



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, **Margaret-Ann Diedericks**, in my capacity as Director-General 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 authorise the following water uses in respect of this licence.

SIGNED:
DATE: 28th MARCH 2015



LICENCE NO: 03/A23E/CI/2692
FILE NO: 27/2/2/A523/9/4

1. **Licensee:** **City of Tshwane Metropolitan Municipality**
Montanaspruit Modifications and Upgrade
P.O Box 1409
Pretoria
0001

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.
- 2.2 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

3. **Properties in respect of which this licence is issued**

- 3.1 Portions 28-42, 129, 134-135 & 137 on Remainder of Farm Doornpoort 295 JR.

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4. Registered owners of the Properties

4.1 Table 1: Registered owners of the properties

Owner	Property
Executive Environmental Network CC	Portion 36 of Farm Doornpoort 295 JR
Holder Edmund William	Portion 37 of Farm Doornpoort 295 JR
Empyrean Civils CC	Portion 38 of Farm Doornpoort 295 JR
Van der Berg Johannes Adriaan and Van der Berg Elizabeth Christina	Portion 39 of Farm Doornpoort 295 JR
Leeuw Deon Vernon	Portion 40 of Farm Doornpoort 295 JR
Grobler Irne Jacobus	Portion 41 of Farm Doornpoort 295 JR
Lyzanne Family Trust	Portion 42 of Farm Doornpoort 295 JR
Mulder Amelia	Portion 28 of Farm Doornpoort 295 JR
Van Vuuren Johannes Marthinus Francios Jansen	Portion 29 of Farm Doornpoort 295 JR
Jane Sandra Thomas Trust	Portion 30 of Farm Doornpoort 295 JR
Marraius Wouter Lourens Dawid and Marais Gertuida Dorethea Johanna	Portion 31 of Farm Doornpoort 295 JR
Kappmeier Karin	Portion 135 of Farm Doornpoort 295 JR
Leeuw Lionel Derek and Leeuw Hester Dorethea	Portion 134 of Farm Doornpoort 295 JR
Treeby Maria Magdalena	Portion 35 of Farm Doornpoort 295 JR

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 every five (5) years.

6. Definitions

“Any word or term defined under the National Water Act, 1998 (Act No 36 of 1998) shall have the same meaning as defined in the Act, unless otherwise specifically stated.”

“Minister” means the Minister of Water and Sanitation

“Department” means the Department of Water and Sanitation

“Provincial Head” means the Head of Provincial Operations: North West, Department of Water and Sanitation, Private Bag X05, Mmabatho, 2735.



7. **Description of activity**

The activity involves the modifications of Montanaspruit stormwater channel by excavations, widening, and deepening of the channel where necessary, to increase the channels ability to cater for more stormwater in the area to alleviate flooding of the surrounding area and properties along the channel. The modifications will include the re-alignment and removal of the current culvert crossing at Tsamma Street and replace it with a concrete slab of 50m x 6.5m length by width to will allow free flow of water. Stormwater system and networks at Breedt Street will be upgraded through the construction of a new stormwater pipe of 525mm in diameter, with a larger capacity than the existing pipe. Several pipe networks, three (3) manholes, five (5) kerb inlets and a stilling basin of 6 500m³ will be constructed to form part of Breedt Street stormwater system upgrade. The channel will be lined with Reno mattresses, Rock wire mattress and gabions to protect and prevent erosion along the channel. The affected water resource is the Montanaspruit channel, its bed, banks and floodlines, where all these activities will take place. The proposed activity fall under Crocodile West and Marico Water Management Area at the Apies River Catchment (quaternary A23E) at geographical position starting at 25°39'43.35"S 28°15'46.74"E and Ending at 25°39'35.30"S 28°15'55.41"E



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 properties in respect of which this licence is issued are 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. The Licensee shall be responsible for any water use charges or levies imposed by a responsible authority.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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 3 (three) 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 finalisation of the report.
11. Any incident that causes or may cause water pollution must be reported to the Provincial Head or his/her designated representative within 24 hours.
12. If the water use described in this licence is not exercised within 3 years of the date of the licence, the authorisation will be withdrawn. Upon commencement of the water use, the Licensee must inform the Provincial Head in writing.
13. Notices prohibiting unauthorized persons from entering water use premises must be displayed.
14. The Department accepts no liability for any damage, loss or inconvenience, of whatever nature, suffered as a result of / amongst other things:
 - 14.1 Inundation of flood;
 - 14.2 Any *force majeure* event and

- 14.3 Siltation of the river or dam basin.
15. The Licensee shall establish and implement a continual process of raising awareness amongst itself, its workers and stakeholders with respect to Water Conservation and Water Demand Management initiative.



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 City of Tshwane Metropolitan Municipality for Section 21(c) and (i) water uses for excavations, widening and deepening of Montanaspruit stormwater channel where it is necessary, lining of the channel by Rock wire mattress, gabions and Reno-mattress where necessary, construction of concrete slab at Tsamma crossing and the upgrade of the existing Stormwater pipe networks at Breedt Street as set out in Table 2;

Table 2: Water Uses Authorised:

Activity	Purpose	Dimensions (m)	Property Description	Co-ordinates	
				Start	End
Section 21 c & i					
Widening & Deepening of Montanaspruit stormwater channel.	Modifications of the channel to accommodate more stormwater and prevent erosion.	Montanaspruit Length:1000m Width: 64m Depth: 0.5-2m	Several portions and remainder portions of farm Doornpoort 295 JR	25°39'43.35"S 28°15'46.74"E	25°39'35.30"S 28°15'55.41"E
Installation of Rock wire mattress or Gabion Structures.	These structures will prevent channel erosion	Montanaspruit Depths: 100mm-2/3 mattress	Several portions and remainder portions of farm Doornpoort 295 JR	25°39'43.35"S 28°15'46.74"E	25°39'35.30"S 28°15'55.41"E
Tsamma road crossing construction of Reinforced concrete slab.	Concrete slab will allow free continual flow of stormwater better than the culverts crossing	Concrete slab Length: 50m Width: 6.5m	Several portions and remainder portions of farm Doornpoort 295 JR	25°39'25.36"S 28°15'48.59"E	25°39'24.91"S 28°15'36.22"E
Breedt street stormwater pipe upgrade	The new stormwater pipe and the network at	Breedt pipe Length: 345m Width: 0.525m	Several portions and remainder portions of farm	25°39'43.35"S 28°15'46.72"E	25°39'15.66"S 28°15'33.27"E

Activity	Purpose	Dimensions (m)	Property Description	Co-ordinates	
				Start	End
and construction of new stormwater network system.	Breedt street will connect to pipes along Tsamma street and discharge water through stilling basin at the channel.	Pipe along Tsamma Length: 131m Width: 0.525m Stilling basin 6 500m ³	Doornpoort 295 JR		

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, specifically:

- 1.2.1.1 Amended Basic Assessment Report with public participation, undated;
- 1.2.1.2 Storm water management plan by SEF dated April 2011;
- 1.2.1.3 Ecological Management Plan with Risks by SEF dated May 2011;
- 1.2.1.4 Aquatic assessment prepared by SEF dated June 2007;
- 1.2.1.5 Vegetation assessment by SEF dated June 2007;
- 1.2.1.6 Rehabilitation and Flood plain restoration plan by SEF dated April 2011;
- 1.2.1.7 Amended Environmental Management Plan by SEF dated February 2012;
- 1.2.1.8 Draft preliminary design report by IR consulting engineers dated 21 September 2007 and Method statement by IR Engineers dated 30 July 2014;
- 1.2.1.9 Positive Environmental Authorisation RoD dated 3 December 2012.

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 during the construction.

1.6 Environmental authorization conditions must be included as referred in the licence.

1.7 A suitably qualified person(s), appointed by the Licensee, and approved in writing by the Provincial Head must be responsible for ensuring that 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.



2 FURTHER STUDIES AND INFORMATION REQUIREMENTS

- 2.1 For water use activities listed in Table 2:
 - 2.1.1 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
 - 2.1.2 No site activities may occur beyond the proposed site location of the erosion and sedimentation controls and marked limits of disturbance.
- 2.2 For the activities listed under, Table 2, a signed design report, and signed final design drawings indicating such channel lining must be submitted to this Department prior to implementation, the name and the professional registration number of the design engineer must be indicated in both the report and the drawings.
- 2.3 A combination of river ecologist, botanist and landscape architect must assist with the design of the new canal to optimise instream, terrestrial habitat and open spaces.
- 2.4 Landscape architects must draw up a Landscape design plan to integrate all man made and natural elements. The design plan must be submitted to DWS Provincial Head before construction starts.
- 2.5 Updated master plan and design drawings must be submitted to the Provincial Head before construction starts.
- 2.6 Landscape architects of Botanist must draw up plant species plan to, and the plan must enrich variety and diversity. The plan must be submitted to DWS Provincial Head before construction starts.
- 2.7 Bio-retention ponds and wetlands to be included at the stormwater discharge points which are located outside of the active channel of the spruit. Designs to be submitted to DWS Provincial Head before construction starts.
- 2.8 Landscape Maintenance plan to be compiled and submitted for approval.
- 2.9 Rehabilitation to be concurrent with construction and monitored and monthly progress reports submitted to the Provincial Head. Rehabilitation monitoring to be ongoing for a year after the defects liability period.
- 2.10 Environmental Conservation Officer must be appointed to supervise the work and be on site most of the construction and rehabilitation time. Conservation Plan must be compiled, submitted to the Provincial Head for approval and implementation to improve rivers and indigenous species composition.
- 2.11 An Environmental Management Plan and rehabilitation plan for the decommissioning of any of the water use activities listed in Table 2 must be submitted five (5) years before commencing with closure to the Provincial Head for a written approval.
- 2.12 Stormwater management plan should be designed in a way that aims to ensure that post-development run-off does not exceed pre-development values in:
 - 2.7.1. Peak discharge for any given storm;
 - 2.7.2. Total volume of run-off for any given storm;
 - 2.7.3. Frequency of run-off volumes;
 - 2.7.4. Pollutant and debris concentrations reaching watercourses;
 - 2.7.5. Equip all storm water structures with energy dissipating structures, silt and litter

traps;

- 2.7.6. Velocity of outgoing storm water shall not exceed the velocities of incoming water in order to reduce erosion impacts; and
- 2.7.7. Increase in run-off due to a higher water table resulting from tree clearing practices.

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 watercourses;
 - 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;
 - 3.1.1.3 The velocity of stormwater discharges must be attenuated and the banks of the watercourses protected;
 - 3.1.1.4 Storm water leaving the Licensee's premises must in no way be contaminated by any substance, whether such substance is a solid, liquid, vapour or gas or a combination thereof which is produced, used, stored, dumped or spilled on the premises;
 - 3.1.1.5 Sheet runoff from paved surfaces and access roads need to be curtailed.

3.2 Structures, Construction Plant and Materials

- 3.2.1 The Licensee must line the channel by using Rock wire mattresses or gabion structures with rocks, boulders, and groynes in association with topsoil and vegetation for the beds and banks where necessary, instead of Armoflex blocks lining. Armoflex linings do not support natural systems and it speeds up water.
- 3.2.2 The upgrading of the natural stream into a canal must be planned and designed to imitate the natural stream as natural as possible with low velocities, natural materials, winding nature taking preference.
- 3.2.3 Construction works must be supervised by a registered professional engineer.
- 3.2.4 The height, width and length of structures must be limited to the dimension necessary to accomplish the intended function as per engineering drawings.
- 3.2.5 Necessary erosion prevention measure must be employed to ensure the sustainability of all structures.
- 3.2.6 Structures must be designed such that they may not be damaged by floods exceeding the magnitude of floods occurring on average once in every 100 years.
- 3.2.7 Structures must be non-erosive, structurally stable and must not induce any flooding or safety hazard.



- 3.2.8 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.
- 3.2.9 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.
- 3.2.10 During the construction and operation phase, erosion and siltation control measures should be implemented. Erosion berms should be installed to prevent gully formation, according to the slope.
- 3.2.11 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 seednets is recommended to prevent erosion.
- 3.2.12 Sedimentation measures must be implemented and sedimentation barriers must be included.
- 3.2.13 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.
- 3.2.14 Detail designs of the drainage line crossing structures should be designed to ensure free flow of water and prevent erosion on the channel.
- 3.2.15 Trench to be done as work progress and not to be kept open for longer than 50m. Open trench must be made safe for people and animals by temporarily fencing and / or barricading.
- 3.2.16 Slopes must be protected against erosion. Grassed berms, rock, Reno mattresses, geotextiles, topsoil, grass, silt fences to be used.

3.3 Water Quality

- 3.3.1 The Licensee shall sample the water quality weekly (during construction) and monthly (operation) for the variables mentioned in Table 3 at monitoring points both upstream and downstream of the activities mentioned in Table 2, and report to the Provincial Head thirty (30) days after the results of each sampling event is received.

Table 3: Water quality parameters relevant to sampling

Variable	Limit
Electrical conductivity (EC) (mS/m)	<50
Turbidity (NTU)	<3
Suspended solids (SS) (mg/l)	<25
Dissolved oxygen (mg/l)	≥6.0
Flow (l/s)	Measure monthly during every sampling.
Temperature (°C)	<10% variation
pH	6.0 – 8.5
Alkalinity	<100

The variables may be amended on discretion of the Provincial Head. Only an accredited (SANS 17025) laboratory to be used for analysis.

- 3.3.2 Monitoring must continue for three (3) years after the cessation of the activities listed in condition 1.1.



- 3.3.3 Monitoring must be undertaken as set out in condition 5.
- 3.3.4 Activities that lead to elevated levels of turbidity of any watercourse must be prevented, reduced, or otherwise remediated. 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 Licensee must ensure that the quality of the water to downstream water users does not decrease to lower than the limits as set out on Table 3 because of the water use activities listed under condition 1.1.
- 3.3.6 A qualified person must be appointed to assess the quality of water both upstream and downstream of the activities prior to commencement of construction.
- 3.3.7 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.
- 3.3.8 Sediment laden water must be filtered before being discharged to the river. Sand filters or round hollow hay bales with bident linings can be used.
- 3.3.9 Vehicles and other machinery must be serviced well above the 1:100 year flood-line of the channel 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.
- 3.3.10 Any hazardous substances must be handled according to the relevant legislation relating to transport, storage and use of the substance.
- 3.3.11 All reagent storage tanks and reaction units must be supplied with a banded 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.

3.4 Flow

- 3.4.1 The Licensee must 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.
- 3.4.2 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.
- 3.4.3 Structures must be designed in a way to prevent the damming of stream water and not impact on the flow of the water, during the construction and operational phases of all developments.
- 3.4.4 The diversion structures may not restrict stream flow by reducing the overall stream width or obstructing stream flow.
- 3.4.5 Stream bank must be protected against erosion and vegetated to blend into the surrounding banks.



3.4.6 Where flow in watercourse is permanent, the trenches must be staged across part of the channel to maintain flows. Flows must not be stopped.

3.5 Riparian Habitat and In-stream Habitat (Vegetation and Morphology)

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

3.5.2 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 within a 50m radius around all authorised activities (Table 2).

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

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

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

3.5.6 Accumulation of woody debris on terraces by periodic flooding must be discouraged.

3.5.7 Existing flood terraces and deposition of sediments on these terraces to ensure optimum growth, spread and recruitment of these species must be maintained.

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

3.5.9 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.

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

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

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

3.5.13 Removed soil and sand must be stored outside of the 1:100 floodline or riparian habitat, whichever is the greater, to prevent washing into the river and must be covered to prevent wind and rain erosion.

3.5.14 Adequate bank stabilisation measures must be implemented.

3.5.15 Flora and fauna and nesting sites to be conserved and relocated where necessary.

3.5.16 Plants search and rescue must be performed, new plants species must be planted in order to improve species diversity.

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



3.6 Biota

- 3.6.1 The Licensee must take all reasonable steps to allow movement of aquatic species, including migratory species. Bio monitoring programme to be initiated.
- 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.

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 Rehabilitation to start concurrent with construction.
- 4.3 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.
- 4.4 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.
- 4.5 Topsoil must be removed and redistributed over the work areas.
- 4.6 Compacted areas must be shaped to original contour, ripped, scarified, re-vegetated.
- 4.7 A photographic record must be kept as follows and submitted with reports as set out in section 5 Appendix II:
 - 4.7.1 Dated photographs of all the sites to be impacted before construction commences;
 - 4.7.2 Dated photographs of all the sites during construction on a monthly basis; and
 - 4.7.3 Dated photographs of all the sites after completion of construction, seasonally.
- 4.8 Rehabilitation structures must be inspected regularly for the accumulation of debris, blockages instabilities and erosion with concomitant remedial and maintenance actions.
- 4.9 Rock bank rehabilitation to be sloped at 1:3 of flatter, protected with roack, topsoil and vegetation.
- 4.10 The Provincial Head will sign a release form indicating that rehabilitation was done satisfactory according to specifications as per this licence.

5. MONITORING AND REPORTING

- 5.1 The Provincial Head must be notified in writing one month prior to commencement of the licensed activities and again upon completion of the activities.
- 5.2 Six (6) monthly monitoring reports must be submitted to the Provincial Head until otherwise agreed in writing with the Provincial Head.



- 5.3 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 properties as set out in condition 1.1.
- 5.4 An Environmental Control Officer must be appointed and he/she will be responsible for monitoring of the affected areas.
- 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 5.2 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 must be implemented.
- 5.8 Bio-monitoring to be performed.
- 6. OTHER WATER USERS**
- 6.1 The Licensee must 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 shall immediately be reported to the Provincial Head.
- 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 shall 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.
- 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 Department may at any stage of the process request proof of budgetary provisions for rehabilitation and closure of the project(s).
- 8.3 The Licensee is fully responsible and accountable for any negative impacts on the watercourse(s) and the modelling, monitoring and mitigation thereof, until such time that no negative impacts are experienced and/or foreseen.

[END OF LICENCE]

