UMNYANGO WEZAMANZI NOKUTHUTHWA KWENDLE
UMTHETHO WEZAMANZI KAZWELONKE, 1998

UKUNQUNYWA KWENQOLOBANE YEZINSIZAKALO ZAMANZI ZEZINDAWO EZIBAMBA AMANZI ZOTHUKELA ENDAWENI YOKUPHATHWA KWAMANZI OPONGOLA-MTAMVUNA.

Mina, Pemmy Castelina Pamela Majodina, uNgqongqoshe wezamanzi nokuthuthwa kwendle, ngokwesigaba 16(1) kanye no (2) soMthetho wezamanzi kazwelonke, ka-1998 (uMthetho wama-36 ka-1998), nginquma indawo yokugcina imithombo yamanzi endaweni yokuphathwa kwamanzi oPhongolo-Mtamvuna, njengoba kubekiwe ohlelweni.

MISS PEMMY C.P. MAJODINA (ILUNGU LEPHALAMENDE)
UNGQONGQOSHE WAMANZI NOKUTHUTHWA KWENDLE
USUKU: 03 | 10 | 2024

UHLELO

IZINCAZELO

1. **Kulolu Hlelo noma yiliphi igama noma isisho esinikezwe incazelo kuMthetho siyoba nencazelo eyabelwe futhi, ngaphandle uma umongo usho okuhlukile –**

“Ukugeleza okuyisisekelo” kusho ukugeleza okuphansi okuqhubekayo emifuleni ngaphansi kwezimo zesimo sezulu esomile noma esihle futhi kuhlanganisa umnikelo osuka ekubambezelekeni kokugeleza nokukhishwa kwamanzi ngaphansi komhlaba.

“i-EWR” ichaza Izidingo Zamanzi Ezingokwemvelo futhi kubhekiselwa kumaphethini okugeleza (ubukhulu, isikhathi kanye nobude) kanye nezinga lamanzi elidingekayo ukuze kuphathwe uhlelo lwemvelo lomfula esimweni esithile.

“Ukugcwaliswa” kusho ukungezwa kwamanzi endaweni yokugcwala kwamanzi, kungaba ngokuhlehla kwemvula noma amanzi ahamba phezulu kanye/noma ukufuduka kwamanzi angaphansi komhlaba esuka kwiziphethu ezingaphansi komhlaba eziseduze.

“UMthetho” usho uMthetho Wezamanzi Kazwelonke, 1998 (uMthetho Nombolo 36 ka-1998).

INCAZELO YOMTHOMBO WAMANZI

2 (1) Indawo yokulondolozwa inqunyelwa yonke noma ingxenye yemthombo yamanzi ebalulekile ngaphakathi kwamanzi eThukela, njengoba kubekiwe ngezansi:

Indawo Yokuphatha Amanzi: iPongola-Mtamvuna
Isifunda Sokukhishwa Kwamanzi: V Isifunda Sokukhishwa Kwamanzi Okuyinhloko
Umfula: Uhlelo lomfula uThukela

(2) Ngakho-ke Indawo Yokulondolozwa inqunyelwa yonke noma ingxenye yemthombo yamanzi okukhulunywe ngayo esigatshaneni somthetho (1), okuyizigaba ezinqunywe kuSaziso Sikahulumeni Nombolo 3141 somhlaka 10 kuMashi 2023.

UKUNQUNYWA KWENDAWO YOKULONDOLOZA

3 (1) Ukunqunywa Kwendawo Yokulondoloza kwenani lengxenye yeMifula endaweni yamanzi oThukela kuhlanganisa izindawo ze-EWR njengoba kubonisiwe **(kuMfanekiso 2)** we**Sithasiselo B**, futhi izidingo eziyisisekelo zabantu zibekiwe ku**Thebula 1** le**Sithasiselo B**.

(2) Ukunqunywa Kwendawo Yokulondoloza kwezinga lezakhi emifuleni ezindaweni ze-EWR endaweni yamanzi oThukela kubekwe kuma**Thebula 2.1** kuya ku-**2.15** we**Sithasiselo B**.

(3) Ukunqunywa Kwendawo Yokulondoloza kwegalelo lamanzi angaphansi komhlaba Endaweni Yokulondolozwa Kwenani Lamanzi endawo yamanzi oThukela kubekwe ku**Thebula 3.1** le**Sithasiselo B**.

(4) Ukunqunywa Kwendawo Yokulondoloza kwegalelo lamanzi angaphansi komhlaba Endaweni Yokulondolozwa Kwezinga Lamanzi lendawo yamanzi oThukela kubekwe kuma**Thebula 4.1** kuya ku-**4.5** we**Sithasiselo B**.

UKUQALA

4. Ukunqunywa Kwezindawo Zokulondoloza okwenziwe kulesi Saziso kuzoqala futhi kusebenze kusuka ngosuku lokushicilelwa kwalokhu.

ISITHASISELO A

Ama-Akhronimi

Ama-Akhronimi asetshenziswe kuSithasiselo B

i-BHN	(Basic Human Needs) Izidingo Zabantu Eziyisisekelo
i-EIS	(Ecological Importance and Sensitivity) Ukubaluleka Kwemvelo Nokuzwela
i-EWR	(Ecological Water Requirement) Isidingo Samanzi Emvelo
i-IUA	(Integrated Unit of Analysis) Iyunithi Edidiyelwe Yokuhlaziya
i-NMAR	(Natural Mean Annual Runoff) Isilinganiso Sonyaka Sokugeleza Kwemvelo
i-MCM	(Million Cubic Metres) ama-Cubic Mitha Ayizigidi
i-PES	Isimo Samanje Semvelo
i-REC	(Recommended Ecological Category) Isigaba Semvelo Esiphakanyisiwe
i-TEC	(Target Ecological Category) Isigaba Semvelo Esihlosiwe

AMANZI AHAMBA PHEZULU – INANI LENGXENYE YEMIFULA

Imiphumela ehlongozwayo yokunqunywa Kwendawo Yokulondoloza kanye nokuhlukaniswa kwemvelo kwendawo yamanzi oThukela, lapho amanani Endawo Yokulondoloza evezwa njengephesenti le-NMAR ezindaweni zamanzi ngokulandelana (okukhulayo) ngokwesigaba (16)(1).

ISITHASISELO B

Ithebula 1: Ukunqunywa kwendawo yokulondoloza kwengxenye yobuningi bemifula okuhlanganisa i-EWR ne-BHN yezindawo ezibalulekile.

Indawo ye-EWR	Indawo Yamanzi Yekota Lonyaka/ Ukufinyelela okuncane	Umfula	i-PES	i-EI/i-ES	i-REC	i-TEC	i-NMAR (i-MCM)[1]	i-EWR %i- NMAR[2]	Indawo Yokulondoloza i-BHN[3] (i-%NMAR)	Igqikithi Yendawo Yokulondoloza[4] (i-%NMAR)
THU_EWR23	V31D-02370	i-Buffalo Engenhla	C	Iphezulu	C	C	221.96	23.44	0.008	23.448
May13_EWR2	V31F-02600	i-Horn	C	Iphansi	C	C	21.61	33.65	0.050	33.700
THU_EWR19	V31J-02487	iNcandu	C	Iphezulu kakhulu	B	B/C	50.83	29.36	1.217	30.577
Ngagane_dsk	V31K-02516	iNgagane	C	iPhakathi/ iPhezulu	C	C/D	160.12	19.44	0.106	19.546
Thukela_EWR13	V32F-02707	i-Buffalo	D	iPhakathi	D	C/D	695.05	17.36	0.001	17.361
Thukela_EWR14	V33B-03090	i-Buffalo	B/C	Iphezulu	B	C	831.09	23.24	0.016	23.256
Blood_dsk	V32H-02834	i-Blood	C	Iphezulu	B/C	C	94.71	21.36	0.443	21.803
THU_EWR7A	V60B-02826	i-Sundays	C/D	Iphezulu	C	C	24.94	31.79	0.384	32.174
Thukela_EWR7	V60C-03031	i-Sundays	B/C	iPhakathi	B/C	C/D	90.28	19.71	0.133	19.843
Thukela_EWR8	V60F-03210	i-Sundays	D	iPhakathi	D	D	197.03	16.45	0.125	16.575
THU_EWR20	V20C-03919	iNsonge	C	Iphezulu / Iphezulu kakhulu	B/C	B/C	27.13	28.99	0.033	29.023
Thukela_EWR11	V20E-03742	i-Mooi	B/C	iPhakathi	B/C	B/C	301.14	35.41	0.070	35.480

Indawo ye-EWR	Indawo Yamanzi Yekota Lonyaka/ Ukufinyelela okuncane	Umfula	i-PES	i-EI/i-ES	i-REC	i-TEC	i-NMAR (i-MCM)[1]	i-EWR %i- NMAR[2]	Indawo Yokulondoloza i-BHN[3] (i-%NMAR)	Igqikithi Yendawo Yokulondoloza[4] (i-%NMAR)
THU_EWR21	V20G-03853	uMnyamvubu	C	Iphezulu	B/C	C	31.71	19.94	0.139	20.079
THU_EWR12A	V20H-03500	i-Mooi	C/D	Iphezulu	C	C	361.85	29.82	0.112	29.932
Thukela_EWR5	V70F-03548	i-Bushmans	B/C	Iphakathi	B/C	C	281.45	29.04	0.036	29.076
THU_EWR6A	V70G-03515	i-Bushmans	D	Iphezulu	C	C/D	298.37	40.62	0.061	40.681
Thukela_EWR6	V70G-03440	i-Bushmans	B/C	Iphezulu	B/C	C/D	303.14	29.39	0.060	29.450
Thukela_EWR1	V11J-03301	uThukela	D	Iphakathi	D	D	705.42	17.31	0.009	17.319
Thukela_EWR2	V11M-03280	uThukela	C	Iphakathi	C	C/D	798.4	17.67	0.003	17.673
Thukela_EWR3	V13E-03362	uThukela Oluncane	C/D	Iphakathi	C/D	C/D	285.2	24.71	0.049	24.759
Thukela1_dsk	V14B-03296	uThukela	B	Iphezulu	B	C/D	1145.20	18.33	0.017	18.347
THU_EWR22	V12A-03003	i-Klip	C	Iphezulu / Iphezulu kakhulu	B/C	C	52.44	22.15	0.103	22.253
Klip_dsk	V12G-03256	i-Klip	C	Iphezulu	B/C	C	253.09	20.0	0.647	20.647
Thukela_EWR4AThukela_EWR4B THU_EWR4C	V14E-03233	uThukela	C	Iphezulu	B/C	C	1423.83	25.09	0.005	25.095
Thukela_EWR15	V40B-03429	uThukela	C	Iphezulu	C	C	3424.00	21.98	0.004	21.984
THU_EWR16	V50C-03903	uThukela	C	Iphezulu / Iphakathi	C	C	3679.97	37.83	0.027	37.857

Indawo ye-EWR	Indawo Yamanzi Yekota Lonyaka/ Ukufinyelela okuncane	Umfula	i-PES	i-EI/i-ES	i-REC	i-TEC	i-NMAR (i-MCM)[1]	i-EWR %i- NMAR[2]	Indawo Yokulondoloza i-BHN[3] (i-%NMAR)	Igqikithi Yendawo Yokulondoloza[4] (i-%NMAR)
V11A_dsk	V11A-03277	uThukela	B	Iphezulu / Iphezulu kakhulu	B	B	66.90	38.32	0.129	38.449
V11B_dsk	V11B—3410 V11B-03470	iSithene iThonyelana	B	Iphakathi / Iphezulu	B	B	142.69	38.32	0.029	38.349
V11G_dsk	V11G-03572 V11G-03582	iMlambonja iMhlwazini	B	Iphakathi / Iphezulu	B	B	191.99	38.01	0.008	38.018
V13A_dsk	V13A-03495	uThukela Oluncane	C	Iphezulu / Iphezulu kakhulu	B	B	82.32	35.44	0.017	35.457
V70A_dsk	V70A-03876	i-Bushmans	B	Iphezulu	B	B	113.46	40.524	0.028	40.552
V70B_dsk	V70B-03927	iNsibidwana	B	Iphezulu	B	B	44.16	15.773	0.218	15.991
V20A_dsk	V20A-04023	iMooi	C	Iphezulu	B	B	42.90	34.51	0.016	34,526
V20B_dsk	V20B-04034	i-Mooi Encane	C	Iphezulu	B/C	B/C	10.32	28.99	0.186	29.176
THU_EWR17	V50D-03903	uThukela	C	Iphezulu	C	C	3690.53	37.38	0.012	37.392

1) I-NMAR iwukugeleza okungokwemvelo konyaka.
2) Leli nani limelela isilinganiso sesikhathi eside esisekelwe ku-NMARUma i-NMAR ishintsha, le volumu nayo izoshintsha.
3) Ibonisa amaphesenti e-BHN. Ukubalwa kwabantu kwango-2023 kwasetshenziswa ukunquma iphesenti le-BHN.
4) Inani eliphelele Lezinqolobane lihlanganisa kokubili Inqolobane Yemvelo Nenqolobane Yezidingo Eziyisisekelo Zabantu (i-Basic Human Needs Reserve) (i-BHN).

AMANZI AHAMBA PHEZULU – IZINGA LENGXENYE ZEMIFULA

Ukunqunywa kwendawo yokulondoloza kwengxenye yezinga ezindaweni ze-EWR

Ithebula 2.1: Imininingwane Yemvelo Yezinga Lamanzi: Umfula i-Buffalo Engenhla

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
i-V31A	Iyunithi yemithombo yamaxhaphozi:i-Wakkerstroom	Izinga	Izakhi	i-Orthophosphate njengo-P	u-≤0.01 mg/L (amaphesenti angu-50)
				Ingikithi ye-Inorganic Nitrogen (TIN)	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa kuka-≤130 ngamalitha angu-100 ngalinye (ukubalwa/100 mL)
		Izinguquko zokuphendula	Izinhlanzi	*i-Enteromius (Barbus) anoplus* (BANO) *i-Amphilius natalensis* (ANAT) *i-Anguilla mossambica* (AMOS)	i-FRAI EC = B ≥ 82% i-BANO kanye ne-ANAT ≥ abantu abangu-5 ngohlobo ngalunye.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenawo Umgogodla (Macroinvertebrate Response Assessment Index) (i-MIRAI) Uhlelo Lokunikeza Amaphuzu LwaseNingizimu Afrika (South African Scoring System) (i-SASS) i-Baetidae 2 sp i-Perlidae i-Tricorythidae i-Hydropsychidae 1 sp i-Leptoceridae i-Ancylidae i-Psephenidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥ A Uhlelo Lokunikeza Amaphuzu LwaseNingizimu Afrika Isilinganiso (i-SASS) 5 ≥180 Isilinganiso Esimaphakathi se-Taxon ngayinye (Average Score per Taxon) (i-ASPT): ≥6.0 i-MIRAI EC = B ≥ 82%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Ama-Diatom	Inkomba Yokuzwela Okukhethekile Kokungcola (Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Ama-Diatoms EC kufanele agcinwe ku-B SPI: ≥15 i-PTV: 20% kuya ku-< 40%
i-V31A	iDamu le-Zaaihoek	Izinga	Izakhi	i-Orthophosphate (PO_4^-) njenge-Phosphorus	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN^-) njenge-Nitrogen	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amaphesenti angu-5) kanye no-≤9.0 (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	≤130 Izibalo ngamamililitha angu-100 (izibalo/ 100 mL)
i-V31B	i-Buffalo kanye ne-Slang	Izinga	Izakhi	i-Orthophosphate (PO_4^-) njenge Phosphorus	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN^-) njenge-Nitrogen	u-≤1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	≤30 Izibalo ngamamililitha ayi-100 (izibalo/ 100 mL) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (amaphesenti angu-5) kanye no-≤9.0 (Amaphesenti angu-95)
			Izinto ezinobuthi	i-Ammonia njengo-N	Amamiligremu angu-≤0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	*i-Enteromius (Barbus) anoplus* (BANO) *i-Amphilius natalensis* (ANAT) *i-Anguilla mossambica* (AMOS) *i-Labeo rubromaculatus* (LRUB)	i-FRAI EC = C ≥ 62% i-BANO kanye ne-ANAT ≥ abantu abangu-5 ngohlobo ngalunye.

Indawo Yamanzi Yekota Lonyaka- Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izilwane zasemanzini ezingenamgogodla	Uhlelo Lokunikeza Amaphuzu LwaseNingizimu Afrika (South African Scoring System) (i-SASS) i-Baetidae 2 sp i-Perlidae i-Heptageniidae i-Hydropsychidae 2 sp i-Elmidae i-Leptophlebidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B Uhlelo Lokunikeza Amaphuzu LwaseNingizimu Afrika (South African Scoring System) (i-SASS) 5: 145 – 200 Isilinganiso Esimaphakathi nge-Taxon ngayinye (Average Score per Taxon) (ASPT): 6.0 – 7.6 MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Yokuzwela Okukhethekile Kokungcola (Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele siphathwe njenge-C i-SPI: 12 -14 i-PTV: 20% kuya ku-< 40%
			Izindawo zokuhlala ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni emi-5. i-VEGRAI EC = C ≥ 62%
i-V31C, i-V31D **(THU_EWR23)**	i-Buffalo ngokuhlangananeNgagane	Izinga	Izakhi	i-Orthophosphate (PO_4^-) njenge-Phosphorus	≤0.5 mg/L (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Imiligremu elingu-≤1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Sulphate	Amamiligremu angu-≤80 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Chloride	Amamiligremu angu-≤30 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amaphesenti angu-5) kanye no-≤9.0 (Amaphesenti angu-95)
				i-Alkalinity njenge-mg/L $CaCO_3$	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) njenge-$CaCO_3$
			Izinto ezinobuthi	i-Aluminium (Al)	Amamiligremu angu-≤ 0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Manganese (Mn)	Amamiligremu angu-≤ 0.2 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Cadmium (Cd)	Amamiligremu angu-≤ 0.001 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Iron (Fe)	Amamiligremu angu-≤ 0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Lead (Pb) eqinile	Amamiligremu angu-≤ 0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Copper (Cu) eqinile	Amamiligremu angu-≤ 0.007 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Nickel (Ni)	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Ammonia (njenge-N)	Amamiligremu angu-≤ 0.07 ngeLitha ngaliye (mg/L) (Amaphesenti angu-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *i-Amphilius natalensis* (ANAT) *i-Anguilla mossambica* (AMOS) *i-Labeo rubromaculatus* (LRUB) *i-Barbus (Enteromius) pallidus* (BPAL) *i-Barbus (Enteromius) paludinosus* (BPAU)	i-FRAI EC = C ≥ 62% i-BANO, i-BPAL, i-BPAU – izinkomba zezindawo zokuhlala; kanye ne-ANAT ≥ abantu abangu-5 ngohlobo ngalunye.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenawo Umgogodla (Macroinvertebrate Response Assessment Index) (i-MIRAI) kanye Nohlelo Lokunikeza Amaphuzu LwaseNingizimu Afrika 5 (South African Scoring System 5) (i-SASS5) i-Baetidae 2 sp i-Atyidae i-Hydracarina i-Heptageniidae i-Leptophlebiidae i-Ecnomidae i-Elmidae i-Tricorythidae	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B Izilinganiso ze-SASS 5: 120 – 200 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): 5.5 – 6.5 i-MIRAI EC = C ≥ 62%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Iphethini yokugeleza kwemvelo kufanele igcinwe Esigabeni Semvelo u-C i-SPI: 12 - 14 i-PTV: u-20% kuya ku-<40%
			Izindawo zokuhlala ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI) Inkomba Yokuvikeleka Kwendawo Yokuhlala (i-Index of Habitat Integrity) (i-IHI): Izindawo ezingasogwini	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%

Ithebula 2.2: Imininingwane Yemvelo Yezinga Lamanzi: Umfula iNgagane

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
i-V31E	iNgagane Engenhla ukuya eDammini laseNtshingwayo	Izinga	Izakhi	i-Orthophosphate (PO_4^-) njenge-Phosphorus	Amamiligremu angu-≤ 0.05 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤ 1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amaphesenti angu-5) and ≤9.0 (Amaphesenti angu-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (Fish Response Assessment Index) (i-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 EC = C ≥ 62% i-BANO, i-BPAL, i-BPAU – izinkomba zendawo yokuhlala; kanye ne-ANAT ≥ abantu abangu-5 ngohlobo ngalunye.

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenawo Umgogodla (Macroinvertebrate Response Assessment Index) (i-MIRAI) and South African Scoring System Version 5 (SASS5) i-Baetidae >2 spp i-Atyidae i-Heptageniidae i-Leptophlebiidae i-Hydropsychidae >1 spp	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B Izilinganiso ze-SASS 5: 120 – 200 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): 5.5 – 6.5 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-B. i-SPI: 15 - 17 i-PTV: 20% to <40%
			Izindawo zokuhlala ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI) Index of Habitat Integrity (IHI): Izindawo ezingasogwini	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%
i-V31E	iDamu leNtshingwayo	Izinga	Izakhi	Ingqikithi ye-Inorganic Nitrogen (TIN)	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.05 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	i-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	Impilo yezimi zezindawo ezingasogwini	u-80% wesembozo sezitshalo zasogwini	
i-V31F **(May 13_ EWR 2)**	i-Horn izohlangana neNgagane	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤300 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				Sulphate	Amamiligremu angu-≤165 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Chloride	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Aluminium (Al)	Amamiligremu angu-≤ 0.10 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Manganese (Mn)	Amamiligremu angu-≤0.15 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Iron (Fe)	Amamiligremu angu-≤ 0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Lead (Pb) eqinile	Amamiligremu angu-≤0.001 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Copper (Cu) eqinile	Amamiligremu angu-≤0.007 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Nickel (Ni)	Amamiligremu angu-≤0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Cobalt (Co)	Amamiligremu angu-≤0.05 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Zinc (Zn)	Amamiligremu angu-≤0.002 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤0.7 ngeLitha ngalinye (mg/L)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL) (Amaphesenti angu-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (i-BANO) *i-Amphilius natalensis* (i-ANAT) *i-Anguilla mossambica* (i-AMOS) *i-Labeo rubromaculatus* (i-LRUB) *i-Barbus (Enteromius) pallidus* (i-BPAL) *i-Labeobarbus natalensis* (i-BNAT)	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) should be conducted annually to monitor against the prescribed C ecological category. i-FRAI EC = C ≥ 62% Ngesikhathi socwaningo kuzo zonke izigaba ezindawo ezigelezayo zonke izinhlobo zikhona (i-BANO,i-ANAT, i-AMOS, i-LRUB, i-BPAL kanye ne-BNAT).

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
					i-BANO, i-BPAL – izinkomba zendawo yokuhlala; kanye ne-ANAT ≥ 5 izilwane zohlobo ngalunye
			Izilwane zasemanzini ezingenamgo godla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Leptophlebiidae i-Tricorythidae i-Leptoceridae i-Perlidae i-Hydropsychidae >2spp	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B Izilinganiso ze-SASS 5: ≥213 Isilinganiso Esimaphakathi ngeqembu ngalinye (i-Average Score per taxon) (i-ASPT) isilinganiso: ≥7.2 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12-14 i-PTV: 20% kuya ku-< 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥62%
i-V31H, i-V31J **(THU_EWR19)**	iNcandu izohlangana neNgagane	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.05ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				Sulphate	Amamiligremu angu-≤165 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Chloride	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Aluminium (Al)	Amamiligremu angu-≤ 0.10 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Manganese (Mn)	Amamiligremu angu-≤ 0.15 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Cadmium (Cd)	Amamiligremu angu-≤0.001 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Iron (Fe)	Amamiligremu angu-≤ 0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Lead (Pb) eqinile	Amamiligremu angu-≤0.001 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Copper (Cu) eqinile	Amamiligremu angu-≤0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Nickel (Ni)	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Cobalt (Co)	Amamiligremu angu-≤ 0.05 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Zinc (Zn)	Amamiligremu angu-≤ 0.002 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤0.7 ngeLitha ngalinye (mg/L)
				i-Benzene	Amamiligremu angu-≤ 0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Toluene	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				Uwoyela namafutha	Amamiligremu angu-2.5 ngeLitha ngalinye (mg/L)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL) (Amaphesenti ang-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI). *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)	Isigaba Semvelo se-FRAI = B/C ≥ 72% i-BVIV, i-BNAT, i-BPAU – izinkomba zendawo yokuhlala ; kanye ne-ANAT ≥ 5 izilwane zohlobo ngalunye

Indawo Yamanzi Yekota Lonyaka- Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izilwane zasemanzini ezingenamgo godla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae >2 spp i-Heptageniidae i-Leptophlebiidae i-Tricorythidae i-Leptoceridae i-Perlidae i-Hydropsychidae >1spp i-Elmidae i-Psephenidae i-Dixidae	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B Izilinganiso ze-SASS 5: ≥190 Isilinganiso Esimaphakathi ngeqembu ngalinye (i-Average Score per Taxon) (i-ASPT) isilinganiso: ≥6.0 Isigaba Semvelo se-MIRAI = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-B. i-SPI: 15 - 17 i-PTV: < 20%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. Isigaba Semvelo se-VEGRAI = C ≥ 62%
i-V31G, i-V31K **(May 13_ EWR3)**	iNgagane kusuka eDamini leNtshingway o izohlangana ne-Buffalo	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.05 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Aluminium (Al)	Amamiligremu angu-≤ 0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Cadmium (Cd) ethambile	Amamiligremu angu-≤ 0.001 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Manganese (Mn)	Amamiligremu angu-≤ 0.15 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Iron (Fe)	Amamiligremu angu-≤ 0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Lead (Pb) eqinile	Amamiligremu angu-≤ 0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Copper (Cu) eqinile	Amamiligremu angu-≤ 0.007 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Nickel (Ni)	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Cobalt (Co)	Amamiligremu angu-≤ 0.05 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Zinc (Zn)	Amamiligremu angu-≤ 0.002 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤0.7 ngeLitha ngalinye (mg/L)
				Uwoyela namafutha	Amamiligremu angu-2.5 ngeLitha ngalinye (mg/L)
				i-Benzene	Amamiligremu angu-≤ 0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Toluene	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL) (Amaphesenti angu-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *-i-Amphilius natalensis* (ANAT) *i-Barbus (Enteromius) paludinosus* (BPAU) *i-Labeobarbus natalensis* (BNAT) *i-Barbus (Enteromius) pallidus* (BPAL) *iEnteromius (Barbus) anoplus* (BANO)	i-FRAI EC = C/D ≥ 42% i-BNAT, i-BPAL kanye ne-BANO – Okungu-2 kokungu-3 kwe-spp okukhona njengezinkomba zendawo yokuhlala; kanye ne-ANAT ≥ 3 izilwane zohlobo ngalunye
			Izilwane zasemanzini ezingenamgo godla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5)	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B Izilinganiso ze-SASS 5: ≥213

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Baetidae >2 spp i-Heptageniidae i-Leptophlebiidae i-Tricorythidae i-Leptoceridae i-Hydropsychidae >1spp i-Elmidae i-Economidae	Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥7.2 i-MIRAI EC = C/D ≥ 52%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-PTV: 20% kuya ku-<40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI) Index of Habitat Integrity (IHI): Izindawo ezingasogwini	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%

Ithebula 2.3: Imininingwane Yemvelo Yezinga Lamanzi: Umfula i-Buffalo Ephakathi

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
i-V32A, B	i-Dorps (kuhlanganisa i-Kweek ne-Wasbankspruit) izohlangana noMfula i-Buffalo	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 200 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL) (Amaphesenti angu-95)
i-V32C, D	i-Tiyna, i-Eersteling-Indawo ebamba amanzi Ngekwata yonyaka	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 200 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Sulphate	Amamiligremu angu-≤ 165 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
				Ukufiphala	Ukwehluka okungu-10% ekuhlanganisweni kwangemuva. Imikhawulo kufanele inqunywe.
		i-Biota	Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI)Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-PTV: 20% kuya ku-<40%
i-V32E	uMzinyashana kuhlanganisa i-Sterkstroom kanye ne-Sandspruit	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	**Umfula**	**Isakhi**	**Isakhi esincane**	**Inkomba**	**Imininingwane Yemvelo Yezinga Lamanzi**
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤200 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL) (Amaphesenti angu-95)
i-V32B, i-V32C, i-V32D, i-V32E kanye ne-V32F **(uThukela_EWR13)**	i-Buffalo ukusuka eNgagane ukuya ekuhlanganeni kwe-Blood River	Izinga	Izakhi	i-Ortho-phosphate (PO_4^-) njenge Phosphorus	Amamiligremu angu-≤0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Labeo rubromaculatus* (LRUB) *i-Barbus (Enteromius) paludinosus* (BPAU) *i-Labeobarbus natalensis* (BNAT) *i-Barbus (Enteromius) pallidus* (BPAL) *i-Enteromius (Barbus) anoplus* (BANO)	Isigaba Semvelo i-FRAI = C/D ≥ 52% i-BNAT, i-BPAL kanye ne-BANO – Okungu-2 kokungu-3 kwe-spp okukhona njengezinkomba zendawo yokuhlala; kanye ne-LRUB ≥ 3 izilwane zohlobo ngalunye
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5)	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B Izilinganiso ze-SASS 5: 77 - 180

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Baetidae >2 spp i-Hydropsychidae >1spp i-Elmidae i-Hydracarina	Isilinganiso Sesilinganiso seQoqo ngalinye (i-ASPT): 5.5 – 7.0 Isigaba Semvelo se-MIRAI = C/D ≥ 52%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 – 14 i-%PTV: 20% kuya ku-<40%
			Izindawo zokuhlala ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI ≥C/D ≥ 52%

Ithebula 2.4: Imininingwane Yemvelo Yezinga Lamanzi: Umfula we-Buffalo Engezansi

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
i-V33A, i-V33B, i-V33C kanye ne-V33D **(uThukela_EWR 14)**	i-Buffalo ukusuka ku-Blood kuya ekuhlanganeni koThukela	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

Indawo Yamanzi Yekota Lonyaka- Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Labeobarbus natalensis* (BNAT) *i-Labeo molybdinus* (LMOL) *i-Enteromius (Barbus) anoplus* (BANO)	i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi zonke izigaba zezindawo ezigelezayo zikhona kulezi zinhlobo ezilandelayo : i-BNAT, i-BANO – Okungu-2 kokungu-3 kwe-spp okukhona njengezinkomba zendawo yokuhlala; kanye ne-LMOL ≥ 3 izilwane zohlobo ngalunye .
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Atyidae i-Baetidae >2 spp i-Tricorythidae i-Heptageniidae i-Hydropsychidae >1spp i-Elmidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥BMIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 – 14 i-%PTV: 20% kuya ku-<40%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%

Ithebula 2.5: Imininingwane Yemvelo Yezinga Lamanzi: i-Blood River

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V32G	Ixhaphozi le-RU: i-Blood River	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 200 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
		i-Biota	Izinhlanzi	*i-Enteromius (Barbus) anoplus* (BANO) *i-Amphilius natalensis* (ANAT) *i-Anguilla mossambica* (AMOS)	i-FRAI EC = B ≥ 82% i-BANO kanye ne-ANAT ≥ 5 izilwane zohlobo ngalunye
			Izilwane zasemanzini ezingenamgogodla	i-Baetidae 2 sp i-Perlidae i-Tricorythidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B i-MIRAI EC = B ≥ 82%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Hydropsychidae 1 sp i-Leptoceridae i-Ancyidae i-Psephenidae	
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-B. i-SPI ≥15 i-%PTV: 20% kuya ku-< 40%
V32H	i-Blood River kusuka ngaphandle kwe-V32G izohlangana ne-**V32H** Umfula we-Buffalo	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeo rubromaculatus* (LRUB)	Ukuqinisekisa ukuthi zonke izigaba zezindawo ezigelezayo zikhona kulezi zinhlobo ezilandelayo : i-BNAT, i-BANO kanye ne-TSPA – Okungu-2 kokungu-3 kwe-spp okukhona njengezinkomba zendawo yokuhlala; kanye ne-LRUB ≥ 3 izilwane zohlobo ngalunye .

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Labeobarbus natalensis (BNAT) *i-Tilapia sparrmanii* (TSPA)	Isigaba Semvelo se-FRAI : C (≥ 62%)
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Atyidae i-Baetidae >1 spp i-Tricorythidae i-Heptageniidae i-Perlidae i-Pyralida i-Hydropsychidae >1spp i-Elmidae i-Psephenidae	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 – 14 i-%PTV: 20% kuya ku-<40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5.

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
					i-VEGRAI EC = C ≥ 62%

Ithebula 2.6: Imininingwane Yemvelo Yezinga Lamanzi: Sundays River

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V60B	iNkunzi izohlangana ne-Sundays	Izinga	Izakhi	i-Orthophosphate (PO_4^-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 350 ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeo rubromaculatus* (LRUB) *i-Labeobarbus natalensis* (BNAT) *Ti-ilapia sparrmanii* (TSPA) *i-Amphilius natalensis* (ANAT)	i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi zonke izigaba zezindawo ezigelezayo zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-TSPA – Okungu-2 kokungu-3 kwe-spp okukhona njengezinkomba zendawo yokuhlala; kanye ne-LRUB ≥ 3 izilwane zohlobo ngalunye .
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B i-MIRAI EC = C ≥ 62%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Tricorythidae i-Heptageniidae i-Hydropsychidae 2spp i-Economidae i-Psephenidae	
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% kuya ku-<40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%
V60A, V60B, V60C **(uThukela_EWR7)**	i-Sundays kusuka emthonjeni izohlangana ne-Wasbank	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.05 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤200 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeo rubromaculatus* (LRUB) *i-Labeobarbus natalensis* (BNAT) *i-Tilapia sparrmanii* (TSPA) *i-Amphilius natalensis* (ANAT)	i-FRAI EC = C/D ≥ 52% Ukuqinisekisa ukuthi zonke izigaba zezindawo ezigelezayo zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-TSPA – Okungu-2 kokungu-3 kwe-spp okukhona njengezinkomba zendawo yokuhlala; kanye ne-LRUB ≥ 3 izilwane zohlobo ngalunye .
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp	Ama-biotope angu-3 athathwe amasampula: amaqoqo azoba ngu-A kuya ku-B. Isilinganiso se-SASS 5: 117 - 180 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): 5.6 – 6.5

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Heptageniidae i-Hydropsychidae 2spp i-Elmidae i-Hydracarina i-Leptophlebiiidae i-Aeshnidae i-Athericidae	i-MIRAI EC = C/D ≥ 52%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI)Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 – 14 i-%PTV: 20% kuya ku-<40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI) Index of Habitat Integrity (IHI): Izindawo ezingasogwini	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C/D ≥ 52%
V60D, V60E	i-Wasbank izohlangana ne-Sundays	Izinga	Izakhi	i-Orthophosphate njenge-P	Amamiligremu angu-≤0.01 (mg/L)
				Ingqikithi ye-Inorganic Nitrogen njenge-Nitrogen njengo-TIN	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤500 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Sulphate	Amamiligremu angu-≤250 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Chloride	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinto ezinobuthi	i-Aluminium (Al)	Amamiligremu angu-≤ 0.10 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Manganese (Mn)	Amamiligremu angu-≤ 0.15 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Cadmium (Cd) ethambile	Amamiligremu angu-≤ 0.001 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Iron (Fe)	Amamiligremu angu-≤ 0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Lead (Pb) eqinile	Amamiligremu angu-≤ 0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Copper (Cu) eqinile	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Cobalt (Co)	Amamiligremu angu-≤ 0.05 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Nickel (Ni)	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Zinc (Zn)	Amamiligremu angu-≤ 0.002 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) *i-Tilapia sparrmanii* (TSPA)	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) kufanele iqutshwe ngonyaka ukuqapha ngokubhekana nesigaba semvelo C/D esiyalelwe i-FRAI EC = C/D ≥ 52% Ukuqinisekisa ukuthi zonke izigaba zezindawo ezigelezayo zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-TSPA – Okungu-2 kokungu-3 kwe-spp okukhona njengezinkomba zendawo yokuhlala
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Heptageniidae i-Hydropsychidae 2spp i-Elmidae i-Leptophlebiiidae i-Trichorythidae	Okungenani ama-biotope angu-2 okumele athathwe amasampula: amaqoqo kufanele abe u-A kuya ku-B ngobuningi. Isilinganiso se-SASS 5: ≥80 - 100 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.5 i-MIRAI EC = C/D ≥ 52%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Lestidae i-Psephenidae	
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI)Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: u-20% kuya ku- <40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C/D ≥ 52%
V60F **(uThukela_EWR8)**	i-Sundays kusuka e-Wasbank kuya oThukela izohlangana, kuhlanganisa iNhlanyanga	Izinga	Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
				Ukudluliswa kukagesi	Ama-milli Siemens angu-≤ 55 ngemitha ngalinye (mS/m) (Amaphesenti angu-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-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 EC = C ≥ 62% Ukuqinisekisa ukuthi zonke izigaba zezindawo ezigelezayo zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-TSPA – Okungu-2 kokungu-3 kwe-spp
			Izilwane zasemanzini ezingenamgogodla	Inguqulo 5 Yohlelo Lwesilinganiso lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) (ayilinganiswanga ngaphakathi kwale-RU kodwa kufanele izuzwe) Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenamgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) i-Baetidae 2 spp i-Heptageniidae i-Hydropsychidae 2spp i-Leptophlebiiidae i-Tricorythidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B Isilinganiso se-SASS 5: ≥120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.8 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge C. i-SPI: 12 - 14 i-%PTV: u-20% kuya ku-<40%

Ithebula 2.7: Imininingwane Yemvelo Yezinga Lamanzi: Upper Mooi River

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V20B	i-Klein - iMooi kusuka kumthombo kuya ekuhlanganeni kweMooi i-V20B (ingxenye engezansi), i-V20D	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	i-pH	u-6.5 (Amaphesenti angu-5) kanye no-9.0 (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT)	i-FRAI EC = C ≥ 62%
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Heptageniidae i-Hydropsychidae 2spp i-Leptophlebiiidae i-Trichorythidae i-Psephenidae	Ama-biotope angu-3 athathwe amasampula: amaqoqo azoba ngu-A kuya ku-B Isilinganiso se-SASS 5: ≥120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.8 i-MIRAI EC = C ≥62%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Perlidae i-Oligoneuridae i-Polymitarcyidae i-Prosopistomatidae i-Pyralidae	
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: u-20% kuya ku-<40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5 i-VEGRAI EC = C ≥ 62%
V20C **(THU_ECOLOGICAL WATER REQUIREMENTS (EWR) 20)**	Indawo ebamba amanzi yomngeneka weNsonge	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	pH	u-6.5 (Amaphesenti angu-5) kanye no-9.0 (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT)	i-FRAI EC = C ≥ 62%
			Izilwane zasemanzini	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			ezingenamgogodla	lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Leptophlebiiidae i-Trichorythida	Isilinganiso se-SASS 5: 90 - 220 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): 6.4 – 7.5 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge B. i-SPI: 15 - 17 i-%PTV: <20%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = B/C ≥ 72%
V20A (lower portion), V20D (upper)	Ingenhla lomfula weMooi leDamu le-Spring Grove	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.0725 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT)	i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi izigaba zezindawo zokuhlala ezinokugeleza zikhona ezinhlobeni ezilandelayo: i-BNAT, i-BANO

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Leptophlebiiidae i-Trichorythidae i-Heptageniidae i-Hydropsychidae 2spp.	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B Isilinganiso se-SASS 5: ≥120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.8 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: u-20% kuya ku-<40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%
V20D	Idamu le-Spring Grove/ Idamu le-Means	Izinga	Izakhi	Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 100 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	i-pH	u-6.5 – ku-9.0 (Amaphesenti angu-5 kanye nangu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	Periphyton/ phytoplankton	i-Chlorophyll-a	Ama- microgram angu-11-20 ngeLitha ngalinye (µg/L) (Amaphesenti angu-50)
V20D (lower) and V20E, portion of V20G (Thukela_ EWR11)	Ingezansi ledamu le-Spring Grove ngaphandle kwe-V20G **(***Qaphela: * Okwamanje*	Izinga	Izakhi	Orthophosphate as P	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	**Umfula**	**Isakhi**	**Isakhi esincane**	**Inkomba**	**Imininingwane Yemvelo Yezinga Lamanzi**
	*ngaphambi kokudluliswa ko-Umkomaas***)**		Izinguquko zohlelo	i-pH	u-6.5 (Amaphesenti angu-5 – ku-9.0 (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) *i-Labeo molybdinus* (LMOL)	i-FRAI EC = C/D ≥ 52%
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Leptophlebiiidae i-Heptageniidae i-Hydropsychidae 2spp i-Elmidae	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥B Isilinganiso se-SASS 5: ≥80 – 100 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.5 i-MIRAI EC = C/D ≥ 52%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: u-20% kuya ku-<40%
			Izindawo zokuhlala ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C/D ≥ 52%
V20D (lower) and V20E, portion of V20G **(Thukela_ EWR11)**	Ingezansi ledamu le-Spring Grove ngaphandle kwe-V20G **(***Qaphela: **Ilsikhathi eside, ngemuva kokuthi ukudluliselw*	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 250 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	i-pH	u-6.5 (Amaphesenti angu-5) kanye no-9.0 (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	**Umfula**	**Isakhi**	**Isakhi esincane**	**Inkomba**	**Imininingwane Yemvelo Yezinga Lamanzi**
	a ko-Umkomaas sekwenziwe futhi ukudluliselwa ngaphandle kohlelo kuncishisiwe **)**		Izinto ezinobuthi	i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-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 EC = B/C ≥ 72% Ukuqinisekisa ukuthi izigaba zezindawo zokuhlala ezinokugeleza zikhona ezinhlobeni ezilandelayo: i-BNAT, i-BANO, i-BVIV, i-BPAL – Okungu-3 kokungu-4 kokumelele izimila/izembozo Okuyi-1 kokulandela i-AMOS, i-ALAB, i-LRUB njengokumele ukugeleza okuncikile kanye nokujula.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Leptophlebiiidae i-Trichorythidae i-Heptageniidae i-Hydropsychidae 2spp i-Elmidae i-Psephenidae i-Perlidae i-Oligoneuridae	Okungenani ama-biotope amathathu athathwe amasampula: amaqoqo kufanele abe nobuningi obungu-≥A kuya ku-B Isilinganiso se-SASS 5: ≥150 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥5.5 i-MIRAI EC = B/C ≥ 72%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-B. i-SPI: 15 - 17 i-%PTV: <20%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = B/C ≥ 72%
V20E	i-Joubertsvlei	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
	izohlangana neMooi			Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 195 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinto ezinobuthi	i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (i-Percentage pollution tolerant values) (i-%PTV)	Isigaba semvelo kufanele sigcinwe njenge-D. i-SPI: 8 - 10 i-%PTV: 40% - 60%

Ithebula 2.8: Imininingwane Yemvelo Yezinga Lamanzi: Umfula iMooi Ephakathi/Engezansi

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V20F	iDamu le-Craigieburn	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 195 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	i-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	i-Periphyton/ i-phytoplankton	i-Chlorophyll-a	Ama-microgram angu-11-20 ngeLitha ngalinye (µg/L) (Amaphesenti angu-50)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V20G **(THU_EWR21)**	Engezansi ledamu lomfula woMnyamvubu lizohlangana neMooi	Izinga	Izakhi	i-Ortho-phosphate njenge-P	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen njenge-TIN	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-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 EC = C ≥ 62% Ukuqinisekisa ukuthi izigaba zezindawo zokuhlala ezinokugeleza zikhona ezinhlobeni ezilandelayo: i-BNAT, i-BANO, i-BVIV, i-BPAL – Okungu-3 kokungu-4 kokumelele izimila/izembozo Okuyi-1 kokulandela i-AMOS, i-ALAB, i-LRUB njengokumele ukugeleza okuncikile kanye nokujula.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae >2 spp i-Leptophlebiiidae i-Trichorythidae i-Hydropsychidae >2spp i-Atydae i-Hydracarina	Ama-biotope angu-3 athathwe amasampula: amaqoqo azoba ngu-A kuya ku-B. Isilinganiso se-SASS 5: ≥120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.8 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-B. i-SPI: 15 - 17 i-%PTV: <20%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%
	iMooi kusuka eMnyamvubu	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V20H, J (THU_EWR 12A)	ukuya ekuhlanganeni koThukela			Ingqikithi ye-Inorganic Nitrogen njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	i-pH	u-6.5 (Amaphesenti angu-5) kanye no-9.0 (Amaphesenti angu-95)
			Izinto ezinobuthi	i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤0.7 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-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 EC = C ≥ 62% Ukuqinisekisa ukuthi izigaba zezindawo zokuhlala ezinokugeleza zikhona ezinhlobeni ezilandelayo: i-BNAT, i-BANO, i-BVIV, i-BPAL – Okungu-3 kokungu-4 kokumelele izimila/izembozo Okuyi-1 kokulandela i-AMOS, i-ALAB, i-LRUB njengokumele ukugeleza okuncikile kanye nokujula.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae >2 spp i-Leptophlebiiidae i-Atydae i-Aeshnidae i-Hydropsychidae >2spp	Ama-biotope angu-3 athathwe amasampula: amaqoqo azoba ngu-A kuya ku-B Isilinganiso se-SASS 5: 124 - 200 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): 5.4 - 7.5 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izindawo zokuhlala ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%

Ithebula 2.9: Imininingwane Yemvelo Yezinga Lamanzi: Umfula we-Bushman's Ophakathi/Ongezansi

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V70C	iDamu le-Wagendrift	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	i-Periphyton/ i-phytoplankton	i-Chlorophyll-*a*	Ama-microgram angu-11-20 ngeLitha ngalinye (µg/L) (Amaphesenti angu-50)
V70D	i-Bushman's Encane izohlangana ne-Bushman's	Izinga	Izakhi	i-Ortho-phosphate (PO_4^-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	u-≤2.0 mg/L Amaphesenti angu-(50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	u-≤300 mg/L (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	**Umfula**	**Isakhi**	**Isakhi esincane**	**Inkomba**	**Imininingwane Yemvelo Yezinga Lamanzi**
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT)	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) kufanele iqhutshwe ngonyaka ukuqapha ngokubhekana nesigaba semvele C esiyalelwe i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi izigaba zezindawo zokuhlala ezinokugeleza zikhona ezinhlobeni ezilandelayo: i-BNAT, i-BANO, i-BVIV, i-BPAL – Okungu-3 kokungu-4 kokumelele izimila/izembozo Okuyi-1 kokulandela i-AMOS, i-ALAB, i-LRUB njengokumele ukugeleza okuncikile kanye nokujula.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Leptophlebiiidae i-Hydropsychidae 2spp i-Heptageniidae i-Elmidae	Ama-biotope angu-3 athathwe amasampula: amaqoqo azoba ngu-A kuya ku-B Isilinganiso se-SASS 5: ≥120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.8 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%
V70E, V70F, (Ingxenye engenhla) V70G	i-Bushman's kusuka eDamini le-Wagendrift ukuya ekuhlanganeni	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤ 350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
	kwengapgansi komfula we-Rens-burgspruit wase		Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
V70F () (uThukela olungenzansi _ EWR 5)	i-Bushman's kusuka eDamini lase-Rensburg spruit to ukuya ngaphandle kwe-V70F	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.058 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) **–** i-*Barbus (Enteromius) trimaculatus* (BTRI) *i-Barbus (Enteromius) viviparus* (BVIV) *i-Anguilla mossambica* (AMOS) *i-Labeo rubromaculatus* (LRUB) *i-Tilapia sparrmanii* (TSPA)	i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi izigaba zezindawo zokuhlala ezinokugeleza zikhona ezinhlobeni ezilandelayo: i-BNAT, i-BANO, i-BVIV, i-BPAL – Okungu-3 kokungu-4 kokumelele izimila/izembozo Okuyi-1 kokulandela i-AMOS, i-ALAB, i-LRUB njengokumele ukugeleza okuncikile kanye nokujula.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Leptophlebiiidae i-Heptageniidae i-Hydropsychidae 2spp	Ama-biotope angu-3 athathwe amasampula: amaqoqo azoba ngu-A kuya ku-B. Isilinganiso se-SASS 5: ≥120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.8 i-MIRAI EC = C ≥ 62%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Perlidae* i-Elmidae* i-Trichorythidae*	
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo zokuhlala ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥62%
V70G (THU_EWR 6A)	Bushman's from outlet of V70F to confluence with Thukela	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-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)	i-FRAI EC = C/D ≥ 52% Ukuqinisekisa ukuthi izigaba zezindawo zokuhlala ezinokugeleza zikhona ezinhlobeni ezilandelayo: i-BNAT, i-BANO, i-BVIV, i-BPAL ne-TSPA – Okungu-3 kokungu-4 kokumelele izimila/izembozo Okuyi-1 kokulandela i-AMOS, i-ALAB, i-LRUB njengokumele ukugeleza okuncikile kanye nokujula.

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae >2 spp i-Leptophlebiiidae i-Heptageniidae i-Hydropsychidae 2spp	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B Isilinganiso se-SASS 5: 80 - 180 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): 5.7 - 7.5 i-MIRAI EC = C/D ≥ 52%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo zokuhlala ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C/D ≥52%

Ithebula 2.10: Imininingwane Yemvelo Yezinga Lamanzi: Umfula woThukela Ongenhla

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V11A (lower portion), V11C, V11D	uThukela, i-Putterill, iMajaneni, Izindawo ezibamba amanzi zomngenela woKhombe	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
				Ukudluliswa kukagesi	Ama-milli Siemens angu-≤ 55 ngemitha ngalinye (mS/m) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.0725 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Amphilius natalensis* (ANAT) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) *i-Labeo rubromaculatus* (LRUB)	i-FRAI EC = B/C ≥ 72% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-ANAT, kanye ne-BANO– okungu-2 kokungu-3 okumele izitshalo/izembozo. Okuyi-1 kwezigaba ezilandelayo ze-AMOS, i-BNAT evuthiwe, kanye ne--LRUB njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Leptophlebiiidae i-Heptageniidae i-Hydropsychidae 2spp i-Psephidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B SASS5: ≥150 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥15.5 i-MIRAI EC = B/C ≥ 72%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 – 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = B/C ≥ 72%
V11D, V11E		Izinga	Izakhi	Ingqikithi ye-Inorganic Nitrogen njenge-TIN	Amamiligremu angu-≤0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
	Idamu le-Woodstock			i-Ortho-phosphate njenge-P	Amamiligremu angu-≤0.010 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤100 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	i-Periphyton/ i-phytoplankton	i-Chlorophyll-a	Ama-microgram angu-11-20 ngeLitha ngalinye (µg/L) Amaphesenti angu-50
V11F	Indawo ebamba amanzi yomngenela we-Sandspruit	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Izinguquko zohlelo	Izinga le-pH ≥	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Amphilius natalensis* (ANAT) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT)	i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi izigaba zezindawo zokuhlala ezinokugeleza zikhona ezinhlobeni ezilandelayo: i-BNAT, i-BANO, i-BVIV, i-BPAL – Okungu-3 kokungu-4 kokumelele izimila/izembozo Okuyi-1 kokulandela i-AMOS, i-ALAB, i-LRUB njengokumele ukugeleza okuncikile kanye nokujula.
			Izilwane zasemanzini	Inguqulo 5 Yohlelo Lwesilinganiso lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) (	At least 2 biotopes sampled; assemblages to be A to B abundances

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			ezingenamgogodla	ayilinganiswanga ngaphakathi kwale-RU kodwa kufanele izuzwe) Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenamgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) i-Baetidae 2 spp i-Leptophlebiiidae i-Heptageniidae i-Hydropsychidae 2spp i-Elmidae	Isilinganiso se-SASS 5: ≥120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.8 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Spec Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. Isigaba Semvelo se-VEGRAI C (≥ 62%)
V11L	Spioenkop Dam	Izinga	Izakhi	Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤0.7 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
		i-Biota	Periphyton/ phytoplankton	i-Chlorophyll-a	Ama- microgram angu-11-20 ngeLitha ngalinye (µg/L) (Amaphesenti angu-50)
V11M **EWR 2**	Spioenkop Dam to Little Thukela confluence	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) *i-Labeo rubromaculatus* (LRUB) *i-Oreochromis mossambicus* (OMOS)	i-FRAI EC = C/D ≥ 52% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-OMOS – okungu-2 kokungu-3 okumele imifino/izembozo. Okuyi-1 kwe-AMOS elandelayo, kanye ne-LRUB njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inguqulo 5 Yohlelo Lwesilinganiso lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) (ayilinganiswanga ngaphakathi kwale-RU kodwa kufanele izuzwe) Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenamgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) i-Baetidae 2 spp i-Leptophlebiiidae i-Heptageniidae i-Hydropsychidae 2spp	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B Isilinganiso se-SASS 5: ≥80 – 100 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.5 i-MIRAI EC = C/D ≥ 52%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (i-Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI) Inkomba Yokuvikeleka Kwendawo Yokuhlala (Index of Habitat Integrity) (i-IHI): Izindawo ezingasogwini	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C/D ≥ 52%
V13B, V13D	i-Sterkspruit, Indawo ebamba amanzi yomngenela weSitulwane	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-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)	i-FRAI EC = B/C ≥ 72% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-OMOS – okungu-3 kokungu-4 okumele imifino/izembozo. Okungu-2 kwe-AMOS elandelayo, kanye ne-LRUB njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inguqulo 5 Yohlelo Lwesilinganiso lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) (ayilinganiswanga ngaphakathi kwale-RU kodwa kufanele izuzwe) Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenamgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) i-Baetidae >2 spp i-Leptophlebiiidae i-Heptageniidae i-Tricorythidae i-Hydropsychidae 2spp i-Elmidae i-Psepheniidae i-Dixidae	Ama-biotope angu-3 okumele athathwe amasampula: amaqoqo kufanele abe u-A kuya ku-B. Isilinganiso se-SASS 5: ≥150 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥5.5 i-MIRAI EC = B/C ≥ 72%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = B/C ≥ 72%
		Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V13A (lower portion), V13C, V13E **(Thukela_ EWR 3)**	i-Little Tugela esuka ku-IUA14 izohlangana noMfula uThukela			Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-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)	i-FRAI EC = C/D ≥ 52% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-OMOS – okungu-2 kokungu-3 okumele imifino/izembozo. Okuyi-1 kwe-AMOS elandelayo, kanye ne-LRUB njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inguqulo 5 Yohlelo Lwesilinganiso lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) (ayilinganiswanga ngaphakathi kwale-RU kodwa kufanele izuzwe) Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenamgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) i-Baetidae >2 spp i-Leptophlebiiidae i-Heptageniidae i-Oligoneuridae i-Tricorythidae Hydropsychidae 1spp i-Polycentropodidae i-Elmidae i-Psephenidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B Isilinganiso se-SASS 5: ≥80 - 100 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.5 i-MIRAI EC = C/D ≥ 52%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C/D ≥ 52%
V14A, V14B	UThukela olusuka eLittle Tugela luhlangana nedamu elihlongozwayo laseJana / Ukuhlangana komfula i-Klip	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.10 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Atrazine	Amamiligremu angu-≤ 0.08 ngeLitha ngalinye (mg/L)
				i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
				i-Glyphosate	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) *i-Labeo rubromaculatus* (LRUB) *i-Amphilius natalensis* (ANAT)	i-FRAI EC = C/D ≥ 52% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-OMOS – okungu-2 kokungu-3 okumele imifino/izembozo. Okuyi-1 kwe-AMOS elandelayo, kanye ne-LRUB njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inguqulo 5 Yohlelo Lwesilinganiso lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) (ayilinganiswanga ngaphakathi kwale-RU kodwa kufanele izuzwe) Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenamgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI)	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B Isilinganiso se-SASS 5: ≥80 - 100

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Baetidae >2 spp i-Leptophlebiiidae i-Heptageniidae i-Oligoneuridae i-Tricorythidae i-Hydropsychidae 1spp i-Polycentropodidae i-Elmidae i-Psephenidae	Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.5 i-MIRAI EC = C/D ≥ 52%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C/D ≥ 52%

Ithebula 2.11: Imininingwane Yemvelo Yezinga Lamanzi: Umfula i-Klip

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V12D, V12E and V12F	i-Sandspruit kanye nemingenela	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.058 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) *i-Labeo rubromaculatus* (LRUB) *i-Clarias gariepinus* (CGAR) *i-Amphilius natalensis* (ANAT)	i-FRAI EC = C/D ≥ 52% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-OMOS – okungu-3 kokungu-4 okumele imifino/izembozo. Okungu-2 kwe-AMOS elandelayo, kanye ne-LRUB njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogo dla	SASS 5 (not measured within this RU but to be achieved) i-MIRAI i-Baetidae 2 spp i-Leptophlebiiidae i-Heptageniidae i-Tricorythidae i-Elmidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B Isilinganiso se-SASS 5: ≥80 – 100 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.5 i-MIRAI EC = C/D ≥ 52%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C/D≥ 52%
V12A, V12B, V12C (THU_ EWR 22)	i-Klip, i-Braamhoek, i-Tatana, iNgoga, uMhlwane, Izindawo ezibamba amanzi	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) *i-Labeo rubromaculatus* (LRUB) *i-Clarias gariepinus* (CGAR) *i-Amphilius natalensis* (ANAT)	i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-OMOS – okungu-3 kokungu-4 okumele imifino/izembozo. Okungu-2 kwe-AMOS elandelayo, kanye ne-LRUB njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inguqulo 5 Yohlelo Lwesilinganiso lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) (ayilinganiswanga ngaphakathi kwale-RU kodwa kufanele izuzwe) Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenamgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) i-Hydracarina i-Perlidae i-Baetidae > 2 sp i-Heptageniidae i-Leptophlebiidae i-Aeshnidae i-Crambidae i-Ecnomidae i-Elmidae i-Psephenidae	Ama-biotope angu-3 athathwe amasampula: amaqoqo azoba ngu-A kuya ku-B. Isilinganiso se-SASS 5: 213 – 220 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): 5.9 - 7.5 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%
V12G	i-Klip esuka eMnambithi iyohlangana noThukela	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤500 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Aluminium (Al)	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Cadmium (Cd) ethambile	Amamiligremu angu-≤0.001 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Manganese (Mn)	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Iron (Fe)	Amamiligremu angu-≤0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Lead (Pb) eqinile	Amamiligremu angu-≤0.009 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Copper (Cu) eqinile	Amamiligremu angu-≤0.007 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Nickel (Ni)	Amamiligremu angu-≤0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Cobalt (Co)	Amamiligremu angu-≤0.05 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
				i-Zinc (Zn)	Amamiligremu angu-≤0.002 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	**Umfula**	**Isakhi**	**Isakhi esincane**	**Inkomba**	**Imininingwane Yemvelo Yezinga Lamanzi**
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) *i-Labeo rubromaculatus* (LRUB) *i-Clarias gariepinus* (CGAR) *i-Amphilius natalensis* (ANAT)	i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BANO kanye ne-OMOS – okungu-3 kokungu-4 okumele imifino/izembozo. Okungu-2 kwe-AMOS elandelayo, kanye ne-LRUB njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Leptophlebiiidae i-Heptageniidae i-Hydropsychidae 2spp i-Elmidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B Isilinganiso se-SASS 5: ≥120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.8 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%

Ithebula 2.12: Imininingwane Yemvelo Yezinga Lamanzi: Umfula woThukela Ophakathi

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V14E (Thukela_ EWR 4B)	uThukela olusuka ekuhlanganeni ne-Klip kuya ekuhlanganeni ne-Bushman	i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Amphilius natalensis* (ANAT) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) *i-Labeo molybdinus* (LMOL) *i-Labeo rubromaculatus* (LRUB) *i-Clarias gariepinus* (CGAR) *i-Barbus (Enteromius) trimaculatus* (BTRI) *i-Barbus (Enteromius) viviparus* (BVIV) *i-Pseudocrenilabrus philander* (PPHI)	i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BVIV, i-BANO, i-BTRI kanye ne-PPHI – okungu-4 kokungu-5 okumele imifino/izembozo. Okungu-4 kwezigaba ezilandelayo ze-AMOS, i-ANAT, i-BNAT evuthiwe, i-CGAR, i-LRUB kanye ne-LMOL njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Atyidae i-Baetidae > 2 sp i-Heptageniidae i-Leptophlebiidae i-Chlorocyphidae i-Crambidae i-Elmidae	Ama-biotope angu-3 athathwe amasampula: amaqoqo azoba ngu-A kuya ku-B. Isilinganiso se-SASS 5: 145 - 200 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): 6.0 – 7.6 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-B. i-SPI: 15 – 17 i-%PTV: < 20%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%
V60G, V60H, V60J, V60K	uThukela ukusuka lapho	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
(Thukela _EWR 9)	kuhlangana khona i-Bushman kuya ekuhlanganeni kwe-d/s Mooi		Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤500 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Amphilius natalensis* (ANAT) *i-Enteromius (Barbus) anoplus* (BANO) *i-Labeobarbus natalensis* (BNAT) *i-Labeo molybdinus* (LMOL) *i-Clarias gariepinus* (CGAR) *i-Barbus (Enteromius) trimaculatus* (BTRI) *i-Tilapia sparrmanii* (TSPA)	i-FRAI EC = D ≥ 42% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BTRI, i-CGAR encane kanye ne-TSPA – okungu-3 kokungu-4 okumele imifino/izembozo. Okuyi-1 kwezigaba ezilandelayo ze-AMOS, CGAR evuthiwe kanye ne-LMOL njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae >2 spp i-Leptophlebiiidae i-Heptageniidae i-Elmidae i-Psephenidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B Isilinganiso se-SASS 5: ≥60 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.0 i-MIRAI EC = D ≥ 42%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 – 14 i-%PTV: 20% - < 40%
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = D ≥ 42%

Ithebula 2.13: Imininingwane Yemvelo Yezinga Lamanzi: Umfula woThukela Ongezansi

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V40A, V40B **(Thukela_ EWR 15)**	uThukela kusuka ekuhlanganeni kwe-d/s Mooi kuya ekudluliselweni kwe-Middeldrift	Izinga	Izakhi	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
			Izinguquko zohlelo	Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Labeobarbus natalensis* (BNAT) *i-Barbus (Enteromius) trimaculatus* (BTRI) *i-Barbus (Enteromius) viviparus* (BVIV) *i-Clarias gariepinus* (CGAR) *i-Labeo molybdinus* (LMOL) *i-Tilapia sparrmanii* (TSPA) *i-Amphilius natalensis* (ANAT)	i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BVIV, i-CGAR encane , kanye ne-TSPA – okungu-3 kokungu-4 okumele imifino/izembozo. Okuyi-1 kwezigaba ezilandelayo ze-AMOS, i-CGAR kanye ne-LMOL njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Baetidae 2 spp i-Leptophlebiiidae i-Heptageniidae i-Perlidae	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B Isilinganiso se-SASS 5: ≥120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.8 i-MIRAI EC = C/D ≥ 62%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Elmidae i-Psephenidae i-Hydropsychidae 2spp	
			Izindawo zokuhlala ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%
V40E, V50A, V59B, V50C, V50D (upper reach) **(THU_ EWR 16)**	uThukela kusuka e-Middeldrift ukuya Ekudlulisel weni kwedamu laseMandini (uMgeni) e-V50D	Izinga	Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤350 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla mossambica* (AMOS) *i-Labeobarbus natalensis* (BNAT) *i-Barbus (Enteromius) trimaculatus* (BTRI) *i-Clarias gariepinus* (CGAR) *i-Labeo molybdinus* (LMOL) *i-Labeo rubromaculatus* (LRUB)	i-FRAI EC = C ≥ 62% Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-BNAT, i-BTRI kanye ne-CGAR encane – okungu-2 kokungu-3 okumele imifino/izembozo. Okungu-2 kwezigaba ezilandelayo ze-AMOS, i-CGAR kanye ne-LMOL njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukuphendula Kwezilwane Ezingenawo Umgogodla (Macroinvertebrate Response Assessment Index) (i-MIRAI) Uhlelo Lokunikeza Amaphuzu LwaseNingizimu Afrika (South African Scoring System) (i-SASS) i-Baetidae >2 spp i-Heptageniidae i-Perlidae i-Oligoneuridae i-Tricorythidae i-Prosopistomatidae i-Elmidae i-Hydropsychidae 2spp	Okungenani ama-biotope amabili athathwe amasampula: amaqoqo kufanele abe nobuningi kusuka ku-A kuya ku-B Isilinganiso se-SASS 5: ≥120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): ≥4.8 i-MIRAI EC = C ≥ 62%
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 – 14 i-%PTV: 20% - < 40%

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			Izindawo ezingasogwini	Inkomba Yokuhlola Ukuphendula Kwezitshalo (i-Vegetation Response Assessment Index) (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62%

Ithebula 2.14: Imininingwane Yemvelo Yezinga Lamanzi: Isizalo soMfula woThukela kanye Nomfula ongenhla woThukela

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
V50D (Upper Portions Quaternary catchment V50D) **(EWR 17)**	uThukela kusuka Ekudluliselweni kwedamu laseMandini (uMgeni) ukuya Emfuleni ophakeme, kuhlanganisa umfula weMandini	Izinga	Izakhi	i-Orthophosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50) (Umfula woThukela kuphela)
					Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50) (Umfula weMandinikuphela)
				Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti) (Umfula woThukela kanyeNomfula weMandini)
			Usawoti	Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤500 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) (Umfula woThukela kanye Nomfula weMandini)
				i-Chloride	Amamiligremu angu-≤175 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) Umfula weMandini
				i-Sodium	Amamiligremu angu-≤115 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) (Umfula weMandini kuphela)
			Amagciwane	*i-Escherichia coli*	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL) (Umfula woThukela kanye Nomfula weMandini
			Izinguquko zohlelo	i-pH	u-6.5 – 8.9 ngo<5% wesilinganiso esingaphandle kwalokhu onyakeni onikeziwe (Umfula woThukela kanye Nomfula weMandini)
				Izinga lokushisa	u-17°C (Amaphesenti angu-10) kanye no-30°C (Amaphesenti angu-90) ngo-<5% wezilinganiso ezingaphandle kwale ndawo phakathi konyaka onikeziwe (Umfula woThukela kanye Nomfula weMandini)
				Umoya-mpilo oncibilikisiwe	Amamiligremu angu-≤6 ngeLitha ngalinye (mg/L) (Umfula woThukela Nomfula weMandini)
			Izinto ezinobuthi	i-Ammonia njenge-N	Amamiligremu angu-≤0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)) (Umfula woThukela kanye Nomfula weMandini)
				i-Aluminium (Al)	Amamiligremu angu-≤0.10 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) (Umfula woThukela kanye Nomfulwa weMandini)

Indawo Yamanzi Yekota Lonyaka- Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Manganese (Mn)	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) (Umfula woThukela kanye Nomfula weMandini)
				i-Iron (Fe)	Amamiligremu angu-≤0.1 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) (Umfula woThukela Nomfula weMandini)
				i-Lead (Pb) eqinile	Amamiligremu angu-≤0.009 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) (Umfula woThukela Nomfula weMandini)
				i-Copper (Cu) eqinile	Amamiligremu angu-≤0.007 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) (Umfula woThukela kanye Nomfula weMandini)
				i-Nickel (Ni)	Amamiligremu angu-≤0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) (Umfula woThukela kanye Nomfula weMandini)
				i-Cobalt (Co)	Amamiligremu angu-≤0.05 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) (Umfula woThukela kanye Nomfula weMandini)
				i-Zinc (Zn)	Amamiligremu angu-≤0.002 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95) (Umfula woThukela kanye Nomfula weMandini)
		i-Biota	Izinhlanzi	Inkomba Yokuhlola Ukuphendula Kwezinhlanzi (i-Fish Response Assessment Index) (i-FRAI) *i-Anguilla spp.* *i-Glossogobius spp.* *i-Awaous aeneofuscus* (AAEN) *i-Barbus (Enteromius) trimaculatus i-(*BTRI) *i-Labeobarbus natalensis (*BNAT) *i-Labeo molybdinus* (LMOL) *i-Labeo rubromaculatus* (LRUB) *i-Oreochromis mossambicus (*OMOS)	i-FRAI EC = C ≥ 62% (Umfula woThukela) Ukuqinisekisa ukuthi zonke izigaba zezindawo zokuhlala ezinokugeleza zikhona kulezi zinhlobo ezilandelayo: i-*Glossogobius spp., i*-BNAT,i-BTRI kanye ne-OMOS encane– okungu-3 kokungu-4 okumele imifino/izembozo. Okungu-2 of the following kwe-*Anguilla spp.* (elvers) elandelayo, i-BNAT evuthiwe, i-LMOL kanye ne-LRUB njengokumele isigaba okuncike ekugelezeni nasekujuleni.
			Izilwane zasemanzini ezingenamgogodla	Inkomba Yokuhlola Ukusabela Kwezilwane Ezingenawo Umgogodla (i-Macroinvertebrate Response Assessment Index) (i-MIRAI) and kanye nohlelo Lwenguqulo 5 lokulinganisa lwaseNingizimu Afrika (i-South African Scoring System Version 5) (i-SASS5) i-Perlidae i-Baetidae > 2 sp i-Heptageniidae i-Leptophlebiidae i-Oligoneuridae	Ama-biotope angu-3 athathwe amasampula: amaqoqo azoba ngu-A kuya ku-B. Isilinganiso se-SASS 5: 100 – 120 Isilinganiso Sesilinganiso seQoqo ngalinye (ASPT): 5.5 - 6.5 i-MIRAI EC = C ≥ 62% (Umfula woThukela)

Indawo Yamanzi Yekota Lonyaka-Indawo ye-EWR	Umfula	Isakhi	Isakhi esincane	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
				i-Prosopistomatidae i-Elmidae i-Hydropsychidae 2spp	
			Ama-Diatom	Inkomba Ethile Yokuzwela Ukungcoliswa (i-Specific Pollution Sensitivity Index) (i-SPI) Iphesenti lokubekezelela ukungcoliswa kwemvelo (Percentage pollution tolerant values) (%PTV)	Isigaba semvelo kufanele sigcinwe njenge-C. i-SPI: 12 - 14 i-%PTV: 20% - < 40% (Umfula woThukela)
			Izindawo ezingasogwini	Ukuphendula Kwezitshalo Inkomba Yokuhlola (i-VEGRAI)	Inhlolovo ye-VEGRAI njalo eminyakeni engu-5. i-VEGRAI EC = C ≥ 62% (Umfula woThukela)

Ithebula 2.15: Izinga Lamanzi kanye Nokucaciswa kweMvelo kumaQoqo Amaxhaphozi Abekelwe Phambili kanye Nezinhlelo Ezindaweni Ezibamba Amanzi zoThukela

i-IUA	Igama Lexhaphozi	Inhlobo Yexhaphozi	Isimo Semvelo			Ingxenye ebekwe phambili	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			i-PES	i-EIS	i-REC			
1: Umfula we-Buffalo Engenhla	i-Wakkerstroom	Isigodi esiphansi esigaxhunyiwe (Isoyi yemfucumfucu yezitshalo)	**C**	**Iphezulu kakhulu**	**B**	Izinga	i-Ortho-phosphate njenge-P	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi ye-Inorganic Nitrogen (TIN)	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
								Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

i-IUA	Igama Lexhaphozi	Inhlobo Yexhaphozi	Isimo Semvelo			Ingxenye ebekwe phambili	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			i-PES	i-EIS	i-REC			
							i-Escherichia coli	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
						Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-70%
							Ukujula kwe-peat nokuthotshiswa	Ukwehla okungaphansi kuka-10% ekujuleni kwephrofayili ye-peat kanye nezinga/ukuthambisa kusuka ekulinganisweni kokuqala endaweni ngayinye yokuthatha amasampula.
						i-Biota	Iphrojekthi 2 Yebalazwe Lwezinyoni zaseNingizimu Afrika (i-South African Bird Atlas Project 2) (i-SABAP 2) ebika amazinga Emininingwane Ebomvu yezinhlobo zezinyoni ezincike emanzini/emaxhaphozini: • i-Flufftail Enezimpiko Ezimhlophe • Unohhemu Ompunga Onophaphe Ekhanda • i- Marsh Harrier yase-Afrika • Isikhova Sotshani sase-Afrika • Unohhemu Oluhlaza • Idada le-Maccoa • Unondwebu Omkhulu • Unondwebu Omncane • Ivika Elinesiphika Esifushane • i-Snipe Esikhulu Esipendiwe	Eminyakeni engu-5 ezayo izinga lokubika lohlobo ngalunye akumele lehle lisuka kumazinga okubika e-SABAP2 (kusukela ngomhlaka-15 Ephreli 2021): • i-Flufftail Enezimpiko Ezimhlophe (~0.3%) • Unohhemu Ompunga Onophaphe Ekhanda (~59.6%) • i- Marsh Harrier yase-Afrika (~49.1%) • Isikhova Sotshani sase-Afrika (~0.5%) • Unohhemu Oluhlaza (~12.2%) • Idada le-Maccoa (~1.6%) • Unondwebu Omkhulu (~1.1%) • Unondwebu Omncane (~0.3%) • Ivika Elinesiphika Esifushane (~4.5%) • i-Snipe Esikhulu Esipendiwe (~0.1%)
	i-Groenvlei	Isigodi esiphansi esixhunyiwe kanye nezindawo ezinezikhukhula	**C**	**Phezulu**	**B/C**	Izinga	i-Ortho-phosphate njenge-P	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi ye-Inorganic Nitrogen (i-TIN)	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
							i-Escherichia coli	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
						Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-70%
3: Umfula weMiddle Ephakathi	i-Boschoffsvlei	Izindawo ezinezikhukhula	**B/C**	**Phezulu**	**B**	Izinga	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)

i-IUA	Igama Lexhaphozi	Inhlobo Yexhaphozi	Isimo Semvelo			Ingxenye ebekwe phambili	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			i-PES	i-EIS	i-REC			
							Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤200 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
							i-Escherichia coli	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
						Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-75%
	Inkimbinkimbi yepani le-Boschoffsvlei	Izigodi / Amapani	**A**	**Iphezulu kakhulu**	**A**	Izinga	i-pH, Ukudluliswa kukagesi, Ingqikithi Yezinto Eziqinile Ezincibilikile, Ingqikithi e-Alkali njenge-CaCO3, i-Sodium, i-Calcium, i-Magnesium, i-Sulphate, i-Iron, i-Chloride, i-Potassium, i-Magnesium, i-Manganese, i-Aluminium, i-Phosphorous, i-Silica, i-Fluoride,i- Ammonia, i-Nitrate kanye ne-Fluoride.	Ukugcina uhlobo lwepani yekhemikhali yamanzi esebenza epanini ngalinye.
		Ukuzika	**B**					
						Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-85% epanini ngalinye.
5: i-Blood River	i-Blood River Engenhla	Ukuzika kanye Nesigodi esiphansi esixhunyiwe	**A**	**Phezulu**	**A**	Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	i-PES inesilinganiso esingaphezu kuka-90% kwiqoqo elisenyakatho nangaphezulu kuka-80% kwiqoqo eliseningizimu.
		Ind	**B**		**A/B**			
	i-Blood River Vlei	Isigodi esiphansi esingaxhinyiwe kanye Nendawo enezikhukhula	**C**	**Iphezulu kakhulu**	**B**	Izinga	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.02 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi ye-Inorganic Nitrogen (TIN-)	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤200 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
						Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	i-PES iinesilinganiso samaphesenti angaphezu kuka-70 enyakatho ye-R34 futhi i-PES inesilinganiso samaphesenti angaphezu kuka-55% eningizimu ye-R34.
6: Umfula i-Sunday	i-Boschbergvlei	Indawo Enezikhukhula	**B/C**	**Phezulu**	**B**	Izinga	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤1.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤200 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)

i-IUA	Igama Lexhaphozi	Inhlobo Yexhaphozi	Isimo Semvelo			Ingxenye ebekwe phambili	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			i-PES	i-EIS	i-REC			
							i-Escherichia coli	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
							Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
							Ukufiphala	Ukwehluka okungu-10% ekuhlanganisweni kwangemuva. Imikhawulo kufanele inqunywe.
						Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-75%
	i-Paddavlei	Isigodi Esingaphansi Esingaxhunyiwe kanye Nesigodi Esiphansi Esixhunyiwe	**C**	**Phezulu**	**B/C**	Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-70%
						i-Biota	Ukuba Khona Konohhemu Abanebilo Abasengozini Enkulu.	Ukuqhubeka kokuba khona Konohhemu Abanebilo
7:Umfula weMooi Engenhla (kanye nengxenye ka- 14: Ithafa Eliphakeme)	i-Hlatikulu	Isigodi Esingaphansi Esingaxhunyiwe kanye Nesigodi Esiphansi Esixhunyiwe	**C**	**Iphezulu kakhulu**	**B**	Izinga	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
							i-pH	u-6.5 (Amaphesenti angu-50-) kanye no-9.0 (Amaphsenti angu-95)
							i-Escherichia coli	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
							i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
							i-Atrazine	Amamiligremu angu-≤ 0.78 ngeLitha ngalinye (mg/L)
							i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
							i-Glyphosate	Amamiligremu angu-≤ 0.7 ngeLitha ngalinye (mg/L)
						Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-65%
						i-Biota	Iphrojekthi 2 Yebalazwe Lwezinyoni zaseNingizimu Afrika (i-South African Bird Atlas Project 2) (i-SABAP 2) ebika amazinga	Eminyakeni engu-5 ezayo izinga lokubika lohlobo ngalunye akumele lehle lisuka kumazinga okubika e-SABAP2 (kusukela ngomhlaka-15 Ephreli 2021):

i-IUA	Igama Lexhaphozi	Inhlobo Yexhaphozi	Isimo Semvelo			Ingxenye ebekwe phambili	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			i-PES	i-EIS	i-REC			
							Emininingwane Ebomvu yezinhlobo zezinyoni ezincike emanzini/emaxhaphozini: • Unohhemu Onebilo • Unohhemu Ompunga Onophaphe Ekhanda • i- Marsh Harrier yase-Afrika • Isikhova Sotshani sase-Afrika • Unohhemu Oluhlaza • Ivika Elinesiphika Esifushane Qinisekisa ngokususelwa kumarekhodi okuqapha nokubonwa okurekhodiwe kwemininingwane etholakalayo yokubika ngezinyoni.	• Unohhemu Onebilo (~19.6%) • Unohhemu Ompunga Onophaphe Ekhanda (~43.5%) • i- Marsh Harrier yase-Afrika (~15.2%) • Isikhova Sotshani sase-Afrika (~2.2%) • Unohhemu Oluhlaza (~21.7%) • Ivika Elinesiphika Esifushane (~13.0%).
	i-Stillerust	Isigodi Esingaphansi Esixhunyiwe kanye Nendawo Enezikhukhula	**A**	**Iphezulu kakhulu**	**A**	Izinga	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.01 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤0.5 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤120 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
							i-Escherichia coli	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
							i-Ammonia njenge-N	Amamiligremu angu-≤ 0.07 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
							i-Atrazine	Amamiligremu angu-≤ 0.78 ngeLitha ngalinye (mg/L)
							i-Mancozeb	Amamiligremu angu-≤ 0.009 ngeLitha ngalinye (mg/L)
							i-Glyphosate	Amamiligremu angu-≤ 0.7 ngeLitha ngalinye (mg/L)
						Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-90%
						i-Biota	Iphrojekthi 2 Yebalazwe Lwezinyoni zaseNingizimu Afrika (i-South African Bird Atlas Project 2) (i-SABAP 2) ebika amazinga Emininingwane Ebomvu yezinhlobo zezinyoni ezincike emanzini/emaxhaphozini: • Unohhemu Onebilo • Unohhemu Ompunga Onophaphe Ekhanda • i- Marsh Harrier yase-Afrika • Unohhemu Oluhlaza	Eminyakeni engu-5 ezayo izinga lokubika lohlobo ngalunye akumele lehle lisuka kumazinga okubika e-SABAP2 (kusukela ngomhlaka-15 Ephreli 2021): • Unohhemu Onebilo (~27.6%) • Unohhemu Ompunga Onophaphe Ekhanda (~37.9%) • i- Marsh Harrier yase-Afrika (~6.9%) • Unohhemu Oluhlaza (~3.4%).

i-IUA	Igama Lexhaphozi	Inhlobo Yexhaphozi	Isimo Semvelo			Ingxenye ebekwe phambili	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			i-PES	i-EIS	i-REC			
							Qinisekisa ngokususelwa kumarekhodi okuqapha nokubonwa okurekhodiwe kwemininingwane etholakalayo yokubika ngezinyoni.	
							Ukuqhubeka kokuba khona koNohhemu Abanebilo abazalisanayo. Ukuqashwa koNohhemu Abanebilo, kuhlanganisa ukuqashwa kokuphumelela kokuzalisana	Okungenani ipheya elilodwa loNohhemu Abanebil abazalisanayo owodwa wokuzalana
8: Umfula weMooi Ophakathi/Ongezansi	i-Melmoth	Isigodi Esingapgansi Esixhunyiwe	**A**	**Iphezulu kakhulu**	**A**	Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-90%
						i-Biota	Iphrojekthi 2 Yebalazwe Lwezinyoni zaseNingizimu Afrika (i-South African Bird Atlas Project 2) (i-SABAP 2) ebika amazinga Emininingwane Ebomvu yezinhlobo zezinyoni ezincike emanzini/emaxhaphozini: • Unohhemu Onebilo • Unohhemu Ompunga Onophaphe Ekhanda • i- Marsh Harrier yase-Afrika • Unohhemu Oluhlaza Qinisekisa ngokususelwa kumarekhodi okuqapha nokubonwa okurekhodiwe kwemininingwane etholakalayo yokubika ngezinyoni.	Eminyakeni engu-5 ezayo izinga lokubika lohlobo ngalunye akumele lehle lisuka kumazinga okubika e-SABAP2 (kusukela ngomhlaka-15 Ephreli 2021): • Unohhemu Onebilo (~21.1%) • Unohhemu Ompunga Onophaphe Ekhanda (~28.9%) • i- Marsh Harrier yase-Afrika (~7.9%) • Unohhemu Oluhlaza (~34.2%).
	i-Dartmoor	Isigodi Esingaphansi Esingaxhunyiwe kanye Nesigodi Esiphansi Esixhunyiwe	**A**	**Iphezulu kakhulu**	**A**	Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-90%
						i-Biota	Iphrojekthi 2 Yebalazwe Lwezinyoni zaseNingizimu Afrika (i-South African Bird Atlas Project 2) (i-SABAP 2) ebika amazinga Emininingwane Ebomvu yezinhlobo zezinyoni ezincike emanzini/emaxhaphozini: • Unohhemu Onebilo • Unohhemu Ompunga Onophaphe Ekhanda • i- Marsh Harrier yase-Afrika • Unohhemu Oluhlaza	Eminyakeni engu-5 ezayo izinga lokubika lohlobo ngalunye akumele lehle lisuka kumazinga okubika e-SABAP2 (kusukela ngomhlaka-15 Ephreli 2021): • Unohhemu Onebilo (~21.1%) • Unohhemu Ompunga Onophaphe Ekhanda (~28.9%) • i- Marsh Harrier yase-Afrika (~7.9%) • Unohhemu Oluhlaza (~34.2%).

i-IUA	Igama Lexhaphozi	Inhlobo Yexhaphozi	Isimo Semvelo			Ingxenye ebekwe phambili	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			i-PES	i-EIS	i-REC			
							Qinisekisa ngokususelwa kumarekhodi okuqapha nokubonwa okurekhodiwe kwemininingwane etholakalayo yokubika ngezinyoni.	
	i-Scawby	Isigodi Esingaphansi Esingaxhunyiwe kanye Nesigodi Esiphansi Esixhunyiwe	**B/C**	**Iphezulu kakhulu**	**A/B**	Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-75%
						i-Biota	Iphrojekthi 2 Yebalazwe Lwezinyoni zaseNingizimu Afrika (i-South African Bird Atlas Project 2) (i-SABAP 2) ebika amazinga Emininingwane Ebomvu yezinhlobo zezinyoni ezincike emanzini/emaxhaphozini: • Unohhemu Onebilo • Unohhemu Ompunga Onophaphe Ekhanda • i- Marsh Harrier yase-Afrika • Unohhemu Oluhlaza Qinisekisa ngokususelwa kumarekhodi okuqapha nokubonwa okurekhodiwe kwemininingwane etholakalayo yokubika ngezinyoni.	Eminyakeni engu-5 ezayo izinga lokubika lohlobo ngalunye akumele lehle lisuka kumazinga okubika e-SABAP2 (kusukela ngomhlaka-15 Ephreli 2021): • Unohhemu Onebilo (~21.1%) • Unohhemu Ompunga Onophaphe Ekhanda (~28.9%) • i- Marsh Harrier yase-Afrika (~7.9%) • Unohhemu Oluhlaza (~34.2%).
9:Umfula we-Bushman's Ophakathi/Ongezansi	iNtabamhlope	Indawo Enezikhukhula, Isigodi Esingaphansi Esixhunyiwe Nesingaxhunyiwe	**C**	**Iphezulu kakhulu**	**B**	Izinga	i-Ortho-phosphate (PO4-) njenge-Phosphorus	Amamiligremu angu-≤0.06 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi ye-Inorganic Nitrogen (TIN-) njenge-Nitrogen	Amamiligremu angu-≤2.0 ngeLitha ngalinye (mg/L) (Amaphesenti angu-50)
							Ingqikithi Yezinto Eziqinile Ezincibilikile	Amamiligremu angu-≤300 ngeLitha ngalinye (mg/L) (Amaphesenti angu-95)
							i-Escherichia coli	Ukubalwa okungu-≤130 ngamamililitha angu-100 ngakunye (ukubalwa/ 100 mL)
							Izinga le-pH	u-≥6.5 (Amamiligremu angu-5) kanye no-9.0 (Amamiligremu angu-95)
						Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	Isilinganiso se-PES esingaphezu kuka-70%
14: Ithafa Elipha keme	i-Highmoor	Isigodi Esiphansi Esixhunyiwe	**A**	**Phezulu**	**A**	Indawo yokuhlala	Isigaba Sesimo Samanje Sezemvelo (i-PES)	i-PES inesilinganiso esingaphezu kuka-90% kwiqoqo eliseningizimu nangaphezulu kuka-75% kwiqoqo elisenyakatho.
						i-Biota		

i-IUA	Igama Lexhaphozi	Inhlobo Yexhaphozi	Isimo Semvelo			Ingxenye ebekwe phambili	Inkomba	Imininingwane Yemvelo Yezinga Lamanzi
			i-PES	i-EIS	i-REC			
		Isigodi Esingaphansi Esingaxhunyiwe	**C**		**B/C**		Iphrojekthi 2 Yebalazwe Lwezinyoni zaseNingizimu Afrika (i-South African Bird Atlas Project 2) (i-SABAP 2) ebika amazinga Emininingwane Ebomvu yezinhlobo zezinyoni ezincike emanzini/emaxhaphozini: • Unohhemu Onebilo • Unohhemu Ompunga Onophaphe Ekhanda • i- Marsh Harrier yase-Afrika • Unohhemu Oluhlaza Qinisekisa ngokususelwa kumarekhodi okuqapha nokubonwa okurekhodiwe kwemininingwane etholakalayo yokubika ngezinyoni.	Eminyakeni engu-5 ezayo izinga lokubika lohlobo ngalunye akumele lehle lisuka kumazinga okubika e-SABAP2 (kusukela ngomhlaka-15 Ephreli 2021): • Unohhemu Onebilo (~17.9%) • Unohhemu Ompunga Onophaphe Ekhanda (~10.7%) • i- Marsh Harrier yase-Afrika (~3.69%) • Unohhemu Oluhlaza (~10.7%).

AMANZI ANGAPHANSI KOMHLABA – INGXENYE YOBUNINGI

INDAWO YOKULONDOLOZA AMANZI– INGXENYE YENANI LAMANZI

Indawo ebamba amanzi oThukela inezindawo ezibamba amanzi ezingu-88 ezihlukanisiwe futhi zahlanganiswa zaba amayunithi ezinsiza ezingu-25 (A - Y). Amayunithi ezinsiza akhiwa indawo eyodwa noma eziningana ezibamba amanzi, ngokususelwa ezicini zesayensi yokwakheka komhlaba ne-hydrogeology njengoba zichazwe **kuThebula 3.1.** Ingxenye yobuningi bamanzi angaphansi komhlaba yanqunywa kusetshenziswa amanani atholwe ngesikhathi kunqunywa Ucwaningo Lokunqunywa Kwenqolobane Yamanzi Angaphansi Komhlaba Okuphezulu endaweni ebamba amanzi oThukela. Amanani abantu atholwe kuMqondisi Wezinsizakalo Zamanzi futhi alungiswa kusuka kwimininingwane yokubalwa kwabantu ka-2023

Ithebula 3.1. Ingxenye Yomthamo Wamanzi Angaphansi Komhlabathi Wendawo Yokulondoloza yasendaweni enamanzi oThukela.

IYUNITHI YOMTHOMBO	IKWATA YONYAKA	POPULATION	RECHARGE			INDAWO YOKULONDOLOZA		
			INDAWO YONKE Km^2	INDAWO ESEBENZAYOKm^2	UKUGCWALISWA KABUSHA Mm^3/a	Ukugeleza Okuyisisekelo Mm^3/a	i-BHN Mm^3/a	INDAWO YOKULONDOLOZA Mm^3/a
A	V11A	9 481	206.9	206.9	13.45	1.21	0.09	1.3
	V11B	4 574	252.6	252.6	23.997	2.65	0.04	2.69
	V11E	10 607	192.6	192.6	12.52	0.92	0.10	1.02

	V11G	1 590	313.5	313.5	29.78	4.81	0.01	4.82
	V11H	9 924	132.9	132.9	8.64	0.17	0.09	0.26
	V13A	1 504	231.7	231.7	15.07	1.22	0.01	1.23
	V13B	10 077	293.8	293.8	13.22	0.81	0.09	0.9
	V13C	39 114	255.6	255.6	8.179	0.48	0.36	0.84
B	V13D	17 514	283.4	283.4	12.75	0.55	0.16	0.71
	V11C	7 122	252.4	252.4	16.41	1.43	0.07	1.5
C	V11D	24 306	265.9	265.9	17.25	0.57	0.22	0.79
	V11F	7 541	160.7	160.7	7.599	0.12	0.07	0.19
D	V11J	7 290	144.0	144	6.48	0.18	0.07	0.25
	V11K	6 917	246.8	246.8	13.93	0.31	0.06	0.37
E	V11L	7 813	311.7	311.7	13.96	0.37	0.07	0.44
	V11M	2 507	154.3	154.3	4.94	0.09	0.02	0.11
	V13E	15 344	280.9	280.9	8.98	0.26	0.14	0.4
F	V14A	1 710	223.9	223.9	7.17	0.18	0.02	0.2
	V12A	5 929	307.1	307.1	17.83	1.39	0.05	1.44
	V12B	10 977	293.3	293.3	17.57	1.16	0.10	1.26
G	V12C	21 106	154.8	154.8	6.97	0.18	0.19	0.37
	V12D	4 230	236.0	236	15.34	0.89	0.04	0.93
	V12E	3 386	324.4	324.4	14.598	0.79	0.03	0.82
H	V12F	3 191	332.4	332.4	10.64	0.77	0.03	0.8
	V12G	179 541	505.9	505.9	16.19	1.72	1.64	3.36
	V14B	21 843	170.1	170.1	5.44	0.18	0.20	0.38
I	V14E	7 821	286.6	286.6	9.17	0.53	0.071	0.601
	V14C	19 190	195.2	195.2	6.25	0.30	0.18	0.48
J	V14D	9 843	631.8	631.8	20.22	2.59	0.09	2.68
	V60A	1 396	106.8	106.8	6.27	0.07	0.01	0.08
	V60B	10 499	551.7	551.7	24.83	3.87	0.10	3.97
K	V60C	13 179	360.6	360.6	11.54	0.91	0.12	1.03
	V60D	1 471	307.9	307.9	13.86	1.22	0.01	1.23
L	V60E	82 486	747.2	747.2	23.91	3.88	0.75	4.63

	V20H	44 228	603.4	603.4	19.31	2.38	0.40	2.78
	V20J	18 170	314.0	314	10.05	0.61	0.17	0.78
	V60F	27 077	406.0	406	12.92	0.98	0.25	1.23
	V60G	39 942	461.4	461.4	14.77	1.21	0.34	1.55
	V60H	49 219	354.9	354.9	11.36	0.62	0.45	1.07
	V60J	22 710	185.9	185.9	5.95	0.21	0.21	0.42
M	V60K	15 054	228.0	228	7.296	0.33	0.14	0.47
	V70A	3 519	280.2	280.2	26.62	2.39	0.03	2.42
	V70B	10 552	121.2	121.2	11.51	0.17	0.10	0.27
	V70C	9 945	341.5	341.5	15.37	2.10	0.09	2.19
	V70D	85 027	198.4	198.4	8.93	0.38	0.78	1.16
N	V70E	1 952	105.3	105.3	4.30	0.05	0.02	0.07
	V20A	729	267.1	267.1	22.95	1.64	0.01	1.65
	V20B	2 106	190.3	190.3	12.37	0.50	0.02	0.52
	V20C	975	187.9	187.9	12.21	0.44	0.01	0.45
O	V20D	7 989	299.2	299.2	14.81	1.33	0.07	1.4
	V70F	11 007	364.5	364.5	11.50	0.83	0.10	0.93
P	V70G	19 934	504.5	504.5	16.14	1.47	0.18	1.65
	V20E	23 103	598.7	598.7	19.16	2.81	0.21	3.02
	V20F	2 817	153.9	153.9	6.93	0.22	0.03	0.25
Q	V20G	4 818	253.6	253.6	8.12	0.46	0.04	0.5
	V31A	13 357	621.7	621.7	36.53	4.29	0.12	4.41
	V31B	33 073	505.3	505.3	22.74	2.56	0.30	2.86
	V31C	4 248	395.9	395.9	17.82	1.53	0.04	1.57
	V31D	2 018	467.1	467.1	21.86	1.30	0.02	1.32
	V31E	6 107	833.9	833.9	42.42	5.91	0.06	5.97
	V31F	1 194	155.6	155.6	8.54	0.21	0.011	0.221
	V31G	20 439	254.7	254.7	10.21	0.47	0.19	0.66
	V31H	0.0	128.5	128.5	8.35	0.14	0.0	0.14
	V31J	67 782	357.9	357.9	19.26	1.08	0.62	1.7
R	V31K	18 640	226.7	226.7	9.75	0.38	0.17	0.55

	V32A	5 687	194.7	194.7	8.76	0.33	0.05	0.38
	V32B	12 645	556.9	556.9	24.80	2.19	0.12	2.31
	V32C	343 654	629.9	629.9	22.11	2.58	3.14	5.72
	V32D	33 069	589.9	589.9	18.88	2.33	0.30	2.63
	V32E	87 425	783.3	783.3	25.07	3.81	0.80	4.61
S	V32F	1 050	201.4	201.4	6.45	0.24	0.01	0.25
	V32G	2 839	544.3	544.3	24.49	2.09	0.03	2.12
T	V32H	45 998	517.4	517.4	16.56	1.58	0.42	2
	V33A	46 083	576.9	576.9	18.46	2.16	0.42	2.58
	V33B	14 495	406.6	406.6	13.01	1.05	0.13	1.18
	V33C	14 922	398.1	398.1	12.74	1.05	0.14	1.19
U	V33D	24 467	455.2	455.2	14.57	1.29	0.22	1.51
	V40A	14 980	372.2	372.2	11.91	1.70	0.14	1.84
	V40B	14 534	292.3	292.3	9.35	0.94	0.13	1.07
V	V40E	28 232	300.9	300.9	9.63	0.93	0.26	1.19
	V40C	28 232	454.9	454.9	20.47	2.40	0.26	2.66
W	V40D	19 122	333.3	333.3	13.84	1.29	0.17	1.46
	V50A	25 441	408.9	408.9	13.99	2.34	0.23	2.57
	V50B	26 982	383.8	383.8	17.27	2.63	0.25	2.88
X	V50C	109 984	409.1	409.1	26.59	4.88	1.00	5.88
Y	V50D	50 262	146.8	146.8	9.542	0.25	0.46	0.71

GROUNDWATER RESERVE – WATER QUALITY COMPONENT

Izinga lamanzi angaphansi komhlaba lezindawo ezibamba amanzi ezinemininingwane ye-hydrochemistry lahlolwa ngokuqhathaniswa nezindawo zezinga lamanzi elihlosiwe lamanzi asekhaya (Umkhawulo ongenhla Wesigaba I Sezinga Lamanziy [Okuphuza]) njengoba kuboniswe **kuThebula 4.1.** Isifinyezo semiphumela yokuhlukaniswa kwezinga lamanzi angaphansi komhlaba ezingeni lekwata yonyaka ngokuya ngezidingo eziyisisekelo zabantu sichazwe **kuThebula 4.2.**

Ithebula 4.1: Izinga lamanzi ngokwenyama nangokwamakhemikhali

Ipharamitha	**Ibanga Lezinga Lamanzi Elihlosiwe [1)]**				
	Amayunithi	**Isigaba 0**	**Isigaba I**	**Isigaba II**	**Isigaba III**
i-pH	pH units	6 – 9	5 – 6 & 9 – 9.5	4 – 5 & > 9.5 – 10	<4 & > 10
Ukudluliswa kukagesi	mS/m	< 70	70 - 150	150 – 370	> 370
i-Calcium njenge-Ca	mg/l	< 80	80 - 150	150 – 300	> 300
i-Magnesium njenge-Mg	mg/l	< 70	70 - 100	100 – 200	> 200
i-Sodium njenge-Na	mg/l	< 100	100 - 200	200 – 400	> 400
i-Chloride njenge-Cl	mg/l	< 100	100 - 200	200 – 600	> 600
i-Sulphate njenge-SO4	mg/l	< 200	200 - 400	400 – 600	> 600
i-Nitrate njenge-NOx-N	mg/l	< 6	6 - 10	10 – 20	> 20
i-Fluoride njenge-F	mg/l	<0.7	0.7 – 1.0	1.0 – 1.5	> 1.5

1) Ukubhekiselwa: Izinhlelo Zokwehlukanisa ngokweKhomishana Yocwaningo Lwamanzi: Izinga Lokuhlinzekwa Kwamanzi Asekhaya – Umqulu 1. Umbiko Nombolo. TT 101/98, Inguqulo Yesibili, 1998.

Isigaba 0: Amanzi ahlukaniswa njengamanzi aphuzwayo afaneleka kakhulu, afanele ukusetshenziswa ukuphila konke. Amanani ayalingana ngokuyisisekelo nomhlahlandlela wamanzi ohloswe kuMhlahlandlela Wezinga Lamanzi waseNingizimu Afrika Wokusetshenziswa Kwasekhaya.

Isigaba I: Amanzi asaphephile ukusetshenziswa ukuphila konke; kodwa, ezimweni ezingavamile kakhulu, kungase kube nemithelela emincane empilweni. Ingase futhi ibe nemiphumela ethile yobuhle.

Isigaba II: Amanzi avunyelwe ukusetshenziswa okwesikhashana noma okuphuthumayo. Imiphumela yezempilo ingase izwakale kaningi, uma iqhathaniswa neSigaba I, ikakhulukazi kulabo abasebenzisa amanzi isikhathi eside. Ngakho-ke, akuphakanyiswa ukuthi amanzi asetshenziswe ngokuqhubekayo impilo yonke. Lesi yisigaba kuphela somhlahlandlela esingaqondile ngokwesikhathi esiqondile amanzi angasetshenziselwa sona. Sibeka ukuthi angasetshenziselwa ukusetshenziswa isikhathi esifushane;

kodwa asichazi ukuthi “isikhathi esifushane” sisho isikhathi esingakanani.

Isigaba III: Amanzi eSigaba III azodala imiphumela emibi kakhulu yezempilo, ikakhulukazi ezinganeni nakubantu asebekhulile.

Ukusetshenziswa kwalawa manzi akuphakanyiselwa ukuphuzwa.

Lezi zindawo ezilandelayo ezinamanzi ezinemininingwane elinganiselwe yezinga lamanzi azifakiwe ekuhlaziyweni, futhi ayikho Ingxenye Yezinga Lamanzi Angaphansi Komhlaba Esunguliwe:

- V11A, V11B, V11C, V11E, V11F, V11G, V11H, V11J, V11K, V11L, V11M
- V12A, V12B, V12C, V12D, V12E, V12F
- V13A, V13B, V13C, V13D, V13E
- V14A, V14B, V14C, V14E
- V20A, V20B, V20C, V20D, V20F, V20G
- V31B, V31C, V31D, V31H
- V32A, V32D, V32F, V32G, V32H
- V33B, V33C, V33D
- V40C
- V50B, V50D
- V60A, V60C, V60D, V60E, V60F, V60G
- V70A, V70B, V70C, V70D, V70E, V70F, V70G

Ithebula 4.2. Indawo Yokulondoloza Amanzi: Amanzi oThukela

Ipharamitha yeKhemikhali	Iyunithi	Izindawo ezinamanzi zekota lonyaka V12G, V31A, V31E, V32B												
		Inani lamasempula				Izinga lamanzi angaphansi komhlaba noma isilinganiso[1)]				Unqenqeme lwe-BHN[2)]	Indawo Yokulondoloza Amanzi Aphansi Komhlaba[3)]			
		V12G	V31A	V31E	V32B	V12G	V31A	V31E	V32B		V12G	V31A	V31E	V32B
i-pH		11	11	27	49	8.12	7.36	8.16	7.93	5.0 – 9.5	8.93	8.10	8.98	8.72
Ukudluliswa kukagesi	mS/m	11	11	27	49	73.9	17.5	34.2	18.07	<150	81.29	19.25	37.62	19.88
i-Calcium njenge-Ca	mg/l	11	11	23	45	53.4	17.2	17.1	15.48	<150	58.74	18.92	18.81	17.02
i-Magnesium njenge-Mg	mg/l	11	11	23	44	36.4	6	6.38	5.14	<100	40.4	6.6	7.02	5.66
i-Sodium njenge-Na	mg/l	11	11	23	42	62.6	7.3	46.7	9.08	<200	68.86	8.03	51.37	9.99
i-Chloride njenge-Cl	mg/l	11	11	23	45	18.5	3.4	5	5	<200	20.35	3.74	5.5	5.5
i-Sulphate njenge-SO4	mg/l	11	11	23	45	24.6	7.5	4.6	3	<400	27.06	8.25	5.06	3.3
i-Nitrate njenge-NOx-N	mg/l	11	11	23	44	1.14	0.02	0.04	0.18	<10	1.25	0.02	0.04	0.19
i-Fluoride njenge-F	mg/l	11	11	23	42	0.62	0.19	0.34	0.18	<1.0	0.68	0.21	0.37	0.2
Ipharamitha yeKhemikhali	**Iyunithi**	**Izindawo ezinamanzi zekota lonyaka V32C, V40A, V40D, V40E**												
		Inani lamasempula				Izinga lamanzi angaphansi komhlaba noma isilinganiso[1)]				Unqenqeme lwe-BHN[2)]	Indawo Yokulondoloza Amanzi Aphansi Komhlaba[3)]			
		V32C	V40A	V40D	V40E	V32C	V40A	V40D	V40E		V32C	V40A	V40D	V40E
i-pH		33	23	12	14	8.35	7.9	8.21	7.99	5.0 – 9.5	9.18	8.69	9.03	8.78
Ukudluliswa kukagesi	mS/m	33	23	12	14	50.80	64.7	115.8	124.25	<150	55.88	71.17	127.38	136.68
i-Calcium njenge-Ca	mg/l	33	23	12	14	38.42	49.1	51.8	59.75	<150	42.27	54.01	56.98	65.73
i-Magnesium njenge-Mg	mg/l	33	23	12	14	22.96	26.7	50.4	60.5	<100	25.25	29.37	55.44	66.55
i-Sodium njenge-Na	mg/l	27	23	12	14	43.3	51.7	114.3	119.95	<200	47.63	56.87	125.73	131.95
i-Chloride njenge-Cl	mg/l	18	23	12	14	12.49	25	54.4	84.35	<200	13.74	27.5	59.84	96.09
i-Sulphate njenge-SO4	mg/l	33	23	12	14	17.64	13.4	65.3	34.8	<400	19.4	14.74	71.83	38.28
i-Nitrate njenge-NOx-N	mg/l	33	23	12	14	0.05	0.67	0.24	1.47	<10	0.06	0.73	0.26	1.62
i-Fluoride njenge-F	mg/l	31	23	12	14	0.25	0.36	1.02	0.73	<1.0	0.24	0.4	1.12	0.8

Ithebula 4.3. Indawo Yokulondoloza Amanzi: Amanzi oThukela

Ipharamitha yeKhemikhali	Iyunithi	Izindawo ezinamanzi zekota lonyaka i-V11D, i-V14D, i-V20E, i-V31B												
		Inani lamasempula				Izinga lamanzi angaphansi komhlaba noma isilinganiso[1)]				Unqenqeme lwe-BHN[2)]	Indawo Yokulondoloza Amanzi Aphansi Komhlaba[3)]			
		i-V11D	i-V14D	i-V20E	i-V31B	i-V11D	i-V14D	i-V20E	i-V31B		i-V11D	i-V14D	V20E	V31B
i-pH		14	12	9	10	7.99	8.3	8.53	8.01	5.0 – 9.5	8.79	9.13	9.39	8.81
Ukudluliswa kukagesi	mS/m	14	12	9	10	20.1	59.8	98.4	56.5	<150	22.11	65.78	108.24	62.15
i-Calcium njenge-Ca	mg/l	14	12	9	10	7.9	35.65	9.32	17.9	<150	8.69	39.22	10.25	19.69
i-Magnesium njenge-Mg	mg/l	14	12	9	10	1.97	19.6	2.18	6.05	<100	2.17	21.56	2.4	6.66
i-Sodium njenge-Na	mg/l	14	12	7	9	22.9	85.2	**226.72**	65.1	<200	25.19	93.72	**226.72**	71.61
i-Chloride njenge-Cl	mg/l	14	12	6	10	4.7	24.65	11.12	16.1	<200	5.17	27.12	12.23	17.71
i-Sulphate njenge-SO4	mg/l	14	12	9	9	3.24	17.7	130.57	10.6	<400	3.57	19.47	143.63	11.66
i-Nitrate njenge-NOx-N	mg/l	14	12	9	10	0.87	0.06	0.27	0.24	<10	0.96	0.06	0.3	0.26
i-Fluoride njenge-F	mg/l	14	12	8	10	1.22	1.19	3.13	0.31	<1.0	1.34	1.3	3.44	0.34
Ipharamitha yeKhemikhali	**Iyunithi**	**Izindawo ezinamanzi zekota lonyaka V31F, V31G, V31K, V33A**												
		Inani lamasempula				**Izinga lamanzi angaphansi komhlaba noma isilinganiso[1)]**				**Unqenqeme lwe-BHN[2)]**	**Indawo Yokulondoloza Amanzi Aphansi Komhlaba[3)]**			
		i-V31F	**i-V31G**	**i-V31K**	**i-V33A**	**i-V31F**	**i-V31G**	**i-V31K**	**i-V33A**		**i-V31F**	**i-V31G**	**V31K**	**V33A**
i-pH		16	21	33	13	8.16	8.08	7.99	7.98	5.0 – 9.5	8.97	8.88	8.79	8.78
Ukudluliswa kukagesi	mS/m	16	21	33	13	18.94	56.7	32.31	41	<150	20.83	62.37	35.54	45.1
i-Calcium njenge-Ca	mg/l	16	21	32	13	12.8	46.17	21.1	20.9	<150	14.08	50.79	23.21	22.99
i-Magnesium njenge-Mg	mg/l	16	21	32	13	4.14	11.58	7.68	13.2	<100	4.56	12.74	8.45	14.52
i-Sodium njenge-Na	mg/l	14	18	24	13	18.39	67.01	40.39	39.8	<200	20.23	73.71	44.43	43.78
i-Chloride njenge-Cl	mg/l	11	16	22	13	1.31	13.03	6.03	8.3	<200	1.44	14.34	6.64	9.13
i-Sulphate njenge-SO_4	mg/l	16	21	20	13	1.5	67.14	20.96	6.5	<400	1.65	73.85	23.05	7.15
i-Nitrate njenge-NOx-N	mg/l	16	21	33	13	0.05	0.05	0.05	0.08	<10	0.06	0.06	0.06	0.09
i-Fluoride njenge-F	mg/l	14	19	31	13	0.25	0.41	0.34	0.26	<1.0	0.27	0.45	0.37	0.29

Ithebula 4.4. Indawo Yokulondoloza Amanzi: Amanzi oThukela

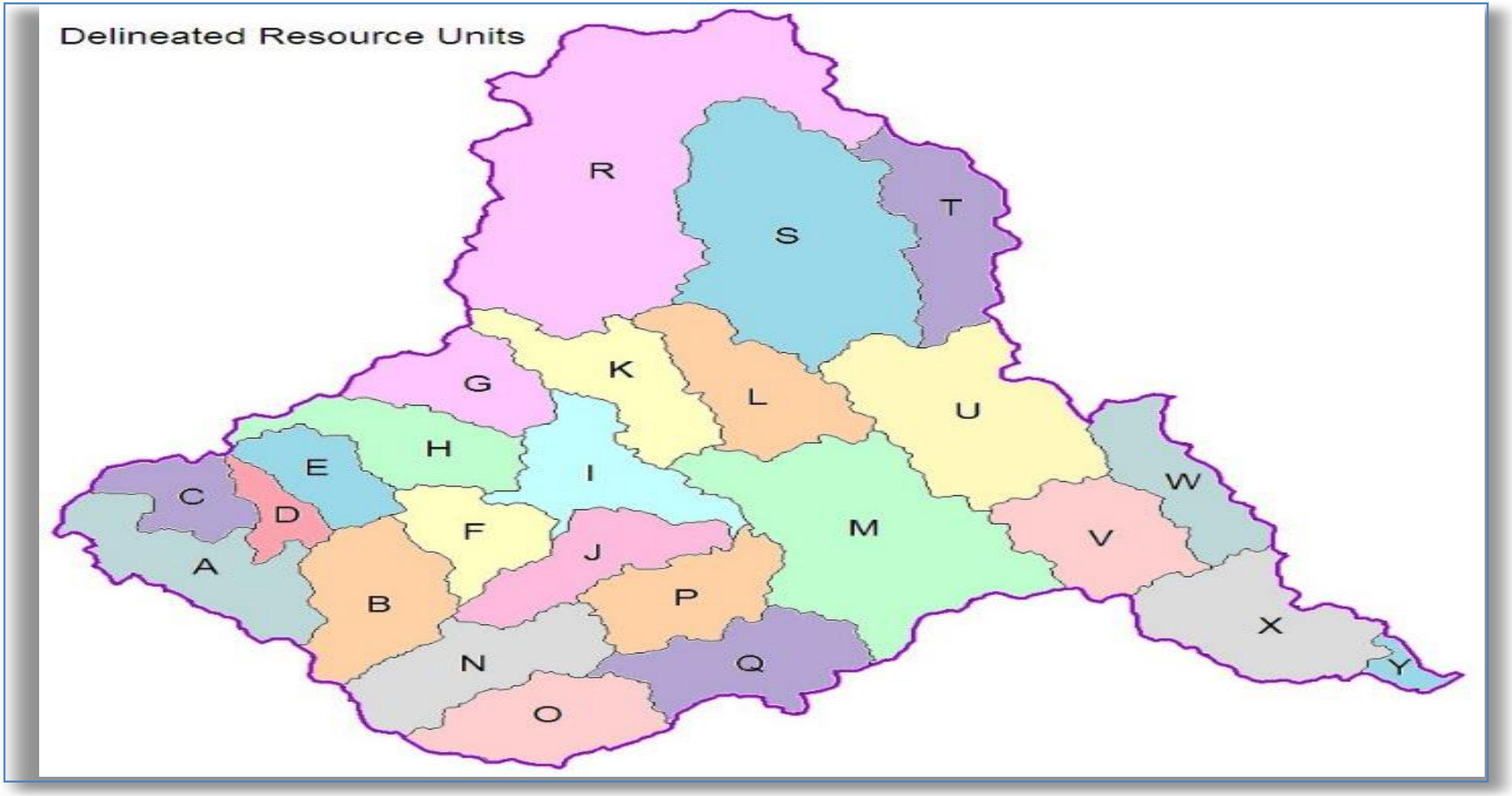
Ipharamitha yeKhemikhali	Iyunithi	Izindawo ezinamanzi zekota lonyaka i-V31J, i-V32E						
		Inani lamasempula		Izinga lamanzi angaphansi komhlaba noma isilinganiso[1)]		Unqenqeme lwe-BHN[2)]	Indawo Yokulondoloza Amanzi Aphansi Komhlaba[3)]	
		i-V31J	i-V32E	i-V31J	i-V32E		i-V31J	i-V32E
i-pH		58	257	7.69	8.32	5.0 – 9.5	8.45	9.15
Ukudluliswa kukagesi	mS/m	58	257	63.9	57.95	<150	70.29	63.77
i-Calcium njenge-Ca	mg/l	58	257	25.75	26.85	<150	28.33	29.53
i-Magnesium njenge-Mg	mg/l	58	256	10	14.29	<100	11	15.71
i-Sodium njenge-Na	mg/l	58	187	79.8	70.31	<200	87.78	77.34
i-Chloride njenge-Cl	mg/l	58	163	51.25	11.79	<200	56.38	12.97
i-Sulphate njenge-SO4	mg/l	58	256	15.5	4.77	<400	17.05	5.24
i-Nitrate njenge-NO_x-N	mg/l	58	256	0.04	0.05	<10	0.04	0.06
i-Fluoride njenge-F	mg/l	58	229	0.94	0.41	<1.0	0.94	0.45

Ipharamitha yeKhemikhali	Iyunithi	Izindawo ezinamanzi zekota lonyaka V40B			
		Inani lamasempula	Izinga lamanzi angaphansi komhlaba noma isilinganiso[1)]	Unqenqeme lwe-BHN[2)]	Indawo Yokulondoloza Amanzi Aphansi Komhlaba[3)]
		i-V40B	i-V40B		i-V40B
i-pH		9	7.72	5.0 – 9.5	8.49
Ukudluliswa kukagesi	mS/m	9	33	<150	36.3
i-Calcium njenge-Ca	mg/l	9	26.8	<150	29.48
i-Magnesium njenge-Mg	mg/l	9	15.5	<100	17.05
i-Sodium njenge-Na	mg/l	9	15.9	<200	17.49
i-Chloride njenge-Cl	mg/l	9	12.2	<200	13.42
i-Sulphate njenge-SO4	mg/l	9	8.4	<400	9.24
i-Nitrate njenge-NOx-N	mg/l	9	0.45	<10	0.49
i-Fluoride njenge-F	mg/l	9	0.23	<1.0	0.25

Ithebula 4.5. Indawo Yokulondoloza Amanzi: Amanzi oThukela

Ipharamitha yeKhemikhali	Iyunithi	Izindawo ezinamanzi zekota lonyaka i-V50A, i-V50C						
		Inani lamasempula		Izinga lamanzi angaphansi komhlaba noma isilinganiso[1)]		Unqenqeme lwe-BHN[2)]	Indawo Yokulondoloza Amanzi Aphansi Komhlaba[3)]	
		i-V50A	i-V50C	i-V50A	i-V50C		i-V50A	i-V50C
i-pH		34	15	8.24	7.6	5.0 – 9.5	9.06	8.36
Ukudluliswa kukagesi	mS/m	34	15	**173**	20.5	<150	**173**	22.55
i-Calcium njenge-Ca	mg/l	34	15	54.65	6.7	<150	60.12	7.37
i-Magnesium njenge-Mg	mg/l	34	15	67.3	3.8	<100	74.03	4.18
i-Sodium njenge-Na	mg/l	34	15	**188.45**	19.3	<200	**188.45**	21.23
i-Chloride njenge-Cl	mg/l	34	15	**218.95**	15	<200	**218.95**	16.5
i-Sulphate njenge-SO4	mg/l	34	15	7.4	7.1	<400	49.72	8.14
i-Nitrate njenge-NOx-N	mg/l	34	15	2.32	0.8	<10	2.55	0.88
i-Fluoride njenge-F	mg/l	34	15	1.85	0.38	<1.0	2.04	0.42
Ipharamitha yeKhemikhali	**Iyunithi**	**Izindawo ezinamanzi zekota lonyaka i-V60B, i-V60H**						
		Inani lamasempula		**Izinga lamanzi angaphansi komhlaba noma isilinganiso[1)]**		**Unqenqeme lwe-BHN[2)]**	**Indawo Yokulondoloza Amanzi Aphansi Komhlaba[3)]**	
		i-V60B	**i-V60H**	**i-V60B**	**i-V60H**		**i-V60B**	**i-V60H**
i-pH		13	12	8.03	8.14	5.0 – 9.5	8.83	8.95
Ukudluliswa kukagesi	mS/m	13	12	36.2	65.75	<150	39.68	72.33
i-Calcium njenge-Ca	mg/l	13	12	27.9	42.1	<150	30.69	46.31
i-Magnesium njenge-Mg	mg/l	13	12	13.8	18.1	<100	15.18	19.91
i-Sodium njenge-Na	mg/l	13	12	32	77.85	<200	35.2	85.69
i-Chloride njenge-Cl	mg/l	13	12	5.9	25	<200	6.49	27.5
i-Sulphate njenge-SO4	mg/l	13	12	6.6	9.8	<400	7.26	10.78
i-Nitrate njenge-NOx-N	mg/l	13	12	0.02	0.3	<10	0.02	0.33
i-Fluoride njenge-F	mg/l	13	12	0.28	0.59	<1.0	0.31	0.64

Amayunithi ezinsiza ahlukanisiwe kanye nezindawo ezibamba amanzi angaphansi komhlaba ezakha umfula uThukela kukhonjisiwe ngezansi kuMfanekiso 1 kanye noMfanekiso 2 ngokulandelanayo.



Umfanekiso 1: Amayunithi Ezinsiza Ahlukanisiwe

Umfanekiso 2: Ibalazwe lendawo ebamba amanzi yoThukela ekhombisa ama-IUA anezindawo ze-EWR kanye nezindawo ezibamba amanzi.