NO. 518 02 JUNE 2017

CO-OPERATIVES TO BE REMOVED FROM THE REGISTER

- 1. SINDAWANYE CO-OP LTD
- 2. EGGZONE SUPPLIERS CO-OP LTD
- 3. SIZINCEDA CO-OP LTD
- 4. INHLOSO CLEANING SERVICES CO-OP LTD
- 5. LEFIKA LA TSHEPO CO-OP LTD
- 6. MALEMATI TOMATOES CO-OP LTD
- 7. SIBONGUDUMO IMVELISO CO-OP LTD
- 8. DITLOGOLO TSA MOKGOKONG CO-OP LTD
- 9. BUHLEBUZOVELA CO-OP LTD
- 10. UZALO CO-OP LTD
- 11. AGANANG SOCIAL CLUB CO-OP LTD
- 12. GRABOU CO-OP LTD
- 13. XINTLHAMI BUSINESS DEVELOPMENT CO-OP LTD
- 14. DAMBUZA SECTION SHOES CO-OP LTD
- 15. QALOKUHLE CO-OP LTD
- 16. MGONSWANENI CO-OP LTD
- 17. EZAMANDULO CO-OP LTD
- 18. LERETLHABETSE CLEANING CO-OP LTD
- 19. MBHUKAZI CO-OP LTD
- 20. KOZEKUZE NYONGWANA GARDENING CO-OP LTD
- 21. MATHANTOTO CO-OP LTD
- 22. VELANI CO-OP LTD
- 23. MVOTELWA CO-OP LTD
- 24. NTSIKELELO CO-OP LTD
- 25. SIZAMAKAHLE CO-OP LTD
- 26. HANGE POULTRY CO-OP LTD
- 27. SILELA OKUHLE CO-OP LTD
- 28. HLATHIKULA FARMERS ASSOCIATION CO-OP LTD
- 29. HETISEKA CLOTHING CO-OP LTD
- 30. SIYANJENJEMUKA CO-OP LTD

Notice is hereby given that the names of the abovementioned co-operatives will, after the expiration of sixty days from the date of this notice, be struck off the register in terms of the provisions of section 73(1) of the Co-operatives Act, 2005, and the co-operatives will be dissolved unless proof is furnished to the effect that the co-operatives are carrying on business or are in operation.

Any objections to this procedure, which interested persons may wish to raise, must together with the reasons therefore, be lodged with this office before the expiration of the period of sixty days.

REGISTRAR OF CO-OPERATIVES

Office of the Registrar of Co-operatives Dti Campus 77 Meintjies Street **Pretoria** 0002

Private Bag X237 **Pretoria**0001

NO. 519 02 JUNE 2017

CO-OPERATIVES TO BE REMOVED FROM THE REGISTER

1. SINEMPILO CO-OP LTD

2. FIRST CHOICE CO-OP LTD

3.SIYAPHAMBILI IKWEZI CO-OP LTD

4.UZOBONGA CO-OP LTD

5.IZONA AGRICULTURAL CO-OP LTD

6.NCENGIMPILO AGRICULTURAL CO-OP LTD

7.SOLINGANISWA CO-OP LTD

8.GOXE AGRICULTURAL CO-OP LTD

9.PHUNGINDLALA CO-OP LTD

10.LOMODE GOAT FARMING CO-OP LTD

11.PHATHENI CO-OP LTD

12.STEVAS SLATE 'N TILE CO-OP LTD

13.BOPHELO KE KWANO SAVINGS AND CREDIT CO-OP LTD

14.TRAILER SPARES AND BULBARS CO-OP LTD

15.MASANA B AND B CO-OP LTD

16.LUBALEKO MULTI-PURPOSE CO-OP LTD

17.THOBANE CO-OP LTD

18.NXA NGIPHILILE STOCK SALES CO-OP LTD

19.SIYASEBENZISANA CO-OP LTD

20.IMPILO YOKUSASA CO-OP LTD

21.REPHEPHA CLEANING CO-OP LTD

22.TSHING CLEANING CO-OP LTD

23.VULINDLELA AGRICULTURAL CO-OP LTD

24.PHUTHADITSHABA AGRICULTURAL CO-OP LTD

25.QOKOLWENI MANDLANENI AGRICULTURAL CO-OP LTD

26.NTANDOYESIZWE CO-OP LTD

27.TSHEDIMOSETSO CLEANING CO-OP LTD

28.NHLANGENYUKE SALABEDLA CO-OP LTD

29.SIYAFISA CO-OP LTD

30.AMABHUBEZI CO-OP LTD

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Private Bag X237 **Pretoria** 0001

NO. 520 02 JUNE 2017

CO-OPERATIVES TO BE REMOVED FROM THE REGISTER

1.SENZA-KWENZEKE CO-OP LTD

2.SIYASHUBISA HIRING SERVICE CO-OP LTD

3.NINE CITY CO-OP LTD

4. IZIGI ZENDLOVU CO-OP LTD

5. EBHODWENI CO-OP LTD

6. ICHUNU CONSULTING CO-OP LTD

7.AMATHUBA CO-OP LTD

8. WOZANI CO-OP LTD

9 SEKUYITHINA CO-OP LTD

10. QALAKANCANE CO-OP LTD

11. KWANGA BAKING CO-OP LTD

12.MALIYAVUZA TRANSPORT CO-OP LTD

13.NTHABISENG CO-OP LTD

14.IKWEZI JANSENVILLE CONSTRUCTION CO-OP LTD

15.MBHEKANE CO-OP LTD

16.SAMBOKWE CO-OP LTD

17.EYETHU AGRICULTURAL CO-OP LTD

18.BIG 5 AGRICULTURAL CO-OP LTD

19.SIYASUKUMA CO-OP LTD

20.EKUTHOKOZENI CO-OP LTD

21.SIZUMPHAKATI POULTRY AGRIC CO-OP LTD

22.IBUYAKUSA CO-OP LTD

23.SUNRISING FARMING AND PLOUGHING CO-OP LTD

24.KHUMU CO-OP LTD

25.IKUSASALETHU PHYSICALLY CHALLENGED CO-OP LTD

26.SIZAMIMPILO CO-OP LTD

27.PHAKAME DADE CO-OP LTD

28.ASIPHILE CO-OP LTD

29.MASIBULELE CENTRAL TRADING CO-OP LTD

30. MATLHASEDI JEWELLERY CO-OP LTD

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REGISTRAR OF CO-OPERATIVES

Office of the Registrar of Co-operatives Dti Campus 77 Meintjies Street **Pretoria**

Private Bag X237 **Pretoria** 0001

0002

NO. 521 02 JUNE 2017

CO-OPERATIVES TO BE REMOVED FROM THE REGISTER

- 1. HAMBA-HAMBA CO-OP LTD
- 2. MASILIME NDAKANA CO-OP LTD
- 3. SOMILAPHI TRADING CO-OP LTD
- 4. SOM-AFRIKA CO-OP LTD
- 5. VUKA-SOLOMO CO-OP LTD
- 6. NGONGO FARMERS CO-OP LTD
- 7. NKAKHISENG CO-OP LTD
- 8. KOMKHULU WOMEN'S CO-OP LTD
- 9. INSIKA KA ZULU CO-OP LTD
- 10. MADUNDUBE MULTI-PURPOSE CO-OP LTD
- 11.MABOBO TRADING FARMERS CO-OP LTD
- 12. SAKHILE MULTI-PURPOSE CO-OP LTD
- 13. BUBBLES LAUNDRY AND CLEANING SERVICE CO-OP LTD
- 14. SAKHOKUHLE AGRICULTURAL CO-OP LTD
- 15. ST CUTHBERTS TRADING FARMERS CO-OP LTD
- 16. LUZELWANDE SEWING CO-OP LTD
- 17. NOAYIZIVELE FARMING AND TRADE CO-OP LTD
- 18. THEMBISILE CO-OP LTD
- 19. BUKHO CO-OP LTD
- 20. PLACE OF HOPE CO-OP LTD
- 21. SIQAL, OKUHLE CO-OP LTD
- 22. INQOLAYOLWAZI CO-OP LTD
- 23. SHOPHELA POTTERIES CO-OP LTD
- 24.UMDONI CO-OP LTD
- 25 ONJENGEBHUBESI CO-OP LTD
- **26.JABULANI CO-OP LTD**
- 27.JONGILANGA CO-OP LTD
- 28. INDEPHUNDEPHU CO-OP LTD
- 29.SIYAZITHANDELA CO-OP LTD
- 30.SIKHULA NGOKWENZA CO-OP LTD

Notice is hereby given that the names of the abovementioned co-operatives will, after the expiration of sixty days from the date of this notice, be struck off the register in terms of the provisions of section 73(1) of the Co-operatives Act, 2005, and the co-operatives will be dissolved unless proof is furnished to the effect that the co-operatives are carrying on business or are in operation.

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REGISTRAR OF CO-OPERATIVES

Office of the Registrar of Co-operatives Dti Campus 77 Meintjies Street **Pretoria** 0002

Private Bag X237 **Pretoria** 0001

NO. 522 02 JUNE 2017

CO-OPERATIVES TO BE REMOVED FROM THE REGISTER

1.UMTOMUSHA TRADING CO-OP LTD 2.TOP FIVE CO-OP LTD 3.GOMBELA CO-OP LTD 4.ZIFUNELE PRINTING SERVICES CO-OP LTD **5.NHLEBELA MOUNTAINS CO-OP LTD** 6.STAND TOGETHER CO-OP LTD 7.SIVELELE CO-OP LTD 8.IQHINGA EVENT MANAGING CO-OP LTD 9.STYLE CAFÉ CO-OP LTD 10.EYRCO CO-OP LTD 11.INJONGO ENHLE CO-OP LTD 12.MALAMBADLOKWAKHE AGRI-TOURISM INITIATIVE CO-OP LTD 13.UNAKEKELO B.M CO-OP LTD 14.NCED'A BANTU TRADERS CO-OP LTD 15.SIVUSAMAKHAYA CO-OP LTD 16.IFUTHE LOMNTWANA CO-OP LTD 17.NYANDENI SIMUNYE CATERERS CO-OP LTD 18.KOPANANG CATERING CO-OP LTD 19.NYOVANE CO-OP LTD 20.WAQU CO-OP LTD 21.ISIQOPHAMITHI CO-OP LTD 22.THE BEAUTIFUL STATIONERY CO-OP LTD 23.ISITHWALANDWE CO-OP LTD 24.IZINYOSI CO-OP LTD 25.INDAKA FEEDING CO-OP LTD 26.UMPHEME CATERING CO-OP LTD 27.MANDARAZA CO-OP LTD 28.NASODA EASTERN CAPE BURIAL CO-OP LTD

30.METSIMAHOLO JOINT WOMEN DEVELOPMENT NATIONAL CO-OP LTD

Notice is hereby given that the names of the abovementioned co-operatives will, after the expiration of sixty days from the date of this notice, be struck off the register in terms of the provisions of section 73(1) of the Co-operatives Act, 2005, and the co-operatives will be dissolved unless proof is furnished to the effect that the co-operatives are carrying on business or are in operation.

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REGISTRAR OF CO-OPERATIVES

Office of the Registrar of Co-operatives Dti Campus 77 Meintjies Street **Pretoria** 0002

29.SIHLANGENE NUTRITIONAL SERVICES CO-OP LTD

Private Bag X237 **Pretoria** 0001

NO. 523 02 JUNE 2017

- By virtue of the powers vested in me in terms of the Special Economic Zones
 Act No. 16 of 2014 ("SEZ Act"), I, Dr Rob Davies, Minister of Trade and
 Industry, hereby give notice that
 - (a) the Maluti-a-Phofung Industrial Development Zone was declared an Industrial Development Zone (IDZ) (Notice No. 612 of 2015) by virtue of Regulation 3 of the Regulations (Government Gazette No. 21803 of 1 December 2000) made in terms of the Manufacturing Development Act No. 187 of 1993:
 - (b) section 39(2) of the Special Economic Zones Act No. 16 of 2014, provides as follows:
 - "(2) Any designation of an industrial development zone under the IDZ Regulations which is in force immediately before this Act comes into operation, remains in force and must be regarded as a designation of a Special Economic Zone under this Act."; and
 - (c) by virtue of the automatic legal effect of section 39(2) of the SEZ Act, the Maluti-a-Phofung Industrial Development Zone must, as from the date of commencement of the SEZ Act, be regarded as a Special Economic Zone under the SEZ Act.
- 2. THE LOCATION OF THE MALUTI-A-PHOFUNG SPECIAL ECONOMIC ZONE

A total land area of 1039.42 ha is hereby designated as the Maluti-a-Phofung SEZ. The SEZ land area consists of Precinct 1, 2 3 and 4. It is bordered on the North by the N5 coming from Harrismith to Bethlehem and by the Tshiame A

Township to the South. The site is approximately 8km west of the town of Harrismith.

Precinct 1, erfs 108-109, 111-119. 1/118, 120-122, 124, 125 and Farm no. 1878 of portion 8 of Randfontein, is bounded by the Wilge River and Precinct 2 to the West, by the S1150 Road to the South and by the N5 to the North and East.

Precinct 2, Farm no. 1878 of portion 8 of Randfontein, is bounded by the Wilge River and Precinct 1 to the East, by the S1150 Road to the South, by the N5 to North and by the Tshiame Sewer Treatment Plant to the West.

Precinct 3, erfs 17, 18, 32-106, 129 – 141 and Farm no. 1878 of portion 10 of Randfontein, is bounded by the Wilge River and Precinct 4 to the East, by the Khalinyoni Township and RE of the farm Randfontein 1880 portion 15 to the West, by the S1150 Road to the North and by the Tshiame A Township to the South.

Precinct 4, erfs 1 - 8, 10 - 16, 19 - 32, 126 - 128, 124, 1/128 and Farm no. 1878 of portion 9 of Randfontein, is bounded by the S1150 Road to the North, by the Wilge River to the West, by farm Randfontein 1878 portion 9 and the N5 to the East and by RE of the farm Randfontein 1878FP to the South.

A table listing the erf numbers is attached hereto as Annexure A and a map showing the boundaries of the Special Economic Zone is attached hereto as

Annexure B

Dr Rob Davies, MP

Minister of Trade and Industry

Date: 23/3/2017

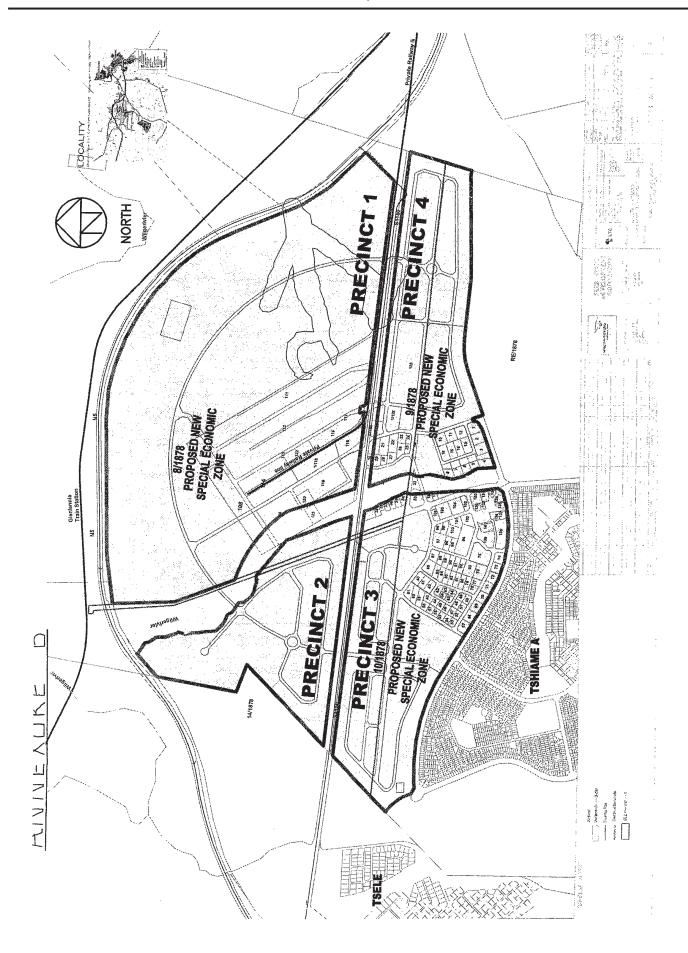
ANNEXURE A

<u>Precincts</u>	Stand	AREA (m2)	AREA (Ha)	COMPANY/
	Number			OWNER
200 / 100 /	108	90 912	9.0912	Free State
	108	30 312	3.0312	Development
				Cooperation (FDC)
	109	28 782	2.8782	FDC
	111	188 687	18.8687	FDC
	112	303 408	30.3408	FDC
	113	30 213	3.0213	FDC
	114	91 447	9.1447	FDC
	115	84	0.0084	FDC
Concrete entrant and a second second	116	46 636	4.6636	Jean Louis Lausberg
	117	15 443	1.5443	FDC
Particle Services	118	63 512	6.3512	FDC
Precinct 1	119	55 563	5.5563	FDC
	120	9 950	0.9950	FDC
	121	7 962	0.7962	FDC
	122	24 103	2.4103	FDC
	123	66 156	6.6156	FDC
	124	95 081	9.5081	FDC
	125	11 334	1.1334	FDC
	Part of Farm no.	4 159 368	415.9368	FDC
	1878 of portion 8			
	of Randfontein			
	Anne essential de la company de la compa	40.4		
Precinct 2	Part of Farm no.	1 197 602	119.7602	FDC
FIEGITION 2	1878 of portion 8			
Company of the Company	of Randfontein			
	A STATE OF THE PROPERTY OF THE PARTY OF THE	Maria de la companya	*************************************	
3 343 983	17	2 993	0.2993	FDC
	18	3 038	0.3038	FDC
	33	12 170	1.2170	FDC
44 and 44	34	5 110	0.5110	FDC
	35	3 661	0.3661	FDC
	36	3 521	0.3521	FDC
	37	3 837	0.3837	FDC
	38	2 134	0.2134	FDC
	39	3 339	0.3339	FDC
	40	5 615	0.5615	FDC
Precinct 3	41	5 665	0.5665	FDC
	42	5 443	0.5443	FDC
	43	4 682	0.4682	FDC
	44	3 250	0.3250	FDC
Precinct 3	45	3 250	0.3250	FDC
	46	3 250	0.3250	FDC
	47	3 600	0.3600	FDC
	48	f numb0.3400	0.3400	FDC

	49	3 162	0.3162	FDC
	50	3 599	0.3599	FDC
	51	3 400	0.3400	FDC
9	52	3 600	0.3600	FDC
	53	3 138	0.3138	FDC
300	54	3 250	0.3250	FDC
	54		0.3250	FDC
- 1. By	55	3 250		FDC
	56	3 250	0.3250	FDC
	57	3 250		FDC
	58	3 476	0.3476	
	59	6 430	0.6430	FDC
	60	6 387	0.6387	FDC
	61	6 172	0.6172	FDC
	62	3 585	0.3585	FDC
***	63	2 409	0.2409	FDC
100 mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/mg/m	64	2 748	0.2748	FDC
	65	2 819	0.2819	FDC
	66	2 427	0.2427	FDC
	67	7 261	0.7261	FDC
	68	7 531	0.7531	FDC
	69	6 816	0.6816	FDC
	70	6 818	0.6818	FDC
ing a second processor of the second	71	6 890	0.6890	FDC
	72	6 628	0.6628	FDC
	73	6 000	0.6000	FDC
	74	6 422	0.6422	FDC
D. State of the Control of the Contr	75	9 633	0.9633	FDC
	76	9 364	0.9364	FDC
and the state of the state of	77	3 786	0.3786	FDC
	78	4 122	0.4122	FDC
	79	4 875	0.4875	FDC
	80	4 837	0.4837	FDC
THE STREET, STREET	81	4 799	0.4799	FDC
	82	4 760	0.4760	FDC
	83	4 722	0.4722	FDC
estrology rest. Fig.	84	5 009	0.5009	FDC
	85	4 845	0.4845	FDC
TO THE STATE OF	86	8 429	0.8429	FDC
	87	5 743	0.5743	FDC
	88	4 271	0.4271	FDC
	89	4 707	0.4707	FDC
	90	4 722	0.4722	FDC
	01	4 760	0.4760	FDC
	91	4 799	0.4799	FDC
	92	9 713	0.9713	FDC
	93	23 614	2.3614	FDC
	94	4 950	0.4950	FDC
The second	95	4 950	0.4950	FDC
	96	10 178	1.0178	FDC
	97	3 587	0.3587	FDC
7 7 7 7	98	3 307	3,000,	

The state of the s	99	4 619	0.4619	FDC
	100	8 958	0.8958	FDC
	101	6 053	0.6053	FDC
	102	7 953	0.7953	FDC
	103	5 211	0.5211	FDC
	104	12 000	1.2000	FDC
rang and to the second second second second	105	12 000	1.2000	FDC
	106	4 370	0.4370	FDC
-	107 (Subdivided	96 689	9.6689	FDC
100	further into erven	30 003	3.0003	
	129, 130,			
	131,132, 133,			
	134, 135, 136,			
	137, 138, 139,			
4	140 & 141)			
	Farm no. 1878 of	1 378 952	137.8952	FDC
4 54 34 1	portion 10 of	1370332		
	Randfontein			
	Kanaronten		SAMES COMP	
740 48 498	1	8 167	0.8167	FDC
5141 777	2	8 403	0.8403	FDC
	3	8 401	0.8401	FDC
	4	12 717	1.2717	FDC
	5	7 935	0.7935	FDC
	6	8 482	0.8482	FDC
	7	9 028	0.9028	FDC
All III Common the Com	8	8 156	0.8156	FDC
NAME OF BUILDING ASSOCIATION	10	7 402	0.7402	FDC
	11	7 360	0.7360	FDC
	12	7 402	0.7402	Coclegg Rubber and
				Plastic Machinery
and the second s	13	7 950	0.7950	FDC
	14	7 125	0.7125	FDC
	15	7 125	0.7125	FDC
entral control of the	16	7 950	0.7950	FDC
9	19	4 015	0.4015	FDC
Precinct 4	20	9 352	0.9352	FDC
	21	10 266	1.0266	FDC
Precinct 4	· · · · · · · · · · · · · · · · · · ·	9 946	0.9946	FDC
	23	4 916	0.4916	FDC
	24	3 243	0.3243	FDC
	25	2 983	0.2983	FDC
	26	6 033	0.6033	FDC
	g = U		0.5085	FDC
	27	1 5 085	0.000	
	27	5 085 3 353	0.3353	FDC
	27 28 29	3 353		FDC
	27 28 29	3 353 5 263	0.3353	FDC FDC
	27 28 29 30 31	3 353	0.3353 0.5263	FDC FDC FDC
Predict 4	27 28 29 30 31	3 353 5 263 4 108	0.3353 0.5263 0.4108	FDC FDC

				Breifabriek CC
	127	553 648	55.3648	FDC
10 m	128	9 742	0.9742	FDC
	Farm no. 1878 of	719 413	71.9413	FDC
	portion 9 of			
	Randfontein			



GENERAL NOTICES • ALGEMENE KENNISGEWINGS

DEPARTMENT OF ENVIRONMENTAL AFFAIRS NOTICE 423 OF 2017

NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT, 2004 (ACT NO. 10 OF 2004)

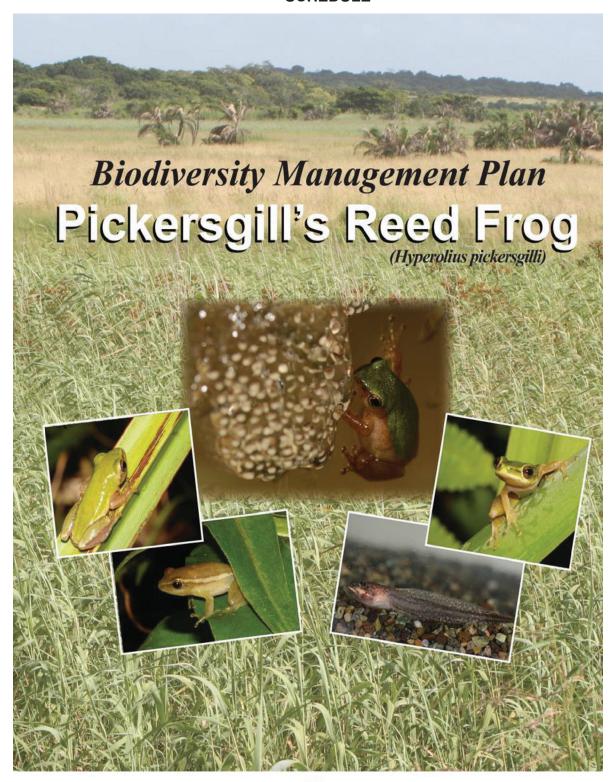
BIODIVERSITY MANAGEMENT PLAN FOR PICKERSGILL'S REED FROG (HYPEROLIUS PICKERGILLI)

I, Bomo Edith Edna Molewa, Minister of Environmental Affairs, hereby, in terms of section 43(3) read with section 43(1) of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004), publish the approved Biodiversity Management Plan for Pickersgill's Reed Frog (*Hyperolius Pickergilli*) in the Schedule hereto, for implementation.

BOMO EDITH EDNA MOLEWA

MINISTER OF ENVIRONMENTAL AFFAIRS

SCHEDULE









FOR PICKERSGILL'S REED FROG

HYPEROLIUS PICKERSGILLI



A male Pickersgill's Reed Frog, Hyperolius pickersgilli



A female Pickersgill's Reed Frog, *Hyperolius pickersgilli* **Authors: Jeanne Tarrant¹ & Adrian Armstrong²**

¹ Endangered Wildlife Trust, Threatened Amphibian Programme

² Ezemvelo KZN Wildlife, Scientific Services Division

Lead Agent: Ezemvelo KZN Wildlife

Supporting Implementing Agent: Endangered Wildlife Trust

FINAL DRAFT: Version 9, 30 January 2017 Photo credits: Nick Evans, Carl Schloms

EXECUTIVE SUMMARY

The integral roles amphibians play is of significant importance in most ecosystems. Despite them often going unnoticed, amphibians comprise the bulk of terrestrial vertebrate biomass in temperate and tropical environments. As prey, amphibians (adults and larvae) are important protein sources for numerous invertebrates, reptiles, birds, mammals, and other amphibian species. Currently, amphibians are globally the most threatened Class of vertebrates, with approximately one third of all known species currently Red Listed by the IUCN. This situation is reflected in South Africa, with 30% of the country's frog species currently listed under a threatened category. South Africa is ranked fourth in terms of number of Threatened amphibian species in the Afrotropical realm. Overall, 43% of South African frog species are endemic to the country. Of these, 35% are in a threatened category and all but one of the threatened species are endemics. Despite this, southern Africa has a rich diversity of amphibians with 160 known species. The highest species richness for frogs occurs in KwaZulu-Natal, an area that has been recognised as being important for both frog endemism and having high levels of human activity, particularly in the coastal regions.

Pickersgill's Reed Frog, *Hyperolius pickersgilli*, is a small frog known only from limited and highly fragmented coastal wetland habitat in the KwaZulu-Natal Province of South Africa. The species has been prioritised for conservation action due to its Red List status, endemism and ongoing deterioration in and loss of habitat. The species was recently downlisted from globally Critically Endangered to Endangered B1ab(ii,iii)+2ab(ii,iii) ver. 3.1¹ by the IUCN. It is listed as Endangered because its extent of occurrence (EOO) is 4,768 km², area of occupancy (AOO) is 12 km², its distribution is severely fragmented, and there is continuing decline in its AOO and the extent and quality of habitat. Species assigned to this status are defined as facing a very high risk of extinction in the wild (IUCN 2012).

Section 9 of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA) provides for the issuing of national norms and standards for the management and conservation of South Africa's biodiversity and its components. To this effect, the Department of Environmental Affairs (DEA) developed the Norms and Standards for the Development of BMP for Species (BMP-S), which were gazetted in March 2009 (Department of Environmental Affairs and Tourism 2009). The purpose of these norms and standards is to provide a national approach and minimum standards for the development of a BMP-S.

Hyperolius pickersgilli is endemic to a narrow and extremely fragmented range within about 16 km of the KwaZulu-Natal coastline, where as of February 2016, it is known from approximately 24 localities. Twenty of these sites (i.e. 90%) are not officially protected and are experiencing ongoing decline in habitat quality and some even face the threat of complete elimination as a result of industrial development. Reported threats include:

- Habitat loss as a result of wetland drainage or destruction for agricultural, urban and industrial development.
- Severe habitat fragmentation and small, isolated sub-populations.
- Alien vegetation and afforestation resulting in drying out of breeding sites.
- Pollution from pesticides and other contaminants.

Without concerted proactive conservation intervention in the near future, it is highly likely that *H. pickersgilli* will become extinct. A BMP-S for *H. pickersgilli* is therefore warranted to formalise urgent, targeted conservation action for the species. Given that the majority of sites occur on privately or commercially-owned land, the participation of all relevant stakeholders in the management of habitat for the long-term protection of *H. pickersgilli* is crucial. There are at least 15 different stakeholder groups that are well placed to influence the long-term future of *H. pickersgilli*.

The BMP-S process so far has included over 40 representatives from these role-player groups, and has prioritised a set of threats and corresponding actions toward achieving the overall aim and objectives of the BMP-S. The overall aim of

¹ http://www.iucnredlist.org/details/10644/0

the BMP-S for *H. pickersgilli* is to improve the conservation status of *Hyperolius pickersgilli* and secure its survival in perpetuity in the wild. The aim will be achieved through the following objectives:

Improve the conservation status of *H. pickersgilli*, ultimately to Least Concern, and improve its protection as part of meeting international biodiversity objectives (i.e. Aichi targets) through applied conservation action.

- Create and maintain an enabling environment for relevant stakeholders, including private land-owners, to carry out appropriate management actions required for the survival of subpopulations and maintain or improve necessary ecological processes.
- 2. Prioritise the protection and appropriate management of key habitats for H. pickersgilli in relation to the scale and imminence of potential impact from urban or industrial development, with the additional objectives of:
 - a. reducing habitat fragmentation and improve gene flow through creation of linkages or corridors,
 - b. identifying potential sites for offsets involving H. pickersgilli, and
 - c. researching relocation and habitat rehabilitation or restoration requirements of H. pickersgilli and developing guidelines for the implementation of these processes.
- 3. Implement habitat protection and management activities through land-owner agreements, including but not limited to biodiversity stewardship, to curb habitat degradation caused by agricultural activities and water usage, and to secure sites to mitigate against the potential impacts of climate change.
- 4. Identify and conduct research to generate knowledge and provide information relevant to conservation management requirements, both in situ and ex situ, implement population monitoring protocols, and ensure that these data inform and are applied in the overall conservation process.
- 5. Develop educational and awareness campaigns to improve public knowledge about H. pickersgilli and the importance of its ecosystem.

The specificity of the operational goals and actions that are captured under the objectives is required to ensure that progress with implementation of the BMP-S can be tracked and those to whom responsibilities have been allocated can hold each other accountable for delivery.

This is the fourth draft of the document produced as a result of the workshop held on 5-6 September 2013 and based on comments received from relevant stakeholders and interested parties thereafter. This BMP-S for *H. pickersgilli* will be subject to iterations brought about through realistic and relevant management dynamics. As such, it is important that those responsible for the implementation of this BMP-S recognise the need for and apply active adaptive management where necessary.

DEFINITIONS

- "Breeding site" means the wetland habitat used by *Hyperolius pickersgilli* for breeding activities including calling, mating, egg-laying and tadpole development and metamorphosis.
- "Dispersal" means the movement of individuals from one breeding site to another or to non-breeding sites, typically involving the juveniles once they have developed sufficiently to move away from the breeding site.
- "Ex situ" conservation" means the conservation of wild organisms, in this case Hyperolius pickersgilli, and/or its genetic resources off-site or outside of their natural habitats.
- "Non-breeding site" means the terrestrial habitat surrounding wetland areas used by frogs during the non-breeding season. This is typically any area within about a 2 km radius of a known breeding site.
- "In-situ conservation" means the conservation of Pickersgill's Reed Frog in the wild through the conservation of ecosystems and habitats natural to *Hyperolius pickersgilli*, and the maintenance of viable populations or recovery to viability of populations of the species in their natural surroundings.
- "IUCN Red Data List" means the global list providing information on a species' risk of extinction (usually by taxonomic group) prepared under the auspices of the International Union for Conservation of Nature.
- "Migration" means the movement of frogs to and from breeding sites, usually referring to adults moving to breeding sites from over-wintering sites at the commencement of the breeding season and returning to over-wintering sites after the breeding season.
- "Role player" means a natural or juristic person who has a direct role to play in the implementation of the Biodiversity Management Plan for the species and whose role is captured in the Biodiversity Management Plan.
- "Stakeholder" means a natural or juristic person that has an interest in, or may be affected by, a particular obligation or decision or activity, relating to or resulting from a management plan, either as individuals or representatives of a group, and include landowners where appropriate.
- "Species" means a kind of animal, plant or other organism that does not normally interbreed with individuals of another kind, and includes any sub-species, cultivar, variety, geographic race, strain, and hybrid or geographically separate population.
- "Threat" means any action that causes a decline in and compromises the future survival of one or more populations a species or anything that has a detrimental effect on the species, most often human-induced. This BMP-S is focused on mitigating human-induced threats to *H. pickersgilli*.
- "Tadpole" means the larval, usually aquatic, phase of frogs, occurring between the egg and adult phases.
- "Viable" in relation to a species or population means the ability to survive or persist and develop or multiply over multiple generations or in perpetuity.

ABBREVIATIONS

ACAP Amphibian Conservation Action Plan

AACRG African Amphibian Conservation Research Group

ACSA Airports Company South Africa

AOO Area of Occupancy

APP African Preservation Programme of PAAZAB

BGIS Biodiversity Geographical Information System, SANBI

BMP-S Biodiversity Management Plan for Species

COGTA Department of Co-operative Governance and Traditional Affairs

DAEA Department of Agriculture and Environmental Affairs (Provincial - KZN)

DEA Department of Environmental Affairs (National)

DDOP Durban Dig Out Port (Transnet project for new port)

DWA Department of Water Affairs (National)
EIA Environmental Impact Assessment

EOO Extent of Occurrence
EMA eThekwini Municipal Area
EN IUCN listing as Endangered
EWT Endangered Wildlife Trust
EZEMVELO Ezemvelo KZN Wildlife

Jhb ZOO Johannesburg City Parks and Zoo
IDP Integrated Development Plan (Municipal)
IUCN International Union for Conservation of Nature

KZN KwaZulu-Natal Province

LUMS Land Use Management System (Municipal)

Masl Meters above sea-level

NFEPA National Freshwater Ecosystem Priority Areas

NEMBA National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NEMPAA National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)

NRM Natural Resource Management (DEA)

NWU North-West University, Potchefstroom Campus
NZG National Zoological Gardens of South Africa
PAAZA African Association of Zoos and Aquaria
SANBI South African National Biodiversity Institute

SASA South African Sugar Association SCP Systematic Conservation Plan

SDF Spatial Development Framework (Municipal)
SSC Species Survival Commission of the IUCN
ToPS Threatened or Protected Species List of NEMBA
WESSA Wildlife and Environment Society of South Africa

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All representatives listed in section 2.3 and the appendices are thanked for their contribution to the process of compiling this Biodiversity Management Plan for *Hyperolius pickersgilli* by attending the BMP-S development workshop held in September 2013, and for commenting on subsequent draft versions of this BMP-S. All are thanked for their commitment to seeing this plan becoming reality. Pamela Kershaw and Humbu Mafumo of the Conservation Management Department of Environmental Affairs are thanked for their guidance throughout the process; Dr Harriet Davies-Mostert of the Endangered Wildlife Trust seamlessly facilitated the stakeholder workshop held at Simbithi Country Club, Salt Rock, KwaZulu-Natal in September 2013; Mea Trenor and Nick Evans kindly assisted in setting up the workshop, and Mea also took the minutes of the workshop (Appendix B). Presentations at the workshop were given by Adrian Armstrong, the late Ian Visser, Jeanne Tarrant and Pamela Kershaw. Mike O'Donaghue kindly assisted in organising the outing to the Simbithi wetlands during the workshop to search for *H. pickersgilli* and other species. Ian Visser is acknowledged here posthumously for the instrumental role he played in ensuring that this species be the first threatened South African frog to be brought into a captive breeding programme following the outcomes of the Amphibian Arc workshop held at Johannesburg Zoo in April 2008.

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1. INTRODUCTION

1.1 Why Hyperolius pickersgilli requires a Biodiversity Management Plan

Pickersgill's Reed Frog, *Hyperolius pickersgilli*, is listed by the IUCN as Endangered due to its limited and severely fragmented distribution. It occurs within a region that has been, and continues to be, heavily impacted by anthropogenic transformation including for urban, agricultural and industrial development. Surveys conducted between 2009 and 2015 have revealed several new localities for the species, but also that at least seven of the historically known sites for the species have been destroyed, bringing the total number of localities at which it is known to occur to 28. However, two of these populations occur in statutory Protected Areas, namely the iSimangaliso Wetland Park World Heritage Site and the Umlalazi Nature Reserve, while the remainder are all experiencing a decline in the quality of habitat or face imminent threat from mining or industrial development. The protected sites themselves are not specifically managed for the frog, and may face some threats, while those occurring on privately owned or communal land receive even less attention in terms of habitat management.

Considering the Endangered status of this species, the relevant legislation for amphibian conservation, and the multiple role players involved with the conservation and management of the species, it is deemed essential that a comprehensive management plan that captures the linkages between the various role players and their responsibilities is compiled to secure the future of *H. pickersgilli in situ*. An important component of the conservation of *H. pickersgilli* needs to take place in the *ex situ* environment and this plan also highlights these requirements.

1.2 The Aim and Objectives of the Biodiversity Management Plan

The BMP-S for *H. pickersgilli* requires the input from representative stakeholder groups to be successful. NEMBA specifies that all BMPs need to be revised after five years. This plan will thus be the first in a series of five-year iterations where the success of the preceding five years will be measured, and adaptations made to ensure that the plan for the following five years is appropriate for the circumstances at the time.

The overall aim of this management plan is:

To improve the conservation status of *Hyperolius pickersgilli* and secure its survival in the wild in perpetuity.

In order to achieve this, a number of objectives have been compiled as follows:

Improve the conservation status of *H. pickersgilli*, ultimately to Least Concern, and improve its protection as part of meeting international biodiversity objectives (i.e. Aichi targets) through applied conservation action.

- Create and maintain an enabling environment for relevant stakeholders, including private land-owners, to carry
 out appropriate management actions required for the survival of subpopulations and maintain or improve
 necessary ecological processes.
- 2. Prioritise the protection and appropriate management of key habitats for H. pickersgilli in relation to the scale and imminence of potential impact from urban or industrial development, with the additional objectives of:
 - a. reducing habitat fragmentation and improve gene flow through creation of linkages or corridors,
 - b. identifying potential sites for offsets involving H. pickersgilli, and
 - c. researching relocation and habitat rehabilitation or restoration requirements of H. pickersgilli and developing guidelines for the implementation of these processes.
- 3. Implement habitat protection and management activities through land-owner agreements, including but not limited to biodiversity stewardship, to curb habitat degradation caused by agricultural activities and water usage, and to secure sites to mitigate against the potential impacts of climate change.

- 4. Identify and conduct research to generate knowledge and provide information relevant to conservation management requirements, both in situ and ex situ, implement population monitoring protocols, and ensure that these data inform and are applied in the overall conservation process.
- 5. Develop educational and awareness campaigns to improve public knowledge about H. pickersgilli and the importance of its ecosystem.

1.3 Biodiversity Justification

Amphibians are the most threatened group of vertebrates on Earth, with 32% of species currently listed as threatened (Critically Endangered, Endangered or Vulnerable) (IUCN 2012). In South Africa, 29% of frog species fall under the IUCN categories Critically Endangered, Endangered or Vulnerable (SA-FRoG 2010; Measey 2011). The KwaZulu-Natal coast hosts the highest species richness for frogs in the country (Measey 2011). Global amphibian declines and those in South Africa are primarily caused by loss of habitat. A decline in populations of *H. pickersgilli* is indicative of a loss of coastal wetlands, which provide important ecosystem services, including provision of habitat for a vast array of species, water purification and flood attenuation. These services will become increasingly important in the face of climate change.

Frogs in general, including *H. pickersgilli*, are important for the following reasons:

- Amphibians are an extremely diverse Class of vertebrates, comprised of three Orders and including over 7,450 species (as of September 2015), of which 6,565 are Anura (frogs and toads), 680 are Caudata (newts and salamanders), and 205 are Gymnophiona (caecilians). The numbers of species have grown rapidly. Since 1985 the total number of recognized species has increased by over 60%.
- Amphibians evolved approximately 310 to 300 million years ago. During the late Carboniferous and early
 Permian periods amphibians were the dominant land animals on earth. Amphibians (which include frogs, toads,
 salamanders, newts and caecilians) are believed to have radiated from a common ancestor that lived in the
 middle Permian or early Triassic periods. The lifecycle of frogs represents the evolution of life from primarily
 water-based to the invasion of land. Amphibians therefore have considerable evolutionary significance.
- They have important integral roles in most ecosystems because they are often the most abundant wetland and terrestrial vertebrates in terms of biomass in temperate and tropical environments. Such abundance is linked to the role of both adults and larvae as primary predators in both the terrestrial and aquatic environments.
- Tadpoles are usually aquatic and are consumers of primary production in the form of algae (periphyton and phytoplankton), and by doing so, assist in keeping waterways clean.
- Adults consume vast quantities of small invertebrates (mostly insects), many of which are not available to other
 vertebrate groups. For example, individuals of many species are known to prey on hundreds of flies and
 mosquitoes in a single night. Accordingly, amphibians are important bio-control agents for insects that cause
 problems for agriculture and insects such as flies and mosquitoes that may carry diseases that are
 transmittable to humans.
- They connect the aquatic and terrestrial environments. As prey, both adults and tadpoles are important protein sources and nutrient vectors for numerous species of invertebrates, reptiles, birds, mammals, other amphibians, and some humans.
- They are bio-indicators because they have a number of physiological, ecological and life-history characteristics that make them sensitive to changes in the environment. Most species make use of both the aquatic and

terrestrial environments during their lifecycles, and as a result, are sensitive to changes in both systems caused by intense human activities or use.

- They are considered good indicators of environmental health and the state of the biosphere as a whole due to their biphasic lifestyle and their sensitive semi-permeable skins.
- They are particularly sensitive to habitat fragmentation and are vulnerable to the changes brought about through habitat transformation owing to their limited dispersal distances.
- Based on the proportion of amphibian species currently threatened with extinction, the magnitude of the
 potential loss of amphibians is significant and will undoubtedly have a multiplier effect, ultimately contributing to
 declines and extinctions of other species which rely on them.
- They have social, cultural and religious importance in addition to them being an important source of protein for people in many parts of the world. Some cultures have held them in the highest regard as keepers of rain or agents of fertility and good luck. Others have persecuted them, regarding them as evil. Either way, amphibians have featured large in the folklore of many societies. Amphibians have aesthetic value and play an important role in education about biodiversity, especially in increasingly urban environments. Their fascinating life-cycle is an often-used educational tool at school level. The medicinal properties derived from amphibians have also long been recognised by humans and amphibians are used extensively in traditional medicine for treatments of ailments as varied as warts and heart disease.
- The use of amphibian products for western medicine has gained increased attention. One of the first such medical uses was for pregnancy testing, for which the African clawed frog Xenopus laevis was used extensively. Amphibian skin secretions (predominantly peptides and alkaloids) harbour a diversity of defensive biological compounds, which provide immunity against infections, viruses and bacteria. Peptides isolated from amphibian skin are showing pharmacological promise as antibiotics and analgesics. Current active fields of research include the investigation of frog skin peptides to block HIV transmission and inhibit growth of chytrid zoospores. Loss of species could thus mean the inadvertent loss of potential cures for important diseases.
- The loss of biodiversity in general does not bode well for human well-being considering our dependence on ecosystem goods and services, such as clean water, pollination, food, medicines and building materials. However, the general public remains largely apathetic to or ignorant of the plight of amphibians and their importance. This is particularly relevant in South Africa where various superstitious beliefs and fears lead some people to see frogs in a negative light. Overcoming this apathy or ignorance through education and raised awareness is necessary for improving the support (and hence effectiveness) of amphibian conservation efforts.

1.4 Benefits of the Biodiversity Management Plan

A major benefit of the BMP-S will be to obtain the support of owners, managers and occupiers of land on which *H. pickersgilli* occurs for the implementation of conservation actions. This should ensure the species does not go extinct and instead becomes less threatened over time, eventually obtaining the status of Least Concern. BMPs allow for conservation management plans to be legally gazetted under South African policy in terms of NEMBA. This will facilitate the attainment of the aims of the plan because the support of the government and the support of the role-players and stakeholders will be ensured. Participation of such a broad range of stakeholders (see 2.3 below) is imperative for ensuring the success of the BMP-S process.

A BMP-S for *H. pickersgilli* is necessary owing to its Endangered Red List status and endemicity to the KwaZulu-Natal Province, the inadequate protection of its wetland habitat, and the necessity for the involvement of multiple stakeholders

to ensure its conservation. Despite the recognised ecological value and services provided by wetlands, coastal wetlands in KwaZulu-Natal remain under tremendous pressure from urban, agricultural and industrial development and are generally not prioritised for concise management plans.

Using *H. pickersgilli* as a flagship species to prioritise such wetland areas, this BMP-S will allow for improved management of this habitat, which itself is Critically Endangered Indian Ocean Coastalbelt Wetland. Many of these wetlands fall within the National Freshwater Ecosystem Priority Areas (NFEPAs), which also made use of occurrences of threatened frog species to prioritise wetlands. As a result of lack of management, most of the sites at which *H. pickersgilli* occurs are in an ongoing state of degradation and require implementation of management practices including:

- removal of alien invasive vegetation;
- the prevention of new pioneer invasions;
- upstream management;
- improved buffer-zone management;
- appropriate management of fire regimes;
- · implementation of species monitoring at selected sites; and
- wetland rehabilitation or restoration where necessary.

These wetland areas represent floodplains that provide crucial ecosystem services such as flood attenuation and water filtration. Furthermore, many of the wetland areas concerned are surrounded by high densities of people and are as such impacted by human activity as well as encroachment of alien invasive vegetation.

Hyperolius pickersgilli has also been prioritised for captive (ex-situ) breeding, and is the first threatened amphibian species for which such a programme has been initiated in South Africa. This BMP-S will help to ensure that this process is co-ordinated and that communication between the various ex-situ partners is facilitated for exchange of learning and success toward the ultimate aim of re-introducing captive-bred individuals back into the wild to secure habitat.

1.5 Anticipated Outcomes

The overall anticipated outcome of the BMP will be the assured persistence of *H. pickersgilli* in perpetuity. This overall outcome can be broken down into the following anticipated outcomes:

- 1. Clear management goals and time-frames for their achievement.
- 2. Key role players and stakeholders identified.
- 3. Acceptance and support of the BMPs by stakeholders.
- 4. Clarity and acceptance of roles and responsibilities by stakeholders and role players.
- 5. A plan that comprehensively and concisely covers all aspects related to the conservation requirements of *H. pickersgilli* and provides realistic targets for the five years of this iteration.
- Identification of key performance indicators that could be used to assess the progress toward defined goals.
- 7. Improvement of wetland functionality for priority coastal wetlands through implementation of management practices.
- 8. Improvement in the long-term survival of an Endangered endemic species, *H. pickersgilli*, which is unique to the KwaZulu-Natal coast and is representative of these important habitats.
- 9. Guidance for *ex-situ* conservation efforts for the species, with the ultimate goal of re-introducing individuals to secure habitat in the wild.
- 10. All relevant information concerning captive breeding efforts will be accurately recorded in a studbook to ensure that the genetic integrity of the natural populations is not compromised.
 - 11. Opportunities for job creation, capacity building and education for local community members living in the vicinity of these key wetland areas.

2. BACKGROUND

2.1 Conservation status and legislative context

Hyperolius pickersgilli has been listed as Endangered B1ab(ii,iii)+2ab(ii,iii) ver 3.1 (IUCN 2016).) due to:

- its' very small area of occupancy (9km² as of the 2009 assessment);
- the severe fragmentation of its habitat, and;
- the continuing decline in the area of occupancy, extent and quality of habitat, and number of locations.

Go to http://www.iucnredlist.org/details/10644/0 for the IUCN account (accessed 30 January 2017). Currently there is no specific legal protection for the species. While *H. pickersgilli* was provisionally listed for the Threatened or Protected Species list in 2014, it was removed because it is primarily threatened by habitat destruction. Due to its Endangered status, the species is increasingly included in the EIA process for proposed developments in KwaZulu-Natal through inclusion of mapped Critical Biodiversity Areas in municipal conservation plans or through provincial conservation legislation. Through this BMP-S, the improved legal protection of *H. pickersgilli* should be achieved.

Although *H. pickersgilli* is a species of importance in KwaZulu-Natal (Goodman 2000), only two populations are known from formally protected areas, and the need to identify and protect remaining breeding *H. pickersgilli* habitats is crucial. The species has been prioritised for conservation research (Measey 2011) and is also the first threatened frog species in South Africa to be used in a captive breeding program (Visser 2011).

Section 43 of NEMBA provides for the drafting of a Biodiversity Management Plan (BMP) for an indigenous species listed in terms of section 56 of the Act or for an indigenous species which is not listed in terms of section 56 but which does warrant special conservation attention. Section 9 of NEMBA provides for national norms and standards for the management and conservation of South Africa's biodiversity and its components. To this effect, the DEA developed the Norms and Standards for the development of a BMP for Species (BMP-S), which were gazetted in March 2009. The purpose of these norms and standards is to provide a national approach and minimum standards for the development of the BMP-S. Without concerted proactive conservation intervention in the near future to it is likely that *H. pickersgilli* will face extinction. A BMP for this species is therefore warranted.

2.2 Information pertinent to the Management of Hyperolius pickersgilli

2.2.1 Taxonomic Description

The species was described by Raw in 1982 and is named after the herpetologist Martin Pickersgill, who discovered the species at Mount Edgecombe in 1978. The type locality is Avoca, Durban. Both of these historical sites no longer exist as a result of extensive urban development and wetland drainage.

Taxonomy:

Class: Amphibia Order: Anura Family: Hyperoliidae

Family: Hyperoliidae Genus: Hyperolius

Species: pickersgilli (Raw, 1982)

Common Name: Pickersgill's Reed Frog

Synonyms: None

Hyperolius pickersgilli is a small (body length ≤29 mm) reed frog with variable colouration (Raw 1982). Males and juveniles are usually brown in colour and are characterised by having a dark-edged light dorso-lateral band running from the snout to the hind quarters on each side (du Preez & Carruthers 2009). The throat of males is dark yellow. Females are usually more uniform in colour, often bright green, and lack the dorso-lateral stripe. The underside is smooth and pale and the concealed body surfaces (inner thighs, toes and fingers) lack pigmentation. The snout extends only just beyond the nostrils and is slightly pointed. The call of the male is a soft insect-like chirp issued intermittently (Bishop 2004). The behaviour and call of this species are cryptic, often making it difficult to detect even when present.

2.2.2 Distribution and Population Status

Hyperolius pickersgilli is endemic to a narrow strip along the coast of KwaZulu-Natal (Figure 1a). Following extensive surveying between 2008 and 2015 the species is currently (as of February 2016) known from 24 isolated sites between St Lucia in the north and Sezela in the south (Tarrant & Armstrong 2013; Figure 1b; pers. obs.; Ezemvelo Biodiversity Database). Only two of these sites occur within statutory protected areas (iSimangaliso Wetland Park World Heritage Site and Umlalazi Nature Reserve) (Bishop 2004). Known localities for the species are within 16 km of the coast and up to an elevation of 380 m a.s.l.). For the 2010 Red List assessment, the area of occupancy (AOO) for *H. pickersgilli* was estimated at only 9 km² and the extent of occurrence (EOO) is 2,303 km² (Measey 2011).

The national population trend of *H. pickersgilli* is reported as declining in the most recent IUCN Red List assessment (SA-FRoG 2010). The spatial distribution of this species is considered to be severely fragmented as more than half the number of individuals are thought to occur in small, isolated patches and many of the subpopulations are considered non-viable in the long-term (Measey 2011). The overall population size of *H. pickersgilli* is currently unknown. In this regard, research is still required to determine the total population size in terms of abundance of individuals. A population estimate method based on call surveys has been tested at two sites between 2011 and 2014. A conservative estimate at Froggy Pond, Mount Moreland estimates the number of adults (male and female) at approximately 2000 individuals, and at Prospecton at approximately 2800 individuals across three wetlands. Long-term monitoring protocols for this species are due to be implemented in the summer of 2013-2014 and continued for at least the next twenty years in order to determine trends in population size and extent of occurrence.

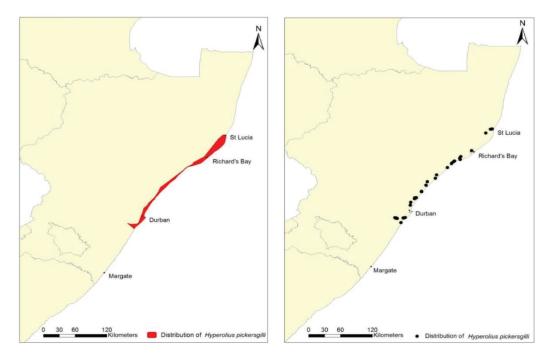


Figure 1 (a): Range of Pickersgill's Reed Frog along the KZN coast, (b) known localities

2.2.3 Life History

Males call from dusk until the early hours of the morning (pers. obs.). The behaviour and call of this species are cryptic, often making it difficult to detect even when present. Breeding takes place in well-concealed vegetation. Out of the breeding season the species can move up to 2 km from breeding sites for foraging and over-wintering (J. Harvey pers. comm., A. Wilken pers. comm.). Additional research is necessary to understand the breeding biology and ecological requirements of this species. It is thought not to occur within the same vicinity as the abundant *Hyperolius marmoratus* (Bishop 2004), although this may be as a result of inability to detect the species' call when other species are chorusing loudly (Tarrant, pers. obs. 2012). The behaviour and call of this species are cryptic, often making it difficult to detect even when present.

2.2.4 Population Genetics

Until recently, little was known about the population genetic structure of *H. pickersgilli*. A study currently being conducted by the EWT, NZG and NWU is investigating the impact of fragmentation on genetic diversity, gene flow and genetic status within and between isolated populations. A total of 54 samples collected from 12 sites between 2011 and 2014 were analysed using mitochondrial DNA sequencing (16S and COI) and microsatellite genotyping. Initial results indicate that there is good gene flow and high genetic diversity between populations, but that additional sampling is required to determine structures within populations (Dalton et. al. 2015). In addition, the genetic variation of the captive population will be monitored to ensure optimal genetic health.

2.2.5 Habitat Requirements

The species is a habitat specialist requiring perennial wetlands comprised of very dense reed beds in Coastal Bushveld-Grassveld (Mucina & Rutherford 2006) at low altitudes (Raw 1982; Armstrong 2001; Bishop 2004). It requires an understudy of thick vegetation, such as Snakeroot (*Persicaria attenuata*), from which males call and taller broad-leaved vegetation, including the Common Reed (*Phragmites australis*), Bulrushes (*Typha capensis*), and sedges (including

Cyperus dives, C. latifolius and C. papyrus) on which to lay its eggs (Raw 1982; Bowman 2011; Tarrant & Armstrong 2013, pers. obs.). The wetlands inhabited by H. pickersgilli should not be regularly burnt so that a layer of moribund vegetation forms over the water surface. The species requires perennial standing water of between about 20 and 60 cm in depth. Additional in-depth research into habitat requirements for H. pickersgilli is necessary in the light of proposed biodiversity offsets and potential translocation projects.

2.2.6 Threats

Less than 1% of this species range is currently estimated to fall within protected areas (Armstrong 2001). As such, protection of the species at the remaining unprotected sites is critical. The species is threatened primarily by habitat loss caused by urbanisation, afforestation and drainage for agricultural and urban development (Measey 2011). Many of the historically known sites have been eliminated by either sugar cane or eucalyptus plantations, which directly impact on breeding habitat through wetland drainage and planting within wetland buffers, and which cause a drying out of wetland areas (Johnson & Raw 1987; Bishop 2004b). Pollution of breeding sites by DDT during malaria control seasons and encroachment of alien vegetation have also been identified as threats to the species (SA-FRoG 2010). The remaining subpopulations are small and severely fragmented and are thus subject to loss of genetic diversity through genetic drift and inbreeding, which may be reflected in lowered larval fitness, ultimately resulting in local extinction (Hitchings & Beebee 1997). Fragmentation of habitat may lead to barriers to movement so that metamorphs and adults cannot safely disperse from the breeding wetland to other suitable wetlands and to foraging and over-wintering habitat.

A number of potential threats face *H. pickersgilli* in the two statutory protected areas in which it is known to occur. At Umlalazi Nature Reserve, reeds (*Phragmites australis* and *Juncus kraussii*) are harvested in May from the wetland for use by local communities. This wetland also serves as the outlet and filtration system for sewage from internal infrastructure and the regular sewerage overflow from the Mtunzini sewerage facility. This has been identified as an increasing problem and the BMP-S will assist in addressing the issue. Potential impacts resulting from the rejoining of the Umfolozi River to the St. Lucia estuary in the iSimangaliso Wetland Park are unknown at present and the population there needs to be monitored.

2.2.7 Utilisation

Hyperolius pickersgilli is not known to be utilised directly by humans in any way.

2.2.8 Past and Current Conservation Measures

Following a period in which little research was done on *H. pickersgilli*, recent years have seen increasing research attention being paid to this threatened species. Such research will benefit conservation actions through its application. Recent research projects have included surveys of distribution and development of a predictive model to guide additional surveys (Tarrant & Armstrong 2013), and a study done on the potential impact of noise from airplanes landing at King Shaka International Airport on the Mount Moreland population (Kruger & Du Preez 2016).

At the Amphibian Species Prioritisation Workshop held in Johannesburg in 2008, *H. pickersgilli* was identified as a species requiring *ex situ* rescue and supplementation. An *ex situ* breeding programme was initiated by the Johannesburg Zoo in January 2012 with the collection of 30 individuals from two sites (Mount Moreland and Isipingo) within the eThekwini Municipal Area (EMA). All individuals have survived to date and some initial breeding success occurred during the 2012/2013 summer, with 6 offspring surviving to date (the others only dying because of maintenance catastrophes; I. Visser, pers. comm. 2013). Other *ex situ* facilities were identified for participation in a coordinated APP (African Preservation Programme of PAAZAB). These include the NZG in Pretoria and uShaka Marine World, Durban. The first aim of the *ex situ* breeding programme is to develop correct husbandry practices for the species. Ultimately the

goal is to have the ex situ component contributing to the overall conservation of the species through supplementation and establishing viable populations in the wild.

In situ research initiated by NWU in 2008 on *H. pickersgilli* coincided with the prioritisation of the species for *ex situ* work. Through collaboration between NWU, Ezemvelo, Jhb Zoo, NZG, PAAZAB and uShaka, the process of bringing the species into captivity was realised in 2012 (initially at Jhb Zoo and followed thereafter by NZG and most recently at uShaka). As a continuation of the NWU research, The Endangered Wildlife Trust's Threatened Amphibian Programme (EWT-TAP) was initiated and the programme has included *H. pickersgilli* as a priority species for conservation action. In 2016, the EWT-TAP commenced implementation of a Natural Resources Management Project through funding from DEA at four wetland areas for *H. pickersgilli* in the Greater Durban area, namely Widenham (Umkomaas), Adam's Mission, Isipingo and Mount Moreland. The project is primarily aimed at removal of alien invasive vegetation from these sites as well as restoration by replanting indigenous vegetation. In collaboration with the above organisations, the EWT-TAP Pickersgill's Reed Frog Recovery Project is currently working toward the following overall objectives:

Table 1: Conservation objectives of the Endangered Wildlife Trust's Threatened Amphibian Programme

Objective	Key Outputs	Progress to date (July 2016)
1. Develop a Biodiversity Management Plan (BMP-S) for <i>H. pickersgilli</i> to guide management plans by the end of 2015	A gazetted BMP-S by the end of 2016.	Gazettal is on track for end of 2016, Ezemvelo, EWT and DEA.
2. Develop and implement a standardized long-term monitoring protocol at selected sites to ascertain population demographics, and improve understanding of threats to populations and responses of populations to management interventions by 2014.	Monitoring and surveillance protocols for KZN's threatened frog species are in place by the end of 2014. Data is captured in the EWT Biodiversity Database as well as the Ezemvelo KZN Wildlife Biodiversity Database.	On track – the protocol was initiated in 2013 and has been tested at several sites during the breeding seasons of 2013/14, 2014/15 and 2015/16. An ongoing study through NWU using automated recorders is also on track at three sites for which baseline data has been collected in 2015/16 to gauge responses against management interventions (alien clearing).
3. Secure at least 30% of the total known range for <i>H. pickersgilli</i> in the next 3 years through land-owner agreements and habitat management including, but not limited to, Biodiversity Stewardship over the next 5 years (2013 – 2018)	Priority sites for protection and management are identified. Land-owner agreements or acquisitions are in place.	Steady progress - one site, Widenham, has been acquired by eThekwini Municipality (2015) and is currently under active management by the EWT and eThekwini. This and three other sites in Durban are undergoing active management for alien plant control and rehabilitation through a DEA-funded Natural Resources (NRM) grant.
Identify restoration needs and possibilities at all existing and historical sites and facilitating restoration with relevant partners where appropriate.	 Management plans are implemented at four sites within eThekwini between 2015 and 2018. Improved management practices, including water usage, of agricultural operations in the vicinity of <i>H. pickersgilli</i> habitat. Restoration/Rehabilitation of suitable habitat to achieve target of down-listing. Improved wetland functionality for 	Implementation of a three-year NRM programme started in February 2016 at four sites in the eThekwini Municipal Area. Species and wetland health are being monitored in response to this intervention.

Provide support to ex situ programs to determine whether captive breeding can be used to supplement wild populations.	 4 priority coastal wetlands within the eThekwini Municipal Area through control of alien clearing, implementing upstream management practices and wetland and buffer-zone restoration. Municipal and regional conservation planning and development processes are appropriately informed by relevant conservation plans. Develop guidelines for translocation of PRF and habitat rehabilitation or restoration. Conduct genetic assessment of overall population to assess population dynamics and determine the impact of habitat fragmentation on the species. Undertake research on the habitat requirements, breeding biology and 	 On track - A genetic study has been conducted jointly by the EWT, NZG and NWU. Initial results indicate that there is good gene flow and high genetic diversity between populations, but that additional sampling is required to determine structures within populations (Dalton et. al. 2015). Slow progress - Some initial
	general husbandry of <i>H. pickersgilli</i> , both in situ and ex situ.	breeding successes have been had by NZG and uShaka contributing to knowledge on basic biology between 2012 and 2015.
Improve the level of awareness of <i>H. pickersgilli</i> amongst the general public through multiple channels (ongoing).	 Educational resources to raise awareness are developed An awareness campaign about <i>H. pickersgilli</i> to be communicated through various media channels Provide opportunities for job creation, capacity building and education for local community members living in the vicinity of these key wetland areas. 	On track – the project has been featured on several national and online documentaries, educational materials have been developed and distributed. Signage for priority sites will be erected in 2016.

2.2.9 Research Inventory and Summary

Research targeting *H. pickersgilli* has been relatively limited and studies on the following topics have been published to date:

- 1. Conservation status (Armstrong 2001; Minter 2004; Measey 2011). A Red List re-assessment workshop was held in November 2015, results of which will be available in 2017.
- 2. Distribution modelling (Tarrant & Armstrong 2013).
- 3. Disease prevalence and infection (Tarrant et al. 2013).
- 4. Impact of sugarcane (Johnson & Raw 1987).
- 5. Captive breeding (Visser 2011).
- 6. Monitoring (Bowman 2011; Trenor 2015).
- 7. The effect of aeroplane noise on calling dynamics at Mount Moreland (Kruger & Du Preez 2016).

Active conservation research is currently underway on the following topics pertaining to the species:

- Implementation of monitoring protocols and population estimates (EWT, Ezemvelo and NWU), including through the use of automated recording equipment.
- 2. Population genetic structure (EWT, NWU, NZG). Unpublished report 2015.
- 3. Husbandry and ex-situ techniques (uShaka, NZG, Jhb Zoo).
- 4. Translocations (EWT, Ezemvelo, NWU).

2.3 The Role Players

The role players are those who have a legal mandate and responsibility to carry out the conservation actions necessary to achieve the aim of this BMP-S, i.e. improve the conservation status of *H. pickersgilli* and secure its survival in perpetuity in the wild through the implementation of this management plan. This includes land-owners on whose property *H. pickersgilli* occurs, as well as institutions involved in the ex-situ plans for the species. These role players have indicated a willingness to be involved. Table 1 below lists the major role players and the rationale for their inclusion. Appendix A provides further details of key personnel at these organisations at the time of development of this BMP-S, and their contact details.

Table 2: A list of role players required for the implementation of this management plan together with the rationale for their inclusion

ORGANISATION	ROLE/RESPONSIBILITY
Ezemvelo KZN Wildlife	Joint lead agency for development and implementation of the BMP-S and its
	implementation; co-ordination of conservation efforts and research; facilitation
	of site visits; development and implementation of monitoring programme.
Endangered Wildlife Trust	Joint lead agency for the development of the BMP-S and its implementation.
(Threatened Amphibian Programme)	Guide and carry out relevant in situ research; co-ordination and
	implementation of conservation management plans; facilitate communication
	between the various role-players; development of monitoring programme.
ACSA	Management of Mt Moreland site (Froggy Pond) and involvement in the
	awareness campaign.
EPCPD, eThekwini Municipality	Inclusion of <i>H. pickersgilli</i> sites into conservation planning in the eThekwini
(Environmental Planning & Climate	Municipal Area; purchase or zonation of sites for conservation; support for
Protection Department)	NRM programme implemented by EWT at <i>H. pickersgilli</i> sites in eThekwini
	(2015-2017).
Department of Environmental Affairs	Provision of guidance for and facilitation of BMP-S development and
(National)	implementation; provision of funds for and the gazetting of the BMP; provision
	of funds for Natural Resource Management at priority sites.
Dube Tradeport	Funding for and management of the Mt Moreland site.
iSimangaliso Wetlands Park World	Facilitation of research and of site visits.
Heritage Site Authority	
JHB Zoo	Ex-situ breeding programme and awareness.
Mondi	Funding for and management of the Port Durnford site.
National Zoological Gardens	Ex-situ facility and funding for the captive breeding of H. pickersgilli and
	interdisciplinary research, and the undertaking of and co-operation with other
	institutions in the interdisciplinary research (population genetics; reproduction
	biology; molecular diagnostics; biomaterial banking).
North-West University	Funding for and undertaking of relevant conservation research.
SAAMBR/uShaka	Co-ordination of and funding for the uShaka ex-situ breeding programme;
	assistance in the field; co-operation with other institutions in the
	interdisciplinary research.

Simbithi Eco-Estate	Data collection and facilitation of access to the wetland sites on the estate; funding for and undertaking the management of the <i>H. pickersgilli</i> habitat on the estate.
Transnet	Funding for the acquisition and management of offset sites for the <i>H. pickersgilli</i> population on the DDOP site; funding for the translocation and reintroduction of H. pickersgilli to the offset sites; facilitation of access to and research on the <i>H. pickersgilli</i> populations on the DDOP site and the offset sites.
Umkomaas Conservancy	Implementation of the BMP at, and management of, the Widenham site.

3. LEGISLATIVE FRAMEWORK

This is discussed under section 2.1 above

4. SUMMARY OF PLANNING METHODOLOGY

The Norms & Standards for BMP-S (DEAT 2009, currently under review) requires the following steps for the planning process:

- Appropriate stakeholders should be invited to participate in the development of the BMP-S.
- Stakeholders may be identified according to:
 - o The stakeholder group to which they belong, or;
 - Their interests and mission.
- Background information on the species may be compiled and circulated to all appropriate stakeholders prior to development of the BMP-S. The background information should include:
 - Criteria used to select the species;
 - Information on the current status of the species;
 - Information on known threats to the species;
- Compilation of the first draft of the BMP-S can be done by either:
 - A consultant;
 - An expert on the species;
 - A panel of experts on the species; or
 - During a stakeholder workshop.
- The first draft of the BMP-S should be made available to the stakeholders for comment;
- The comment period should be at least 30 days;
 - Relevant comments received should be included in a final draft of the BMP-S.
 - The final draft of the plan should be sent to all implementers of identified actions for validation within 60 days of date of notice.
 - The final draft of the plan should be compiled and submitted, within 90 days of receipt of comments, to the Minister for approval.

The process for that has been followed for the management plan for *H. pickersgilli* has been as follows:

- 24 June 2013 An invitation was sent to approximately 60 potential participants to attend the Biodiversity Management Plan development workshop.
- 26 August 2013 A background document was sent to the invitation list

- 5 6 September 2013 A workshop attended by approximately 40 delegates representing 15 organisations attended the BMP-S development workshop at Simbithi Eco-Estate, Shaka's Rock, KZN. The proceedings of this workshop and list of attendees are included in Table 1 and the appendices to this document.
- 22 October 2013 The first draft of the BMP for H. pickersgilli was compiled by Dr. Jeanne Tarrant of the EWT and circulated to all workshop attendees and other interested parties for comments to be returned by 15 November 2013.
- Comments were included and the second draft of the BMP-S was circulated in May 2014.
- Internal comments from EWT and Ezemvelo were incorporated in September 2015 and submitted to DEA.
- The document was made available for public comment from 10 June 2016 to 10 July 2016. Comments were collated and addressed and returned to DEA on 25 July 2016 (see Appendix B).

4.1 Agreements Required for Implementation

In taking the implementation of this BMP-S forward, the key role players have all accepted their various roles and responsibilities and consider the plan to be a document binding them to these. As such additional agreements are not required, although it will be necessary to monitor implementation very carefully and introduce relevant agreements where these are deemed necessary. Provisional agreements currently exist between some of the parties in terms of data collection and usage as well as the *ex-situ* component of the project, namely:

- Data-sharing agreement between EWT, Ezemvelo, NWU and NZG (to be finalised and signed)
- Memorandum of Understanding between EWT, Ezemvelo, PAAZA, NWU, NZG and uShaka (as of 25 July 2016 this has been finalised and signed by EWT, Ezemvelo, PAAZA and NWU).

4.2 Relevant Documents, Agreements and Policies

In addition to the literate cited in the references below (section 9), the following are also relevant:

- NEMBA
- Norms and Standards for BMP-S (March 2009)

4.3 Verification of the Integrity of the Content of the BMP-S

The compilation of this BMP-S has been overseen by Dr. Jeanne Tarrant of the EWT Threatened Amphibian Programme and Dr. Adrian Armstrong, Scientific Services, Ezemvelo, both of whom are experts on *H. pickersgilli*.

SCHEDULE

Table 3: Major threats adversely affecting Hyperolius pickersgilli as identified at the stakeholder workshop 5-6 September 2013 (not necessarily in order of importance).

Threat	Description
1. Habitat loss caused by urbanisation and industrial	The destruction of breeding sites and terrestrial habitat and corridors caused by wetland drainage, complete destruction of
development	habitat as a result of development, and degradation of habitat quality as a result of lack of management.
2. Habitat fragmentation and genetic isolation	Severe habitat fragmentation between the limited number of known sites and very little connectivity between key habitats
	remains. Risk of insufficient gene flow and genetic diversity
3. Pollution and infectious disease	Contaminants entering key habitat including pollution, sedimentation, fertilizers, effluent and other runoff from agricultural,
	urban and industrial activities in the surrounding landscape. Also includes encroachment and loss of habitat as a result of
	alien invasive plants.
	Novel strains of infectious disease such as Batrachochytrium dendrobatidis and ranavirus may pose a risk to isolated
	populations.
4. Inadequate habitat protection as a result of lack of	Only 2 of the 21 known sites known for H. pickersgilli occur in Protected Areas. The remainder of sites occur on privately or
suitable legislation, relevant policy and uninformed	commercially-owned property or communal land and have been largely overlooked in terms of management. As such, the
management practices	habitat is in a gradual state of decline, in particular with regard to alien vegetation invasion, siltation of wetlands and
	inadequate buffer zones.
5. Habitat loss as a result of agricultural activities and	Many of the known sites have been affected, and in some instances, destroyed as a result of sugarcane farming. In
possible effects of climate change	particular, wetlands have been drained through herring bone drainage, and very little, or no buffer zones have been kept
	intact surrounding wetlands. The effects of climate change on the species are unknown, but the wetlands they inhabit
	provide important ecosystem services, including flood attenuation, which will become increasingly important in the face of
	climate change.
6. Lack of knowledge and lack of awareness	Ecological information about the species is incomplete. Some of this information will be determined through the long-term
	data collection, for example, through implementation of monitoring and gauging the effectiveness of conservation
	interventions.
	Lack of public awareness about the species and the importance of its coastal wetland habitat is also detrimental to the long-
	term survival of the species.

SCHEDULE

ACTION PLAN

High-level objectives toward achieving the aim of the plan were discussed with the role players during the stakeholder workshop using the SMART approach (Specific, Measurable, Achievable, Relevant and Time-bound), in order to break down the objectives into a series of operational goals. Each of these are then broken down into the actions which specifically address the identified threats and include the nature of the action, responsibilities, resource requirements, time frames and indicators of the achievement. The latter will be used for monitoring and evaluation to track implementation.

The actions are broadly designed to address the following threat groups as identified above:

- 1. Habitat loss caused by urbanisation and industrial development.
- 2. Habitat degradation or loss caused by agricultural activities and water usage (wetland drainage, abstraction etc), and the potential impacts of climate change.
- 3. Habitat fragmentation and consequences for genetic management.
- 4. Pollution, disease and alien vegetation.
- 5. Lack of appropriate legislation, policy and institutional process (capacity management, protection of sites).
- 6. Lack of scientific knowledge and public awareness.

The overarching aim and objectives are:

AIM

To improve the conservation status of Hyperolius pickersgilli and secure its long-term survival in the wild

GOAL

Improve the conservation status of *H. pickersgilli*, ultimately to Least Concern, and improve its protection as part of meeting international biodiversity objectives (i.e. Aichi targets) through applied conservation action.

OBJECTIVES

- Create and maintain an enabling environment for relevant stakeholders, including private land-owners, to carry
 out appropriate management actions required for the survival of subpopulations and maintain or improve
 necessary ecological processes.
- 2. Prioritise the protection and appropriate management of key habitats for H. pickersgilli in relation to the scale and imminence of potential impact from urban or industrial development, with the additional objectives of:
 - a. reducing habitat fragmentation and improve gene flow through creation of linkages or corridors,
 - b. identifying potential sites for offsets involving H. pickersgilli, and
 - c. researching relocation and habitat rehabilitation or restoration requirements of H. pickersgilli and developing guidelines for the implementation of these processes.
- 3. Implement habitat protection and management activities through land-owner agreements, including but not limited to biodiversity stewardship, to curb habitat degradation caused by agricultural activities and water usage, and to secure sites to mitigate against the potential impacts of climate change.
- 4. Identify and conduct research to generate knowledge and provide information relevant to conservation management requirements, both in situ and ex situ, implement population monitoring protocols, and ensure that these data inform and are applied in the overall conservation process.

5. Develop educational and awareness campaigns to improve public knowledge about H. pickersgilli and the importance of its ecosystem.

5.1 Over-arching principles

Given the Endangered status of *H. pickersgilli* and the numerous role players that will be involved in the implementation of this BMP-S, it is important to list the over-arching principles that will be used to govern implementation and provide context within which the planning components have been derived. These include:

- Iterative: This BMP-S is the first version of an iterative planning process that will continue to evolve throughout its implementation. It is not necessarily an exhaustive list of all the actions that may be required to achieve the aim and objectives. The PRFF (see Action 1.1.1) will need to manage an adaptive process as implementation proceeds and generates information on the conservation management actions required.
- A focus on in situ conservation: The primary focus of this BMP-S is an action plan to secure the future of H. pickersgilli in the wild within its natural range (including a projected "natural range" under climate change).
 Some captive breeding programmes will necessitate activities with the species outside of this range, with the ultimate goal of re-introducing individuals to secure habitat back to the natural range.
- Partnerships: Certain agreements such as MoUs may be necessary between some role-players in order to
 facilitate relevant actions so that they can be carried out within the stipulated time-frame and by the designated
 implementers.

5.2 Goal

Improve the conservation status of H. pickersgilli, ultimately to Least Concern, and improve its protection as part of meeting international biodiversity objectives (i.e. Aichi targets) through applied conservation action.

This overarching goal will be met through all of the actions detailed in this BMP-S. The objectives outlined in this BMP-S are aligned with meeting Aichi targets. The Aichi targets for the period 2011-2020 fall under five strategic goals, of which the following is of most relevance to this BMP-S:

 Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.

The most important Aichi target relating to this BMP-S is Target 12 under Strategic Goal C:

• By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Objective 1

Create and maintain an enabling environment for relevant stakeholders, including land-owners, to carry out appropriate management actions required to ensure the survival of the relevant sub-population and maintain or improve necessary ecological processes.

Operational Goal 1.1

Establish the Pickersgill's Reed Frog Forum (PRFF) by March 2016 to monitor, track implementation of, and report on progress of implementation of the BMP-S, and facilitate interactions between responsible parties and provide decision support.

Action 1.1.1: Formally invite representatives from each sector of the key role players identified in 2.3 (i.e. academia, NGO's, conservancies, conservation authority, local government, commercial, private and, ex-situ facilities) to accept membership on the PRFF to share and communicate conservation priority information for *H. pickersgilli* with authorities and regulators. Draw up constitution and *modis operandi*.

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Lead Parties	Ezemvelo KZN Wildlife, EWT
Implementing Agents	Forum members
Time Frame	1 year
	Annually revised to conform to government planning cycles
Resources needed	Internal -
Incentives	Coordination of effort and implementation of the plan
	Monitoring of implementation of the plan
Measurable Indicators	Copies of invites sent
	Pickersgill's Reed Frog Forum mailing list
	Meeting minutes
	Annual report of BMP-S implementation progress

Action 1.1.2: Convene meetings of the PRFF	
Lead Parties	Ezemvelo KZN Wildlife, EWT
Implementing Agents	Forum members
Time Frame	Annual or more frequently if needed
Resources needed	Internal
Measurable Indicators	Meeting minutes

Operational Goal 1.2

Promote the inclusion of the objectives of the BMP-S into formal conservation and land-use processes so that the conservation of *H. pickersgilli* is prioritised.

Action 1.2.1: Inform corporate and civic responsibility groups via the PRFF in order to get priority areas included in	
district and municipal systematic planning processes (e.g. SCPs, SDFs/IDPs/LUMSs etc.).	
Lead Parties	Ezemvelo KZN Wildlife, EWT
Implementing Agents	Corporate and civic responsibility groups
	Local Municipalities
Time Frame	Ongoing
Resources needed	Time, Spatial data
Incentives	Protection of ecosystem services, therefore saving on "hard engineering" and
	clean-up alternatives
Measurable Indicators	Meeting records
	Relevant information is made available to appropriate groups via the PRFF
	Number of programs implemented across different levels

Objective 2

Prioritise key habitats for H. pickersgilli with regard to potential impact, especially with regard to urban and industrial development, and depending on land-owner circumstances and ability to implement management interventions.

Operational Goal 2.1

Prioritise known sites in terms of long-term viability

Action 2.1.1: Rank known localities in terms of conservation importance for the long-term viability of H. pickersgilli,	
based on selection criteria such as area size, population size, connectivity, threats and ecosystem integrity etc. Identify	
unique threats and risks for all existir	ng sites and use as a decision-making tool for conservation actions.
Lead Parties	Ezemvelo KZN Wildlife, EWT
Implementing Agents	Municipalities, DAEA, universities, and consultants
Time Frame	3 years
Resources needed	Student bursary, travel, knowledge
Impacts/ Consequences	Site rankings to provide starting point for on-the-ground conservation
Incentives	Focus resources on priority sites to streamline resources
	Partnerships – project
	Awareness of relative importance of each site
Measurable Indicators	Ranking of sites

Action 2.1.2: Overlay GIS layers that depict a) known and predicted distribution of the species, b) ecosystem integrity,		
c) SDFs, d) IDPs, e) Biodiversity Plans, f) development plans to highlight priority areas, including for climate change		
adaptation.		
Lead Parties	Ezemvelo KZN Wildlife, EWT	
Implementing Agents	Conservancies, Municipalities, COGTA, SANBI – BGIS, NZG, DWA, Ezemvelo	
	KZN Wildlife, EWT, corporate groups and private land owners	
Time Frame	6 months & annual updates	

Resources needed	Workshops to share and collate available data and discuss quality
Incentives	Opportunities for companies to share offset responsibilities
	Positive publicity for landowners and corporates ("green stamp" of social responsibility)
Measurable Indicators	List of identified sites that are suitable or potentially suitable Revised BGIS product

Operational Goal 2.2

Identify key habitats for potential offset sites / "offset banks" from which offset sites can be drawn from by potential developments affecting *H. pickersgilli* habitat.

Action 2.2.1: Identify sites that have been ear-marked for development and which may not be able to be adequately	
protected (as per the mitigation hierarchy).	
Lead Parties	Ezemvelo KZN Wildlife, EWT
Implementing Agents	Ezemvelo KZN Wildlife, DEA, Universities, corporates specialist consultants
Time Frame	2 years to identify sites currently threatened
	Ongoing for threat assessment and monitoring
Resources needed	Financial resources, workshop
Impacts/ Consequences	Proactive planning to accommodate development while protecting populations of
	H. pickersgilli
	Positive impact of additional knowledge
	Application of knowledge
	Environmentally sustainable development
Incentives	Gaining knowledge for application
	Increased awareness of challenges and opportunities
	Green image of stakeholders
Measurable Indicators	Reports upon completion of surveys
	GIS layer of doomed localities

Action 2.2.2: Identify potential offse	t sites suitable for expansion, rehabilitation and improved linkage and prioritise
conservation actions accordingly.	
Lead Parties	Ezemvelo KZN Wildlife, EWT
Implementing Agents	Ezemvelo KZN Wildlife, Universities, DEA (Environmental Programmes Unit),
	DAEA, corporates, Working for Wetlands/Working for Ecosystems,
	municipalities, specialist consultants
Time Frame	1 year to ID sites
	Ongoing for threat assessment and monitoring
Resources needed	Financial, workshop, advisory capacity, technical expertise
Impacts/ Consequences	Proactive identification of receiving areas for translocation from doomed
	localities.
	Reduce authorization process time
	Environmentally sustainable development
	No net loss of populations of H. pickersgilli
	Downgrade the threat status of <i>H. pickersgilli</i>
Incentives	Possible student project
	Improved knowledge
	Improved conservation status

	Fulfilment of international contractual obligations through implementation
	(meeting AICHI targets under NEMBA)
	Green image of stakeholders of new identified sites
Measurable Indicators	Reports upon completion of surveys
	GIS layer of potential offset sites
	Increased commitment from landowners of sites

Operational Goal 2.3

Reduce population isolation and allow sufficient gene flow between populations and reduce the barriers to movement of *H. pickersgilli* between suitable habitats

Action 2.3.1: Using the site ranking and GIS layers generated in 2.1.1 and 2.1.2, identify localities with corridors that	
could be improved through reha	abilitation or restoration and possibly used for re-introduction
Lead Parties	Ezemvelo KZN Wildlife
Implementing Agents	Ezemvelo KZN Wildlife & EWT
Time Frame	1 year to identify sites based on predictive model
Resources needed	Manpower, equipment, funding
Impacts/Consequences	Could impact development scheduled for such areas;
	Positively impact on protected area targets if proclaimed under NEMPAA
Incentives	Improved management plans
Measurable Indicators	New GIS layers
	List of sites with supporting information

Objective 3

Implement habitat management activities through land-owner agreements to curb habitat degradation caused by agricultural activities and associated impacts on water availability and quality, and to secure sites to mitigate against the potential impacts of climate change.

Operational Goal 3.1

Improve management practices, including water usage, of development operations (including agriculture, mining and urban development) in the vicinity of *H. pickersgilli* habitat.

Action 3.1.1: Implement appropriate site-specific management activities, i.e., control of invasive alien vegetation,	
rehabilitation activities, structural hydrological remediation, etc., where applicable, at sites prioritised in 2.1.1	
Lead Parties	DEA (Environmental Programmes Unit) , DWA
Implementing Agents	Ezemvelo KZN Wildlife, EWT, local municipalities, DEA Working for Ecosystem
	programmes, DWA, land owners, Mondi Wetlands Programme, SASA, local
	conservancies
Time Frame	3-5 years to commence implementation
Resources needed	Stewardship capacity, operational expenses
Incentives	Job creation, improved wetland management, tax rebates, healthy biodiversity
Measurable Indicators	Site-specific management plans developed
	Management practices in place
	Alien plants cleared
	Establishment of certification programme, for example, "Frog Friendly Sugar"

Action 3.1.2: Commence restortion (as identified in 2.1.1.)	pration/rehabilitation, as appropriate, of both existing and potential H. pickersgilli habitat
Lead Parties	DEA (Environmental Programmes Unit), EWT, appropriate municipalities
Implementing Agents	Landowners
	Working for Wetlands (and other DEA programmes)
	EWT
	Local government
Time Frame	To be initiated within 24 months
	3 years for first 4 sites
Resources needed	Rehabilitation protocols and plans (from above)
	Expert wetland knowledge
	Manpower, equipment, funding, meetings
Impacts/Consequences	Establishing management plans for such areas
	Improved ecosystem services
	Meeting conservation planning targets (as per systematic plans)
	Meeting Aichi target of improving conservation status
Incentives	Partnerships formed
	Leverage co-funding
	Local communities will benefit from improved ecosystem services
	Job creation
Measurable Indicators	Restoration/rehabilitation of suitable habitat to achieve target of down-listing.
	Number of areas of habitat rehabilitated successfully in accordance with H.
	pickersgilli requirements.
	Successful reintroduction or increase in population size and number.

Operational Goal 3.2

Improve the ecological status of *H. pickersgilli* habitat though improved management practices to mitigate potential impacts of climate change.

Action 3.2.1: Model potential in	mpacts of climate change on <i>H. pickersgilli</i> . Links to 2.1.1.	
Lead Parties	Ezemvelo KZN Wildlife, EWT	
Implementing Agents	Ezemvelo KZN Wildlife, EWT, universities, local municipalities, land owners a	
	users	
Time Frame	2 Years	
Resources needed	Relevant specialists and resources	
Incentives	Improved understanding of climate change impacts on H. pickersgilli.	
	Use results toward establishment of new populations of H. pickersgilli	
	Improved ecological function.	
	Meeting climate change adaption requirements.	
Measurable Indicators	Model of climate change potential impacts on H. pickersgilli.	
	Improvement in ecological status of <i>H. pickersgilli</i> habitat towards the benchmark	
	status.	
	Guidance on targets for rehabilitation and reintroductions.	

Objective 4

Identify and conduct relevant research to provide information relevant to conservation management requirements, both in situ and ex situ, implement population monitoring protocols, determine relocation and rehabilitation requirements, and ensure that these data are fed back into and inform the overall conservation process.

Operational Goal 4.1

Improve the understanding of the biology, population genetics, habitat requirements and husbandry of *H. pickersgilli*.

Action 4.1.1: Conduct genetic ass	essment of overall population to assess population dynamics and determine the	
impact of habitat fragmentation on the species.		
Lead Parties	NZG	
Implementing Agents	NZG, EWT, NWU, Ezemvelo KZN Wildlife	
Time Frame	1 – 2 years	
Resources needed	Financial, Laboratories and equipment (NZG), Students	
Incentives	Graduate research possibilities	
	Improved management of meta-population	
	Contributing to sound genetic principals for ex situ breeding programs and	
	relocations and re-introductions	
Measurable Indicators	Publication of results and input into relevant databases	
	Phylogenetic trees and genetic map of <i>H. pickersgilli</i> across its range.	
	Results of genetic study are incorporated into plans for potential translocation	
	and improved habitat linkages.	

Action 4.1.2: Undertake research	on the habitat requirements, breeding biology and general husbandry of H.		
pickersgilli, both in situ and ex situ.	and ex situ.		
Lead Parties	PAAZAB, Ezemvelo KZN Wildlife, EWT,		
Implementing Agents	Jhb Zoo, EWT, Ezemvelo, NWU, NZG, SAAMBR		
Time Frame	1 – 2 years. Ongoing		
Resources needed	Financial, facilities, human resources (students, staff)		
Incentives	Capacity building		
	Increase knowledge		
	Association with endangered species conservation		
	Local and international recognition		
	Inter-departmental incentives and co-operation (i.e. promotion of wetland and		
	human health)		
	Graduate research possibilities.		
Measurable Indicators	Increased knowledge of life-history, breeding biology and husbandry of H.		
	pickersgilli		
	Publication of results		
	Incorporate findings into conservation actions and translocation guidelines		

Action 4.1.3: Implement population monitoring at selected priority sites.		
Lead Parties	Ezemvelo KZN Wildlife, EWT	
Implementing Agents	EWT, Ezemvelo KZN Wildlife NWU	
Time Frame	1 – 2 years. Ongoing	
Resources needed	Financial, facilities, human resources (students, staff)	
Incentives	Baseline data	
	Increase knowledge	
	Graduate research possibilities.	
Measurable Indicators	Increased knowledge of life-history, breeding biology and requirements of H.	
	pickersgilli	
	Publication of results	

Operational Goal 4.2

Establish best-practice guidelines for conservation translocations of *H. pickersgilli*

Action 4.2.1		
Establish protocols under the	IUCN guidelines for potential translocations and reintroductions of H. pickersgilli	
Ties in with 1.4 and 3.1.2		
Lead Parties	Ezemvelo KZN Wildlife, EWT, PAAZAB (NZG), IUCN	
Implementing Agents	Ezemvelo KZN Wildlife, EWT, NZG, NWU	
Time Frame	2-3 years to develop guidelines	
	3 - 5 years for initial testing	
Resources needed	Expertise, research, testing sites, funding	
Incentives	Maximise the probability of success of translocations and reintroductions	
Measurable Indicators	Guidelines produced	
	Guidelines are tested, made available to translocation implementing agencies	

and mainstreamed

Operational Goal 4.3

Develop and maintain an appropriate database for curation of data obtained through research to assist with implementation of the BMP-S on an ongoing basis.

Action 4.3.1: Collate all relevant information in appropriate databases and make it publicly available to influence and guide decision making.		
Lead Parties	Ezemvelo KZN Wildlife, EWT	
Implementing Agents	EWT, NZG, Ezemvelo KZN Wildlife	
Time Frame	2-3 years	
Resources needed	IT skills, time, financial	
Incentives	Efficient storage and accessibility of data	
Measurable Indicators	Data are captured and available	

Objective 5

Develop educational and awareness campaigns to improve public knowledge about H. pickersgilli and the importance of its habitats.

Operational Goal 5.1

Improve the level of awareness of *H. pickersgilli* amongst the general public through multiple channels.

Action 5.1.1		
Develop an awareness campa	ign and education programme about H. pickersgilli to be communicated through various	
environmental education prog	grammes and media, including television, radio, print, billboards, social media and	
displays.		
Lead Parties	EWT	
Implementing Agents	EWT, Ezemvelo KZN Wildlife, JHB Zoo, NZG, uShaka, NGOs, media, commercial partners, <i>ex-situ</i> facilities, social responsibility groups within corporates	
Time Frame	To be developed after 1 year. Ongoing	
Resources needed	Marketing/education budget, internal, financial (corporate sponsorship)	
Incentives	Reach a wide audience Add impetus to future funding applications. Positive company image, reaching a wide audience ("green stamp"/environmental responsibility) Social change Positive publicity for landowners (e.g. farmers) and corporates	
Measurable Indicators	Inclusion in environmental education programmes Participation in awareness events Surveys of, and feedback from, people exposed to educational and awareness programmes Media tracking records Indices of "reach" e.g. distribution, number of posts, shares and "likes"	

Number of records uploaded in the form of photos

6. MONITORING

The actions covered in section 6 above indicate applicable and measurable outcomes where relevant. From these it will be possible to derive an overall understanding of performance as will be determined by the Pickersgill's Reed Frog Forum (PRFF) who will be responsible for the implementation, monitoring and reporting of this BMP-S.

An annual report will be generated for circulation to all stakeholders and submission to DEA, to reflect progress made according to the following over-arching outcomes:

- Sustained and enhanced co-operation between all stakeholders through the PRFF.
- Clarity and acceptance of roles and responsibilities by relevant stakeholders.
- Clear management goals and relevant time-frames for their achievement.
- Identification of key performance indicators that can be used to assess the progress toward defined goals.
- A plan that comprehensively and concisely covers all aspects related to the conservation requirements of H.
 pickersgilli and provides realistic targets for the five years of this iteration.
- A summary of up-to-date research pertaining to H. pickersgilli.
- Improved management and conservation status of the priority sites for *H. pickersgilli* and of relevant habitat linkages.
- Progress towards an improved Red List conservation status for the species.
- Identification of potential sites for offsets and translocations involving *H. pickersgilli*, including in terms of predicted climate change impacts, identified.
- Development of guidelines for the rehabilitation or restoration of *H. pickersgilli* habitat and the translocation of *H. pickersgilli*.
- Implementation of an educational and awareness campaign to improve public knowledge about *H. pickersgilli* and the importance of its ecosystem.

7. REFERENCES

ALEXANDER, G.J. 2004. *Hemisus guttatus* species account. Pp. 116–118. In: Minter, L.R., Burger, M., Harrison, J.A., Braack, H.H., Bishop, P.J. & Kloepfer, D. Eds. *Atlas and Red Data Book of the Frogs of South Africa, Lesotho and Swaziland*. SI/MAB Series #9. Smithsonian Institution, Washington, DC.

ARMSTRONG, A.J. 2001. Conservation status of herpetofauna endemic to KwaZulu-Natal. *African Journal of Herpetology* 50(2): 79-96.

BISHOP, P. J. 2004. *Hyperolius pickersgilli* species account. In: Minter L.R., Burger M., Harrison J.A., Braack H.H., Bishop P.J. and Kloepfer D. (Eds). *Atlas and Red Data Book of the Frogs of South Africa, Lesotho and Swaziland*. SI/MAB Series #9. Smithsonian Institution, Washington, DC. Pp. 143-145.

BOWMAN, R. M. 2011. Distribution, Ecology and Biomonitoring Management of Pickersgill's Reed Frog (*Hyperolius pickersgilli*). Honours Dissertation, North-West University, Potchefstroom.

BOYD, L. 2001. Buffer zones and beyond: Wildlife use of wetland buffer zones and their protection under the Massachusetts Wetland Protection Act. Wetland Conservation Professional Program, Department of Natural Resources Conservation, University of Massachusetts.

DALTON, D.L., BARROW, L., MADISHA, M.T. & KOTZE, A. 2015. Scientific Report *Hyperolius pickersgilli*. Unpublished report 14 September 2015. National Zoological Gardens, National Research Foundation.

DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND TOURISM 2009. National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004). Norms and Standards for Biodiversity Management Plans for Species. Government Notice No.R.214, Government Gazette No. 31968.

DU PREEZ, L.H. & CARRUTHERS, V. 2009. A complete guide to the frogs of southern Africa. Struik Nature, Cape Town.

FICETOLA, G.F., PADOA-SCHIOPPA, E. & DE BERNARDI, F. 2008. Influence of landscape elements in riparian buffers on the conservation of semiaquatic amphibians. *Conservation Biology* 23 (1): 114-123.

GASCON, C., COLLINS, J.P., MOORE, R.D., CHURCH, D.R., MCKAY, J.E. & MENDELSON, J.R. III (Eds.). 2007. *Amphibian Conservation Action Plan.* IUCN/SSC Amphibian Specialist Group. Gland, Switzerland and Cambridge, UK.

GOODMAN, P. 2000. (Ed.). Determining the conservation value of land in KwaZulu-Natal. Final Report. Biodiversity Division, KwaZulu-Natal Nature Conservation Service, Pietermaritzburg.

IUCN. (2012). IUCN Red List Categories and Criteria: Version 3.1. Second edition. Gland, Switzerland and Cambridge, UK: IUCN. iv + 32pp.

IUCN SSC Amphibian Specialist Group & South African Frog Re-assessment Group (SA-FRoG). 2016. *Hyperolius pickersgilli*. The IUCN Red List of Threatened Species 2016: e.T10644A77165927. http://dx.doi.org/10.2305/IUCN.UK.2016-3.RLTS.T10644A77165927.en. Downloaded on 30 January 2017.

JOHNSON, P. & RAW, L.R.G. 1987. The herpetofauna of sugarcane fields and their environs on the north coast of Natal. *Journal of the Herpetological Association of Africa* 36: 11-18.

KIESECKER, J.M., BLAUSTEIN, A.R. & BELDON, L.K. 2001. Complex causes of amphibian population declines. *Nature* 410: 681-683.

KRUGER, D.J.D & DU PREEZ, L.H. 2016. The effect of airplane noise on frogs: a case study on the Critically Endangered Pickersgill's reed frog (*Hyperolius pickersgilli*). *Ecological Research* 31(3) DOI: 10.1007/s11284-016-1349-8

MEASEY, G.J. (Ed.), 2011. Ensuring a future for South Africa's frogs: a strategy for conservation research. SANBI Biodiversity Series 19. South African National Biodiversity Institute, Pretoria.

MUCINA, L. & RUTHERFORD, M.C. (Eds.) 2006. *The vegetation of South Africa, Lesotho and Swaziland. Strelitzia 19.* South African National Biodiversity Institute, Pretoria.

NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT, 2004 (ACT 10 of 2004): Threatened or Protected Species Amendment Regulations. In Gazette No. 29657 of 23 February 2007.

NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT, 2004 (ACT 10 of 2004): Publication of lists of species that are threatened or protected, activities that are prohibited and exemption from restriction. In Gazette No. 36375 of 16 April 2013.

RAW, L.R.G., 1982. A new species of reed frog (Amphibia: Hyperoliidae) from the coastal lowlands of Natal, South Africa. *Durban Museum Novitates* 13: 117–126.

SEMLITSCH, R.D. 2002. Critical elements for biologically based recovery plans of aquatic-breeding amphibians. *Conservation Biology* 16: 619–629.

SEMLITSCH, R.D. 2003. Amphibian Conservation. Smithsonian Institution, Smithsonian Book, United States of America.

SEMLITSCH, R.D. & BODIE, J.R. 2003. Biological criteria for buffer zones around wetlands and riparian habitats for amphibians and reptiles. *Conservation Biology* 17(5): 1219–1228.

SOUTH AFRICAN FROG RE-ASSESSMENT GROUP (SA-FRoG), IUCN SSC Amphibian Specialist Group. 2010. *Hyperolius pickersgilli*. The IUCN Red List of Threatened Species 2010: e.T10644A3207694. http://dx.doi.org/10.2305/IUCN.UK.2010-3.RLTS.T10644A3207694.en. Downloaded on 12 August 2016.

TARRANT, J. & ARMSTRONG, A.J. 2013. Using predictive modelling to guide the conservation of a Critically Endangered coastal wetland amphibian. *Journal for Nature Conservation*10.1016/j.jnc.2013.03.006

TARRANT, J., CILLIERS, D., DU PREEZ, L.H. & WELDON, C. 2013. Spatial assessment of amphibian chytrid fungus (*Batrachochytrium dendrobatidis*) in South Africa confirms endemic and widespread infection. *PLOS ONE,* http://dx.plos.org/10.1371/journal.pone.0069591

STUART S., CHANSON J.S., COX N.A., YOUNG B.E., RODRIGUES S.L., FISCHMAN D.L. & WALLER R.W. 2004. Status and trends of amphibian declines and extinctions worldwide. *Science* 306: 1783-1786.

VISSER, I. 2011. An ex-situ conservation and research project for Pickersgill's Reed Frog. AARK Newsletter 16: 14.

APPENDIX A: Proof of Compliance

Table 4: Participants that attended the stakeholder meeting in September 2013

NAME	ORGANISATION	ROLE/RESPONSIBILITY
Dr. Jeanne Tarrant	Endangered Wildlife Trust	Research, Co-ordination of conservation efforts
Dr. Harriet Davies-Mostert	Endangered Wildlife Trust	Co-ordination of conservation efforts
Dr. Adrian Armstrong	Ezemvelo KZN Wildlife	Research, Co-ordination of conservation efforts
Sharon Louw	Ezemvelo KZN Wildlife	Research and facilitation of site visits
Prof. Louis du Preez	North-West University	Research
Prof. Che Weldon	North-West University	Research
Mea Trenor	North-West University	Research, Field assistant, Collection of samples for genetic analysis
Prof. Antoinette Kotze	National Zoological Gardens	Interdisciplinary research (population genetics; reproduction biology; molecular diagnostics; biomaterial banking)
Judy Mann	SAAMBR/uShaka	Co-ordination of uShaka <i>ex-situ</i> programme
Carl Scholms	SAAMBR/uShaka	Ex-situ breeding programme
Nick Evans	SAAMBR/uShaka	Field assistant, <i>Ex-situ</i> breeding programme
Mike Jordan	National Zoological Gardens	Ex-situ breeding programme, Reintroductions
Mike Adams	National Zoological Gardens	Ex-situ breeding programme
Chris de Beer	National Zoological Gardens	Ex-situ breeding programme
lan Visser	JHB Zoo	Ex-situ breeding programme
Joseph McMahon	Transnet	Prospecton site facilitation and potential offset opportunities for DDOP
Hermano Taute	Transnet	Prospecton site facilitation and potential offset opportunities for DDOP
Tarik Bodasing	iSimangaliso / Ezemvelo KZN Wildlife	Research and facilitation of site visits
Christopher Jones	ACSA	Management of Mt Moreland site, awareness campaign
Nokuthula Mcinga	ACSA	Management of Mt Moreland site, awareness campaign
Mike O'Donaghue	Simbithi	Data collection and facilitation of access to site
Margi Lilienfield	Simbithi	Data collection and facilitation of access to site
Dudley Wang	Simbithi	Data collection and facilitation of access to site
Pamela Kershaw	DEA (Conservation)	BMP facilitation
Garth Green	Forest Lodge, Mtunzini	Site facilitation
Lyle Ground	EPCPD, eThekweni Municipality	Inclusion of EMA <i>H. pickersgilli</i> sites into conservation planning
Warren Botes	EPCPD, eThekweni	Inclusion of EMA H. pickersgilli sites

NAME	ORGANISATION	ROLE/RESPONSIBILITY
	Municipality	into conservation planning
Nonhlanhla Khoza	Tongaat-Hullett	Management of Mt Moreland site,
		awareness campaign
Pat Jennings	Tronox	Environmental Manager for Fairbreeze
		site
Marius Vlok	Tronox	Environmental Manager for Fairbreeze
		site
Derek & Sue Weightman	Umkomaas Conservancy	Widenham site
Zama Dlamini	Dube Tradeport	Environmental Manager for Mt
		Moreland site
Daniel Smith	Dube Tradeport	Environmental Manager for Mt
		Moreland site
Theresia Ott	Richards Bay Minerals	
Lize Shaw	Mondi	Rehabilitation and management of
		Port Durnford site
Jacqui Shuttleworth	Mondi	Rehabilitation and management of
		Port Durnford site

Table 5: Interested and Affected Parties who did not attend the initial stakeholder development meeting in September 2013.

NAME	ORGANISATION	EMAIL
Angie Wilken	Mt Moreland Conservancy	angie@barnswallow.co.za
Barbara Kewley	Mtunzini Conservancy	bwkewley@telkomsa.net
Dr Desiré Dalton	NZG, Research Dept.	desire@nzg.ac.za
Dr Steven van der Spuy	NZG	stephen@nzg.ac.za
Timothy Netsianda	Jhb Zoo	
Cameron McLean	EPCPD, eThekwini Municipality	Cameron.McLean@durban.gov.za
Natasha Govender	EPCPD, eThekwini Municipality	Natasha.Govender@durban.gov.za
Doug Macfarlane	Eco-Pulse Consulting	dmacfarlane@eco-pulse.co.za
Cilliers van Rooyen	Widenham	renutechpms@gmail.com
Nicolene Lotter	Widenham	lizelleg@mweb.co.za
Dudley Wang	Simbithi Eco-Estate	dwangbt@gmail.com
Judy Mann	UShaka Marine World	jmann@seaworld.org.za
Michelle Boshoff	Richards Bay Minerals	
Adam Teixeira-Leite	Eco-Pulse Consulting	ateixeira@eco-pulse.co.za
Brian Molefe	Eskom	
Ryan Brudvig	DEA, Natural Resource	RBrudvig@environment.gov.za
	Management Programmes- KZN	
South African Frog Re-	IUCN SSC Amphibian Specialist	jeannet@ewt.org.za
assessment Group (SA-	Group for Red List reassessments	john@measey.com
FRoG)		
SANBI	South African National Biodiversity	D.Pillay@sanbi.org.za
	Institute	k.tolley@sanbi.org.za

DEPARTMENT OF HIGHER EDUCATION AND TRAINING NOTICE 424 OF 2017



INVITATION TO REGISTER ON THE NATIONAL INSTITUTE FOR THE HUMANITIES AND SOCIAL SCIENCES (NIHSS) SUPPLIER DATABASE

The National Institute for the Humanities and Social Sciences (NIHSS) is mandated to enhance and support higher education in the humanities and social sciences (HSS). Its role is to broadly enhance and support the HSS in South Africa and beyond, as well as to advise government and civil society on HSS related matters.

As a public entity, the NIHSS invites all suitable and interested service providers/suppliers to register on its supplier database as official suppliers for the 2017/18 financial year. This is in alignment with the provisions of Public Finance Management Act (PFMA), the Preferential Procurement Policy Framework Act, and its new regulations.

NIHSS promotes B-BBEE initiative and urges all the SMME's to apply. Registration forms together with a list of commodities are downloadable from NIHSS website: http://www.nihss.ac.za. The closing date for this invitation is **30**June **2017.** Enquiries should be directed to Mr Pawl Moyane on (011) 480 2342 or alternatively send an email to pawl@nihss.ac.za

NON-GOVERNMENTAL ORGANIZATION NOTICE 425 OF 2017

NOTICE OF THE AMENDMENT OF GRETER POTGIETERUS TOWN PLANNING SCHEME, 1997

We being the authorised agents of the owner/s of the erf/erven mentioned below hereby give notice in terms of section 16 of Mogalakwena Land Use By-Laws, 2016 that we have applied to Mogalakwena Local Municipality to amend the Town Planning Scheme Known as Greater Potgietersrust Town Planning Scheme, 1997 for the following: **AMENDMENT SCHEME 379**: Rezoning of Ptn 1 of erf 49 Piet Potgietersrust from "Residential 1" to "Business 1"; **AMENDMENT SCHEME 380**: Rezoning of erf 3506 Piet Potgietersrust Ext. 12 from Residential 1 to "Special" for a guest house subject to the conditions on the annexure; **AMENDMENT SCHEME 381**: Rezoning of Erf 11032 Piet Potgietersrust from "Residential 1" to "Business 1" with special consent for public garage; **AMENDMENT SCHEME 382**: Rezoning of Ptn 1 of erf 288 Piet Potgietersrust from "Residential 1" to "Business 1" with special consent for vehicle sales lot; **AMENDMENT SCHEME 383**: Rezoning of the Remainder of erf 270 Piet Potgietersrust from "Residential 1" to "Business 1" with a special consent 65 units/Ha. Particulars of the applications will lie for inspection during normal office hours at the office of the Town Planner, Civic Centre, 54 Retief Street Mokopane for a period of 28 from 02 June 2017.

Objections to and representations in respect of the applications must be lodged with or made in writing to the Town Planner at the above address or to PO Box 34 Mokopane 0600 within the period of 28 days from 02 June 2017. Address of the agent: Wazzas Business Enterprises (Pty) Ltd PO Box 1599 Benfarm Phalaborwa 1220, eMail address: wazzas.business.enterprises@gmail.com or maswilavitpd@gmail.com

NIE-REGERINGSORGANISASIE KENNISGEWING 425 VAN 2017

KENNISGEWING VAN DIE WYSIGING VAN GRETER POTGIETERUS DORPSBEPLANNINGSKEMA, 1997

Ons, Wazzas Business enterprises (Pty) Ltd, sanynde die gemagtige agent van die eienaar van die erf hieronder genome gee hiermee ingevolge Artikel 16 van Mogalakwena Munisipalitet Grondgebruik Skema, 2016 kennis da tons het by Mogalakwena Munisipaliteit aansoek gedoen het om die wysiging van die dorpsbeplanningskema, bekend as die Groter Potgietersrus dorpsbeplanningskema 1997 soos volg: WYSIGINGSKEMA 379: Hersoneering van Gedeelte 1 van Erf 49 Piet Potgietersrus, vanaf "Residensieel 1" na "Besigheig 1. WYSIGINGSKEMA 380: Die hersonering van erf 3506 Piet Potgietersrust Ext. 12 vanaf Residensieel 1 na "Spesiaal" vir 'n gastehuis onderworpe aan die voorwaardes op die bylae; WYSIGINGSKEMA 381: Die hersonering van Erf 11032 Piet Potgietersrust van "Residensieel 1 " na "Besigheid 1 " met spesiale toestemming vir openbare garage; WYSIGINGSKEMA 382: Die hersonering van Gedeelte 1 van Erf 288 Piet Potgietersrust van "Residensieel 1 " na "Besigheid 1 " met spesiale toestemming vir motorverkope; WYSIGINGSKEMA 383: Die hersonering van die Restant van erf 270 Piet Potgietersrust van "Residensieel 1 " na "Besigheid 1 " met 'n spesiale vergunning 65 eenhede / ha.

Besonderhede van die aansoek le ter inslae gedurrende gewone kantoorure by die kantoor van die Stadbeplanner, Buresentrum, Retiefstraat 54, Mokopane, vir n tydperk van 28 dae vanaf 02 Junie 2017 skriftelik by of tot die Munisipale Bestuurder by bovermelde adres of by Posbus 34 Mokopane 0600 ingedien of gerig word. Adres van agent: Wazzas Busness Enterprises (Pty) Ltd Posbus 1599 Benfarm Phalaborwa 1220 ePos: maswilavitpd@gmail.com of wazzas.business.enterprises@gmail.com

DEPARTMENT OF SOCIAL DEVELOPMENT NOTICE 426 OF 2017

OLDER PERSONS ACT, 2006 (ACT NO. 13 OF 2006)

CALL FOR COMMENTS ON THE OLDER PERSONS AMENDMENT BILL, 2017

I Bathabile Olive Dlamini, responsible for Social Development, under Section 34 (1)(i) and (5) of the Older Persons Act, 2006 (Act No. 13 of 2006) intend to make amendments to the Older Persons Act, 2006 as set out in the Schedule.

Interested persons or organisations are hereby invited to submit written comments with regard to the draft Bill within 30 calendar days from the date of publication of this notice. Comments must be submitted by **16h00 on 30 June 2017** to Ms Naomi Maloba by:

(a) Post to:

Department of Social Development
Private Bag x901
Pretoria
0001;

(b) Hand to:

Directorate: Older Persons Services

134 Pretorius Street

HSRC Building

Pretoria

0001:

(c) Fax to:

+27 (0)86 527 3904; or

(d) By email to:

NaomiM@dsd.gov.za

B. O. DLAMINI (MP)

MINISTER OF SOCIAL DEVELOPMENT

DATE: 06 - 05 17

REPUBLIC OF SOUTH AFRICA

OLDER PERSONS AMENDMENT BILL, 2017

(As introduced in the National Assembly (proposed section 76); explanatory summary of Bill I published in Government Gazette No. 40883 of 2 June 2017)

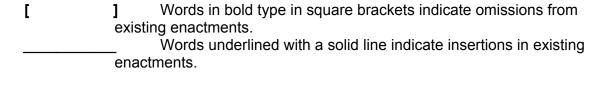
(The English text is the official text of the Bill)

(MINISTER OF SOCIAL DEVELOPMENT)

[B — 2016]

121016nim

GENERAL EXPLANATORY NOTE:



BILL

To amend the Older Persons Act, 2006, so as to insert new definitions; insert new provisions relating to the monitoring and evaluation of all services to older persons and for the removal of older persons to a temporary safe care without a court order; to tighten up the existing implementation and compliance measures; to effect some textual amendments for greater clarity and to provide for matters connected therewith.

BE IT ENACTED by the Parliament of the Republic of South Africa, as follows:—

Amendment of section 1 of Act 13 of 2006

- **1.** Section 1 of the Older Persons Act, 2006 (Act No. 13 of 2006) (hereinafter referred to as the principal Act) is hereby amended by —
- (a) The insertion of the following definition after the definition of "abuse":
 - " 'assisted living facility' means a residential care facility used for provision of affordable, safe and accessible accommodation with access to nursing care and support services to older persons that are partially independent, with or without assistive devices, and who need some form of supervision and assistance regarding their daily living activities.";
- (b) the substitution for the definition of "care" of the following definition:
 - " 'care' means physical, psychological, social and includes but not limited to spiritual, nursing, first-aid care or material assistance to an older person, and [includes] services aimed at promoting and maintaining the comfort, quality of life and general well-being of an older person.";
- (c) the substitution for the definition of "caregiver" of the following definition:
 - " 'caregiver' means any person who provides care[;] and support services, whether at a community-based care, residential care facility or similar facility, and has been trained with an accredited South African Qualifications Authority or Sector Education Training Authority training, appropriate for the care of older persons.";
- (e) the insertion of the following definition after the definition of "Director-General":
 - " 'frail care facility' means a residential care facility that is used primarily for the care of frail older persons that need 24 hour care services.";

- (f) the insertion of the following definition after the definition of "home-based care":
 - " 'independent living facility' means a residential care facility used for the provisioning of affordable, safe and accessible accommodation to active older persons, who are fully independent with or without assistive devices and who do not need assistance regarding their daily living activities.";
- (g) the insertion of the following definition after the definition of "independent living facility":
 - "inter departmental structure' means a structure consisting of the Departments of Social Development, Health, Basic Education, Sport and Recreation, Arts and Culture, Cooperative Governance and Traditional Affairs, Justice, Correctional Services, Human Settlements and South African Police Services at national level and where applicable, provincial and local levels of government and may include any stakeholder.";
- (h) the substitution for the definition of "manager" of the following definition:
 - " 'manager' means the person responsible for the day-to-day management of a residential care facility [,] or similar facility, an institution or any programme for the rendering of services to older persons.";
- (i) the substitution for the definition of "older person" of the following definition:
 - "'older person' means a person who [, in the case of a male, is 65 years of age or older and, in the case of a female, is 60 years of age or older] is 60 years of age or older.";
- (j) the substitution for the definition of "person" of the following definition:

- " 'person' includes a trust <u>and for the purposes of registration and operation of community-based care and support services, home-based care and residential care facilities, means a juristic person or a trust only."</u>;
- (k) the insertion of the following definition after the definition of "prescribed":
 - " 'private residential facility' means a residential care facility registered in terms of the Housing Development Schemes for Retired Persons Act, 1988 (Act No. 65 of 1988.)";
- (I) the substitution for the definition of "rehabilitation" of the following definition:
 - " 'rehabilitation' means a process by which an older person is enabled to reach and maintain his or her optimal physical, sensory, intellectual, psychiatric, spiritual or social functional level, and includes measures to restore functions or compensate for the loss or absence of a function, but excludes medical care.";
- (m) the insertion of the following definition after the definition of "rehabilitation":
- " 'residential care facility' means a building or structure that is used primarily for the 24 hour care, accommodation and provision of services to older persons in both public and private residential care facilities and it includes assisted-living, independent- living, frail care facilities,";
- (n) the insertion of the following definition after the definition of "social worker":
 - " 'stakeholder' means a person, civil society organisation or the public and private sector that has an interest in programmes or services rendered to older persons.; and
- (o) "Temporary safe care" means, in relation to older person, a shelter or any other place where an older person can be accommodated for as long as it is safe for him or her to remain there.

Amendment of section 2 of Act 13 of 2006

- 2. Section 2 of the principal Act is hereby amended by —
- (a) The substitution for paragraph (b) of the following paragraph:
 - "(b) recognise, maintain and protect the rights of older persons [;] in line with any laws and national policies on vulnerability, ageing, disability and families."; and
- (b) the substitution for paragraph (e) of the following paragraph:
 - "(e) <u>prevent</u> and combat the abuse of older persons.".

Amendment of section 3 of Act 13 of 2006

- 3. Section 3 of the principal Act is hereby amended by —
- (a) The substitution for subsection (1) of the following subsection:
 - "(1) Subject to this Act allocating roles and responsibilities, the Act must be implemented by all organs of state <u>and any other stakeholders</u> rendering services to older persons [in the national, provincial and, where applicable, local sphere of government] in an integrated, co-ordinated and uniform manner.";
- (b) the substitution for subsection (2) of the following subsection:
 - "(2) Recognising that competing social and economic needs exist, such organs of state <u>and stakeholders</u> must take reasonable measures to the maximum extent of their available resources to achieve the realisation of the objects of this Act.";

- (c) the substitution for subsection (3) of the following subsection:
 - "(3) To achieve the implementation of this Act in the manner contemplated subsections (1) and (2), all organs of state <u>and stakeholders</u> must co-operate in the development of a uniform approach aimed at co-ordinating and integrating the services delivered to older persons [."]; <u>and</u>
- (d) the addition of the following subsections "(4) and (5)":
 - "(4) There must be an inter-departmental structure to integrate, co-ordinate and monitor the effective implementation of this Act as prescribed; and
 - (5) The Offices of the Premier must facilitate and support the co-ordination and integration of the provincial plans and the implementation of this Act as prescribed.".

Amendment of section 4 of Act 13 of 2006

- **4**. Section 4 of the principal Act is hereby amended by the substitution for subsection (2) of the following subsection:
 - "(2) All organs of state and all officials, employees and representatives of organs of state <u>and stakeholders</u> must respect, protect and promote the rights of older persons contained in this Act.".

Amendment of section 5 of Act 13 of 2006

5. Section 5 of the principal Act is hereby amended by the substitution in subsection (1) for paragraph (b) of the following paragraph:

"(b) all proceedings, actions and decisions by any organ of state <u>and stakeholders</u> in any matter concerning an older person or older persons in general.".

Amendment of section 11 of Act 13 of 2006

- 6. Section 11 of the principal Act is hereby amended by the substitution in subsection (2) for paragraph (c) of the following paragraph:
- "(c) information, education and counselling services, including HIV and AIDS, care for orphans, Alzheimer's, Non communicable chronic disease, dementia and basic emergency care;"

Amendment of section 13 of Act 13 of 2006

- 7. Section 13 of the principal Act is hereby amended by —
- (a) the insertion after subsection (1) of the following subsection:
 - "(1A). Only a juristic person or a trust may be registered to provide community-based care and support services to older persons.".
- (b) the substitution for subsection (2) of the following subsection:
 - "(2) The Minister must prescribe conditions for the registration of community-based care and support services, including application for registration, approval of registration, temporary registration or conditional registration, duration of registration, withdrawal and termination of registration, and any matter contemplated in subsection (4).";
- (c) the substitution for subsection (4) of the following subsection:

- "(4) If the provider of a service for any reason intends to **[stop]** terminate or suspend the provision of service or the Department for any reason relating to the safety, health and non-compliance with the registration requirements, intends to terminate or suspend the service provider from providing the service, the service provider or the Department, as the case may be, must, prior to **[stopping]** the termination or suspension of the service or the service provider in question —
- (a) notify the manager of the service provider or the Director-General of the intention, reasons and the implications of such termination or suspension on the affected older persons;
- (b) inform the affected older persons and families of the intended termination or suspension of the service, the reasons for the intended termination or suspension; and
- (c) take reasonable steps to ensure that the older persons benefiting from
 the services are not adversely affected or put at risk and, where
 appropriate, are referred to a facility or institution providing similar
 services."

Amendment of section 14 of Act 13 of 2006

8. Section 14 of the principal Act is hereby amended by the deletion of subsection (4) of the Act.

Substitution of section 15 of Act 13 of 2006

- **9**. The following section is hereby substituted for section 15 of the principal Act:
- "Monitoring and evaluation of community-based care and support services
- **15.** Subject to section 22 of the Act and to the extent which that section is applicable, monitoring and evaluation of community-based care and support services may be conducted as prescribed."

Amendment of section 18 of Act 13 of 2006

- **10**. Section 18 of the principal Act is hereby amended —
- (a) by the substitution in subsection (1) for paragraph (a) of the following paragraph:
 - "(a) Subject to section 35, no person may operate a residential facility, including a private residential facility, assisted living facility or similar facility unless such facility has been registered under this section."; and
- (b) by the substitution for subsection (2) of the following subsection:
 - "(2) A juristic person **[who wishes]** or a trust wishing to operate a residential facility must, in the prescribed manner, apply to the Minister for registration thereof.

Amendment of section 25 of Act 13 of 2006

- **11**. Section 25 of the principal Act is hereby amended by the deletion of "or" just after the end of paragraph *(g)* and the insertion of paragraph *(i)* and *(j)* in subsection (5):
 - "(i) has been or is being maltreated, abused, neglected or degraded by a caregiver or family member; or
 - (j) has been accused of practicing witchcraft or blamed by the community for inexplicable events.".

12. Insertion of section 25A into Act 13 of 2006

(a) The following section is hereby inserted after section 25 of the principal Act:

"Removal of older person to temporary safe care without court order

- 25A. (1) A social worker or health care worker in the employ of the State or a police official must with the consent of an older person or duly authorised person in the event the older person is incapable of providing such consent, remove such older person and place that older person in a temporary safe care without a court order, if there are reasonable grounds for believing —
- (a) that the older person
 - (i) is in need of care and protection as contemplated for in section 25 (5) of the Act; and

- (ii) needs immediate emergency protection; and
- <u>"(b)</u> that the delay in obtaining a court order for the removal of an older person to temporary safe care may jeopardise the safety and well-being of the older person;" and
- (c) that the removal of the older person from his or her home or unsafe environment is the best way to secure the safety and well-being of that older person.
- (2) (a) If a social worker or health care worker has removed an older person and placed the older person in temporary safe care as contemplated in subsection (1), the social worker or health care worker must report the matter to the relevant provincial department of social development; and
- "(b) without delay but within 24 hours inform the family of the older person of such removal and the place where the older person has been moved to."
- (3) If a police official has removed an older person and placed the older person in temporary safe care as contemplated in subsection (1), the police official must —
- (a) without delay but within 24 hours inform the family of the older person of such removal; and
- (b) without delay but within 24 hours notify the provincial department of social development of the removal of the older person and of the place where the older person has been placed.

- (4) Misuse of a power referred to in subsection (1) by a social worker employed in terms of the Public Service Act (Proclamation 103 of 1994) or any other law or by a Non-Profit Organisation constitutes unprofessional or improper conduct as is contemplated for in section 27 (1) (b) of the Social Service Professions Act, 1978 (Act No. 110 of 1978) by that social worker.
- (5) Misuse of a power referred to in subsection (1) by a police official constitutes grounds for disciplinary proceedings against such police official as contemplated for in section 40 of the South African Police Service Act, 1995 (Act No. 68 of 1995).; and
- "(6) Misuse of a power referred to in subsection (1) by a health care worker constitutes grounds for disciplinary proceedings against such health care worker in accordance with section 23 of the Allied Health Professions Act, 1982 (Act No. 63 of 1982), section 3(n) of the Health Professions Act, 1974 (Act No. 56 of 1974), section 46 of the Nursing Act, 2005 (Act No. 33 of 2005), section 39 of the Pharmacy Act, 1974 (Act No. 53 of 1974) and section 35 of the Dental Technicians Act, 1979 (Act No. 19 of 1979), whichever Act is applicable."

Amendment of section 26 of Act 13 of 2006

- **13**. Section 26 of the principal Act is hereby amended by —
- (a) the substitution for subsection (1) of the following subsection:
 - "(1) Any person who suspects that an older person has been abused or suffers from an abuse-related injury must immediately notify the

Director-General, <u>a social worker</u> or a police official <u>or the facility manager</u>, if applicable of his or her suspicion."; and

- (b) the substitution in subsection (4) for paragraph (a) of the following paragraph:
 - "(a) the Director-General, social worker, police official or facility manager must investigate the matter and if the suspicion is substantiated by the investigation, section 25(4) applies with necessary modifications."

Amendment of section 28 of Act 13 of 2006

- **14.** Section 28 of the principal Act is hereby amended by the following insertion in paragraph (b) of subsection (6):
- "(b) refuses to furnish to a social worker or a health care provider any information in connection with the alleged abuse of an older person at his or her disposal which such officer requires for the purposes of an investigation referred to in subsection (3)[.] to the extent that-
- (i) the law regarding privilege as applicable to a witness summoned to give evidence in a criminal case in a magistrate's court shall apply in relation to the questioning of a person for purposes of that investigation: Provided that such a person shall not be entitled to refuse to answer any question upon the ground that the answer would tend to expose him or her to a criminal charge; and
- (ii) no evidence regarding any questions and answers for purposes of an investigation referred to in subsection (3) shall be admissible

in any criminal proceedings, except in criminal proceedings where the person concerned stands trial on a charge contemplated in in section 319(3) of the Criminal Procedure Act, 1955 (Act No. 56 of 1955).

Amendment of section 30 of Act 13 of 2006

- **15.** Section 30 of the principal Act is hereby amended by the substitution in subsection (3) for paragraph (a) of the following paragraph:
- "(a) 'physical abuse' means any act or threat of physical violence towards an older person [;] unlawful detention or shackling, deprivation of nutrition, neglect or exploitation of an older person;".

Amendment of section 31 of Act 13 of 2006

- **16.** Section 31 of the principal Act is hereby amended by the addition of the following subsection":
 - "(3) An application to the Minister for the removal of a name from the register may be brought by any person after the criminal record of the offender whose name appears in the register has been expunged in accordance with the provisions of sections 217A, 217B, 217C or 217D of the Criminal Procedure Act, 1977 (Act No. 51 of 1977)."

Substitution of section 33 of Act 13 of 2006

17. *(a)* The following section is hereby substituted for section 33 of the principal Act:

"Penalties

- **33.**(1) Any person convicted of an offence in terms of —
- (a) section 12(2), [14(4)], 18(1), 18(8), 18(9), 19(4), 22(5)(a), (b) or (c) or 28(6)(a) or (b) is liable to a fine or to imprisonment for a period not exceeding one year, or to both a fine and such imprisonment; or
- (b) section 21(8), 26(3), 27 (8)(a) or (b), 29(11) or 30(1) is liable to a fine or to imprisonment for a period not exceeding five years, or to both a fine and such imprisonment.
- (2) Notwithstanding the provisions of this section and any provision of this Act, any person designated by the Director-General shall have the power to close down any unregistered or illegal community-based care or residential care facility services or any similar services to older persons, and
- (a) such designated person may in writing direct any person operating unregistered or illegally to close down operations, immediately or within 24 hours;
- (b) where necessary enlist the assistance of the police to effect the closure;

- in instances where there is a material contravention of this Act by a registered community-based care services provider or residential facility operator, he or she may recommend to the Director-General that it be deregistered and closed; and
- (d) in instances where a person refuses to cooperate with, obstructs, defeats or misrepresents any fact to a social worker, health care worker, police official or any official exercising any reporting, enforcement and or monitoring powers conferred by this Act, such designated person may, upon receipt of such information recommend to the Director-General that the institution or facility concerned be deregistered or that the registration of the institution or facility be revoked; and
- (b) the addition of the following subsection:
 - "3. If a person designated by the Director-General has directed that a community-based care or residential care facility be closed down, deregistered or the registration of a community-based care or residential care facility be revoked, such designated person must
 - (a) notify the person in charge of the community-based care or residential care facility in writing of the intention to deregister the facility or the intention to revoke the registration of such facility;
 - (b) afford the person in charge of the community-based care or residential care facility an opportunity of no less than 30 days to make written

- representations in respect of such closure, deregistration or revocation of registration;
- (c) consider the representations made by the person in charge of the community-based care or residential care facility with regard to such closure, deregistration or revocation of registration; and
- (d) in writing, notify the person in charge of the community-based care or residential care facility of the decision regarding the closure, deregistration or revocation of registration of the facility."

Amendment of section 34 of Act 13 of 2006

- **18**. Section 34 of the principal Act is hereby amended by the following substitution for subsection (3) of the following subsection:
 - "(3) Any regulation made in terms of subsection (1) which affect the South African Police Service must be made after consultation with the [Minister for Safety and Security] Minister of Police."

Short title and commencement

- **19.** (1) This Act is called the Older Persons Amendment Act, 2016 and takes effect on a date fixed by the President by Proclamation in the *Gazette*.
- (2) Different dates may, under subsection (1), be so fixed in respect of different provisions of this Act.

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DEPARTMENT OF TRANSPORT NOTICE 427 OF 2017

INTERNATIONAL AIR SERVICE ACT, (ACT NO.60 OF 1993) GRANT/AMENDMENT OF INTERNATIONAL AIR SERVICE LICENSE

Pursuant to the provisions of section 17 (12) of Act No.60 of 1993 and Regulation 15 (1) and 15 (2) of the International Air Regulations, 1994, it is hereby notified for general information that the applications, detail of which appear in the Schedules hereto, will be considered by the International Air Services Council (Council) representation in accordance with section 16(3) of the Act No. 60 of 1993 and regulation 25(1) of International Air Services Regulation, 1994, against or in favour of an application, should reach the Chairman of the International Air Services Council at Department of Transport, Private Bag X 193, Pretoria, 0001, within 28 days of the application hereof. It must be stated whether the party or parties making such representation is / are prepared to be represent or represented at the possible hearing of the application.

APPENDIX II

- (A) Full name, surname and trade name of the applicant. (B) Full business or residential address of the applicant. (C) Class of licence applied for. (D) Type of International Air Service to which application pertains. (E) Category or kind of aircraft to which application pertains. (F) Airport from and the airport to which flights will be undertaken. (G) Area to be served. (H) Frequency of flight.
- (A) Owenair (Pty) Ltd; Owenair. (B) Main Terminal Building, Office 9, First Floor, Lanseria International Airport. (C) Class II & III; I/N039 & I/G309. (D) Type N1, N4 & G7. (E) Category A1, A2 & A3. (F) Cape Town International Airport & Lanseria International Airport. (G) Worldwide. Changes to Management Plan: D. G. Kincaid replaces K. G. Engler as the RP: Flight Operations & h. j. Grove as the Air Service Safety Officer.

DEPARTMENT OF TRANSPORT NOTICE 428 OF 2017

INTERNATIONAL AIR SERVICE ACT, (ACT NO.60 OF 1993) GRANT /AMENDMENT OF INTERNATIONAL AIR SERVICE LICENSE

Pursuant to the provisions of section 17 (12) of Act No.60 of 1993 and Regulation 15 (1) and 15 (2) of the International Air Regulations,1994, it is hereby notified for general information that the applications, detail of which appear in the Schedules hereto, will be considered by the International Air Services Council (Council) representation in accordance with section 16(3) of the Act No. 60 of 1993 and regulation 25(1) of International Air Services Regulation, 1994, against or in favour of an application, should reach the Chairman of the International Air Services Council at Department of Transport, Private Bag X 193, Pretoria, 0001, within 28 days of the application hereof. It must be stated whether the party or parties making such representation is / are prepared to be represent or represented at the possible hearing of the application.

APPENDIX I

- (A) Full name, surname and trade name of the applicant. (B) Full business or residential address of the applicant. (C) Class of licence applied for. (D) Type of International Air Service to which application pertains. (E) Category or kind of aircraft to which application pertains. (F) Airport from and the airport to which flights will be undertaken. (G) Area to be served. (H) Frequency of flight.
- (A) Flyfofa Airways (Pty) Ltd. (B) Hangar 12, Rand Airport, Germiston, 1401. (C) Class I. (D) Type S1 & S2. (E) Category A1. (F) OR Tambo International Airport & Moshoeshoe Airport. (G) Maseru (Lesotho). (H) Five (5) return flights per week.

DEPARTMENT OF TRANSPORT NOTICE 429 OF 2017

AIR SERVICE LICENSING ACT, 1990 (ACT NO.115 OF 1990) APPLICATION FOR THE GRANT OR AMENDMENT OF DOMESTIC AIR SERVICE LICENCE

Pursuant to the provisions of section 15 (1) (b) of Act No. 115 of 1990 and Regulation 8 of the Domestic Air Regulations, 1991, it is hereby notified for general information that the application detail of which appear in the appendix, will be considered by the Air Service Licensing Council. Representation in accordance with section 15 (3) of the Act No.115 of 1990 in support of, or in position, an application, should reach the Air Service Licensing Council. Private Box X 193, Pretoria, 0001, within 21 days of date of the publication thereof.

APPENDIX I

- (A) Full name and trade name of the applicant. (B) Full business or residential address of the applicant. (C) Class of licence applied for. (D) Type of air service to which application applies. (E) Category of aircraft to which application applies.
- (A) Eugene Pretorius and Associates (Pty) Ltd; EPA. (B) 30 Liter Street, Middleburg, Mpumalanga. (C) Class III. (D) Type G3, G4 & G16 (Commercial operations, aerial applications, security and deliveries / RPAS). (E) Category A4, H1 & H2.
- (A) TBU-The Broadcast Unit (Pty) Ltd. (B) 700 Greenside Court, Dainfern, Gauteng. (C) Class III. (D) Type G2, G3, G4, G10 & G16 (Remotely Puloted Aircraft System. (E) Category H1.
- (A) Drone Visuals (Pty) Ltd; Drone Visuals. (B) 101 Brampton Avenue, Lynwood Manor, Pretoria, 0081. (C) Class III. (D) Type G16 (Remotely Piloted Aircraft System). (E) Category H1.
- (A) Flyfofa Airways (Pty) Ltd. (B) Hangar 12, Rand Airport, Germiston, 1401. (C) Class I. (D) Type S1 & S2. (E) Category A1.
- (A) FIM Aviation (Pty) Ltd; FIM Aviation. (B) 7 Barcelona, 52 Mulder Street, The Reeds, Centurion, 0157. (C) Class II & III. (D) Type N1, N2, G1, G2, G3, G4, G5, G6, G7, G8, G10, G11, G12, G13, G14, G15 & G16 (Offshore, Flipping & Powerline Maintenance). (E) Category H2
- (A) QCK Lezmin 4867 (Pty) Ltd; Heligistix. (B) Lot H82 Farm, 2300m East of Hluhluwe, Mkuze Road P2, 1Km North of Ngweni River Crossing, Hluhluwe Rural Inst 1251. (C) Class II & III. (D) Type N1, N2, G2, G3, G5, G10 & G15. (E) Category H2.

DEPARTMENT OF TRANSPORT

NOTICE 430 OF 2017

AIR SERVICE LICENSING ACT, 1990 (ACT NO.115 OF 1990) APPLICATION FOR THE GRANT OR AMENDMENT OF DOMESTIC AIR SERVICE LICENCE

Pursuant to the provisions of section 15 (1) (b) of Act No. 115 of 1990 and Regulation 8 of the Domestic Air Regulations, 1991, it is hereby notified for general information that the application detail of which appear in the appendix, will be considered by the Air Service Licensing Council. Representation in accordance with section 15 (3) of the Act No.115 of 1990 in support of, or in position, an application, should reach the Air Service Licensing Council. Private Box X 193, Pretoria, 0001, within 21 days of date of the publication thereof.

APPENDIX I

- (A) Full name and trade name of the applicant. (B) Full business or residential address of the applicant. (C) Class of licence applied for. (D) Type of air service to which application applies. (E) Category of aircraft to which application applies.
- (A) VPM Surveys CC; VPM Surveys. (B) 16 Green Street, Knysna, Western Cape, 6570. (C) Class III. (D) Type G3, G4 & G16 (RPAS operations). (E) Category A4.
- (A) Zanolite (Pty) Ltd; Zanolite Helicopters. (B) 779 Kamdebo Street, Florauna, Pretoria North, 0058. (C) Class II & III. (D) Type N1, N2, G3, G4, G5, G8, G10 & G15. (E) Category H2.

APPENDIX II

- (A) Full Name and trade name of the applicant. (B) Full business or residential address the applicant. (C) The Class and number of license in respect of which the amendment is sought (D) Type of air service and the amendment thereto which is being applied for (E) Category of aircraft and the amendment thereto which is being applied for. (F) Amendment reffered to in section 14(2) (b) to I.
- (A) Black Eagle Aviation Services CC. (B) Office 1b, Main Terminal Building, Grand Central Airport, Midrand. (C) Class II & III;N1058D & G1059D. (D) Type G2, G3, G4, G5, G6, G7, G8, G10, G13, G14 & G15. (E) Category A2, A3 & H2. Adding category H1 & type G16 (Ship to Shore).
- (A) Grace Air (Pty) Ltd. (B) 477 Whitherite Street, The Willows, Pretoria, 0184. (C) ClassII & III; N956D & G903D. Type N1, N2, G3, G4, G8, G10, G15 & G16 (Flipping). (E) Category A4 & H2. Changes to the Management Plan: Mr Eugene du Preez is appointed as the Chief Executive Officer, Responsible Person: Flight Operations, Responsible Person: Aircraft and Mr Edward Viljoen is appointed as Air Service Safety Officer.
- (A) Owenair (Pty) Ltd; Owenair. (B) Main Terminal Building, Office 9, First Floor, Lanseria International Airport. (C) Class II & III; N107D & G1258D. (D) Type N1, N2 & G7. (E) Category A1, A2, A3 & A4. Changes to the Management Plan: D. G. Kincaid replaces K. G. Engler as the RP: Flight Operations & h. j. Grove as the Air Service Safety Officer.

BOARD NOTICES • RAADSKENNISGEWINGS

BOARD NOTICE 98 OF 2017



The Allied Health Professions Council of South Africa

Castelli Suite, Il Villaggio, 5 de Havilland Crescent South, Persequor Technopark, Pretoria

Telephone (012) 349 2331 Fax (012) 349 2327

Email: registrar@ahpcsa.co.za Website: www.ahpcsa.co.za

19 May 2017

PROFESSIONAL BOARD: AYURVEDA, CHINESE MEDICINE AND ACUPUNCTURE AND UNANI TIBB: THE USE OF NEEDLES: UNPROFESSIONAL CONDUCT

The Allied Health Professions Council of South Africa after due consideration and in consultation with the Professional Board: Ayurveda, Chinese Medicine and Acupuncture and Unani-Tibb (PBACMU) has resolved that –

- The reuse of single use needles is unacceptable as it puts patients needlessly at risk and it therefore constitutes unprofessional conduct on the part of the practitioner concerned. Practitioners are required to observe at all times the safety requirements associated with the use of needles and to use needles only in accordance with the manufacturer's recommendations and to dispose of such appropriately.
- 2. The use of blade needles currently falls outside the scope of practice of Acupuncture. The use of such needles will therefore constitute unprofessional conduct until such time as their use is included in the scope of practice for Acupuncture and proper education and training for the use of blade needles is available.

DR LOUIS MULLINDER REGISTRAR

BOARD NOTICE 99 OF 2017

FINANCIAL MARKETS ACT, 2012

GRANITE CENTRAL SECURITIES DEPOSITORY (PROPRIETARY) LIMITED: OPERATING RULES

I, Dube Phineas Tshidi, Registrar of Securities Services, hereby give notice under section 71(1) of the Financial Markets Act, 2012 (Act No. 19 of 2012) that the rules of Granite Central Securities Depository (Proprietary) Limited have been published on its official website (www.granitecsd.co.za.co.za) and on the official website of the Financial Services Board (www.fsb.co.za).

The effective date of these rules will be the date of publication of this Notice.

D P TSHIDI

D.P18H121

REGISTRAR OF SECURITIES SERVICES

WARNING!!!

To all suppliers and potential suppliers of goods to the Government Printing Works

The Government Printing Works would like to warn members of the public against an organised syndicate(s) scamming unsuspecting members of the public and claiming to act on behalf of the Government Printing Works.

One of the ways in which the syndicate operates is by requesting quotations for various goods and services on a quotation form with the logo of the Government Printing Works. Once the official order is placed the syndicate requesting upfront payment before delivery will take place. Once the upfront payment is done the syndicate do not deliver the goods and service provider then expect payment from Government Printing Works.

Government Printing Works condemns such illegal activities and encourages service providers to confirm the legitimacy of purchase orders with GPW SCM, prior to processing and delivery of goods.

To confirm the legitimacy of purchase orders, please contact:

Renny Chetty (012) 748-6375 (Renny.Chetty@gpw.gov.za),

Anna-Marie du Toit (012) 748-6292 (Anna-Marie.DuToit@gpw.gov.za) and

Siraj Rizvi (012) 748-6380 (Siraj.Rizvi@gpw.gov.za)

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