



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Private Bag X313, Pretoria, 0001, Sedibeng Building, 185 Francis Baard Street, Pretoria Tel: (012) 336-6817
Fax: (012) 326-4472/ (012) 326-2715

AMENDMENT LICENCE IN TERMS OF SECTION 50 AND 158 OF THE NATIONAL WATER ACT, 1998 (ACT NO 36 OF 1998)

I, **Mashudu Murovhi**, in my capacity as Director: Proto CMA, acting under authority of the powers delegated to me by the Acting Director General of the Department of Water and Sanitation, hereby authorise the following amendments to licence number: **01/G40A/CI/9068** dated 23 July 2019 in respect of this addendum

SIGNED: _____

DATE: 19/5/2021

The above mentioned licence is amended as follows:

Amendment of the Properties in respect of which this licence is issued

1. The licensee is hereby amended

a. by substitution of Table 1 with the following Table:

"Table 1: Properties included in the licence"

Property Description	Title Deed Number	SG CODE
Farm 307 Portion 0, Caledon RD	[CAF3-11/1922] <u>T27911/2015</u>	C01300000000030700000
Farm 310 Portion 0, Caledon RD	T27911/2015	C01300000000031000000
Farm 310 Portion 1, Caledon RD	[T27911/2015] <u>T48855/1988</u>	C01300000000031000001
Farm 309 Portion 5, Caledon RD	T5189/1923	C01300000000030900005

Amendment of the Registered Owner of the Property

2. The registered owner of the property is hereby amended

a. by the substitution for registered owner of the property for the following registered owner of the property:

"4.1 Registered owner of the properties are shown in Table 2."

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Table 2: Registered owner of the Property

Property Description	Title Deed Number	Owners Detail
Farm 307 Portion 0, Caledon RD	[CAF3-11/1922] T27911/2015	CITY OF CAPE TOWN
Farm 310 Portion 0, Caledon RD	T27911/2015	CITY OF CAPE TOWN
Farm 310 Portion 1, Caledon RD	[T27911/2015] T48855/1988	CITY OF CAPE TOWN
Farm 309 Portion 5 ,Caledon RD	T5189/1923	CITY OF CAPE TOWN

Amendment of Description of the activity

3. Description of the activities is hereby amended

- a. by substitution of the description of the activity by the following description:

"The City of Cape Town intends to develop infrastructure in the Steenbras Well-field which will help with collecting and transporting groundwater from the boreholes into the Steenbras Dam. **[This water would help in addressing the current water supply shortage within the City of Cape Town municipal jurisdiction due to the drought conditions being experienced in the Western Cape.]** This water would help in addressing the short, medium and long-term water supply within the City of Cape Town. The proposed groundwater scheme should mitigate the risk of future drought events and create resilience. The Section 21(c) & (i) Licence relates to the existing City of Cape Town: Table Mountain Group Aquifer (Steenbras) Section 21(a) licence (01/G40A/A/7276) of 57 million cubic metres groundwater abstraction through boreholes. The activities trigger Section 21(c) and (i) in terms of the National Water Act, Act 36 of 1998 and falls within G40A Quaternary Catchment under the City of Cape Town's municipal jurisdiction. The figure 1 below indicates the MU reference for the location of the water uses."

Amendment of condition 1 of Appendix II

4. Condition 1 of the licence is hereby amended

- a. by substitution of Table 3 by the following Table

"Table 1: Section 21(c) and (i) water uses."

Water Use Activity	Purpose	Properties	Co-ordinates
Water use: Section 21(c) [& (i)]			
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU1) within a Wetland	Farm 309 Portion 5 ,Caledon RD	34° 9' 41.71" S 18° 56' 39.63" E
Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU2) within a wetland	Farm 309 Portion 5 ,Caledon RD	34° 9' 40.36" S 18° 56' 26.96" E



Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU10) within a wetland	Farm 309 Portion 5 ,Caledon RD	34° 10' 34.23" S 18° 54' 18.9" E
River crossing	River Crossing Bridge Repairs	Farm 309 Portion 5 ,Caledon RD	34° 10' 18.5" S 18° 55' 4.88" E
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 8) within a wetland	Farm 309 Portion 5 ,Caledon RD	34° 10' 7.65" S 18° 55' 23.3" E
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU7) within a wetland	Farm 309 Portion 5 ,Caledon RD	34° 9' 52.2" S 18° 55' 50.74" E
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 14) within a wetland	Farm 309 Portion 5 ,Caledon RD	34° 11' 16.37" S 18° 53' 34.04" E
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 3) within a wetland	Farm 309 Portion 5 ,Caledon RD	34° 9' 41.61" S 18° 56' 12.59" E
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures ([MU 5 – 863] MU 5-RE/309) within a wetland	Farm 309 Portion 5 ,Caledon RD	34° 10' 19.65" S 18° 56' 29.28" E
Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 16) within a wetland	Farm 309 Portion 5 ,Caledon RD	34° 11' 27.51" S 18° 53' 22.98" E
Trenching for the laying of pipelines	Impeding or diverting the flow of water in a watercourse (c) - Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 4) within a wetland	Farm 310 Portion 1,Caledon RD	34° 10' 51.65" S 18° 56' 54.34" E
[Trenching for the laying of pipelines]	[Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 15) within a wetland]	[Farm 309 Portion 5 ,Caledon RD]	[34° 11' 13.48" S] [18° 53' 20.08" E]



Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 5 - 1/310) within a wetland	Farm 310 Portion 1, Caledon RD	34° 10' 50.81" S 18° 56' 47.09" E
Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures – (MU 5 - RE/310) within a wetland	Farm 310 Portion 0, Caledon RD	34° 10' 46.12" S 18° 56' 44.48" E
Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 11) within a wetland	Farm 309 Portion 5, Caledon RD	34° 11' 7.04" S 18° 53' 31.88" E
Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 6) within a wetland	Farm 309 Portion 5, Caledon RD	34° 9' 58.86" S 18° 56' 11.12" E
Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 5 – 307) within a wetland	Farm 307 Portion 0, Caledon RD	34° 10' 42.75" S 18° 56' 41.69" E
Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures – (MU 12) within a wetland	Farm 309 Portion 5, Caledon RD	34° 10' 50.26" S 18° 54' 28.13" E
Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 13) within a wetland	Farm 309 Portion 5, Caledon RD	34° 11' 7.58" S 18° 53' 56.01" E
Trenching for the laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures- (MU 17) within a wetland	Farm 309 Portion 5, Caledon RD	[34° 10' 41.08" S] [18° 54' 30.18" E] Start 34° 10' 46.99" S 18° 54' 31.99" E End 34° 10' 34.18" S 18° 54' 24.99" E

Water Use 21 (i)

Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 1) within a wetland	Farm 309 Portion 5 ,Caledon RD	Start [34° 9' 35.09" S] [18° 56' 44.66" E] <u>34° 9' 37.14" S</u> <u>18° 56' 47.13" E</u> End [34° 9' 46.75" S] [18° 56' 1.09" E] <u>34° 9' 45.22" S</u> <u>18° 56' 30.99" E</u>
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 6) within a wetland	Farm 309 Portion 5 ,Caledon RD	Start [34° 10' 12.52" S] <u>34° 10' 11.5" S</u> 18° 56' 22.27" E End [34° 9' 46.91" S] <u>34° 9' 46.66" S</u> 18° 56' 0.96" E
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 16) within a wetland	Farm 309 Portion 5 ,Caledon RD	Start [34° 11' 16.1" S] [18° 53' 33.67" E] <u>34° 11' 17.12" S</u> <u>18° 53' 34.91" E</u> End [34° 11' 35.68" S] [18° 53' 8.47" E] <u>34° 11' 46.11" S</u> <u>18° 52' 32.11" E</u>
Discharge of water into Steenbras dam	Surface water augmentation]	Farm 309 Portion 5 ,Caledon RD	34° 9' 19.69" S 18° 56' 20.6" E



Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 4) within a wetland	Farm 310 Portion 1, Caledon RD	Start [34° 10' 51.84" S] [18° 57' 1.24" E] <u>34° 10' 51.93" S</u> <u>18° 57' 1.19" E</u> End [34° 10' 51.58" S] [18° 56' 47.7" E] <u>34° 10' 51.88" S</u> <u>18° 56' 47.5" E</u>
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 3) within a wetland	Farm 309 Portion 5, Caledon RD	Start 34° 9' 35.46" S [18° 56' 22.59" E] <u>[18° 56' 22.74" E]</u> End 34° 9' 46.65" S 18° 56' 0.36" E
[Trenching for laying of pipelines]	[Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 15) within a wetland]	[Farm 309 Portion 5, Caledon RD]	[Start] [34° 11' 21.08" S] [18° 53' 28.9" E] [End] [34° 11' 8.92" S] [18° 53' 11.1" E]
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 7) within a wetland	Farm 309 Portion 5, Caledon RD	Start 34° 9' 46.82" S [18° 56' 0.09" E] <u>18° 56' 0.24" E</u> End 34° 9' 57.79" S [18° 55' 41.3" E] <u>18° 55' 41.15" E</u>
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 14) within a wetland	Farm 309 Portion 5, Caledon RD	Start [34° 11' 17.22" S] <u>34° 11' 17.73" S</u> 18° 53' 35.47" E End 34° 11' 14.93" S 18° 53' 32.65" E
Repairs to bridge crossings	To repair bridge crossings in a stream	Farm 309 Portion 5, Caledon RD	34° 11' 27.02" S 18° 53' 24.79" E

Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures ([MU 5 – 863] MU 5-5/309))	Farm 309 Portion 5 ,Caledon RD	Start [34° 10' 29.49" S] <u>34° 10' 27.44" S</u> 18° 56' 37.43" E End 34° 10' 11.6" S 18° 56' 22.31" E
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 11) within a wetland	Farm 309 Portion 5 ,Caledon RD	Start [34° 10' 59.28" S] [18° 53' 34.02" E] <u>34° 10' 58.25" S</u> <u>18° 53' 32.79" E</u> End [34° 11' 14.97" S] <u>34° 11' 14.91" S</u> 18° 53' 32.7" E
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 5 – 307) within a wetland	Farm 307 Portion 0, Caledon RD	Start 34° 10' 42.76" S [18° 56' 41.68" E] <u>18° 56' 41.69" E</u> End [34° 10' 27.96" S] [18° 56' 36.81" E] <u>34° 10' 27.44" S</u> <u>18° 56' 37.43" E</u>
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 5 - RE/310) within a wetland	Farm 310 Portion 0,Caledon RD	[34° 10' 46.1" S] [18° 56' 44.5" E] Start <u>34° 10' 50.1" S</u> <u>18° 56' 46.7" E</u> End <u>34° 10' 42.76" S</u> <u>18° 56' 41.69" E</u>
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 17) within a wetland	Farm 309 Portion 5 ,Caledon RD	Start 34° 10' 46.99" S 18° 54' 31.99" E End [34° 10' 39.22" S] [18° 54' 30.15" E] <u>34°10'34.18"S</u> <u>18°54'24.99"E</u>

Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 13) within a wetland	Farm 309 Portion 5 ,Caledon RD	Start [34° 10' 51.16" S] [18° 54' 26.53" E] <u>34° 10' 51.67" S</u> <u>18° 54' 26.53" E</u> End [34° 11' 17.74" S] [18° 53' 35.95" E] <u>34° 11' 17.74" S</u> <u>18° 53' 35.95" E</u>
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 10) within a wetland	Farm 309 Portion 5 ,Caledon RD	Start [34° 10' 17.72" S] <u>34° 10' 18.23" S</u> 18° 55' 3.68" E End 34° 10' 57.94" S [18° 53' 33.55" E] <u>18° 53' 32.93" E</u>
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 5 - 1/310) within a wetland	Farm 310 Portion 1,Caledon RD	Start [34° 10' 50.8" S] [18° 56' 47.1" E] <u>34° 10' 51.88" S</u> <u>18° 56' 47.67" E</u> End [34° 10' 50.8" S] [18° 56' 47.1" E] <u>34° 10' 50.1" S</u> <u>18° 56' 46.7" E</u>
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 8) within a wetland	Farm 309 Portion 5 ,Caledon RD	Start [34° 9' 56.76" S] <u>34° 9' 57.78" S</u> 18° 55' 41.23" E End [34° 10' 18.05" S] [18° 55' 3.22" E] <u>34° 10' 18.3" S</u> <u>18° 55' 3.53" E</u>



Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 2) within a wetland	Farm 309 Portion 5 ,Caledon RD	Start [34° 9' 46.38" S] 34° 9' 45.43" S 18° 56' 31.46" E End [34° 9' 34.76" S] 34° 9' 34.51" S 18° 56' 22.96" E
Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 12) within a wetland	Farm 309 Portion 5 ,Caledon RD	[34° 10' 50.28" S] [18° 54' 28.12" E] Start 34° 10' 49.75" S 18° 54' 30.11" E End 34° 10' 51.28" S 18° 54' 26.36" E
Nuwerberg section of the wellfield to the Water Treatment Works (WTW) at Steenbras			
Water use: Section 21(c) & (i)			
<u>Trenching for laying of pipelines</u>	<u>Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 18) within a wetland</u>	<u>Farm 309 Portion 5, Caledon RD</u>	Start 34°10'58.32"S 18°53'32.81"E End 34°11'9.56" S 18°53'11.55"E
<u>Trenching for laying of pipelines</u>	<u>Construction of pipelines, electrical infrastructure, borehole chambers and pump structures (MU 19) within a wetland</u>	<u>Farm 309 Portion 5, Caledon RD</u>	Start 34° 9'12.33"S 18°58'0.3" E End 34° 9'28.76"S 18°56'30.04"E
Stream Crossings			
Water use: Section 21(c) & (i)			
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU1)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'37.24"S 18°56'47.23"E End 34° 9'38.06"S 18°56'46.09"E



Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU1)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'40.58"S 18°56'41.35"E End 34° 9'41.51"S 18°56'39.92"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU1)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'45.42"S 18°56'32.69"E End 34° 9'45.29"S 18°56'31.25"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU2)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'42.79"S 18°56'29.05"E End 34° 9'40.98"S 18°56'27.45"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU3)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'36.39"S 18°56'21.08"E End 34° 9'37.38"S 18°56'19.32"E
12 m above pipeline crossing	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU3)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'42.05"S 18°56'11.95"E End 34° 9'42.26"S 18°56'11.33"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU7)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'46.90"S 18°56'0.04"E End 34° 9'52.06"S 18°55'50.96"E
8 m above pipeline crossing	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU7)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'52.15"S 18°55'50.83"E End 34° 9'53.73"S 18°55'48.19"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU7)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'54.91"S 18°55'45.88"E End 34° 9'55.29"S 18°55'45.31"E

Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU7)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'55.56"S 18°55'44.87"E End 34° 9'56.60"S 18°55'43.14"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU7 & 8)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'57.01"S 18°55'42.46"E End 34° 9'58.04"S 18°55'40.77"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU8)	Farm 309 Portion 5 ,Caledon RD	Start 34° 9'58.19"S 18°55'40.38"E End 34°10'0.31"S 18°55'37.43"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU8)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'1.37"S 18°55'35.02"E End 34°10'1.95"S 18°55'33.61"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU8)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'2.45"S 18°55'32.69"E End 34°10'3.39"S 18°55'31.06"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU8)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'4.67"S 18°55'28.69"E End 34°10'5.96"S 18°55'26.29"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU8)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'7.13"S 18°55'24.08"E End 34°10'8.52"S 18°55'21.86"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU8)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'9.08"S 18°55'20.96"E End 34°10'9.60"S 18°55'20.16"E



Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU8)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'10.59"S 18°55'18.91"E End 34°10'10.59"S 18°55'18.91"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU8)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'13.12"S 18°55'14.39"E End 34°10'16.39"S 18°55'8.10"E
11 m above pipeline crossing	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU8)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'17.30"S 18°55'5.99"E End 34°10'18.25"S 18°55'3.62"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU10)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'22.58"S 18°54'52.98"E End 34°10'25.16"S 18°54'46.66"E
17 m above pipeline crossing	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU10)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'33.29"S 18°54'19.77"E End 34°10'34.70"S 18°54'17.70"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU10)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'42.64"S 18°53'56.33"E End 34°10'10.59"S 18°55'18.91"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU10)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'52.05"S 18°53'40.36"E End 34°10'55.38"S 18°53'36.27"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU11)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'1.96"S 18°53'31.96"E End 34°11'3.68"S 18°53'31.69"E



Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU11)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'5.18"S 18°53'31.72"E End 34°11'5.62"S 18°53'31.86"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU11)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'8.83"S 18°53'31.03"E End 34°11'9.74"S 18°53'30.84"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU11)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'10.80"S 18°53'30.92"E End 34°11'14.01"S 18°53'32.10"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU14)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'15.22"S 18°53'32.84"E End 34°11'16.99"S 18°53'34.71"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU13)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'17.61"S 18°53'35.80"E End 34°11'15.94"S 18°53'40.54"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU13)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'9.17"S 18°53'51.60"E End 34°11'8.03"S 18°53'54.10"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU13)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'7.20"S 18°53'56.37"E End 34°11'5.37"S 18°54'3.05"E
[Below Trenching for laying of pipelines]	[Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU17)]	[Farm 309 Portion 5 ,Caledon RD]	[Start [34°10'46.49"S] [18°54'30.19"E] [End [34°10'45.55"S] [18°54'29.72"E]

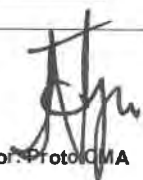


Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU17)	Farm 309 Portion 5 ,Caledon RD	Start 34°10'39.48"S 18°54'30.15"E End 34°10'39.48"S 18°54'30.15"E
[Below Trenching for laying of pipelines]	[Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland]	[Farm 309 Portion 5 ,Caledon RD]	[Start] [34°11'15.68"S] [18°53'32.17"E] [End] [34°11'17.96"S] [18°53'31.60"E]
13 m above pipeline crossing	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU16)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'19.20"S 18°53'30.93"E End 34°11'20.44"S 18°53'28.65"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU16)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'23.23"S 18°53'27.22"E End 34°11'25.09"S 18°53'26.09"E
15 m above pipeline crossing	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU16)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'26.31"S 18°53'25.20"E End 34°11'27.05"S 18°53'23.99"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU16)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'28.29"S 18°53'21.11"E End 34°11'28.84"S 18°53'18.62"E
13 m above pipeline crossing	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU16)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'28.98"S 18°53'17.92"E End 34°11'30.44"S 18°53'14.58"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU16)	Farm 309 Portion 5 ,Caledon RD	Start 34°11'32.21"S 18°53'11.05"E End 34°11'33.67"S 18°53'8.43"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland	Farm 309 Portion 5 ,Caledon RD	Start 34°11'34.31"S 18°53'7.29"E End 34°11'34.77"S 18°53'6.00"E

6 m above pipeline crossing	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland	Farm 309 Portion 5 ,Caledon RD	Start 34°11'35.83"S 18°53'3.41"E End 34°11'36.44"S 18°53'1.47"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland	Farm 309 Portion 5 ,Caledon RD	Start 34°11'37.06"S 18°52'59.24"E End 34°11'37.30"S 18°52'58.59"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland	Farm 309 Portion 5 ,Caledon RD	Start 34°11'37.35"S 18°52'58.47"E End 34°11'38.85"S 18°52'53.45"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland	Farm 309 Portion 5 ,Caledon RD	Start 34°11'39.46"S 18°52'52.16"E End 34°11'41.37"S 18°52'47.63"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland	Farm 309 Portion 5 ,Caledon RD	Start 34°11'41.85"S 18°52'46.33"E End 34°11'42.10"S 18°52'45.66"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland	Farm 309 Portion 5 ,Caledon RD	Start 34°11'42.70"S 18°52'44.31"E End 34°11'42.94"S 18°52'41.71"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland	Farm 309 Portion 5 ,Caledon RD	Start 34°11'43.84"S 18°52'36.28"E End 34°11'44.88"S 18°52'34.68"E
Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland	Farm 309 Portion 5 ,Caledon RD	Start 34°11'45.40"S 18°52'33.94"E End 34°11'46.19"S 18°52'32.15"E
[Below Trenching for laying of pipelines]	[Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU15)]	[Farm 309 Portion 5 ,Caledon RD]	[Start [34°11'20.70"S] [18°53'27.02"E] [End [34°11'19.10"S] [18°53'24.32"E]



[Below Trenching for laying of pipelines]	[Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU15)]	[Farm Portion 309 5 ,Caledon RD]	[Start] [34°11'16.30"S] [18°53'23.46"E] [End] [34°11'15.84"S] [18°53'23.01"E]
[Below Trenching for laying of pipelines]	[Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU15)]	[Farm Portion 309 5 ,Caledon RD]	[Start] [34°11'14.40"S] [18°53'21.44"E] [End] [34°11'9.05"S] [18°53'12.59"E]
[Below Trenching for laying of pipelines]	[Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland (MU15)]	[Farm Portion 309 5 ,Caledon RD]	[Start] [34° 9'32.77"S] [18°56'26.05"E] [End] [34° 9'32.77"S] [18°56'26.05"E]
<u>Below Trenching for laying of pipelines</u>	<u>Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland</u>	<u>Remainder of portion 5 of farm portion 310,Caledon RD</u>	<u>Start</u> 34° 10' 37.95" S 18° 54' 29.32" E <u>End</u> 34° 10' 37.98" S 18°54' 29.74" E
<u>Below Trenching for laying of pipelines</u>	<u>Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland</u>	<u>Remainder of portion 5 of farm portion 309,Caledon RD</u>	<u>Start</u> 34° 11' 3" S 18° 53' 27.32" E <u>End</u> 34° 11' 3.01" S 18° 53' 26.84" E
<u>Below Trenching for laying of pipelines</u>	<u>Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland</u>	<u>Remainder of portion 5 of farm portion 309,Caledon RD</u>	<u>Start</u> 34° 11' 8.26" S 18° 53' 15.66" E <u>End</u> 34° 11' 8.01" S 18° 53' 15.46" E
<u>Below Trenching for laying of pipelines</u>	<u>Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland</u>	<u>Remainder of portion 5 of farm portion 309,Caledon RD</u>	<u>Start</u> 34° 9' 37.98" S 18° 57' 16.33" E <u>End</u> 34° 9' 37.75" S 18° 57' 16.14" E
<u>Below Trenching for laying of pipelines</u>	<u>Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland</u>	<u>Remainder of portion 5 of farm portion 309,Caledon RD</u>	<u>Start</u> 34° 9' 24.47" S 18° 56' 39.63" E <u>End</u> 34° 9' 24.26" S 18° 56' 39.44" E



Below Trenching for laying of pipelines	Construction of pipelines, electrical infrastructure, borehole chambers and pump structures within a wetland	Remainder of portion 5 of farm portion 309, Caledon RD	Start 34° 9' 26.49" S 18° 56' 35.55" E End 34° 9' 26.26" S 18° 56' 35.38" E
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- b. by substitution of condition 1.2.1.2 by the following condition:
“1.2.1.2 FRESHWATER ECOLOGICAL INPUT TO DESIGN AND CONSTRUCTION Report prepared by [Justin] Justine Ewart Smith and Charlie Boucher dated November [2019] 2018.”
- c. by deletion of condition 1.11.

Amendment of condition 3 of Appendix II

5. Condition 3 of the licence is hereby amended

- a. by substitution of condition 3.3.1 by the following condition:
“3.3.1 [The Licensee shall sample the water quality monthly for the mentioned variables (Table 5) at least at the monitoring points both upstream and downstream of the activities (Table 5) and report to the Regional Head within thirty (30) days after the results of each sampling event is received] Construction phase water quality monitoring should be undertaken at specified rivers and wetlands (if surface water is present) likely to be affected by active construction on a regular basis as per the construction monitoring protocol advised by the Freshwater Ecologist. These data should be made available to the regional office after collection and raise any red flags for action”

Table [5] 4: Water quality parameters relevant for sampling.

Variable	Limit
Flow (ℓ/s)	Condition 3.4.8
Temperature (°C)	<10% variation
pH	6.0 – 8.5
Electrical conductivity (EC) (mS/m)	<70
Suspended solids (SS) (mg/ℓ)	<25
Dissolved oxygen (mg/ℓ)	≥6
Turbidity (NTU)	<5
Alkalinity (mg CaCO ₃ /ℓ)	<100
PO ₄ (mg/ℓ)	<0.5
NO ₃ /NO ₂ (as N) (mg/ℓ)	<6
NH ₃ (as N) (mg/ℓ)	<10
BTEX, TPH (mg/ℓ)	<1
Faecal coliforms (counts/100ml)	<130

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

- b. by substitution of condition 3.2.6.6 by the following condition:
“3.2.6.[6] 5 [Crossing surfaces must be tarred, paved or concreted along the extent of the watercourse and extent at least 100m beyond the extent of the watercourse to minimise impacts on the characteristics of the watercourse] Bridges crossing watercourses must be stabilised to prevent erosion and runoff of sediments into watercourses while maintaining natural flows through watercourses. The specific infrastructure and extent thereof at each watercourse must be designed on a case by case basis,”
- c. by substitution of condition 3.2.6.7 by the following condition:



"3.2.6.[7] 6 [Where any road is within the 100m buffer zone of the watercourse, this portion of the road shall be concreted, paved or tarred; and] Roads must be stabilised to prevent erosion and runoff of sediments into watercourses while maintaining natural flows through watercourses. The specific infrastructure and extent thereof at each watercourse must be designed on a case by case basis; and"

d. by substitution of condition 3.2.6.8 by the following condition:

"3.2.6.[8] 7 Not consist of any polluting material."

e. by deletion of condition 3.3.11.

f. by substitution of condition 3.4.1 by the following condition:

"3.4.1 [The Licensee must determine flood lines (1:50 and 1:100 year) to ensure risks are adequately managed. Flood lines must be clearly indicated on the site plan(s) and drawings along with all wetland boundaries.] The Licensee must determine flood lines (1:50 and 1:100 year) for all above ground stream crossings to ensure risks are adequately managed. Flood lines must be clearly indicated on the site plan(s) and drawings along with all wetland boundaries."

g. by substitution of condition 3.5.1 by the following condition:

"3.5.1 [Activities] Rehabilitation of sites and incidents (including spill clean-up) must start upstream and proceed into a down-stream direction, so that the recovery processes can start immediately, without further disturbance from upstream works."

h. by deletion of condition 3.6.

i. substitution of condition 3.6.1 by the following condition:

"3.6.1 The Licensee must take all reasonable steps to allow movement of aquatic species, including migratory species. The Licensee shall appoint a professional, qualified, independent and registered ecologist and aquatic specialist to determine the impact of the [weirs] structures on aquatic biota migration and submit a report for written approval to the Regional Head within six (6) months after the issuance of the licence. The Licensee shall implement the recommendations endorsed by the Regional Head. Reporting on biota component must be captured separately in the reporting requirement of condition 5.1 of Appendix IV. The report must also assess the reintroduction of endemic aquatic species in this environment (note condition 5.1 REC value)."

j. by deletion of condition 3.6.2

k. by deletion of condition 3.6.3

Amendment of condition 5 of Appendix II

6. Condition 5 of the licence is hereby amended

a. by substitution of condition 5.1 by the following condition:

"5.1 A comprehensive and appropriate environmental assessment and monitoring programme (including biomonitoring and eco-toxicology) to determine the impact, change, deterioration and improvement of the aquatic system associated with the activities listed under condition 1.1 and other existing activities as well as compliance to these water use licence conditions must be developed and submitted to the Regional Head for a written approval before [commencement and must subsequently be implemented] commissioning of the wellfield."

b. by addition of condition 5.2:

"5.2 A comprehensive environmental assessment and monitoring programme for the construction impact, change, deterioration and improvement of the aquatic system associated with the activities listed under condition 1.1 must be developed and submitted to the Regional Head for a written approval."

Amendment of condition 9 of Appendix II

7. Condition 9 of the licence is hereby amended

- a. by deletion of condition 9.2.
- b. by deletion of condition 9.3.
- c. by deletion of condition 9.4.
- d. by substitution of condition 9.7 by the following condition:
"9.7 The total area and functionality lost through this project must be recovered through a wetland offset plan. This plan must be submitted to this Department for approval, 18 months after the issuance of this Licence but prior to the commencement of any new activities. This is in aid to ensure optimal ecosystem functioning of the Steenbras catchment for resource quality characteristics (flow, water quality, geomorphology, habitat and biota)."
- e. by substitution of condition 9.8 by the following condition:
"9.8 The conditions of this Licence are only applicable to the **[sixteen (16)]** borehole details which were available at the time of reviewing this application. Once a change in location is expected for the proposed boreholes, an amendment application together with the relevant impact studies will be required from this Department before any activity can commence."
- f. by substitution of condition 9.10 by the following condition:
"9.10 **[Seven (7) of the sixteen (16) boreholes are]** The monitoring boreholes which must be representing the formation being targeted through drilling and how the surrounding water resource quality characteristics (flow, water quality, geomorphology, habitat and biota) will be impacted upon. This information together with the analysis must be submitted to this Department on a quarterly basis. An annual breakdown of the results is required within the annual report."
- g. by deletion of condition 9.31.
- h. by deletion of condition 9.33.
- i. by substitution of condition 9.44 by the following condition:
"9.44 Ecological thresholds must inform all activities related to the project. Furthermore, ecological thresholds must be developed and agreed upon before the **[commencement]** commissioning of any activities **[, which includes drilling]**."
- j. by substitution of condition 9.45 by the following condition:
"9.45 A monitoring plan for groundwater, surface water and interflow must be submitted **[to this Department after the issuance of the Licence but]** prior to the commencement of **[any activity]** the wellfield."
- k. by addition of condition 9.158:
"9.158 [An independent specialist committee must be in place to review all reports and data analysis before being submitted to this Department. This must include but not limited to a geo-hydrologist, groundwater specialist, hydro-pedologist.]"

[END OF LICENCE AMENDMENT]

