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

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

LICENCE IN TERMS OF CHAPTER 4 OF THE NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998) (THE ACT)

I, ***Sifiso Mkhize,*** in my capacity as Director-General (Acting) in the Department of Water and Sanitation and acting under authority of the powers delegated to me by the Minister of Water and Sanitation, hereby authorize the following water uses in respect of this licence.

SIGNED: .....

DATE: 05/08/2016

LICENCE NO: 07/D73A/CI/4709
FILE NO: 27/3/D173/3/4/1

1.	**Licensee:**	**ACWA Power SolarReserve Redstone Solar Thermal Power Plant RF (Pty) Ltd: Construction of two 132kV power lines**
	Postal Address	Office XX07001 90 Grayston Drive Sandton 2196
2.	**Water Uses**	
2.1	Section 21(c) of the Act:	Impeding or diverting the flow of water in a watercourse, subject to the conditions set out in Appendices I and II
2.1	Section 21(i) of the Act:	Altering the bed, banks course or characteristics of a watercourse, subject to the conditions set out in Appendices I and II

B 07373

3. Properties and registered owner in respect of which this licence is issued

Farm Name	Portion	Registered Owner	Title Deed Number
Remaining Extent of the Farm No. 469		JMA Greeff	T880/1988
Remaining Extent of the Farm No. 468		National Government of RSA	
Remaining Extent of the Farm No. 457		Scarlett Sun	T1407/2009
Remaining Extent of the Farm Carter Block No. 458	Portion 65	National Government of RSA	
Remaining Extent of the Farm Carter Block No. 458	Portion 4	PPC Lime	T228/1953
Remaining Extent of the Farm Carter Block No. 458	Portion 5	PPC Lime	T454/1953
Remaining Extent of the Farm Carter Block No. 458	Portion 14	PPC Lime	T591/1956
Remaining Extent of the Farm Carter Block No. 458	Portion 15	PPC Lime	T591/1956
Remaining Extent of the Farm Carter Block No. 458	Portion 24	PPC Lime	T2704/1995
Remaining Extent of the Farm Carter Block No. 458	Portion 28	PPC Lime	T1269/197
Remaining Extent of the Farm Carter Block No. 458	Portion 7	Riverwalk Trading 303 CC	T2943/2003
Remaining Extent of the Farm Carter Block No. 458	Portion 16	P J Kilian Pty Ltd	T1835/1976
Remaining Extent of the Farm No. 300	Portion 4	TCB Vermeulen	T1690/1974

5. Licence and Review Period

5.1 This licence is valid for a period of forty (40) years from the date of issuance and it may be reviewed at intervals of not more than five (5) years.

6. Definitions

Any terms, words and expressions as defined in the National Water Act, 1998 (Act 36 of 1998) shall bear the same meaning when used in this licence.

''The Provincial Head"- means the Head of Provincial Operations: Northern Cape, Department of Water and Sanitation, Private Bag X6101, Kimberley, 8300.

"The Department" means the Department of Water and Sanitation.

"Responsible Authority" means the Department of Water and Sanitation or Catchment Management Agency.

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

"The 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.

"Minister" means Minister of Department of Water and Sanitation

"The Act" means the National Water Act, 1998 (Act 36 of 1998)

"Report" refers to the report entitled:

i. Redstone CSP Project Drainage Line Technical Report compiled by Sivest dated Dec. 2015;
ii. Wetland and Surface Water Report compiled by Sivest dated December 2015;
iii. Wetland Functional Assessment compiled by Sivest Dated 18 December 2015; and
iv. Environmental Management Programme (EMPr) for the Proposed Construction of Two 132kV Power lines and Associated Infrastructure for the Redstone Solar Thermal Power Project near Lime Acres, Northern Cape Province. Compiled by Sivest dated 14 October 2014 as all other related documentations and communication (emails, letters, verbal, etc) related thereto.

7. Description of activity

The proposed activity entails the construction of two 132kV power lines and associated infrastructure from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project Site. A 30km power line from ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant will be constructed from Grid to Noko substation. Polygon 61, 69, 72, 96, 98, 100, 101-103, 107-109, and 112-117 of the powerlines will be constructed within the wetland area. The polygons will affect Depression Wetlands and unchannelled Valley Bottom Wetlands. It is situated within D73A and C92A quaternary catchment in the Lower Vaal Water management

APPENDIX I

General conditions for the licence

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act 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 properties to the Provincial Head of the Department within 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 shall be responsible for any water use charges or levies imposed by a Responsible Authority.

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.

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 conduct an annual internal audit on compliance with the conditions of licence. A report on the audit shall be submitted to the Provincial Head within one month of the finalization of the audit.

11. The Licensee must 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 six (6) months from the date of issuance of this licence and a report on the audit shall be submitted to the Provincial Head within one month of finalisation of the report.

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. The Department accepts no liability for any damage, loss or inconvenience, of whatever nature, suffered as a result of / amongst other things:
    - 13.1 Inundation of flood;
    - 13.2 Any *force majeure* event and
    - 13.3 Siltation of the wetland or dam basin.

APPENDIX II

Section 21(c) of the Act: Impeding or diverting the flow of water in a watercourse;
And
Section 21(i) of the Act: Altering the bed, banks, course or characteristic of a watercourse

1. GENERAL

1.1 This licence authorises for the construction of a 30km power line from ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant will be constructed to Noko substation. Polygon 61, 69, 72, 96, 98, 100, 101-103, 107-109, and 112-117 of the powerline will be constructed within the wetland area. The polygons will affect Depression Wetlands and unchannelled Valley Bottom Wetlands as indicated in Table 1.

Table 1: Water use activities

Water use(s) activity	Purpose	Dimensions	Property Description	Co-ordinates
Section 21 (c) and (i)				
Construction of polygon 61 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation	Height : 30m Width: 1m Length: 1m	Portion 24 of the Farm Carter Block No. 458	S 28° 19' 26.24" E 23° 29' 50.59"
Construction of polygon 69 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 19' 52.88" E 23° 30' 25.38"
Construction of polygon 72 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 19' 58.57" E 23° 30' 52.76"
Construction of polygon 96 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to		Portion 7 of the Farm Carter Block No. 458	S 28° 20' 24.49" E 23° 34' 18.10"

Water use(s) activity	Purpose	Dimensions	Property Description	Co-ordinates
Section 21 (c) and (i)				
	Noko substation			
Construction of polygon 97 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 20' 25.65" E 23° 34' 18.10"
Construction of polygon 98 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 20' 26.67" E 23° 34' 34.16"
Construction of polygon 100 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 20' 26.13" E 23° 34' 51.54"
Construction of polygon 101 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 20' 24.32" E 23° 35' 1.84"
Construction of polygon 102 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 20' 22.57" E 23° 35' 11.86"
Construction of polygon 103 (tower) within a	To convey electricity from the ACWA Power Solar Reserve			S 28° 20' 20.91" E 23° 35' 21.44"

Water use(s) activity	Purpose	Dimensions	Property Description	Co-ordinates
Section 21 (c) and (i)				
wetland	Redstone Solar Thermal Energy Plant Project to Noko substation			
Constructio n of polygon 107 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation		Portion 16 of the Farm Carter Block No. 458	S 28° 20' 7.22" E 23° 35' 58.05"
Constructio n of polygon 108 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 20' 1.99" E 23° 36' 6.52"
Constructio n of polygon 109 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 19' 57.05" E 23° 36' 14.74"
Constructio n of polygon 112 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 19' 48.53" E 23° 36' 30.60"
Constructio n of polygon 113 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 19.38' 43" E 23° 36' 40.87"
Constructio n of polygon 114 (tower)	To convey electricity from the ACWA Power		Remaining Extend of	S 28° 19' 35.82" E 23° 36' 48.97"

Water use(s) activity	Purpose	Dimensions	Property Description	Co-ordinates
Section 21 (c) and (i)				
within a wetland	Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation		Portion 4 of the Farm 300	
Constructio n of polygon 115 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28 19' 35.39" E 23° 36' 53.80"
Constructio n of polygon 116 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28 19' 40.7" E 23° 37' 7.79"
Constructio n of polygon 117 (tower) within a wetland	To convey electricity from the ACWA Power Solar Reserve Redstone Solar Thermal Energy Plant Project to Noko substation			S 28° 19' 38.73" E 23° 37' 8.83"

1.2 The Licensee must carry out and complete all the activities listed under condition 1.1 according to the following:

1.2.1 Reports submitted to the Department or the Provincial Head.
1.2.2 Conditions of this licence and
1.2.3 Any other written direction issued by the Provincial Head in relation to this licence.

1.3 No activity must take place within the 1:100 year flood line or the delineated riparian habitat, whichever is the greatest, or within 500 m radius from the boundary of any wetland unless authorised by this licence.

1.4 The conditions of this licence must be brought to the attention of all persons (employees, sub-consultants, contractors etc.) associated with the undertaking of these activities and the Licensee must take such measures that are necessary to bind such persons to the conditions of this licence.

1.5 A copy of the water use licence and reports set out under condition 1.2 must be on site at all times.

1.6 If the water course flow is to be diverted during construction such flow diversion must ensure the silt load in the water is minimised by using sand bags or similar.

1.7 Erosion control measures must be implemented at all stormwater discharge points, where the stormwater is released into the environment.

1.8 No parking to be constructed on the drainage line connecting the wetland located on the north western side of the site and the stream located on the eastern side of the development.

1.9 No camp to be constructed on the drainage line in order to cater for ecological connectivity.

1.10 Original topography and same river bed material must be re-instated.

1.11 The work must be limited to riparian habitat, the river bed and banks. Valued environmental features like prominent habitat, rocks or vegetation must be avoided.

1.12 Bridge openings to be large enough to ensure ecological connectivity (terrestrial and aquatic) up and down stream. The bridge must accommodate 1:100 year floodline.

2. FURTHER STUDIES AND INFORMATION REQUIREMENTS

2.1 For water use activities listed in Table 1, the Licensee must conduct the following:

2.2.1 All litter and rubble must be removed and disposed of at a registered facility.

2.2.2 Surrounding landowners and interested and affected parties (I&AP's) inputs must be addressed via a Complaint and Incidents register.

2.2.3 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.

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

2.2.5 The rehabilitation plan and management must be implemented

2.3 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 six (6) months of the date of issuance of this licence.

2.4 Storm water management plan with energy dissipating features must be implemented. The stormwater management plan must be submitted prior commencement of the proposed activity.

2.5 An updated stormwater management, rehabilitation plan and method plan must be submitted prior commencement of the proposed activity.

2.6 The design Engineer should confirm the designs and construction of every facility is in accordance with the referenced standards and principles.

2.7 The Present Ecological State (PES) and Ecological Importance and Sensitivity of all water courses or wetlands located on site must not be lowered.

2.8 No structures and associated infrastructure will be built within drainage lines.

2.9 The Environmental Management Plan (EMP) must be updated so that bird flappers are included at all watercourses crossings.

2.10 Stormwater and Rehabilitation Plan must be submitted prior commencement of the proposed activity.

2.11 All stockpiles must be removed from the wetland area.

3. PROTECTIVE MEASURES

3.1 Storm Water Management

3.1.1 Storm water management practices must be constructed, operated and maintained in a sustainable manner throughout the project and for the water use activities set out in condition 1.1 and must include but are not limited to the following:

3.1.1.1 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 wetland;

3.1.1.2 Stormwater must be diverted from construction works and roads, and must be managed in such a manner as to disperse runoff and to prevent the concentration of storm water flow; and

3.1.1.3 The velocity of stormwater discharges must be attenuated and the banks of the wetland protected;

3.1.2 Storm water discharge points with energy dissipaters should be constructed strategically in and around infrastructure to discharge storm water into the surrounding area to avoid concentration of discharge;

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

3.2 Structures, Construction Plant and Materials

3.2.1 The Licensee must use sand bags or similar for diversion to minimize silt load during construction.

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

3.2.3 Necessary erosion prevention measure must be employed to ensure the sustainability of all structures.

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

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

3.2.6 Structures must be inspected regularly for accumulation of debris, blockage, erosion of abutments and overflow areas - debris must be removed and damages must be repaired and reinforced immediately.

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

3.2.8 During the construction and operation phase, erosion and siltation measures should be implemented.

3.2.9 During construction, erosion berms should be installed to prevent gully formation, according to the slope.

3.2.10 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.

3.2.11 The methods and management practices that minimize and avoid problems such as modification and riparian clearance, erosion and severe bank stability must be applied during construction and maintenance of road crossings across the wetlands.

3.2.12 All rubble is to be periodically removed.

3.2.13 Top soils must be placed in the horizons as they were removed. Any top soil that is used from outside sources must be weed and chemical free.

3.2.14 Sedimentation measures must be implemented and sedimentation barriers must be included.

3.3 Water Quality

3.3.1 The Licensee shall sample the water quality weekly (during construction) and monthly (after construction) for mentioned variables shown in Table 2, at monitoring points upstream and downstream of the affected watercourse and on the watercourse. The report must be submitted to the Provincial Head within thirty (30) days after the results of each sampling event is received:

Table 2: Water quality parameters for sampling.

Variable	Limit
Flow (ℓ/s)	Not applicable
Temperature (°C)	<10% variation
pH	6.0 – 8.5
Electrical conductivity (EC) (mS/m)	<50
Suspended solids (SS) (mg/ℓ)	<25
Dissolved oxygen (mg/ℓ)	≥6
Turbidity (NTU)	<3

Variable	Limit
Sechi disk depth (m)	≥1 meter
Alkalinity (mg $CaCO_3/\ell$)	<100

3.3.2 Monitoring must be undertaken as set out in condition 5 of Appendix II.

3.3.3 Activities that lead to elevated levels of turbidity of any watercourse must be prevented, reduced, or otherwise remediate.

3.3.4 Construction, operation and maintenance activities must be scheduled to take place during dry seasons when flows are lowest where reasonably possible. If this is not possible and if management measures have not been provided for in the reports submitted to the Department or the Provincial Head, the Licensee must submit such to the Provincial Head for written approval before these activities commence. Natural in stream hydrology is to be used to determine which months constitute the low flow months.

3.3.5 The ecological state of the water resource must not be lowered by the development. The Licensee must ensure that the quality of the water to downstream water users does not decrease because of the water use activities listed under condition 1.1 of Appendix II.

3.3.6 Pollution of and disposal/spillage of any material into the watercourse must be prevented, reduced, or otherwise remediate through proper operation, maintenance and effective protective measures.

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

3.3.8 Any hazardous substances must be handled according to the relevant legislation relating to transport, storage and use of the substance.

3.3.9 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 must be maintained in a state of good repair and standby pumps must be provided.

3.3.10 All litter is to be periodically removed and controlled via the use of litter traps at culvert and attenuation dam outlets. Maintenance schedules must be kept and reported on when requested by Provincial Head.

3.3.11 The Licensee must maintain a spills register and deal with spillage incidences in the authorised manner.

3.3.12 Dust suppression must not involve chemicals.

3.4 Flow

3.4.1 Activities must be conducted in a manner that does not negatively affect catchment yield, hydrology and hydraulics. The Licensee must ensure that the overall magnitude and frequency of flow in the watercourse(s) does not decrease, other than for natural evaporative losses and authorised attenuation volumes.

3.4.2 Appropriate design and mitigation measures must be developed to minimise impacts on the natural flow regime of the watercourse i.e. through placement of structures/supports and to minimise turbulent flow in the watercourse.

3.4.3 Structures to be designed in a way to prevent the damming of the watercourse and not impact on the flow of the water, during the construction and operational phases of all developments.

3.4.4 The development may not impede natural drainage lines.

3.4.5 Any instream structures used for construction purposes should not stop the natural flow in the wetland.

3.5 Instream and Riparian Habitat (IRH)

3.5.1 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.

3.5.2 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 licence.

3.5.3 Necessary erosion prevention mechanisms must be employed to ensure the sustainability of all structures and activities and to prevent instream sedimentation.

3.5.4 The environmental management plans must describe the options to avoid or minimise or compensate for the potential adverse effects and promote the conservation of the Instream and Riparian Habitat and also methods for the rehabilitation of the affected areas following the completion of the impacting activity.

3.5.5 If avoidance or minimisation is not possible or will not adequately protect the Instream and Riparian Habitat (IRH), compensation for damage to and /or mitigation to conserve the IRH must be done.

3.5.6 Encroachment of additional exotic species and terrestrial species in riparian zones must be discouraged.

3.5.7 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.

3.5.8 Run-off from paved surfaces should be slowed down by the strategic placement of berms.

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

3.5.10 The vegetation and surrounding catchment should be managed to prevent erosion and siltation of the watercourse.

3.5.11 Alien and invasive vegetation must not be allowed to further colonise the area, and all new alien vegetation recruitment must be sustainably eradicated or controlled.

3.5.12 Existing vegetation composition must be maintained or improved by maintaining the natural variability in flow fluctuations.

3.5.13 The indiscriminate use of machinery within the instream and riparian habitat will lead to compaction of soils and vegetation and must therefore be strictly controlled.

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

3.5.15 Stockpiling of removed soil and sand must be stored outside of the 1:100 floodline or riparian habitat, whichever is the greater, to prevent being washed into the wetland / river and must be covered to prevent wind and rain erosion.

3.5.16 Trenches must be open for minimal length of time and must be backfilled with materials that will not alter substance flow significantly.

3.5.17 No campsites or construction sites are to be allowed in the riparian areas.

3.6 Biota

3.6.1 The Licensee must take all reasonable steps to allow movement of aquatic species, including migratory species.

3.6.2 All reasonable steps must be taken not to disturb the breeding, nesting and/or feeding habitats and natural movement patterns of aquatic biota.

3.6.3 The current level of diversity of biotopes and communities of animals, plants and micro organisms must be maintained.

3.6.4 Migration routes of aquatic biota may not be impaired at any stage of the activities.

4. REHABILITATION AND MANAGEMENT

4.1 The Licensee must embark on a systematic long-term rehabilitation programme to restore the watercourse/s to environmentally acceptable and sustainable conditions after completion of the activities, which must include, but not be limited to the rehabilitation of disturbed and degraded riparian areas to restore and upgrade the riparian habitat integrity to sustain a bio-diverse riparian ecosystem.

4.2 Sufficient topsoil must be stripped and redistributed.

4.3 Compacted and disturbed areas must be shaped to natural forms and to follow the original contour. In general cut and fill slopes and other disturbed areas must not exceed 1:3 (v:h) ratio, it must be protected, vegetated, ripped and scarified parallel with the contour.

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

4.5 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.

4.6 Photos of pre-construction, post construction and post rehabilitation must be taken and kept on record.

4.7 Rehabilitation structures must be inspected regularly for the accumulation of debris, blockages instabilities and erosion with concomitant remedial and maintenance actions.

4.8 The Provincial Head must sign a release form indicating that rehabilitation was done satisfactory according to specifications as per this licence.

5. MONITORING AND REPORTING

5.1 A comprehensive and appropriate environmental (including bio-monitoring) assessment and monitoring programme to determine the impact, change, deterioration and improvement of the aquatic system associated with the activities listed under condition 1.1 as well as compliance to these water use licence conditions must be developed and submitted to the Provincial Head for a written approval within six (6) months of date of issuance of this licence and must subsequently be implemented as directed.

5.2 An Environmental Control Officer must be appointed and he/she will be responsible for monitoring of the affected areas.

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

5.4 The Licensee must conduct an annual internal audit on compliance with the conditions this licence. A report on the audit must be submitted to the Provincial Head within one month of the finalisation of the audit.

5.5 The audit reports must include but are not limited to:

5.5.1 Reporting in respect of the monitoring programme referred to in condition 5.1 of Appendix II;

5.5.2 A record of implementation of all mitigation measures and implementation of the watercourse rehabilitation and management plan including a record of corrective actions.

5.6 The Licensee must apply in writing to the Provincial Head for alternative monitoring and reporting arrangements for which written approval must be provided.

5.7 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.

5.8 A qualified and responsible scientist must be retained by the Licensee who must give effect to various licence conditions and to ensure compliance thereof pertaining to all activities of impeding and/or diverting flow of watercourses as well as alterations to watercourses on the property as set out in condition 1.1.

5.9 Adjoining Wetland must be monitored and not to be impacted upon.

6. OTHER WATER USERS

6.1 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.

7. POLLUTION PREVENTION, INCIDENTS AND MALFUNCTIONS

7.1 Pollution incidents shall be dealt with in accordance with the Act.

7.2 Any incident that may cause pollution of any water resource must immediately be reported to the Provincial Head, during the construction, operation and decommissioning phases of the activity.

7.3 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.

7.4 The Licensee or his/her delegated authority must ensure that no waste is stored close to crossings.

7.5 The Licensee must keep all records relating to the compliance or non-compliance with the conditions of this licence in good order. Such records shall be made available to the Provincial Head within 14 (fourteen) days of receipt of a written request by the Department for such records.

7.6 The Licensee shall keep an incident report and complaints register, which must be made available to any external auditors and the Department.

8. BUDGETARY PROVISIONS

8.1 The Licensee must ensure that there is a budget sufficient to complete and maintain the water use and for successful implementation of the rehabilitation programme as set out in this licence.

8.2 The Provincial Head may at any stage of the process request proof of budgetary provisions for rehabilitation and closure of project.

[END OF LICENCE]