



agriculture, land reform & rural development

Department:
Agriculture, Land Reform and Rural Development
REPUBLIC OF SOUTH AFRICA

Directorate: Land Use and Soil Management
P.O Box 34521, FAUNASIG, 9325
Omni Building, 73 Aliwal Street, 1st floor, Bloemfontein
Tel: 051 409 2623, Fax: 051 409 2625, Email: PetuniaMt@daff.gov.za
Enquiries: Ms MP Mthimkulu, Reference: 19.1.4.2.2, Date issued: 22.06.2020

N Venter
PO Box 112
KIRKWOOD
6120
Dear Sir

CULTIVATION OF VIRGIN SOIL (Regulation 2)

FARM UNIT: REMAINING EXTENT OF LEMOEN-SPRUIT 667

DISTRICT: LUCKHOFF

With reference to your application, dated 14/02/2020, in terms of the provision of Regulation 2 of the Conservation of Agricultural Resources Act 1983 (Act 43 of 1983):

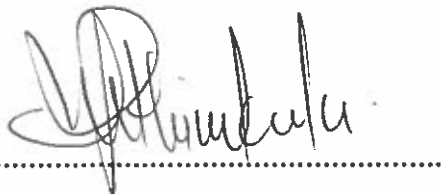
- Permission is hereby granted to cultivate 800 ha of virgin soil (as indicated on the attached map) on above-mentioned farm for irrigation as mentioned in your application.
- Permission to cultivate virgin soil can unfortunately not be granted for the following reasons:
- Protection of the land by means of soil conservation works is under present circumstances not necessary. Should it in future occur that the land is liable to erosion the necessary protection measures must be implemented
- Soil Conservation works must be implemented
- Before any cultivation may take place, a proper water runoff control planning must be done or planning against wind erosion must be done to the satisfaction of the Executive Officer.

- If in future it occurs that land is subject to drowning conditions or the soil become salinated the necessary steps must be taken to install a subsurface drainage system.
- Planning and designing of soil conservation works can be done by any institution of your choice but these plans and specifications must comply with the regulations as stipulated by the Department of Agriculture and constructed to the satisfaction of the Executive Officer
- Other conditions: **Sustainable irrigation practices (scheduling) should be implemented in order to prevent water logging and possible salinization of the soils. Should water logging or any other conservation related problems occur on the property, the land user and owner will be held liable to conserve or rehabilitate the area.**

The permit does not exempt the land user from complying with other applicable pieces of legislations regulating this activity e.g. NEMA 107 of 1998 etc.

Your attention is drawn to the fact that above-mentioned conditions are granted in terms of Act 43 of 1983. Failure to comply with the conditions is an offence and may lead to prosecution. If you experience any problem with the interpretation of this letter or any other problem concerning the above mentioned, do not hesitate to contact our office on the above-mentioned address.

Should you feel aggrieved by this decision you may lodge an appeal in writing within 14 days of receipt of this letter to: The Director: Land Use and Soil Management, Private bag X120, Pretoria. 0001



pp EXECUTIVE OFFICER: ACT NO.43 of 1983



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N Venter

PO Box 112

KIRKWOOD

6120

Dear Sir

CULTIVATION OF VIRGIN SOIL (Regulation 2)

FARM UNIT: REMAINING EXTENT OF DIEPDRAAI 754

DISTRICT: LUCKHOFF

With reference to your application, dated 14/02/2020, in terms of the provision of Regulation 2 of the Conservation of Agricultural Resources Act 1983 (Act 43 of 1983):

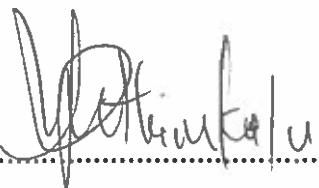
- Permission is hereby granted to cultivate 730 ha of virgin soil (as indicated on the attached map) on above-mentioned farm for irrigation as mentioned in your application.
- Permission to cultivate virgin soil can unfortunately not be granted for the following reasons:
- Protection of the land by means of soil conservation works is under present circumstances not necessary. Should it in future occur that the land is liable to erosion the necessary protection measures must be implemented
- Soil Conservation works must be implemented
- Before any cultivation may take place, a proper water runoff control planning must be done or planning against wind erosion must be done to the satisfaction of the Executive Officer.

- If in future it occurs that land is subject to drowning conditions or the soil become salinated the necessary steps must be taken to install a subsurface drainage system.
- Planning and designing of soil conservation works can be done by any institution of your choice but these plans and specifications must comply with the regulations as stipulated by the Department of Agriculture and constructed to the satisfaction of the Executive Officer
- Other conditions: **Sustainable irrigation practices (scheduling) should be implemented in order to prevent water logging and possible salinization of the soils. Should water logging or any other conservation related problems occur on the property, the land user and owner will be held liable to conserve or rehabilitate the area.**

The permit does not exempt the land user from complying with other applicable pieces of legislations regulating this activity e.g. NEMA 107 of 1998 etc.

Your attention is drawn to the fact that above-mentioned conditions are granted in terms of Act 43 of 1983. Failure to comply with the conditions is an offence and may lead to prosecution. If you experience any problem with the interpretation of this letter or any other problem concerning the above mentioned, do not hesitate to contact our office on the above-mentioned address.

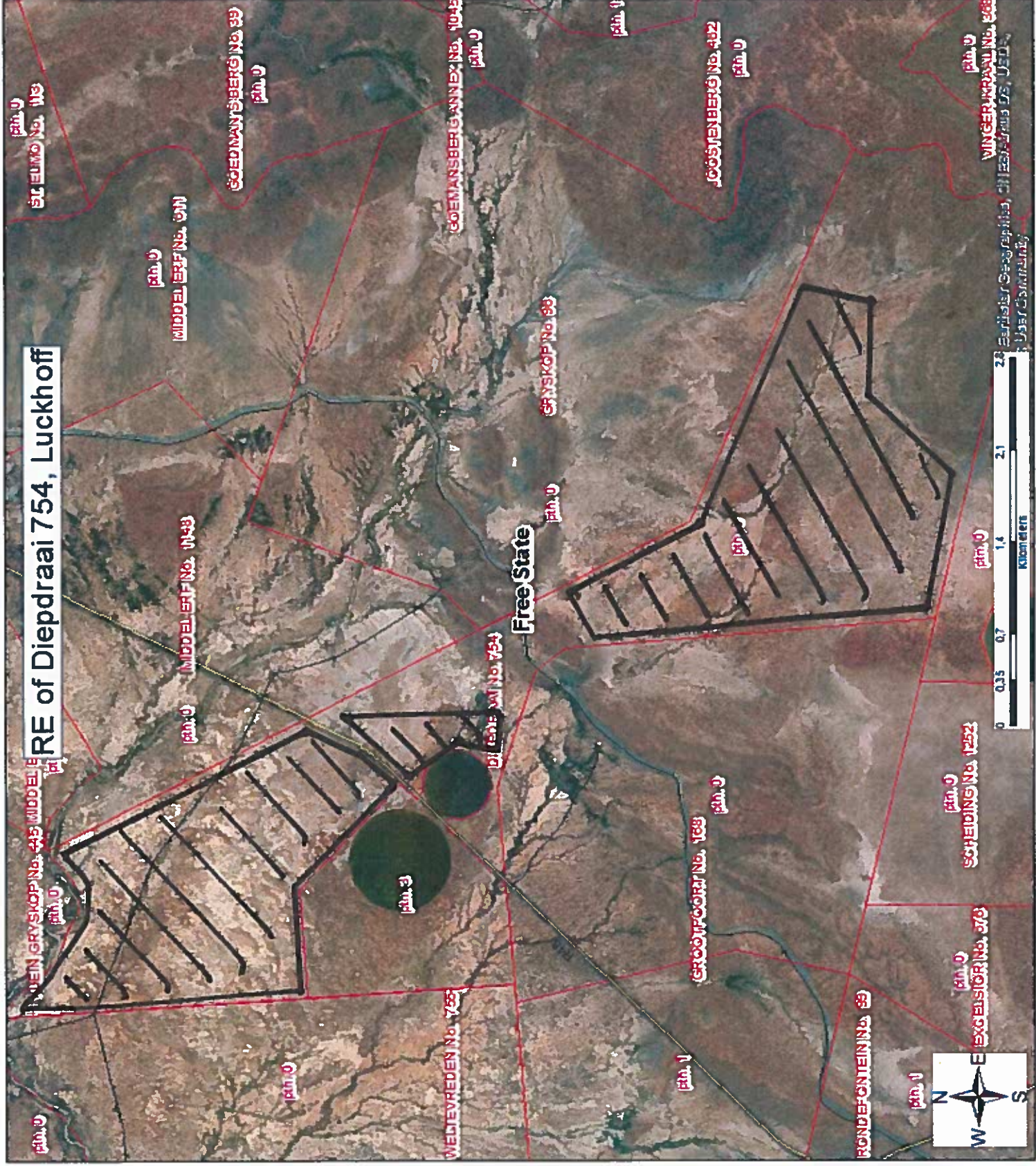
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pp EXECUTIVE OFFICER: ACT NO.43 of 1983

RE of Diepdraai 754, Luckhoff



- Legend**
-  Free State Province
 -  Parent Farm
 -  Farm Portion



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N Venter

PO Box 112

KIRKWOOD

6120

Dear Sir

CULTIVATION OF VIRGIN SOIL (Regulation 2)

FARM UNIT: WELTEVREDEN 755

DISTRICT: LUCKHOFF

With reference to your application, dated 14/02/2020, in terms of the provision of Regulation 2 of the Conservation of Agricultural Resources Act 1983 (Act 43 of 1983):

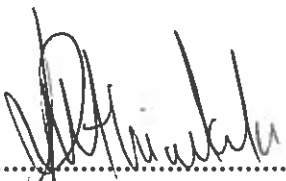
- Permission is hereby granted to cultivate 1160 ha of virgin soil (as indicated on the attached map) on above-mentioned farm for irrigation as mentioned in your application.
- Permission to cultivate virgin soil can unfortunately not be granted for the following reasons:
- Protection of the land by means of soil conservation works is under present circumstances not necessary. Should it in future occur that the land is liable to erosion the necessary protection measures must be implemented
- Soil Conservation works must be implemented
- Before any cultivation may take place, a proper water runoff control planning must be done or planning against wind erosion must be done to the satisfaction of the Executive Officer.

- If in future it occurs that land is subject to drowning conditions or the soil become salinated the necessary steps must be taken to install a subsurface drainage system.
- Planning and designing of soil conservation works can be done by any institution of your choice but these plans and specifications must comply with the regulations as stipulated by the Department of Agriculture and constructed to the satisfaction of the Executive Officer
- Other conditions: **Sustainable irrigation practices (scheduling) should be implemented in order to prevent water logging and possible salinization of the soils. Should water logging or any other conservation related problems occur on the property, the land user and owner will be held liable to conserve or rehabilitate the area.**

The permit does not exempt the land user from complying with other applicable pieces of legislations regulating this activity e.g. NEMA 107 of 1998 etc.

Your attention is drawn to the fact that above-mentioned conditions are granted in terms of Act 43 of 1983. Failure to comply with the conditions is an offence and may lead to prosecution. If you experience any problem with the interpretation of this letter or any other problem concerning the above mentioned, do not hesitate to contact our office on the above-mentioned address.

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water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

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

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

I, **Sipho Skosana**, in my capacity as Chief Director: Water Use Licence Management (WULM), acting under authority of the powers delegated to me by the Director-General of the Department of Water and Sanitation, hereby authorise the following water uses in respect of this licence.

SIGNED: _____

DATE: _____

LICENCE NO: 10/D33A/BCIA/11272

FILE NO: 27/2/1/D333/4

1. Licensee:
Postal address:

Xhariep Development Partners (Pty) Ltd
No. 667
Lemoenspruit
Luckhoff
Free State
9982

2. Water uses

- 2.1 Section 21(a) of the Act: Taking water from a water resource, subject to the conditions set out in Appendices I and II
- 2.2 Section 21(b) of the Act: Storing of water, subject to the conditions 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(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

B10411

3. Properties in respect of which this licence is issued are as shown in Table 1.

Table 1: Xhariep Export Programme properties and ownership

No.	Properties	Title Deed No.	Property owner
1	Remainder of Diepdraai 754, in Fauresmith RD	T10294/1904	JN Venter Beleggingd Trust
2	Remainder of Lemoen Spruit 667, in Fauresmith RD	T4873/1918	JN Venter Beleggingd Trust
3	Remainder of Weltevreden 755, in Fauresmith RD	T10295/1904	JN Venter Beleggingd Trust

4. Licence and Review Period

4.1 This licence is valid for a period of twenty (20) years from the date of issuance and it may be reviewed at intervals of not more than five (5) years.

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

"The Provincial Head" means the Head of Provincial Operations: Free State, Department of Water and Sanitation, Private Bag 528, Bloemfontein, 9300.

"Department" means Department of Water and Sanitation

6. Description of the activity

This licence authorises Xhariep Development Partners (Pty) Ltd to abstract a maximum volume of 16 000 000m³/a, surface water from the Orange River via the Vanderkloof cannel within the Orange Water Management Area, for irrigation of 1450 hectares. Furthermore, the licensee is authorized to construct two balancing dams with capacity of 49 000 m³ each and the crossing of the tributary of the Orange River with a raw water pipeline. The authorised water use will be exercised on three properties as shown in Table 1, Fauresmith RD. The geographical location of the abstraction point is S29° 49' 41.90" and E24° 39' 54.46" in D33C quaternary catchment of the Orange Water Management area.

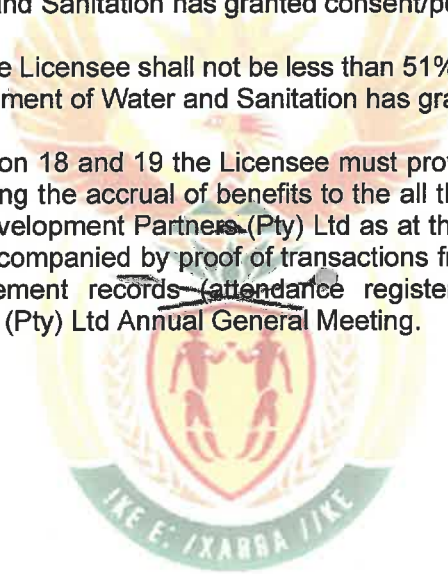


APPENDIX I

General conditions of 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 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 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 must be given effect to.
8. When compulsory licensing is implemented for the water resource in respect of which this licence was issued, the water use authorised in this licence could be subject to appropriate reduction.
9. The licence must not be construed as exempting the Licensee from compliance with the provisions of any other applicable Act, Ordinance, Regulation or By-law.
10. 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.
11. The Licensee must conduct an annual internal audit on compliance with the conditions of Licence. A report on the audit must be submitted to the Provincial Head within one (1) month of the finalisation of the audit.
12. Flow metering, recording and integrating devices must 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 must be available for inspection by the Provincial Head or his/her representative upon request.

14. The Licensee shall use water efficiently to minimise total water intake, void usage of water where possible, implement good housekeeping and operating practices, and maximise the re-use /recycling of contaminated water.
15. The Licensee must obtain a consent from the Department of Water and Sanitation prior to the amendment in the shareholding of the licenced company.
16. The water use authorized by this licence is issued to Xhariep Development Partners (Pty) Ltd must only be exercised on the properties stipulated in this licence and may not be transferred or leased temporarily or permanently without prior approval of the Responsible Authority.
17. Should Xhariep Development Partners (Pty) Ltd be deregistered as a company or cease to exist, the water use licence shall be deemed to be forfeited or withdrawn as of the date of its deregistration or its cease of existence as a company.
18. The Broad-Based Black Economic Empowerment (B-BBEE), Historically Disadvantaged Individual (HDI) and Previously Disadvantaged Individual (PDI) shareholding of the company shall not be less than 100%, as when the licence was issued, except in a case where the Department of Water and Sanitation has granted consent/permission.
19. The shareholding of the Licensee shall not be less than 51% of the joint venture, except in the case where the Department of Water and Sanitation has granted consent or permission.
20. With respect to condition 18 and 19 the Licensee must provide a report once per year to the Provincial Head detailing the accrual of benefits to the all the individuals or entities that form part of the Xhariep Development Partners (Pty) Ltd as at the date of approval of this licence. The report must be accompanied by proof of transactions from an approved financial service provider and management records (attendance register and minutes) of the Xhariep Development Partners (Pty) Ltd Annual General Meeting.



A handwritten signature in black ink, appearing to be 'WULM', is written over the printed name 'Chief Director: WULM'.

APPENDIX II

Section 21(a): Taking water from a water resource

1. This licence authorises the abstraction of a maximum quantity of 16 000 000 m³/a (Sixteen Million cubic metres per annum) of surface water from the Orange River via Vanderkloof Canal, for irrigation of 1450 hectares. The geographical location of the abstraction point is S29° 49' 41.90" and E24° 39' 54.46" in D33C quaternary catchment of the Orange Water Management Area.
2. The quantity of water authorised to be taken in terms of this licence must not be exceeded.
3. The above mentioned volume may be reduced when the licence is reviewed.
4. 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.
5. If the water use authorised in this licence is not fully exercised within three (3) 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.
6. The Licensee shall install and monitor 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. All water taken from the resource shall be measured, recorded and reported as follows:
 - 6.1 The daily quantity of water taken must be metered or gauged and the total recorded at the last day of each month; and
 - 6.2 The Licensee shall keep record of all water measurements taken and a copy of the records shall be forwarded to the Provincial Head on or before 25 January and 25 July each year; and
7. No water taken may be used for purposes other than intended in this licence, without written approval by the Minister or his/her delegated nominee.
8. The Department accepts no liability for any damage, loss or inconvenience, of whatever nature, suffered as a result of:
 - 8.1 shortage of water;
 - 8.2 inundations or flood;
 - 8.3 siltation of the resource; and
 - 8.4 required reserve releases.
9. The Licensee shall establish a programme of formal Information Management System, which maintains a database on water supply, distribution and delivery infrastructure.



10. 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 initiatives.
11. The Licensee shall report on an annual basis in a format approved by the Provincial Head on the following:
 - 11.1 Details of crops
 - 11.2 Irrigation system types
12. The records mentioned in clause 11 shall be submitted to the Provincial Head annually.
15. The Licensee must appoint and make use of suitable qualified irrigation system designers for the design and installation of irrigation systems which must be registered with South African Irrigation Institute.
16. The Licensee shall use a strip of vegetation within a 50 year flood line of the river to prevent run-off with pesticides or fertilizers from polluting the resource.



A handwritten signature in black ink, appearing to be 'M. J. ...', is written over the printed name 'Chief Director: WULM'.

APPENDIX III

Section 21 (b) of the Act: Storing of water

1. STORING OF WATER

1.1 This licence authorises Section 21(b) water use activities as indicated in Table 2 below:

Table 2: Section 21(b) water use storage facilities.

Name of Storage Facility	Source of Water	Storage quantity	Property	Coordinates
Balance Dam 1	Orange River (Vanderkloof Cannel)	49 000 m ³	Remainder of Diepdraai 754, Fauresmith RD	S29° 51' 36.15" E24° 43' 30.03"
Balance Dam 2	Orange River (Vanderkloof Cannel)	49 000 m ³	Remainder of Diepdraai 754, Fauresmith RD	S29° 51' 36.15" E24° 43' 30.03"

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.

2. MONITORING REQUIREMENTS

2.1 The Licensee is not indemnified from any detrimental effect that the dam(s) may have on other properties. 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.

2.2 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).

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

3. DAM SAFETY REQUIREMENTS

3.1 The construction, operation, and maintenance of all dam classified as a dam with a safety risk, must be carried out under the supervision of a Professional Civil Engineer, registered under the Engineering Profession of South Africa Act, 1990 (Act 114 of 1990).

3.2 All storage facilities (for water not containing waste) with a safety risk will comply with the following control measures:

3.2.1 The Licensee shall supply any information, drawings, specifications, design assumptions, calculations, documents and test results when requested by the Provincial Head.

- 3.2.2 An approved professional person must be appointed to carry out a dam safety evaluation annually and must:
- 3.2.2.1 Consider whether the safety norms pertaining to the design, construction, monitoring, operation, performance and maintenance of the dam satisfy acceptable dam engineering practices.
 - 3.2.2.2 Compile a report on the matters contemplated above according to the prescribed requirements and submits the signed and dated report to the owner of the dam within the prescribed period.
- 3.3 The Licensee is not exempted from compliance with the provisions of the Regulations published under Government Notice R139 of 24 February 2012, read with Chapter 12 of the Act.



A handwritten signature in black ink, appearing to be the name 'WULM', is written over the printed name 'Chief Director: WULM'.

APPENDIX IV

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

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

1. GENERAL

1.1 This licence authorises Xhariep Development Partners (Pty) Ltd for the construction, operation and maintenance of a Section 21(c) and (i) water use activity as set out in Table 3 and in the water use licence application reports submitted to the Responsible Authority.

Table 3: Summary of section 21(c) and (i) water use

Water use(s)	Purpose	Capacity/ Volume (m ³ , tonnes and/or m ³ /annum)	Property Description	Co-ordinates
21 (c) & (i)	Raw water pipeline crossing the unnamed tributary of the Orange River	Length = 25m Height = 0m Width = 2m	Portion 15 of Naauwpoort 417, in Fauresmith RD	S29° 54' 15.00" E24° 42' 13.80"

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

1.2.1 Technical Information for the construction of a raw water pipeline across a non-perennial minor tributary of the Orange River on portion 15 of the Naauwpoort 417, Fauresmith RD, compiled by Londi and Associates WULA Consulting (Pty) Ltd, Dated October 2021.

2. FURTHER STUDIES AND INFORMATION REQUIREMENTS

2.1 For water use activities in Table 3:

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

2.2 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.

3. PROTECTIVE MEASURES

3.1 General Conditions on Stormwater Management

- 3.1.1 Stormwater shall be diverted from the construction works and roads and shall be managed in such a manner as to disperse runoff and to prevent the concentration of stormwater flow.
- 3.1.2 Where necessary works must be constructed to attenuate the velocity of the stormwater discharge and to protect the banks of the watercourse.
- 3.1.3 Stormwater control works must be constructed, operated and maintained in a sustainable manner throughout the project.
- 3.1.4 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that stormwater does not lead to bank instability and excessive levels of silt entering the watercourse.

4. WATER USE ACTIVITIES IN RELATION TO THE CHARACTERISTICS OF A WATERCOURSE

4.1 Water Quality

- 4.1.1 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.
- 4.1.2 In-stream water quality must be analysed on a two-weekly basis during construction otherwise monthly at monitoring points both upstream and downstream of the activities for the following variables, but not limited to:
 - 4.1.2.1 Suspended solids (mg/l) : <20 mg/l;
 - 4.1.2.2 Total dissolved Solids (mg/l) : <450MG/l;
 - 4.1.2.3 Dissolved Oxygen (mg/l) : <6mg/l and
 - 4.1.2.4 Turbidity (NTU): <3NTU
- 4.1.3. Monitoring must be undertaken as set out in condition 4.
- 4.1.4. Monitoring must continue for 3 years after cessation of the activities listed in condition 1.1.
- 4.1.5 Turbidity, sedimentation and chemical changes to the composition of the water must be limited and monitored both upstream and downstream of activities.
- 4.1.6 Activities that lead to elevated levels of turbidity of any watercourse must be minimised. Activities must be scheduled to take place during the dry seasons when flows are lowest where reasonably possible. If this is not possible and if management measures have not been provided for activities in a wet season in the reports submitted to the Department or the Responsible Authority, the licensee must submit such to the Head of Provincial



Operations for written approval before these activities commence. Natural in-stream hydrology is to be used to determine which months constitute the low flow months.

- 4.1.7 Pollution of and disposal/spillage of any material into the watercourse must be prevented, reduced, or otherwise remediated through proper operation, maintenance and effective protective measures.
- 4.1.8 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.
- 4.1.9 Any hazardous substances must be handled according to the relevant legislation relating to transport, storage and use of the substance.
- 4.1.10 No material with pollution generating potential will be used in any of the operation and maintenance activities.

4.2 Flow

- 4.2.1 The water use must not result in a change in the quality, velocity, pattern, timing water level and assurance of flow in the watercourse.
- 4.2.2 The licensee must ensure that the overall magnitude and frequency of flow in the water course/s does not decrease, other than for natural evaporative losses and authorised attenuation volumes.
- 4.2.3 Increased run-off during construction must be managed using berms and other suitable structures as required to ensure flow velocities are reduced, special care must be given to ensure velocity is slowed before reaching the watercourse.

4.3 Riparian Habitat (Vegetation and Morphology)

- 4.3.1 Activities 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.
- 4.3.2 The proposed construction should not increase bank instability and the erosive potential of a stream. Steps should be taken to ensure that the channel is able to withstand the most probable maximum flood events without undue bank instability or erosion.
- 4.3.3 Operation and storage of equipment within the riparian habitat must only take place within the approved limits of disturbance indicated in an approved site plan and work method statements.
- 4.3.4 Activities must not occur in sensitive riffle habitats or where there are rock outcrops.

- 4.3.5 Indigenous riparian vegetation, including dead trees, outside the limits of disturbance indicated in the site plans, referred to in condition 2, may not be removed from the area.
- 4.3.6 Removal of riparian forest must be authorised in terms of the National Forest Act (Act No. 84 of 1998).
- 4.3.7 The vegetation of the surrounding catchment on the property must also be managed to prevent erosion and siltation of the watercourse.
- 4.3.8 Alien and invader vegetation must not be allowed to further colonise the area, and all new alien vegetation recruitment must be eradicated or controlled, using standard methods approved by the Department.
- 4.3.9 Existing vegetation composition in riparian zones by maintaining the natural variability in flow fluctuations must be maintained.
- 4.3.10 Recruitment and maintaining of a range of size classes of dominant riparian species in perennial channels must be stimulated.
- 4.3.11 Encroachment of additional exotic species and terrestrial species in riparian zones must be discouraged.
- 4.3.12 Accumulation of woody debris on terraces by periodic flooding must be discouraged.
- 4.3.13 Existing flood terraces and deposition of sediments on these terraces to ensure optimum growth, spread and recruitment of these species must be maintained.
- 4.3.14 All reasonable steps must be taken to minimise noise and mechanical vibrations in the vicinity of the watercourses.
- 4.3.15 The necessary erosion prevention mechanisms must be employed to ensure the sustainability of all structures and activities and to prevent in stream sedimentation.
- 4.3.16. Soils that have become compacted through the water use activities must be loosened to an appropriate depth to allow seed germination.
- 4.3.17 Slope/bank stabilisation measures must be implemented.
- 4.3.18 Stockpiling of removed soil and material must be stored outside of the 1:100 year flood line or riparian habitat, whichever is the greater, to prevent being washed into the watercourse and must be covered to prevent wind and rain erosion.
- 4.3.19 The indiscriminate use of machinery within the in stream and riparian habitat may lead to compaction of soils and vegetation and must therefore be strictly controlled.

4.4 Biota

- 4.4.1 The Licensee must take all reasonable steps to allow movement of aquatic species, including migratory species.
- 4.4.2 All reasonable steps must be taken not to disturb the breeding, nesting and/or feeding habitats and natural movement patterns of aquatic biota.
- 4.4.3 The current level of diversity of biotopes and communities of animals, plants and microorganisms must be maintained.

5. PROTECTIVE MEASURES

- 5.1 All activities within the riparian zone should be restricted as far as possible.
- 5.2 Alien vegetation must not be allowed to further colonise the area, and all new alien vegetation recruitment must be eradicated or controlled, using standard methods approved by the Department.
- 5.3 Soils that have become compacted through the activities of the development must be loosened to an appropriate depth to allow seed germination.
- 5.4 Increased runoff due to vegetation clearance and/or soil compaction must be managed and steps must be taken to ensure that stormwater does not lead to the watercourse instability and excessive levels of silt entering the watercourse.
- 5.5 The extent of disturbance should be limited by limiting all construction activities to the development area as indicated on the general layout plan as far as practically possible.
- 5.7 As far as possible, the existing road and farm tracks should be used as the access road to provide access during construction as this will reduce the extent of the disturbed area.

6. REHABILITATION

- 6.1 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.
- 6.2 The vegetation of the surrounding catchment should also be managed to prevent erosion and siltation of the watercourse including wetland/pan.
- 6.3 The Licensee shall embark on a systematic long-term rehabilitation programme to restore natural watercourses (wetland/pan) to environmentally acceptable and sustainable conditions after construction, which shall include, but not be limited to:
 - 6.3.1 The rehabilitation of disturbed and degraded riparian areas to restore and upgrade the riparian habitat integrity to sustain a bio-diverse riparian ecosystem and

- 6.3.2 Annually assess the habitat to monitor the sustainability of the solar panels and compliance with these conditions. Action must be taken to rectify any negative impacts.
- 6.4 The Licensee shall ensure that the volume of runoff to the wetlands/pans is not reduced or excessively increased except for natural evaporative losses and the authorised attenuation volumes.

7. GENERAL SURFACE WATER DESIGN REQUIREMENTS AND CRITERIA

- 7.1 The Licensee shall clearly indicate all wetlands boundaries within the project area on layout plans.
- 7.2 Design and planning of all proposed construction activities adjacent to or in the vicinity of rivers, streams and wetlands shall consider the following measures:
- 7.2.1 Impact of alignment on springs and wetlands shall be investigated and monitored and ensure their continued functioning.
- 7.2.2 Where appropriate, large individual indigenous riparian trees shall be avoided during construction and shall be clearly marked on site.
- 7.2.3 All construction roads in or adjacent to the riparian zone shall be minimised and if required, shall be aligned and managed so as to minimise disturbance of the riparian zone and in-stream habitats.

8. BUDGETARY PROVISIONS

- 8.1 The water user 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.

[END OF LICENCE]