consultants, dated February 2019;

q. Follow-Up Hydrogeological Study for Somkhele Anthracite Mine – Mining Area 4 and 5, by GCS Water & Environmental Consultants, dated March 2019;

r. Geohydrological Model Update for the Somkhele Anthracite Colliery – 2017, by GCS Water & Environmental Consultants, dated March 2018;

s. Follow-Up Hydrogeological Investigation Somkhele Anthracite Mine - Mining Area 8 and 9 Report, by GCS Water & Environmental Consultants, dated February 2019;

t. Somkhele Anthracite Mine Area 4 and 5 Floodline Analysis, by GCS Water & Environmental Consultants, dated March 2019;

u. Somkhele Mine, KwaZulu-Natal: Kwaqubuka and Luhlanga Flood Line Analysis, by GCS Water & Environmental Consultants, dated February 2018;

v. Somkhele Mine, KwaZulu-Natal: Mahujini and Emalahleni Haul Road Flood Line Analysis, by GCS Water & Environmental Consultants, dated January 2018;

w. Somkhele Flood Line Study, by GCS Water & Environmental Consultants, dated March 2011;

x. Somkhele Rehabilitation Strategy and Implementation Plan Report, by Black Rock Environmental, dated April 2018;

y. Water Balance Update for the Somkhele Anthracite Mine, by GCS Water & Environmental Consultants, dated March 2019;

z. Area 4 & 5 (Ophondweni, Emalahleni and Mahujini) Storm Water Management Plan, by GCS Water & Environmental Consultants, dated March 2019;

aa. Area 8 & 9 (Luhlanga and KwaQubuka) Storm Water Management Plan, by GCS Water & Environmental Consultants, dated March 2019;

bb. Somkhele Mine: Storm Water Management Plan Update, by GCS Water & Environmental Consultants, dated April 2015;

cc. Annual Water Quality Monitoring Report for Tendele Coal – Somkhele Colliery – January to December 2018, by GCS Water & Environmental Consultants, dated March 2019;

dd. Tendele Coal Mining – Somkhele Mine 3rd Quarter Water Monitoring Report 2018, by GCS Water & Environmental Consultants, dated November 2018;

ee. Somkhele Waste Classification Report, by GCS Water & Environmental Consultants, dated March 2016;

ff. Hydropedological Assessment for the Somkhele Anthracite Mine, by GCS Water & Environmental Consultants, dated February 2019;

gg. Pit A – Slurry Management Plan, by GCS Water & Environmental Consultants, dated February 2019;

hh. Decant Assessment for the Somkhele Anthracite Mine – 2018, by GCS Water & Environmental Consultants, dated February 2019;

ii. Conceptual Acid Mine Drainage Management Plan (CAMDMP) for the Somkhele Anthracite Mine, by GCS Water & Environmental Consultants, dated February 2019;

jj. Somkhele Area 4 & 5 Flood line Analysis GN704 Exemption Motivation Report, by GCS Water & Environmental Consultants, dated March 2019;

kk. GN704 Motivation Report for in-Pit Disposal of Coal Waste Material for Somkhele Mining Area 9 and Area 8 For IWULA Supplement, by GCS Water & Environmental Consultants, dated February 2019;

ll. Luhlanga Box Cut Zero Motivational Report, by Tendele Coal Mining (Pty) Ltd, dated February 2019;

mm. Somkhele Mines Proposed Diversion Of Storm Water Around The Enlarged Luhlanga Box Cut Zero (Area 8) Preliminary Design Report, by Inqubeko Consulting Engineers, dated February 2019;

nn. Tendele Coal Mining Mahujini & Emalahleni Mining Areas Proposed New Haul Road To Mahujini & Emalahleni Pit Design Report, by Ilifa Africa Engineers (Pty) Ltd, dated February 2020;

oo. Proposed Diversion of Storm Water Around Enlarged Luhlanga Box Cut Zero (Area 8) Design Report for WULA, by InqubekoConsulting Engineers, dated February 2020;

pp. Preliminary AMD Treatment Systems & Business Plan for the Somkhele Anthracite Mine (including AMD and Decant Management Plan -2019), by GCS Water & Environmental Consultants, dated December 2019; and

qq. Somkhele Anthracite Mine Civil Design Report For Proposed Mining Activities, by GCS Water & Environmental Consultants, dated February 2020.

1.3. For the activities listed under condition 1.1, "as-built" plan(s) and engineering drawing(s) prepared by a registered professional engineer, must be submitted to the Provincial Head within six (6) months of completion of new activities and for existing water uses within six (6) months of the date of issuing of this licence. These plan(s) and drawing(s) must indicate the watercourse(s) including wetland boundaries and layout and structure location(s) of all infrastructure impeding and/or diverting flow of watercourses as well as alterations to watercourse(s) on the properties.

1.4. The Licensee is responsible for servicing and maintaining the activities listed under condition 1.1.

1.5. The Licensee must ensure that:

1.5.1. The capacity of the pollution control dams is improved to cater for the minimum required volume;

1.5.2. The 0.5m freeboard is maintained at all times;

1.5.3. The lining is inspected and maintained on a monthly basis and as required;

1.5.4. All waste should be managed as per approved Environmental Management Programme; and

1.5.5. Pits are filled with the same soil profiles, shaped, topsoiled 300mm deep, free drained and re-vegetated.

2. CONSTRUCTION AND OPERATION

2.1. Within 30 days after the completion of the activities referred here in accordance with the relevant provisions of this licence, the Licensee shall in writing inform the Provincial Head thereof. This shall be accompanied by a signature of approval from the designer referred to above that the construction was done according to the design plans referred to in the Report.

2.2. The Licensee must ensure that the disposal of the domestic waste (liquid/solid) and the operation and maintenance of the system are done according to the provisions in the Report.

2.3. The Licensee shall use acknowledged methods for sampling and the date, time and sampler must be indicated for each sample.

2.4. Flow metering devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than once in two years. Calibration certificates shall be available for inspection by the Provincial Head or his representative upon request.

3. MONITORING

3.1. A surface water monitoring plan must be submitted for approval and implemented within six (6) months of the date of issuing of this Licence. This should include the following: quarterly surface water quality monitoring upstream, on site and downstream.

3.2. An Aquatic Scientist approved by the Provincial Head must establish a monitoring programme for the following indices: Invertebrate Habitat Assessment System (IHAS) and the latest SASS (South African Scoring System). Sampling must be done once during the summer season and once during the winter season, annually, to reflect the status of the rivers upstream and downstream of the activities.

3.3. A groundwater monitoring plan must be submitted for approval and implemented within six (6) months of the date of issuing of this Licence. This should include the following:

3.3.1. Groundwater level trends to be monitored on a quarterly basis to ensure that the groundwater component is not impacted on negatively and also the increase in groundwater usage in the catchment needs to be verified;

3.3.2. Groundwater quality needs to be monitored at least twice a year; and

3.3.3. The groundwater sampling results should be compared with results from a borehole with a higher head, not with SS5 as this is on site and therefore not a true reflection of the background condition of the area.

3.4. The date, time and monitoring point in respect of each sample taken shall be recorded together with the results of the analysis.

3.5. Monitoring points shall not be changed prior to notification to and written approval by the Provincial Head.

3.6. Analysis shall be carried out in accordance with methods prescribed by and obtainable from the South African Bureau of Standards (SABS), in terms of the Standards Act, 1982 (Act 30 of 1982).

3.7. Monitoring of surface and groundwater quality around the site must be continued, so that changes in groundwater and surface water quality can be detected at an early stage.

4. WATER RESOURCE PROTECTION

4.1. The impact of the activities on groundwater shall not exceed the water quality limits tabulated below:

Table 6: Section 21(g) Water Quality Limits

Constituent	Limit
pH	8.64
EC mS/m	482.32
TDS mg/l	2676.30
Ca mg/l	109.92
Mg mg/l	116.17
Na mg/l	365.20
K mg/l	6.41
MALK mg/l	665.09

Constituent	Limit
Cl mg/l	1179.48
SO_4 mg/l	38.68
NO_3-N mg/l	3.64
F mg/l	0.25
Al mg/l	0.01
Fe mg/l	0.01
Mn mg/l	0.34
Cu mg/l	0.01
Zn mg/l	0.01

5. REPORTING

5.1. The Licensee shall update the water balance annually and calculate the loads of waste emanating from the activities. The Licensee shall determine the contribution of their activities to the mass balance for the water resource and must furthermore co-operate with other water users in the catchment to determine the mass balance for the water resource reserve compliance point.

5.2. The Licensee shall submit the results of analysis for the monitoring requirements to the Provincial Head on an annual basis.

6. STORMWATER MANAGEMENT

6.1. Storm-water shall be diverted from the site and roads and shall be managed in such a manner as to disperse runoff and concentrating the storm-water flow.

6.2. Where necessary works must be constructed to attenuate the velocity of any storm-water discharge and to protect the banks of the affected watercourses.

6.3. Storm-water control works must be constructed, operated and maintained in a sustainable manner throughout the impacted area.

6.4. All stormwater that would naturally run across the pollution areas shall be diverted via channels and trapezoidal drains designed to contain the 1:50 year flood.

6.5. Stormwater management facilities should be encased on concrete and contacted to the parent rock if constructed on loose or unstable soils.

6.6. Prevent runoff from dirty water areas entering the wetland habitat. Any discharge of runoff into the wetland system must be done in such a way as to prevent erosion. In this regard, special mention is made of the use of energy dissipating structures in stormwater discharge.

6.7. Clean stormwater drains must be as natural as possible using rock, topsoil and vegetation.

7. PLANT AREAS AND CONVEYANCES

7.1. All reagent storage tanks and reaction units must be supplied with a bunded area built to the capacity of the facility and provided with sumps and pumps to return the spilled

material back into the system. The system shall be maintained in a state of good repair and standby pumps must be provided.

8. ACCESS CONTROL

8.1. Strict access procedures must be followed in order to gain access to the property. Access must be limited to authorised employees of the Licensee and their Contractors only.

8.2. Notices prohibiting unauthorised persons from entering water use premises and controlled access areas as well as internationally acceptable signs indicating the risks involved in case of an unauthorised entry must be displayed along the boundary fence of these areas.

9. CONTINGENCIES

9.1. Accurate and up-to-date records shall be kept of all system malfunctions resulting in non-compliance with the requirements of this licence. The records shall be available for inspection by the Provincial Head upon request. Such malfunctions shall be tabulated under the following headings with a full explanation of all the contributory circumstances:

9.1.1. Operating errors;

9.1.2. Mechanical failures (including design, installation or maintenance);

9.1.3. Environmental factors (e.g. Flood);

9.1.4. Loss of supply services (e.g. Power failure); and

9.1.5. Other causes.

9.2. The Licensee must, within 24 hours, notify the Provincial Head of the occurrence or potential occurrence of any incident which has the potential to cause, or has caused water pollution, pollution of the environment, health risks or which is a contravention of the licence conditions.

9.3. The Licensee must, within 14 days, or a shorter period of time, as specified by the Provincial Head, from the occurrence or detection of any incident referred above, submit an action plan, which must include a detailed time schedule, to the satisfaction of the Provincial Head of measures taken to:

9.3.1. Correct the impacts resulting from the incident;

9.3.2. Prevent the incident from causing any further impacts; and

9.3.3. Prevent a recurrence of a similar incident.

10. AUDITING

10.1. The Licensee shall conduct an annual internal audit on compliance with the conditions of this licence. A report on the audit shall be submitted to the Provincial Head within one month of finalisation of the report, and shall be made available to an external auditor should the need arise.

10.2. The Licensee shall appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted

within 3 (three) months of the date of issuing of this license and a report on the audit shall be submitted to the Provincial Head within one month of finalisation of the report.

APPENDIX VI

Section 21(j) of the Act: Removing, discharging or disposing of water found underground if it is necessary for the efficient continuation of an activity or for the of people

1. GENERAL

1.1. This licence authorises Tendele Coal Mining (Pty) Ltd for Section 21(j) water uses for the Somkhele Anthracite Mine as tabulated below.

Table 7: Section 21(j) Water Use Activities

Water use(s)	Purpose	Dimensions / Capacity / Volume	Property Description	Co-ordinates
Section 21(j)	Dewatering North Pit A	421 720 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°20' 53.85" E 32°02' 0.128"
Section 21(j)	Dewatering Pit A	1 123 634 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°19' 8.577" E 32°03' 16.62"
Section 21(j)	Dewatering Pit BDE	136 920 m^3 / annum	Portion 0 No. 15822 Reserve No. 3	S 28°18' 52.89" E 32°03' 32.24"
Section 21(j)	Dewatering of Luhlanga Pit (Area 8)	30 360 m^3/annum	Portion 0 No. 15822 Reserve No. 3	S 28°19'14.33" E 32°04'06.53"
Section 21(j)	Dewatering of KwaQubuka Pit (Area 9)	15 960 m^3/annum	Portion 0 No. 15822 Reserve No. 3	S 28°19'11.38" E 32°04'22.86"
Section 21(j)	Dewatering of Ophondweni Pit	485 766.4 m^3/annum	Portion 0 No. 15822 Reserve No. 3	S 28°15'44.52" E 32° 9'21.96"
Section 21(j)	Dewatering of Emalahleni Pit	131 160 m^3/annum	Portion 0 No. 15822 Reserve No. 3	S 28°18'47.64" E 32° 6'31.75"
Section 21(j)	Dewatering of Mahujini Pit	141 569 m^3/annum	Portion 0 No. 15822 Reserve No. 3	S 28°16'50.67" E 32° 4'1.62"

1.2. The quantity of the water authorized to be removed underground in terms of this license may not be exceeded without prior authorization by the Provincial Head.

1.3. The Licensee shall provide any water user whose water supply is impacted by the water use with potable water.

1.4. The quantity of water removed from underground must be metered and recorded on a daily basis.

1.5. Groundwater levels shall be monitored quarterly.

1.6. Groundwater must be monitored in terms of both quality and quantity within a 5km radius of the Refinery.

1.7. Self-registering flow meters must be installed in the delivery lines at easily accessible positions near the dewatering points.

1.8. The flow metering devices shall be maintained in a sound state of repair and calibrated by a competent person at intervals of not more than once in two years. Calibration certificates shall be available for inspection by the Provincial Head or his/her representative upon request.

1.9. Calibration certificates in respect of the pumps must be submitted to the Provincial Head after installation thereof and thereafter at intervals of two years.

1.10. The date and time of monitoring in respect of each sample taken shall be recorded together with the results of the analysis.

1.11. Analysis shall be carried out in accordance with methods prescribed by and obtainable from the South African Bureau of Standards, in terms of the Standards Act, 1982 (Act 30 of 1982).

1.12. The methods of analysis shall not be changed without prior notification to the Licensee and written approval by the Minister or his/her delegated nominee.

1.13. The Provinicial Head must be informed of any incident that may lead to under-groundwater being disposed of contrary to the provisions of this licence, by submitting a report containing the following information:

1.13.1. nature of the incident (e.g. operating malfunctions, mechanical failures, environmental factors, loss of supply services, etc);

1.13.2. actions taken to rectify the situation and to prevent pollution or any other damage to the environment; and

1.13.3. measures to be taken to prevent re-occurrence of any similar incident.

1.14. The Licensee shall follow acceptable construction, maintenance and operational practices to ensure the consistent, effective and safe performance of the underground water removal system.

1.15. Reasonable measures must be taken to provide for mechanical, electrical or operational failures and malfunctions of the underground water removal system.

[END OF LICENCE]

9 July 2020