

Verw: 1733WULA-W2

Datum: 19/10/2018

Area Manager: Olifants River
Department Water Affairs & Forestry
Private Bag X16
Sanlamhof
7532

Attention: Me P Makonko

WATER USE LICENCE APPLICATION FOR TAKING & STORING OF WATER IN PROPOSED TOEKA & HARMONY 266 DAMS ON FARM HOUDENBEK RE415 FOR USE ON ADJACENT BBBEE FARM WINKELHAAK RE 224, CERES DISTRICT, HARMONY TRUST

On the instruction of our client, Mr Hein Juries, the representative of *Harmony Trust*, we hereby apply on his behalf in terms of the National Water Act (Article 36), 1998, for a licence to take surplus winter water and to store it in the proposed Toeka & Harmony 266 dams on Farm Houdenbek RE415 for use on their adjacent BBBEE farm Winkelhaak RE 224.

Act 36, 1998, Section 21	Description:	YES	Note
(a)	Taking water from a water resource	x	
(b)	Storing water	x	2 dams
(c)	Impeding or diverting the flow of water in a watercourse	x	2 dams
(d)	Engaging in a streamflow reduction activity contemplated in Section 36		
(e)	Engaging in a controlled activity identified as such in Section 37(1) or declared under Section 38(1)		
(f)	Discharging waste or water containing waste into a water resource through a pipe, canal, sewer, sea outfall or other conduit		
(g)	Disposing of waste in a manner which may detrimentally impact on a water resource		
(h)	Disposing in any manner of water which contains waste from, or which has been heated in, any industrial or power generation process		
(i)	Altering the bed, banks, course or characteristics of a watercourse	x	2 dams
(j)	Removing, discharging or disposing of water found underground if it is necessary for efficient continuation of an activity or for the safety of people		
(k)	Using water for recreational purposes		
Neighbouring Properties:	Winkelhaak RE224 (BBBEE Applicant) & Houdenbek RE415 (available dam sites)		

WULA FORMS: DW760, DW762 x2, DW901 x2 & DW902 x2; DW787, DW 781 x2

BACKGROUND

In 2006 the farm Winkelhaak RE224 in the Koue Bokkeveld district, also known as *Harmony*, was bought and initiated as a BBBEE farming project, operating independent but alongside their founder partner and mentor, *Messrs Morester Landgoed* (MHB Boerdery (Pty) Ltd). The owner of this property, namely **Harmony Trust**, is a 100% black empowerment workers trust, established for the permanent workers of the Harmonie Group and was founded in 2003. Since then, the two partners have operated their farming activities in a 50:50 partnership based entity, namely Harmony Farming.

This licence application as such is based on the expansion of this particular BBBEE project and vision and entail the taking of 'new' surplus winter water and storing it for summer irrigation for a proposed ± 75 ha of fruit expansion. The long-term idea is to give Harmony Trust the opportunity to become an economically viable and independent entity by expanding the current cash crop farming of ± 42 ha of vegetables plus ± 75 ha of permanent fruit crops. Should the water use right be issued, such a project will be implemented over the following 5-7 years.

The idea is that the new annual surplus winter water taking would only be 715 000m³. However, the storing would be in the order of about 3x larger to ensure the annual irrigation demand based on the inconsistent runoff pattern which has the characteristic of having a few dryer years within each 3-4 year cycle.

One of the first issues to consider in such a large project expansion would be the dam site possibilities and since the concerned BEE property, namely Winkelhaak RE224, has a rather flat topography and no real natural dam basin of this calibre. However, *Morester Landgoed* (MHB Trust), the owner of the neighbouring property, Houdenbek RE415 and also the mentor of Harmony Trust, has two very suitable dam sites available from where irrigation can also be done with gravitational advantages on the proposed land allocated for the fruit expansion. Refer **Layout & Site Plan; Appendix 2A&B**.

Since the available and suitable land for both the dam sites as well as the proposed fruit orchards are on the neighbouring farm, the idea would be at first that *Harmony Trust* would rent the land from Morester (MHB Trust), with the long-term vision of subdividing the land giving *Harmony Trust* the opportunity to buy the land.

The total storing would consist of two in-stream dams, namely Toeka and Harmony 266 Dams, each with a capacity of 2 000 000m³ and 250 000m³ respectively. Although the smaller of the two dams, Harmony 266 dam, would be filled from its own local catchment area in an average year, the larger Toeka dam would have to be filled by pumping from the existing Houdenbek-Onder dam, situated within the Houdenbeks River. In this area, the rain season has a character and tendency to rain in heavy falls and then flush down over short periods of time, and therefore being lost to the upper drainage regions. Since this application is based on this surplus winter water flushing down, the advantage of this situation would be that Houdenbek-Onder dam would serve as a type of buffer and allow for longer periods for the necessary pumping from Houdenbek-Onder dam into Toeka dam.

Evidently, this licence would also include a pump station with a rising main to the dam.

The proposed site is located within the Koue Bokkeveld district about 15km east of the town, Op-die-Berg as the crow flies and as shown in **Appendix 1**.

MOTIVATION FOR APPLICATION:

- 1 - *Morester Landgoed (MHB Trust)*, *Harmony Trust's* founder partner and mentor, has both **land** available as well as suitable **dam sites** for the proposed expansion of the existing neighbouring BBBEE farming entity. Since the enlargement consists of 75ha of permanent fruit crops, this application, should it be granted, would ensure that *Harmony Trust (100% Black Owned)* would become an independant and economically viable entity.
- 2 - This application forms part of the larger Witzenberg PALS project whose primary goal is to support, mentor and enable black farmers to become succesful commercial farmers. See *Witzenberg PALS, Partnerships in Agri Land Solutions*, Project Leader: Gerrit van Vuuren, CEO: Lennox Plaatjies, Copy available on request. Also refer **Appendix 7**.
- 3 - This is not only another mere envisioned BBBEE project, but this expansion is based on an already stable and succusful BBBEE farming entity, namely Harmony Trust which has the infrastructure in place for the proposed expansion.
- 4 - About 90 permanent and sustainable jobs will be created in the long term farming of 75ha of fruit orchards, refer **Ceres Kernvrugte Studie, Frudata SA, 2017**
- 5 - The expansion of *Harmony Trust* together with **Witzenberg PALS** project, will be implemented on the Houdenbek RE415 property that stand to-be-subdivided and transferred to *Harmony Trust* in future. The project currently entails a ±75ha fruit development that will be under irrigation. This project and application fits in with the factors mentioned in Section 27 (1)(b) and (d) of the National Water Act, Act 36 of 1998 (NWA). It will assist with the redressing of past discrimination and it supports job creation and economic growth which will not be the case if the application is not granted (Section 27 (1)(d)(ii)).
- 6 - An amount of about R520 000 has already been spent on consultations fees, legal advice & registrations as well as first phases of environmental impact-, WULA & dam designs assessments.
- 7 - The *Koue Bokkeveld Water User Association* under whose auspices the concerned area & application falls, approves of the application for taking & storing. Refer **Appendix 9**.

APPLICATION:

The main purpose of this license application is to take 'new' surplus winter water from the Houdenbeks River drainage area and store it in the two independent proposed in-stream dams for summer usage. The taking for the Toeka dam will be from the Houdenbeks River directly and will have to be pumped via the proposed pipeline whereas the taking for the Harmony 266 dam will be from its local catchment area.

Although the proposed dams will be on the neighboring property to that of the applicant, it is where both suitable dam sites as well as the irrigable land are located for the proposed fruit development. The two respective land owners have had a long and successful mentoring and financial partnership since 2003, with the applicant being the mentored partner. The proposed project is in fact an extension of the existing business partnership in which *Messrs Morester Landgoed* will continue being the mentor. The owner of the property on which the development will take place, namely *Messrs MHB Trust*, will initiate the process by first leasing the concerned part of the property to the applicant with the option to subdivide, sell and consolidate the relevant portion of land to that of the applicant, namely Winkelhaak RE224, also known as Harmony. Refer to **Appendix 2A&B** for detail.

This application is for a 'new' taking and storing and entails the abstraction of surplus winter water from the Houdenbek River. However, in this case not only the seasonal but also the annual flow pattern of the river as such does vary extremely with high volume flood peaks over short periods with relative long dry spells in between which makes it hard to harness and abstract sensible volumes of water. We also refer to the Fresh Water Report by *Watsan*.

Hence, the idea is to utilize the existing in-stream dam in the Houdenbek River, namely Houdenbek-Onder dam, as a buffer dam making it possible and allowing time for pumping water to the proposed Toeka dam over longer periods at lower pumping rates. The average annual taking from the river system would be 715 000m³. However, due to the flow pattern of the river as explained above, chances of substantial abstraction could be limited to one or two years out of every three to four subsequent years, hence the much larger storage capacity of the two proposed dams in the order of 2,25 mill.m³ allowing for a percentage carry over. Also Refer *G. Howard, Feb 2010* for 30% failure rate due to weather patterns.

Water will be pumped via a proposed ±1km long ø360mm uPVC pipeline along existing farm roads from the abstraction point at the Houdenbek-Onder dam to Toeka dam, refer *Site Plan*, **Appendix 2A**.

The proposed 'new' taking will primarily come from the Houdenbek River which will be supplemented with a smaller volume coming from the catchment of the proposed Harmony 266 dam. The smaller Harmony 266 dam forms a crucial and integrated part of the overall development plan and strategy. The motivation for this secondary dam is based on substantial energy cost savings as a result of its elevation as well as its location relative to the proposed fruit development areas.

The proposed annual taking in the order of ±715 000m³ would enable the BEE farmers to expand their current seasonal cash crops of 42ha vegetables with an additional permanent cultivar expansion of ±75ha fruit of which 50ha would be on Houdenbek RE415 and 25ha on Winkelhaak RE224, refer **Appendix 2**. The permanent cultivars would have a strong long-term stabilizing impact on the current farming entity.

NOTE I:

This application further entails that the existing Houdenbek-Onder dam would be utilized as a buffer for the abstraction of the proposed 'new' taking and the partners have agreed that water would be abstracted according to the following principles:

- The agreed maximum pumping rate is 1 000m³/hr,
- Phase 1: the first 1 000 000m³ can be pumped from Houdenbek-Onder dam when water becomes available in the dam,
- Phase 2: following the above and once Houdenbek-Onder dam has reached the 25% mark, an additional volume of 500 000m³ can be pumped,
- Phase 3: subsequent to the above and once Houdenbek-Onder dam has reached the 50% mark, the balance of 500 000m³ can be pumped.

APPLICATION DETAIL:

- i. **Applicant:** *Harmony Trust*
- ii. **Power of Attorney:** *MC Bester (ID 6607095186082)*
- iii. **Properties involved:** *Houdenbek RE415 & Winkelhaak RE224*
- iv. **Owner(s):** *MHB Trust & Harmony Trust (respectively)*
- v. **Title Deed:** *T86941/1995 & T22507/2006*
- vi. **DWS forms:** *Completed forms: DW760 x2, DW762 x2, DW901 x2, DW902 x2, DW787; DW781 x2*
- vii. **Water Availability on the concerned properties:**

The concerned Title Deeds as well as the water registrations, recently being validated awaiting confirmation from DWS in cooperation with Aurecon, were investigated for both the concerned properties and are listed as background in **Table 1** below. We refer to DWS document **C01900000000041500000** (Recommended ELU's) & Licence No **B191/2/520/68** regarding farms RE415 & RE224 respectively.

Table 1: Summary of current water uses:

	<u>Source</u>	<u>Name of Source</u>	<u>Total Volume (m³)</u>	<u>Share (%)</u>
'TAKINGS'				
Houdenbek RE415 MHB Trust - T86941/1995				
1	Surface	Houdenbek River Catchment	1,473,747	77%
2	Ground	Houdenbek River Catchment	441,168	23%
	TOTAL		1,914,915	100%
Winkelhaak RE224 BBBEE Harmony Trust - T22507/2006				
1	Surface (Refer Licence No B191/2/520/68)	Houdenbek River Catchment	400,000	100%
	TOTAL		400,000	100%
'STORING'				
Houdenbek RE415 MHB Trust - T86941/1995				
	Dams x 4	Houdenbek River Catchment	7,390,600	
Winkelhaak RE224 BBBEE Harmony Trust - T22507/2006				
	Dam (Refer Licence No B191/2/520/68)	Houdenbek River Catchment	400,000	

viii. **Additional water (this WULA):**

The additional water use applied for on properties Houdenbek RE415 & Winkelhaak RE224 in this application, is based on the surplus winter water from the Houdenbek River catchment area during flush periods and amount to a total of about 715 000m³.

- 'New' surplus winter water - **715 000m³** (annually)

ix. **Additional storage (this WULA):**

The concerned water use would be stored on one of the properties, namely Houdenbek RE415, in two in-stream dams and the total capacity amounts to about 2 250 000m³. The reason for the large storage capacity compared to the taking is based upon the wet and dry cycles of this area. The idea is to put up the water when available but to utilise it over two to three years. The motivational reason being the reliability and consistency of water availability for permanent crops.

- Additional storage - **715 000m³** (average annually) x 3
= **2 145 000m³**

x. **Proposed New Dams:**

- Toeka Dam (In-stream) - **2 000 000m³** (equals 3x annual taking to cover for dry periods)
- Harmony 266 Dam (In-stream) - **250 000m³**
- **TOTAL** - **2 250 000m³**

RELEVANT APPLICATION ASPECTS

1. CLASSIFICATION & REGISTRATION

The reservoirs is subject to the Dam Safety Legislation in terms of Chapter 12 of the National Water Act and therefore one of the first steps was to have the proposed dams classified. Such application were submitted to DWS, Dam Safety Office, Pretoria and both Toeka and Harmony 266 dams were classified as Category II, Medium sized dams, with Low Hazard Potential ratings, on 30 Jan 2018 and 18 Oct 2017 respectively. The next step would be to have an appointed Approved Professional Person, in which case we await the outcome of the application.

2. PROCESSING FEE

The application processing fee of R114 was paid on 18 Sep 2018 (Ref nr: 22000000) and we refer to proof of payment as submitted on e-WULAAS.

3. “BBBE EMPOWERMENT”

Also Refer to the Agriculture Business Plan; Mr D van der Merwe, 2018 (Appendix 10)

This licence application is solely based on the expansion of an already existing BBBEE farming entity, namely **Harmony Trust**, a 100% black owned company. **Harmony Trust** is one of two partner entities which currently employ and support about 100 permanent farm labourers, all from the previously disadvantaged groups.

The project's aim is to ensure the financial independency and stability of the existing BBBEE entity, **Harmony Trust**, by expanding the current vegetable farming, which consists of 42ha seasonal cash crops, with an additional ±75ha of fruit orchards as permanent cultivars. Hereby not only the economic stability and growth of the black owned entity would be promoted, but about 90 additional permanent employment opportunities will also be generated in the process. These job opportunities are urgently needed in the previously disadvantaged groups of the local farming communities.

4. CROP INFORMATION

Harmony Trust, the BEE applicant of this particular application as well as the current owner of the property Winkelhaak RE224 was previously approved a licence for taking and storing 400 000m³, Licence B191/2/520/68, dated 23 Sep 2005. They currently use it for 42ha of seasonal crops, mainly onions and potatoes, but would like to expand their farming enterprise with permanent cultivars such as pome fruit.

They have a total of about 260ha available land of which about 25% is used for cattle farming and the rest for the vegetable farming, thus ensuring a crop rotation of about 5years. The necessary field information is compiled in the DWS form, DW787, as well as on the Aerial Map, refer **Appendix 5**.

This application for a new taking of 715 000m³ would therefore ensure the additional 75ha of fruit orchards with an application rate of 9 500m³/ha/a. The additional orchards would in part also stretch over their mentor's property namely Houdenbek RE415, being part of the land that would be leased (with the option to buy) from the mentor. See *Site Plan*, **Appendix 2**. As indicated, only 25ha would be located on the applicant's property, Winkelhaak RE224 and ±50ha would be located on the mentor's property, Houdenbek RE415.

The neighbouring farm, namely Houdenbek RE415, crop information was already submitted separately on DW787, refer e-WULAAS system, dated Aug 2018.

Table 2: Summary of Crop Information

Property	Crops (ha)	Type	Application (m ³ /ha/a)	Volume (m ³)
CURRENT				
Winkelhaak RE224	42ha	Vegetables	9 500	400 000
TOTAL				400 000
PROPOSED (NEW)				
BEE farming unit (Winkelhaak RE224 & Houdenbek RE415)	±25 ±50	Fruit	9 500	237 500 477 500
TOTAL IRRIGATION	±115	Fruit & Veg	±9 700	1 115 000

5. ENVIRONMENTAL IMPACT STUDY

Government Notices R385, R386 & R387 of 21 April 2006, issued under Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998), also known as the "NEMA" procedures determine that Harmony Trust application for Toeka & Harmony 266 dams does trigger certain environmental aspects and therefore qualifies for a full Environmental Impact Assessment (EIA) study. The impact assessment and application is currently under way under the auspices of **Messrs EnviroAfrica** and the process is currently in the pre-application phase and the EIA application and formal NEMA Scoping was submitted Oct 2018 and the final decision for approval is therefore expected to be issued about Oct 2019.

6. HYDROLOGY

Both proposed two dam sites are located within the E21D quaternary catchment under the auspices and care of the Olifants-Doom Water Management Agency. These are both in-stream dams situated within unnamed tributaries of the Houdenberg River within the upper reaches of the larger Olifants River draining into the ocean north from Strandfontein, as shown on **Appendix 3**.

The relevant catchment properties according to the WRC Report TT382/08 (WR2005), also available on GIS-website of Dept Agriculture in cooperation with Elsenburg, are shown in the table below.

Table 3 shows the local catchments information in relation to the quaternary drainage area:

WATER AVAILABILITY (EISENBURG Catchment Delineation Tool)				
CATCHMENT	QUATERNARY	LOCAL	LOCAL	
Name / Description	E21D	Harmony 266	Toeka	
Area	242.53	3.08	2.20	km ²
Mean Annual Rainfall (MAP)	627	432	482	mm
Mean Annual Runoff (MAR)	190	106	97	mm
Gross Average Runoff (MAR)	46	0.33	0.21	x10 ⁶ m ³

The above table shows a shortfall from both the local catchments of the two proposed dams. However, since the larger of the two dams, namely Toeka dam, will also have to be filled with water being pumped from the Houdenberg River, it is necessary to determine whether the Houdenberg River would have enough surplus winter water available, after allowing for existing water uses as well as the IFR.

Note, we refer to a study done by *Emzantsi*, Mr G Howard (**Appendix 4**), dated February 2010, on the evaluation of the hydrology of certain rivers within the Koue Bokkeveld region as requested by the Olifants/Doom Catchment Management Agency. In this report it is stated that the available MAR of the Houdenberg River is approximately 24 Mm³/a after the irrigation demand as well as the required reserve has been protected.

Table 4 below however indicate the available surplus winter water when using the above *Hydrological* figures after the ELU's and the Reserve has been protected, from both the local catchments as well as the larger Houdenberg River catchments.

Table 4: Available surplus winter water:

WATER AVAILABILITY (EISENBURG Catchment Delineation Tool & G HOWARD, 2010)					
CATCHMENT	QUATERNARY	LOCAL	LOCAL	Houdenberg	
	E21D	Harmony 266	Toeka	Houdenberg	
Primary Catchment	46	0.33	0.21	Refer Howard	x10 ⁶ m ³
VIRGIN MAR	46	0.33	0.21	Refer Howard	x10⁶m³
- IFR (25%)		0.08	0.05	Refer Howard	x10 ⁶ m ³
- Existing Dams		0.00	0.00	Refer Howard	x10 ⁶ m ³
NETT MAR		0.25	0.16	24.00	x10⁶m³
- Available for Storage		0.25	0.16	24.00	x10 ⁶ m ³
- Proposed Storage		0.25	0.16	1.840	x10 ⁶ m ³
BALANCE		0	0.00	22.16	x10⁶m³

In summary it can be concluded that Harmony 266 dam could be filled with run-off from its own catchment whereas Toeka dam will have to be largely supplemented with water pumped from the Houdenberg River.

The gross Riet River run-off entails 4 other sub-catchments contributing to its total run-off of which the Houdenbek catchment is one as illustrated in **Appendix 8**.

The table below lists the pro-rata contributions of these sub-catchments of the Riet River drainage system based on figures from the WR2012 report.

Table 5: Riet River Run-off

Quaternary Area	% Contribution	Notes:
E21D (Houdenbek)	30%	24M m ³ (after ELU's) Refer Howard 2010
E21A	24%	
E21B	18%	
E21C	17%	
E21E	11%	
TOTAL	152,1M m³	

Thus, as indicated in the table, the Houdenbek River catchment, one of the five tributaries to the Riet River, contribute about 30% of the total of the annual Riet River run-off.

This particular licence application is for an annual taking of 715 000m³ which amounts to only 3% of the Houdenbek River run-off after the ELU's and IFR have been protected (Refer Howard 2010). The Houdenbek River in turn constitutes about ±30% of the total Riet River run-off as shown in the table above. Therefore, this application entails applying for only 0,9% of the total of the Riet River run-off, which is negligibly small when compared to the 152Mm³.

7. PUBLIC PARTICIPATION

The Public Participation Process for the WULA licence application as per regulation was addressed by **Messrs EnviroAfrica** and was covered in the same advertised public notices as the environmental impact study or NEMA procedures require. The responses with their comments will be recorded and compiled within the EIA Public Participation Process Report. Refer to **Appendix 6**, for the placed advertisements in the *Witzenberg Herald*, 7 July 2017.

8. WATER ACT 36, 1998 SECTION 27 MOTIVATION

Submitted

For the purpose of completeness of this licence application in terms of Article 27(1) of the National Water Act, 1998, we state:

1. 27(1)(a): Existing Lawful Water Uses

The current existing lawful water uses upstream of the the confluence of the Houdenberg- and Kruys River have been researched in the hydrological study done by *Howard G, Feb 2010*. It was found that the balance of surplus winter water, after the reserve and ELU's have been protected, was determined at a volume of 24 Mm³/a. Since the proposed new taking is only about 3% of the balance of the surplus winter water, it should not have a significant impact on the river characteristics or the downstream users. We refer to **Table 4** under the heading **Hydrology, WUL Application, Oct 2018** for the complete hydrological view/report.

2. 27(1)(b): Redress results of past Racial and Gender Discrimination

This licence application is solely based on the expansion of an already existing BBBEE farming entity, namely **Harmony Trust**, a 100% black owned company. **Harmony Trust** is one of two partner entities which currently employ and support about 100 permanent farm labourers, all from the previously disadvantaged groups.

The project's aim is to ensure the financial independency and stability of the existing BBBEE entity, **Harmony Trust**, by expanding the current vegetable farming, which consists of 42ha seasonal cash crops, with an additional ±75ha of fruit orchards as permanent crops. Hereby not only the economic stability and growth of the black owned entity would be promoted, but about 90 additional permanent employment opportunities will also be generated in the process. These job opportunities are urgently needed in the previously disadvantaged groups of the local farming communities.

3. 27(1)(c): Efficient and Beneficial Use of Water in Public Interest

This application is based on the productive and beneficial use of water whereby 715 000m³ water would be used to expand and develop ±75ha of fruit orchards for an existing BBBEE project, thus the application rate turns out to be within the effective and approved range of 9 500m³/ha/a, including all losses such as evaporation. This project would further also ensure additional jobs in this area that needs it very much.

Secondly, the storage of winter water in these proposed dams will ensure gravitational benefit and distribution to proposed orchards, ensuring effective and economical farming.

4. 27(1)(d): Socio-Economic Impact

The water use application is submitted by an existing BBBEE farming entity, namely **Harmony Trust** who is 100% black-owned and has been in operation and trading for about 12 years. The 'new taking' applied for will be utilised for expansion of the current farming unit with about 75ha of permanent fruit orchards which will not only ensure economic stability for the BBBEE entity, but also create about 90 additional permanent job opportunities in the agricultural sector. It will thus have a rather large impact on both the micro- and macro socio-economic status of the previously disadvantaged of this particular area.

Would this licence application not be authorised, all additional BBBEE job opportunities, including giving the previously disadvantaged the opportunity to develop managerial, farming and business skills, as well as all initiating cost will be lost. These aspects would furthermore have disadvantageous effects on both the micro- and macro socio-economic impact on the farming community of that area.

5. 27(1)(e): Catchment Management Strategy

No particular official strategy does exist and it is based primarily on DWS considerations. However, the Koue Bokkeveld WUA is one of the smaller delegated managerial entities also regulating water uses amongst others, in the Houdenbeks catchment area in which the applicant's property is located.

6. **27(1)(f): Effect of Water Use on Water Resource and other Water Users**
Regarding the 'New' Taking: Since this application is based on the *taking* of about 3% of the surplus winter water of the catchment, the impact on the larger river and/or surrounding and downstream water users will be negligible. Since the application also includes the protection of both existing lawful uses as well as a the Reserve that will remain in the Houdenbeks- and Riet River, it should not have any negative effect on either the water resource or water users as such.
7. **27(1)(g): Class and Resource Quality Objectives**
The Departmental classification and quality objectives of the specific resource is: **Class E-F** (according to WR2005, Version 0.1)
8. **27(1)(h): Investments made in respect of Water Uses in Question**
Primary capital expenditure include consultation fees, legal advice, registrations of business entities, formulating legal contracts, drafting a business plan, liaison with Departments Water & Sanitation, valuations and inspections which amounts to about **R120 000**.

Secondary capital expenditure followed, such as the first phase of the environmental impact study, agricultural soil tests, site surveys and preliminary investigations regarding dam sites, preliminary dam designs and applications regarding water uses and amounts to approximately **R400 000**.

Thus, in total about **R 520 000** has already been invested in this project.
9. **27(1)(i): Strategic Importance**
This forms part of the National DWS strategy and is considered a Departmental affair managed by Dept Water & Sanitation itself.
10. **27(1)(j): Quality of Water required for the Reserve and meeting International Obligations**
The water use referred to in this application will not have any negative affect on the water quality of the Houdenbeks River as such, being subjective to Departmental standards. It consist mainly of the taking of 'new' surplus winter water while protecting the Reserve and Existing Lawful Water Uses. This implies that the Reserved volume will not be affected in any way. The application will also not have an effect on International obligations.
11. **27(1)(k): Probable Duration**
The stipulated development will be permanent.

List of Appendixes

- 1 - Locality Map (1: 75 000)
- 2 - A: Layout Map & B: Site Plan
- 3 - Hydrology Map: Local Catchment Areas x2 (1:100 000)
- 4 - Evaluation of the Hydrology of the Leeu River in the Koue Bokkeveld; Howard; Feb 2010
Available on request (also Refer e-WULAAS WU8520)
- 5 - Crop Information: DW787 & Aerial Photomap – Winkelhaak RE224
- 6 - Public Participation: WULA – Advertisements x2
Available on request (also Refer e-WULAAS WU8520)
- 7 - Witzenberg PALS – Confirmation Letter
- 8 - Riet River Run-off – Aerial Photomap
- 9 - Koue Bokkeveld WUA – Approval
- 10 - Harmony Trust Business Plan
Available on request (also Refer e-WULAAS WU8520)

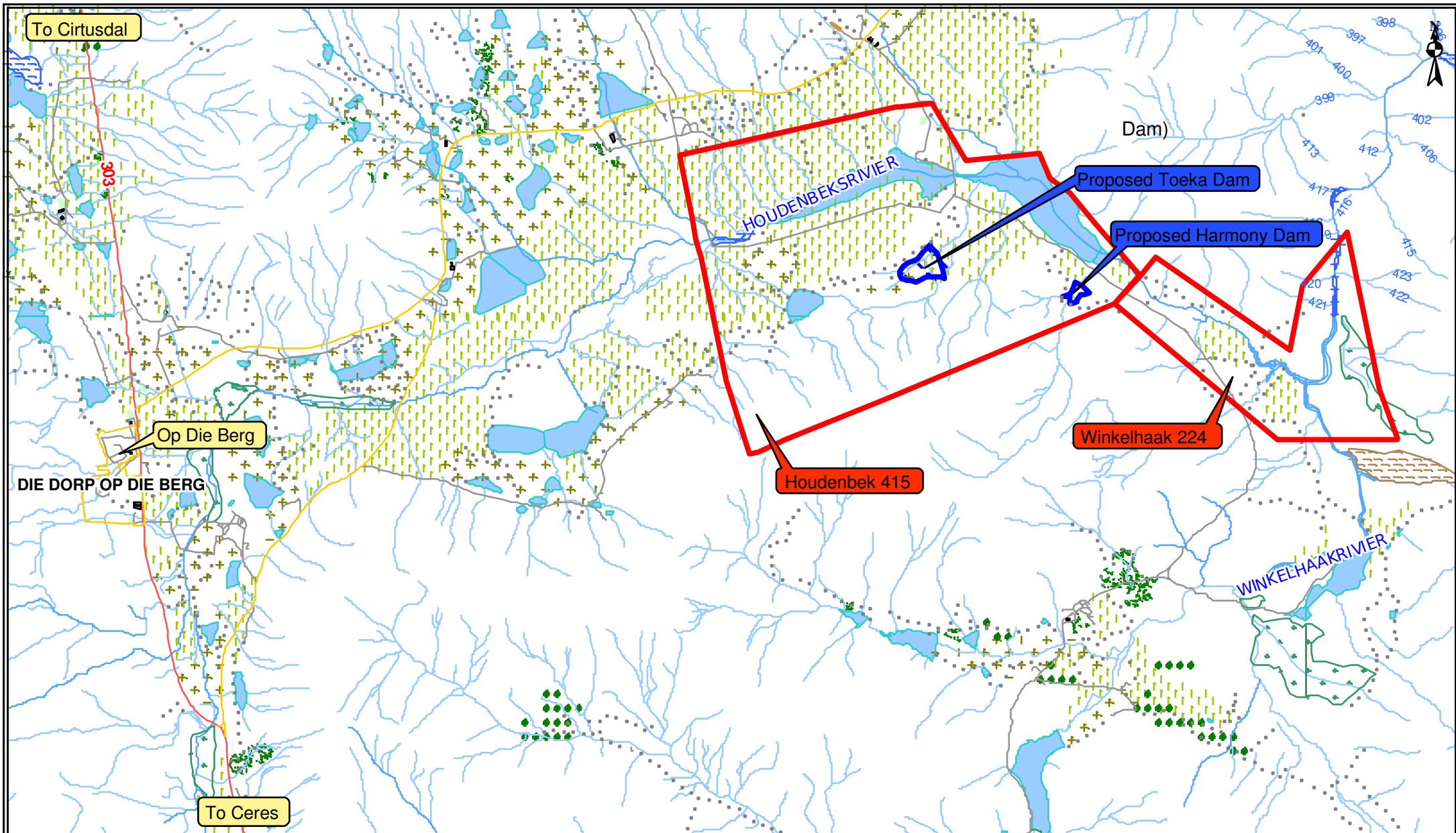
We trust for the above to be in order and will appreciate your attention in this regard.

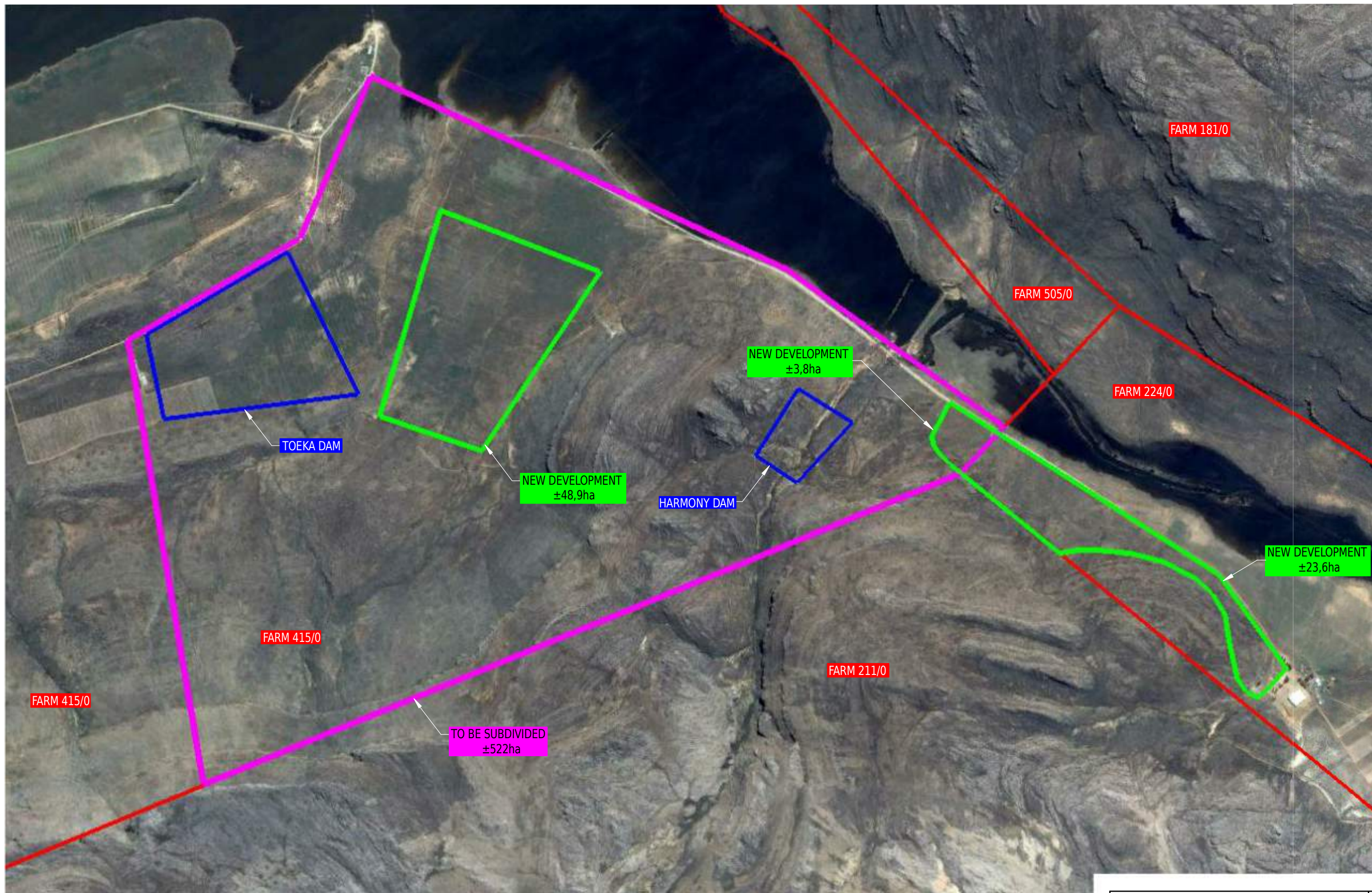
Yours Sincerely

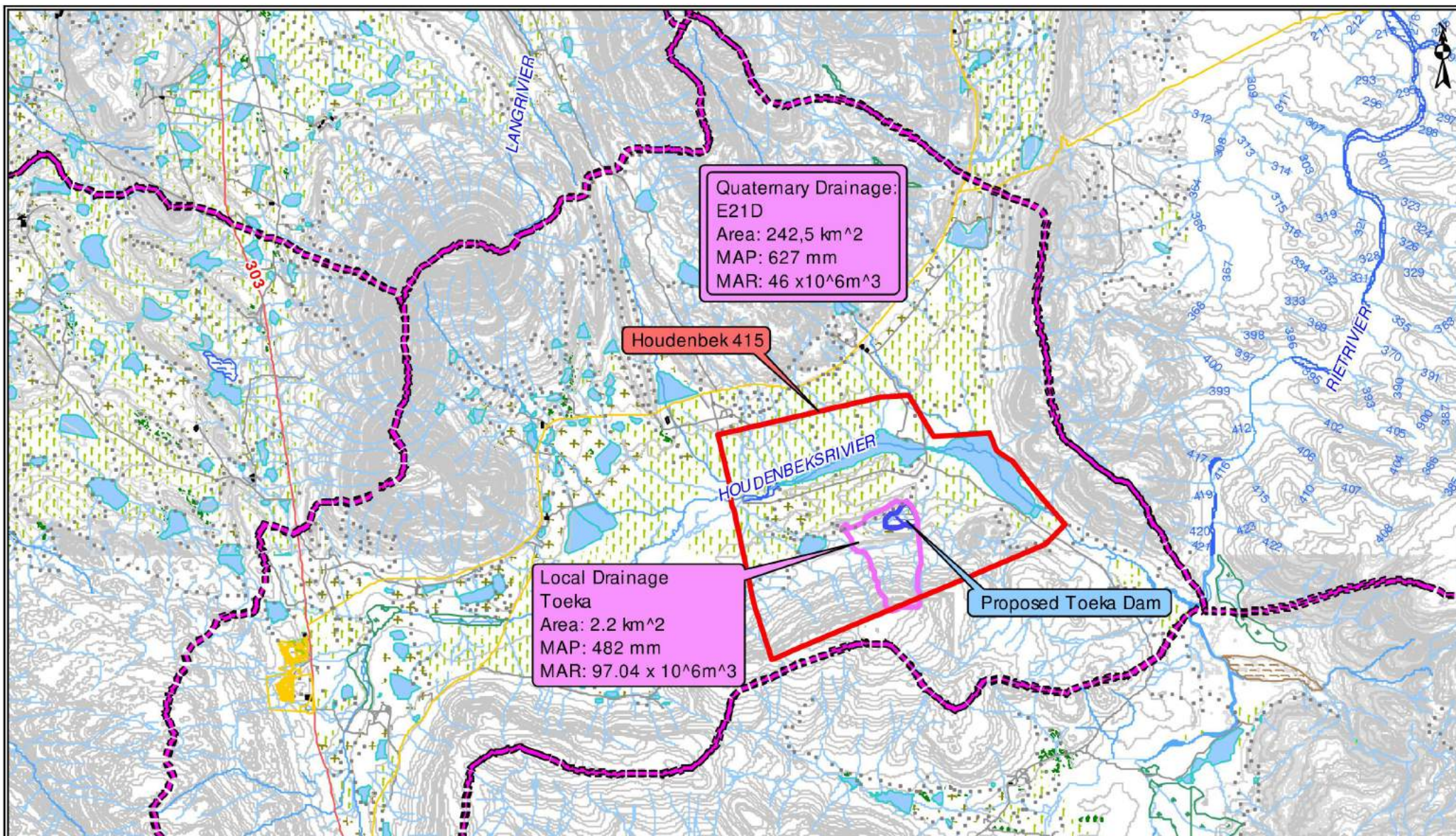


M Charl Bester (Pr Ing)

Copies to:	Mr Heinrich Jurries, Harmony, Koue Bokkeveld Mr Denzil van der Merwe, Morester (MHB Trust), Koue Bokkeveld Me Inge Erasmus, EnviroAfrica, Somerset-Wes Mnr Bernhard de Witt, EnviroAfrica, Somerset-Wes
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MC BESTER
Pr. Ing., LSAS: 970598, LSAP: T1218

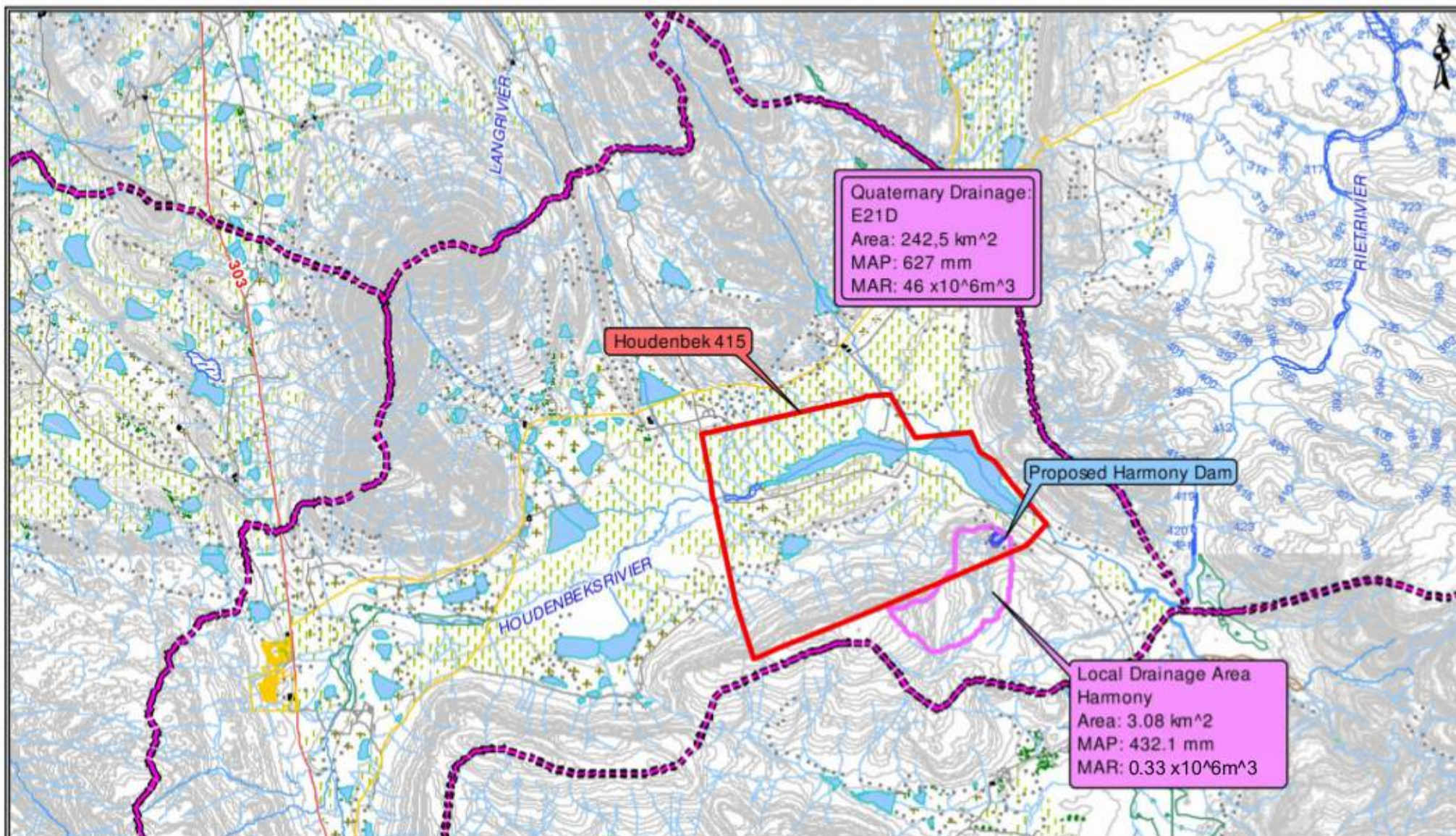
Client: MHB Trust
PO Box 20
Kouebokkeveld
6836


Scale:
1: 100 000

Map Ref:
3319AB Gydopas

Catchment Area Map
Toeka Dam

Project Ref:
1619



 <p>SAREL BESTER INGENIEURS BK Roonposende Stelsel Ingenieurs/ Consulting Civil Engineers Argelshuiskindern / Architectural Services GERMINGSTON MC BESTER Pr. Ing., LSANS: 970598, LSACAP: T1218</p>	<p>Client: MHB Trust PO Box 20 Kouebokkeveld 6836</p>	<p>Scale: 1: 100 000</p> <p>Map Ref: 3319AB Gydopas</p>	<p>Catchment Area Map Harmony Dam</p> <p>Project Ref: 1618</p>
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Department:
Water Affairs
REPUBLIC OF SOUTH AFRICA

IRRIGATED FIELD AND CROP INFORMATION – WINKELHAAK 224

*Code	Irrigation system	*Code	Irrigation system	*Code	Irrigation system
A	Flood: Furrow	H	Sprinkler: Big gun	O	Micro sprinkler
B	Flood: Border	I	Sprinkler: Side roll	P	Micro spray
C	Flood: Basin	J	Sprinkler: Boom	Q	Drip
D	Sprinkler: Dragline	K	Sprinkler: Travelling gun	R	Subsurface

E	Sprinkler: Quick-coupling	L	Sprinkler: Travelling boom	<input type="checkbox"/>	<input type="text"/>
F	Sprinkler: Permanent	M	Centre pivot	<input type="checkbox"/>	<input type="text"/>
G	Sprinkler: Hop-along	N	Linear	<input type="checkbox"/>	<input type="text"/>

DESCRIPTION OF ANY IRRIGATION SCHEDULING METHODS USED

Computerised block irrigation
Capacitance Probes

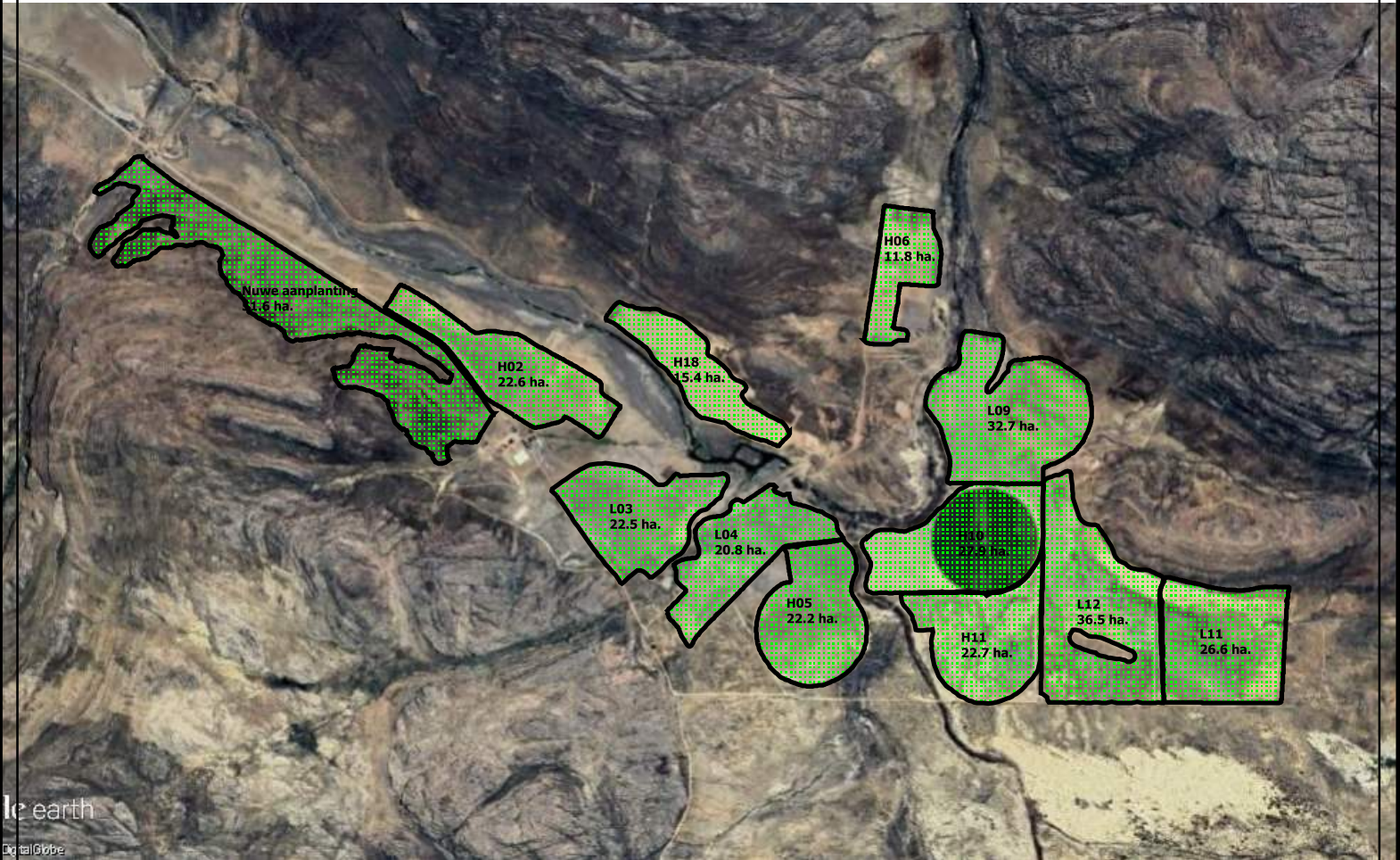
DESCRIBE ANY OTHER METHODS USED TO ENHANCE IRRIGATION EFFICIENCY

Capacitance probes to measure moisture and determination of irrigation
Irrigate in collar times of the day
Radius sprinklers (more effective)
Future: Putting up net over orchards
Control weeds

FOR OFFICIAL USE ONLY

File number	<input type="text"/>	
Water use number	<input type="text"/>	
Received by:	<div style="border: 1px solid black; width: 100%; height: 150px;"></div>	
Surname		Initials
<input type="text"/>		<input type="text"/>
Rank		<input type="text"/>
Signature		<div style="border: 1px solid black; width: 100%; height: 40px;"></div>
Captured by:	<div style="border: 1px solid black; width: 100%; height: 100px;"></div>	
Initials		
<input type="text"/>	<div style="border: 1px solid black; width: 100%; height: 100px;"></div>	
<i>Date stamp of receiving office</i>		

Harmonie; 313.30 ha.



Date: Aug 27, 2018
Farm Name: Harmonie
Client Name: MHB Boerdery
Number of Fields: 12
Total Hectares: 313.30

Dear Sir/ Madam

30/5/2018

PALS PROJECT: HARMONY TRUST

Dear Sir / Madam

We confirm that MHB Boerdery (Pty) Ltd known as Môrester Boerdery and/or Harmonie Group is a Witzenberg PALS member.

Background

Harmony Trust is a 100% black workers' trust which was established by the permanent employees of the Harmonie Group in 2003 and has since functioned in partnership with MHB Boerdery (Pty) Ltd to expand their business interest in the Koue Bokkeveld.

Harmony Trust bought the farm known as Harmonie (Remainder of Farm Winkel Haak Nr 224) in 2006 with an LRAD grant of which it is the sole owner. Harmony Trust farm with 15ha onions, 25ha seed potatoes and cattle. At that stage the trust had 81 beneficiaries (with 96 dependants).

In 2008 a further 62 individuals (with 108 dependants) all employees of the Harmonie Group joined the Harmonie Trust and with a further LRAD grant bought a 26% share in Middeltuyn Boerdery in Clanwilliam. The farm Middeltuyn consist of 1465ha of which 160ha are planted with citrus, 25ha of pears, 130ha of vegetables and 40ha onion seedlings.

The Harmony Trust managed to pay dividends to its beneficiaries since 2006.

Mpy Reg Nr / Co Reg No: 2015/164704/08
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E-pos / E-mail: lelnox@wpals.co.za
Posbus / P O Box: 79 CERES, 6835
Voortrekkerstraat / Voortrekker Street 84
CERES 6835

Direkteure / Directors: Raymond Koopstad (Chair), Pieter du Toit, Francois Malan; Peter Wolfaardt; Nicholas Dicey, Jaffie Galant; Inus Oosthuizen; Gary Conway; Tommy Mona; Danell du Toit; Olivia Poonah, Christelene du Toit

Current Status and Future Planning

As mentioned, Harmony Trust currently farms 40ha of vegetables on its property, namely Remainder of Farm Winkel Haak Nr 224. In order to make their business economically more viable, Harmony Trust has to expand their farming activities on aforementioned farm by establishing 75 hectares of fruit resulting in an approximately 100ha vegetable and fruit unit.

In order to do this, Harmony Trust in partnership with MHB Boerdery requires and will apply for extra water rights and also dam permits. Currently Harmony Trust uses water in a dam situated on MHB Trust's property (Remainder of Farm Houdenberg Nr 415) to irrigate the vegetables on its property that is adjacent to MHB Trust's property. Harmony Trust also currently rents the property (on which the dam is situated) in terms of a lease for 9 years and 11 months and has an option to purchase a portion of the property from MHB Trust.

Yours faithfully,
Lennox Platjies



WITZENBERG PALS (PARTNERS IN AGRI LAND SOLUTION)

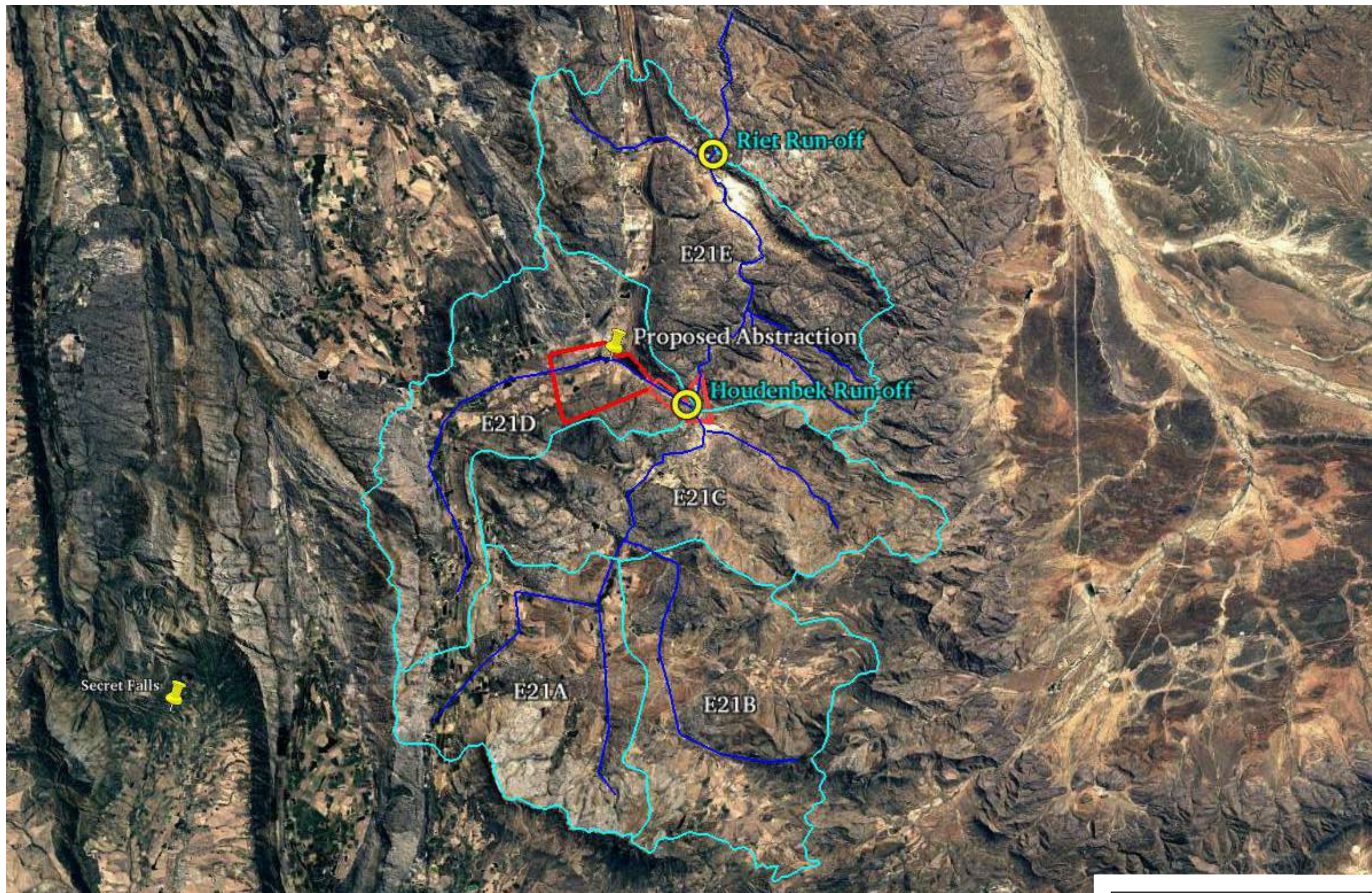
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A3

KOUE BOKKEVELD WATER USER ASSOCIATION

To whom it may concern

17 October 2018

Herewith, we confirm that the WUA board are aware of the following:

Application:

Harmony Trust, are applying for the construction of two new irrigation dams, Harmony 266 DAM (250,000 m³) and TOEKADAM(2,000,000 m³), on the property Houdenbek 415, for the use (via servitude) on their properties Farms Houdenbek 415 and Harmonie (Winkelhaak 224), Koue Bokkeveld, and annual abstraction licence for 627 000 m³ and 85 500 m³ respectively.


The purpose is to store winter rainfall water. The added benefit is to use gravity to irrigate the water.

Objections:

With the current information at hand it is the boards opinion that the said application does not affect other parties negatively. The other members in the catchment and immediate neighbors are aware of the project and have not made any objections to the WUA.

WUA Recommendation:

It is our recommendation that the Department assist Harmony Trust in the process to get the applications approved.



Gys du Toit

Vice Chairperson

Management Members:

Denzil van der Merwe (Chair)-(Houdenbeks Rivier), Gys du Toit Jnr (V/Chair)-(Boschkloof Rivier), Hein Jurries (Emerging Farmers),
Jacob Coetzee (Domestic users), Jannie Nieuwoudt (Environment/Tourism), Jafta Galant (Emerging Farmers),
Kallie du Plessis (Upper Olifants/Witzenberg Valley), Theo Godden (Local Authorities), Pieter Vorster (Riet Rivier), Tian Erasmus (Kruis Rivier),
Johnny Hanekom (Twee Riviere), Theo van Rooyen (Industries), Johan Louw (Leeuw Rivier)