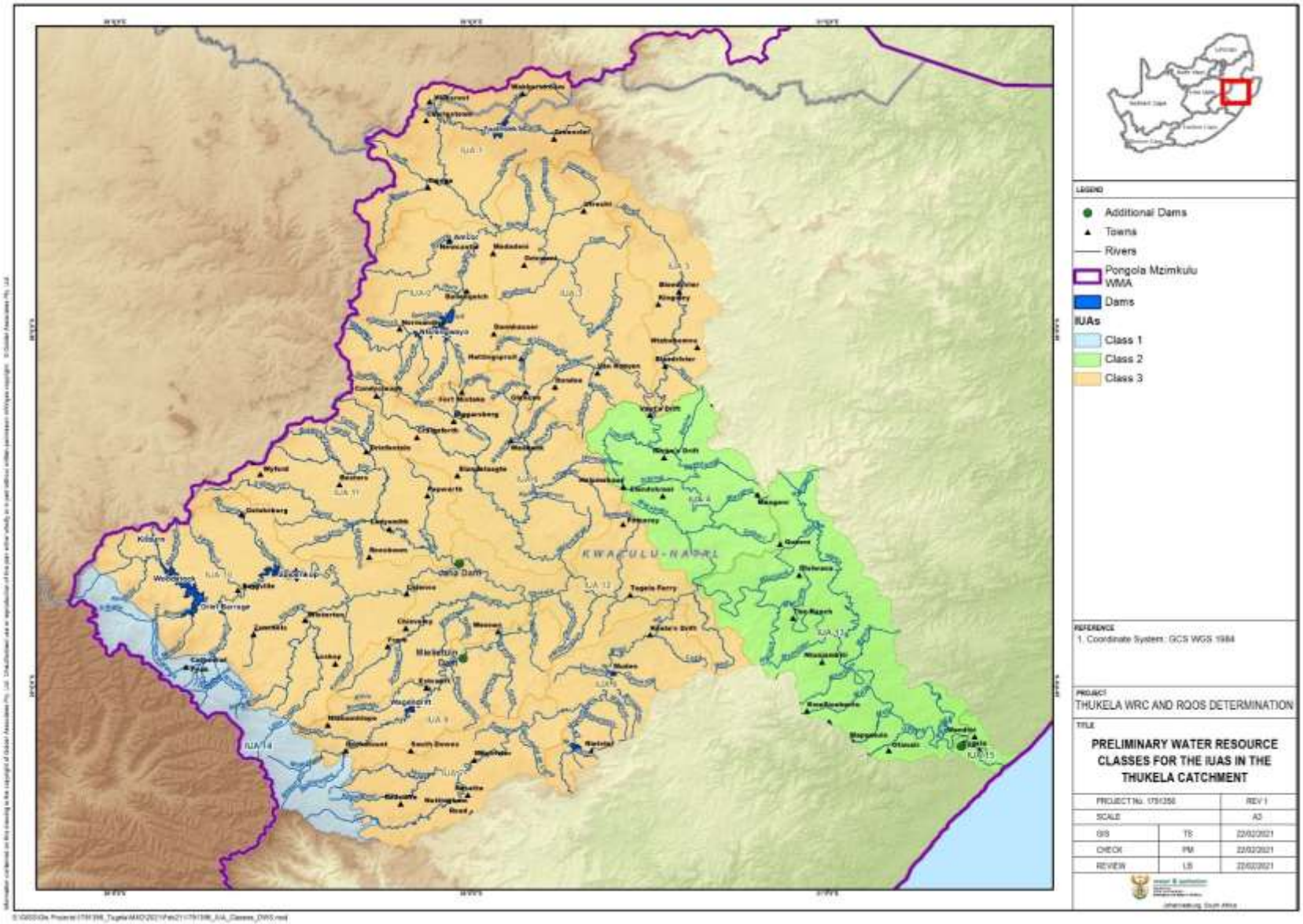
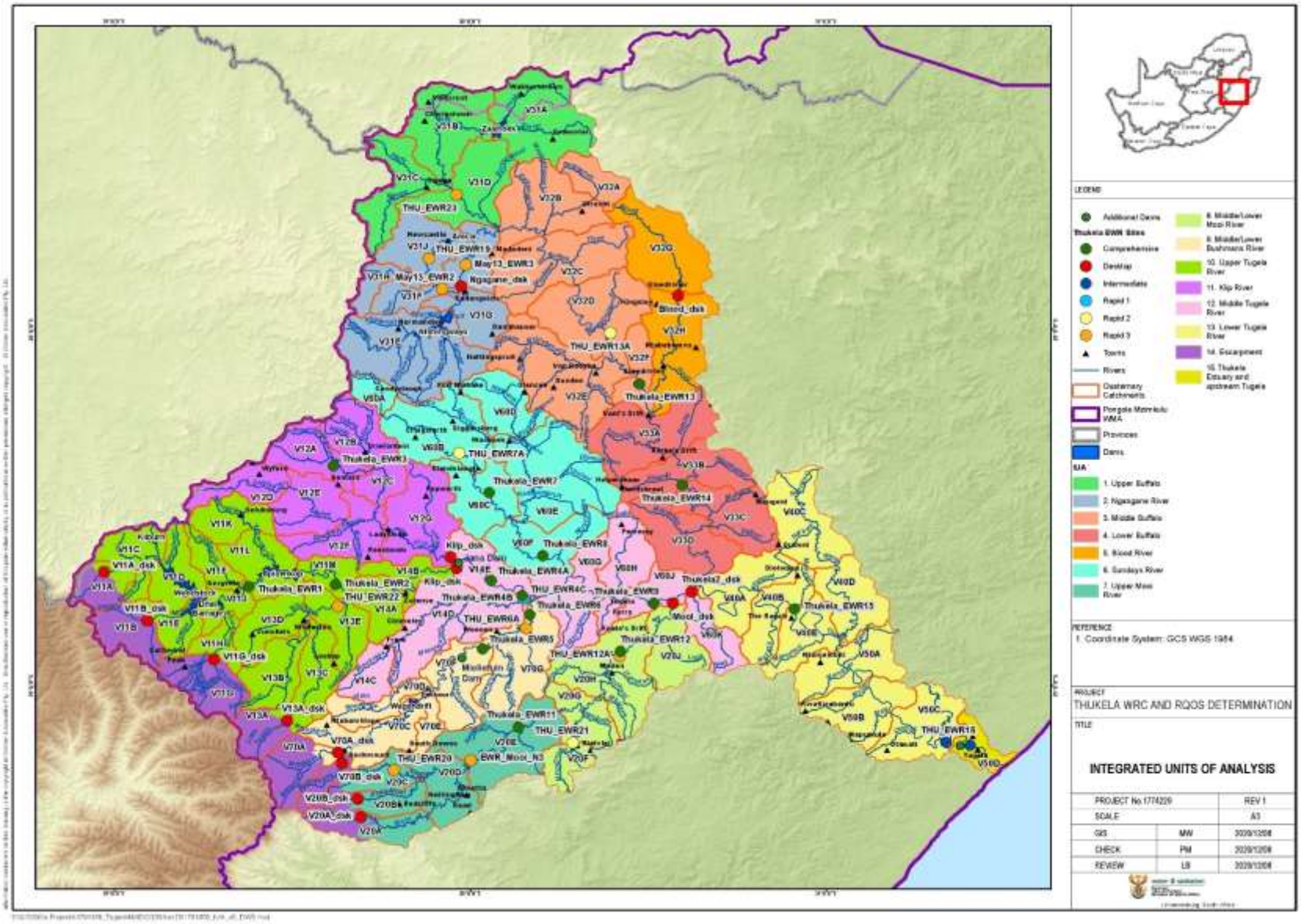
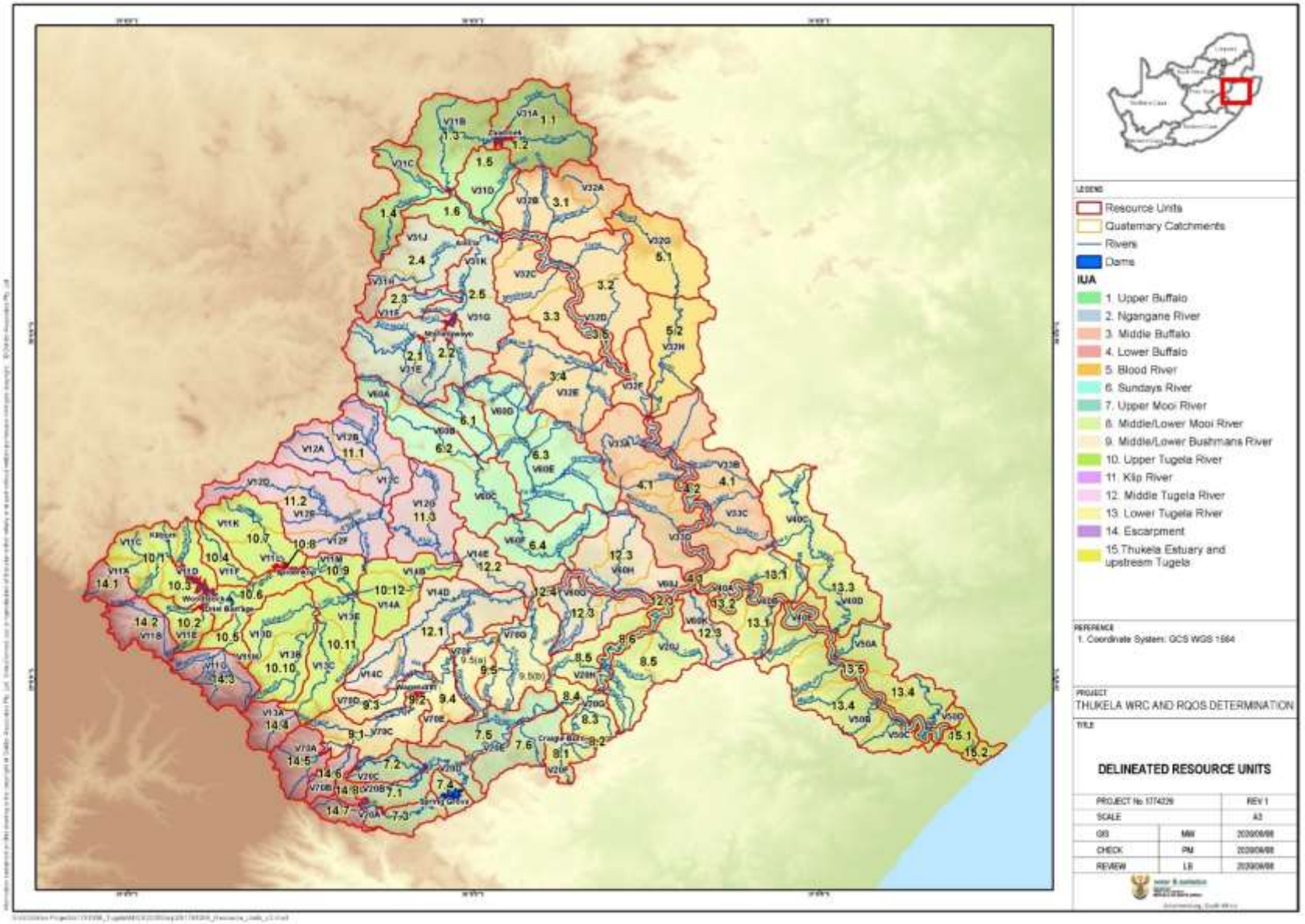
ISITHASISELO



Umdwebo 1: Izinhlobo zamazinga emithombo yamanzi egeleza emfuleni uThukela



Umdwebo 2: Ukuhlaziywa Ngokwamayunithi Ahlanganisiwe kwamanzi ageleza emfuleni uThukela



Umdwebo 3: Amanzi ngokwamaYunithi ageleza emithonjeni yomfula uThukela

IThebula 1: Amanqampunqampu Ngezinhlobo Zemithombo Yamanzi ngokoCwaningo Lwamayunithi Ahlanganisiwe (IUA) Nemikhakha Yezemvelo Ehlosiwe – Emifuleni engenela oThukela

I-IUA	Izinga Lomthombo Elihlongo-zwayo	Igama Lesigceme	Umthombo omncane ongenela emfuleni	Amayunithi Omthombo	Igama Lomfula	Umkhakha Wezemvelo Ohlosiwe (TEC)	Amanzi Agelezayo Ngonyaka (million m^3/a) (nMAR)	I-EWR ngokwephesenti lamanzi agelezayo ngonyaka
1: Umfula lBuffalo esenhla	**III**	W1	V31A	**1.1**	Indawo engamachibi yaseWakkerstroom	B	97.065	29.0%
		-	V31A	**1.2**	Yidamu laseZaaihoek	-	-	-
		R1 (Desktop)	V31B	**1.3**	Yimifula iBuffalo neSlang	C	161.44	23.12
		THU_EWR23	V31D	**1.6**	Yinhlangano yeBuffalo neNgagane	C	221.96	23.44%
2: Umfula iNgagane	**III**	R5	V31E	**2.1**	Yisenhla neNgagane kuya eDamini iNtshingwayo	C	32.089	20.48%
		-	V31E	**2.2**	Yidamu iNtshingwayo	-	-	-
		May13_EWR2	V31F	**2.3**	Yi-Horn River	C	21.61	33.65%
		THU_EWR19	V31J	**2.4**	Umfula iNcandu	B/C	50.83	29.36%
		May13_EWR3	V31K	**2.5**	Umfula iNgagane	C/D	160.12	19.44%
3: Umfula iBuffalo ephakathi	**III**	R9	V32A, B	**3.1**	Umfula iDorps (kubalwa neKweek neWasbankspruit) kuya ehlanganweni neBuffalo	-	-	-
		R10	V32D	**3.2**	Yi-Tiyna, e-Eerstelingsfontein	-	-	-
		-	V32E	**3.4**	UMzinyashana okubalwa neSterkstroom neSandspruit	-	-	-
		UThukela_EWR 13	V32F	**3.5**	Yi-Middle Buffalo	C/D	695.05	17.36%
		UThukela_EWR 14	V33A, B, C, D	**4.2**	Yi-Lower Buffalo	C	831.09	23.24%
5: I-Blood River	**III**	W2	V32G	**5.1**	Amachibi ase-RU: eBlood River	-	-	-
		R15 (Blood_dsk)	V32H	**5.2**	Yi-Blood River	C	94.71	21.36%
6: I-Sundays River	**III**		V60B	**6.1**	YiNkunzi kuya ehlanganweni ne-Upper Sundays River	C	24.94	31.79%
		Thukela_EWR7	V60C	**6.2**	Yi-Upper Sundays River	C/D	90.28	19.71%
		R16	V60D, E	**6.3**	Yi-Wasbank kuya enhlanganweni ne-Sundays	C/D	78.33	19.51
		Thukela_EWR8	V60F	**6.4**	Yi-Lower Sundays River	D	197.03	16.45%

I-IUA	Izinga Lomthombo Elihlongo-zwayo	Igama Lesigceme	Umthombo omncane ongenela emfuleni	Amayunithi Omthombo	Igama Lomfula	Umkhakha Wezemvelo Ohlosiwe (TEC)	Amanzi Agelezayo Ngonyaka (million m^3/a) (nMAR)	I-EWR ngokwephesenti lamanzi agelezayo ngonyaka
7: Yisenhla neMooi River	**III**	R19	V20B (lower portion), D	**7.1**	Yi-Klein – Yi-Mooi kusuka emthonjeni kuya enhlanganweni ne-Mooi	C	124.85	22.83
		THU_EWR20	V20C	**7.2**	Umfula iNsonge	B/C	27.13	28.99%
		R22	V20A (lower portion), D (upper)	**7.3**	YiMooi River esenhla nedamu iSpring Grove	C	92.98	22.69
		-	V20D	**7.4**	Yidamu iSpring Grove / Mearns Weir	-	-	-
		UThukela_EWR 11	V20E	**7.5 a**	Yi-Mooi River (Emfushane)	C/D	301.14	20.57%
				7.5b	Yi-Mooi River (Ende)	B/C		35.41%
		-	V20E	**7.6**	Yi-Joubertsvlei kuya enhlanganweni neMooi	-	-	-
		-	V20F	**8.2**	Yidamu iCraigieburn	-	-	-
		THU_EWR21	V20G	**8.3**	Umfula uMnyamvubu	C	31.71	19.94%
		THU_EWR12A	V20H	**8.6**	Yi-Mooi River	C	361.85	29.82%
		-	V70C	**9.2**	Yidam iWagendrift	-	-	-
		R28	V70D	**9.3**	Umhosha iLittle Bushman kuya enhlanganweni neBushman	-	-	-
		R29	V70E, F (upper part)	**9.4**	YiBushman's kusuka eWagendrift kuya ehlanganweni neRensburgspruit kwehlele eMtshezi	-	-	-
		Thukela_EWR5	V70F (lower)	**9.5a**	Yi-Middle Bushman's River	C	281.45	29.04%
		THU_EWR6A	V70G	**9.5b**	Yi-Lower Bushman's River	C/D	298.37	40.62%
10: Yisenhla noThukela	**III**	R30	V11A (lower portion), C, D	**10.1**	Yimithombo engenela oThukela, yiPutterill, amaMajaneni, yiKhombe	-	-	-
		-	V11D, E	**10.3**	Yidamu iWoodstock	-	-	-
		R32	V11F	**10.4**	Umthombo ongenela eSandspruit	-	-	-
		Thukela_EWR1	V11J	**10.6**	Yisenhla noThukela	D	705.42	7.04%
		-	V11L	**10.8**	Yidamu iSpioenkop	-	-	-
		Thukela_EWR2	V11M	**10.9**	Yisenhla noThukela	C/D	798.4	17.67%

I-IUA	Izinga Lomthombo Elihlongo-zwayo	Igama Lesigceme	Umthombo omncane ongenela emfuleni	Amayunithi Omthombo	Igama Lomfula	Umkhakha Wezemvelo Ohlosiwe (TEC)	Amanzi Agelezayo Ngonyaka (million m^3/a) (nMAR)	I-EWR ngokwephesenti lamanzi agelezayo ngonyaka
		R37	V13B, D	**10.10**	Imithombo engenela eSterkspruit, naseSitulwane	-	-	-
		Thukela_EWR3	V13 E	**10.11**	UThukela Oluncane	C/D	285.2	24.71%
		Thukela1_dsk	V14B	**10.12**	UThukela	C/D	1145.20	18.33%
11: I-Klip River	**III**	R40	V12D, E and F	**11.1**	YiSandspruit nemifudlana engena khona	-	-	-
		THU_EWR22	V12A, B, C,	**11.2**	Yi-Klip River	C	52.44	22.15%
		R42 (Klip_dsk)	V12G	**11.3**	Yi-Klip River	C	253.09	20.0%
		Thukela_EWR4B	V14E	**12.2**	UThukela Olumaphakathi	C	1423.83	25.09%
		Thukela_EWR9	V60J	**12.4**	UThukela Olumaphakathi	D	2050.76	20.26%
		Thukela_EWR15	V40A, B	**13.2**	UThukela Olusezansi	C	3424.00	21.98%
		THU_EWR16	V50C	**13.5**	UThukela Olusezansi	C	3679.97	37.83%
14: Imifudlana	**I**	R52 (V11A_dsk)	V11A	**14.1**	UThukela Olusenhla	B	82.32	Refer Table 19 for detail
		R53 (V11B_dsk)	V11B	**14.2**	Umfula iMnweni	B	142.69	
		R54 (V11G_dsk)	V11G	**14.3**	Umfula uMlambonja	B	191.99	
		R55 (V13A_dsk)	V13A	**14.4**	UThukela Oluncane	B	82.32	
		R56 (V70A_dsk)	V70A	**14.5**	Yisenhla ne-Bushman's River	B	113.46	
		R57 (V70B_dsk)	V70B	**14.6**	Umfula iNcibidwana	B	44.16	
		R58 (V20A_dsk)	V20A	**14.7**	Yisenhla ne-Mooi River	B	42.90	
		R59 (V20B_dsk)	V20B	**14.8**	Yi-Mooi River encane (esenhla)	B/C	10.32	
15: Uzalo loThukela nezindawo zoThukela uma unyuka	**II**	THU_EWR17	V50D	**15.1**	UThukela Olusezansi	C	3690.53	37.38%
		-	V50D	**15.2**	Ozalweni (u-8.5 km uma unyuka)	C	-	-

IThebula 2: Izinjongo Zamazinga Emithombo (RQOs) YEMIFULA NAMADAMU ngokwamaYunithi Emithombo (RUs) Ocwaningweni LwamaYunithi Ahlanganisiwe 1: I-BUFFALO RIVER ESENHLA

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Indlela Yokuhlola	Incazelo ye-RQO	Inkomba	Imikhawulo ngokwezinombolo/ ngokwezilinganiso		
IUA 1: I-BUFFALO RIVER ESENHLA	III	Amayunithi emachibini amanzi ase-Wakkerstroom **V31A**	1.1	Umthamo	Ukugeleza kwamanzi	Izidingo Zamanzi Zemvelo (EWR) Ukulawulwa kokugeleza kwamanzi nezomiso: I-Slang River ku-V3R003 e-V31A NMAR = 97.065 x10^{6}m^{3} Umkhakha Ohlosiwe Wemvelo (TEC) owu-B. Kumele kulawulwe ukugeleza kancane kwamanzi nesomiso ukuze kubhekelelwe imvelo edinga amanzi esenhla nomfula.	Ukunakekelwa kokugeleza kwamanzi nesomiso – ikakhulukazi ezindaweni ezingamachibi ezisenhla nedamu iZaaihoek (V3R003) Ukulawula ukugeleza kwamanzi e-V3R003		Ukulawula ukugeleza kancane kwamanzi (m^{3}/s)	Ukugeleza kancane kwamanzi ngesomiso (m^{3}/s)
								Okthoba	0.221	0.007
								Novemba	0.418	0.081
								Disemba	0.610	0.075
								Januwari	0.83	0.180
								Febuwari	1.069	0.231
								Mashi	0.812	0.176
								Ephreli	0.576	0.127
								Meyi	0.319	0.004
								Juni	0.185	0.039
								Julayi	0.142	0.036
								Agasti	0.121	0.032
								Septhemba	0.137	0.035
				Izinga	Imisoco	Akumele ehle amazinga emisoco futhi kumele akwazi ukulekelela impilo yemvelo yasemanzini futhi kongiwe isimo semvelo ekhona (PES B)	I-Orthophosphate ngokwe-P	≤0.01 mg/L (50th we-percentile)		
							I-Nitrogen engalungile isiyonke (TIN)	≤0.5 miligremu weLitha (mg/L) (50th we-percentile)		
					Osawoti	Osawoti bemvelo abakhona kumele banakekelwe ukuze kulekelelwe imvelo yasemanzini futhi kongiwe isimo semvelo ekhona (PES B)	Sebebonke osawoti emanzini	≤120 miligremu weLitha (mg/L) (95th we-percentile)		
					IPhathogeni	Ukuba khona kwephathogeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 wesibalo ku-100 miligremu (isibalo/100 mL)		
				I-Biota	Izinhlanzi	Ukugeleza kwamanzi nezinga lamanzi adingwa yizinhlanzi kumele kugcinwe kukahle ngokomkhakha wemvelo owu-PES B.	*I-Enteromius (Barbus) anoplus* (BANO) *I-Amphilius natalensis* (ANAT) *I-Anguilla mossambica* (AMOS)	. FRAI ≥ 82%).		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Indlela Yokuhlola	Incazelo ye-RQO	Inkomba	Imikhawulo ngokwezinombolo/ ngokwezilinganiso
						Uhlu Lokuhlolwa Kwempilo Yofishi (FRAI) kumele lwenziwe minyaka yonke ukuqapha isimo sezemvelo ezibekwe emkhakheni B. Ngesikhathi kuhlolwa amazinga kuzona zonke izinhlobo zezinhlanzi ezinhlala emanzini agelezayo ngaleso sikhathia (i-BANO, i-ANAT ne-AMOS		I-BANO ne-ANAT ≥ 5 wezingxenye ngokwezinhlobo.
					Okuphila emanzini	Kumele kugcinwe kahle amazinga amanzi ukubhekelela izilwanyana ezincane eziphila emanzini. Impilo yezilwannyana eziphila emanzini kumele inakekelwe ngokwezinga lokunakekelwa kwemvelo B noma okungcono kunalokho.	Uhlu Olukhombisa Ukuhlolwa Kwezindlela Zokunakekela izilwanyana zasemanzini (MIRAI) Uhlelo Lokubeka Amaphuzu lwaseNingizmu Afrika (SASS) (I-Baetidae 2 sp I-Perlidae I-Tricorythidae I-Hydropsychidae 1 sp I-Leptoceridae I-Ancyidae I-I-Psephenidae	Ukuthwalwa kwamasampuli okungenani amabili e-Biotopes: Izilwanyana zasemanzini ngokobuningi kumele zibe ngu ≥ A Uhlelo Lokubeka Amaphuzu LwaseNingizimu Afrika (SASS) 5 wamaphuzu ≥180 Amaphuzu avamile ngokweTaxon (ASPT): ≥6.0 I-MIRAI ≥ 82%
					I-Diatoms	Kumele umkhakha wemvelo ugcinwe uku B.	Uhlu Lokungcoliseka Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: ≥15 I-PTV: 20% to < 40%
		Idamu iZaaihoek **V31A**	1.2	Umthamo	Umthamo wamanzi edamini	Ukuvuselela nokubuyekeza imithetho yokusebenza ukuze kugcinwe umthamo wamanzi edamini wenele ukulekelela bonke abawasebenzisayo kanjalo nempilo yemvelo yasemanzini esezansi nedamu. Umthamo wamanzi edamini kumele ulawulwe ukuvikela imvelo nabantu abasebenzisa amanzi ezansi nedamu.	Amazinga aphansi okusebenza kwamanzi abekwayo ngokwemithetho yokusebenza, adingekayo damini.	
				Izinga	Imisoco		I-Orthophosphate (PO_4^-) eyi-Phosphorus	≤0.01 miligremu ngeLitha (mg/L) (50^{th} i-percentile)

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Indlela Yokuhlola	Incazelo ye-RQO	Inkomba	Imikhawulo ngokwezinombolo/ ngokwezilinganiso		
						Amazinga emisoco kumele agcinwe ekahle ukuze amanzi nezimo zemvelo kube sesimweni ezihle.	I-Nitrogen seyiyonke esemanzini (TIN^-) eyi-Nitrogen	≤0.5 miligremu ngeLitha (mg/L) (50^{th} i-percentile)		
					Osawoti	Amazinga kasawoti kumele agcine kahle ukuze amanzi nemvelo kube sezingeni nasesimweni esifanele.	Osawoti abasemanzini sebebonke	≤120 miligremu ngeLitha (mg/L) (95^{th} i-percentile)		
					System variables	Izinga le-pH kumele liqikelelwe lingeqi emikhawulweni ebekiwe yokunakekela impilo yasemanzini nezidingo zabasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5^{th} i-percentile) no ≤9.0 (95^{th} i-percentile)		
						Kucaciswe amanzinga okwehla kwamanzi aphansi. Amanzi akumele ehle edlule ku-10% wamazinga aphansi.	Ukudungeka			
					I-Pathogens	Ukuba khona kwe-pathogens akumele kubeke engcupheni impilo yabantu.	*I-Escherichia coli*	≤130 Izibalo ku 100 mililitha (izibalo/ 100 mL)		
		I-Buffalo ne-Slang **V31B**	1.3	Umthamo	Ukugeleza kancane	Izidingo Zamanzi Zemvelo (EWR) ukulawula ukugeleza kancane kwamanzi nesomiso: Emlonyeni womfula iBuffalo River ku-V31B NMAR = 161.44 x$10^6$$m^3$ Injongo Yomkhakha Wemvelo (TEC) we-C. Ukugcinwa kokugeleza kancane kwamanzi nesomiso kumele kunakekelwe ukuze kwesekelwe impilo yasemanzini enhla nomfula.	Ukunakekela ukugeleza kwamnzi nesomiso enhla nomfula iBuffalo River		Ukulawula ukugeleza kancane kwamanzi (m^3/s)	Ukugeleza kancane kwamanzi ngesomiso (m^3/s)
								Okthoba	0.404	0.075
								Novemba	0.698	0.127
								Disemba	0.991	0.123
								Januwari	1.367	0.467
								Febuwari	1.764	0.488
								Mashi	1.353	0.373
								Ephreli	0.972	0.278
								Meyi	0.565	0.078
								Juni	0.346	0.085
								Julayi	0.275	0.086
								Agasti	0.243	0.078
								Septhemba	0.404	0.075
				Izinga	Imisoco	Amazinga emisoco kumele akhushulwe ukuze kulondolozwe impilo yezinto eziphila emanzini nokuhlangabezana nezidingo zemvelo.	I-Orthophosphate (PO_4^-) eyi-Phosphorus	≤0.5 miligremu weLitha (mg/L) (50^{th} i-percentile)		
							Isiyonke i-Nitrogen (TIN^-) eyi-Nitrogen	≤1 miligremu weLitha (mg/L) (50^{th} i-percentile)		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Indlela Yokuhlola	Incazelo ye-RQO	Inkomba	Imikhawulo ngokwezinombolo/ ngokwezilinganiso
					Osawoti	Amazonga osawoti kumele agcinwe kahle ukuze kwesekwe noma kwenziwe ngcono amanzi ukweseka abawasebenzisayo ezansi nomfula.	Osawoti sebebonke abasemanzini	≤350 miligremu weLitha (mg/L) (95th i-percentile)
					I-Pathogens	Ukuba hona kwe-pathogens kumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 wezinhlayiya ku 100 miligremu (izinhlayiya/ 100 mL) (95th i-percentile)
					Ezinye izinto ohlelweni	Ubungako be-pH kumele kuhlale kugcinwe kuyisikalo esidingekayo ukweseka impilo yasemanzini nezidingo zabantu abasebenzisa amanzi.	Ubungako be-pH	≥6.5 (5th i-percentile) no ≤9.0 (95th i-percentile)
					Izinto Ezinobungozi	Ubungako be-Ammonia akumele kubeke engcupheni abantu nemvelo.	I-Ammonia eyi-N	≤0.07 miligremu weLitha (mg/L)
				Okuphila emanzini	Okusemfuleni	Ukugeleza kwemvelo kwamanzi kumele uqhubeke kanjalo ngokoMkhanka weMvelo C.	Uhlu Lwezilwanyana Eziphila Emanzini (IHI): Emfuleni	IHI ≥ 62%
				I-Biota	Izinhlanzi	Ukugeleza kwamanzi namazinga amanzi ezinhlanzi ezizwelayo emanzini kumele kugcinwe kumkhakha wemvelo oyi-PES C. Uhlu Lokuhlola Impilo Yezinhlazi (FRAI) kumele lwenziwe minyaka yonke ukuqapha umkhakha wemvelo C. Kumele kucwaningwe amazinga empilo yakho konke okuphila emanzini nazo zonke izilwanyana ezikhona (i-BANO, i-ANAT, i-AMOS ne-LRUB). Kumele kubhekelelwe izidingo zenhlalo yezilwanyana ze-LRUB – ezindaweni eziyiziziba namanzi agijimayo ashonayo.	*I-Enteromius (Barbus) anoplus* (BANO) *I-Amphilius natalensis* (ANAT) *I-Anguilla mossambica* (AMOS) *I-Labeo rubromaculatus* (LRUB)	FRAI≥ 62% I-BANO ne ANAT ≥ 5 wezinhlobo ezahlukene.
					Izilwanyana azasemanzini	Kumele kunakekelwe amazinga amanzi nokugeleza kwamanzi ukubhekelela izilwanyana zasemanzini. Amazinga amanzi kumele abe kumkhakha wemvelo C ukwenzela izilwanyana zasemanzini noma enziwe ngcono.	Uhlu Lokuhlolwa Ukunakekelwa Kwezilwanayana zasemanzini Macroinvertebrate Response Assessment Index	Okungenani amasampuli awu-2 e-biotopes: umthambo kumele ube ngu ≥ B ngokobuningi Amaphuzu 5 oHlelo Lwamaphuzu LwaseNingizimu Afrika: 145 – 200 Amaphuzu avamile ngokwe (ASPT): 6.0 – 7.6

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Indlela Yokuhlola	Incazelo ye-RQO	Inkomba	Imikhawulo ngokwezinombolo/ ngokwezilinganiso		
							Uhlelo Lwamaphuzu LwaseNingizimu Afrika (SASS) I-Baetidae 2 sp I-Perlidae I-Heptageniidae I-Hydropsychidae 2 sp I-Elmidae I-Leptophlebidae	I-MIRAI ≥ 62%		
					Ama-Diatoms	Kumele kugcinwe umkhakha wemvelo owu C.	Uhlu Lokuzwela Ekungcoleni (SPI) Amaphesenti okubekezelela ukungcola (%PTV)	I-SPI: 12 -14 I-PTV: 20% kuya ku < 40%		
					Indawo ne-Riparian	Izihlahla ze-riparian kumele zinakekelwe ngokwe-VEGRAI ≥ C yoMkhakha Wemvelo.	Uhlu Lokuhlola Ukuzwela Kwemvelo (VEGRAI)	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu-5. I-VEGRAI ewu ≥62%		
		Enhlanganweni yeBuffalo neNgagane **V31C, V31D** **(THU_EWR23)**	**1.6**	Umthamo	Amanzi ageleza kancane	Ukunakekela Izidingo Zemvelo Zamanzi (EWR) ageleza kancane nesomiso: Yi-Buffalo River esayithini ye-EWR THU_EWR23 (-27.6221, 29.9617) kwi-V31D NMAR = 221.96 x$10^6$$m^3$ Umkhakha Wemvelo Olindelekile (TEC) owu C. Kumele kunakekelwe ukugeleza kancane kwamanzi nesomiso ukuze kubhekelelwe impilo eyimvelo yasemanzini enhla nasezansi nomfula kuze kuyofika enhlanganweni nomfula iNgagane.	Ukunakekela izidingo zamanzi ageleza kancane nesomiso okudingekayo emfuleni iBuffalo River		Ukugcina amanzi egeleza kancane (m^3/s)	Ukugeleza Kancane ngenxa yesomiso (m^3/s)
								Okthoba	0.563	0.107
								Novemba	0.952	0.170
								Disemba	1.342	0.167
								Januwari	1.866	0.641
								Febuwari	2.412	0.648
								Mashi	1.854	0.518
								Ephreli	1.335	0.382
								Meyi	0.784	0.146
								Juni	0.484	0.128
								Julayi	0.386	0.121
								Agasti	0.342	0.114
								Septhemba	0.386	0.143
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe kahle noma enziwe ngcono ukuze kulondolozwe impilo yasemanzini futhi kuhlangatshezwane nezidingo zemvelo ezibekiwe (Umkhakha Wemvelo C)	I-Orthophosphate (PO_4^-) eyi-Phosphorus	≤0.5 mg/L (50^{th} i-percentile)		
							Isiyonke i-Nitrogen (TIN^-) eyi-Nitrogen	≤1 miligremu weLitha (mg/L) (50^{th} i-percentile)		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Indlela Yokuhlola	Incazelo ye-RQO	Inkomba	Imikhawulo ngokwezinombolo/ ngokwezilinganiso
					Osawoti	Amazinga osawoti kumele agcinwe kahle noma abe ngcono ukwenzela abasebenzisa amanzi ezansi nomfula.	Sebebonke osawoti emanzini	≤350 miligremu weLitha (mg/L) (95th i-percentile)
							I-Sulphate	≤80 miligremu weLitha (mg/L) (95th i-percentile)
							I-Chloride	≤30 miligremu weLitha (mg/L) (95th i-percentile)
					Izinhlobo zezinto ezitholakalayo	Amazinga e-pH kumele agcinwe kahle ephakathi kwemikhawulo ebekiwe ukweseka impilo yasemanzini nezidingo zabantu abasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th i-percentile) no ≤9.0 (95th i-percentile)
						I-Alkaline kumele igcinwe isemazingeni emukelekile ukulekelela abasebenzisa amanzi ezansi nomfula.	Amazinga e-Alkaline ngokwe mg/L $CaCO_3$	≤120 miligremu weLitha (mg/L) eyi $CaCO_3$
					Izinto ezinobungozi	Amanzinga ezinto ezinobungozi akumele abeke engcupheni impilo yezinto eziphila emanzini nempilo yabantu.	I-Aluminium (Al)	≤ 0.1 miligremu weLitha (mg/L) (95th i-percentile)
							I-Manganese (Mn)	≤ 0.2 miligremu weLitha (mg/L) (95th percentile)
							I-Cadmium (Cd)	≤ 0.001 miligremu weLitha (mg/L) (95th i-percentile)
							I-Iron (Fe)	≤ 0.1 miligremu weLitha (mg/L) (95th i-percentile)
							I-Lead (Pb) eqinile	≤ 0.01 miligremu weLitha (mg/L) (95th i-percentile)
							I-Copper (Cu) eqinile	≤ 0.007 miligremu weLitha (mg/L) (95th percentile)
							I-Nickel (Ni)	≤ 0.07 miliremu weLitha (mg/L) (95th i-percentile)
							I-Ammonia (ewu N)	≤ 0.07 miligremu weLitha (mg/L) (95th i-percentile)
				Okuphila Emanzini	Emfuleni	Izibalo zokuphila emanzini kumele zigcinwe eMkhakheni Wemvelo owu C.	Index of Habitat Integrity (IHI): Instream	IHI ≥ 42%
				I-Biota	Izinhlanzi	Izilwane zasemanzini nezinhlanzi ezizwelayo endleleni yokugeleza kwamanzi nezinga lamanzi kumele zigcinwe eMkhakheni Wemvelo owu PES C. Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokoMkhakha Wemvelo C obekiwe.	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Amphilius natalensis* (ANAT) *I-Anguilla mossambica* (AMOS)	FRAI ≥ 62% Izinkomba zempilo ye-BANO, BPAL, BPAU – ne ANAT ≥ 5 wohlobo ngalunye

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Indlela Yokuhlola	Incazelo ye-RQO	Inkomba	Imikhawulo ngokwezinombolo/ ngokwezilinganiso
						Kumele kwenziwe ucwaningo ngezinhlobo zonke zokuphila emanzini okukhona (i-BANO, i-ANAT, i-AMOS, i-LRUB, i-BPAL, i-BPAU).	*I-Labeo rubromaculatus* (LRUB) *I-Barbus (Enteromius) pallidus* (BPAL) *I-Barbus (Enteromius) paludinosus* (BPAU)	
					Izilwanyana zasemanzini	Kumele kugcinwe uhlu lwezilwanyana zasemanzini ezizwelayo ekugelezeni kwamanzi nezinga lamanzi. Uhlu lwezilwanyana zasemanzini luyogcinwa emkhakheni wemvelo C noma okungcono kunalokho.	Uhlo Lokuhlola Impilo Yezilwanayana Zasemanzini (MIRAI) noHlelo Lwamaphuzu lwaseNingizimu Afrika 5 (SASS5) I-Baetidae 2 sp I-Atyidae I-Hydracarina I-Heptageniidae I-Leptophlebiidae I-Ecnomidae I-Elmidae I-Tricorythidae	Amasampuli ezinhlobo eziwu-3: Umthamo kumele ube ku ≥ B ngokobuningi. Amaphuzu e-SASS awu 5: 120 – 200 Amaphuzu avamile ngeTaxon (ASPT): 5.5 – 6.5 I-MIRAI ≥ 62%
					Ama-Diatoms	Umkhakha Wemvelo kumele ugcinwe uwu C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Amaphesenti Okubekezelela ukungcola (%PTV)	I-SPI: 12 - 14 I-PTV: 20% kuya ku <40%
					Indawo ene-Riparian	Izihlahla ze-riparian kumele zinakekelwe kahle kwi-VEGRAI ≥ Umkhakha Wemvelo C.	Uhlu Lokuhlolwa Ukuzwela Kwemvelo (VEGRAI) Uhlu Lokubheka Ukufaneleka Kwendawo (IHI): i-Riparian	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu 5 . I-VEGRAI ewu ≥62%

IThebula 3: Izinjongo Zamazinga Emithombo (RQOs) YEMIFULA NAMADAMU ngokwamaYunithi Emithombo (RUs) Ocwaningweni LwamaYunithi Ahlanganisiwe 2: UMFULA INGAGANE

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Indlela Yokuhlola	Incazelo ye-RQO	Inkomba	Imikhawulo ngokwezinombolo /ngokwezilinganiso		
IUA 2: INGAGANE	III	Ingagane esenhla kuze kuyofika edamini iNtshingwayo **V31E**	**2.1**	Umthamo	Amanzi Ageleza kancane	Ukunakekelwa Kwezidingo Zemvelo Zamanzi (EWR) ageleza kancane nesomiso: Umfula iNgagane kuya enhlanganweni yeKlipspruit ku V31E NMAR = 32.089 x10^{6}m^{3} Umkhakha Wemvelo Ohlosiwe (TEC) Womkhakha C Kumele kunakekelwe amanzi ageleza kancane nesomiso ukuze kwesekwe imvelo yasemanzini enhla nedamu.	Ukunakekelwa kwamanzi nesomiso ezindaweni ezingamachibi nasenhla nomfula iNgagane ngenhla kwedamu iNtshingwayo (V3R001)		Ukugcina amanzi egeleza kancane (m^3/s)	Ukugeleza kwamanzi ngenxa yesomiso (m^3/s)
								Okthoba	0.054	0.020
								Novemba	0.082	0.014
								Disemba	0.112	0.009
								Januwari	0.168	0.074
								Febuwari	0.229	0.100
								Mashi	0.189	0.083
								Ephreli	0.139	0.062
								Meyi	0.082	0.037
								Juni	0.051	0.023
								Julayi	0.037	0.018
								Agasti	0.054	0.020
								Septhemba	0.082	0.014
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe kahle oma enziwe ngcono ukunakekela impilo yasemanzini nokuhlangabezana nezimo ezidingekayo zemvelo (uMkhakha Wemvelo C)	I-Ortho-phosphate (PO_4^-) eyi- Phosphorus	≤ 0.05 miligremu welitha (mg/L) (50th i-percentile)		
							Total Inorganic Nitrogen (TIN^-) as Nitrogen	≤ 1 miligremu weLitha (mg/L) (50th i-percentile)		
					Osawoti	Amazinga kasawoti kumele egcinwe ekahle noma engcono ukuze kusizakale abasebenzisa amanzi ezansi nomfula.	Total Dissolved Solids	≤ 350 miligremu weLitha (mg/L) (95th i-percentile)		
					Izinhlobo zokusemanzi-ni	Amazinga e-pH kumele agcinwe ephakahi kwemikhawulo ebekiwe ukusiza imvelo yasemanzini nabadinga ukusebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th i-percentile) no ≤9.0 (95th i-percentile)		
				Okuphila emfuleni	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe ngokoMkhakha Wemvelo C.	Uhlu Lwesimo Sokuphila Emfuleni (IHI): Emfuleni	I-IHI yasemfuleni: (izinga A/B) Umkhakha wemvelo (80% – 100%)		

				I-Biota	Izinhlanzi	Izinhlobo zezinhlazi ezizwelayo ekugelezeni kwamanzi nezinga lamanzi kumele zigcinwe emkhakheni wemvelo oyi PES C. Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ukuqapha uMkhakha wemvelo C. Uma kucwaningwa wonke amazinga okuphila emfuleni, zonke izilwane ezikhona yilezi (i-BANO, i-ANAT, i-LRUB, i-BPAL ne-BPAU).	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Amphilius natalensis* (ANAT) *I-Labeo rubromaculatus* (LRUB) *I-Barbus (Enteromius) pallidus* (BPAL) *I-Barbus (Enteromius) paludinosus* (BPAU)	I-FRAI ≥ 62% i-BANO, i-BPAL, i-BPAU – izinkomba zokuphila emfuleni ne-ANAT ≥ 5 wohlobo ngalunye
					Izilwanyana azasemanzini	Kumele kugcinwe uhlu lwezilwanyana zasemanzini ezizwelayo ekugelezeni kwamanzi nasezingeni lamanzi. Uhlu lwezilwanyana zasemanzini kumele lugcinwe emkhakheni wemvelo C noma okungcono kunalokho.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noHlelo Lwamaphuzu LwaseNingzimu Afrika, Umbhalo 5 (SASS5) I-Baetidae >2 spp I-Atyidae I-Heptageniidae I-Leptophlebiidae I-Hydropsychidae >1 spp	Okungenani amasampuli awu-2 ezilwanyanaa zasemanzini; ezisohlwini ≥ B ngokomthamo Amaphuzu e-SASS 5: 120 – 200 Amaphuzu avamile ngeTaxon (ASPT): 5.5 – 6.5 I-MIRAI ≥ 62%
					Ama-Diatoms	Kumele kugcinwe umkhakha wemvelo owu B.	Specific Pollution Sensitivity Index (SPI) Percentage pollution tolerant values (%PTV)	I-SPI: 15 - 17 I-PTV: 20% to <40%
					Izindawo okutholakala kuzo iRiparian	Izindawo ezinezihlahla ze-riparian kumele zilondolozwe emkhakheni wemvelo we VEGRAI ≥ C.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI) Uhlu lokuhlolwa Kwesimo sendawo (IHI): Izihlahla ze-Riparian	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 62%
		V31E	**2.2**	Umthamo	Amazinga edamu	Ukuvuselelwa nokubuyekezwa kwemithetho yokusebenza ukuze kugcinwe kahle amazinga amanzi edamini ukweseka impilo yasemanzini nabasebenzisa amanzi ezansi nedamu. Amazinga amanzi edamini kuleme alawulwe ukuvikela imvelo kanjalo	Amazinga okusebenza aphansi ancike emithethweni yokusebenza edingekayo yedamu.	

						nabasebenzisa amanzi ezansi nedamu.		
				Izinga	Imisoco	Concentration of total nitrate must beUbungako bemisoco yonke ekhona kumele kugcinwe kahle ukuze kulondolozeke imvelo nezinga lamanzi elidingekayo kwabasebenzisa amanzi. Idamu kumele linakekelwe njengohlelo lokulondoloza amanzi noma kangcono. Kumele ligcinwe lisesimweni salo esihle samanje, kugwenywe ukwanda kolwelwe.	Total Inorganic Nitrogen (TIN)	≤1.0 miligremu weLitha (mg/L) (50th i-percentile)
							I-Ortho-phosphate (PO_4^-) ngokwe-Phosphorus	≤0.05 miligremu (mg/L) (50th i-percentile)
					Osawoti	Osawoti edmini kumele banakekelwe kahle ukuze kubhekelelwe imvelo namazinga amanzi adingwa abantu abasebenzis aamanzi ezansi nomfula.	Sebebonke isawoti abasemanzini	≤120 miligremu weLitha (mg/L) (95th i-percentile)
					Izinto ezisemanzini	I-pH kumele igcinwe isemazingeni abekiwe.	I-pH	6.5 (5th i-percentile) no 9.0 (95th i-percentile)
						Amanzi agcinwe kahle ukuze akhanye. Akumele ehluke ngaphezu kuka 10% ukusuka emazingeni aphansi	Ukungcola	
					Iphathojeni	Ubungako bephathojeni akumle kubele impilo yabantu engcupheni	*I-Escherichia coli*	≤130 wezibalo ku 100 mililitha (isibalo / 100 mL)
				I-Biota	Izilwane	Indawo kumele inakekelwe ukulekelela izilwane ezisohlwini lweRed List.	Ukuba khona kwe: Oribi (*Ourebia ourebia*)	
					Izinyoni	Indawo kumele inakekelwe ukulekelela izilwane ezisohlwini lweRed List.	Ukuba khona kwe: Southern Bald Ibis (*Geronticus calvus*) Grey Crowned Crane (*Balearica regulorum*) Blue Crane (*Anthropoides paradiseus*) African Marsh Harrier (*Circus ranivorus*) Corned Crake (*Crex crex*) African Grass Owl (*Tito capensis*) Secretarybird (*Sagittarius serpentarius*) Whitebellied Korhaan (*Eupodotis senegalensis*)	

							Ground Woodpecker (*Geocolapts olivaceus*)			
					Impilo yezihlahla zohlobo lwe-Riparian	Ukulawula umthombo wmaanzi ukuze kubhekelelwe imvelo yasemanzini ehlukene (emfuleni, izilwane nezilwanyana zasemanzini, izihlahla ze-Riparian). Kwenziwe ucwaningo ngezihlahla ze-riparian njalo eminyakeni emithathu.	U-80% wezihlahla ze-riparian			
		I-Horn kuya ehlanganweni neNgagane **V31** **(May 13_ EWR 2)**	**2.3**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iHorn esayithini EWR May13_ EWR2 (-27.888, 29.921) kwi V31F NMAR = 21.61 x10^{6}m^{3} Injongo Yomkhakha ezemvelo (TEC) owu C Ukumele kunakekelwe amanzi ageleza kancane nesomiso ukuze kusizakale imvelo yasemanzini enhla nomfula.	Ukunakekelwa kwamanzi nesomiso kuyadingeka kwi-Horn River Ukugadwa kokugeleleza kwamanzi ku V3H009		Ukunakekela amanzi ageleza kancane (m^3/s)	Ukugeleza kancane kwesomiso(m^3/s)
								Okthoba	0.086	0.01
								Novemba	0.134	0.009
								Disemba	0.183	0.009
								Januwari	0.272	0.047
								Febuwari	0.362	0.063
								Mashi	0.295	0.051
								Ephreli	0.209	0.037
								Meyi	0.117	0.021
								Juni	0.069	0.013
								Julayi	0.053	0.01
								Agasti	0.05	0.01
								Septhemba	0.061	0.011
				Izinga	Imisoco	Amazinga emisoco kumele enziwe ngcono ukugcina kahle imvelo yasemanzini nokuhlangabezana nezinga elibekiwe lezemvelo (umkhakha C)	I-Ortho-phosphate (PO_4^-) eyi-Phosphorus	≤ 0.02 miligremu weLitha (mg/L) (50th i-percentile)		
							Isiyonke iNitrogen (TIN^-) eyi Nitrogen	≤1.0 miligremu weLitha (mg/L) (50th i-percentile)		
					Osawoti	Osawoti emfuleni kumele benziwe ngcono bahlangabezane nomkhakha wemvelo onconyiwe namazinga amanzi adingekayo kubasebenzisi bamanzi.	Sebebonke osawoti emanzini	≤ 350 miligremu weLitha (mg/L) (95th i-percentile)		
							I-Sulphate	≤ 165 miligremu weLitha (mg/L) (95th i-percentile)		
							I-Chloride	≤ 120 milligrams per Litre (mg/L) (95th percentile)		
					Izinto ezisemanzini	Amazinga e-pH kumele agcinwe esemikhawulweni ebekiwe ukuze eseke imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th i-percentile) no ≤9.0 (95th i-percentile)		

					Izinto ezinobungozi	Umthamo wezinto ezinobungozi akumele ubeke engcupheni impilo yasemanzini futhi ube yingozi empilweni yabantu.	I-Ammonia ewu-N	≤ 0.07 miligemu weLitha (mg/L) (95th i-percentile)
							I-Aluminium (Al)	≤ 0.10 miligremu weLitha (mg/L) (95th i-percentile)
							I-Manganese (Mn)	≤ 0.15 miligremu weLitha (mg/L) (95th i-percentile)
							I-Iron (Fe)	≤ 0.1 miligremu weLitha (mg/L) (95th i-percentile)
							I-Lead (Pb) eqinile	≤ 0.001 miligremu weLitha (mg/L) (95th i-percentile)
							I-Copper (Cu) hard	≤ 0.007 miligremu weLitha (mg/L) (95th i-percentile)
							I-Nickel (Ni)	≤ 0.07 miligremu weLitha (mg/L) (95th i-percentile)
							I-Cobalt (Co)	≤ 0.05 miligremu weLitha (mg/L) (95th i-i-percentile)
							I-Zinc (Zn)	≤ 0.002 miligremu weLitha (mg/L) (95th i-percentile)
							I-Atrazine	≤0.08 miligremu weLitha (mg/L)
							I-Mancozeb	≤0.009 miligremu weLitha (mg/L)
							I-Glyphosate	≤0.7 miligremu weLitha (mg/L)
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke ekngcupheni impilo yabantu	*I-Escherichia coli*	≤130 yesibalo ku 100 mililitha (isibalo/ 100 mL) (95th i-percentile)
				Okuhlala emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kungashintshwa eMkhakheni weMvelo B/C.	Index of Habitat Integrity (IHI): Instream	IHI Instream (class B/C) Ecological Category (≥ 62%)
				I-Biota	Izinhlanzi	Izinhlobo zezinhlanzi ezizwelayo emanzini agelezayo nezinga lamanzi kumele zigcinwe noma zandiswe ngokomkhakha wemvelo PES C.	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Amphilius natalensis* (ANAT) *I-Anguilla mossambica* (AMOS) *I-Labeo rubromaculatus* (LRUB) *I-Barbus (Enteromius) pallidus* (BPAL) *I-Labeobarbus natalensis* (BNAT)	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ukuqapha umkhakha wemvelo C obekiwe. I-FRAI iwu ≥ 62% Ngesikhathi socwaningo kuwona wonke amazinga okuhlala emanzini kuzona zonke izilwane ezikhona (i-BANO, i-ANAT, i-AMOS, i-LRUB, i-BPAL ne BNAT). i-BANO, i-BPAL – izinkomba zokuhlala emanzini; ne ANAT ewu ≥ 5 uhobo ngalunye

					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini agelezayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe ezingeni lomkhakha wemvelo C noma elingcono.	Uhlu Lokuhlola Impilo Yezilwanyana zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae 2 spp I-Leptophlebiidae I-Tricorythidae I-Leptoceridae I-Perlidae I-Hydropsychidae >2spp	Ama-biotopes awu 3 ahloliwe: ubuningi bomthamo kumele kube wu ≥ B. Amaphuzu e-SASS 5: ≥213 Amaphuzu avamile nge-taxon (ASPT) amaphuzu: ≥7.2 I-MIRAI ≥ 62%		
					Ama-Diatoms	Umkhakha Wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 12-14 I-PTV: 20% kuya ku < 40%			
					Izihlahla ze-Riparian	Izihlahla ze-riparian kumele zinakekelwe kahle kwi-VEGRAI ≥ uMkhakha weMvelo C.	Uhlu Lokuhlola Impilo Yezihlahla zasemanzini (VEGRAI)	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu-5. I-VEGRAI ≥62%			
		INcandu kuya enhlanganweni neNgagane **V31H, V31J** **(THU_EWR19)**	**2.4**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iNcandu esayithini ye-EWR THU_EWR19 (-27.8017, 29.8840) in V31J NMAR = 50.83 x10^6m^3 Umkhakha Wemvelo Obhekiwe (TEC) womkhakha B/C Ukunakekelwa kwamanzi ageleza kancane nesomiso kumele kuqhubeke ukulekelela imvelo yasemanzini enhla nasezansi nomfula iNcandu River.	Ukunakekelwa komfula nokugeleza kwamanzi ngesomiso emfuleni iNcadu		Ukunakekela ukugeleza kancane kwamanzi (m^3/s)	Ukugeleza kwamanzi esomiso (m^3/s)
								Okthoba	0.151	0.023	
								Novemba	0.238	0.02	
								Disemba	0.327	0.02	
								Januwari	0.488	0.128	
								Febuwari	0.651	0.170	
								Mashi	0.529	0.139	
								Ephreli	0.373	0.099	
								Meyi	0.208	0.057	
								Juni	0.120	0.034	
								Julayi	0.091	0.027	
								Agasti	0.087	0.026	
								Septhemba	0.105	0.029	
				Izinga	Imisoco	Amazinga emisoco kumele enziwe ngcono ukugcina kahle imvelo yasemanzini nokuhlangabezana nezidingo zemvelo	I-Orthophosphate (PO_4^-) eyi-Phosphorus	≤0.05 miligremu weLitha Litre (mg/L) (50th i-percentile)			
							Isiyonke iNitrogen eyingozi (TIN^-) eyiNitrogen	≤1 miligremu weLitha (mg/L) (50th i-percentile)			
					Osawoti	Osawoti emfuleni kumele bagcinwe bekahle noma babe ngcono ukweseka impilo yasemanzini	Osawoti bonke abasemanzini	≤350 miligremu weLitha (mg/L) (95th i-percentile)			

						namazinga amanzi adingekayo kwabasebenzisa amanzi		
						Izinga lomfula kumele ligcinwe lilihle	I-Sulphate	≤ 165 miligremu weLitha (mg/L) (95th i-percentile)
						Izinga lomfula kumele igcinwe lilihle	I-Chloride	≤ 120 miligremu weLitha (mg/L) (95th i-percentile)
					Izinto ezisemanzini	Amazinga e-pH kumele agcinwe kahle esemikhawulweni ebekiwe ukulekelela impilo yasemanzini nezidingo zabasebenzisa amanzi.	Umthamo we-pH	≥6.5 (5th i-percentile) no ≤9.0 (95th i-percentile)
					Izinto ezinobungozi	Umthamo wezinto eziwubungozi emanzini akumele ubeke engcupheni impilo yezilwane zasemanzini noma impilo yabantu.	I-Ammonia eyi N	≤ 0.07 miligremu weLitha (mg/L) (95th i-percentile)
							I-Aluminium (Al)	≤ 0.10 miligremu weLitha (mg/L) (95th i-percentile)
							I-Manganese (Mn)	≤ 0.15 miligremu weLitha (mg/L) (95th i-percentile)
							I-Cadmium (Cd)	≤ 0.001 milligrams per Litre (mg/L) (95th percentile)
							I-Iron (Fe)	≤ 0.1 miligremu weLitha (mg/L) (95th percentile)
							I-Lead (Pb) eqinile	≤ 0.001 miligremu weLitha (mg/L) (95th i-percentile)
							I-Copper (Cu) eqinile	≤ 0.007 miligremu weLitha (mg/L) (95th i-percentile)
							I-Nickel (Ni)	≤ 0.07 miligremu weLitha (mg/L) (95th i-percentile)
							I-Cobalt (Co)	≤ 0.05 miligremu weLitha (mg/L) (95th i-percentile)
							I-Zinc (Zn)	≤ 0.002 miligremu weLitha (mg/L) (95th i-percentile)
							I-Atrazine	≤0.08 miligremu weLitha (mg/L)
							I-Mancozeb	≤0.009 miligremu weLitha (mg/L)
							I-Glyphosate	≤0.7 miligremu weLitha (mg/L)
							I-Benzene	≤0.01 miligremu weLitha (mg/L) (95th i-percentile)
							I-Toluene	≤0.7 miligremu weLitha (mg/L) (95th i-percentile)
							Amafutha nowoyela	2.5 miligremu weLitha (mg/L)
					Iphathojeni	Ukuba khona kwephathojeni emanzini akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 wezibalo ku 100 mililitha (izibalo/ 100 mL) (95th i-percentile)
				Okuhlala emanzini	Emfuleni	Kumele kugcinwe umfula ugeleza ngokwemvelo ngokoMkhakha weMvelo B.	Uhlu Lwezinto Ezihlala Emfuleni (IHI): Emfuleni	IHI ≥ 82%
				I-Biota	Izinhlanzi	Izinhlobo zezinhlanzi ezizwelayo emanzini agelezayo nezinga lamanzi kumele kugcinwe kukahle	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI).	I-FRAI ≥ 72%

						noma kungcono ngokomkhakha wemvelo PES B/C. Kumele kube noHlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) olwenziwa minyaka yonke lokuqapha ngokomkhakha wemvelo B obekiwe. Uma kucwaningwa kubhekwa zonke izinhlobo zezilwane ezihlala emanzini ezikhona (ANAT, AMOS, LRUB, BPAU, BNAT ne BVIV).	*I-Amphilius natalensis* (ANAT) *I-Anguilla mossambica* (AMOS) *I-Labeo rubromaculatus* (LRUB) *I-Barbus (Enteromius) paludinosus* (BPAU) *I-Labeobarbus natalensis* (BNAT) *I-Barbus (Enteromius) viviparus* (BVIV)	Izinkomba zokuhlala emanzini i-BVIV, BNAT, BPAU; ne ANAT ≥ 5 wohlobo ngalunye		
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini agelezayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe ngokomkhakha wemvelo B/C noma okungcono kunalokho.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu LwaseNingizimu Afrika (SASS5) I-Baetidae >2 spp I-Heptageniidae I-Leptophlebiidae I-Tricorythidae I-Leptoceridae I-Perlidae I-Hydropsychidae >1spp I-Elmidae I-Psephenidae I-Dixidae	Amasampuli ezinhlobo eziwu 3: Umtamo ube ku ≥ B wobuningi. Amaphuzu e-SASS 5: ≥190 Amaphuzu avamile ngeTaxon (ASPT): ≥6.0 I-MIRAI ≥ 62%		
					Ama-Diatoms	Umkhakha weMvelo kumele ugcinwe ku B.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Ipheseti lokubekezelela ukungcola (%PTV)	I-SPI: 15 - 17 I-PTV: < 20%		
					Izihlahla ze-Riparian	Izihlahlaze-riparian kumele zigcinwe kwi VEGRAI ≥ C yoMkhakha weMvelo.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni eu 5. I-VEGRAI ≥ 62%		
		Ingagane kusuka edamini iNtshingwayo kuya enhlanganweni neBuffalo **V31G, V31K**	**2.5**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iNgagane esayithini EWR May13_EWR3 (-27.819, 29.987) ku V31K NMAR = 160.12 x10^{6}m^{3} Umkhakha wemvelo ohlosiwe (TEC) womkhakha C/D	Ukunakekelwa nokubhekwa kwamanzi agelezayo nesomiso emfuleni iNgagane		Ukunakekela Ukugeleza Kancane Kwamanzi (m^{3}/s)	Ukugeleza kangane kwesomiso (m^{3}/s)
								Okthoba	0.366	0.091
								Novemba	0.560	0.068

		(May 13_ EWR3)				Ukunakekelwa kokugeleza kwamanzi nesomiso kumele kwenzeke ukulekelela impilo yasemanzini esenhla nasezansi komfula iNgagane kuzo kuyoshaya enhlanganweni nomfula iBuffalo.		Disemba	0.762	0.051
								Januwari	1.138	0.527
								Febuwari	1.541	0.711
								Mashi	1.269	0.587
								Ephreli	0.928	0.433
								Meyi	0.539	0.202
								Juni	0.326	0.112
								Julayi	0.243	0.123
								Agasti	0.234	0.119
								Septhemba	0.273	0.111
					Ukudedelwa kwamanzi	Amanzi ayodedelwa ngoKwezidingo Zamanzi Zemvelo (EWR) esuka edamini iChelmsford (V3R001) nomfula iHorn	Amanzi adinga ukudedelelwa umfula iNgagane		Amanzi (m^3/s)	Izinsuku
								Novemba	10.0	2
								Disemba	12.0	2
								Januwari	15.0	2
								Febhuwari	20.0	2
								Mashi	10.0	2
				Izinga	Imisoco	Amazinga emisoco kumele enziwe ngcono ukubhekelela impilo yasemanzini nokuhlangabezana nezidingo zemvelo ezibekiwe (emkhakheni wemvelo C)	I-Orthophosphate (PO_4^-) eyi-Phosphorus	≤0.05 miligremu weLitha (mg/L) (50^{th} i-percentile)		
							INitrogen engalungile (TIN^-) eyi-Nitrogen	≤ 2.0 miligremu weLitha (mg/L) (50^{th} i-percentile)		
					Osawoti	Umthamo wosawoti kumele ugcinwe ukahle noma ungcono ukuze kubhekelelwe abasebenzisa amanzi ezansi nomfula.	Osawoti sebebonke emanzini	≤350 miligremu weLitha (mg/L) (95^{th} i-percentile)		
					Izinto ezisemanzini	Umthamo we-pH kumele ube ngaphakathi kwemikhawulo ebekiwe ukuze kulekelelwe impilo yasemanzini nezidingo zabantu abasebenzisa amanzi.	Umthamo we-pH	≥6.5 (5^{th} i-percentile) no ≤9.0 (95^{th} i-percentile)		
					Izinto ezinobungozi	Izinto eziwubungozi emanzini akumele zibeke engcupheni impilo yasemanzini noma zibe nobungozi kubantu.	I-Ammonia as N	≤ 0.07 miligremu weLitha (mg/L) (95^{th} i-percentile)		
							I-Aluminium (Al)	≤ 0.1 miligremu weLitha (mg/L) (95^{th} i-percentile)		
							I-Cadmium (Cd) soft	≤ 0.001 miligremu weLitha (mg/L) (95^{th} i-percentile)		
							I-Manganese (Mn)	≤ 0.15 miligremu weLitha (mg/L) (95^{th} i-percentile)		
							I-Iron (Fe)	≤ 0.1 miligremu weLitha (mg/L) (95^{th} i-percentile)		
							I-Lead (Pb) eqinile	≤ 0.01 miligremu weLitha (mg/L) (95^{th} i-percentile)		
							I-Copper (Cu) eqinile	≤ 0.007 miligremu weLitha (mg/L) (95^{th} i-percentile)		

							I-Nickel (Ni)	≤ 0.07 miligremu weLitha (mg/L) (95th i-percentile)
							I-Cobalt (Co)	≤ 0.05 miligremu weLitha (mg/L) (95th i-percentile)
							I-Zinc (Zn)	≤ 0.002 miligremu weLitha (mg/L) (95th i-percentile)
							I-Atrazine	≤0.08 miligremu weLitha (mg/L)
							I-Mancozeb	≤0.009 miligremu weLitha (mg/L)
							I-Glyphosate	≤0.7 miligremu weLitha (mg/L)
							Amafutha nowoyela	2.5 miligremu weLitha (mg/L)
						I-Hydrocarbon	I-Benzene	≤0.01 miligremu weLitha (mg/L) (95th i-percentile)
							I-Toluene	≤0.7 miligremu weLitha (mg/L) (95th i-percentile)
					Iphathojeni	Ukuba khona kwephathojeni emanzini akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 wezibalo ku 100 mililitha (izibalo/ 100 mL) (95th i-percentile)
				Okuhlala emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi akumele kuphazanyiswe futhi kumele kuhambisane nomkhakha wemvelo C.	Uhlu Lwezilwane Ezihlala Emanzini (IHI): Emfuleni	I-IHI ≥ 62%
					Izinhlanzi	Uhlobo lwezinhlanzi eziwelayo emanzini agelezayo nezinga lamanzi kumele longiwe noma lwandiswe ngokomkhakha wemvelo PES C/D. Kumele kube noHlu Lokuhlolwa Kwempilo yezinhlanzi (FRAI) olwenziwa minyaka yonke ukuqapha ngokuhambisana nomkhakha wemvelo C obekiwe. Uma sekucwaningwa kubhekwe zonke izinhlobo zezinhlanzi ezikhona emfuleni (ANAT, BPAU, BNAT, BPAL ne BANO).	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Amphilius natalensis* (ANAT) *I-Barbus (Enteromius) paludinosus* (BPAU) *I-Labeobarbus natalensis* (BNAT) *I-Barbus (Enteromius) pallidus* (BPAL) *I-Enteromius (Barbus) anoplus* (BANO)	I-FRAI ≥ 42% Izinkomba zezinhlanzi ezikhona zihlobo lweBNAT, BPAL ne BANO – 2 ka 3 *spp*; ne ANAT ≥ 3 uhlobo ngalunye
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini agelezayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe emkhakheni wemvelo C/D noma okungcono kunalokho.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini noMbhalo 5 woHlelo Lwamaphuzu LwaseNingizimu Afrika (SASS5) I-Baetidae >2 spp I-Heptageniidae I-Leptophlebiidae I-Tricorythidae I-Leptoceridae I-Hydropsychidae >1spp	Amasampuli awu 3 e-biotopes; umthamo ube ku ≥ B wobuningi Amaphuzu e-SASS 5: ≥213 Amaphuzu avamile ngeTaxon (ASPT): ≥7.2 I-MIRAI ≥ 52%

							I-Elmidae I-Economidae	
					I-Diatoms	Umkhakha wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokubezelela Ukungcola (%PTV)	SPI: 12 - 14 PTV: 20% to <40%
					Izihlahla ze-Riparian	Uhlobo lwezihlahla ze-riparian kumele lugcinwe kwi VEGRAI ≥ C yoMkhakha Wemvelo.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI) Uhlu Lwezihlahla Eziphila emanzini (IHI): zeRiparian	I-VEGRAI ihlolwa njalo eminyakeni equ-5. I-VEGRAI ≥ 62%

Table 4: Izinjongo Zamazinga Emithombo (RQOs) YEMIFULA NAMADAMU ngokwamaYunithi Emithombo (RUs) Ocwaningweni LwamaYunithi Ahlanganisiwe 3: I-BUFFALO RIVER EMAPHAKATHI

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Ingxenye Yokuhlolwayo	Incazelo ye-RQO	Inkomba	Umkhawulo/Isilinganiso Sezinombolo
IUA 3: I-BUFFALO RIVER EMAPHAKATHI	**III**	I-Dorps (kubalwa neKweek neWasbanksprui t) kuya enhlanganweni neBuffalo River **V32A, B**	**3.1**	Izinga	Imisoco	Amazinga emisoco akumele ehle futhi kumele akwazi ukulekelela imilo yasemanzini nokugcina imvelo yendawo (umkhakha wemvelo B)	I-Ortho-phosphate (PO_4^-) eyi-Phosphorus	≤ 0.02 miligremu weLitha (mg/L) (50th i-percentile)
							INitrogen Eyingozi Nitrogen (TIN^-) eyiNitrogen	≤ 1.0 miligremu weLitha (mg/L) (50th i-percentile)
					Osawoti	Amazinga osawoti kumele agcinwe kahle ukuze akwazi ukwesekela imvelo yasolwandle nokugcina imvelo yendawo (umkhakha wemvelo B)	Osawoti bonke abasemanzini	≤200 miligremu weLitha (mg/L) (95th i-percentile)
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.	*I-Escherichia coli*	≤130 izibalo ku 100 mililitha (counts/ 100 mL) (95th i-percentile)
		Imihosha engenela kwi-Tiyna, ne-Eersteling **V32C, D**	**3.2**	Izinga	Imisoco	Amazinga emisoco akumele ehle futhi kumele akwazi ukulekelela imilo yasemanzini nokugcina imvelo yendawo (umkhakha wemvelo B)	I-Ortho-phosphate (PO_4^-) eyi-Phosphorus	≤0.02 miligremu weLitha (mg/L) (50th i-percentile)
							Isiyonke iNitrogen Eyingozi (NO_3) eyi-Nitrogen	≤ 1.0 miligremu weLitha (mg/L) (50th i-percentile)
					Osawoti	Amazinga osawoti kumele agcinwe kahle ukuze akwazi ukwesekela imvelo yasolwandle nokugcina imvelo yendawo (umkhakha wemvelo B)	Osawoti bonke abasemanzini	≤200 miligremu weLitha (mg/L) (95th i-percentile)
							I-Sulphate	≤ 165 miligremu weLitha (mg/L) (95th i-percentile)
					Izinto Ezisemanzini	Umthamo we-pH kumele ugcinwe ngaphakathi kwemikhawulo ebekiwe ukweseka imvelo	Umthamo we-pH	≥6.5 (5th percentile) and ≤9.0 (95th i-percentile)

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Ingxenye Yokuhlolwayo	Incazelo ye-RQO	Inkomba	Umkhawulo/Isilinganiso Sezinombolo		
						yasemanzini nezidingo zabasebenzisa amanzi.				
						Kumele kugcinwe amanzinga abekiwe.	Ukungcola kwamanzi	Umehluko ka 10% ekungcoleni okuphansi. Kumele kubekwe imikhawulo.		
				I-Biota	Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Amaphesenti Okubezelela Ukungcola (%PTV)	I-SPI: 12 - 14 I-PTV: 20% to <40%		
		UMzinyashana kubalwa neSterkstroom neSandspruit **V32E**	**3.4**	Izinga	Imisoco	Amazinga emisoco akumele ehle futhi kumele akwazi ukweseka imvelo yasemanzini nokulekelela isimo semvelo (umkhakha wemvelo B)	I-Orthophosphate (PO_4^-) eyi-Phosphorus	≤ 0.02 miligremu weLitha (mg/L) (50th i-percentile)		
							Isiyonke iNitrogen Eyingozi (TIN^-) eyiNitrogen	≤ 1.0 miligremu weLitha (mg/L) (50th i-percentile)		
					Osawoti	Amazinga osawoti kumele agcinwe kahle ukuze akwazi ukwesekela imvelo yasemanzini nokugcina imvelo yendawo (umkhakha wemvelo B)	Osawoti sebebonke emanzini	≤200 miligremu weLitha (mg/L) (95th i-percentile)		
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 wezibalo ku 100 mililitha (izibalo/ 100 mL) (95th i-percentile)		
		IBuffalo kusuka eNgagane kuya ehlanganweni yeBlood River **V32B, V32C, V32D, V32E no V32F** **(UThukela_EWR13)**	**3.5**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iBuffalo esayithini EWR oThukela_EWR13 (-28.153, 30.476) in V32F NMAR = 695.05 x10⁶m³ Umkhakha wemvelo ohlosiwe (TEC) womkhakha C/D. Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukuze kulekelelwe imvelo yasemanzini esezansi nasenhla nomfula kuze kuyoshaya enhlanganweni neBlood River.	Ukunakekelwa kokugeleza kwamanzi nangesomiso okudingekayo enhla nasezansi nomfula iBuffalo Ukuqapha ukugeleza kwamanzi ku V3H010		Ukulawula ukugeleza kancane kwamanzi (m^3/s)	Ukugeleza kancane kwamanzi ngesomiso (m^3/s)
								Okthoba	0.86	0.418
								Novemba	1.304	0.482
								Disemba	1.765	0.418
								Januwari	2.531	1.493
								Febuwari	3.276	1.928
								Mashi	2.63	1.55
								Ephreli	1.925	1.141
								Meyi	1.184	0.709
								Juni	0.757	0.461
								Julayi	0.603	0.371
								Agasti	0.563	0.348

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Ingxenye Yokuhlolwayo	Incazelo ye-RQO	Inkomba	Umkhawulo/Isilinganiso Sezinombolo
								Septhemba 0.647 0.397
				Izinga	Imisoco	Amazinga emisoco akumele ehle futhi kumele akwazi ukweseka imvelo yasemanzini nokulekelela isimo semvelo (umkhakha wemvelo C/D)	I-Ortho-phosphate (PO_4^-) eyi-Phosphorus	≤0.1 miligremu weLitha (mg/L) (50^{th} percentile)
							Seyiyonke iNitrogen Eyingozi (TIN^-) eyi-Nitrogen	≤2.0 miligremu weLitha (mg/L) (50^{th} i-percentile)
					Osawoti	Amazinga osawoti kumele agcinwe kahle ukuze akwazi ukwesekela imvelo yasemanzini nokugcina imvelo yendawo (umkhakha wemvelo C/D)	Osawoti sebebonke abasemanzini	≤350 miligremu weLitha (mg/L) (95^{th} i-percentile)
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 wezibalo ku 100 mililitha (izibalo/ 100 mL)
				Okuhla Emanzini	Umfula	Indlela yokugeleza kwamanzi kumele yenziwe ngcono ihambisane noMkhakha Wemvelo C/D.	Uhlu Lezinto Ezihlala Emanzini (IHI): Emfuleni	I-IHI esemfuleni (izinga C/D) Lomkhakha Wemvelo (≥ 42%)
				I-Biota	Izinhlanzi	Umthamo wezinhlobo zezinhlanzi ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe kahle noma ukhushulwe ube semkhakheni wemvelo PES C/D. Uhlu Lokuhlola Impilo Yezinhlanzi kumele lwenziwe minyaka yonke ukuqapha ngokomkhakha wemvelo C/D obekiwe. Ngesikhathi socwaningo kuyobhekwa zonke izinhlobo ezikhona zezinhlanzi (LRUB, BPAU, BNAT, BPAL ne BANO).	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) *I-Labeo rubromaculatus* (LRUB) *I-Barbus (Enteromius) paludinosus* (BPAU) *I-Labeobarbus natalensis* (BNAT) *I-Barbus (Enteromius) pallidus* (BPAL) *I-Enteromius (Barbus) anoplus* (BANO)	I-FRAI ≥ 52% I-BNAT, BPAL ne BANO – 2 kweziwu 3 ezikhona eziyinkomba; ne LRUB ≥ 3 wohlobo ngalunye.
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo ekugelezeni kwamanzi nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ukhuliswe ube semkhakheni wemvelo C/D.	Uhlu lokuhlolwa Lwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu LwaseNingizimu Afrika (SASS5) I-Baetidae >2 spp I-Hydropsychidae >1spp I-Elmidae I-Hydracarina	3 wamasampuli e-biotopes: umthamo ube ≥ B nobuningi. Amaphuzu e-SASS 5: 77 - 180 Amaphuzu avamile ngokweTaxon (ASPT): 5.5 – 7.0 I-MIRAI ≥ 52%

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwayo	Ingxenye Yokuhlolwayo	Incazelo ye-RQO	Inkomba	Umkhawulo/Isilinganiso Sezinombolo
					I-Diatoms	Umkhakha wemvelo kumle ugcinwe ku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Uphesenti Lokubekezelela Ukungcola (%PTV)	I-SPI: 12 - 14 I-PTV: 20% to <40%
					Izihlahla ze-Riparian	Izihlahla ze-riparian kumele zongiwe kwi VEGRAI ≥ C/D Yomkhakha Wemvelo.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	I-VEGRAI ihlolwa njalo eminyakeni ewu-5. I-VEGRAI ≥C/D ≥ 52%

IThebula 5: Izinjongo Zamazinga Emithombo (RQOs) YEMIFULA NAMADAMU ngokwamaYunithi Emithombo (RUs) Ocwaningweni LwamaYunithi Ahlanganisiwe 4: I-BUFFALO RIVER ESEZANSI

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhe-kwayo	Incazelo ye-RQO	Inkomba	Umkhawulo/isilinganiso ngezinombolo		
IUA 4: I-BUFFALO RIVER ESEZANSI	**II**	I-Buffalo kusuka kwi-Blood River kuya enhlanganweni noThukela **V33A, V33B, V33C ne V33D** **(oThukela_EWR 14)**	**4.2**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: I-Buffalo esayithini EWR oThukela_EWR14 (-28.437, 30.595) in V33B NMAR = 831.09 x10^{6}m^{3} Umkhakha Wemvelo Ohlosiwe (TEC) ka C. Kumele kuqinisekiwe ukunakekelwa kokugeleza kancane kwamanzi nesomiso ukulekelela imvelo yasemanzini esenhla nasezansi nomfula kuze kufike enhlanganweni nomfula uThukela.	Ukunakekelwa kokugeleza kwamnzi nesomiso okudingekayo enhla nasezansi nomfula iBuffalo River		Ukunakekelwa kokugeleza kancane kwamanzi (m^3/s)	Ukugeleza kancane ngesomiso (m^3/s)
								Okthoba	1.600	0.400
								Novemba	1.900	0.400
								Disemba	2.700	0.400
								Januwari	4.400	0.800
								Febuwari	5.947	1.200
								Mashi	4.700	0.950
								Ephreli	3.300	0.900
								Meyi	2.100	0.600
								Juni	1.670	0.500
								Julayi	1.320	0.400
								Agasti	1.230	0.400
								Septhemba	1.440	0.400
				Izinga	Imisoco	Amazinga emisoco akumele ehle futhi	I-Ortho-phosphate (PO_4^-) as Phosphorus	≤0.1 miligremu weLitha (mg/L) (50th i-percentile)		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhe-kwayo	Incazelo ye-RQO	Inkomba	Umkhawulo/isilinganiso ngezinombolo
						kumele akwazi ukulekelela imvelo yasemanzini nesimo semvelo esikhona (umkhakha wemvelo C/D)	Isiyonke iNitrogen Engalungile (TIN^-) eyiNitrogen	≤2.0 miligremu weLitha (mg/L) (50^{th} i-percentile)
					Osawoti	Umthamo wosawoti umele ugcinwe ukahle ukuze kulekelelwe imvelo yasemanzini nesimo semvelo esikhona (umkhakha wemvelo C/D)	Sebebonke Osawiti Emanzini	≤350 miligremu weLitha (mg/L) (95^{th} i-percentile)
					Izinto ezisemanzini	Umthamo we-pH kumele ugcinwe usemikhawulweni ebekiwe ukweseka imvelo yasolwandle nabantu abasebenzisa amanzi.	Umthamo we-pH	≥6.5 (5^{th} i-percentile) no ≤9.0 (95^{th} i-percentile)
						Kumele kugcinwe amazinga okungcola abekiwe. Ukungcola kumele kube sesilinganisweni sika 10% kulokho okuvele kukhona.	Ukungcola	
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)
				Okuphila Emanzini	Umfula	Kumele kugcinwe ukugeleza kwamanzi kwemvelo /kwenziwe ngcono ngokomkhakha wemvelo C	Uhlu Lezinto Ezihlala Emanzini (IHI): Emfuleni	I-IHI Emfuleni: (izinga C) Umkhakha Wemvelo (≥ 62%)
				I-Biota	Izinhlanzi	Kumele kulondolozwe/ kwandiswe uhlobo lwezinhlanzi ezizwelayo emanzini ahambayo nezinga lamanzi kube semkhakheni wemvelo PES C. Uhlu Lokuhlolwa Kwempilo Yezinhlanzi	Uhlu Lokuhlolwa Kwempilo yezinhlanzi (FRAI) *I-Labeobarbus natalensis* (BNAT) *I-Labeo molybdinus* (LMOL) *I-Enteromius (Barbus) anoplus* (BANO)	I-FRAI ≥ 62% Ukuqinisekisa ukuthi zonke izinhlobo zezinhlanzi ezihlala emfuleni ezikhona zimelelekile: i-BNAT, BANO – 2 kwewu 3 ngohlobo njengenkomba ekhona; ne LMOL ≥ 3 uhlobo ngalunye.

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhe-kwayo	Incazelo ye-RQO	Inkomba	Umkhawulo/isilinganiso ngezinombolo
						kumele lwenziwe minyaka yonke ukuqapha ngokomkhakha wemvelo C obekiwe.		
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi umele ugcinwe ukahle. Umthamo wezilwanayana zasemanzini kumele ugcinwe futhi wenziwe ngcono ngokomkhakha wemvelo C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu LwaseNingizimu Afrika (SASS5) I-Atyidae I-Baetidae >2 spp I-Tricorythidae I-Heptageniidae I-Hydropsychidae >1spp I-Elmidae	Okungenani amasampuli ezinhlobo eziwu-2: Umthamo ube ≥ B wobuningi. I-MIRAI ≥ 62%
					Ama-Diatoms	Kumele kugcinwe umkhakha wemvelo C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokubekezelela Ukungcola (%PTV)	I-SPI: 12 - 14 I-%PTV: 20% kuya ku <40%
					Izihlahla zeRiparian	Izihlahla ze-riparian kumele zandiswe noma zigcinwe kahle kwi VEGRAI ≥ uMkhakha wemvelo C.	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 62%

IThebula 6: Izinjongo Zamazinga Emithombo (RQOs) YEMIFULA NAMADAMU ngokwamaYunithi Emithombo (RUs) Ocwaningweni LwamaYunithi Ahlanganisiwe 5: I-BLOOD RIVER

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwa-yo	Ingcenye yokuhlolwa-yo	Incazelo ye-RQO	Inkomba	Imikhawulo/isilinganiso sezinombolo
IUA5: I-BLOOD RIVER	**III**	Izindawo Ezingamachibi RU: eBlood River **V32G**	**5.1**	Izinga	Imisoco	Imisoco kumele igcinwe isezingeni elikahle ukweseka imvelo asemanzini nokulekelela isimo semvelo esikhona (umkhakha wemvelo B)	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.02 miligrermu weLitha (mg/L) (50^{th} i-percentile)
							Isiyonke iNitrogen Enobungozi (TIN^-) eyiNitrogen	≤1.0 miligrermu weLitha (mg/L) (50^{th} i-percentile)
					Osawoti	Umthawo wosawoti kumele ugcinwe usemazingeni akahle ukweseka imvelo yasemanzini	Osawoti Bebonke emanzini	≤200 miligrermu weLitha (mg/L) (95^{th} i-percentile)

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwa-yo	Ingcenye yokuhlolwa-yo	Incazelo ye-RQO	Inkomba	Imikhawulo/isilinganiso sezinombolo		
						nokulekelela isimo semvelo ekhona (umkhakha wemvelo B)				
				I-Biota	Izinhlanzi	Izinhlobo zezinhlazi ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle emkhakheni wemvelo owu PES B. Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) kumele kwakhiwe minyaka yonke ukuqapha umkhakha wemvelo B obekiwe. Uma kucwaningwa izinhlobo zezinhlanzi ezikhona kumele kubhekwe zonke izinhlobo ezikhona (i-BANO, ANAT ne AMOS).	*I-Enteromius (Barbus) anoplus* (BANO) *I-Amphilius natalensis* (ANAT) *I-Anguilla mossambica* (AMOS)	I-FRAI ≥ 82% I-BANO ne-ANAT ≥ 5 wezinhlobo ngazinye		
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo namazinga amanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe emkhakheni wemvelo B noma okungcono kunalokho.	I-Baetidae 2 sp I-Perlidae I-Tricorythidae I-Hydropsychidae 1 sp I-Leptoceridae I-Ancyidae I-Psephenidae	Okungenani amasampuli ezinhlobo ezimbili: umthamo ube ≥ A ngobuningi I-MIRAI ≥ 82%		
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uku B.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokubekezelela Ukungcola (%PTV)	I-SPI ≥15 I-%PTV: 20% kuya ku < 40%		
		I-Blood River kusuka ozalweni lwe V32G kuya enhlanganweni kwi **V32H** yeBuffalo River **V32H**	**5.2**	Umthamo	Amanzi ageleza kancane	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iBlood River emlonyeni kwi V32H NMAR = 94.71 x10⁶m³ Umkhakha Wemvelo Ohlosiwe (TEC) womkhakha C Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqhubeke ukulekelela imvelo yasemanzini esenhla nomfula.	Ukunakekelwa kwamanzi nesomiso ukubhekelela izindawo ezisenhla nomfula iBlood River		Ukunakekela Ukugeleza Kancane kwamazi (m^3/s)	Ukugeleza kwamanzi ngesomiso (m^3/s)
								Okthoba	0.240	0.088
								Novemba	0.343	0.081
								Disemba	0.434	0.049
								Januwari	0.613	0.361
								Febuwari	0.782	0.487
								Mashi	0.625	0.415
								Ephreli	0.459	0.296
								Meyi	0.295	0.156
								Juni	0.209	0.105
								Julayi	0.172	0.091
								Agasti	0.164	0.091

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwa-yo	Ingcenye yokuhlolwa-yo	Incazelo ye-RQO	Inkomba	Imikhawulo/isilinganiso sezinombolo		
								Septhemba	0.195	0.091
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukulekelela imvelo yasemanzini nokungcina kahle isimo semvelo yendawo	I-Ortho-phosphate (PO_4^-) eyi-Phosphorus	≤0.06 miligremu weLitha (mg/L) (50th i-percentile)		
							Isiyonke iNitrogen Enobungozi (TIN^-) eyiNitrogen	≤2.0 miligremu weLitha (50th percentile)		
					Osawoti	Umthamo wosawoti abasemanzini kumele ugcinwe usemazingeni akahle ukweseka imvelo yasemanzini nesimo semvelo yendawo	Sebebonke Osawoti Emanzini	≤350 miligremu weLitha (95th i-percentile)		
					Izinto Ezisemanzini	Amazinga e-pH kumele agcinwe ekahle engaphakathi kwemikhawulo ebekiwe ukuze kwesekelwe impilo yasemanzini nezidingo zabasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th i-percentile) no ≤9.0 (95th i-percentile)		
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 izibalo ngo 100 mililitha (izibalo/ 100 mL)		
				Okuphila emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kuqhubeke kanjalo ngokomkhakha wemvelo C	Uhlu Lezinto Ezihlala Emanzini (IHI): Emfuleni	I-IHI ≥62%		
				I-Biota	Izinhlanzi	Uhlobo lwezinhlanzi ezizwelayo emanzini agelezayo nezinga lamanzi kumele lunakekelwe/ lukhuliswe ngokomkhakha wemvelo PES C	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeo rubromaculatus* (LRUB) *I-Labeobarbus natalensis* (BNAT) *I-Tilapia sparrmanii* (TSPA)	Ukuqinisekisa ukuthi zonke izinhlobo zezinhlanzi zikhona kulezi zinhlobo ezilandelayo: i-BNAT, BANO ne TSPA – 2 wezinhlobo eziwu 3 ezikhona ezihlala emfuleni; ne LRUB ≥ 3 wezinhlobo ngazinye. I-FRAI yomkhakha wemvelo: C (≥ 62%)		
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini agelezayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe emkhakheni wemvelo C.	Uhlu Lokuhlolwa Kwempilo yezilwanyana Zasemanzini (MIRAI) noMbhalo 5 Wohlelo Lwamaphuzu LwaseNingizimu Afrika 5 (SASS5) I-Atyidae I-Baetidae >1 spp I-Tricorythidae I-Heptageniidae I-Perlidae	Amasampuli ezinhlobo eziwu 3; umthamo kumele ube wu A kuya ku B ubuningi. I-MIRAI ≥ 62%		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okuhlolwa-yo	Ingcenye yokuhlolwa-yo	Incazelo ye-RQO	Inkomba	Imikhawulo/isilinganiso sezinombolo
							I-Pyralida I-Hydropsychidae >1spp I-Elmidae I-Psephenidae	
					Ama-Diatoms	Kumele kugcinwe umkhakha wemvelo C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokubekezelela Ukungcola (%PTV)	I-SPI: 12 – 14 I-%PTV: 20% kuya ku <40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-riparian vkumele zandiswe noma zigcinwe kahle kwi VEGRAI ≥ uMkhakha wemvelo C.	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 62%

IThebula 7: Izinjongo Zamazinga Emithombo (RQOs) YEMIFULA NAMADAMU ngokwamaYunithi Emithombo (RUs) Ocwaningweni LwamaYunithi Ahlanganisiwe 6: UMFULA I-SUNDAYS

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo/ izilinganiso zezinombolo		
IUA 6: UMFULA I-SUNDAYS	**III**	INkunzi kuya enhlanga-nweni neSundays **V60B**	**6.1**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: INkunzi enhlanganweni neSundays ku V60B NMAR = 24.94 x10^{6}m^3 Umkhakha wemvelo ohlosiwe (TEC) ka C. Ukunakekelwa kokugeleza kwamanzi kancane nesomiso kumele kuqikelelwe ukwesekela imvelo yasemanzini enhla nomfula.	Ukunakekelwa kokugeleza kancane kwamanzi nesomiso okudingekayo emfuleni iNkunzi kunyuke njalo ngenhla kwenhlangano nomfula iSundays.		Ukunakekela Ukugeleza Kancane Kwamanzi (m^3/s)	Ukugeleza kancane ngesomiso (m^3/s)
								Okthoba	0.068	0.030
								Novemba	0.091	0.040
								Disemba	0.100	0.030
								Januwari	0.145	0.061
								Febuwari	0.191	0.08
								Mashi	0.158	0.067
								Ephreli	0.137	0.058
								Meyi	0.106	0.046
								Juni	0.086	0.038
								Julayi	0.070	0.031
								Agasti	0.063	0.028
								Septhemba	0.065	0.029
				Umthamo	Imisoco	Namazinga emisoco kumele agcinwe ekahle ekweseka	I-Orthophosphate (PO_4^-) eyiPhosphorus	≤0.06 miligremu weLitha (mg/L) (50th i-percentile)		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo/ izilinganiso zezinombolo
						imvelo yasemanzini nokugcina kahle isimo semvelo ekhona (umkhakha wemvelo C)	Isiyonke iNitrogen Enobungozi (TIN^-) eyiNitrogen	≤2.0 miligremu weLitha (mg/L) (50^{th} i-percentile)
					Osawoti	Izinga losawoti kumele ligcinwe likahle ukweseka impilo yemvelo yasemanzini nokugcina kahle isimo semvelo ekhona (umkhakha wemvelo C)	Osawoti Bonke abasemanzini	≤350 miligremu weLitha (mg/L) (95^{th} i-percentile)
					Izinto Ezisemanzini	Amazinga e-pH kumele agcinwe engaphakathi kwemikhawulo ebekiwe ukweseka imvelo yasemanzini nezidingo zabasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5^{th} i-percentile) no ≤9.0 (95^{th} i-percentile)
						Amanzi agcinwe kahle ukuze akhanye. Akumele ehluke ngaphezu kuka 10% ukususka emazingeni aphansi.	Ukudungeka	
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Wezibalo ngo per 100 mililitha (isibalo/ 100 mL)
				Okuphilayo emanzini	Emfuleni	Ukugeleza kwemvelo lwamanzi kumele kugcinwe ngokomkhakha wemvelo C.	Uhlu Lezinto Ezihlala Emanzini (IHI): Emfuleni	I-IHI esemfuleni (izinga C) Umkhakha Wemvelo (≥ 62%)
				I-Biota	Izinhlanzi	Izihlobo zezinhlanzi ezizwelayo emanzini agelezayo nezinga lamanzi kumele zigcine kahle noma zandiswe zibe semkhakheni wemvelo PES C. Uhlu Lokuhlola Impilo Yezinhlanzi kumele lwenziwe minyaka yonke ukuqapha ngokomkhakha wemvelo C obekiwe.	Uhlo Lokuhlola Impilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeo rubromaculatus* (LRUB) *I-Labeobarbus natalensis* (BNAT) *I-Tilapia sparrmanii* (TSPA) *I-Amphilius natalensis* (ANAT)	I-FRAI ≥ 62% Ukuqinisekisa ukuzi zonke izinhlobo zezinhlanzi ezihlala emfuleni zimelelekile kulezi zinhlobo ezilandelayo: i-BNAT, BANO ne TSPA – 2 kweziwu 3 ezikhona emfuleni; ne LRUB ≥ 3 uhlobo ngalunye.
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini agelezayo namazinga amanzi kumele ugcinwe ukahle. Umthamo wezilwanayana zasemanzini kumele ugcinwe noma wenziwe ngcono ngokomkhakha wemvelo C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae 2 spp I-Tricorythidae I-Heptageniidae I-Hydropsychidae 2spp I-Economidae	Amasampuli ezihlobo eziwu 3: umthamo uyoba wu A kuya ku B ubuningi MIRAI ≥ 62%

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo/ izilinganiso zezinombolo		
							I-Psephenidae			
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokubezekela Ukungcola (%PTV)	I-SPI: 12 - 14 I-%PTV: 20% kuya ku <40%		
					Izihlahla zeRiparian	Izihlahla ze-riparian kumele zigcinwe kahle noma zandiswe kwi VEGRAI ≥ C yoMkhakha weMvelo.	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lwe VEGRAI njalo eminyakeni ewu-5. I-VEGRAI ≥ 62%		
		ISundays ukusuka emthonjeni kuya enhlanganweni neWasbank **V60A, V60B, V60C** **(uThukela_EWR7)**	**6.2**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iSundays River esayithini EWR uThukela_EWR7 (-28.458, 30.053) in V60C NMAR = 90.26 x10^{6}m^{3} Umkhakha wemvelo Ohlosiwe (TEC) womkhakha C/D Kumele kunakekelwe ukugeleza kancane kwamanzi nesomiso ukulekelela imvelo yasemanzini esenhla nomfula.	Ukunakekela ukugeleza kwamazi nesomiso okudingekayo emfuleni iSundays Ukuqapha ukugeleza kwamanzi ku V6H004		Ukunakekela ukugeleza kancane kwamanzi (m^3/s)	Ukugeleza kancane kwamanazingesomiso flows (m^3/s)
								Okthoba	0.180	0.120
								Novemba	0.240	0.140
								Disemba	0.350	0.105
								Januwari	0.500	0.220
								Febuwari	0.700	0.280
								Mashi	0.520	0.240
								Ephreli	0.350	0.210
								Meyi	0.260	0.160
								Juni	0.200	0.140
								Julayi	0.160	0.120
								Agasti	0.150	0.120
								Septhemba	0.160	0.110
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukulekelela imvelo yasemanzini nokugcina kahle isimo semvelo ekhona	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.06 miligremu weLitha (mg/L) (50th percentile)		
							Isiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤1.0 miligremu weLitha (mg/L) (50th percentile)		
					Osawoti	Umthamo wosawoti kumele ugcinwe ukahle ukulekelela imvelo yasemanzini nokugcina kahle isimo semvelo ekhona	Osawoti Sebebonke emanzini Solids	≤200 miligremu weLitha (mg/L) (95th percentile)		
					Iphathojeni	Ukuba khona kephathojeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)		
					Izinto ezisemanzini	Amazinga e-pH kumele agcinwe ekahle phakathi kwemikhawulo ebekiwe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th i-percentile) no ≤9.0 (95th i-percentile)		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo/ izilinganiso zezinombolo
						Amanzi agcinwe kahle ukuze akhanye. Akumele ehluke ngaphezu kuka 10% ukusuka emazingeni aphansi.	Ukudungeka	
				Okuphilayo emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kwenziwe ngcono ngokomkhakha wemvelo C/D.	Uhlu Lezinto Ezihlala Emanzini (IHI): Emfuleni	I-IHI ≥ 62%
				I-Biota	Izinhlanzi	Izinhlobo zezinhlanzi ezizwelayo ekugelezeni kwamanzi namazinga amanzi kumele zinakekelwe zandiswe ngokoMkhakha Wemvelo obhekiwe (TEC) we C/D. Uhlu Lokuhlola Impilo yezinhlanzi kumele lwenziwe minyaka yonke ukuqapha umkhakha wemvelo C obekiwe.	Uhlu Lokuhlolwa Lwempilo yezinhlanzi (FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *I-Labeo rubromaculatus* (LRUB) *I-Labeobarbus natalensis* (BNAT) *I-Tilapia sparrmanii* (TSPA) *I-Amphilius natalensis* (ANAT)	I-FRAI ≥ 52% Ukuqinisekisa ukuthi zonke izinhlobo zezinhlanzi ezisemfuleni zimelelekile: i-BNAT, BANO ne TSPA – 2 kweziwu 3 ezikhona emfuleni; ne LRUB ≥ 3 uhlobo ngalunye.
					Izilwanyana zasemanzini	Umthamo wezilwanyana ezihlala emanzini ezizwelayo emanzini ahambayo namazinga amanzi kumele ugcinwe ukahle. Umthamo wezilwane zasemanzini kumele ugcinwe usemkhakheni wemvelo C/D.	Uhlu Lokuhlolwa Kwempilo yezilwanyana Zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae 2 spp I-Heptageniidae I-Hydropsychidae 2spp I-Elmidae I-Hydracarina I-Leptophlebiiidae I-Aeshnidae I-Athericidae	Amasampuli ezinhlobo eziwu 3: Umthamo ube ku A kuya ku B ngobuningi. Amaphuzu eSASS 5: 117 - 180 Amaphuzu avamile ngokweTaxon (ASPT): 5.6 – 6.5 I-MIRAI ≥ 52%
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 12 – 14 I-%PTV: 20% kuya ku <40%
					Izihlahla zeRiparian	Izihlahla ze-riparian kumele zandiswe noma zigcinwe kahle kwi VEGRAI ≥ C/D yomkhakha wemvelo.	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI) Ukubheka Ukwanda Kwezihlahla Ezikhona Emfuleni (IHI): Riparian	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 52%

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo/ izilinganiso zezinombolo		
		IWasbank kuya enhlanganweni neSundays **V60D, V60E**	**6.3**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iWasbank River enhlanganwen nomfula iSundays ku V60E NMAR = 78.33 x10^{6}m^{3} Umkhakha Wemvelo Ohlosiwe (TEC) womkhakha C/D Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esenhla nomfula iWasbank.	Ukunakekelwa kokugeleza kwamanzi nesomiso okudingeka emfuleni iWasbank.		Ukunakekelwa Kokugeleza kancane kwamanzi (m^3/s)	Ukugeleza kancane kwamanzi ngesomiso (m^3/s)
								Okthoba	0.189	0.085
								Novemba	0.260	0.073
								Disemba	0.301	0.051
								Januwari	0.434	0.265
								Febuwari	0.527	0.321
								Mashi	0.420	0.257
								Ephreli	0.327	0.201
								Meyi	0.219	0.099
								Juni	0.160	0.082
								Julayi	0.132	0.084
								Agasti	0.132	0.084
								Septhemba	0.161	0.102
				Izinga	Imisoco	Amazinga emisoco akumele ehle futhi kumele aseke imvelo yasemanzini futhi agcine isimo semvelo esihlosiwe (TEC C/D)	I-Orthophosphate eyi-P	≤0.01 mg/L (50th i-percentile)		
							Isiyonke iNitrogen Enobungozi eyiTIN	≤0.5 miligremu weLitha (mg/L) (50th i-percentile)		
					Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.	Osawoti Sebebonke emanzini	≤ 500 miligremu weLitha (mg/L) (95th i-percentile)		
							I-Sulphate	≤ 250 miligremu weLitha (mg/L) (95th i-percentile)		
							I-Chloride	≤ 120 miligremu weLitha (mg/L) (95th i-percentile)		
					Izinto Ezisemanzini	Amazinga e-pH kumele agcinwe ephakathi kwemikhawulo ebekiwe ukweseka imvelo yasemanzini nezidingo zabasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th i-percentile) no ≤9.0 (95th i-percentile)		
					Iphathojeni	Ukuba khona kwephathojeni akumele kueke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)		
					Izinto ezinobungozi	Ukuba khona kwezinto ezinobungozi akumele kubeke engcupheni izinto eziphila	I-Aluminium (Al)	≤ 0.10 miligremu weLitha (mg/L) (95th i-percentile)		
							I-Manganese (Mn)	≤ 0.15 miligremu weLitha (mg/L) (95th i-percentile)		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo/ izilinganiso zezinombolo
						emanzini noma kube yingozi empilweni yabantu.	I-Cadmium (Cd) ethambile	≤ 0.001 miligremu weLitha (mg/L) (95th i-percentile)
							I-Iron (Fe)	≤ 0.1 miligremu weLitha (mg/L) (95th i-percentile)
							I-Lead (Pb) eqinile	≤ 0.01 miligremu weLitha (mg/L) (95th i-percentile)
							I-Copper (Cu) eqinile	≤ 0.007 miligremu weLitha (mg/L) (95th percentile)
							I-Cobalt (Co)	≤ 0.05 miligremu weLitha (mg/L) (95th i-percentile)
							I-Nickel (Ni)	≤ 0.07 miligremu weLitha (mg/L) (95th i-percentile)
							I-Zinc (Zn)	≤ 0.002 miligremu weLitha (mg/L) (95th i-percentile)
				Okuphilayo emanzini	Emfuleni	Ukugeleza kwamanzi kwemvelo kumele kwenziwe ngcono ngokuhambisana nomkhakha wemvelo C/D.	Uhlu Lomthamo Okhona (IHI): Emfuleni	I-IHI ≥ 52%
				I-Biota	Izinhlanzi	Izinhlozo zezinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zikahle noma zandiswe ngokomkhakha wemvelo ohlosiwe (TEC) ka C/D.	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) *I-Tilapia sparrmanii* (TSPA)	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ukuqapha ngokomkhakha wemvelo C/D obekiwe. I-FRAI ≥ 52% Ukuqinisekisa ukuthi zonke izinhlanzi ezikhona emfuleni zimelelekile: i-BNAT, BANO ne TSPA – 2 kweziwu 3 ezikhona emfuleni
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo C/D .	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae 2 spp I-Heptageniidae I-Hydropsychidae 2spp I-Elmidae I-Leptophlebiiidae I-Trichorythidae I-Lestidae I-Psephenidae	Amasampuli okungenani ezinhlobo ezwu-2: umthamo ube ku A kuya ku B ubuningi. Amaphuzu eSASS 5: ≥80 - 100 Amaphuzu avamile ngokweTaxon (ASPT): ≥4.5 I-MIRAI ≥ 52%
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinw uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI)	I-SPI: 12 - 14

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo/ izilinganiso zezinombolo		
							Iphesenti Lokubekezelela ukungcola (%PTV)	I-%PTV: 20% kuya ku <40%		
					Izihlahla zeRiparian	Izihlahla ze-riparian kumele zinakekelwe kahle noma zandiswe kwi VEGRAI ≥ yoMkhakha wemvelo C/D.	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 52%		
		ISundays ukusuka eWasbank kuya ehlanganweni noThukela, okubalwa neNhlanya-nga **V60F** **(uThukela_EWR8)**	**6.4**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iSundays esayithini EWR yoThukela_EWR 8 (-28.636, 30.204) in V60F NMAR = 197.03 x10⁶m³ Umkhakha wemvelo Ohlosiwe (TEC) ka D. Kumele kunakekelwe ukugeleza kancane kwamanzi nesomiso ukuze kulekelelwe imvelo yasemanzini enhla nasezansi nomfula iSundays kuze kufike enhlanganweni nomfula uThukela.	Ukunakekelwa kokugeleza kwamanzi nesomiso okudingekayo ezansi nomfula iSundays		Ukunakekela Ukugeleza kancane kwamanzi (m^3/s)	Ukugeleza kancane kwamanzi ngesomiso flows (m^3/s)
								Okthoba	0.220	0.200
								Novemba	0.400	0.250
								Disemba	0.530	0.180
								Januwari	0.670	0.470
								Febuwari	0.800	0.585
								Mashi	0.680	0.480
								Ephreli	0.600	0.400
								Meyi	0.390	0.250
								Juni	0.230	0.170
								Julayi	0.190	0.140
								Agasti	0.180	0.140
								Septhemba	0.200	0.170
				Izinga	Izinto ezisemanzini	Amazinga e-pH kumele agcine ekahle ngaphakathi kwemikhawulo ebekiwe ukulekelela impilo yemvelo yasemanzini nezidingo zabasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5^{th} i-percentile) no ≤9.0 (95^{th} i-percentile)		
						Amanzi agcinwe kahle ukuze akhanye. Akumele ehluke ngaphezu kuka 10% ukusuka emazingeni aphansi.	Ukudungeka			
						Osawoti emfuleni kumele begcinwe besemazingeni akahle ukulekelela impilo yemvelo yasemanzini nokuqinisekisa ukuthi kuyahlangatshezwana	Umthamo wosawoti abayingozi	≤ 55 milli-Siemens ngemitha (mS/m) (95^{th} i-percentile)		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo/ izilinganiso zezinombolo
						nezidingo ezingokwemvelo ezibekiwe.		
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe.	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) *I-Anguilla mossambica* (AMOS) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeo rubromaculatus* (LRUB) *I-Labeobarbus natalensis* (BNAT) *I-Tilapia sparrmanii* (TSPA) *I-Labeo molybdinus* (LMOL)	I-FRAI ≥ 62% Ukuqinisekisa ukuthi zonke iizlwane ezikhona emfuleni zimelelekile kulezi zinhlobo: i-BNAT, BANO ne TSPA – 2 kweziwu 3 ezikhona emfuleni; ne LRUB noma i-LMOL ≥ 3 uhlobo ngalunye.
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo namazinga amanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe noma wenziwe ngcono ngokomkhakha wemvelo ohlosizwe (TEC) owu C.	noMbhalo 5 woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) (olungalinganiswa ngokwe RU kodwa okumele lufezekiswe) Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) I-Baetidae 2 spp I-Heptageniidae I-Hydropsychidae 2spp I-Leptophlebiiidae I-Tricorythidae	Okungenani amasampuli ezinhlobo eziwu 2: umthamo ube ku A kuya ku B ngobuningi. Amaphuzu eSASS 5: ≥120 Amaphuzu avamile ngokweTaxon (ASPT): ≥4.8 I-MIRAI ≥ 62%
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 12 - 14 I-%PTV: 20% kuya ku <40%

IThebula 8: IZINJONGO ZAMAZINGA EMITHOMBO YEMIFULA NAMADAMU NGOKWAMAYUNITHI EMITHOMBO OCWANINGWENI LWAMAYUNITHI AHLANGANISIWE IUA 7: KWI-MOOI RIVER ESENHLA

IUA	Izinga	Umfula	Iyunithi yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo yeRQO	Inkomba	Imikhawulo/ isilinganiso sezinombolo		
IUA 7: KWI-MOOI RIVER ESENHLA	III	I-Klein - Mooi kusuka mthonjeni kuya enhlanganweni neMooi	7.1	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iLittle Mooi River enhlanganweni neMooi River ku V20D	Ukunakekelwa kwamanzi nesomiso okudingekayo e-Mooi River Encane esenhla nenhlangano neMooi River		Ukunakekela Ukugeleza kancane kwamanzi (m^3/s)	Ukugelezakancane kwamanzi kwesomiso (m^3/s)
								Okthoba	0.374	0.293

IUA	Izinga	Umfula	Iyunithi yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo yeRQO	Inkomba	Imikhawulo/ isilinganiso sezinombolo		
		V20B (ingxenye esezansi), V20D				NMAR = 124.85 x10^{6}m^3 Umkhakha wemvelo ohlosiwe (TEC) ku C. Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esenhla nomfula.	Ukuqapha ukugeleza kwamanzi ku V2H006	Novemba	0.496	0.375
								Disemba	0.619	0.466
								Januwari	0.83	0.614
								Febuwari	0.985	0.727
								Mashi	0.881	0.650
								Ephreli	0.718	0.536
								Meyi	0.519	0.396
								Juni	0.395	0.309
								Julayi	0.338	0.268
								Agasti	0.318	0.254
								Septhemba	0.352	0.278
				Izinga	Imisoco	Amazinga emisoco akumele ehle futhi kumele aseke imvelo yasemanzini futhi agcine isimo semvelo esihlosiwe.	I-Orthophosphate (PO_4^-) eyiPhosphorus	≤0.01 miligremu weLitha (mg/L) (50th i-percentile)		
							Isiyonke iNitrogen Enobungozi (TIN$^-$) eyiNitrogen	≤0.5 miligremu weLitha (mg/L) (50th i-percentile)		
					Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.	Sebebonke osawoti emanzini	≤ 120 miligremu weLitha (mg/L) (95th i-percentile)		
					Izinto Ezisemanzini	Amazinga e-pH kumele agcinwe ephakathi kwemikhawulo ebekiwe.	Amazinga e-pH	6.5 (5th i-percentile) no 9.0 (95th pi-ercentile)		
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)		
					Izinto Ezinobungozi	Ukuba khona kwezinto ezinobungozi akumele kubeke engcupheni izinto eziphila emanzini noma kube yingozi empilweni yabantu.	I-Ammonia as N	≤ 0.07 miligremu weLitha (mg/L) (95th i-percentile)		
							I-Atrazine	≤0.08 miligremu weLitha (mg/L)		
							I-Mancozeb	≤0.009 miligremu weLitha (mg/L)		
							I-Glyphosate	≤0.7 miligremu weLitha (mg/L)		
				Okuphila Emanzini	Emfuleni	Ukugeleza kwamanzi kwemvelo kumele kwenziwe ngcono ngokuhambisana nomkhakha wemvelo C.	Uhlu Lomthamo Okhona (IHI): Emfuleni	I-IHI ≥ 62%		
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C.	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO)	I-FRAI ≥62%		

IUA	Izinga	Umfula	Iyunithi yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo yeRQO	Inkomba	Imikhawulo/ isilinganiso sezinombolo		
						Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe. Qinisekisa ukuthi zonke lezi zinhlobo ezilandelayo ezikhona emfuleni zimelelekile: i-BNAT, ne BANO	*I-Labeobarbus natalensis* (BNAT)			
					Izilwanyana Zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu LwaseNingizimu Afrika (SASS5) I-Baetidae 2 spp I-Heptageniidae I-Hydropsychidae 2spp I-Leptophlebiiidae I-Trichorythidae I-Psephenidae I-Perlidae I-Oligoneuridae I-Polymitarcyidae I-Prosopistomatidae I-Pyralidae	Amasampuli okungenani ezinhlobo eziwu-3; umthamo ube ku A kuya ku B wobunini Amamaphuzu eSASS 5: ≥120 Amaphuzu Avamile ngeTaxon (ASPT): ≥4.8 I-MIRAI ≥62%		
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokubekezelela Ukungcola (%PTV)	I-SPI: 12 - 14 I-%PTV: 20% kuya ku <40%		
					Izihlahla zeRiparian	Izihlahla ze-riparian kumele zithuthukiswe/zigcinwe kahle ku VEGRAI ≥ yoMkhakha weMvelo C.	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu 5 I-VEGRAI ≥ 62%		
		Indawo enamanzi yaseNsonge **V20C** **(THU_IZIDINGO ZAMANZI**	**7.2**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iNsonge River esayithini EWR THU_ EWR20 (-29.2377, 29.7853) ku V20C NMAR = 27.136 x10^{6}m^{3} Umkhakha Wemvelo Ohlosiwe (TEC)-B/C	Kunakekla ukugelaza kwamanzi nesomiso okudingekayo emfuleni iNsonge Ukuqapha ukugeleza kwamanzi ku V2H007		Ukunakekela Amanzi ageleza kancane (m^3/s)	Ukugeleza kwamanzi kwesomiso (m^3/s)
								Okthoba	0.109	0.063
								Novemba	0.148	0.082
								Disemba	0.188	0.102
								Januwari	0.253	0.134

IUA	Izinga	Umfula	Iyunithi yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo yeRQO	Inkomba	Imikhawulo/ isilinganiso sezinombolo		
		ZEMVELO (EWR) 20)				Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esenhla nomfula.		Febuwari	0.302	0.159
								Mashi	0.271	0.143
								Ephreli	0.219	0.118
								Meyi	0.155	0.086
								Juni	0.115	0.066
								Julayi	0.097	0.057
								Agasti	0.090	0.054
								Septhemba	0.101	0.060
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukweseka imvelo yasemanzini nezinga lamanzi eliseqopelweni eliphezulu	I-Orthophosphate (PO_4^-) eyiPhosphorus	≤0.01 miligremu yeLitha (mg/L) (50^{th} percentile)		
							Isiyonke iNitrogen Enobungozi (TIN^-) eyiNitrogen	≤0.5 miligremu yeLitha (mg/L) (50^{th} percentile)		
					Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.	Osawoti sebebonke emanzini	≤120 miligremu yeLitha (mg/L) (95^{th} percentile)		
					Izinto ezisemanzini	Amazinga e-pH kumele agcinwe ephakathi kwemikhawulo ebekiwe.	Amazinga e-pH	6.5 (5^{th} percentile) no 9.0 (95^{th} percentile)		
					Iphathojeni	Ukuba khona kwephathojeni akumele kuebke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Wezibalo ku 100 mililitha (Izibalo/ 100 mL)		
					Izinto Ezinobungozi	Ukuba khona kwezinto ezinobungozi akumele kubeke engcupheni izinto eziphila emanzini noma kube yingozi empilweni yabantu.	I-Ammonia as N	≤ 0.07 miligremu yeLitha (mg/L) (95^{th} percentile)		
							I-Atrazine	≤0.08 miligremu yeLitha (mg/L)		
							I-Mancozeb	≤0.009 miligremu yeLitha (mg/L)		
							I-Glyphosate	≤0.7 miligremu yeLitha (mg/L)		
				Okuphila Emanzini	Emfuleni	Ukugeleza kwamanzi kwemvelo kumele kwenziwe ngcono ngokuhambisana nomkhakha wemvelo B/C.	Uhlu Lwesimo Sendawo (IHI): Emfuleni	Isimo Sendawo Emfuleni (izinga B/C) Umkhakha Wemvelo (≥ 72%)		
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT)	I-FRAI ≥ 62%		

IUA	Izinga	Umfula	Iyunithi yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo yeRQO	Inkomba	Imikhawulo/ isilinganiso sezinombolo		
						lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe. Kuqinisekiswe ukuthi zonke lezi zinhlobo ezilandelayo ezitholakala emfuleni zimelelekile: i-BNAT, ne BANO				
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo (TEC) owu C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI noMbhalo 5 woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae 2 spp I-Leptophlebiiidae I-Trichorythida	3 wamasampula ezilwanyana: umthamo ube ku A kuya ku B ngobuningi Amaphuzu eSASS 5: 90 - 220 Amaphuzu aphakathi ngeTaxon (ASPT): 6.4 – 7.5 MIRAI ≥ 62%		
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uku B.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 15 - 17 %PTV: <20%		
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-riparian kumele zandiswe noma zinakekelwe ngokwe-VEGRAI ≥ uMkhakha weMvelo B/C.	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 72%		
		IMooi River enhla nedamu iSpring Grove **V20A (ingxenye esezansi), V20D (upper)**	**7.3**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: IMooi River enhla nedamu iSpring Grove ku V20D NMAR = 92.98 x10^{6}m^3 Umkhakha Wemvelo Ohlosiwe (TEC) ka C. Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esenhla nomfula iMooi River.	Ukunakekelwa kokugeleza kwamanzi nesomiso okudingeka eMooi River Ukuqapha amazinga okugeleza kwamanzi ku V2H005		Ukugeleza kancane kwamanzi (m^3/s)	Ukugeleza kancane kwesomiso (m^3/s)
								Okthoba	0.265	0.227
								Novemba	0.361	0.188
								Disemba	0.461	0.329
								Januwari	0.609	0.496
								Febuwari	0.743	0.602
								Mashi	0.689	0.558
								Ephreli	0.595	0.486
								Meyi	0.378	0.315
								Juni	0.258	0.216
								Julayi	0.211	0.14
								Agasti	0.201	0.134
								Septhemba	0.225	0.173

IUA	Izinga	Umfula	Iyunithi yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo yeRQO	Inkomba	Imikhawulo/ isilinganiso sezinombolo
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukweseka impilo yasemanzini nezinga elihle lamanzi futhi kongiwe kahle imvelo.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.01 miligremu yeLitha (mg/L) (50th percentile)
							Isiyonke iNitrogen enobungozi (TIN^-) eyiNitrogen	≤0.5 miligremu yeLitha (mg/L) (50th percentile)
					Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.	Sebebonke osawoti emanzini	≤120 miligremu yeLitha (mg/L) (95th percentile)
					Iphathojeni	Ukuba khona kwephathojeni akumele kueke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)
					Izinto Ezinobungozi	Ukuba khona kwezinto ezinobungozi akumele kubeke engcupheni izinto eziphila emanzini noma kube yingozi empilweni yabantu.	I-Ammonia eyi-N	≤ 0.025 miligremu yeLitha (mg/L) (95th percentile)
							I-Atrazine	≤0.08 miligremu yeLitha (mg/L)
							I-Mancozeb	≤0.009 miligremu yeLitha (mg/L)
							I-Glyphosate	≤0.7 miligremu yeLitha (mg/L)
				Okuphila Emanzini	Emfuleni	Ukugeleza kwamanzi kwemvelo kumele kwenziwe ngcono ngokuhambisana nomkhakha wemvelo C.	Uhlu Oluchaza Isimo Sendawo (IHI): Emfuleni	IHI Emfuleni (izinga C) Umkhakha Wemvelo (≥ 62%)
				I-Biota	Izinyoni	Kugcinwe kahle indawo ehlala uhlobo lwezinyoni ezikwiRed List ukuze zihlale, zifudekele khona futhi zizalele.	I-Cape Vulture (*Gyps coprotheres*) I-Grey Crowned Crane (*Balearica regulorum*) I-Blue Crane (*Anthopoides paradiseus*) I-Denham's Bustard (*Neotis denhami*) I-Bearded Vulture (*Gypaetus barbatus*) I-Crowned Eagle (*Stephanoaetus coronatus)*	
					Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT)	I-FRAI ≥ 62% Ukuqinisekisa ukumeleleka kwazo zonke izinhlobo ezikhona emfuleni: BNAT, BANO

IUA	Izinga	Umfula	Iyunithi yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo yeRQO	Inkomba	Imikhawulo/ isilinganiso sezinombolo
						ngokuhambisana nomkhakha wemvelo C obekiwe.		
					Izilwanyana Zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe usemkhakheni wemvelo (TEC) owu C.	Uhlu Lokuhlola Impilo Yezilwanyana Zasemanzini noMbhalo 5 woHlelo Lwamaphuzu LwaseNingizimu Afrika (SASS5) I-Baetidae 2 spp I-Leptophlebiiidae I-Trichorythidae I-Heptageniidae I-Hydropsychidae 2spp.	3 wamasampuli ezilwanyana: umthabo ube ku A kuya ku B wobuningi Amaphuzu eSASS 5: ≥120 Amaphuzu aphakathi ngeTaxon (ASPT): ≥4.8 I-MIRAI ≥ 62%
					Ama-Diatoms	Umkhakha wemvelo kmele ugcinwe uku C.	Uhu Lokumela Nokungcola Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 12 - 14 %PTV: 20% kuya ku <40%
					Izihlahla zeRiparian	Uhlobo lwezihlahla ze-riparian kumele lugcinwe kahle noma lwandiswe kwi-VEGRAI ≥ uMkhakha wemvelo C.	Uhlu Lokuhlola Impilo yezihlahla (VEGRAI)	Ucwaningo lwe-VEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 62%
		Idamu iSpring Grove/ iMeans Weir **V20D**	**7.4**	Umthamo	Amazinga edamu	Ukuvuselela nokubuyekeza imithetho yokusebenza ukugcina kahle amazinga edamu ukuze kusizakale abasebenzisa amanzi ezansi nedamu nemvelo yasemanzini. Amazinga edamu kumele alawulwe kahle ukuvikela imvelo nabasebenzisa amanzi ezansi nedamu.	Amazinga aphansi adingekayo okusebenza kwedamu.	
				Izinga	Imisoco	Umthamo ophelele we-nitrate kumele ugcinwe kahle ukuvikela imvelo nezidingo zamazinga amanzi zabantu abasebenzisa amanzi. Idamu kumele linakekelwe njengohlelo oluphakela amanzi izinhlobo ezahlukene zempilo.	Isiyonke iNitrogen enobungozi (TIN^-) eyiNitrogen	≤0.5 miligremu yeLitha (mg/L) (50^{th} percentile)
							I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.01 miligremu yeLitha (mg/L) (50^{th} percentile)
					Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu	Sebebonke osawoti emanzini	≤100 miligremu yeLitha (mg/L) (95^{th} percentile)

<table>
<tr><th>IUA</th><th>Izinga</th><th>Umfula</th><th>Iyunithi yomthombo</th><th>Okubhekwayo</th><th>Ingxenye yokubhekwayo</th><th>Incazelo yeRQO</th><th>Inkomba</th><th colspan="5">Imikhawulo/ isilinganiso sezinombolo</th></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td>abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.</td><td></td><td colspan="5"></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td>Izinto Ezisemanzini</td><td>Amanzi kumele akwazi ukusebenza kwezokungcebeleka</td><td>Amazinga e-pH</td><td colspan="5">6.5 – 9.0 (5th no 95th percentile)</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td>Ukukhanya kwamanzi kumele kube sezingeni eliphezulu. Kungachezuki ezingeni lika-10% ukusuka emazingeni aphansi</td><td>Ukudungeka</td><td colspan="5"></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td>Iphathojeni</td><td>Ukuba khona kwephathojeni akumele kueke engcupheni impilo yabantu</td><td>I-Escherichia coli</td><td colspan="5">≤130 Izibalo ngo 100 mililitha (counts/ 100 mL)</td></tr>
<tr><td></td><td></td><td></td><td></td><td>I-Biota</td><td>I-Periphyton/ i-phytoplankton</td><td>Umthamo we Chlorophyll-a kumele ugcinwe ukahle njengoba idamu liphakela impilo.
Izinga le-aesthetic edamini kumele lilawulwe ngokuthi kulawulwe ukukhula kwe-phytoplankton ne-periphyton.</td><td>I-Chlorophyll-a</td><td colspan="5">11-20 microgremu yeLitha (µg/L) (50th percentile)</td></tr>
<tr><td></td><td></td><td>Emfuleni ongezansi kwedamu iSpring Grove kuya emlonyeni we-V20G

V20D (ezansi) ne V20E, ingxenye ye V20G (uThukela_EWR11)

(Qaphela: *Indawo engaphambi kokungenela eMkhomazi)</td><td>7.5 (a)*</td><td>Umthamo</td><td>Ukugeleza kancane kwamanzi</td><td>Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso:
IMooi River esayithini EWR oThukela_EWR11 (-29.116, 30.135) ku V20G
NMAR = 301.14 x10⁶m³
Umkhakha Wemvelo Obhekiwe (TEC) ka C/D.
Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esenhla nomfula iMooi River kuya enhlanganweni nomfula uMnyamvubu.</td><td>Ukunakekelwa kwamanzi agelezayo nesomiso okudingekayo eMooi River okwesikhashana kuze kuqale ukusebenza kohlelo lokudluliselwa kwamanzi lweMWP-1 oMngeni neMooi River, kudingeka ukulandelwa koMkhakha Wemvelo Ohlosiwe (TEC) we B/C
Ukuqapha ukugeleza kwamanzi ku V2H004</td><td></td><td>Ukunakekelwa Kwamanzi Amancane (m³/s)</td><td>Ukugeleza kwamanzi kwesomiso (m³/s)</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Okthoba</td><td>0.898</td><td>0.350</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Novemba</td><td>1.054</td><td>0.440</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Disemba</td><td>1.270</td><td>0.650</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Januwari</td><td>1.578</td><td>0.800</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Febuwari</td><td>1.982</td><td>0.960</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Mashi</td><td>1.847</td><td>0.900</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Ephreli</td><td>1.741</td><td>0.720</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Meyi</td><td>1.359</td><td>0.600</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Juni</td><td>1.112</td><td>0.450</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Julayi</td><td>0.944</td><td>0.350</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Agasti</td><td>0.850</td><td>0.250</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Septhemba</td><td>0.878</td><td>0.280</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td>Amanzi Ageleza kakhulu</td><td>Amanzi ageleza kakhulu/ ezikhukhula, ezidingo zamanzi zemvelo (EWR) kumele kumele adedelwe edamini iSpring Grove</td><td>Amanzi awumthamo/izikhukhula ezidingekayo eMooi River Ukuqapha ukugeleza kwamanzi ku V2H004</td><td></td><td>Amanzi (m³/s)</td><td>Izinsuku</td><td>Izikhukhula (m³/s)</td><td>Izinsuku</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Nov</td><td>6</td><td>2</td><td></td><td></td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Dec</td><td>6</td><td>2</td><td>15</td><td>3</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Jan</td><td>15</td><td>3</td><td>20</td><td>3</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Feb</td><td>6</td><td>2</td><td>30</td><td>6</td></tr>
<tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Mar</td><td>15</td><td>3</td><td>14</td><td>3</td></tr>
</table>

IUA	Izinga	Umfula	Iyunithi yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo yeRQO	Inkomba	Imikhawulo/ isilinganiso sezinombolo
				Izinga	Imisoco	Akumele amanzinga emisoco ehle futhi kumele eseke impilo yasemanzini futhi agcine umkhakha wemvelo ohlosiwe (TEC) owu C/D	I-Orthophosphate eyi-P	≤0.01 miligremu yeLitha (mg/L) (50th percentile)
							Isiyonke iNitrogen enobungozi eyi TIN	≤0.5 miligremu yeLitha (mg/L) (50th percentile)
					Osawoti	Amazinga osawoyi kumle agcinwe ekahle ukuze amanzi abe sezingeni elihle futhi kunakekelwe imvelo.	Sebebonke Osawoti Emanzini	≤350 miligremu yeLitha (mg/L) (95th percentile)
					Izinto Ezisemanzini	Amazinga e-pH kumele agcinwe esemazingeni abekiwe.	Amazinga e-pH	6.5 (5th percentile) – 9.0 (95th percentile)
					Iphathojeni	Ukuba khona kwephathojeni akumele kueke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo nge 100 mililitha (izibalo/ 100 mL)
				Okuphila Emanzini	Emfuleni	Ukugeleza kwamanzi kwemvelo kumele kwenziwe ngcono ngokuhambisana nomkhakha wemvelo C/D.	Uhlu Lokukala Isimo Sendawo (IHI): Emfuleni	IHI ≥ 52%
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo Ohleliwe (TEC) ka C/D. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C/D obekiwe. Kuqinisekiswe ukuthi zonke izinhlobo ezikhona emfuleni zimelelekile: i-NAT, ne BANO	Uhlu Lokuhlola Impilo yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) *I-Labeo molybdinus* (LMOL)	I-FRAI ≥ 52%
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo (TEC) owu C/D.	Uhlu Lokuhlola Impilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae 2 spp I-Leptophlebiiidae I-Heptageniidae I-Hydropsychidae 2spp I-Elmidae	3 wamasampula ezilwanyana: umthamo ube ku A kuya ku B ubuningi. Amaphuzu eSASS 5: ≥80 – 100 Amaphuzu aphakathi ngeTaxon (ASPT): ≥4.5 I-MIRAI ≥ 52%

<table>
<tr><th>IUA</th><th>Izinga</th><th>Umfula</th><th>Iyunithi yomthombo</th><th>Okubhekwayo</th><th>Ingxenye yokubhekwayo</th><th>Incazelo yeRQO</th><th>Inkomba</th><th colspan="5">Imikhawulo/ isilinganiso sezinombolo</th></tr>
<tr><td rowspan="15"></td><td rowspan="15"></td><td rowspan="2"></td><td rowspan="2"></td><td rowspan="2"></td><td>Ama-Diatoms</td><td>Kumele ukhakha wemvelo ugcinwe uku C.</td><td>Uhlu Lokuzwela Ekungcoleni Okuthile (SPI)
Iphesenti Lokumelana Nokungcola (%PTV)</td><td colspan="5">I-SPI: 12 - 14

I-%PTV: 20% kuya ku <40%</td></tr>
<tr><td>Izihlahla zeRiparian</td><td>Izihlahla zohlobo lwe-riparian kumele zinakekelwe/ zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C/D.</td><td>Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)</td><td colspan="5">Ucwaningo lweVEGRAI njalo eminyakeni ewu 5.

I-VEGRAI ≥ 52%</td></tr>
<tr><td rowspan="13">Ngezansi kwedamu iSpring Grove V20G

V20D (ezansi) ne V20E, ingxenye V20G

(uThukela_EWR11)

(Qaphela: *ibanga elide, emuva kokungenela eMkhomazi futhi amanzi angenela ohlelweni lomfula esenciphile)</td><td rowspan="13">7.5 (b)**</td><td rowspan="12">Umthamo</td><td>Ukugeleza kancane kwamanzi</td><td>Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso:
Mooi River at the EWR site Thukela_EWR11 (-29.116, 30.135) in V20G
NMAR = 301.14 x10⁶m³
Umkhakha weMvelo Ohlosiwe (TEC) womkhakha B/C
Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esenhla nomfula iMooi Riverkuya enhlanganweni nomfula uMnyamvubu.</td><td>Ukunakekelwa kokugeleza kwamanzi nesomiso okudingekayo eMooi River esikhathini esiphakathi kuya esikhathini eside uma sekuqalile ukusebenza ukudluliselwa kwamanzi kweMWP-1 eMooi River noMngeni
Ukuqapha ukugeleza kwamanzi ku V2H004</td><td></td><td>Ukunakekela ukugeleza kwamanzi (m^3/s)</td><td colspan="3">Ukugeleza kancane ngesomiso (m^3/s)</td></tr>
<tr><td>Okthoba</td><td>1.539</td><td colspan="3">0.350</td></tr>
<tr><td>Novemba</td><td>1.835</td><td colspan="3">0.440</td></tr>
<tr><td>Disemba</td><td>2.260</td><td colspan="3">0.650</td></tr>
<tr><td>Januwari</td><td>2.858</td><td colspan="3">0.800</td></tr>
<tr><td>Febuwari</td><td>4.554</td><td colspan="3">1.208</td></tr>
<tr><td>Mashi</td><td>3.379</td><td colspan="3">0.900</td></tr>
<tr><td>Ephreli</td><td>3.166</td><td colspan="3">0.720</td></tr>
<tr><td>Meyi</td><td>2.433</td><td colspan="3">0.600</td></tr>
<tr><td>Juni</td><td>1.947</td><td colspan="3">0.450</td></tr>
<tr><td>Julayi</td><td>1.627</td><td colspan="3">0.350</td></tr>
<tr><td>Agasti</td><td>1.446</td><td colspan="3">0.250</td></tr>
<tr><td>Septhemba</td><td>1.494</td><td colspan="3">0.280</td></tr>
<tr><td>Ukugeleza kakhulu kwamanzi</td><td>Amanzi ageleza kakhulu/ ezikhukhula ngokwezidingo zemvelo zamanzi (EWR) ayodedelwa edamini iSpring Grove.</td><td>Amanzi awumthamo/ izikhukhula ezidingekayo eMooi River

Ukuqapha ukugeleza kwamanzi ku V2H004</td><td></td><td>Amanzi (m^3/s)</td><td>Izinsuku</td><td>Izikhukhula (m^3/s)</td><td>Izinsuku</td></tr>
<tr><td>Oct</td><td>6</td><td>2</td><td></td><td></td></tr>
<tr><td>Nov</td><td>6</td><td>2</td><td></td><td></td></tr>
<tr><td>Dec</td><td>15</td><td>3</td><td>25</td><td>3</td></tr>
<tr><td>Jan</td><td>21</td><td>3</td><td>25</td><td>3</td></tr>
<tr><td>Feb</td><td>15</td><td>3</td><td>35</td><td>6</td></tr>
<tr><td>Mar</td><td>15</td><td>3</td><td>25</td><td>3</td></tr>
<tr><td>Apr</td><td>6</td><td>2</td><td></td><td></td></tr>
<tr><td rowspan="3">Izinga</td><td rowspan="2">Imisoco</td><td rowspan="2">Umthamo wemisoco emfuleni njengoba ubekiwe kumele ugcinwe ukahle ukuze ukwazi ukweseka impilo yemvelo yasemanzini futhi kuqinisekiswe ukuthi umkhakha obekiwe wemvelo uyafezekiswa.</td><td>I-Ortho-phosphate (PO_4^-) eyiPhosphorus</td><td colspan="5">≤0.06 miligremu yeLitha (mg/L) (50th percentile)</td></tr>
<tr><td>Isiyonke iNitrogen enobungozi (TIN^-) eyiNitrogen</td><td colspan="5">≤2.0 miligremu yeLitha (mg/L) (50th percentile)</td></tr>
<tr><td>Osawoti</td><td>Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu</td><td>Sebebonke osawoti emanzini</td><td colspan="5">≤250 miligremu yeLitha (mg/L) (95th percentile)</td></tr>
</table>

IUA	Izinga	Umfula	Iyunithi yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo yeRQO	Inkomba	Imikhawulo/ isilinganiso sezinombolo
						abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.		
					Izinto Ezisemanzini	Amazinga e-pH kumele agcinwe ephakathi kwemikhawulo ebekiwe.	Amazinga e-pH	6.5 (5^{th} percentile) no 9.0 (95^{th} percentile)
					Iphathojeni	Ukuba khona kwephathojeni akumele kueke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (counts/ 100 mL)
					Izinto Ezinobungozi	Ukuba khona kwezinto ezinobungozi akumele kubeke engcupheni izinto eziphila emanzini noma kube yingozi empilweni yabantu.	I-Atrazine	≤0.08 miligremu yeLitha (mg/L)
							I-Mancozeb	≤0.009 miligremu yeLitha (mg/L)
				Okuphila emanzini	Emfuleni	Ukugeleza kwamanzi kwemvelo kumele kwenziwe ngcono ngokuhambisana nomkhakha wemvelo ohlosiwe (TEC) ka B/C.	Uhlu Lokukala isimo Sendawo (IHI): Emfuleni	Isimo Sendawo Emfuleni (izinga B/C) Umkhakha Wemvelo (≥ 72%)
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka B/C. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo B/C obekiwe.	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) *I-Anguilla mossambica* (AMOS) *I-Anguilla bengalensis* (ALAB) *I-Barbus (Enteromius) viviparus* (BVIV) *I-Labeo rubromaculatus* (LRUB) *I-Labeo molybdinus* (LMOL) *I-Barbus (Enteromius) pallidus* (BPAL)	I-FRAI ≥ 72% Ukuqinisekisa ukuthi izinhlobo zonke ezikhona emfuleni zimelelekile kulezi ezilandelayo: BNAT, BANO, BVIV, BPAL – 3 kweziwu 4 izihlahla/ ukumeleleka. 1 kulezi ezilandelayo ezimele izinhlobo ezahlukene ezikhona emfuleni: AMOS, ALAB, LRUB.
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5)	Amasampula awu 3 ezilwanyana: umthamo ube phakathi kuka A kuya ku B ngobuningi. Amaphuzu eSASS 5: ≥150 Amaphuzu aphakathi ngeTaxon (ASPT): ≥5.5

IUA	Izinga	Umfula	Iyunithi yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo yeRQO	Inkomba	Imikhawulo/ isilinganiso sezinombolo
						usemkhakheni wemvelo ohlosiwe (TEC) owu B/C.	I-Baetidae 2 spp I-Leptophlebiiidae I-Trichorythidae I-Heptageniidae I-Hydropsychidae 2spp I-Elmidae I-Psephenidae I-Perlidae I-Oligoneuridae	I-MIRAI ≥ 72%
					Ama-Diatoms	Kumele kugcinwe umkhakha wemvelo owu B.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 15 - 17 I-%PTV: <20%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo B/C.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo emva kweminyaka ew-5. I-VEGRAI ≥ 72%
		IJoubertsvlei kuya enhlanganweni neMooi **V20E**	**7.6**	Izinga	Imisoco	Amazinga emisoco agcinwe ekahle ukweseka impilo yemvelo yasemanzini nokuqinisekisa ukuthi umkhakha wemvelo ohlosiwe uyafezekiswa.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.02 miligremu yeLitha (mg/L) (50^{th} percentile)
							Isiyonke iNitrogen enobungozi (TIN) eyiNitrogen	≤1.0 miligremu yeLitha (mg/L) (50^{th} percentile)
					Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.	Sebebonke Osawoti Emanzini Solids	≤195 miligremu yeLitha (mg/L) (95^{th} percentile)
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)
					Izinto Eziyingozi	Umthamo wezinto ezinobungozi emanzini akumele ubeke engcupheni impilo yasemanzini noma impilo yabantu.	I-Atrazine	≤0.08 miligremu yeLitha (mg/L)
							I-Mancozeb	≤0.009 miligremu yeLitha (mg/L)
							I-Glyphosate	≤0.7 miligremu yeLitha (mg/L)
				I-Biota	Ama-Diatoms	Umkhakha wemvelo umele ugcinwe uku D.	Uhlu Lokuzwela Ekungcoleni Okukhona (SPI) Iphesenti Lokubekezelela Ukungcola (%PTV)	I-SPI: 8 - 10 I-%PTV: 40% - 60%

IThebula 9: Izinjongo Zamazinga Emithombo YEMIFULA NAMADAMU ngokwamaYunithi Emithombo Ocwaningweni LwamaYunithi Ahlanganisiwe 8 – I-MOOI RIVER EPHAKATHI NESEZANSI

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo Ngokwezinombolo		
IUA 8: IMooi River Ephakathi Nesezansi	III	Idamu iCraigieburn **V20F**	**8.2**	Umthamo	Amazinga edamu	Ukuvuselelwa nokubuyekezwa kwemithetho yokusebenza ukuze kugcinwe amazinga edamu ekahle ukuze kwesekwe imvelo yasemanzini nabasebenzisa amanzi Amazinga edamu kumele alawulwe ukuvikela imvelo nabantu abasebenzisa amanzi ezansi nomfula.	Amazinga aphansi okungenani idamu okumele lisebenze kuwona.			
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukubhekelela impilo yemvelo nesidingo zamazinga amanzi zabasebenzisa amanzi. Idamu kumele linakekelwe njengohlelo lokuphakela amanzi olusemthethweni.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.02 miligremu yeLitha (mg/L) (50th percentile)		
							Isiyonke iNitrogen (TIN) eyiNitrogen	≤1.0 miligremu yeLitha (mg/L) (50th percentile)		
					Osawoti	Amazinga osawoti kumele agcinwe ekahle edamini ukweseka impilo yemvelo nezidingo zezinga lamanzi zabasebenzisa amanzi ezansi nedamu.	Osawoti sebebonke emanzini	≤195 miligremu yeLitha (mg/L) (95th percentile)		
					Izinto Ezisemanzini	Amanzi kumele abe sesimweni esamukelekile ukusetshenziswa umphakathi.	Amanzinga e-pH	≥6.5 (5th percentile) no ≤9.0 (95th percentile)		
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke encupheni impilo yabantu.	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)		
				I-Biota	I-Periphyton/ i-phytoplankton	Umthamo we-Chlorophyll-*a* kumele ugcinwe usezingeni lokuthi amanzi akwazi ukusebenziseka.	I-Chlorophyll-*a*	11-20 microgremu yeLitha (µg/L) (50th percentile)		
		UMnyamvubu kwehle njalo kuyoshaya enhlanganweni neMooi River **V20G**	**8.3**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula uMnyamvubu esayithini EWR THU_EWR 21 (-29.1610, 30.2884) ku V20G NMAR = 31.71 x$10^6$$m^3$ (Umkhakha Wemvelo Ohlosiwe (TEC) womkhakha C.	Ukunakekelwa kwamanzi nesomiso okudingekayo emfuleni uMnyamvubu ngezansi kwedamu iCraigieburn. Ukuqapha ukugeleza kwamanzi kwi V2H016		Ukunakekela ukuglezeza kwamanzi (m^3/s)	Ukugeleza kwamanzi ngesomiso (m^3/s)
								Okthoba	0.101	0.052
								Novemba	0.126	0.064
								Disemba	0.15	0.075

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo Ngokwezinombolo		
		(THU_EWR21)				Ukunakekelwa kokugeleza kancane kwamanzi kumele kuqhubeke ukuze kwelekelelwe imvelo yasemanzini kuze kuyofika enhlanganweni neMooi River.		Januwari	0.189	0.094
								Febuwari	0.224	0.111
								Mashi	0.207	0.103
								Ephreli	0.178	0.089
								Meyi	0.116	0.06
								Juni	0.084	0.044
								Julayi	0.07	0.037
								Agasti	0.069	0.037
								Septhemba	0.085	0.045
				Izinga	Imisoco	Kumele kugcinwe amazinga emisoco ekahle ukulekelela imvelo yasemanzini nezinga elihle lamanzi. Kumele kugwenywe ukonakala kwezinga lamanzi.	I-Ortho-phosphate as P	≤0.01 miligremu yeLitha (mg/L) (50th percentile)		
							Isiyonke iNitrogen (TIN) eyiNitrogen	≤0.5 miligremu yeLitha (mg/L) (50th percentile)		
					Osawoti	Amazinga osawoti kumele agcinwe ekahle ukuze kongiwe izinga lamanzi nesimo semvelo.	Sebebonke osawoti emanzini	≤120 miligremu yeLitha (mg/L) (95th percentile)		
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.	*I-Escherichia coli*	≤130 izibalo ngo 100 mililitha (counts/ 100 mL)		
				Okuphila Emanzini	Emfuleni	Amazinga okugeleza kwamanzi kwemvelo kumele agcinwe ekahle ngokoMkhakha Wemvelo Ohlosiwe (TEC) ka C.	Uhlu Lokukala Isimo Sendawo (IHI): Emfuleni	IHI Emfuleni (izinga C) Umkhakha Wemvelo (≥ 62%)		
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe	Uhlu Lokuhlola Impilo yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) *I-Anguilla mossambica* (AMOS) *I-Labeo molybdinus* (LMOL) *I-Barbus (Enteromius) pallidus* (BPAL) *I-Tilapia sparrmanii* (TSPA)	I-FRAI ≥ 62% Ukuqinisekisa ukuthi zonke izinhlobo ezikhona emfuleni zimelelekile kule mikhakha elandelayo: BNAT, BANO, BVIV, BPAL – 3 weziwu 4 ezimele izitshalo/ ulwelwe. 1 kulezi ezilandelayo AMOS, ALAB, LRUB njengezithembele emanzini agelezayo nezinhlobo ezikhona		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo Ngokwezinombolo
					Izilwanyana Zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae >2 spp I-Leptophlebiiidae I-Trichorythidae I-Hydropsychidae >2spp I-Atydae I-Hydracarina	3 wamasampuli ezilwanyana: umthamo ube phakathi kuka A no B ubuningi. Amaphuzu eSASS 5: ≥120 Amaphuzu aphakathi eTaxon (ASPT): ≥4.8 I-MIRAI ≥ 62%
					Ama-Diatoms	Umkhakha wemvelo umele ugcinwe uku B.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 15 - 17 I-%PTV: <20%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 62%
		IMooi River kusuka eMnyamvubu kuya enhlanganweni noThukela **V20H, J (THU_EWR 12A)**	**8.6**	Umthamo	Ukugeleza kancene kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: IMooi River esayithini EWR THU_EWR12A (-29.9193, 30.4189) ku V20H NMAR = 361.85 x10⁶m³ Umkhakha Wemvelo Ohlosiwe (TEC) womkhakha. Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele uqhubeke ukulekelela imvelo yasemanzini esezansi nomfula iMooi Rier kuya enhlanganweni nomfula uThukela.	Ukunakekelwa kwamanzi nesomiso okudingekayo eMooi River Ukuqapha ukugeleza kwamanzi kwi V2H008	Okthoba: Ukulawula Ukugleza kwamanzi (m³/s) = 1.647; Ukugeleza kancane kwesomiso (m³/s) = 0.849 Novemba: 2.095; 0.914 Disemba: 2.586; 1.287 Januwari: 3.48; 1.704 Febuwari: 4.196; 2.046 Mashi: 3.819; 1.862 Ephreli: 3.266; 1.607 Meyi: 2.233; 1.122 Juni: 1.621; 0.839 Julayi: 1.351; 0.711 Agasti: 1.284; 0.679 Septhemba: 1.503; 0.784
					Amanzi ageleza kakhulu	Izidingo Zamanzi Zemvelo (EWR) amanzi awumthamo/izikhukhula ayodedelwa esuka edamini iSpring Grove neCraigieburn	Amanzi awumthamo/ ezikhukhula adingekayo eMooi River Ukuqapha ukugeleza kwamanzi kwi V2H008	Amanzi (m³/s); Izinsuku; Izikhukhula (m³/s); Izinsuku

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo Ngokwezinombolo				
								Septhemba	6	2		
								Okthoba	8	2		
								Novemba	8	2		
								Disemba	8	2	20	3
								Januwari	15	3	33	3
								Febhuwari	15	2	40	6
								Mashi	15	3	20	3
								Ephreli	8	2		
				Izinga	Imisoco	Kumele kugcinwe amazinga emisoco ekahle ukulekelela imvelo yasemanzini nezinga elihle lamanzi. Kumele kugwenywe ukonakala kwezinga lamanzi.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.02 miligremu yeLitha (mg/L) (50th percentile)				
							Seyiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤1.0 miligremu yeLitha (mg/L) (50th percentile)				
					Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.	Sebebonke Osawoti emanzini	≤350 miligremu yeLitha (mg/L) (95th percentile)				
					Izinto Ezisemanzini	Amanzi kumele akwazi ukusetshenziselwa izidingo zomphakathi.	Amanzinga e-pH	6.5 (5th percentile) no 9.0 (95th percentile)				
					Izinto Ezinobungozi	Amazinga ezinto ezinobungozi akumele abee engcupheni impilo yasemanzini nempilo yabantu.	I-Atrazine	≤0.08 miligremu yeLitha (mg/L)				
							I-Mancozeb	≤0.009 miligremu yeLitha (mg/L)				
							I-Glyphosate	≤0.7 miligremu yeLitha (mg/L)				
				Okuphila Emanzini	Emfuleni	Indlela yokugeleza kwemvelo kumele yenziwe ngcono ibe semkhakheni wemvelo ohlosiwe (TEC) ka C.	Uhlu Lokukala Isimo Sendawo (IHI): Emfuleni	IHI ≥62%				

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo Ngokwezinombolo
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe.	Uhlelo Lokuhlola Impilo Yezinhlanzi (FRAI) *I-Anguilla mossambica* (AMOS) *I-Labeobarbus natalensis* (BNAT) *I-Barbus (Enteromius) viviparus* (BVIV) *I-Clarias gariepinus* (CGAR) *I-Labeo molybdinus* (LMOL) *I-Barbus (Enteromius) pallidus* (BPAL) *I-Tilapia sparrmanii* (TSPA) *I-Amphilius natalensis* (ANAT)	I-FRAI ≥ 62% Ukuqinisekisa ukuthi zonke izinhlobo ezikhona emfuleni zimelelekile kulezi ezilandelayo: BNAT, BVIV, BPAL ne TSPA – 3 kweziwu 4 izihlahla/ ulwelwe. Yi -AMOS ne-LMOL eyodwa etholakala emfuleni emelelekile.
					Izilwanyana Zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae >2 spp I-Leptophlebiiidae I-Atydae I-Aeshnidae I-Hydropsychidae >2spp	Amasampuli awu 3 ezilwanyana: Umthamo ube ku A kuya ku B ngobuningi Amaphuzu eSASS 5: 124 - 200 Amaphuzu aphakathi ngeTaxon (ASPT): 5.4 - 7.5 I-MIRAI ≥ 62%
					Ama-Diatoms	Umkhakha wemvelo umele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 12 - 14 %PTV: 20% - < 40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 62%

IThebula 10: Izinjongo Zamazinga Emithombo YEMIFULA NAMADAMU ngokwamaYunithi Emithombo Ocwaningweni LwamaYunithi Ahlanganisiwe 9: I-BUSHMAN'S RIVER EMAPHAKATHI NESEZANSI

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo
IUA 9: I-BUSHMAN'S RIVER EMAPHAKATHI NESEZANSI' MIDDLE/ LOWER BUSHMAN' S RIVER	**III**	Idami iWagendrift **V70C**	**9.2**	Umthamo	Amazinga edamu	Ukuvuselelwa nokubuyekezwa kwemithetho yokusebenza ukuze kugcinwe amazinga edamu ekahle ukuze kwesekwe imvelo yasemanzini nabasebenzisa amanzi Amazinga edamu kumele alawulwe ukuvikela imvelo nabantu abasebenzisa amanzi ezansi nomfula.	Amazinga aphansi okungenani okumele idamu lisebenze kuwona.	
				Izinga	Imisoco	Kumele kugcinwe amazinga emisoco ekahle ukulekelela imvelo yasemanzini nezinga elihle lamanzi. Kumele kugwenywe ukonakala kwezinga lamanzi abe sezingeni lokusetshenziswa abantu.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.01 miligemu weLitha (mg/L) (50th percentile)
							Isiyonke iNitrogen Enobungozi (TIN) eyiNitrogen)	≤1.0 miligemu weLitha (mg/L) (50th percentile)
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)
				I-Biota	I-Periphyton/ i-phytoplankton	Amazinga e-Chlorophyll-*a* kumele agcinwe esezingeni lokuthi amanzi asebenziseke.	I-Chlorophyll-*a*	11-20 microgremu weLitha (µg/L) (50th percentile)
		I-Bushman's encane kuya enhlanganweni neBushman's **V70D**	**9.3**	Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukuze eseke imvelo yasemanzini nesimo semvelo. Kumele amazinga engciwe ngcono.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.06 miligemu weLitha (mg/L) (50th percentile)
							Isiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤2.0 mg/L (50th percentile)
					Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.	Sebebonke osawoti emanzini	≤300 mg/L (95th percentile)
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)
					Izinto Ezisemanzini	Amazinga e-pH kumele agcinwe engaphakathi kwemikhawulo ebekiwe ukulekelela imvelo yasemanzini nezidingo zabasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th percentile) no ≤9.0 (95th percentile)

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo
				Okuphila emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe kukahle eMkhakheni Wemvelo Ohlosiwe (TEC) ka C.	Uhlu Lokukala Isimo Sendawo (IHI): Emfuleni	IHI ≥62%
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C.	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) *I-Anguilla mossambica* (AMOS) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT)	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ukuqapha ngokomkhakha wemvelo C obekiwe I-FRAI ≥ 62% Ukuqinisekisa ukuthi zonke izinhlobo ezikhona emfuleni zimelelekile kulezi zinhlobo ezilandelayo: BNAT, BANO – 5 wohlobo ngalunye. I-AMOS, 1 -2 wezinhlobo ezikhona ezithembele emfuleni nezinhlobo ezimelelekile.
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae 2 spp I-Leptophlebiiidae I-Hydropsychidae 2spp I-Heptageniidae I-Elmidae	Amasampuli awu 3 ezilwanyana: umthamoube ku A kuya ku B ngobuningi Amaphuzu eSASS 5: ≥120 Amaphuzu aphakathi ngeTaxon (ASPT): ≥4.8 MIRAI ≥ 62%
					Ama-Diatoms	Umkhakha wemvelo umele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 12 - 14 %PTV: 20% - < 40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njaoeminyakeni ewu 5. VEGRAI ≥ 62%
		I-Bushman's kusuka edamini iWagendrift	**9.4**	Izinga	Imisoco	Kumele kugcinwe amazinga emisoco ekahle ukulekelela imvelo yasemanzini nezinga elihle lamanzi. Kumele kugwenywe ukonakala kwezinga lamanzi.	I-Orthophosphate (PO_4^-) eyiPhosphorus	≤0.06 miligemu weLitha (mg/L) (50^{th} percentile)
							Isiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤2.0 miligemu weLitha (mg/L) (50^{th} percentile)

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo
		kuya enhlanganweni neRens-burgspruit ngezansi kwaseMtshezi **V70E, V70F, (Upper portion) V70G**			Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.	Sebebonke Osawoti emanzini	≤350 miligemu weLitha (mg/L) (95th percentile)
					Iphathojeni	Ukuba khona kephathojeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)
					Izinga Lamanzi	Amazinga e-pH kumele agcinwe engaphakathi kwemikhawulo ebekiwe ukweseka imvelo yasemanzini nezidingo zabasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th percentile) no ≤9.0 (95th percentile)
					Izinto Ezinobungozi	Umthamo wezinto ezinobungozi akumele ubeke engcupheni imvelo yasemanzini noma impilo yabantu.	I-Ammonia ewu-N	≤ 0.07 miligemu weLitha (mg/L) (95th percentile)
							I-Atrazine	≤0.08 miligemu weLitha (mg/L)
							I-Mancozeb	≤0.009 miligemu weLitha (mg/L)
							I-Glyphosate	≤0.7 miligemu weLitha (mg/L)
		I-Bushman's kusuka edamini iRensburgspruit kuya ozalweni lwe V70F **V70F (ezansi noThukela_ EWR 5)**	**9.5 (a)**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula i-Bushman's esayithini ye-EWR oThukela_ EWR5 (-28.897, 30.035) in V70F NMAR = 281.45 x10^{6}m^{3} Umkhakha Wemvelo Ohlosiwe (TEC) ka C. Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqhubeke ukweseka imvelo yasemanzini emfuleni iBushman's ngezansi kwedamu iWagedrift kuya esayithini ye-EWR.	Ukunakekelwa kwamanzi nesomiso emfuleni iBushman's	Kunakekela Ukugeleza Kwamanzi (m^3/s) / Ukugeleza Kwamanzi Ngesomiso (m^3/s) Okthoba 0.959 0.472 Novemba 1.204 0.544 Disemba 1.496 0.710 Januwari 1.881 0.881 Febuwari 2.315 1.078 Mashi 2.154 1.002 Ephreli 2.006 0.938 Meyi 1.495 0.71 Juni 1.144 0.556 Julayi 0.895 0.444 Agasti 0.800 0.402 Septhemba 0.849 0.425
					Amanzi ageleza kakhulu	Izidingo Zamanzi Zemvelo (EWR) amanzi awumthamo/izikhukhula ayodedelwa esuka edamini iWagendrift (okwesikhashana) nasedamini iMielietuin (okwesikhathi eside)	Amanzi Awumthamo/ ezikhukhula adingekayo emfuleni iBushman's Ukuqapha ukugeleza kwamanzi kwi V7H020	Ukugeleza (m^3/s) / Izinsuku / Izikhukhula (m^3/s) / izinsuku Okthoba 6 3 Novemba 16 3 Disemba 18 4 20 4

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo				
								Januwari	20	4	25	4
								Febhuwari	16	3	40	6
								Mashi	16	3	20	5
				Izinga	Imisoco	Kumele kugcinwe amazinga emisoco ekahle ukulekelela imvelo yasemanzini nezinga elihle lamanzi elibekiwe.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.058 miligemu weLitha (mg/L) (50th percentile)				
							Seyiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤2.0 miligemu weLitha (mg/L) (50th percentile)				
					Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.	Sebebonke osawoti emanzini	≤350 miligemu weLitha (mg/L) (95th percentile)				
					Izinga Lamanzi	Amazinga e-pH kumele agcinwe ephakathi kwemikhawulo ebekiwe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th percentile) no ≤9.0 (95th percentile)				
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)				
					Izinto ezinobungozi	Umthamo wezinto ezinobungozi akumele ubeke engcupheni impilo yasemanzini noma impilo yabantu.	I-Ammonia eyi N	≤ 0.07 miligemu weLitha (mg/L) (95th percentile)				
							I-Atrazine	≤0.08 miligemu weLitha (mg/L)				
							I-Mancozeb	≤0.009 miligemu weLitha (mg/L)				
							I-Glyphosate	≤0.7 miligemu weLitha (mg/L)				
				Okuphila Emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kwenziwe ngcono ngokomkhakha wemvelo ohlosiwe (TEC) ka C.	Uhlu Lokukala Isimo Sendawo (IHI): Emfuleni	IHI ≥62%				
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe	Uhlu Lokhlola Impilo Yezinhlanzi (FRAI) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) **–** *Barbus (Enteromius) trimaculatus* (BTRI) *I-Barbus (Enteromius) viviparus* (BVIV) *I-Anguilla mossambica* (AMOS) *I-Labeo rubromaculatus* (LRUB)	FRAI ≥ 62% Ukuqinisekisa ukuthi zonke izinhlobo ezikhona zimelelekile kwezikhona: BNAT, BVIV, BANO ne TSPA – 3 kweziwu 4 izihlahla/ ulwelwe. Eyodwa kuma AMOS, nama LRUB akhona emfueni nezinhlobo ezingaphansi kwamanzi zimeleleke.				

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo		
							I-Tilapia sparrmanii (TSPA)			
					Izilwanyana Zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae 2 spp I-Leptophlebiiidae I-Heptageniidae I-Hydropsychidae 2spp I-Perlidae* I-Elmidae* I-Trichorythidae*	Amasampuli awu 3 ezilwanyanaL Umthamo ube ku A kuya ku B ubuningi. Amaphuzu eSASS 5: ≥120 Amaphuzu aphakathi ngeTaxon (ASPT): ≥4.8 I-MIRAI ≥ 62%		
					Ama-Diatoms	Umkhakha wemvelo umele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 12 - 14 %PTV: 20% - < 40%		
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu-5. VEGRAI ≥62%		
		I-Bushman's kusuka ozalweni lwe V70F kuya enhlanganweni noThukela **V70G**	**9.5 (b)**	Umthamo	Ukugeleza kancae kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula iBushman's esayithini ye-EWR THU_EWR6A (-28.8483, 30.1496) kwi V70G NMAR = 298.37 x$10^6$$m^3$ Umkhakha wemvelo Ohlosiwe (TEC) ka C/D. Ukunakekelwa kokugeleza kancane kwananzi nesomiso	Ukunakekela amanzi nesomiso okudingekayo emfuleni Bushman's esezansi		Uunakekella ukugeleza Kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
								Okthoba	1.816	0.488
								Novemba	2.246	0.565
								Disemba	2.759	0.728
								Januwari	3.473	0.910
								Febuwari	4.238	1.108
								Mashi	3.931	1.027

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo				
		(THU_EWR 6A)				kumele kuqhubekele ukqeseka imvelo yasemanzini esezansi nomfula iBushman's kuyoshaya enhlanganweni noThukela.		Ephreli	3.665		0.96	
								Meyi	2.747		0.725	
								Juni	2.121		0.567	
								Julayi	1.682		0.454	
								Agasti	1.519		0.413	
								Septhemba	1.625		0.440	
					Amanzi ageleza kakhulu	Izidingo Zamanzi Zemvelo (EWR) amanzi awumthamo/ezikhukhula ayodedelwaedamini iWagendrift (okwesikhashana) nasedamini iMielietuin (okwesikhathi eside)	Amanzi awumthamo / ezikhukhula adingekayo emfuleni iBushman's Ukuqapha ukugeleza kwamanzi ku V7H020		Umthamo (m^3/s)	Izinsuku	Izikhukhula (m^3/s)	Izinsuku
								Septhemba	4	2		
								Okthoba	6	3		
								Novemba	10	3		
								Disemba	10	3	20	4
								Januwari	20	3	35	4
								Febhuwari	20	4	40	6
				Izinga	Imisoco	Kumele kugcinwe amazinga emisoco ekahle ukulekelela imvelo yasemanzini nezinga elihle lamanzi. Kumele kugwenywe ukonakala kwezinga lamanzi.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.06 miligemu weLitha (mg/L) (50^{th} percentile)				
							Isiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤2.0 miligemu weLitha (mg/L) (50^{th} percentile)				
					Osawoti	Umthamo wosawoti kumele uncishiswe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi ezansi nomfula nokugcina kahle isimo semvelo.	Osawoti sebebonke emanzini	≤350 miligemu weLitha (mg/L) (95^{th} percentile)				
					Izinga Lamanzi	Amazinga e-pH kumele egcinwe ephakathi kwemikhawulo ebekiwe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5^{th} percentile) no ≤9.0 (95^{th} percentile)				
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)				
					Izinto Ezinobungozi	Amazinga ezinto ezinobungozi akumele abeke engcupheni imvelo yasemanzini nempilo yabantu.	I-Ammonia eyi N	≤ 0.07 miligemu weLitha (mg/L) (95^{th} percentile)				
							I-Atrazine	≤0.08 miligemu weLitha (mg/L)				
							I-Mancozeb	≤0.009 miligemu weLitha (mg/L)				

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo
							I-Glyphosate	≤0.7 miligemu weLitha (mg/L)
				Okuphila Emanzini	Emfuleni	Ukugeleza kwemvelo Kwamazi kumele kube seMkhakheni Wemvelo Ohlosiwe (TEC) owu C/D.	Uhlu Lokukala Isimo Sendawo (IHI): Emfuleni	IHI ≥52%
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Anguilla mossambica* (AMOS) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) *I-Barbus (Enteromius) trimaculatus* (BTRI) *I-Barbus (Enteromius) viviparus* (BVIV) *I-Clarias gariepinus* (CGAR) *I-Labeo molybdinus* (LMOL) *I-Barbus (Enteromius) pallidus* (BPAL) *I-Tilapia sparrmanii* (TSPA) *I-Amphilius natalensis* (ANAT)	FRAI ≥ 52% Ukuqinisekisa ukuthi zonke izinhlobo ezikhona emfuleni zimelelekile kulezi ezilandelao: BNAT, BVIV, BPAL ne TSPA – 3 weziwu 4 izihlahla/ ulwelwe. Eyodwa kwi AMOS, ne LMOL ekhoan ethembele emfuleni nasekugelezeni kwamanzi.
					Izilwanyana Zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C/D.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) I-Baetidae >2 spp I-Leptophlebiiidae I-Heptageniidae I-Hydropsychidae 2spp	Okungenani amasampuli awu 2 ezilwanyana: umthamo ube ku A kuya ku B wobuningi Amaphuzu eSASS 5: 80 - 180 Amaphuzu apakathi ngeTaxon (ASPT): 5.7 - 7.5 I-MIRAI ≥ 52%
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uku C/D.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 12 - 14 %PTV: 20% - < 40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C/D.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥52%

IThebula 11: Izinjongo Zamazinga Emithombo YEMIFULA NAMADAMU ngokwamaYunithi Emithombo Ocwaningweni LwamaYunithi Ahlanganisiwe

10: ENHLA NOMFULA UTHUKELA

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo
IUA 10: ENHLA NOMFULA UTHUKELA	**III**	uThukela, iPutterill, iMajaneni, nezindawo ezinamanzi eKhombe **V11A (ingxenye esezansi), V11C, V11D**	**10.1**	Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukulondoloza impilo yasemanzini nokuqinisekisa ukuthi umkhakha wemvelo obekiwe ugcinwa ukahle.	I-Orthophosphate (PO_4^-) eyiPhosphorus	≤0.1 milligremu weLitha (mg/L) (50th percentile)
							Isiyonke iNitrogen (TIN) eyiNitrogen	≤2.0 milligremu weLitha (mg/L) (50th percentile)
					Izinto Ezisemanzini	Amazinga e-pH kumele egcinwe ephakathi kwemikhawulo ebekiwe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th percentile) no ≤9.0 (95th percentile)
						Amazinga osawoti emfueni kumele agcinwe ekahle ukuze kulondolozwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa.	Ukubheka Ukungcoliseka Kwamanzi kwe-Elekthrokikhi	≤ 55 milli Siemens ngemitha (mS/m) (95th percentile)
					Iphathojeni	Ukuba khona kwepathojeni akumele kumeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Counts per 100 millilitres (counts/ 100 mL)
					Izinto Ezinbungozi	Umthamo wezinto ezinobungozi akumele ubeke engcupheni impilo yasemanzini kanye nempilo yabantu.	I-Ammonia eyi N	≤ 0.0725 milligremu weLitha (mg/L) (95th percentile)
							I-Atrazine	≤0.08 milligremu weLitha (mg/L)
							I-Mancozeb	≤0.009 milligremu weLitha (mg/L)
							I-Glyphosate	≤0.7 milligremu weLitha (mg/L)
				Okuphila Emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe kukahle noma kwenziwe ngcono ngokomkhakha wemvelo ohlosiwe (TEC) owu B/C.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 72%
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka B/C. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo B/C obekiwe	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Anguilla mossambica* (AMOS) *I-Amphilius natalensis* (ANAT) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) *I-Labeo rubromaculatus* (LRUB)	FRAI ≥ 72% Ukuqinisekisa ukuthi zonke izilwane ezihlala emanzini zimelelekile kule mikhakha elandelayo: ANAT, BANO ne BNAT – 2 kweziwu 3 izihlahla/ ulwelwe 1 kulezi ezilandelayo ze AMOS, iBNAT ekhulile ne LRUB njengezethembele emanzini agelezayo najulile.

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu B/C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) Baetidae 2 spp Leptophlebiiidae Heptageniidae Hydropsychidae 2spp Psephidae	Okungenani 2 2 wezilwanyana: umthamo ube phakathi kuka A kuya ku B ngobuningi. I-SASS5: ≥150 Amaphuzu aphakathi eTaxon (ASPT): ≥15.5 I-MIRAI ≥ 72%
					Ama-Diatoms	Umkhakha Wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 12 – 14 %PTV: 20% - < 40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo B/C.	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo VEGRAI njalo eminyakeni ewu-5. I-VEGRAI ≥ 72%
		Idamu iWoodstock **V11D, V11E**	**10.3**	Umthamo	Amazinga Edamu	Ukuvuselelwa nokubuyekezwa kwemithetho yokusebenza ukuze kugcinwe kahle amanzinga amanzi edamini ukweseka abasebenzisa amanzi nempilo yasemanzini ezansi nedamu.	Kudingeka amazinga aphansi okusebenza kwedamu.	
				Izinga	Imisoco	Umthamo wemisoco kumele ugcinwe ukahle ukuze kulondolozwe imvelo yasemanzini nezidingo zaamazinga amanzi zabasebenzisa amanzi.	Isiyonke iNitrogen eyiTIN	≤0.7 milligremu weLitha (mg/L) (50th percentile)
							I-Ortho-phosphate eyi P	≤0.010 milligremu weLitha (mg/L) (50th percentile)
					Osawoti	Osawoti edamini kumele bagcinwe bekahle ukweseka izinga lamanzi elidingekayo kwabasebenzisa amanzi ezansi nedamu. Kumele amanzi agcinwe esezingeni elihle.	Sebebonke Osawoti emanzini	≤100 milligremu weLitha (mg/L) (95th percentile)
					Iphathojeni	Ukuba khona kwepathojeni akumele kumeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Wezibalo ngo 100 mililitha (izibalo/ 100 mL)
				i-Biota	I-Periphyton/ i-phytoplankton	Idamu kumele linakekelwe njengomthombo wamanzi womphakathi	I-Chlorophyll-*a*	11-20 microgremu ngeLitha (µg/L) 50th percentile
			10.4	Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukweseka impilo	I-Orthophosphate (PO_4^-) eyi Phosphorus	≤0.06 microgremu ngelitha (mg/L) (50th percentile)

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo
		Izindawo ezinamanzi eSandspruit **V11F**				yasemanzini nokuqinisekisa ukuthi umkhakha wemvelo obekiwe uyafezekiswa.	Iziyonke iNitrogen Enobungozi (TIN^{-}) eyiNitrogen	≤1.0 milligremu weLitha (mg/L) (50th percentile)
					Osawoti	Amazinga osawoti emfueni kumele agcinwe ekahle ukuze kulondolozwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa	Sebebonke Osawoti Emanzini	≤350 milligremu weLitha (mg/L) (95th percentile)
					Izinto Ezisemanzini	Amazinga e-pH kumele egcinwe ephakathi kwemikhawulo ebekiwe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi..	Amazinga e-pH ≥	≥6.5 (5th percentile) no ≤9.0 (95th percentile)
					Iphathojeni	Ukuba khona kwepathojeni akumele kumeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)
					Izinto Ezinobungozi	Umthamo wezinto ezinobungozi akumele ubeke engcupheni impilo yasemanzini kanye nempilo yabantu.	I-Ammonia eyi N	≤ 0.07 milligremu weLitha (mg/L) (95th percentile)
							I-Atrazine	≤0.08 milligremu weLitha (mg/L)
							I-Mancozeb	≤0.009 milligremu weLitha (mg/L)
							I-Glyphosate	≤0.7 milligremu weLitha (mg/L)
				Okuphila Emanzini	Emfuleni	Ukugeleza kwamanzi kwemvelo kumele kugcinwe kahle noma kwenziwe ngcono ngokomkhakha wemvelo ohlosiwe (TEC) owu C.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 62%
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Anguilla mossambica* (AMOS) *I-Amphilius natalensis* (ANAT) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT)	FRAI ≥ 62% Ukuqinisekisa ukuthi zonke izilwane ezihlala emfuleni zimelelekile ngokwlae mikhakha: ANAT, BANO ne BNAT – 2 kweziwu 3 izihlahla/ ulwelwe. 1 kwi AMOS ne BNAT esikhulile edinga amanzi agelezayo najulile.
					Izilwanyana Zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C.	South African Scoring System 5 Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) oungakaliwe	Okungenani amasampuli awu 2 ezilwanyana; umthamo ube phakathi kuka A kuya ku B ngobuningi Amaphuzu eSASS 5: ≥120 Amaphuzu aphakathi ngeTaxon (ASPT): ≥4.8

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo		
							ngokwale RU kodwa oludingekayo Baetidae 2 spp Leptophlebiiidae Heptageniidae Hydropsychidae 2spp Elmidae	I-MIRAI ≥ 62%		
					Ama-Diatoms	Umkhakha Wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 12 - 14 %PTV: 20% - < 40%		
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C.	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5. Umkhakha Wemvelo C weVEGRAI C (≥ 62%)		
		Idamu iSpioenkop **V11L**	**10.8**	Umthamo	Amazinga edamu	Ukuvuselelwa nokubuyekezwa kwemithetho yokusebenza ukuze kugcinwe kahle amanzinga amanzi edamini ukweseka abasebenzisa amanzi nempilo yasemanzini ezansi nedamu	Kudingeka amazinga aphansi okusebenza kwedamu.			
				Izinga	Imisoco	Umthamo wemisoco kumele ugcinwe ukahle ukuze kulondolozwe imvelo yasemanzini nezidingo zamazinga amanzi zabasebenzisa amanzi.	Isiyonke iNitrogen Enobungozi (TIN^-) eyiNitrogen	≤0.7 milligremu weLitha (mg/L) (50^{th} percentile)		
							I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.01 milligremu weLitha (mg/L) (50^{th} percentile)		
					Iphathojeni	Ukuba khona kwepathojeni akumele kumeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngor 100 mililitha (izibalo/ 100 mL)		
				I-Biota	I-Periphyton/ i-phytoplankton	Idamu kumele ligcinwe kahle njengomthombo wamanzi womphakathi	I-Chlorophyll-*a*	11-20 microgremu ngeLitha (µg/L) (50^{th} percentile)		
		Idamu iSpioenkop kuya enhlanganweni noThukela Oluncane **V11M**	**10.9**	Umthamo	Ukugeleza kwamanzi kancane	Kumele kugcinwe kahle amazinga okugeleza kwamanzi ukwenzela isomiso nokuqapha	Ukugeleza kwamanzi		Ukunakekela ukugeleza kwmanzi (m^3/s)	Ukugeleza kwamanzi ngesomiso (m^3/s)
								Okthoba	1.800	0.560
								Novemba	2.200	0.750
								Disemba	3.200	1.000
								Januwari	3.600	1.400
								Febuwari	4.200	2.000
								Mashi	4.000	1.850

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo			
		EWR 2						Ephreli	3.800		1.600
								Meyi	3.000		1.200
								Juni	2.500		0.900
								Julayi	2.000		0.650
								Agasti	1.800		0.520
								Septhemba	1.800		0.510
					Ukugeleza kwamanzi kakhulu	Izidingo Ezingokwemvelo Zamanzi (EWR) awumthamo/ ezikhukhula ayodedelwa eDamini iSpioenkop	Amanzi awumthamo/ izikhukhulu adingekayo emfuleni uThukela Ukuqapha ukugeleza kwamanzi ku V1H057		Umthamo (m^3/s)	Izinsuku	Izikhukhula (m^3/s)	Izinsuku
								Septhemba	7	3		
								Okthoba	7	3		
								Novemba	10	5		
								Disemba	15	5	30	5
								Januwari	24	5	35	6
								Febhuwari	30	5	35	7
								Mashi	20	5	25	6
								Ephreli	7	3		
				Izinga	Imisoco	Amazinga emisoco emfueni kumele agcinwe ekahle ukuze kulondolozwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.02 milligremu weLitha (mg/L) (50^{th} percentile)			
							Isiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤1.0 milligremu weLitha (mg/L) (50^{th} percentile)			
					Izinto Ezinobungozi	Umthamo wezinto ezinobungozi akumele ubeke engcupheni impilo yasemanzini kanye nempilo yabantu.	I-Ammonia eyi N	≤ 0.07 milligremu weLitha (mg/L) (95^{th} percentile)			
							I-Atrazine	≤0.08 milligremu weLitha (mg/L)			
							I-Mancozeb	≤0.009 milligremu weLitha (mg/L)			
							I-Glyphosate	≤0.7 milligremu weLitha (mg/L)			
				Okuphila Emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe eMkhakheni Wemvelo Ohlosiwe (TEC)ka C/D.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 52%			

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C/D. Uhlo Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C/D obekiwe	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Anguilla mossambica* (AMOS) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) *I-Labeo rubromaculatus* (LRUB) *I-Oreochromis mossambicus* (OMOS)	FRAI ≥ 52% Ukuqinisekisa ukuthi zonke izinhlobo ezisemfuleni zimelelekile kule mikhakha elandelayos: BNAT, BANO ne OMOS – 2 kweziwu 3 izihlahla/ ulwelwe. 1 kwi AMOS ne LRUB esikhulile edinga amanzi agelezayo najulile
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C/D.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) olungakaliwe ngokwale RU kodwa oludingekayo Baetidae 2 spp Leptophlebiiidae Heptageniidae Hydropsychidae 2spp	Amasampuli okungenani awu 2 ezilwanyana: umthamo ube phakathi kuka A no B ngobuningi. Amaphuzu eSASS 5: ≥80 – 100 Amaphuzu Aphakathi eTaxon (ASPT): ≥4.5 I-MIRAI ≥ 52%
					Ama-Diatoms	Umkhakha Wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 12 - 14 %PTV: 20% - < 40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C/D	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI) Uhlu Lokuphila Emanzini (IHI): i-Riparian	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 52%
		Izindawo Ezinamanzi eSterkspruit, eSitulwane **V13B, V13D**	**10.10**	Izinga	Imisoco	Namazinga emisoco kumele agcinwe ekahle ukuze kulondolozwe imvelo yasemanzini nezimo zemvelo.	I-Orthophosphate (PO_4^-) eyiPhosphorus	≤0.02 miligremu weLitha (mg/L) (50^{th} percentile)
							Isiyonke iNirogen Enobungozi (TIN) eyiNitrogen	≤1.0 miligremu weLitha (mg/L) (50^{th} percentile)
					Izinto Ezinobungozi	Umthamo wezinto ezinobungozi akumele ubeke engcupheni impilo yasemanzini kanye nempilo yabantu.	I-Ammonia eyi N	≤ 0.07 miligremu weLitha (mg/L) (95^{th} percentile)
							I-Atrazine	≤0.08 miligremu weLitha (mg/L)
							I-Mancozeb	≤0.009 miligremu weLitha (mg/L)
							I-Glyphosate	≤0.7 miligremu weLitha (mg/L)

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo
				Okuphila Emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe kahle noma kwenziwe ngcono eMkhakheni Wemvelo (TEC) owu B/C.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 72%
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka B/C. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo B/C obekiwe	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Anguilla mossambica* (AMOS) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) *I-Clarias gariepinus* (CGAR) *I-Labeo rubromaculatus* (LRUB) *I-Oreochromis mossambicus* (OMOS) *I-Amphilius natalensis* (ANAT)	FRAI ≥ 72% Ukuqinisekisa ukuthi zonke izinhlobo ezikhona emfuleni zimelelekile kule mikhakha elandelayo: BNAT, BANO, OMOS ne ANAT – 3 kweziwu 4 izihlahla/ ulwelwe. I-CGAR ekhona. 2 kwi AMOS, i- BNAT esikhulile ne LRUB njengezinhlobo ezethembele emanzini agelezayo najulile.
					Izilwanyana Zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu B/C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) olungakaliwe ngokwale RU kodwa oludingekayo Baetidae >2 spp Leptophlebiiidae Heptageniidae Tricorythidae Hydropsychidae 2spp Elmidae Psepheniidae Dixidae	Amasampuli wu-3 ezilwanyana: umthamo ube phakathi kuka A no B ngobuningi. Amaphuzu eSASS 5: ≥150 Amaphuzu Aphakathi ngeTaxon (ASPT): ≥5.5 I-MIRAI ≥ 72%
					Ama-Diatoms	Umkhakha Wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 12 - 14 %PTV: 20% - < 40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo B/C	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 72%

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo		
		OThukela Oluncane kusuka kwi IUA14 kuya enhlanganweni noThukela **V13A (ingxenye esezansi), V13C, V13E** **(uThukela_ EWR 3)**	**10.11**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Little Thukela River at the EWR site Thukela_EWR3 (-28.383, 29.616) in V13E NMAR = 285.20 x10^{6}m^{3} Umkhakha Wemvelo Ohlosiwe (TEC) owu C/D. Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esenhla nomfula uThukela Oluncane.	Ukunakekelwa kwamanzi nesomiso emfuleni uThukela oluncane		Ukunakekela ukugeleza kwamanzi (m^3/s)	Ukugeleza ngesomiso (m^3/s)
								Okthoba	0.510	0.200
								Novemba	0.700	0.300
								Disemba	0.970	0.400
								Januwari	1.400	0.930
								Febuwari	1.920	1.300
								Mashi	1.830	1.230
								Ephreli	1.500	1.030
								Meyi	1.100	0.700
								Juni	0.750	0.400
								Julayi	0.550	0.200
								Agasti	0.450	0.150
								Septhemba	0.450	0.150
				Izinga	Imisoco	Amazinga emisoco yamanzi kumele agcinwe kahle ukweseka imvelo yasemanzini nokugcina kahle isimo semvelo. Kumele kugwenywe ukonakala kwemvelo.	I-Ortho-phosphate (PO_4^-) eyi Phosphorus	≤0.02 miligremu weLitha (mg/L) (50th percentile)		
							Isiyonke iNitrogen (TIN) eyiNitrogen	≤2.0 miligremu weLitha (mg/L) (50th percentile)		
					Osawoti	Amazinga osawoti emfueni kumele agcinwe ekahle ukuze kulondolozwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa.	Sebebonke Osawoti Emanzini	≤350 miligremu weLitha (mg/L) (95th percentile)		
					Izinto Ezinobungozi	Umthamo wezinto ezinobungozi akumele ubeke engcupheni impilo yasemanzini kanye nempilo yabantu.	I-Ammonia eyiN	≤ 0.07 miligremu weLitha (mg/L) (95th percentile)		
							I-Atrazine	≤0.08 miligremu weLitha (mg/L)		
							I-Mancozeb	≤0.009 miligremu weLitha (mg/L)		
							I-Glyphosate	≤0.7 miligremu weLitha (mg/L)		
				Okuphila emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe noma kwenziwe ngcono ngokoMkhakha Wemvelo Ohlosiwe (TEC) owu C/D.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥52%		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo		
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) ka C/D. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C/D obekiwe	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Anguilla mossambica* (AMOS) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) *I-Labeo rubromaculatus* (LRUB) *I-Amphilius natalensis* (ANAT) *I-Labeo molybdinus* (LMOL)	FRAI ≥ 52% Ukuqinisekisa ukuthi izinhlobo ezihlala emfuleni zimelelekile kule mikhakah elandelayo: BNAT, BANO ne ANAT – 2 kweziwu 3 izihlahla/ ulwelwe. 1 kule AMOS elandelayo, i-BNAT esikhulile ne LMOL njengezinhlobo ezithembele emanzini ageelezayo futhi ajulile.		
					Izilwanyana Zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C/D.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) olungakaliwe ngokwale RU kodwa oludingekayo Baetidae >2 spp Leptophlebiiidae Heptageniidae Oligoneuridae Tricorythidae Hydropsychidae 1spp Polycentropodidae Elmidae Psephenidae	Okungenani amasampuli awu 2 ezinlwanyana: umthamo ube ku A kuya u B ubuningi. Amaphuzu eSASS 5: ≥80 - 100 Amaphuzu Aphakathi eTaxon (ASPT): ≥4.5 I-MIRAI ≥ 52%		
					Ama-Diatoms	Umkhakha Wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 12 - 14 %PTV: 20% - < 40%		
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C/D	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5. I-VEGRAI ≥ 52%		
		UThukela kusuka enhlanganweni noThukela	**10.12**	Umthamo	Amanzi Ageleza Kancane	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula uThukela enhlanganweni neKlip River ku V14B	Ukunakekelwa kwamanzi nesomiso okudingeka emfuleni uThukela Ukugeleza kwamanzi ku V1H001		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Ngesomiso (m^3/s)

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo		
		Oluncane kuya edamini elakhowayo iJana/ enhlanganweni neKlip River **V14A, V14B**				NMAR = 1145.20 x10^{6}m^3 Umkhakha Wemvelo Ohlosiwe (TEC) ka C/D. Ukuqikelelwa kokugeleza kancane kwamanzi nesomiso kumele kuqhubeke ukweseka imvelo yasemanzini esenhla nomfula Thukelala.		Okthoba	2.274	0.883
								Novemba	2.949	1.131
								Disemba	3.784	1.435
								Januwari	5.260	1.974
								Febuwari	7.202	2.690
								Mashi	6.744	2.517
								Ephreli	5.892	2.207
								Meyi	4.350	1.641
								Juni	3.288	1.255
								Julayi	2.538	0.979
								Agasti	2.157	0.840
								Septhemba	2.155	0.841
				Izinga	Imisoco	Amazinga emisoco akumele ehle futhi kumele akwazi ukweseka imvelo yasemanzini nokugcina isimo semvelo samanje (PES B)	I-Ortho-phosphate (PO_4^-) eyi Phosphorus	≤0.10 miligremu weLitha (mg/L) (50th percentile)		
							Isiyonke iNitrogen Enobungozi (TIN^-) eyiNitrogen	≤2.0 miligremu weLitha (mg/L) (50th percentile)		
					Osawoti	Amazinga osawoti emfueni kumele agcinwe ekahle ukuze kulondolozwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa (PES B)	Sebebonke Osawoti	≤350 miligremu weLitha (mg/L) (95th percentile)		
					Iphathojeni	Ukuba khona kwepathojeni akumele kumeke engcupheni impilo yabantu	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)		
					Izinto Ezinobungozi	Umthamo wezinto ezinobungozi akumele ubeke engcupheni impilo yasemanzini kanye nempilo yabantu.	I-Ammonia eyi N	≤ 0.07 miligremu weLitha (mg/L) (95th percentile)		
							I-Atrazine	≤0.08 miligremu weLitha (mg/L)		
							I-Mancozeb	≤0.009 miligremu weLitha (mg/L)		
							I-Glyphosate	≤0.7 miligremu weLitha (mg/L)		
				Okuphila emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe kahle noma kwenziwe ngcono ngokomkhakha wemvelo (TEC) owu C/D.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 52%		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Isilinganiso/ umkhawulo wezinombolo
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) owu C/D. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C/D obekiwe	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *I-Anguilla mossambica* (AMOS) *I-Enteromius (Barbus) anoplus* (BANO) *I-Labeobarbus natalensis* (BNAT) *I-Labeo rubromaculatus* (LRUB) *I-Amphilius natalensis* (ANAT)	FRAI ≥ 52% Ukuqinisekisa ukuthi zonke zinhlobo ezihlala emfuleni zimelelekile ngokwale mikhakha elandelayo: BNAT, BANO ne ANAT – 2 kweziwu 3 izihlahla/ ulwelwe 1 kule AMOS elandelayo: i-BNAT esikhulile ne LRUB njengezinhlobo ezethembele emanzini ageleayo najulile.
					Izilwanyana Ezisemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C/D.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo woHlelo Lwamaphuzu lwaseNingizimu Afrika (SASS5) olungakaliwe ngokwale RU kodwa oludingekayo Baetidae >2 spp Leptophlebiiidae Heptageniidae Oligoneuridae Tricorythidae Hydropsychidae 1spp Polycentropodidae Elmidae Psephenidae	Okungenani amasampuli awu 2 ezilwanyana: umthamo ube ku A kuya ku B ngobuningi Amaphuzu eSASS 5: ≥80 - 100 Amaphuzu Aphakathi ngeTaxon (ASPT): ≥4.5 I-MIRAI ≥ 52%
					Ama-Diatoms	Umkhakha Wemvelo kumele ugcinwe uku C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 12 - 14 %PTV: 20% - < 40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C/D.	Uhlu Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lweVegrai njalo eminyakeni ewu 5. I-VEGRAI ≥ 52%

Ithebula 12: Izinjongo Zamazinga Emithombo YEMIFULA NAMADAMU ngokwamaYunithi Emithombo Ocwaningweni LwamaYunithi Ahlanganisiwe 11: I-KLIP RIVER

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Izilinganiso/ imikhawulo yezinombolo
IUA 11: I-KLIP RIVER	**III**	Izindawo ezinamanzi eSandspruit **V12D, V12E and V12F**	**11.1**	Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukeseka imvelo yasemanzini nesimo semvelo. Kumele kugwenywe ukonakala kwemvelo.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.058 miligremu weLitha (mg/L) (50th percentile)
							Isiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤2.0 miligremu weLitha (mg/L) (50th percentile)
					Osawoti	Amazinga osawoti emfuleni kumele agcinwe ekahle ukuze kongiwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa.	Sebebonke Osawoti Abasemanzini	≤350 miligremu weLitha (mg/L) (95th percentile)
					Iphathojeni	Ukuba khona kephathojeni akumele kubeke engcupheni impilo yabantu.	*I-Escherichia coli*	≤130 Iizbalo ngo 100 mililitha (izibalo/ 100 mL)
				Okuphila emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe kusemkhakheni wemvelo (TEC) owu C/D noma ongcono.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 52%
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) owu C/D. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C/D obekiwe.	Uhlu Lokuhlola Impilo yezihlahla (FRAI) *Anguilla mossambica* (AMOS) *Enteromius (Barbus) anoplus* (BANO) *Labeobarbus natalensis* (BNAT) *Labeo rubromaculatus* (LRUB) *Clarias gariepinus* (CGAR) *Amphilius natalensis* (ANAT)	FRAI ≥ 52% Ukuqinisekisa ukuthi izinhlobo ezihlala emfuleni zimelelekile: BNAT, BANO, CGAR (encane) ne ANAT – 3 kweziwu 4 izihlahla/ ulwelwe. 2 wale AMOS elandelayo, i-BNAT ekhulile ne LRUB njengethembele ekugelezeni kwamanzi namanzi ajulile.
					Izilwanyana Zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C/D.	I-SASS 5 (engalinganisiwe ngokwe-RU kodwa okumele ibe khona) MIRAI Baetidae 2 spp Leptophlebiiidae Heptageniidae Tricorythidae Elmidae	Okungenani amasampuli awu 2 ezilwanayana: umthamo ube ku A kuya ku B ngobuningi. Amaphuzu eSASS 5: ≥80 – 100 Umthamo ophakathi weTaxon (ASPT): ≥4.5 MIRAI ≥ 52%

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Izilinganiso/ imikhawulo yezinombolo		
					Ama-Diatoms	Kumele umkhakha wemvelo kumele ugcinwe uwu C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	I-SPI: 12 - 14 I-%PTV: 20% - < 40%		
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C/D	Uhlo Lokuhlola Impilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni wu- 5. VEGRAI ≥ 52%		
		Ezindaweni ezinamanzi eKlip, eBraamhoek, eTatana, eNgoga, eMhlwane, **V12A, V12B, V12C** **(THU_ EWR 22)**	**11.2**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Klip River esayithini EWR THU_ EWR22 (-28.3952, 29.7197) ku V12A NMAR = 52.44 x10⁶m³ Umkhakha Wemvelo Ohlosiwe (TEC) owu C Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esenhla nasezansi nomfula iKlip River.	Ukunakekelwa kwamanzi nesomiso okudingeka eKlip River.		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza kwamanzi ngesomiso (m^3/s)
								Okthoba	0.129	0.050
								Novemba	0.180	0.028
								Disemba	0.227	0.012
								Januwari	0.376	0.146
								Febuwari	0.529	0.298
								Mashi	0.407	0.231
								Ephreli	0.294	0.152
								Meyi	0.174	0.055
								Juni	0.114	0.044
								Julayi	0.089	0.047
								Agasti	0.087	0.047
								Septhemba	0.113	0.043
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukweseka imvelo yasemanzini nesimo semvelo. Kumele kugwenywe ukonakala kwemvelo.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.06 miligremu weLitha (mg/L) (50^{th} percentile)		
							Isiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤2.0 miligremu weLitha (mg/L) (50^{th} percentile)		
					Osawoti	Amazinga osawoti emfuleni kumele agcinwe ekahle ukuze kongiwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa.	Sebebonke Osawoti Emanzini	≤350 miligremu weLitha (mg/L) (95^{th} percentile)		
				Okuphila emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe kusemkhakheni wemvelo (TEC) owu C noma okungcono.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 62%		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Izilinganiso/ imikhawulo yezinombolo		
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) owu C. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe.	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *Anguilla mossambica* (AMOS) *Enteromius (Barbus) anoplus* (BANO) *Labeobarbus natalensis* (BNAT) *Labeo rubromaculatus* (LRUB) *Clarias gariepinus* (CGAR) *Amphilius natalensis* (ANAT)	FRAI ≥ 62% Ukuqinisekisa ukuthi izinhlobo ezihlala emfuleni zimelelekile kule mikhakah elandelayo: BNAT, ANAT, BANO ne CGAR encane – 3 kweziwu 4izihlahla/ ulwelwe. 2 kule AMOS elandelayo, i-BNAT ekhulile, i-CGAR ekhulile ne-LRUB njengezethembele emanzini agelezayo najulile.		
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C.	Uhlu Lokuhlolwa Kwezilwanyana Zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu LwaseNingizimu Afrika (SASS5) Hydracarina Perlidae Baetidae > 2 sp Heptageniidae Leptophlebiidae Aeshnidae Crambidae Ecnomidae Elmidae Psephenidae	Amasampuli ezilwanyana awu 3: umthamo ube ku A kuya ku B ubuningi. Amaphuzu eSASS 5: 213 – 220 Amaphuzu aphakathi eTaxon (ASPT): 5.9 - 7.5 MIRAI ≥ 62%		
					Ama-Diatoms	Kumele umkhakha wemvelo ugcinwe uwu C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 12 - 14 %PTV: 20% - < 40%		
					Izinhlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Uvwaningo lweVEGRAI njalo eminyakeni ewu 5. VEGRAI ≥ 62%		
		I-Klip kusuka eMnambithi kuya enhlanganw	**11.3**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: I-Klip River enhlanganweni nomfula uThukela ku V12G NMAR = 253.09 x10⁶m^3 Umkhakha Wemvelo Ohlosiwe	Ukunakekelwa kwamanzi nesomiso okudingeka eKlip River.		Ukunakekela Ukugeleza kancane kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
								Okthoba	0.623	0.240
								Novemba	0.868	0.132

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Izilinganiso/ imikhawulo yezinombolo		
		eni noThukela **V12G**				(TEC) owu C. Ukunakekelwa kokugeleza kancane kwamanz nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esenhla nomfula iKlip River.		Disemba	1.103	0.078
								Januwari	1.816	0.733
								Febuwari	2.534	1.384
								Mashi	1.986	1.088
								Ephreli	1.435	0.736
								Meyi	0.844	0.270
								Juni	0.550	0.228
								Julayi	0.430	0.228
								Agasti	0.422	0.239
								Septhemba	0.547	0.207
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukeseka imvelo yasemanzini nesimo semvelo. Kumele kugwenywe ukonakala kwemvelo.	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.06 miligremu weLitha (mg/L) (50th percentile)		
							Isiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤2.0 miligremu weLitha (mg/L) (50th percentile)		
					Osawoti	Amazinga osawoti emfuleni kumele agcinwe ekahle ukuze kongiwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa. Kumele enziwe gcono amazinga osawoti.	Sebebonke Osawoti Emanzini	≤500 miligremu weLitha (mg/L) (95th percentile)		
					Izinto Ezisemanzini	Amazinga e-pH kumele agcinwe ekahle ngaphakathi kwemikhawulo ebekiwe ukweseka impilo yasemanzini nezidingo zabasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th percentile) no ≤9.0 (95th percentile)		
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.	*Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)		
					Izinto Ezinobungozi	Umthamo wezinto ezinobungozi emanzini akumele ubeke engcupheni impilo yasemanzini nempilo yabantu.	I-Ammonia eyi-N	≤ 0.07 miligremu weLitha (mg/L) (95th percentile)		
							I-Aluminium (Al)	≤ 0.1 miligremu weLitha (mg/L) (95th percentile)		
							I-Cadmium (Cd) ethambile	≤ 0.001 miligremu weLitha (mg/L) (95th percentile)		
							I-Manganese (Mn)	≤ 0.2 miligremu weLitha (mg/L) (95th percentile)		
							I-Iron (Fe)	≤ 0.1 miligremu weLitha (mg/L) (95th percentile)		
							I-Lead (Pb) eqinile	≤ 0.009 miligremu weLitha (mg/L) (95th percentile)		
							I-Copper (Cu) eqinile	≤ 0.007 miligremu weLitha (mg/L) (95th percentile)		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Izilinganiso/ imikhawulo yezinombolo
							I-Nickel (Ni)	≤ 0.07 miligremu weLitha (mg/L) (95th percentile)
							I-Cobalt (Co)	≤ 0.05 miligremu weLitha (mg/L) (95th percentile)
							I-Zinc (Zn)	≤ 0.002 miligremu weLitha (mg/L) (95th percentile)
				Okuphila emanzini	Emfuleni	Ukugeleza kwamanzi kwemvelo kumele kugcinwe kusemkhakheni wemvelo (TEC) owu C noma okungcono.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI Emfuleni kumele igcinwe noma yenziwe ngcono eMkhakheni C Wemvelo (60%- 79%)
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) owu C. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe.	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *Anguilla mossambica* (AMOS) *Enteromius (Barbus) anoplus* (BANO) *Labeobarbus natalensis* (BNAT) *Labeo rubromaculatus* (LRUB) *Clarias gariepinus* (CGAR) *Amphilius natalensis* (ANAT)	FRAI ≥ 62% Ukuqinisekisa ukuthi izinhlobo ezihlala emfuleni zimelelekile kule mikhakah elandelayo: BNAT, BANO, ANAT encane CGAR – 3 kweziwu 4 izihlahla/ ulwelwe. 2 walezi zinhlobo ze-AMOS, i-CGAR ekhulile, iBNAT ekhulile neLRUB njengezethembele emanzini ahambayo najulile.
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C.	UhluLokuhlola Impilo Yezilwanayana Zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu LwaseNingizimu Afrika (SASS5) Baetidae 2 spp Leptophlebiiidae Heptageniidae Hydropsychidae 2spp Elmidae	Okungenani amasampuli awu-2 ezilwanyana: umthamo ube phakathi kuka A kuya ku B ngobuningi. Amaphuzu eSASS 5: ≥120 Amaphuzu aphakathi eTaxon (ASPT): ≥4.8 MIRAI ≥ 62%
					Ama-Diatoms	Kumele umkhakha wemvelo ugcinwe uwu C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 12 - 14 %PTV: 20% - < 40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5. VEGRAI ≥ 62%

Ithebula 13: Izinjongo Zamazinga Emithombo YEMIFULA NAMADAMU ngokwamaYunithi Emithombo Ocwaningweni LwamaYunithi Ahlanganisiwe 12: UMFULA UTHUKELA OLUMAPHAKATHI

<table>
<tr><th>IUA</th><th>Izinga</th><th>Umfula</th><th>Iyunithi Yomthombo</th><th>Okubhekwayo</th><th>Ingxenye yokubhekwayo</th><th>Incazelo ye-RQO</th><th>Inkomba</th><th colspan="5">Izinombolo zemikhawulo/ izilinganiso</th></tr>
<tr><td rowspan="24">IUA 12: UTHUKELA OLUMAPHAKATHI</td><td rowspan="24">III</td><td rowspan="24">UThukela kusuka enhlanganweni neKlip kuya enhlanganweni neBushman's

V14E (Thukela_ EWR 4B)</td><td rowspan="24">12.2</td><td rowspan="14">Umthamo</td><td rowspan="12">Ukugeleza kancane kwamanzi</td><td rowspan="12">Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso:
Umfula uThukela esayithini EWR yoThukela_EWR4B (-28.747, 30.145) ku V14E
NMAR = 1 423.83 x10^{6}m^{3}
Umkhakha Wemvelo Ohlosiwe (TEC) owu C.
Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esemfuleni uThukela ngezansi neKlip River kuya enhlanganweni neBushman's River.</td><td>Ukugeleza kwamanzi nesomiso okudingeka emfuleni uThukela</td><td></td><td colspan="2">Ukunakekela ukugeleza kancane kwamanzi (m^{3}/s)</td><td colspan="2">Ukugeleza kwamanzi ngesomiso (m^{3}/s)</td></tr>
<tr><td rowspan="11"></td><td>Okthoba</td><td colspan="2">2.278</td><td colspan="2">2.100</td></tr>
<tr><td>Novemba</td><td colspan="2">3.023</td><td colspan="2">2.261</td></tr>
<tr><td>Disemba</td><td colspan="2">3.914</td><td colspan="2">2.065</td></tr>
<tr><td>Januwari</td><td colspan="2">5.650</td><td colspan="2">4.294</td></tr>
<tr><td>Febuwari</td><td colspan="2">7.750</td><td colspan="2">5.842</td></tr>
<tr><td>Mashi</td><td colspan="2">7.001</td><td colspan="2">5.277</td></tr>
<tr><td>Ephreli</td><td colspan="2">5.949</td><td colspan="2">4.518</td></tr>
<tr><td>Meyi</td><td colspan="2">4.272</td><td colspan="2">3.292</td></tr>
<tr><td>Juni</td><td colspan="2">3.123</td><td colspan="2">2.462</td></tr>
<tr><td>Julayi</td><td colspan="2">2.388</td><td colspan="2">2.000</td></tr>
<tr><td>Agasti</td><td colspan="2">2.042</td><td colspan="2">2.000</td></tr>
<tr><td>Septhemba</td><td colspan="2">2.121</td><td colspan="2">2.000</td></tr>
<tr><td>Amanzi ageleza kakhulu</td><td>Izidingo Zamanzi Zemvelo (EWR) awumthamo/ ezikhukhula ayodedelwa edamini iSpienkop neKlip River esikhathini esifushane nesiphakathi kanti ayodedelwa edamini iJana okwesikhathi eside</td><td>Amanzi awumthamo/ izikhukhula adingeka emfuleni uThukela</td><td></td><td>Umthamo (m^{3}/s)</td><td>Izinsuku</td><td>Izikhukhula</td><td>Izinsuku</td></tr>
<tr><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td>Septhemba</td><td>15</td><td>4</td><td></td><td></td></tr>
<tr><td>Okthoba</td><td>15</td><td>4</td><td></td><td></td></tr>
<tr><td>Novemba</td><td>55</td><td>4</td><td>90</td><td>6</td></tr>
<tr><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td>Disemba</td><td>55</td><td>4</td><td>90</td><td>6</td></tr>
<tr><td>Januwari</td><td>90</td><td>6</td><td>120</td><td>7</td></tr>
<tr><td>Febuwari</td><td>55</td><td>4</td><td>250</td><td>8</td></tr>
<tr><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td rowspan="3"></td><td>Mashi</td><td>55</td><td>4</td><td>90</td><td>6</td></tr>
<tr><td>Okuphila emanzini</td><td>Emfuleni</td><td>Ukugeleza kwemvelo kwamnazi kumele kugcinwe kusemkhatheni wemvelo (TEC) owu C noma okungcono</td><td>Uhlu Lokuphila Emanzini (IHI): Emfuleni</td><td colspan="5">IHI ≥ 62%</td></tr>
<tr><td>I-Biota</td><td>Izinhlanzi</td><td>Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono</td><td>Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI)

Anguilla mossambica (AMOS)
Amphilius natalensis (ANAT)</td><td colspan="5">FRAI ≥ 62%

Ukuqinisekisa ukuthi izinhlobo ezihlala emfuleni zimelelekile kule mikhakah</td></tr>
</table>

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo ye-RQO	Inkomba	Izinombolo zemikhawulo/ izilinganiso		
						ngokoMkhakha Wemvelo (TEC) owu C. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe	*Enteromius (Barbus) anoplus* (BANO) *Labeobarbus natalensis* (BNAT) *Labeo molybdinus* (LMOL) *Labeo rubromaculatus* (LRUB) *Clarias gariepinus* (CGAR) *Barbus (Enteromius) trimaculatus* (BTRI) *Barbus (Enteromius) viviparus* (BVIV) *Pseudocrenilabrus philander* (PPHI)	elandelayo: BNAT, BVIV, BANO, BTRI ne PPHI – 4 kweziwu 5 izihlahla/ ulwelwe. 4 kule AMOS elandelayo, ANAT, BNAT ekhulile, CGAR, LRUB neLMOL njengezithembele emanzini ahambayo najulile.		
					Izilwanana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyaana zasemanzini (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu eNingizimu Afrika (SASS5) Atyidae Baetidae > 2 sp Heptageniidae Leptophlebiidae Chlorocyphidae Crambidae Elmidae	Amasampuli awu 3 ezilwanyana: umthamo ube ku A kuya ku B ngobuningi. Amaphuzu eSASS 5: 145 - 200 Amaphuzu aphakathi eTaxon (ASPT): 6.0 – 7.6 MIRAI ≥ 62%		
					Ama-Diatoms	Kumele umkhakha wemvelo ugcinwe uwu B	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 15 - 17 %PTV: < 20%		
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu- 5 I-VEGRAI ≥ 62%		
		UThukela kusuka enhlanganweni neBushman' kuya enhlanganweni neMooi	**12.4**	Umthamo	Ukugeleza kancane kwamanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula uThukela esayithini EWR oThukela_ EWR9 (-28.769, 30.515) ku V60J NMAR = 2 050.76 x$10^6$$m^3$ Umkhakha Wemvelo Ohlosiwe (TEC) owu D	Ukuqikelelwa Kokugeleza kwamanzi nesomiso okudingeka emfuleni uThukela Ukuqapha amanzi agelezayo ku V6H002		Ukunakekela Ukugeleza Kwamanzi (m^3/s)	Ukugeleza Okuncane Kwamanzi (m^3/s)
								Okthoba	2.800	1.400
								Novemba	3.500	1.700
								Disemba	3.800	2.200
								Januwari	4.800	3.100
								Febuwari	6.200	4.000

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo ye-RQO	Inkomba	Izinombolo zemikhawulo/ izilinganiso		
		V60G, V60H, V60J, V60K **(Thukela _EWR 9)**				Ukunakekelwa kokugeleza kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini emfuleni uThukela kusuka eBushman's River kuya enhlanganweni neMooi River.		Mashi	5.800	3.600
								Ephreli	4.900	3.200
								Meyi	4.700	2.200
								Juni	3.500	1.500
								Julayi	2.750	1.300
								Agasti	2.450	1.200
								Septhemba	2.600	1 200
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukeseka imvelo yasemanzini nesimo semvelo.	I-Orthophosphate (PO_4^-) eyiPhosphorus	≤0.1 miligremu weLitha (mg/L) (50th percentile)		
							Isiyonke iNitrogen Enobungozi (TIN^-) eyiNitrogen	≤2.0 miligremu weLitha (mg/L) (50th percentile)		
					Osawoti	Amazinga osawoti emfueni kumele agcinwe ekahle ukuze kongiwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa.	Sebebonke Osawoti Emanzini	≤500 miligremu weLitha (mg/L) (95th percentile)		
					Iphathojeni	Ukuba khona kephtahojeni akumele kubeke engcupheni impilo yabantu.	*Escherichia coli*	≤130 Izibalo ku 100 mililitha (zibalo/ 100 mL)		
					Izinto ezitholakala emanzini	Amazinga e-pH kumele agcinwe ekahle phakathi kwemikhawulo ebekiwe ukulekelela imvelo yasemanzini nezidingo zabasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th percentile) no ≤9.0 (95th percentile		
					Izinto ezinobungozi	Umthamo wezinto ezinobungozi emanzini akumele ubeke engcupheni impilo yasemanzini nempilo yabantu	I-Ammonia eyi-N	≤ 0.07 miligremu weLitha (mg/L) (95th percentile)		
				Okuphila Emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe kusemkhakheni wemvelo (TEC) owu D noma okungcono.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 42%		
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) owu D. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo D obekiwe	Uhlo Lokuhlola Impilo Yezinhlanzi (FRAI) *Anguilla mossambica* (AMOS) *Amphilius natalensis* (ANAT) *Enteromius (Barbus) anoplus* (BANO) *Labeobarbus natalensis* (BNAT) *Labeo molybdinus* (LMOL) *Clarias gariepinus* (CGAR) *Barbus (Enteromius) trimaculatus* (BTRI)	FRAI ≥ 42% Ukuqinisekisa ukuthi izinhlobo ezihlala emfuleni zimelelekile kule mikhakah elandelayo: BNAT, BTRI, iCGAR encane neTSPA – 3 kweziwu 4 izihlahla/ ulwelwe. Kule AMOS elandelayo, iCGAR ekhulile neLMOL njengezethembele ekugelezeni kwamanzi namanzi ajulile		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye yokubhekwayo	Incazelo ye-RQO	Inkomba	Izinombolo zemikhawulo/ izilinganiso
							Tilapia sparrmanii (TSPA)	
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu D.	Uhlu Lokuhlola Impilo Yezilwanyana Zasemanzini (MIRAI) noMbhalo 5 Wamaphuzu waseNingizimu Arika ion 5 (SASS5) Baetidae >2 spp Leptophlebiiidae Heptageniidae Elmidae Psephenidae	Okungenani amasampuli awu 2 ezilwanyana: abe phakathi kuka A no B ngobuningi. Amaphuzu eSASS 5: ≥60 Amaphuzu aphakathi ngeTaxon (ASPT): ≥4.0 MIRAI ≥ 42%
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uwu C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 12 - 14 %PTV: 20% - < 40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo D.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5. VEGRAI ≥ 42%

Ithebula 14: Izinjongo Zamazinga Emithombo YEMIFULA NAMADAMU ngokwamaYunithi Emithombo Ocwaningweni LwamaYunithi Ahlanganisiwe 13: EZANSI NOTHUKELA

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo/ Izilinganiso		
IUA NOMFULA UTHUKELA 13: EZANSI	II	UThukela kusuka enhlanganweni neMooi kuya ekungeneleni kweMiddeldrift	13.2	Umthamo	Ukugeleza kancane kwamanzi	Ukugeleza kwamanzi okujwayelekile kumele kuqikelelwe ukwenzela isomiso nokugeleza kwamanzi	Ukugeleza komfula		Ukunakekela ukugeleza kwamanzi (m^3/s)	Ukugeleza kwamanzi ngesomiso (m^3/s)
								Okthoba	9.100	3.200
								Novemba	10.500	4.500
								Disemba	14.500	5.500
								Januwari	19.000	8.500
								Febuwari	25.000	10.500
								Mashi	21.500	9.200
								Ephreli	19.000	8.800

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo/ Izilinganiso		
		V40A, V40B **(Thukela_ EWR 15)**						Meyi	14.300	6.500
								Juni	10.400	4.200
								Julayi	8.300	3.000
								Agasti	7.400	2.000
								Septhemba	8.100	2.100
				Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukweseka imvelo yasemanzini nesimo semvelo.	Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.06 miligremu weLitha (mg/L) (50th percentile)		
							Seyiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤2.0 miligremu weLitha (mg/L) (50th percentile)		
					Osawoti	Amazinga osawoti emfuleni kumele agcinwe ekahle ukuze kongiwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa.	Sebebonke Osawoti Emanzini	≤350 miligremu weLitha (mg/L) (95th percentile)		
					Ipathojeni	Ukuba khona kephtahojeni akumele kubeke engcupheni impilo yabantu.	*Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)		
					Izinto ezisemanzini	Amazinga e-pH kumele agcinwe ekahle phakathi kwemikhawulo ebekiwe ukulekelela imvelo yasemanzini nezidingo zabasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th percentile) no ≤9.0 (95th percentile)		
					Izinto Ezinobungozi	Umthamo wezinto ezinobungozi emanzini akumele ubeke engcupheni impilo yokusemanzini nempilo yabantu	I-Ammonia eyi-N	≤ 0.07 miligremu weLitha (mg/L) (95th percentile)		
				Okuphila emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kugcinwe kumsekhakheni wemvelo (TEC) owu C noma okungcono.	Uhlo Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 62%		
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) owu C. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *Anguilla mossambica* (AMOS) *Labeobarbus natalensis* (BNAT) *Barbus (Enteromius) trimaculatus* (BTRI) *Barbus (Enteromius) viviparus* (BVIV) *Clarias gariepinus* (CGAR) *Labeo molybdinus* (LMOL) *Tilapia sparrmanii* (TSPA) *Amphilius natalensis* (ANAT)	FRAI ≥ 62% Ukuqinisekisa ukuthi izinhlobo ezihlala emfuleni zimelelekile: BNAT, BVIV, iCGAR encane, ne TSPA – 3 kweziwu 4 izihlahla/ ulwelwe. 1 kule AMOS elandelayo, iCGAR ne LMOL njengesethembele emanzini agelezayo najulile.		

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo/ Izilinganiso
					Izilwanyana eziphila emanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zasemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C.	Uhlu Lokuhlolwa Kwempilo Yezilwanya (MIRAI) noMbhalo 5 woHlelo Lwamaphuzu LwazseNingizimu Afrika 5 (SASS5) Baetidae 2 spp Leptophlebiiidae Heptageniidae Perlidae Elmidae Psephenidae Hydropsychidae 2spp	Okungenani amasampuli awu 2 ezilwanyana: umthamo ube phakathi kuka A no B ngobuningi. Amaphuzu eSASS 5: ≥120 Amaphuzu aphakahi ngeTaxon (ASPT): ≥4.8 MIRAI ≥ 62%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (VEGRAI)	Ucwanigo lweVEGRAI njalo eminyakeni ewu 5. VEGRAI ≥ 62%
		UThukela kusuka eMiddeldrift kuya ekungeneleni eMandeni (uMgeni) idamu ku V50D **V40E, V50A, V59B, V50C, V50D (enhla)** **(THU_ EWR 16)**	**13.5**	Umthamo	Ukugeleza kancane kwamanzanzi	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula uThukela River esayithini EWR THU_ EWR16 (-29.1603, 31.3373) ku V50C NMAR = 3 679.97 x10⁶m³ Umkhakha wemvelo Ohlosiwe (TEC) owu C. Ukunakekelwa kokugeleza kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini emfuleni uThukela ezansi neMiddledrift kuyofika ozalweni.	Ukunakekelwa kwamanzi nesomiso okudingekayo oThukela	Okthoba: 13.845 / 6.918 Novemba: 18.278 / 6.547 Disemba: 22.633 / 9.517 Januwari: 30.119 / 16.111 Febuwari: 39.352 / 20.914 Mashi: 36.166 / 19.209 Ephreli: 31.073 / 16.623 Meyi: 21.173 / 11.528 Juni: 14.859 / 8.316 Julayi: 11.874 / 6.764 Agasti: 10.805 / 6.217 Septhemba: 11.964 / 5.610 (Ukunakekela ukugeleza kwamanzi (m^3/s) / Ukugeleza kwamanzi ngesomiso (m^3/s))
					Ukugeleza kakhulu kwamanzi	Izidingo Zamanzi Zemvelo (EWR) awumthamo/ ezikhukhula ezindawo ezizansi nothukela	Umthamo/ izikhukhula ezidingeka emfuleni uThukela. Ngaphezu komthamo obekwe kwithebula, amanzi amaningi ezikhukhula ngonyaka kudingeka 450m³/s izinsuku eziwu 6 ngoDisemba, Januwari noFebhuwari.	Septhemba: 60 / 5 (Umthamo (m^3/s) / Izinsuku / Izikhukhula (m^3/s) / Izinsuku)

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo/ Izilinganiso				
								Okthoba	60	5		
								Novemba	60	5	250	8
								Disemba	60	5	120	5
								Januwari	60	5	250	8
								Febuwari	60	5	250	8
								Mashi	60	5	250	8
								Ephreli	60	5		
				Umthamo	Osawoti	Amazinga osawoti emfueni kumele agcinwe ekahle ukuze kongiwe impilo yasemanzini futhi kuqinisekiswe ukuthi umkhakha wemvelo obekiwe uyalandelwa.	Sebebonke Osawoti Emanzini	≤350 miligremu weLitha (mg/L) (95th percentile)				
				Okuphila Emanzini	Emfuleni	Ukugeleza kwamanzi kwemvelo kumele kugcinwe kumsekhakheni wemvelo (TEC) owu C noma okungcono.	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 62%				
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) owu C. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe	Uhlu Lokuhlola Impilo Yezinhlanzi (FRAI) *Anguilla mossambica* (AMOS) *Labeobarbus natalensis* (BNAT) *Barbus (Enteromius) trimaculatus* (BTRI) *Clarias gariepinus* (CGAR) *Labeo molybdinus* (LMOL) *Labeo rubromaculatus* (LRUB)	FRAI ≥ 62% Ukuqinisekisa ukuthi izinhlobo ezihlala emfuleni zimelelekile kule mikhakah elandelayo: BNAT, BTRI ne CGAR encane – 2 kweziwu 3 izihlahla/ ulwelwe. 2 kule AMOS elandelayo, LRUB ne LMOL njengezithembele emanzini agelezayo najulile.				
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana (MIRAI) noMbhalo 5 Wohlelo Lwamaphuzu lwaseeNingizimu Afrika (SASS5) Baetidae >2 spp Heptageniidae Perlidae Oligoneuridae Tricorythidae Prosopistomatidae Elmidae Hydropsychidae 2spp	Okungenani amasampuli awu 2 ezilwanyana: umthamo ube ku A kuya ku B ngobuningi. Amaphuzu eSASS 5: ≥120 Amaphuzu aphakathi eTaxon (ASPT): ≥4.8 MIRAI ≥ 62%				
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uwu C.	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI)	SPI: 12 - 14				

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo/ Izilinganiso
							Iphesenti Lokumelana Nokungcola (%PTV)	%PTV: 20% - < 40%
					Izihlahla zeRiparian	Izihlahla zohlobo lwe-ripaian kumele zinakekelwe noma zandiswe ngokwe VEGRAI ≥ yoMkhakha weMvelo C.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5 VEGRAI ≥ 62%

Ithebula 15: Izinjongo Zamazinga Emithombo YEMIFULA NAMADAMU ngokwamaYunithi Emithombo Ocwaningweni LwamaYunithi Ahlanganisiwe 14: OZALWENI

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo/ Izilingaiso		
IUA 14: OZALWENI	I	Ezindaweni ezisenhla noThukela **V11A**	**14.1**	Umthamo	Izindawo ezigeleza kancane, ezigeleza kakhulu nezikhukhula	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: UThukela Oluncane ku V13A NMAR = 82.32 x10⁶m³ Umkhakha Wemvelo Ohlosiwe (TEC wu B Ukunakekela ukugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo enhla noThukela Oluncane.	Ukunakekelwa kwamanzi nesomiso okudingekayo oThukela Oluncane. Ukugeleza kwamanzi kwemvelo kumele kugcinwe njengoba izindawo eziphezulu emfuleni ziyingxenye yoHlelo Olubalulekile Lwemithombo Yamanzi (SWSA).		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
								Okthoba	0.345	0.109
								Novemba	0.451	0.144
								Disemba	0.574	0.159
								Januwari	0.786	0.239
								Febuwari	1.076	0.321
								Mashi	1.013	0.302
								Ephreli	0.901	0.272
								Meyi	0.719	0.221
								Juni	0.565	0.180
								Julayi	0.426	0.141
								Agasti	0.345	0.119
								Septhemba	0.33	0.116
		UThukela kusuka esiphethwini kuya enhlanganweni nomfula iSithebe neThonyelana	**14.2**	Umthamo	Ukugeleza kancane kwamanzi, amanzi ageleza kakhulu nezikhukhula	Izidingo Zemvelo Zamanzi (EWR) ukunakekela ukugeleza kwamanzi nesomiso: Umfula uMnweni ku V11B NMAR = 142.69 x10⁶m³ Umkhakha Wemvelo Ohlosiwe (TEC) owu B Ukunakekela ukugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka	Ukunakekelwa kwamanzi nezomiso okudingekayo eMweni River. Ukugeleza kwamanzi kwemvelo kumele kugcinwe njengoba izindawo eziphezulu emfuleni ziyingxenye yoHlelo Olubalulekile Lwemithombo Yamanzi (SWSA).		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
								Oct	0.736	0.233
								Nov	0.962	0.307
								Dec	1.224	0.340
								Jan	1.676	0.511
								Feb	2.294	0.685

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba		Imikhawulo yezinombolo/ Izilingaiso		
		(Sithebe River; Thonyelana-iMpumalanga River) **V11B**				imvelo yasemanzini emfuleli eMnweni			Mar	2.162	0.643
									Apr	1.922	0.580
									May	1.534	0.472
									Jun	1.206	0.384
									Jul	0.908	0.301
									Aug	0.737	0.254
									Sep	0.703	0.247
		Esiphethwini kuya enhlanganweni noMlambonja noMhlwazini (enhla no-Mlambonja); uMhlwazini River; iNdedema River; iNdumeni River; iThuthumi River) **V11G**	**14.3**	Umthamo	Ukugeleza kancane kwamanzi, amanzi ageleza kakhulu nezikhukhula	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: Umfula uMlambonja ku V11G NMAR = 191.99 x10^{6}m^{3} Umkhakha Wemvelo Olindelekile (TEC) owu B Ukunakekelwa kokugeleza kancane kwamanzi nezomiso kumele kuqikelelwe ukulekelela imvelo yasemanzini enhla noMlambonja.	Ukunakekelwa kwamanzi nezomiso okudingekayo eMlambonja River. Ukugeleza kwamanzi kwemvelo kumele kugcinwe njengoba izindawo eziphezulu emfuleni ziyingxenye yoHlelo Olubalulekile Lwemithombo Yamanzi (SWSA).		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
								Okthoba	0.944	0.316	
								Novemba	1.287	0.313	
								Disemba	1.684	0.319	
								Januwari	2.260	0.687	
								Febuwari	3.052	0.911	
								Mashi	2.928	0.87	
								Ephreli	2.625	0.789	
								Meyi	2.043	0.628	
								Juni	1.541	0.492	
								Julayi	1.134	0.378	
								Agasti	0.926	0.321	
								Septhemba	0.890	0.313	
		Ezindaweni ezisenhla noThukela Oluncane **V11B**	**14.4**	Umthamo	Ukugeleza kancane kwamanzi, amanzi ageleza kakhulu nezikhukhula	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: UThukela Oluncane ku V13A NMAR = 82.32 x10^{6}m^{3} Umkhakha Wemvelo Olindelekile (TEC) owu B Ukunakekelwa kokugeleza kancane kwamanzi nezomiso kumele kuqikelelwe ukulekelela imvelo yasemanzini enhla noThukela OLuncane.	Ukunakekelwa kwamanzi nezomiso okudingekayo oThukela Oluncane. Ukugeleza kwamanzi kwemvelo kumele kugcinwe njengoba izindawo eziphezulu emfuleni ziyingxenye yoHlelo Olubalulekile Lwemithombo Yamanzi (SWSA).		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
								Okthoba	0.323	0.119	
								Novemba	0.449	0.115	
								Disemba	0.628	0.115	
								Januwari	0.910	0.318	

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba		Imikhawulo yezinombolo/ Izilingaiso	
								Febuwari	1.288	0.442
								Mashi	1.240	0.423
								Ephreli	1.048	0.363
								Meyi	0.705	0.252
								Juni	0.487	0.183
								Julayi	0.361	0.142
								Agasti	0.301	0.123
								Septhemba	0.299	0.123
		Ezindaweni ezisenhla neBoesmans River **V70A**	**14.5**	Umthamo	Ukugeleza kancane kwamanzi, amanzi ageleza kakhulu nezikhukhula	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: iBushman's River ku V70A NMAR = 113.46 x10^{6}m^{3} Umkhakha Wemvelo Olindelekile (TEC) owu B Ukunakekelwa kokugeleza kancane kwamanzi nezomiso kumele kuqikelelwe ukulekelela imvelo yasemanzini enhla neBushman's River	Ukunakekelwa kwamanzi nezomiso okudingekayo eBushman's River. Ukugeleza kwamanzi kwemvelo kumele kugcinwe njengoba izindawo eziphezulu emfuleni ziyingxenye yoHlelo Olubalulekile Lwemithombo Yamanzi (SWSA).		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
								Okthoba	0.591	0.171
								Novemba	0.778	0.206
								Disemba	0.994	0.34
								Januwari	1.258	0.419
								Febuwari	1.562	0.515
								Mashi	1.461	0.480
								Ephreli	1.355	0.450
								Meyi	0.987	0.337
								Juni	0.724	0.26
								Julayi	0.547	0.205
								Agasti	0.477	0.184
								Septhemba	0.504	0.194
		Ncibidwana source to outlet of V70B **V70B**	**14.6**	Umthamo	Ukugeleza kancane kwamanzi, amanzi ageleza kakhulu nezikhukhula	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: eNcibidwana River ku V70B NMAR = 44.16 x10^{6}m^{3} Umkhakha Wemvelo Olindelekile (TEC) owu B Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukulekelela	Ukunakekelwa kwamanzi nezomiso okudingekayo eNcibidwana River. Ukugeleza kwamanzi kwemvelo kumele kugcinwe njengoba izindawo eziphezulu emfuleni ziyingxenye yoHlelo Olubalulekile Lwemithombo Yamanzi (SWSA).		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
								Okthoba	0.230	0.066
								Novemba	0.303	0.080
								Disemba	0.387	0.132

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwa yo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba		Imikhawulo yezinombolo/ Izilingaiso	
						imvelo yasemanzini enhla neNcibidwana River		Januwari	0.490	0.163
								Febuwari	0.608	0.200
								Mashi	0.569	0.187
								Ephreli	0.527	0.175
								Meyi	0.384	0.131
								Juni	0.282	0.101
								Julayi	0.213	0.080
								Agasti	0.186	0.072
								Septhemba	0.196	0.075
		Ezindaweni ezisenhla neMooi River **V20A**	**14.7**	Umthamo	Ukugeleza kancane kwamanzi, amanzi ageleza kakhulu nezikhukhula	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: eMooi River ku V20A NMAR = 42.90 x10^{6}m^3 Umkhakha Wemvelo Olindelekile (TEC) owu B Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukulekelela imvelo yasemanzini enhla neMooi River	Ukunakekelwa kwamanzi nesomiso okudingekayo eMooi River. Ukugeleza kwamanzi kwemvelo kumele kugcinwe njengoba izindawo eziphezulu emfuleni ziyingxenye yoHlelo Olubalulekile Lwemithombo Yamanzi (SWSA).		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
								Okthoba	0.203	0.079
								Novemba	0.283	0.087
								Disemba	0.368	0.132
								Januwari	0.492	0.172
								Febuwari	0.603	0.209
								Mashi	0.559	0.193
								Ephreli	0.48	0.168
								Meyi	0.298	0.109
								Juni	0.196	0.077
								Julayi	0.157	0.064
								Agasti	0.149	0.062
								Septhemba	0.169	0.068
		Ezindaweni ezisenhla neMooi River Encane **V20B**	**14.8**	Umthamo	Ukugeleza kancane kwamanzi, amanzi ageleza kakhulu nezikhukhula	Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: iMooi River encane ku V20B NMAR = 10.32 x10^{6}m^3 Umkhakha Wemvelo Olindelekile (TEC) owu B Ukunakekelwa kokugeleza kancane kwamanzi nesomiso	Ukunakekelwa kwamanzi nesomiso okudingekayo eMooi River encane. Ukugeleza kwamanzi kwemvelo kumele kugcinwe njengoba izindawo eziphezulu emfuleni ziyingxenye yoHlelo Olubalulekile Lwemithombo Yamanzi (SWSA).		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
								Okthoba	0.041	0.019
								Novemba	0.056	0.025

IUA	Izinga	Umfula	Iyunithi Yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo yezinombolo/ Izilingaiso	
						kumele kuqikelelwe ukulekelela imvelo yasemanzini enhla neMooi River encane.	Disemba	0.071	0.031
							Januwari	0.096	0.041
							Febuwari	0.115	0.048
							Mashi	0.103	0.043
							Ephreli	0.083	0.036
							Meyi	0.059	0.026
							Juni	0.044	0.02
							Julayi	0.037	0.017
							Agasti	0.034	0.016
							Septhemba	0.038	0.018

Ithebula 16: Izinjongo Zamazinga Emithombo YEMIFULA NAMADAMU ngokwamaYunithi Emithombo Ocwaningweni LwamaYunithi Ahlanganisiwe 15: OZALWENI LOTHUKELA NASENHLA NALO

IUA	Izinga	Umfula	Iunithi yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ Izilinganiso
IUA 15: THUKELA ESTUARY and UPSTREAM THUKELA	**II**	UThukela kusuka eMandeni (Mngeni) kuya ezindaweni ezisenhla, okubalwa nomfundlana iMandeni **V50D (Izingxenye ezinamanzi ezingenhla kwasozalweni V50D)** **(EWR 17)**	**15.1**	Izinga	Imisoco	Amazinga emisoco kumele agcinwe ekahle ukulekelela imvelo ysozalweni nokugcina kahle isimo semvelo.	I-Orthophosphate (PO_4^-) ku Phosphorus	≤0.1 miligremu weLitha (mg/L) (50th percentile) (Umfula uThukela kuphela)
								≤0.1 miligremu weLitha (mg/L) (50th percentile) (Umlambo Mandini kuphela)
							Isiyonke iNitrogen Enobungozi (TIN) eyiNitrogen	≤2.0 miligremu weLitha (mg/L) (percentile) (Umfula uThukela no mlambo uMandini)
					Osawoti	Umthamo wosawoti kumele ugcinwe ukahle ukugcin imvelo yasozalweni ukuqinisekisa ukuthi umkhakha wemvelo ohlosiwe uyagcinwa.	Sebebonke Osawoti Emanzini	≤500 miligremu weLitha (mg/L) (95th percentile) (Umfula uThukela no mlambo uMandini)
							I-Chloride	≤175 miligremu weLitha (mg/L) (95th percentile) (Umlambo Mandini kuphela)
							I-Sodium	≤115 miligremu weLitha (mg/L) (95th percentile) (Umlambo Mandini kuphela)
					Iphathojeni	Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.	*I-Escherichia coli*	≤130 Izibalo ku 100 mililitha (izibalo/ 100 mL) (Umfula uThukela no mlambo uMandini)
					Izinto Ezisemanzini	Amazinga e-pH kumele egcinwe ephakathi kwemikhawulo ebekiwe ukweseka imvelo yasemanzini	I-pH	6.5 – 8.9 kube u <5% wesilinganiso ngaphandle kwalokhu ngonyaka (Umfula uThukela no mlambo uMandini)

IUA	Izinga	Umfula	Iunithi yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ Izilinganiso
						nezidingo zabasebenzisa amanzi.		
						Kumele amanzi agcinwe ehlanzekile ukwelekelela imvelo yasozalweni. Kungachezuki ezingeni lika-10% ukusuka emazingeni aphansi.	Ukudungeka	
						Amazinga okushisa kumele agcinwe ekahle ukweseka izilwanyana zemfuleni.	Amazinga Okushisa	17°C (10th percentile) ku 30°C (90th percentile) no <5% wesilinganiso ngaphandle kwalokhu ngonyaka
						Amazinga e-oxygen esemanzini kumele agcinwe ekahle ukweseka imvelo yasemanzini nokugcina kahle imvelo ozalweni	I-Oxygen esemanzini	≥ 6 miligremu weLitha (mg/L) (Umfula uThukela no mlambo uMandini)
					Izinto ezinobungozi	Umthamo wezinto ezinobungozi akumele ubeke engcupheni imvelo yasemnzini nempilo yabantu.	I-Ammonia eyi-N	≤ 0.1 miligremu weLitha (mg/L) (95th percentile) (Umfula uThukela no mlambo uMandini)
							I-Aluminium (Al)	≤ 0.10 miligremu weLitha (mg/L) (95th percentile) (Umfula uThukela no mlambo uMandini)
							I-Manganese (Mn)	≤ 0.2 miligremu weLitha (mg/L) (95th percentile) (Umfula uThukela no mlambo uMandini)
							I-Iron (Fe)	≤ 0.1 miligremu weLitha (mg/L) (95th percentile) (Umfula uThukela no mlambo uMandini)
							I-Lead (Pb) eqinile	≤ 0.009 miligremu weLitha (mg/L) (95th percentile) (Umfula uThukela no mlambo uMandini)
							I-Copper (Cu) eqinile	≤ 0.007 miligremu weLitha (mg/L) (95th percentile) (Umfula uThukela no mlambo uMandini)
							I-Nickel (Ni)	≤ 0.07 miligremu weLitha (mg/L) (95th percentile) (Umfula uThukela no mlambo uMandini)
							I-Cobalt (Co)	≤ 0.05 miligremu weLitha (mg/L) (95th percentile) (Umfula uThukela no mlambo uMandini)
							I-Zinc (Zn)	≤ 0.002 miligremu weLitha (mg/L) (95th percentile) (Umfula uThukela no mlambo uMandini)
				Okuphila emanzini	Emfuleni	Ukugeleza kwemvelo kwamanzi kumele kuphuculwe	Uhlu Lokuphila Emanzini (IHI): Emfuleni	IHI ≥ 62% (Umfula uThukela kuphela)

IUA	Izinga	Umfula	Iunithi yomthombo	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ Izilinganiso
						noma kugcnwe eMkhakheni Wemvelo Ohlosiwe (TEC) owu C.		
				I-Biota	Izinhlanzi	Izinhlanzi ezizwelayo emanzini agelezayo namazinga amanzi kumele zigcinwe zisemazingeni akahle noma angcono ngokoMkhakha Wemvelo (TEC) owu C. Uhlu Lokuhlola impilo Yezinhlanzi (FRAI) kumele lwenziwe minyaka yonke ngokuhambisana nomkhakha wemvelo C obekiwe	Uhlu Lokuhlolwa Kwempilo Yezinhlanzi (FRAI) *Anguilla spp.* *Glossogobius spp.* *Awaous aeneofuscus* (AAEN) *Barbus (Enteromius) trimaculatus (*BTRI) *Labeobarbus natalensis (*BNAT) *Labeo molybdinus* (LMOL) *Labeo rubromaculatus* (LRUB) *Oreochromis mossambicus (*OMOS)	FRAI ≥ 62% (Umfula uThukela kuphela) Ukuqinisekisa ukuthi izinhlobo zimelelekile kulezi ezilandelayo: *Glossogobius spp.,* BNAT, BTRI ne OMOS encane – 3 kweziwu 4 izihlahla/ ulwelwe. 2 kule *Anguilla spp. Elandelayo (i-*elvers), i-BNAT, i-LMOL ne-LRUB ethembele ekugelezeni kwamanzi namanzi ajulile.
					Izilwanyana zasemanzini	Umthamo wezilwanyana zasemanzini ezizwelayo emanzini ahambayo nezinga lamanzi kumele ugcinwe ukahle. Umthamo wezilwanyana zaemanzini kumele ugcinwe usemkhakheni wemvelo ohlosiwe (TEC) owu C.	Uhlu Lokuhlolwa Kwempilo Yezilwanyana (MIRAI) noMbhalo 5 Wohlelo Lwmaphuzu LwaseNingizimu Afrika (SASS5) Perlidae Baetidae > 2 sp Heptageniidae Leptophlebiidae Oligoneuridae Prosopistomatidae Elmidae Hydropsychidae 2spp	Amasampuli awu 3 ezilwanyana: umthamo ube ku A kuya ku B ngobuningi. Amaphuzu eSASS 5: 100 – 120 Amaphuzu aphakathi ngeTaxon (ASPT): 5.5 - 6.5 MIRAI ≥ 62% (Umfula uThukela kuphela)
					Ama-Diatoms	Umkhakha wemvelo kumele ugcinwe uku C	Uhlu Lokuzwela Ekungcoleni Okuthile (SPI) Iphesenti Lokumelana Nokungcola (%PTV)	SPI: 12 - 14 %PTV: 20% - < 40% (Umfula uThukela kuphela)
					Izihlahla zeRiparian	Izihlahla ze-riparian kumele zithuthukiswe noma zigcinwe ku VEGRAI ≥ C Yomkhakha Wemvelo.	Uhlu Lokuhlolwa Kwempilo Yezihlahla (VEGRAI)	Ucwaningo lweVEGRAI njalo eminyakeni ewu 5. VEGRAI ≥ 62% (Umfula uThukela kuphela)

Ithebula 17: Izinjongo Zamazinga Emithombo EZINDAWENI EZIBALULEKILE EZINAMANZI NAMADAMU kumaYunithi athile emthombo OTHUKELA

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso		
IUA 1: ENHLANE-BUFFALO	1.1 kungena kancane ku 1.2	eWakker-stroom	Umthamo	<u>Kusebenza i-RQO yomfula</u> Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: ISlang River ku V3R003 in V31A NMAR = 97.065 x10⁶m3 Umkhakha Wemvelo Olindelekile (TEC) owu B Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukulekelela imvelo yasemanzini enhla nomfula. Kmele amanzi agcinwe egeleza njalo ukuqinisekisa ukuthi uhlelo lomfula luyalekelelana, futhi amanzi ahlale njalo enesilinganiso esidingekayo sosawoti.	Ukunakekela ukugeleza kwamanzi nesomiso – ikakhulu adingekayo ezindaweni ezinamanzi enhla neZaihoek Dam (V3R003). Ukuqapha ukugeleza kwamanzi V3R003.		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
						Okthoba	0.221	0.007
						Novemba	0.418	0.081
						Disemba	0.610	0.075
						Januwari	0.83	0.180
						Febuwari	1.069	0.231
						Mashi	0.812	0.176
						Ephreli	0.576	0.127
						Meyi	0.319	0.004
						Juni	0.185	0.039
						Julayi	0.142	0.036
						Agasti	0.121	0.032
						Septhemba	0.137	0.035
				Ukugcina amazinga amanzi adingekayo ukuqinisekisa ukuthi kunesilinganiso esidingekayo sosawoti.	Amazinga amanzi.			
			Izinga	<u>Kusebenza i-RQO yomfula</u> Amazinga emisoco akumele ehle futhi kumele eseke imvelo yasemanzini nesimo semvelo esikhona (PES B).	I-Ortho-phosphate eyi-P	≤0.01 miligremu weLitha (mg/L) (50^{th} percentile)		
					Isiyonke iNitrogen Enobungozi (TIN)	≤0.5 miligremu weLitha (mg/L) (50^{th} percentile)		
				Sebebonke osawoti kumele bagcinwe bekahle futhi kumele beseke imvelo yasemanzini		≤120 miligremu weLitha (mg/L) (95^{th} percentile)		

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				nesimo semvelo esikhona (PES B).		
				Iphathojeni akumele ibeke engcupheni impilo yabantu.	*Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)
			Okuphila Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.	Umkhakha Okhona Wesimo Semvelo (PES)	I-PES engaphezu kuka 70%
				Ukujula kwamanzi namazinga okushisa kwawo kumele kuhlale kuyinto eyodwa zikhathi zonke. Kumele kubhekwe kusetshenziwa izindlela ezifanele zokuhlola nokuthatha amasampuli ezindaweni ezithile ezinamanzi ukunquma ukuthi amanzi ajule kangakanani nokuthi iziziba zinamanzi afudumele kangakanani. Kuhlolwe njalo eminyakeni ewu-5.	Ukushona nokufudumala kweziziba zamanzi	Kungabi ngaphansi kuka 10% ukuncipha kokushona nokufudumala kweziziba emfuleni kuleyo ndawo okuthathwa kuyona amasampuli ngayinye.

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
			I-Biota	Izinhlobonhlobo ezikhona emanzini/emachibini zezinyoni kumele zigcinwe zikahle. Kubikwe ngalokhu minyaka yonke	Amazinga okubika eSABAP 2 ngezinyoni/ izilwanyana zasemanzini ezikhona ancike ohlwini lweRed Data: • White-Winged Flufftail • Grey Crowned Crane • African Marsh Harrier • African Grass Owl • Blue Crane • Maccoa Duck • Greater Flamingo • Lesser Flamingo • Half-Collared Kingfisher • Greater Painted Snipe	Eminyakeni ewu 5 ezayo ukubika ngohlobo ngalunye akumele kwehle kngeSABAP2 yamazinga okubikas (as at 15 April 2021): • White-Winged Flufftail (~0.3%) • Grey Crowned Crane (~59.6%) • African Marsh Harrier (~49.1%) • African Grass Owl (~0.5%) • Blue Crane (~12.2%) • Maccoa Duck (~1.6%) • Greater Flamingo (~1.1%) • Lesser Flamingo (~0.3%) • Half-Collared Kingfisher (~4.5%) • Greater Painted Snipe (~0.1%)
	1.1	eGroenvlei	Umthamo	Ubudlelwane phakathi kobungako, ukujula nokuvama kwezikhukhula nezimvula kumele kugcinwe kungashintshi.	Izikhukhla ziyadingeka ukuze zizovundisa izindawo ezihamba amanzi ezingaphandle komfula ngaleyo ndlela zihlinzeka amanzi ezindaweni eziseceleni komfula nezingamachibi nemvelo edingeka ukulekelela izindawo ezihamba izikhukhula nokuma kwendawo, okubalwa nezihlahla ezikhona. Kulinganiswe amazinga amanzi ezindaweni ezithile ezikhethiwe ezihamba izikhukhula ukuqapha ukuvama kokuhamba kwamanzi, ukujula nobungako bezikhukhula. Kutholakale ubudlelwane obukhona baphambilini phakathi kwesimo sendawo, izimvula nezikhukhula kusetshenziswa izithombe ezihambisana nezikhathi zezimvula ezinkulu. Kuqhathaniswe ubungako bezimvula nezikhukhula nobudlelwano obebukhona phambilini. Lokhu kuphindwe minyaka yonke.	Ubudlelwane phakathi kobungako, ukujula nokuvama kwezikhukhula nezimvula ezinamandla ezindaweni ezinamanzi akumele imvamisa kukhombe izimo ezikhombisa ukwehla (kuncipha kwamanzi ezikhukhula lapho kunezikhukhula).

<table>
<tr><th>IUA</th><th>Iyunithi Yomthombo</th><th>Izindawo ezinamanzi / Isayithi</th><th>Okubhekwayo Yokubalulekile</th><th>Incazelo ye-RQO</th><th>Inkomba</th><th colspan="3">Imikhawulo Yezinombolo/ izilinganiso</th></tr>
<tr><td rowspan="15"></td><td rowspan="15"></td><td rowspan="15"></td><td rowspan="13"></td><td rowspan="13"><u>Kusebenza i-RQO yomfula</u>

Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso:
ISlang River ku V3R003 in V31A
NMAR = 97.065 x10⁶m3
Umkhakha Wemvelo Olindelekile (TEC) owu B
Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukulekelela imvelo yasemanzini enhla nomfula.</td><td rowspan="13">Ukunakekela ukugeleza kwamanzi nezomiso – ikakhulukazi ezindaweni ezingamachibi enhla neDamu iZaaihoek (V3R003).
Ukuqapha ukugeleza kwamanzi ku V3R003.</td><td></td><td>Ukunakekela Ukugeleza kwamanzi (m^3/s)</td><td>Ukugeleza Kwamanzi Ngesomiso (m^3/s)</td></tr>
<tr><td>Okthoba</td><td>0.221</td><td>0.007</td></tr>
<tr><td>Novemba</td><td>0.418</td><td>0.081</td></tr>
<tr><td>Disemba</td><td>0.610</td><td>0.075</td></tr>
<tr><td>Januwari</td><td>0.83</td><td>0.180</td></tr>
<tr><td>Febuwari</td><td>1.069</td><td>0.231</td></tr>
<tr><td>Mashi</td><td>0.812</td><td>0.176</td></tr>
<tr><td>Ephreli</td><td>0.576</td><td>0.127</td></tr>
<tr><td>Meyi</td><td>0.319</td><td>0.004</td></tr>
<tr><td>Juni</td><td>0.185</td><td>0.039</td></tr>
<tr><td>Julayi</td><td>0.142</td><td>0.036</td></tr>
<tr><td>Agasti</td><td>0.121</td><td>0.032</td></tr>
<tr><td>Septhemba</td><td>0.137</td><td>0.035</td></tr>
<tr><td rowspan="4">Izinga</td><td rowspan="2"><u>Kusebenza i-RQO yomfula</u>

Amazinga emisoco akumele ehle futhi kumele eseke imvelo yasemanzini nesimo semvelo esikhona (PES B).</td><td>I-Ortho-phosphate eyiP</td><td colspan="3">≤0.01 miligremu weLitha (mg/L) (50^{th} percentile)</td></tr>
<tr><td>Seyiyonke iNitrogen Enobungozi (TIN)</td><td colspan="3">≤0.5 miligremu weLitha (mg/L) (50^{th} percentile)</td></tr>
<tr><td>Kumele kugcinwe kahle osawoti abasemanzini ukulekelela imvelo yasemanzini nesimo esikhona semvelo (PES B).</td><td>Sebebonke Osawoti Emanzini</td><td colspan="3">≤120 miligremu weLitha (mg/L) (95^{th} percentile)</td></tr>
<tr><td>Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.</td><td>Escherichia coli</td><td colspan="3">≤130 Izibalo ngo 100 mililitha (counts/ 100 mL)</td></tr>
<tr><td>Okuphila Emanzini</td><td>Kumele kugcinwe kahle amanzinga ePES amanje.
Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwiMacfarlane et al., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe ngaphezulu</td><td>Umkha Okhona Wesimo Semvelo (PES)</td><td colspan="3">Amaphuzu ePES angaphezu kuka 70%</td></tr>
</table>

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.		
IUA 3: MAPHAKATHI NE-BUFFALO RIVER	3.1 kungene kancane ku 3.5	eBoschoffsvlei	Umthamo	Ubudlelwane phakathi kobungako, ukujula nokuvama kwezikhukhula nezimvula ezindaweni ezinamanzi kumele kunakekelwe. **Kuphindwe minyaka yonke.**	Izikhukhla ziyadingeka ukuze zizovundisa izindawo ezihamba amanzi ezingaphandle komfula ngaleyo ndlela zihlinzeka amanzi ezindaweni eziseceleni komfula nezingamachibi nemvelo edingeka ukulekelela izindawo ezihamba izikhukhula nokuma kwendawo, okubalwa nezihlahla ezikhona. Kulinganiswe amazinga amanzi ezindaweni ezithile ezikhethiwe ezihamba izikhukhula ukuqapha ukuvama kokuhamba kwamanzi, ukujula nobungako bezikhukhula. Kutholakale ubudlelwane obukhona baphambilini phakathi kwesimo sendawo, izimvula nezikhukhula kusetshenziswa izithombe ezihambisana nezikhathi zezimvula ezinkulu. Kuqhathaniswe ubungako bezimvula nezikhukhula nobudlelwano obebukhona phambilini.	Ubudlelwane phakathi kobungako, ukujula nokuvama kwezikhukhula nezimvula ezinamandla ezindaweni ezinamanzi akumele imvamisa kukhombe izimo ezikhombisa ukwehla (ukwehla kwezikhukhula okudalwa ukwehla kwezimvula).
			Izinga	<u>Kusebenza i-RQO yomfula</u> Amazinga emisoco akumele ehle futhi kumele eseke imvelo yasemanzini nesimo semvelo esikhona (PES B).	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤ 0.02 miligremu weLitha (mg/L) (50^{th} percentile)
					Isiyonke iNitrogen Ekhona (TIN)	≤1.0 miligremu weLitha (mg/L) (50^{th} percentile)

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				Amazinga osawoti kumele agcinwe kahle ukeseka imvelo yasemanzini nokugcina indawo (umkhakha wemvelo B).	Sebebonke osawoti abasemanzini	≤200 miligremu weLitha (mg/L) (95th percentile)
				Iukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.	*Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL) (95th percentile)
			Okuphilayo Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.	Umkhakha Wemvelo Okhona (PES)	Amaphuzu ePES angaphezu kuka 75%
		Ezindaweni ezakhele iBoschoffsvlei	Umthamo	Ubudlelwane phakathi kobungako, ukujula nokuvama kwezikhukhula nezimvula ezindaweni ezinamanzi kumele kunakekelwe. **Kumele kuphindwe minyaka yonke**	Umthelela wezinga lamanzi kumele ulawulwe ukuze ungalimazi izimo zemvelo ezindaweni ezinamanzi. Ikakhulukazi uma kudonswa noma kufakwa amanzi kumele agcine esendaweni edinga ukuba namanzi ukuze ukujula nemisoco ekhona izokwazi ukugcineka ngalezo zikhathi zezimvula ezejwayelekile, izimvula ezinkulu nezimvula ezincane.	Ubudlelwane phakathi kobungako, ukujula nokuvama kwezikhukhula nezimvula ezinamandla ezindaweni ezinamanzi akumele imvamisa kukhombe izimo ezikhombisa ukwehla (rukwehla kokuvunda okudalwa ukwehla kwezimvula zehloboall [September to April]).

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
					Ukwenza ibalamdwebo lokuhamba kwmaanzi ekupheleni kwehlobo (ekupheleni kuka-Ephreli) ukuze kubonakale ubudlelwane phakathi kokunyuka nokwehla kwamanzi ngezimvula zehlobo (uSepthemba kuya ku-Ephreli) nokubheka amazinga amanzi ngezithombe. Qhathanisa amazinga amanzi ezimvula njalo ukuya phambili. Phinda minyaka yonke.	
			Izinga	Ukugcina amazinga amanzi ezinhlelweni ezihamba amanzi zikahle ukuze kuqinisekiswe ukuthi amanzi namakhemikhali asemanzini ahlala ewumthamo owamulekele (umthamo we-anion ne-cation emanzini) kuleyo ndawo ehamba amanzi nohlelo olusebenza kuleyo ndawo. Amasampuli ayothunyelwa njalo ngoFebhuwari nangoJulayi njalo emunyakeni emithathu.	I-pH, umthamo wezinhlayiya, osawoti amasemanzini, ukwanda kwe-Alkaline eyi-CaCO3, i-Sodium, i-Calcium, i-Magnesium, Sulphate, i-Iron, i-Chloride, i-Potassium, i-Magnesium, i-Manganese, i-Aluminium, i-Phosphorous, i-Silica, i-Fluoride Ammonia, i-Nitrate neFluoride.	Ukugcina kahle uhlobo lwamakhemikhali atholakala emanzini kulolo hlobo lohlelo lwamanzi ngalunye.
			Okuphila Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma	Umkhakha Wesimo Semvelo (PES)	Amaphuzu ePES angaphezu kuka 85% ohlelweni ngalunye.

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.		
IUA 5: E-BLOOD RIVER	5.1 kungene kancane ku 3.1	Enhla neBlood River	Okuphila Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.	Umkhakha Okhona Wesimo Semvelo (PES)	Amaphuzu ePES angaphezu kuka 90% enhla nangaphezu kuka 80% ezindaweni ezisezansi.
	5.1 no 5.2	eBlood River Vlei	Umthamo	Esewonke amanzi angena ezindaweni ezingamachibi esuka emiseleni yamanzi kumele anakekelwe, kungandiswa ukudonswa kwamanzi emachibini.	Ububanzi bamadamu Nemisebenzi Enciphisa Ukugeleza Kwamanzi (SFR) (njengokudonsa amanzi okuchelela, izihlahla, njll.)	Kungakhuli ukudonswa kwamanzi edamini okuqhubekayo njengamanje (SFR) ezindaweni ezinamanzi.
				Ubudlelwane phakathi kobungako, ukujula nokuvama	Izikhukhula ziyadingeka ukuze zizovundisa izindawo ezihamba amanzi ezingaphandle komfula	Ubudlelwane phakathi kobungako, ukujula nokwanda kwezikhukhula ngenxa yezimvula ezindaweni ezinamanzi akumele kunciphe

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				kwezikhukhula nezimvula ezindaweni ezinamanzi kumele kunakekelwe. **Kuphindwe minyaka yonke**	ngaleyo ndlela zihlinzeka amanzi ezindaweni eziseceleni komfula nezinga-machibi nemvelo edingeka ukulekelela izindawo ezihamba izikhukhula nokuma kwendawo, okubalwa nezihlahla ezikhona. Kulinganiswe amazinga amanzi ezindaweni ezithile ezikhethiwe ezihamba izikhukhula ukuqapha ukuvama kokuhamba kwamanzi, ukujula nobungako bezikhukhula. Kutholakale ubudlelwane obukhona baphambilini phakathi kwesimo sendawo, izimvula nezikhukhula kusetshenziswa izithombe ezihambisana nezikhathi zezimvula ezinkulu. Kuqhatha-niswe ubungako bezimvula nezikhukhula nobudlelwano obebukhona phambilini.	kunokuvamile (ukuncipha kwezikhukhula okuphathelene nezimvula).
			Izinga	<u>Kusebenza i-RQO yomfula</u> Amazinga emisoco akumele ehle futhi kumele eseke imvelo yasemanzini nesimo semvelo esikhona (PES B).	I-Ortho-phosphate (PO_4^-) eyiPhosphorus	≤0.02 miligremu weLitha (mg/L) (50th percentile)
					Isiyonke iNitrogen Enobungozi (TIN)	≤1.0 miligremu weLitha (mg/L) (50th percentile)
				Amazinga osawoti kumele agcinwe ekahle ukuze eseke imvelo yasemanzini nesimo semvelo ekhona (umkhakha wemvelo B).	Osawoti Abakhona Emanzini	≤200 miligremu weLitha (mg/L) (95th percentile)
			Okuphila emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo	Umkhakha Wemvelo Okhona (PES)	Amaphuzu ePES angaphezu kuka 70% enyakatho kwebhuloho lika R34 nePES engaphezulu kuka 55% eningizimu yebhuloho lika R34.

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso		
				ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.				
IUA 6: E-SUNDAYS RIVER	6.2	eBoschberg vlei	Umthamo	Ubudlelwane phakathi kobungako, ukujula nokuvama kwezikhukhula nezimvula ezindaweni ezinamanzi kumele kunakekelwe. Kuphindwe minyaka yonke.	Izikhukhula ziyadingeka ukuze zizovundisa izindawo ezihamba amanzi ezingaphandle komfula ngaleyo ndlela zihlinzeka amanzi ezindaweni eziseceleni komfula nezinga-machibi nemvelo edingeka ukulekelela izindawo ezihamba izikhukhula nokuma kwendawo, okubalwa nezihlahla ezikhona. Kulinganiswe amazinga amanzi ezindaweni ezithile ezikhethiwe ezihamba izikhukhula ukuqapha ukuvama kokuhamba kwamanzi, ukujula nobungako bezikhukhula. Kutholakale ubudlelwane obukhona baphambilini phakathi kwesimo sendawo, izimvula nezikhukhula kusetshenziswa izithombe ezihambisana nezikhathi zezimvula ezinkulu. Kuqhatha-niswe ubungako bezimvula nezikhukhula nobudlelwano obebukhona phambilini.	Ubudlelwane phakathi kobungako, ukujula nokwanda kwezikhukhula ngenxa yezimvula ezindaweni ezinamanzi akumele kunciphe kunokuvamile (ukuncipha kwezikhukhula okuphathelene nezimvula).		
				<u>Kusebenza i-RQO yomfula</u> Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso:	Ukunakekela amanzi nokugeleza kwesomiso okudingeka emfuleni iSundays River.		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Kwamanzi Ngesomiso (m^3/s)
						Okthoba	0.180	0.120

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso		
				ISundays River esayithini ye-EWR oThukela_EWR7 (-28.458, 30.053) ku V60C NMAR = 90.26 x10^{6}m^{3} Umkhakha Wemvelo Ohlosiwe (TEC) owu C/D Ukunakekelwa kokugeleza kwamanzi nezomiso kumele kuqikelelwe ukulekelela imvelo yasemanzini esenhla nomfula.	Ukuqapha ukugeleza kwamanzi ku V6H004.	Novemba	0.240	0.140
						Disemba	0.350	0.105
						Januwari	0.500	0.220
						Febuwari	0.700	0.280
						Mashi	0.520	0.240
						Ephreli	0.350	0.210
						Meyi	0.260	0.160
						Juni	0.200	0.140
						Julayi	0.160	0.120
						Agasti	0.150	0.120
						Septhemba	0.160	0.110
			Izinga	<u>Kusebenza i-RQO yomfula</u> Amazinga emisoco kumele agcinwe ekahle ukulekelela imvelo yasemanzini nokugcina kahle isimo semvelo.	Ortho-phosphate (PO_4^-) as Phosphorus	≤0.06 miligremu weLitha (mg/L) (50th percentile)		
					Isiyonke iNitrogen Enobungozi (TIN^-) eyiNitrogen	≤1.0 miligremu weLitha (mg/L) (50th percentile)		
				Umthamo wosawoti kumele ugcinwe ukahle ukweseka imvelo yasemanzini nesimo semvelo esikhona.	Sebebonke Osawoti Emanzini	≤200 miligremu weLitha (mg/L) (95th percentile)		
				Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)		
				Amazinga e-pH rkumele agcinwe ephakathi kwemikhawulo ebekiwe ukweseka imvelo yasemanzini nezidingo zabantu abasebenzisa amanzi.	Amazinga e-pH	≥6.5 (5th percentile) no ≤9.0 (95th percentile)		
				Ukucweba kwamanzi kumele kugcinwe kahle.	Ukudungeka kwamanzi	Umehluko ka 10% ukunokungcola okungaphansi. Kumele kube nemikhawulo.		
			Okuphila Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa	Isimo Somkhakha Wemvelo Okhona (PES)	PES score above 75%		

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.		
	6.3	ePaddavlei	Okuphila Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona esimweni sezindawo ezinamanzi.	Umkhakha Wemvelo Okhona (PES)	Amaphuzu ePES angaphezulu kuka 70%

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso		
			I-Biota	Ukuqikelala ukungashabalali kweWattled Crane emachibini.	Ukungashabalali kweWattled Crane esengcupheni yokushabalala.	Ukuqhubeka nokuba khona kweWattled Crane.		
IUA 7: E-MOOI RIVER ESENHLA (nezingxenue ze IUA 14: IZINDAWO EZINAMANZI)	7.2	eHlatikulu	Umthamo	Amanzi angena ezindaweni ezingamachibi evela emiseleni yamanzi kumele aqikelelwe, futhi kungandi ukudonswa kwamanzi nggo emachibini.	Ubungako bamadamu nemisebenzi Enciphisa Ukugeleza Kwamanzi (SFR) (njengokuchelela, izihlahla, njll.)	Ukungandi kwamazinga amanje okudonswa kwamanzi edamini nemisebenzi yeSFR ezindaweni zamanzi.		
				<u>Kusebenza i-RQO</u> Ukunakekelwa kwezidingo ezingokwemvelo zamanzi (EWR) ageleza kancane nesomiso: INsonge River esayithini ye-EWR THU_EWR20 (-29.2377, 29.7853) ku V20C NMAR = 27.136 x10^{6}m^{3} Umkhakha Wemvelo Ohlosiwe (TEC) owu B/C Ukunakekelwa kokugeleza kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini esenhla nomfula.	Maintenance and drought flows required for the Nsonge River. Monitoring of flows at V2H007.		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Ngesomiso (m^3/s)
						Okthoba	0.109	0.063
						Novemba	0.148	0.082
						Disemba	0.188	0.102
						Januwari	0.253	0.134
						Febuwari	0.302	0.159
						Mashi	0.271	0.143
						Ephreli	0.219	0.118
						Meyi	0.155	0.086
						Juni	0.115	0.066
						Julayi	0.097	0.057
						Agasti	0.090	0.054
						Septhemba	0.101	0.060
			Izinga	<u>Kusebenza i-RQO yomfula</u> Amazinga emisoco akumele ehle futhi kumele eseke imvelo yasemanzini nesimo semvelo esikhona.	I-Ortho-phosphate (PO4-) eyiPhosphorus	≤0.01 miligremu weLitha (mg/L) (50th percentile)		
					Seyiyonke iNitrogen Enobungozi (TIN-) eyiNitrogen	≤0.5 miligremu weLitha (mg/L) (50th percentile)		
				Amazinga osawoti kumele agcinwe ekahle ukugcina izinga lamanzi elihle nesimo esihle semvelo.	Sebebonke Osawoti Emanzini	≤120 miligremu weLitha (mg/L) (95th percentile)		
				I-pH kumele igcinwe isemikhawulweni ebekiwe.	I-pH	6.5 (5th percentile) no 9.0 (95th percentile)		
				Ukuba khona kwephathojeni akumele kubeke engcuphenu impilo yabantu.	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)		
				Umthamo wezinto ezinobungozi akumele ubeke engcupheni emvelweni yasemanzini nasempilweni yabantu.	I-Ammonia eyi-N	≤ 0.07 miligremu weLitha (mg/L) (95th percentile)		
					i-trazine	≤0.078 miligremu weLitha (mg/L)		
					i-Mancozeb	≤0.009 miligremu weLitha (mg/L)		
					i-Glyphosate	≤0.7 miligremu weLitha (mg/L)		

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
			Okuphilayo Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.	Umkhakha Wemvelo Okhona (PES)	Amaphuzu ePES angaphezu kuka 65%
			I-Biota	Kumele kunakekelwe kahle yonke imvelo nezinhlobo zezinyoni ezethembele emanzini/ emachibini. Kubikwe ngalokhu minyaka yonke.	Amazinga okubika eSouth African Bird Atlas Project 2 (SABAP 2) rezinhlobo zezinyoni zeRed Data ezethembele emanzini/ emachibini: • I-Wattled Crane • I-Grey Crowned Crane • I-African Marsh Harrier • I-African Grass Owl • I-Blue Crane • I-Half-Collared Kingfisher Ukwenza iziqinisekiso ngezibonakalayo neziqoshwe kumarekhodi emibiko ngezinyoni ezikhona.	Eminyakeni eu 5 ezayo ukubikwa kwezinhlobo zezinyoni ezikhona akumele kwehle kumazinga okubika eSABAP2 (amhla ka 15 Ephreli 2021): • I-Wattled Crane (~19.6%) • I-Grey Crowned Crane (~43.5%) • I-African Marsh Harrier (~15.2%) • I-African Grass Owl (~2.2%) • I-Blue Crane (~21.7%) • I-Half-Collared Kingfisher (~13.0%).

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso		
IUA 7: I-MOOI RIVER ESENHLA	7.3	eStillerust	Umthamo	Kusebenza i-RQO yomfula IMooi River enhla neSpring Grove Dam ku V20D NMAR = 92.98 x10^{6}m3 Umkhakha Wemvelo Ohlosiwe (TEC) owu C. Ukunakekelwa kokugeleza kancane kwamanzi nesomiso kumele kuqikelelwe ukweseka imvelo yasemanzini enhla neMooi River.	Ukunakekelwa kwamanzi nesomiso okudingeka emfuleni iMooi River. Ukuqapha ukugeleza kwamanzi ku V2H005.		Ukunakekela Ukugeleza kwamanzi (m^3/s)	Ukugeleza Ngesomiso (m^3/s)
						Okthoba	0.265	0.227
						Novemba	0.361	0.188
						Disemba	0.461	0.329
						Januwari	0.609	0.496
						Febuwari	0.743	0.602
						Mashi	0.689	0.558
						Ephreli	0.595	0.486
						Meyi	0.378	0.315
						Juni	0.258	0.216
						Julayi	0.211	0.14
						Agasti	0.201	0.134
						Septhemba	0.225	0.173
			Izinga	Kusebenza i-RQO yomfula Amazinga emisoco akumele ehle futhi kumele eseke imvelo yasemanzini nesimo semvelo esikhona.	Ortho-phosphate (PO4-) as Phosphorus	≤0.01 miligremu weLitha (mg/L) (50th percentile)		
					Isiyonke iNitrogen Enobungozi (TIN-) eyiNitrogen	≤0.5 miligremu weLitha (mg/L) (50th percentile)		
				Amazinga osawoti kumele agcinwe ekahle ukugcina izinga lamanzi elihle nesimo esihle semvelo.	Sebebonke Osawoti Emanzini	≤120 miligremu weLitha (mg/L) (95th percentile)		
				I-pH kumele igcinwe isemikhawulweni ebekiwe.	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (counts/ 100 mL)		
				Ukuba khona kwephathojeni akumele kubeke engcuphenu impilo yabantu.	I-Ammonia as N	≤ 0.07 miligremu weLitha (mg/L) (95th percentile)		
					I-Atrazine	≤0.08 miligremu weLitha (mg/L)		
					I-Mancozeb	≤0.009 miligremu weLitha (mg/L)		
					I-Glyphosate	≤0.7 miligremu weLitha (mg/L)		
			Okuphilayo Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa	Umkhakha Wemvelo Okhona (PES)	Amaphuzu ePES angaphezu kuka 90%		

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.		
			I-Biota	Kumele kunakekelwe kahle yonke imvelo nezinhlobo zezinyoni ezethembele emanzini/ emachibini. Kubikwe ngalokhu minyaka yonke.	Amazinga okubika eSouth African Bird Atlas Project 2 (SABAP 2) rezinhlobo zezinyoni zeRed Data ezethembele emanzini/ emachibini: • I-Wattled Crane • I-Grey Crowned Crane • I-African Marsh Harrier • I-Blue Crane Ukwenza iziqinisekiso ngezibonakalayo neziqoshwe kumarekhodi emibiko ngezinyoni ezikhona.	Eminyakeni eu 5 ezayo ukubikwa kwezinhlobo zezinyoni ezikhona akumele kwehle kumazinga okubika eSABAP2 (amhla ka 15 Ephreli 2021): • I-Wattled Crane (~19.6%) • I-Grey Crowned Crane (~43.5%) • I-African Marsh Harrier (~15.2%) • I-Blue Crane (~21.7%)
				Kumele kube okungenani nohlobo olulodwa ouqhubekayo nokuzalela lweWattled Cranes	Ukuqhubeka kokuba khona kweWattled Cranes ezalanayo. Ukuqapha iWattled Crane, okubalwa ukuzalela kwayo ngempumelelo	Okungenani uhlobo olulodwa lwama-Wattled Cranes oluzalanayo
IUA 8: MIDDLE/ LOWER MOOI RIVER	8.1	eMelmoth	Okuphila Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni	Umkhakha Wemvelo Okhona (PES)	Amaphuzu ePES angaphezu kuka 90%

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.		
			I-Biota	Kumele kunakekelwe kahle yonke imvelo nezinhlobo zezinyoni ezethembele emanzini/ emachibini. Kubikwe ngalokhu minyaka yonke.	Amazinga okubika eSouth African Bird Atlas Project 2 (SABAP 2) rezinhlobo zezinyoni zeRed Data ezethembele emanzini/ emachibini: • I-Wattled Crane • I-Grey Crowned Crane • I-African Marsh Harrier • I-Blue Crane Ukwenza iziqinisekiso ngezibonakalayo neziqoshwe kumarekhodi emibiko ngezinyoni ezikhona.	Eminyakeni ewu 5 ezayo ukubikwa kwezinhlobo zezinyoni ezikhona akumele kwehle kumazinga okubika eSABAP2 (amhla ka 15 Ephreli 2021): • I-Wattled Crane (~19.6%) • I-Grey Crowned Crane (~43.5%) • I-African Marsh Harrier (~15.2%) • I-Blue Crane (~21.7%)
		eDartmoor	Okuphila Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo	Umkhakha Wemvelo Okhona (PES)	Amaphuzu ePES angaphezu kuka 90%

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.		
			I-Biota	Kumele kunakekelwe kahle yonke imvelo nezinhlobo zezinyoni ezethembele emanzini/ emachibini. Kubikwe ngalokhu minyaka yonke.	Amazinga okubika eSouth African Bird Atlas Project 2 (SABAP 2) rezinhlobo zezinyoni zeRed Data ezethembele emanzini/ emachibini: • I-Wattled Crane • I-Grey Crowned Crane • I-African Marsh Harrier • I-Blue Crane Ukwenza iziqinisekiso ngezibonakalayo neziqoshwe kumarekhodi emibiko ngezinyoni ezikhona.	Eminyakeni ewu 5 ezayo ukubikwa kwezinhlobo zezinyoni ezikhona akumele kwehle kumazinga okubika eSABAP2 (amhla ka 15 Ephreli 2021): • I-Wattled Crane (~21.6%) • I-Grey Crowned Crane (~28.5%) • I-African Marsh Harrier (~7.2%) • I-Blue Crane (~34.7%) •
		eScawby	Umthamo	Amanzi angena ezindaweni ezingamachibi esuka emithonjeni kumele egcinwe ekahle, kungandi ukudonswa kwamanzi emachibini.	Ubungako Bamanzi Emadamini Nemisebenzi enciphisa Ukugeleza Kwamanzi (SFR) (njengokuchelela izitshalo nezihlahla, njll)	Akumele kukhule ukudonswa kwamanzi emadanyini nemisebenzi yeSFR emithonjeni yamanzi.
			Okuphila Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa	Umkhakha Wemvelo Okhona (PES)	Amaphuzu ePES angaphezu kuka 75%

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.		
			I-Biota	Kumele kunakekelwe kahle yonke imvelo nezinhlobo zezinyoni ezethembele emanzini/ emachibini. Kubikwe ngalokhu minyaka yonke.	Amazinga okubika eSouth African Bird Atlas Project 2 (SABAP 2) rezinhlobo zezinyoni zeRed Data ezethembele emanzini/ emachibini: • I-Wattled Crane • I-Grey Crowned Crane • I-African Marsh Harrier • I-Blue Crane Ukwenza iziqinisekiso ngezibonakalayo neziqoshwe kumarekhodi emibiko ngezinyoni ezikhona.	Eminyakeni eu 5 ezayo ukubikwa kwezinhlobo zezinyoni ezikhona akumele kwehle kumazinga okubika eSABAP2 (amhla ka 15 Ephreli 2021): • I-Wattled Crane (~21.1%) • I-Grey Crowned Crane (~28.9%) • I-African Marsh Harrier (~7.9%) • I-Blue Crane (~34.9%)
IUA 9: I-BUSHMAN'S RIVER EMAPHAKATHINESEZANSI	9.3	eNtabamhlophe	Umthamo	Amanzi angena ezindaweni ezingamachibi esuka emithonjeni kumele egcinwe ekahle, kungandi ukudonswa kwamanzi emachibini.	Ubungako Bamanzi Emadamini Nemisebenzi enciphisa Ukugeleza Kwamanzi (SFR) (njengokuchelela izitshalo nezihlahla, njll)	Akumele kukhule ukudonswa kwamanzi emadanyini nemisebenzi yeSFR emithonjeni yamanzi.
			Izinga	<u>Kusebenza i-RQO yomfula</u> Amazinga emisoco akumele ehle futhi kumele eseke imvelo yasemanzini nesimo semvelo esikhona. Kudingeka abe ngcono amazinga.	Ortho-phosphate (PO4-) as Phosphorus	≤0.06 miligremu weLitha (mg/L) (50th percentile)
					Total Inorganic Nitrogen (TIN-) as Nitrogen	≤2.0 miligremu weLitha (mg/L) (50th percentile)
				Amazinga osawoti kumele agcinwe ekahle ukugcina izinga	Sebebonke Osawoti Emanzini	≤300 miligremu weLitha (mg/L) (95th percentile)

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				lamanzi elihle nesimo esihle semvelo.		
				Ukuba khona kwephathojeni akumele kubeke engcupheni impilo yabantu.	*I-Escherichia coli*	≤130 Izibalo ngo 100 mililitha (izibalo/ 100 mL)
				I-pH kumele igcinwe isemikhawulweni ebekiwe ukwenzeka imvelo yasemanzini.	Amazinga e-pH	≥6.5 (5^{th} percentile) no ≤9.0 (95^{th} percentile)
			Okuphilayo Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.	Umkhakha Wemvelo Okhona (PES)	Amaphuzu ePES angaphezu kuka 70%
IUA 14: IZINDAWO EZINAMANZI	14.8	eHighmoor	Okuphilayo Emanzini	Kumele kugcinwe kahle amanzinga ePES. Njengomgomo obalulekile kumele kuhlolwe iWET-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke	Umkhakha Wemvelo Okhona (PES)	Amaphuzu ePES angaphezu kuka 90% ezindaweni eziseningizimu namaphuzu ePES angaphezu kuka 75% ezindaweni ezisenyakatho.

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.		
			I-Biota	Kumele kunakekelwe kahle yonke imvelo nezinhlobo zezinyoni ezethembele emanzini/ emachibini. Kubikwe ngalokhu minyaka yonke.	Amazinga okubika eSouth African Bird Atlas Project 2 (SABAP 2) rezinhlobo zezinyoni zeRed Data ezethembele emanzini/ emachibini: • I-Wattled Crane • I-Grey Crowned Crane • I-African Marsh Harrier • I-Blue Crane Ukwenza iziqinisekiso ngezibonakalayo neziqoshwe kumarekhodi emibiko ngezinyoni ezikhona.	Eminyakeni eu 5 ezayo ukubikwa kwezinhlobo zezinyoni ezikhona akumele kwehle kumazinga okubika eSABAP2 (amhla ka 15 Ephreli 2021): • I-Wattled Crane (~17.9%) • I-Grey Crowned Crane (~10.7%) • I-African Marsh Harrier (~36.9%) • I-Blue Crane (~10.7%) •
		eNatal Drakensberg Park	Okuphilayo Emanzini	Ukugcina umkhakha wePES okhona. Ukuhlanganisa uhlu lwezindawo ezingamachibi zeRamsar ngekhompyutha eveza ibala-midwebo lezindawo ezingamachibi. Ukukhetha isampuli elilodwa lezindawo ezingamachibi elizosetshenziswa ukuhlola nokuqapha kwePES.	Ukhakha Wemvelo Okhona (PES)	Ukugcina iPES yezindawo ezikhethiwe ezingamachibi. Kuyonqunywa ngePES.

IUA	Iyunithi Yomthombo	Izindawo ezinamanzi / Isayithi	Okubhekwayo Yokubalulekile	Incazelo ye-RQO	Inkomba	Imikhawulo Yezinombolo/ izilinganiso
				Okungenani kwenziwe Ukuhlolwa Kobungozi Bamanzi (WET)-Health Level 1a PES (ngendlela echazwe kwi Macfarlane *et al*., 2020). Uma kuhlolwa iPES idatha esetshenziswa kuZwelonke noma esifundazweni kumele isetshenziswe ezindaweni ezinamanzi kanti uma sekuhlolwa indawo yonke enamanzi kumele kusetshenziswe isikalo sendawo ngezithombe zakamuva ezithathwe phezulu zokuqinisekisa ubungako bezindawo ezinamanzi okwenziwe ungoti wezindawo ezinamanzi onesipiliyoni. Kumele kuphindwe futhi uma sekutholakale idatha entsha kuzwelonke noma esifundazweni okungenani njalo ngeminyaka emihlanu uma kungenzeka futhi lokhu kubikwe ukuze kuhlolwe ukuthi zikhona yini izinguquko ezibe khona ezimweni sezindawo ezinamanzi.		

Ithebula 18: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 1: ENHLA NE-BUFFALO

IUA	Iyunithi yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo yezinombolo
IUA1: ENHLA NE-BUFFALO RIVER	**GRU-1**	Umthamo	Amazinga Engcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 51% (2021 SI plus 50%).
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi.

IUA	Iyunithi yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo yezinombolo
				Izimo zamanzi ezindaweni ezingamachibi (Wakkerstroom Wetland)		Amachibi: ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakala emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Okuvamile Ngokomthamo wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Okuvamile ngezinga lamanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.

IUA	Iyunithi yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo yezinombolo
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 19: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 2: NGAGANE RIVER

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
IUA2: NGAGANE RIVER	**GRU-2**	**Quantity**	Uhlu lwengcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. <u>Amachibi:</u> ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Quality	Okutholakala Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Okuvamile Ngomthamo Wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Okuvamile Ngamazinga Amanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 20: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 3: I-BUFFALO RIVER EMAPHAkATHI

IUA	Umthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo yezinombolo
IUA3: I-BUFFALO RIVER EMAPHA-KATHI	**GRU-3**	**Umthamo**	Uhlu Ngengcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).

IUA	Umthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo yezinombolo
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. Amachibi: ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakala Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo ovamile wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.

IUA	Umthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo yezinombolo
			Amazinga avamile amanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 21: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 4: I-BUFFALO RIVER ESEZANSI

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo Ngokwezinombolo
IUA4: I-BUFFALO RIVER ESEZANSI	**GRU-4**	**Umthamo**	Uhlu ngengcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. <u>Amachibi:</u> ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakala Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo Ngokwezinombolo
				I-Sodium	osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo ovamile wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Amazinga avamile amanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 22: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 5: I-BLOOD RIVER

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo yezinombolo
IUA5: I-BUFFALO RIVER ESEZANSI	**GRU-5**	**Umthamo**	Uhlu Ngengcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. <u>Amachibi:</u> ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakalayo Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo Wamanzi ovamile	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a).

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo yezinombolo
						Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Amazinga amanzi avamile	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 23: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 6: I-SUNDAYS RIVER

IUA	Iyunithi Yamanzi Angaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Inkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
IUA6: I-SUNDAYS RIVER	**GRU-6**	**Umthamo**	Uhlu Ngengcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. <u>Amachibi:</u> ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakala Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).

IUA	Iyunithi Yamanzi Angaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Inkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
			Osawoti	Sebebonke Osawoti Emanzini	onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo ovamile wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Izinga elivamile lamanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 24: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 7: I-MOOI RIVER ESENHLA

IUA	Iyunithi Lamanzi Angaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo yezinombolo
IUA7: I-MOOI RIVER ESENHLA	**GRU-7**	**Umthamo**	Uhlu Ngengcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. <u>Amachibi:</u> ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakala Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imicoso	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo ovamile wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a).

IUA	Iyunithi Lamanzi Angaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo yezinombolo
						Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Amazinga avamile amanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 25: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 8: I-MOOI RIVER EPHAKATHI/ ESEZANSI

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
IUA8: I-MOOI RIVER EPHAKATHI/ ESEZANSI	**GRU-8**	**Umthamo**	Uhlu Ngengcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. <u>Amachibi:</u> ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga		Amazinga e-pH		Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
			Okutholakala Emanzini	Isiyonke i-Alkaline	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo Ovamile Wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Amazinga Avamile Amanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 26: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 9: I-BUSHMAN'S RIVER EPHAKATHI NASEZANSI

IUA	Iyunithi Lomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
IUA9: I-BUSHMAN'S RIVER EPHAKATHI NASEZANSI	**GRU-9**	**Umthamo**	Uhlu Ngengcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota "ahlale" "engaphansi kwemitha le-collar level".	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. Amachibi: ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakala Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Eziyingozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)

IUA	Iyunithi Lomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo Ovamile Wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Izinga elivamile lamanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 27: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 10: ENHLA NOMFULA UTHUKELA

IUA	Iyunithi Lomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
IUA10: ENLA NOMFULA UTHUKELA	**GRU-10**	**Umthamo**	Uhlu Ngengcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. <u>Amachibi:</u> ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom

IUA	Iyunithi Lomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
						Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakala Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Indlela Yokuvikela	Umthamo Ovamile Wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Amazinga Avamile Amanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)).

IUA	Iyunithi Lomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
						I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 28: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 11: I-KLIP RIVER

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo Yezinombolo
IUA11: I-KLIP RIVER	**GRU-11**	**Umthamo**	Uhlu Ngengcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. Amachibi: ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakala Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo Yezinombolo
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo Ovamile Wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Izinga Elivamile Lamanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 29: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 12: UTHUKELA OLUMAPHAKATHI

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Eyizinombolo
IUA12: UTHUKELA OLUPHAKA-THI	**GRU-12**	**Umthamo**	Amazinga Engcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Eyizinombolo
				Angenayo) okuvela njengephesenti.		
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. Amachibi: ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okuthoalaka Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo Ovamile Wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%.

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Eyizinombolo
						Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Amazinga Avamile Amanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 30: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 13: EZANSI NOMFULA UTHUKELA

IUA	Iyunithi Lomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazeo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
IUA13: MIDDLE THUKELA RIVER	**GRU-13**	**Umthamo**	Amazinga engcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. Amachibi: ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga		Amazinga e-pH		Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.

IUA	Iyunithi Lomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazeo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
			Okutholakala emanzini	Isiyonke i-Alkaline	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo Ovamile Wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%. Kudingeka uhlelo lokuqapha amanzi angaphansi komhlaba olwakhelwe iWakkerstroom Wetland.
			Amazinga Avamile Amanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 31: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi

Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 14: IZINDAWO EZINAMANZI

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo Yezinombolo
IUA14: IZINDAWO EZINAMANZI	**GRU-14**	**Quantity**	Amazinga Engcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula Kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela ukusetshenziswa kwamanzi okungapheli.	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m) ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. <u>Amachibi:</u> ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakala Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)

IUA	Iyunithi Yomthombo Ongaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Izilinganiso/ Imikhawulo Yezinombolo
		Inqubo Yokuvikela	Umthamo Ovamile Wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%.
			Amazinga Avamile Amanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Ithebula 32: Izinjongo Zamazinga Emithombo Zezifunda Namayunithi Emithombo ZAMANZI ANGAPHANSI KOMHLABA kugxilwa kumaYunithi Emithombo Engaphansi Komhlaba Ocwaningweni LwamaYunithi Oludidiyelwe 15: OZALWENI NASEZINDAWENI EZISENHLA NOTHUKELA

IUA	IyunithiLOmthombo Omgaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
IUA15: OZALWENI NASENHLA NOTHUKELA	**GRU-15 (Iyunithi Lomthombo 15.1 enhla noThukela)**	**Umthamo**	Amazinga Engcindezi	Izibalo Zaminyaka yonke Zamazinga Engcindezi (SI) (OkuyiYunithi Lokubala Ukusetshenziswa Kwamanzi Ukuhlukanisa Ngamanzi Angenayo) okuvela njengephesenti.	Ukudonswa kwamanzi ngaphansi komhlaba kumele kulawulwe kahle	Amanzi adonswayo ngonyaka akumele abe ngaphezu kuka 65% wamanzi angenayo ngonyaka (okuyi SI ewu 0.65 wemikhawulo). Umkhawulo we-SI ophezulu ulinganiselwe ku 45% (2021 SI plus 55%).
			Ukujula kwamanzi	Amazinga okujula kwamanzi ngekota “ahlale” “engaphansi kwemitha le-collar level”.	Umkhawulo wezinga lamanzi (ithebuli) lokujula kumele ligcinwe ukwenzela	Ukubohla kwamanzi minyaka yonke akumele kwehlele ngaphansi kuka-5 mitha (m)

IUA	IyunithiLOmthombo Omgaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
					ukusetshenziswa kwamanzi okungapheli.	ngaphezu komugqa wokujula kwamanzi ezindaweni ezingamapitsi. Amachibi: ukujula kwamanzi minyaka yonke ezindaweni ezingamachibi (eWakkerstroom Wetland) akumele kwehlele ngaphansi kuka 0.5 m.
		Izinga	Okutholakala Emanzini	Amazinga e-pH	Izinga lamanzi angaphansi komhlaba akumele lehle, ukuvikela impilo yabantu (kudingeka ukuhlolwa kwamakota onyaka kanti kumele kuhlolwe osawoti ngokwehlukana ukubheka izinga elihle lamanzi).	Amazinga e-pH: >5.5 kuya ku <9.5 pH iyunithi.
				Isiyonke i-Alkaline		Isiyonke i-Alkaline: i-anion hydrochemical ewumthamo – kumele ihlale iku <300 miligremu weLitha (mg/L).
			Osawoti	Sebebonke Osawoti Emanzini		Osawoti Sebebonke Emanzini ≤ 450 miligremu weLitha (mg/L)
				I-Sodium		I-Sodium: <65 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (72 mg/L)
				I-Chloride		I-Chloride: <90 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (100 mg/L)
				I-Sulphate		I-Sulphate: <180 miligremu weLitha (mg/L). Eyesikhathi eside akumele isondele ku +10% (200mg/L).
			Imisoco	I-Nítrate		I-Nitrate ≤10 miligremu weLitha (mg/L);
			Izinto Ezinobungozi	I-Fluoride		I-Fluoride ≤1.0 miligremu weLitha (mg/L)
				I-Arsenic		I-Arsenic ≤ 0.05 miligremu weLitha (mg/L)
				I-Iron encibilikile		I- Iron ≤ 0.2 miligremu weLitha (mg/L)
				I-Manganese encibilikile		I-Manganese ≤ 0.4 miligremu weLitha (mg/L)
		Inqubo Yokuvikela	Umthamo Ovamile Wamanzi	Imvama yamazinga amanzi enhle noma embi ngonyaka (idatha ekhombisa isikhathi) – izinga lokwehla kwamanzi (amamitha ngonyaka (m/a))	Imvama yamazinga amanzi akumele ikhombise ukwehla okukhulu ngokuhamba kwesikhathi	Amazinga amanzi >8 wamamitha ngaphansi komhlaba (mbgl) – Amazinga okwehla kwamanzi kumele abe ngaphansi kuka 0.5 mitha ngonyaka (m/a). Uma kubonakala izimo ezingezinhle, ukudonswa kwamanzi (amalitha ngesekhondi) (L/s) kumele kwehliswe ngo 25%.
			Amazinga Avamile Amanzi	Amazinga avamile Osawoti Abasemanzini atholakala uma kuhlaziywa amanzi ngamakota onyaka.	Amakhemikhali emanzini akumele akhombise ukwehlisa izinga lamanzi ngokuhamba kwesikhathi	Amazinga aphakathi (5-eminyaka emihlanu) okukhula akumele ayele ku +50%.

IUA	IyunithiLOmthombo Omgaphansi Komhlaba	Okubhekwayo	Ingxenye Yokubhekwayo	Izinkomba	Incazelo ye-RQO	Isilinganiso/ Imikhawulo Yezinombolo
				Uhlelo lwesikhathi lokubheka imisoco nezinto ezinobungozi emanzini		I-Nitrate: Imvama yesikhathi eside akumele ifinyelele ku + 10% (>10 miligremu weLitha (mg/L)). I-Fluoride: Imvama yesikhathi eside akumele ifinyelele ku +10% (1.1 mg/L).

Table 33: Izinjongo Zamazinga Omtombo OZALWENI LOTHUKELA ngokoCwaningo LwamaYunithi Adidiyelwe IUA 15: OZALWENI NASEZINDAWENI EZISENHLA NOTHUKELA

IUA	Izinga	Umfula	Iyunithi Yomthombo Unit	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Izilinganiso/ Imikhawulo Yezinombolo
IUA 15: ESTUARY and UPSTREAM THUKELA REACH	**II**	Ozalweni LoThukela (ku 8.5 km uma ukhuphuka) **V50D**	**15.2**	Umthamo Wamanzi	Amanzi ageleza kancane – Ageleza kancane < 30 m^3/s (States 1, 2 and 3).	Ukugcina iphesenti lokufana ezikhathini zokugeleza komfula. Ukuvikela ukugeleza kwamanzi ukuze ukuze umlomo wozalo uvuleke ukuze kube nendawo yokuhlala edingwa yimvelo nezinto ezisemenzini, izilwanyana nezinhlanzi nezinyoni.	Ukugeleza komfula ezindaweni ezingaseMandeni (V2H005).	Ukugcina i TEC = A/B (83%)
					Amanzi amaningi (ezikhukhula) – Ngokwenzeka kwezikhukhula (1-in-X years); 1000 m^3/s (2), 4500 m^3/s (10), 6800 m^3/s (20) and 11000 m^3/s (50).	Ukuvikela ukugeleza kwamanzi ukuze ukuze umlomo wozalo uvuleke ukuze kube nendawo yokuhlala edingwa yimvelo nezinto ezisemenzini, izilwanyana nezinhlanzi nezinyoni. Ukugcina amanzi egeleza kakhulu	Ukugeleza komfula ezindaweni ezingaseMandeni (V2H005).	Ukugcina i TEC = B/C (73%)
				Isimo Samanzi	Isimo Sozalo	Ukuvikela ukugeleza kwamanzi ukuze ukuze umlomo wozalo uvuleke ukuze kube nendawo yokuhlala edingwa yimvelo nezinto ezisemenzini, izilwanyana nezinhlanzi nezinyoni, nokunakekela umfula, uzalo nokuxhumana ne-KwaZulu-Natal Bight. Amazinga amanzi kumele alingane namagagasi (okudlula ku 2.5m uma kuvaliwe).	Isimo somlomo wozalo - Ovuliwe	Ukugcina i TEC = A (100%):
					Isimo Samanzi	Uzalo lukwi-State 4 (okuwumfula kakhulu) izikhathi eziyizinyanga eziwu-7 bese luba ku-State 3 (lapho kuvuleke khona umlomo futhi amanzi enosawoti	Ukukhiphela amanzi olwandle Isimo sokwanda kosawoti	Ukugcina i-hydrology TEC = B (>79%)

IUA	Izinga	Umfula	Iyunithi Yomthombo Unit	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Izilinganiso/ Imikhawulo Yezinombolo
						ibanga eliwu <6 km) lezi ezinye izinyanga eziwu 5.		
				Izinga Lamanzi	Osawoti	Amazinga osawoti emfuleni njengoba kuchaziwe kumele agcinwe ekahle ukulondoloza imvelo yasemanzini nokuqinisekisa ukuthi amazinga emvelo adingekayo ayafezwa.	Kubhekwa iphethini yosawoti kuya emaceleni naphezulu.	Ukugcina i TEC = B (>83%)
					Initrogen enobungozi emanzini	Amazinga emisoco emfuleni njengoba kuchaziwe kumele agcinwe ekahle ukulondoloza imvelo yasemanzini nokuqinisekisa ukuthi amazinga emvelo adingekayo ayafezwa. Umthamo weTON emanzini asolwandle < 0.05 mg-N/L no <1.40 mg-N/L emanzini omfula; umthamo ophakathi ozalweni usezinhlotshenzi zosawoti (7 wezinyanga kuState 4 no 5 wezinyanga kuState 3). Amazinga aphakathi NH_4^+ <0.05 mg-N/L. I-DIP <0.05 mg-P/L emanzini asolwandle ne <0.20 mg-P/L emanzini omfula; umthamo ophakathi wosawoti ohambisana namazinga ezinhlobo zosawoti.	Isiyonke iNitrogen eyi-Oxide (Nitrate + nitrite; NOx) ne-ammonium = iNitrogen Enobungozi Ekhona (DIN)	Ukugcina i TEC = C (>70%)
					I-phosphorus enobungozi emanzini		I-Orthophosphate; iPhosphorus Enobungozi (DIP)	Ukugcina i TEC = C (>70%)
					Imisoco		DIN + DIP	Ukugcina i TEC = C (>70%)
					Ukukhanya kwamanzi	Umfula kanye nozalo imvamisa vele kudungekile, ngakho-ke kubalulekile ukugcina amazinga okudungeka ephakathi kwemikhawulo yeTEC. Kuyaba nezinguquko ezidalwa yimvelo ezenza ukuthi ukudungeka kube kukhulu okwesikhashana uma kwenzekile kwaba nezikhukhula.	Izinto eziwudoti ezikhona (TSS), Ukujula kodaka, kanye nezilinganiso zokudungeka	Ukugcina i TEC = D (>50%)
					I-Oxygen esemanzini	Umlomo wozalo une-oxygen eyanele wonke; olinganiselwa ku >6 mg/L.	I-Oxygen esemanzini (mg/L)	Ukugcina i TEC = B (>80%)
					Izinto Ezisemanzini	Amazinga e-pH kumele agcinwe kahle ephakathi kwemikhawulo ebekiwe ukweseka imvelo yasolwandle nezidingo zabasebenzisa amanzi. I-pH kulindeleke ukuba ibe phakathi kuka 7-8 kuzona zozine izindawo.	I-pH	Ukugcina i TEC = A (100%)
					Izinto ezinobungozi emanzini	Izinto ezinobungozi emanzini nezinto eziwudoti akumele zeqe umthamo olundelekile ngokwemiKhombandlela Yamazinga Amanzi yaseSA	Izinto eziyimvelo nezingeyona imvelo, ezinobungozi, nephathojeni.	Ukugcina i TEC = A (100%)

IUA	Izinga	Umfula	Iyunithi Yomthombo Unit	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Izilinganiso/ Imikhawulo Yezinombolo
						nemikhombandlela yeWestern Indian Ocean Regional, ngokwehlukana.		
					Iphathojeni	Izindawo ezisetshenziselwa ezokungcebeleka (DEA 2012): I-Enterococci < 185 Wezibalo ku 100 mililitha (90th percentile) *Escherichia coli* < 500 Wezibalo ku 100 mililitha (90th percentile)	*I-Escherichia coli*	Ukuqinisekisa ukuthi ukubalwa kokungcola kusemikhawulweni Yamazinga Amanzi alindelekile (DEA 2021)
				Okuphilayo Emanzini	Okuhlala phaphakathi emanzini	Izindawo okuhlala kuzona izilwane emanzini kumele zigcineke kahle ukweseka izilwanyana ezihlala khona.	Indawo efinyelela amagagasi amanzi (ngemephu yeGIS). Amagagasi akhona ngaleso sikhathi: Asukela ku 0.3 m (ubuncane) - 1.5 m (ubukhulu) ngaphezu kwe MSL. Indawo enamagagasi ibalelwa ku 20.55 ha.	Ukugcina i TEC = C/D (60%)
					Okuhlala ngaphansi kwamanzi	Ukugcina ukujula, umbhede nohlelo lokuduza kwamanzi kungashintshi. Izindawo ezingaphansi kwamanzi zigcinwe kahle ukwenzela izilwanyana ezihlala ngaphansi kwamanzi.	Indawo esetshenziswa okuphila ngaphansi kwamanzi (ngokwemephu ye-GIS), ilinganiselwa ku 72.47 ha.	Ukugcina i TEC = B/C (75%)
					Uhlobo lwesihlabathi	Ukugcina iphesenti elifanele lesihlabathi esifanayo	Ngosayizi wezinhlayiya zesihlabathi	Ukugcina i TEC = C/D (60%)
				I-Biota	Ulwelwe	Ukugcina kahle ulwelwe ne-phthopankton iningi, iwumthamo futhi ihlangene kahle.	Biomass using Chlorophyll-*a* as an index. Community structure and species richness using phytoplankton groups and benthic diatoms.	Ukugcina i TEC = C (65%)
					Izihlahlana ezincane	Dumthamo wezihlahlana ezinhlobonhlobo kumele ugcinwe usemazingeni afanele futhi izihlahla zokufika zisuswe.	Uhlaka lomphakathi olusebenzisa ucwaningo lwezihlahla nemephu (okubalwa izihlahla zokufika).	Ukugcina i TEC = C (64%)
					Izilwanyana	Kumele kugcinwe kahle izinhlobo ezikhona emfuleni.	Uhlobo lwezinhlobo ezikhona. <u>I-Macrobenthos</u>: Wuhlobo lwe-Eckman oluthathwa amasampuli luhlolwe.	Ukugcina i TEC = C (65%)

IUA	Izinga	Umfula	Iyunithi Yomthombo Unit	Okubhekwayo	Ingxenye Yokubhekwayo	Incazelo ye-RQO	Inkomba	Izilinganiso/ Imikhawulo Yezinombolo
							I-Zooplankton: Ukudotshwa ebusuku kusetshenziwa amanethi eBongo. I-Macrocrustacea: izinkalankala namashebenisi.	
					Izinhlanzi	Izindawo zezinhlanzi ezizogcinwa njengezidleke zezinhlazi ezithembele ozalweni, ezizohlala izilwane zasolwandle eziphumula zizalele ozalweni nezindawo ze-Anguillid eel larvae.	Uhlu Lokubhekwa Kwezinhlanzi (FRI) Uhlaka Lwezinhlanzi ezikhona (esidotshwa ngamanethi e-seine)	Ukugcina i TEC = C (70%)
					Izinyoni	Izihlobo ezintathu zezinyoni ezithembele ozalweni njengendawo ezihlala kuyona kumele zinakekelwe; ehlobo (kubalwa i-palaearctic) kanti ebusika kuba khona i-fauna esebenzisa uzalo njengendawo yokuzalela, nezinyoni ezisebenzisa uzalo ukuzalela nokudla izinto zasolwandle.	Ukubalwa kwezinyoni ebusika nasehlobo	Ukugcina i TEC = C (70%)