

DEPARTMENT OF WATER AND SANITATION

NO. 1179

06 NOVEMBER 2020

**NATIONAL WATER ACT, 1998
(ACT NO.36 OF 1998)****DETERMINATION OF CLASSES OF WATER RESOURCE AND ASSOCIATED RESOURCE
QUALITY OBJECTIVES FOR THE BERG CATCHMENT**

I, Lindiwe Sisulu, Minister of Human Settlements, Water and Sanitation hereby in terms of section 13(1) of the National Water Act, 1998 (Act No. 36 of 1998) determine the classes of water resources and associated resource quality objectives, as set out in the Schedule.

**L N SISULU,****MINISTER OF HUMAN SETTLEMENTS, WATER AND SANITATION**

SCHEDULE**DESCRIPTION OF THE WATER RESOURCE**

The water resource classes and resource quality objectives are determined for all or part of every significant water resource as set out below:

Water Management Area:	Berg-Olifants Water Management Area
Drainage Region:	G1, G2 Secondary Drainage Region and G40A Quaternary Drainage Region
River(s):	The Berg River is the largest river in the study area, which also includes a number of smaller catchments within the City of Cape Town Metropolitan area such as the Diep, Kuils, Eerste, Lourens, Sir Lowry's, Steenbras, as well as various small catchments on the Cape Peninsula and along the West Coast.

A. WATER RESOURCE CLASSES AS REQUIRED IN TERMS OF SECTION 13(1) OF THE NATIONAL WATER ACT, 1998

- i. The water resource classes for the Berg Catchment are listed in Table 1 according to the overall class per integrated unit of analysis (IUA), indicated in Figure 1.
- ii. IUAs are classified as either Class I: indicating high environmental protection and minimal utilisation; Class II indicating moderate protection and moderate utilisation; and Class III indicating sustainable minimal protection and high utilisation.
- iii. Table 1 provides the IUA, the recommended water resource class and its respective catchment configuration. The catchment configuration consists of a number of biophysical nodes representing river reaches or river resource units (RUs). The target ecological category (TEC) to be achieved or maintained for each RU in the IUA is provided.
- iv. It is important to note that additional existing geographically defined areas of specific ecological importance for water resources such as protected areas (e.g. Table Mountain National Park), critical biodiversity areas (CBAs), national freshwater environmental protection areas (NFEPA's) and the strategic water source areas (SWSA) should also be considered in terms of the recommended resource classes as these would indicate areas of specific importance that should be managed in a higher resource class (e.g. Class I) than would be the case for the average of all resource units across the IUA (e.g. in a Class II).

B. RESOURCE QUALITY OBJECTIVES OF WATER RESOURCES AS REQUIRED IN TERMS OF SECTION 13(1) OF THE NATIONAL WATER ACT, 1998

- i. Resource Quality Objectives (RQOs) are defined for prioritised RUs for each IUA in terms of water quantity, habitat and biota, and water quality. Prioritised RUs are indicated in Figure 1.
- ii. Table 2 to Table 10 provide the RQOs for RIVERS in priority RUs.
- iii. Table 11 to Table 17 provide the RQOs for ESTUARIES in priority RUs.
- iv. Table 18 provides the RQOs for DAMS in priority RUs.
- v. Table 19 provides the RQOs for GROUNDWATER in priority RUs.
- vi. RQOs will apply from the date signed off as determined in terms of Section 13(1) of the National Water Act, 1998, unless otherwise specified by the Minister.

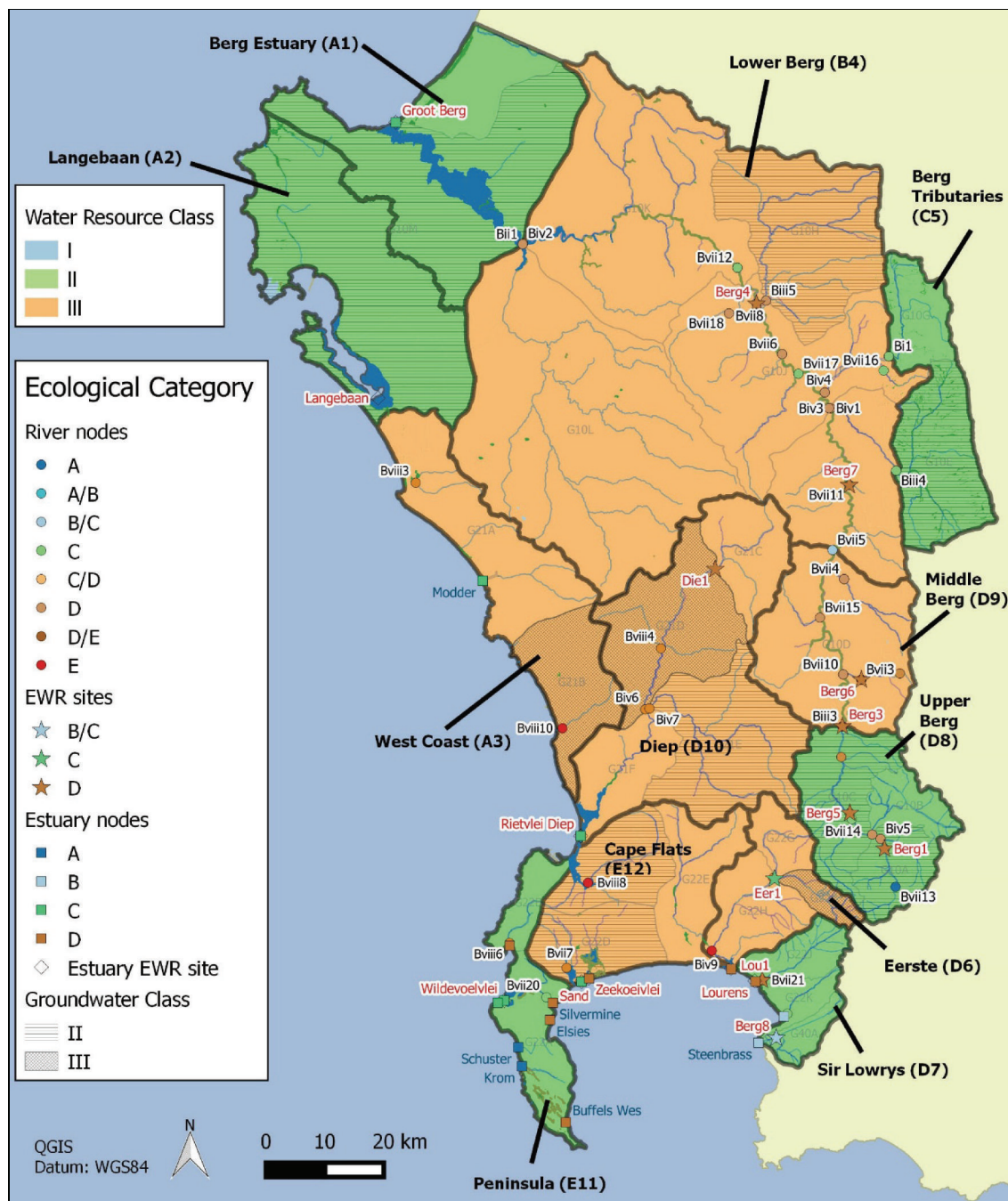


Figure 1: Water Resource Classes for the Berg Catchment

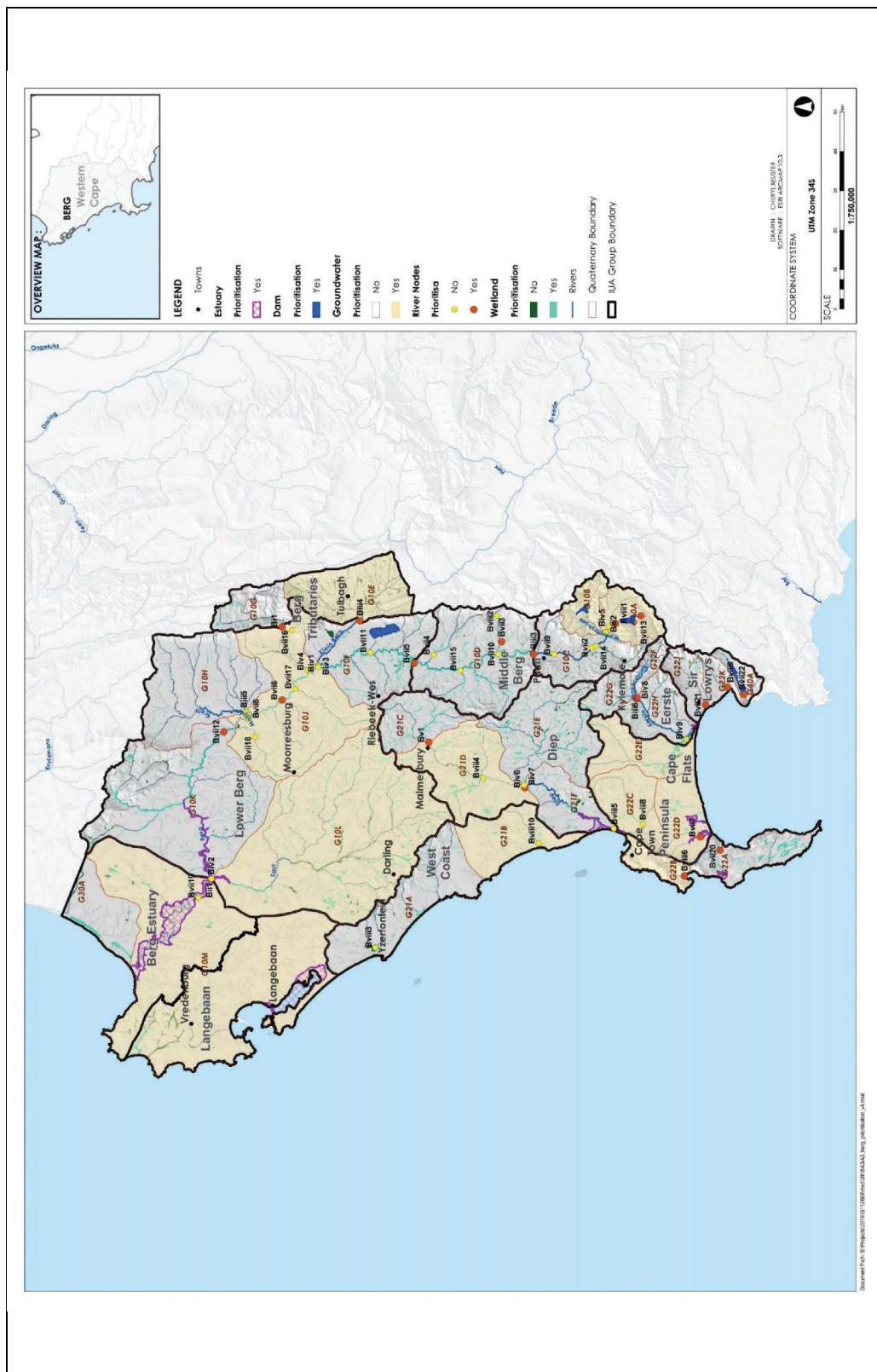


Figure 2: Priority Resource Units for the Berg Catchment

Table 1: Summary of Water Resource Classes for each IUA and the Target Ecological Category (TEC) for priority biophysical river and estuary nodes

Integrated Unit of Analysis (IUA)	Water Resource Class for IUA	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	% nMAR*
A1 Berg Estuary	II	G10M	A1-E01	Berg (Groot)	Bxi1	C	52
A2 Langebaan	II	G10M	A2-E04	Langebaan	Bxi3	A	N/A
A3 West Coast	III	G21A	A3-R01	-	Bvii3	D	14.6
		G21B	A3-R02	Sout	Bvii10	D	16.4
D8 Upper Berg	II	G10A	D8-R01	Berg	Bvii13	A	98
		G10A	D8-R02	Berg	Bvii1	C	27
		G10C	D8-R03	Berg	Blii3	D	53
D9 Middle Berg	III	G10C	D9-R04	Pombers	Bvii11	C	366
		G10D	D9-R05	Kromme	Bvii3	D	89
		G10D	D9-R06	Berg	Bvii5	D	49
C5 Berg Tributaries	II	G10E	C5-R07	Klein Berg	Blii4	C	82
		G10G	C5-R08	Vier-en-Twintig	B1	B/C	23
B4 Lower Berg	III	G10J	B4-R09	Berg	Bvii6	D	52
		G10K	B4-R10	Berg	Bvii12	D	51
D10 Diep	III	G21D	D10-R11	Diep	Bv1	D	66
		G21D	D10-R12	Diep	Biv6	D	68
		G21F	D10-E03	Rietvlei/ Diep	Bxi7	C	78
E11 Peninsula	II	G22B	E11-R13	Hout Bay	Bvii6	D	97
		G22A	E11-R14	Silvermine	Bvii20	C	98
		G22A	E11-E04	Wildevoelvlei	Bxi14	D	107
E12 Cape Flats	III	G22D	E12-R15	Keyzers	Bvii7	D	93
		G22K	E12-E05	Zandvlei	Bxi9	C	93
		G22K	E12-E05	Zeekoevlei	Bxi9	D	N/A
D6 Eerste	III	G22F	D6-R16	Eerste (Jonkershoek)	Blii6	C	93
		G22G	D6-R17	Klippies	Biv8	D	77
		G22H	D6-E06	Eerste	Bxi3	D	90
D7 Sir Lowry's	II	G22J	D7-R18	Lourens	Bvii21	D	114
		G22K	D7-R19	Sir Lowry's Pass*	Bvii9	C	84
		G40A	D7-R20	Steenbras	Bvii22	B/C	81
		G22J	D7-E07	Lourens	Bxi4	C	85

*Note: This is based on the estimated/simulated flow requirement in the system to meet downstream TECs as well as with current demands. Note that this will differ from the minimum flow requirement to meet the EWR at any given node. In some cases, the flow is above 100% of natural due to the impact of releases to meet downstream demands.

Table 2: Resource Quality Objectives for RIVERS in priority Resource Units in the Integrated Unit of Analysis D8 Upper Berg

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric													
D8 Upper Berg	II	G10A	D8-R01	Berg River	Bvii13	A	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in an A category	Months	Low	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
									Maintenance flows (million cubic metres)	High	0.440	3.209	2.041	0.000	0.771	0.000	0.640	0.695	1.107	2.328	3.706	4.569	4.707	4.255
								Nutrients	Phosphate (PO ₄ -P)	River nutrient levels must be maintained in an oligotrophic condition.	≤ 0.025 milligrams per litre (50th percentile)													
									Total inorganic nitrogen (TIN)		≤ 0.70 milligrams per litre (50th percentile)													
							Quality	Salts	Electrical conductivity (EC)	Salt concentrations need to be maintained at levels that do not adversely affect aquatic ecosystems	≤ 30 milliSiemens/metre EC (95th percentile)													
									pH range	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	5.0 ≤ pH ≤ 7.0 (5th and 95th percentiles)													
								System variables	Dissolved oxygen		DO ≥ 8 milligrams per litre (5th percentile)													
									Toxins	N/A	Unimpacted catchment, no concerns about toxic substances	N/A												
							Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Ideal category for full contact recreation	95%tile ≤ 130 cfu/100ml E coli / Faecal coliforms														
								Geomorphology	D50	Sand particle size	0.860 > D50 > 0.275													
							Habitat	Riparian vegetation	VEGRAI level 3 score.	Vegetation condition	> 62% = C category													
									Exotic species	Marginal zone cover abundance	No exotic plant species.													
									Terrestrial woody species		No terrestrial woody species.													
									Indigenous riparian woody species		Cover 5-25%.													
									Non-woody indigenous species		Cover 25-50%.													
									Reeds		No reeds													
									Exotic species	Cover < 5%.														
								Terrestrial woody species	Lower zone cover abundance	Cover < 10%.														

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric						
D8 Upper Berg	II	G10A	D8-R02	Berg River	Bviii1	C	Quantity	Low flows High flows	Indigenous riparian woody species	Upper zone cover abundance	Cover 25-60%						
									Non-woody indigenous species		Cover 25-50%						
									Reeds		No reeds						
									Exotic species		Cover < 10%.						
									Terrestrial woody species		Cover </= 15%.						
															Indigenous riparian woody species	Upper zone cover abundance	Cover 25-50%
													Non-woody indigenous species	Cover 40-70%.			
													FRAI score	> 80% = B category			
													Number of indigenous fish species.	Three species present: <i>Sandelia capensis</i> , <i>Galaxia zebratus</i> and <i>Pseudobarbus burgi</i>			
													<i>Sandelia capensis</i>	FROC = 5			
							<i>Galaxias zebratus</i>	FROC = 5									
							<i>Pseudobarbus burgi</i>	FROC = 5									
							Exotic fish species	No increase in the number of exotic fish present: <i>Onchorhynchus mykiss</i> (FROC = 5)									
								MIRAI score	Macroinvertebrate condition	> 78 % = B/C category							
							Invertebrates	SASS5 and ASPT score	SASS scores	SASS5 score >180, ASPT ≥ 7.2.							
								Number of families	Diversity of invertebrate community	>/= 23 families, at an abundance of A to C.							
								Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a C category								
								Phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	Nutrient levels must be maintained in the river at an oligotrophic condition.								
							Quality	Electrical conductivity (EC)	Salt concentrations need to be maintained at levels that do not adversely affect aquatic ecosystems								
								pH range Water temperature	pH, temperature, and dissolved oxygen are important								
											4.5 ≥ pH ≤ 7.5 (5th and 95th percentiles) 2°C difference from ambient water temperature						

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
									Dissolved oxygen	for the maintenance of ecosystem health.	DO ≥ 8 milligrams per litre (5th percentile)
								Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Ideal category for full contact recreation.	≤ 130 counts/100ml (95th percentile)
								Geomorphology	D50	Sand particle size	0.521 > D50 > 0.319
									VEGRAI level 3 score.	Vegetation condition	> 62% = C category
									Exotic species		No exotic plant species.
									Terrestrial woody species		No terrestrial woody species.
									Indigenous riparian woody species		
									Non-woody indigenous species		
									Reeds		
									Exotic species		
									Terrestrial woody species		
									Indigenous riparian woody species		
									Non-woody indigenous species		
									Reeds		
									FRAI score	Fish condition	> 62% = C category
									Number of indigenous fish species.		
									<i>Sandelia capensis</i>	Indigenous species richness	One species present: <i>Sandelia capensis</i>
									Exotic fish species		FROC = 5
									MIRAI score		No increase in the number of exotic fish present: <i>Micropterus dolomieu</i> (FROC = 5)
									SASS5 and ASPT score	Macro invertebrate condition	> 62% = C category
									Number of families	SASS scores	SASS5 score >134, ASPT ≥ 6.1.
										Diversity of invertebrate community	>/= 21 families. at an abundance of A to C.

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																	
D8 Upper Berg	II	G10C	D8-R03	Berg River	Biii3	D	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a D category	Months	High	Low	Oct	5.803	2.080	1.612	1.612	1.721	0.000	1.456	0.000	4.454	8.382	9.776	10.102	10.102	8.112
														Nov	0.000	0.000	1.612	1.612	0.000	1.456	0.000	4.454	8.382	9.776	10.102	10.102	8.112	
											Maintenance flows (million cubic metres)	High	Low	Dec	0.000	0.000	1.612	1.612	0.000	1.456	0.000	4.454	8.382	9.776	10.102	10.102	8.112	
														Jan	0.000	0.000	1.612	1.612	0.000	1.456	0.000	4.454	8.382	9.776	10.102	10.102	8.112	
														Feb	0.000	0.000	1.612	1.612	0.000	1.456	0.000	4.454	8.382	9.776	10.102	10.102	8.112	
														Mar	0.000	0.000	1.612	1.612	0.000	1.456	0.000	4.454	8.382	9.776	10.102	10.102	8.112	
	Quality	Nutrients	Phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	Nutrient levels must be maintained in the river at a mesotrophic or better condition.	≤ 0.075 milligrams/litre (50th percentile)																							
					≤ 1.75 milligrams/litre (50th percentile)																							
		Salts	Electrical conductivity (EC)	Salt concentrations need to be maintained at levels that do not adversely affect aquatic ecosystems	≤ 55 milliSiemens/metre (95th percentile)																							
					System variables	pH range Water temperature Dissolved oxygen	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature DO ≥ 6 milligrams per litre (5th percentile)																				
		Toxins	Ammonia Atrazine Endosulfan	Toxicity levels must not pose a threat to aquatic ecosystems.				≤ 0.073 milligrams per litre (95th percentile) ≤ 0.079 milligrams per litre (95th percentile) ≤ 0.0013 milligrams per litre (95th percentile)																				
					Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Acceptable category for intermediate contact recreation.	≤ 2500 counts/100ml (95th percentile)																				
		Habitat	Geomorphology Riparian vegetation	D16, D50, D84 VEGRAI level 3 score.				Sediment particle size Vegetation condition	> 38% = D/E category																			
					Biota	Fish	FRAI score		Fish condition	> 58% C/D category																		

Table 3: Resource Quality Objectives for RIVERS in priority Resource Units in the Integrated Unit of Analysis D9 Middle Berg

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																		
D9 Middle Berg	III	G10C	D9-R04	Pombers River	Bviii11	C	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a C category	Maintenance flows (million cubic metres)	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep					
												High	0.1615	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
								Nutrients	Phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	Nutrient levels must be maintained in the river at an oligotrophic condition.	≤ 0.025 milligrams/litre (50th percentile) ≤ 0.70 milligrams/litre (50th percentile)	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep					
																									High	0.1615	0.0000	0.0000	0.0000
							Salts	Electrical conductivity (EC)	Salt concentrations need to be maintained at levels that do not adversely affect aquatic ecosystems	≤ 30 milliSiemens/metre (95th percentile)	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep						
																								High	0.1615	0.0000	0.0000	0.0000	0.0000
							System variables	pH range Water temperature Dissolved oxygen	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature DO ≥ 8 milligrams per litre (5th percentile)	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep						
																								High	0.1615	0.0000	0.0000	0.0000	0.0000
							Toxins	Ammonia Atrazine Endosulfan	Toxicity levels must not pose a threat to aquatic ecosystems.	≤ 0.073 milligrams per litre (95th percentile) ≤ 0.079 milligrams per litre (95th percentile) ≤ 0.0013 milligrams per litre (95th percentile)	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep						
																								High	0.1615	0.0000	0.0000	0.0000	0.0000
							Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Acceptable category for full contact recreation.	≤ 1065 counts/100ml (95th percentile)	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep						
																								High	0.1615	0.0000	0.0000	0.0000	0.0000
Habitat	Geomorphology Riparian vegetation	GAI score - VEGRAI level 3 score.	> 38% D/E category > 22% = E category	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep													
																	High	0.1615	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Biota	Invertebrates	MIRAI score	> 80% = B category	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep													
																	High	0.1615	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
D9 Middle Berg	III	G10D	D9-R05	Kromme River	Bvii3	D	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a D category.	Maintenance flows (million cubic metres)	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep					
												High	0.0866	0.0160	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
								Nutrients	Phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	Nutrient levels must be maintained in the river in a mesotrophic condition.	≤ 0.075 milligrams per litre (50th percentile) ≤ 1.75 milligrams per litre (50th percentile)	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep					
																									High	0.0866	0.0160	0.0000	0.0000
							Quality	Nutrients	Phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	Nutrient levels must be maintained in the river in a mesotrophic condition.	≤ 0.075 milligrams per litre (50th percentile) ≤ 1.75 milligrams per litre (50th percentile)	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep					
																									High	0.0866	0.0160	0.0000	0.0000

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																																
D9 Middle Berg	III	G10D	D9-R06	Berg River	Bvii5	D	Quantity	Salts	Electrical conductivity (EC)	Salt concentrations must be maintained in an Ideal category.	≤ 30 milliSiemens/metre (95th percentile)																																
								System variables	pH range	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles)																																
									Water temperature																																		
									Dissolved oxygen		DO ≥ 8 milligrams per litre (5th percentile)																																
								Toxins	Ammonia	Toxicity levels must not pose a threat to aquatic ecosystems.	≤ 0.073 milligrams per litre (95th percentile)																																
									Atrazine		≤ 0.079 milligrams per litre (95th percentile)																																
									Endusulfan		≤ 0.0013 milligrams per litre (95th percentile)																																
								Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Acceptable category for intermediate contact recreation.	≤ 2500 counts/100ml (95th percentile)																																
								Habitat	Geomorphology	GAI score -	Geomorphological condition	> 38% = D/E category																															
									Riparian vegetation	VEGRAI level 3 score.	Vegetation condition	> 18% = F category																															
							Fish		FRAI score	Fish condition	> 22% = E category																																
							Biota	Invertebrates	MIRAI score	Macroinvertebrate condition	> 78% = B/C category																																
								Quality	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a D category	Maintenance flows (million cubic metres)	Months	Low	0.000	14.246	Oct	0.000	5.200	Nov	2.648	Dec	2.199	Jan	0.000	2.342	Feb	2.585	Mar	10.152	Apr	0.000	24.388	May	13.45	Jun	25.280	Jul	37.63	Aug	25.299	Sep	20.262
							High						0.000	2.648	Dec	2.199	Jan	0.000	2.342	Feb	2.585	Mar	10.152	Apr	0.000	24.388	May	13.45	Jun	25.280	Jul	37.63	Aug	25.299	Sep	20.262	0.000						
							Maintenance flows (million cubic metres)						Low	0.000	14.246	Oct	0.000	5.200	Nov	2.648	Dec	2.199	Jan	0.000	2.342	Feb	2.585	Mar	10.152	Apr	0.000	24.388	May	13.45	Jun	25.280	Jul	37.63	Aug	25.299	Sep	20.262	0.000
							Nutrients		Phosphate (PO ₄ -P)	Nutrient levels must be maintained in the river at a eutrophic or better condition.	≤ 0.125 milligrams/litre (50th percentile)																																
									Total inorganic nitrogen (TIN)																																		
									Electrical conductivity (EC)																																		
							Salts			Salt concentrations need to be maintained at present state levels.	95%tile ≤ 55 milliSiemens/metre EC																																
							System variables		pH range	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles)																																
									Water temperature																																		
									Dissolved oxygen																																		
							Toxins	Ammonia	Toxicity levels must not pose a threat to aquatic ecosystems.	≤ 0.073 milligrams per litre (95th percentile)																																	
							Atrazine		≤ 0.079 milligrams per litre (95th percentile)																																		

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
									Endosulfan		≤ 0.0013 milligrams per litre (95th percentile)
								Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Acceptable category for intermediate contact recreation.	95%tile ≤ 2500 cfu/100ml Escherichia coli
								Geomorphology	D50	Sand particle size	0.714 > D50 > 0.251
									VEGRAI level 3 score.	Vegetation condition	> 52% = D category
									Exotic species		No exotic plant species.
									Terrestrial woody species		No terrestrial woody species.
									Indigenous riparian woody species	Marginal zone cover abundance	Cover 50-75%.
									Non-woody indigenous species		Cover 15-25%.
									Reeds		No reeds
									Exotic species		Cover < 5%.
									Terrestrial woody species		Cover < 10%.
									Indigenous riparian woody species	Lower zone cover abundance	Cover 50-75%.
									Non-woody indigenous species		Cover 15-25%.
									Reeds		No reeds
									Exotic species		Cover < 10%.
									Terrestrial woody species		Cover < /= 15%.
									Indigenous riparian woody species	Upper zone cover abundance	Cover 50-75%.
									Non-woody indigenous species		Cover 10-20%
								Fish	FRAI score	Fish condition	> 52% = D category
									Exotic fish species	Indigenous species richness	No increase in the number of exotic fish present: <i>Cyprinus carpio</i> (FROC = 5), <i>Tilapia sparrmanii</i> , <i>Clarias gariepinus</i> , <i>Gambusia affinis</i>
								Invertebrates	MIRAI score	Macroinvertebrate condition	> 62% = C category
									SASS5 and ASPT score	SASS scores	SASS5 score >90, ASPT ≥ 4.6.
									Number of families	Diversity of invertebrate community	> /= 18 families, at an abundance of A to C.

Table 4: Resource Quality Objectives for RIVERS in priority Resource Units in the Integrated Unit of Analysis C5 Berg Tributaries

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																	
C5 Berg Tributaries	II	G10F	CS-R07	Klein Berg River	Bi1i4	C	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a C category	Months Maintenance flows (million cubic metres) High Low	Oct	1.422	1.110	0.754	0.398	0.305	0.291	0.000	0.000	0.000	0.802	1.516	1.002	1.391	1.744	0.831	1.619
									≤ 0.075 milligrams/litre (50th percentile)	≤ 1.75 milligrams/litre (50th percentile)		≤ 55 milliSiemens/metre (95th percentile)	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature ≥ 6 milligrams per litre (5th percentile)	≤ 0.073 milligrams per litre (95th percentile) ≤ 0.079 milligrams per litre (95th percentile) ≤ 0.0013 milligrams per litre (95th percentile)	≤ 2500 counts/100ml (95th percentile)	> 62% = C category	> 58% = C/D category											
								Nutrients	Phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	Nutrient levels must be maintained in the river at a mesotrophic or better condition.	≤ 0.075 milligrams/litre (50th percentile) ≤ 1.75 milligrams/litre (50th percentile)																	
									Salts	Electrical conductivity (EC)	Salt concentrations need to be maintained at levels that do not adversely affect aquatic ecosystems	≤ 55 milliSiemens/metre (95th percentile)																
							Quality	System variables	pH range Water temperature Dissolved oxygen	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature ≥ 6 milligrams per litre (5th percentile)																	
									Toxins	Ammonia Atrazine Endosulfan	Toxicity levels must not pose a threat to aquatic ecosystems.	≤ 0.073 milligrams per litre (95th percentile) ≤ 0.079 milligrams per litre (95th percentile) ≤ 0.0013 milligrams per litre (95th percentile)																
								Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Acceptable category for intermediate contact recreation.	≤ 2500 counts/100ml (95th percentile)																	
								Habitat	Riparian vegetation	VEGRAI level 3 score.	Vegetation condition	> 62% = C category																
							Biota	Fish	FRAI score	Fish condition	> 58% = C/D category																	
							C5 Berg Tributaries	II	G10G	CS-R08	Vier-en-Twintig	Bi1	B/C	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a B/C category	Months Maintenance flows (million cubic metres) High Low	Oct	2.050	1.631	1.115	0.731	0.563	0.674	1.274	0.000	0.674
≤ 0.075 milligrams per litre (50th percentile) ≤ 1.75 milligrams per litre (50th percentile)	≤ 55 milliSiemens per litre (95th percentile)	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature ≥ 6 milligrams per litre (5th percentile)	≤ 0.073 milligrams per litre (95th percentile) ≤ 0.079 milligrams per litre (95th percentile) ≤ 0.0013 milligrams per litre (95th percentile)	≤ 2500 counts/100ml (95th percentile)	> 62% = C category	> 58% = C/D category																						
Nutrients	Phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	Nutrient levels must be maintained in the river at a mesotrophic or better condition.	≤ 0.075 milligrams per litre (50th percentile) ≤ 1.75 milligrams per litre (50th percentile)																									
	Salts	Electrical conductivity (EC)	Salt concentrations need to be maintained at levels that do not adversely affect aquatic ecosystems	≤ 55 milliSiemens per litre (95th percentile)																								

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
									Total inorganic nitrogen (TIN)	maintained in the river at an oligotrophic condition.	≤ 0.70 milligrams per litre TIN
								Salts	Electrical conductivity (EC)	Salt concentrations need to be maintained in an Ideal category for aquatic ecosystems	≤ 30 milliSiemens/metre (95th percentile)
								System variables	pH range	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	4.5 ≤ pH ≤ 7.0 (5th and 95th percentiles)
									Water temperature		2°C difference from ambient water temperature
									Dissolved oxygen		≥ 8 milligrams per litre (5th percentile)
								Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Ideal category for full contact recreation.	≤ 130 counts/100ml (95th percentile)
							Habitat	Riparian vegetation	VEGRAI level 3 score.	Vegetation condition	> 88% = A/B category
							Biota	Fish	FRAI score	Fish condition	> 88% = A/B category
								Invertebrates	MIRAI score	Macroinvertebrate condition	> 82% = B category

Table 5: Resource Quality Objectives for RIVERS in priority Resource Units in the Integrated Unit of Analysis B4 Lower Berg

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric	
B4 Lower Berg	III	G10J	B4-R09	Berg River	Bvi16	D	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a D category	Maintenance flows (million cubic metres)	Months
												Low
												High
												0.831
												12.479
												33.196
							0.000					
							0.000					
							0.000					
							0.000					
							0.000					
							0.000					
0.000												
2.496												
15.280												
9.579												
8.000												
8.272												
7.947												
10.951												
14.684												
24.346												
31.158												
37.184												
1.619												

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
								Salts	Electrical conductivity (EC)	Salt concentrations need to be maintained at levels that do not adversely affect aquatic ecosystems	≤ 55 milliSiemens/metre (95th percentile)
								System variables	pH range	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles)
									Water temperature		2°C difference from ambient water temperature
									Dissolved oxygen		≥ 6 milligrams per litre (5th percentile)
								Toxins	Atrazine	Toxicity levels must not pose a threat to aquatic ecosystems.	≤ 0.079 milligrams per litre (95th percentile)
									Endosulfan		≤ 0.0013 milligrams per litre (95th percentile)
								Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Acceptable category for full contact recreation.	≤ 1065 counts/100ml (95th percentile)
								Geomorphology	GAI score -	Geomorphological condition	> 68% = B/C category
									D50	Sand particle size	0.576 > D50 > 0.349
									VEGRAI level 3 score.	Vegetation condition	> 42% = D category
									Exotic species		No exotic plant species.
									Terrestrial woody species		No terrestrial woody species.
									Indigenous riparian woody species	Marginal zone cover abundance	Cover 30-50%.
									Non-woody indigenous species		Cover 30-50%.
									Reeds		Cover 30-50%.
									Exotic species		Cover < 5%.
									Terrestrial woody species		Cover < 10%.
									Indigenous riparian woody species	Lower zone cover abundance	Cover 50-75%.
									Non-woody indigenous species		Cover 5-10%.
									Reeds		No reeds
									Exotic species		Cover < 10%.
									Terrestrial woody species		Cover < 15%.
									Indigenous riparian woody species	Upper zone cover abundance	Cover 30-50%.
									Non-woody indigenous species		Cover 30-50%.

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																														
B4 Lower Berg	III	G10K	B4-R10	Berg River	Bvii12	D	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a D category	<table><tr><th>Months</th><th>Maintenance flows (million cubic metres)</th></tr><tr><td>Low</td><td>2.760</td></tr><tr><td>High</td><td>0.000</td></tr><tr><td>Oct</td><td>0.000</td></tr><tr><td>Nov</td><td>6.56</td></tr><tr><td>Dec</td><td>5.58</td></tr><tr><td>Jan</td><td>5.73</td></tr><tr><td>Feb</td><td>5.55</td></tr><tr><td>Mar</td><td>2.760</td></tr><tr><td>Apr</td><td>9.88</td></tr><tr><td>May</td><td>15.9</td></tr><tr><td>Jun</td><td>20.4</td></tr><tr><td>Jul</td><td>37.175</td></tr><tr><td>Aug</td><td>23.0</td></tr><tr><td>Sep</td><td>0.000</td></tr></table>	Months	Maintenance flows (million cubic metres)	Low	2.760	High	0.000	Oct	0.000	Nov	6.56	Dec	5.58	Jan	5.73	Feb	5.55	Mar	2.760	Apr	9.88	May	15.9	Jun	20.4	Jul	37.175	Aug	23.0	Sep	0.000
												Months	Maintenance flows (million cubic metres)																												
												Low	2.760																												
												High	0.000																												
												Oct	0.000																												
							Nov	6.56																																	
							Dec	5.58																																	
							Jan	5.73																																	
							Feb	5.55																																	
							Mar	2.760																																	
							Apr	9.88																																	
							May	15.9																																	
							Jun	20.4																																	
							Jul	37.175																																	
							Aug	23.0																																	
Sep	0.000																																								
Biota	Invertebrates	FRAI score	Fish condition	> 18% = F category																																					
		Exotic fish species	Indigenous species richness	No increase in the number of exotic fish present: <i>Cyprinus carpio</i> , <i>Oreochromis mossambicus</i> , <i>Tilapia sparrmanii</i> , <i>Micropterus punctulatus</i> , <i>Clarias gariepinus</i> and <i>Gambusia affinis</i> .																																					
		MIRAI score	Macroinvertebrate condition	> 42% = D category																																					
		SASS5 and ASPT score	SASS scores	SASS5 score >80, ASPT ≥ 5.0																																					
		Number of families	Diversity of invertebrate community	>/= 15 families, at an abundance of A to C.																																					
Quality	System variables	pH range	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles)																																					
		Water temperature																																							
		Dissolved oxygen		≥ 6 milligrams per litre (5th percentile)																																					
		Atrazine	Toxicity levels must not pose a threat to aquatic ecosystems.	≤ 0.079 milligrams per litre (95th percentile)																																					
		Endosulfan		≤ 0.0013 milligrams per litre (95th percentile)																																					
Habitat Habitat	Riparian vegetation	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Acceptable category for intermediate contact recreation.	≤ 2500 counts/100ml (95th percentile)																																					
			GAI score - D50	Geomorphological condition	> 68% = B/C category																																				
			VEGRAI level 3 score.	Sand particle size	0.860 > D50 > 0.275																																				
			Exotic species	Vegetation condition	> 42% = D category																																				
				Marginal zone cover	No exotic plant species.																																				

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
								Geomorphology Riparian vegetation	Terrestrial woody species	abundance	No terrestrial woody species.
									Indigenous riparian woody species		Cover 30-50%
									Non-woody indigenous species		Cover 50-75%.
									Reeds		Cover 15-25%.
							Fish	Fish	FRAI score	Fish condition	85% (B category)
							Invertebrates Fish		Exotic fish species	Indigenous species richness	No increase in the number of exotic fish present: <i>Cyprinus carpio</i> , <i>Oreochromis mossambicus</i> , <i>Tilapia sparrmanii</i> , <i>Micropterus punctulatus</i> , <i>Clarias gariepinus</i> and <i>Gambusia affinis</i> .
									MIRAI score	Macroinvertebrate condition	81.4% (B/C category)
									SASS5 and ASPT score	SASS scores	SASS5 score >85, ASPT ≥ 4.2.
									Number of families	Diversity of invertebrate community	>/= 19 families, at an abundance of A to C.

Table 6: Resource Quality Objectives for RIVERS in priority Resource Units in the Integrated Unit of Analysis D10 Diep

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																							
D10 Diep	III	G21D	D10-R11	Diep River	Bv1	D	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a D category	Maintenance flows (million cubic metres)	High	0.26	0.079	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep								
												0.106	0.157																					
											≤ 0.075 milligrams/litre (50th percentile)	≤ 1.75 milligrams/litre (50th percentile)	≤ 450 milliSiemens/metre (95th percentile)	6.5 ≥ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature ≥ 6 milligrams per litre (5th percentile)																				
							Quality	Salts	Electrical conductivity (EC)	pH range Water temperature Dissolved oxygen	Diep River is naturally saline and should be maintained in its current status. pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	Nutrient levels must be maintained in the river at a mesotrophic or better condition.	Phosphate (PO ₄ -P)	Total inorganic nitrogen (TIN)	0.000	0.000	0.000	0.000	0.000	0.003	0.026	0.079	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
													0.473	0.120	0.294	0.116	0.000	0.015	0.017	0.020	0.029	0.053	0.079	0.120	0.130	0.157								
													0.120	0.473	0.120	0.116	0.000	0.015	0.017	0.020	0.029	0.053	0.079	0.120	0.130	0.157								

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
D10 Diep	III	G21D	D10-R12	Diep River	Biv6	D	Quantity	Toxins	Atrazine Endosulfan	Toxicity levels must not pose a threat to aquatic ecosystems.	≤ 0.079 milligrams per litre (95th percentile) ≤ 0.0013 milligrams per litre (95th percentile)
								Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Acceptable category for intermediate contact recreation.	≤ 2500 counts/100ml (95th percentile)
								Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a D category	Months
											Low
											High
											Maintenance flows (million cubic metres)
											0.176
											0.006
											0.000
											0.000
							Quality	Nutrients	Phosphate (PO ₄ -P)	River nutrient levels must be improved to eutrophic conditions.	≤ 0.125 milligrams/litre (50th percentile)
									Total inorganic nitrogen (TIN)		≤ 3.0 milligrams/litre (50th percentile)
								Salts	Electrical conductivity (EC)	Diep River is naturally saline and should be maintained in its current status.	
								System variables	pH range	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles)
									Water temperature		2°C difference from ambient water temperature
									Dissolved oxygen		≥ 6 milligrams per litre (5th percentile)
								Toxins	Atrazine	Toxicity levels must not pose a threat to aquatic ecosystems.	≤ 0.079 milligrams per litre (95th percentile)
									Endosulfan		≤ 0.0013 milligrams per litre (95th percentile)
								Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Acceptable category for intermediate contact recreation.	≤ 2500 counts/100ml (95th percentile)
									GAI score	Geomorphological condition	> 22% = E category
Habitat								Riparian vegetation	VEGRAI level 3 score.	Vegetation condition	> 18% = F category
								Fish	FRAI score	Fish condition	> 22% = E category
								Invertebrates	MIRAI score	Macroinvertebrate condition	> 22% = E category

Table 7: Resource Quality Objectives for RIVERS in priority Resource Units in the Integrated Unit of Analysis E11 Peninsula

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																
E11 Peninsula	II	G22B	E11-R13	Hout Bay	Bviii6	D	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a D category	Months	Maintenance flows (million cubic metres)	High	Low	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
													≤ 0.125 milligrams per litre (50th percentile) ≤ 3.0 milligrams per litre (50th percentile)														
								Quality	Nutrients		Phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	Nutrient levels must be maintained in the river in a eutrophic or better condition.	≤ 55 milliSiemens/metre (95th percentile)														
									Salts		Electrical conductivity (EC)	Salt concentrations need to be maintained at levels that do not adversely affect aquatic ecosystems	6.5 ≥ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature ≥ 6 milligrams per litre (5th percentile)														
							System variables		pH range Water temperature Dissolved oxygen	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health. Concentrations of waterborne pathogens should be maintained in an Acceptable category for full contact recreation.	≤ 1065 counts/100ml (95th percentile)																
									Pathogens	Escherichia coli	VEGRAI level 3 score.	Vegetation condition	> 22% = E category														
							Biota	Fish	FRAI score	Fish condition	> 18% = E/F category																
								Invertebrates	MIRAL score	Macroinvertebrate condition	> 42% = D category																
								Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a C category	Months	Maintenance flows (million cubic metres)	High	Low	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
														≤ 0.075 milligrams/litre (50th percentile)													

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
									Total inorganic nitrogen (TIN)	maintained in the river at a mesotrophic or better condition.	≤ 1.75 milligrams/litre (50th percentile)
								Salts	Electrical conductivity (EC)	Salt concentrations need to be maintained at levels that do not adversely affect aquatic ecosystems	≤ 350 millisiemens/metre (95th percentile)
								System variables	pH range	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles)
									Water temperature		2°C difference from ambient water temperature
									Dissolved oxygen		≥ 6 milligrams per litre (5th percentile)
								Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Ideal category for intermediate contact recreation. In the long term the aim should be to improve the river to an Acceptable category for full contact recreation.	≤ 1000 counts/100ml (95th percentile)
							Habitat	Riparian vegetation	VEGRAI level 3 score.	Vegetation condition	> 62% = C category
							Biota	Fish	FRAI score	Fish condition	> 82% = B category
								Invertebrates	MIRAI score	Macroinvertebrate condition	> 62% = C category

Table 8: Resource Quality Objectives for RIVERS in priority Resource Units in the Integrated Unit of Analysis E12 Cape Flats

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
E12 Cape Flats	III	G22D	E12-R15	Keyzers River	Bvii7	D	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a D category	Months	Maintenance flows (million cubic metres)	Low	0.012	0.038	Oct	0.001	0.014	Dec	0.000	0.011	Jan	0.000	0.009	Feb	0.000	0.009	Mar	0.000	0.012	Apr	0.019	May	0.035	Jun	0.056	Jul	0.066	Aug	0.054	Sep																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
													High	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
								Salts	Electrical conductivity (EC)	Salt concentrations need to be maintained at present day levels.	≤ 85 milliSiemens/metre (95th percentile)
								System variables	pH range Water temperature Dissolved oxygen	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature ≥ 6 milligrams/litre (5th percentile)
								Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in a Tolerable category for intermediate contact recreation. In the long term the aim should be to improve the river to an Acceptable, and then Ideal category for intermediate contact recreation.	≤ 4000 counts/100ml (95th percentile)
							Habitat	Riparian vegetation	VEGRAI level 3 score.	Vegetation condition	> 38% = D/E category
							Biota	Fish	FRAI score	Fish condition	> 62% = C category

Table 9: Resource Quality Objectives for RIVERS in priority Resource Units in the Integrated Unit of Analysis D6 Eerste

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																										
D6 Eerste	III	G22F	D6-R16	Jonkershoek River	Biii6	C	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a C category	Maintenance flows (million cubic metres)	Months	Low	0.639	Oct	0.543	Nov	0.349	Dec	0.200	Jan	0.142	Feb	0.126	Mar	0.186	Apr	0.335	May	0.522	Jun	0.645	Jul	0.714	Aug	0.693	Sep
													High	0.245	0.067	0.000	0.000	0.000	0.000	0.000	0.454	0.747	1.052	0.206	0.412												
													≤ 0.075 milligrams/litre (50th percentile)																								
													≤ 1.75 milligrams/litre (50th percentile)																								
													Nutrient levels must be maintained in the river at a mesotrophic or better condition.																								
													Salt concentrations need to be maintained at present day levels																								
							Quality	Nutrients	Phosphate (PO ₄ -P)	Total inorganic nitrogen (TIN)																											
									Electrical conductivity (EC)																												

[illegible]

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
									Endusulfan	Concentrations of waterborne pathogens should be maintained in a Tolerable category for intermediate contact recreation. In the long term the aim should be to improve the river to an Acceptable, and then Ideal category for intermediate contact recreation.	≤ 0.0013 milligrams per litre (95th percentile)
								Pathogens	Escherichia coli		≤ 4000 counts/100ml (95th percentile)
							Habitat	Riparian vegetation	VEGRAI level 3 score.	Vegetation condition	> 22% = E category
							Biota	Fish	FRAI score	Fish condition	> 18% = D/E category
								Invertebrates	MIRAI score	Macroinvertebrate condition	> 62% = C category

Table 10: Resource Quality Objectives for RIVERS in priority Resource Units in the Integrated Unit of Analysis D7 Sir Lowrys

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
D7 Sir Lowry's	II	G22J	D7-R18	Lourens River	Bvi21	D	Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a D category	Months	Maintenance flows (million cubic metres)	Low	0.568	0.592	0.520	0.410	0.254	0.141	0.100	0.108	0.151	0.277	0.448	0.523	0.355	0.083	0.000	0.000	0.000	0.000	0.563	1.007	1.463	0.297	0.593																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
													High	0.593	0.297	1.463	1.007	0.563	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
D7 Sir Lowry's	II	G22J	D7-R19	Sir Lowry's Pass River	Bviii9	C			Atrazine	threat to aquatic ecosystems.	≤ 0.079 milligrams per litre (95th percentile)
									Endosulfan		≤ 0.0013 milligrams per litre (95th percentile)
									Pathogens	Concentrations of waterborne pathogens should be maintained in an Acceptable category for intermediate contact recreation. In the long term the aim should be to improve the river to an Ideal category for intermediate contact recreation.	≤ 2500 counts/100ml (95th percentile)
							Habitat	Geomorphology	GAI score	Geomorphological condition	> 42% = D category
							Biota	Riparian vegetation	VEGRAI level 3 score.	Vegetation condition	> 42% = D category
								Fish	FRAI score	Fish condition	> 22 % = E category
								Invertebrates	MIRAI score	Macroinvertebrate condition	> 42% = D category
							Quantity	Low flows High flows	Maintenance low flows Maintenance high flows	Flows sufficient to maintain the river in a C category	Months
											High
											Low
								Nutrients	Phosphate (PO ₄ -P)	Nutrient levels must be maintained in the river at a mesotrophic or better condition.	≤ 0.075 milligrams/litre (50th percentile)
									Total inorganic nitrogen (TIN)		≤ 1.75 milligrams/litre (50th percentile)
									Electrical conductivity (EC)	Salt concentrations need to be maintained at present day levels.	≤ 55 millisiemens/metre (95th percentile)
							Quality	Salts	pH range	pH, temperature, and dissolved oxygen are important for the maintenance of ecosystem health.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles)
									Water temperature		2°C difference from ambient water temperature
									Dissolved oxygen		≥ 6 milligrams litre (5th percentile)
							Toxins		Ammonia	Toxicity levels must not pose a threat to aquatic ecosystems.	≤ 0.073 milligrams per litre (95th percentile)
									Atrazine		≤ 0.079 milligrams per litre (95th percentile)
									Endosulfan		≤ 0.0013 milligrams per litre (95th percentile)

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
D7 Sir Lowry's	II	G40A	D7-R20	Steenbras River	Bvii22	B/C	Quantity	Pathogens	Escherichia coli	Concentrations of waterborne pathogens should be maintained in an Acceptable category for intermediate contact recreation. In the long term the aim should be to improve the river to an Ideal category for intermediate contact recreation.	≤ 2500 counts/100ml (95th percentile)
										Vegetation condition	> 42% = D category
										Fish condition	> 42% = D category
							Quality	Riparian vegetation	VEGRAI level 3 score.	Macroinvertebrate condition	> 62% = C category
										Fish	
										MIRAI score	
										Low flows	
										High flows	
										Maintenance low flows	
										Maintenance high flows	
							Habitat	Nutrients	Phosphate (PO ₄ -P)	Nutrient levels must be maintained in the river at an oligotrophic condition.	≤ 0.025 milligrams/litre (50th percentile)
										Total inorganic nitrogen (TIN)	≤ 0.70 milligrams/litre (50th percentile)
										Electrical conductivity (EC)	≤ 55 millisiemens/metre (95th percentile)
										pH range	5.0 ≤ pH ≤ 7.5 (5th and 95th percentiles)
										Water temperature	2°C difference from ambient water temperature
										Dissolved oxygen	≥ 6 milligrams per litre (5th percentile)
										Toxins	≤ 0.1 milligrams per litre (95th percentile)
										Manganese	≤ 0.18 milligrams per litre (95th percentile)
										Escherichia coli	≤ 1065 counts/100ml (95th percentile)
										Geomorphology	> 82% = B category

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
								Riparian vegetation	VEGRAI level 3 score.	Vegetation condition	> 78% = B/C category
							Biota	Fish	FRAI score	Fish condition	> 52% = D category
								Invertebrates	MIRAI score	Macroinvertebrate condition	> 92% = A category

Table 11: Resource Quality Objectives for ESTUARIES in priority Resource Units in the Integrated Unit of Analysis A1 Berg Estuary

IUA	Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
A1 Berg Estuary	II	G10M	A1-E01	Berg (Groot) Estuary	Bxi1	C	Quantity	Surface flow	Flow	River inflow should never drop below 0.6 m ³ .s ⁻¹ and should not be below 1 m ³ .s ⁻¹ for longer than 4 months; Flood frequency Should not increase/decrease by more than 10% from 2004 baseline conditions	Months MMR/MAR (% Natural) Annual Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep 486.86 (52%) 78.34 (63%) 137.15 (68%) 123.35 (61%) 64.25 (42%) 22.18 (26%) 9.13 (36%) 1.66 (20%) 1.50 (23%) 1.61 (19%) 3.92 (25%) 12.55 (36%) 31.21 (46%) Estuary (low flows < 1 m ³ .s ⁻¹ , summer): DIN <300 µg/l; DRP <100 µg/l in Zones A and B, DIN <80 µg/l; DRP <30 µg/l in Zones C and D Estuary (high flows > 5 m ³ .s ⁻¹ , winter): DIN <800 µg/l; DRP <60 µg/l in Zones A-D River inflow (< 1 m ³ .s ⁻¹ , summer): DIN <80 µg/l; DRP <20 µg/l River inflow (> 5 m ³ .s ⁻¹ , winter): DIN <800 µg/l; DRP <60 µg/l Salinity <20 for longer than 3 months at 20 km upstream from the mouth; Salinity <1 ppt above 40 km upstream of the mouth; Salinity of Salinity everywhere in estuary <35; Groundwater salinity on floodplain <45; TDS of river inflow <3500 mg/l "River inflow: 7 < pH < 8.5 Estuary: 7 < pH < 8.5 " "River inflow: DO >4 mg/l Secchi depth >1 m Zones A and B <1.0 m during low flow (< 1m ³ .s ⁻¹) Concentrations of waterborne ≤185 Enterococci/100 ml) (90th percentile, HHazen pathogens not to exceed limitsystem)
							Quality	Salinity	Salinity	Salinity distribution not to exceed TPCs for fish, invertebrates, macrophytes and microalgae	
								System variables	Temperature	System variables not to exceed TPCs for biota	
									pH		
									Dissolved oxygen		
									Secchi depth		
									Enterococci		
							Pathogens		Escherichia coli		

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
									considered suitable for recreational use	for ≤500 E. coli/100 ml (90th percentile, Hazen system)
							Hydrodynamics	Mouth state		Permanently open
							Sediments	Tidal variation		<10% change from present state
						Habitat		Sediment characteristics, Channel shape/size	Habitat health adequate for microalgae, macrophytes, invertebrates, fish, birds and recreational use	Bathymetry and sediment Mdd change <10% from baseline
							Microalgae	Biomass and community composition of phytoplankton and benthic microalgae community	Phytoplankton biomass and composition suitable for invertebrates, fish, birds and recreational use	Blue-green algae <10% of phytoplankton cell counts, Benthic microphytobenthic < 40 mg/m ² chlorophyll a, The frequency of dinoflagellates < 5% of the total phytoplankton counts
						Biota			Macrophyte cover and composition suitable for invertebrates, fish, birds and recreational use	Maintain the present distribution (2003-2005) and abundance of the different plant community types and estuarine habitats (intertidal mudflats with <i>Zostera capensis</i> 206 ha, intertidal salt marsh 499 ha, open pan 1159 ha, halophytic floodplain 1521 ha, xeric floodplain 919.1 ha, reeds and sedges 586.6 ha and sedge pan 292.5 ha), Prevent an increase in mats of macroalgae in the lower intertidal reaches, Reduce the area covered by water hyacinth (<i>Eichhornia crassipes</i>) in the upper reaches by 50% compared to the present state (2003-2005), Prevent an increase in size of the open pan dry areas (1159 ha in 2003-2005), Prevent a decrease in size of the sedge pan areas (293 ha in 2003-2005). <i>Juncus maritimus</i> , and waterblometjes <i>Aponogeton distachyos</i> are present, Prevent the spread of invasive aliens in the riparian zone (e.g. <i>Acacia mearnsii</i> and <i>Eucalyptus camaldulensis</i>), Maintain intact reed and sedge stands along the banks of the estuary by ensuring that salinity is not greater than 20 ppt for 3 months at 20 km from the month during summer, Prevent an increase in bare ground in the halophytic and xeric floodplain habitats by maintaining the present-day flooding patterns
							Macrophytes	Extent, distribution and richness of macrophytes		

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
							Invertebrates	Macrofauna community composition, abundance and richness	Abundance and community composition of Invertebrates suitable for fish, birds	Retain present species richness, distribution of species and mix (low species abundance, high dominance) in Zones A to the middle reaches of Zone C. One or two species will always be present at high densities compared to others (e.g. <i>Pseudodiaptomus hessei</i> , <i>Grandidirella sp.</i>) in these Zones (A to C). Indicator species such as <i>Capitella capitata</i> , should not dominate benthic species at any site, <i>Callinassa kraussi</i> and <i>Upogebia africana</i> distribution patterns remain similar to present state.
							Fish	Fish community composition, abundance and richness	Abundance and community composition of fish community suitable for birds	Retain the full complement of estuarine resident (7 species) and estuary associated marine (5 species) present in the estuary with population sizes sufficient to ensure their persistence in perpetuity, Ensure that exotic freshwater species do not increase to levels where they can exclude any more indigenous species through predation or competitive interactions, Maintain recruitment of adult and juvenile fish at present levels. This requires maintaining sufficient flow for freshwater plume (temperature, salinity and olfactory gradient) entering the sea. This implies that there should be a significant number of 0-1-year-old fish and no missing year classes.
							Birds	Avifauna community composition, abundance and richness	Health avifauna community contributing to conservation of avifauna species in SA	Retain at least 90% of the baseline species richness, abundance and diversity of the bird community determined using regression slope based on a 3-year running average

Table 12: Resource Quality Objectives for ESTUARIES in priority Resource Units in the Integrated Unit of Analysis A2 Langebaan

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
A2 Langebaan	G10M	A2-E02	Langebaan	Bxi3	A	Quality	Nutrients	NO ₃	Inorganic nutrient concentrations not to exceed TPCs for macrophytes and microalgae	NO ₃ < 1.3 mg.l ⁻¹
							Salinity	Salinity	Salinity distribution not to exceed TPCs for fish, invertebrates, macrophytes and microalgae	Salinity at the head of the lagoon < 40; Rest of the lagoon 34 < Salinity < 36

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
							System variables	Dissolved oxygen	System variables not to exceed TPCs for biota	>4 mg.l ⁻¹
							Pathogens	Secchi depth		Secchi depth >1 m
								Enterococci	not to exceed limits considered suitable for recreational use	≤185 Enterococci/100 ml (90th percentile, Hazen system)
								Escherichia coli		≤500 E. coli/100 ml (90th percentile, Hazen system)
						Habitat	Hydrodynamics	Tidal amplitude	Habitat health adequate for microalgae, macrophytes, invertebrates, fish, birds and recreational use	Tidal amplitude should not change more than 10% from present state (2017)
							Sediments	Sediment characteristics, Channel shape/size		Bathymetry and sediment MdØ change <10% from baseline
							Microalgae	Biomass and community composition of phytoplankton and benthic microalgae community	Phytoplankton biomass and composition suitable for invertebrates, fish, birds and recreational use	Maintain low phytoplankton biomass (chlorophyll- a < 20 µg/ℓ) and a diversity of phytoplankton groups.
							Macrophytes	Extent, distribution and richness of macrophytes	Macrophyte cover and composition suitable for invertebrates, fish, birds and recreational use	Maintain the distribution and area cover of macrophyte habitats particularly the salt marsh and seagrass. Maintain the large groundwater fed rush habitat.
							Invertebrates	Macrofauna community composition, abundance and richness	Abundance and community composition of Invertebrates suitable for fish, birds	In terms of Invertebrates Langebaan lagoon is currently in an A category. The invertebrate communities are in good health with species richness, abundances and composition scoring highly.
						Biota	Fish	Fish community composition, abundance and richness	Abundance and community composition of fish community suitable for birds	The fish community should include healthy populations of exploited fish species, specifically the harders, white stumpnose, blacktail, elf and smooth hound shark juveniles should all be present in beach seine net sampling surveys (at least 10 hauls in 3 different sites) of the near shore areas. Adults of these species should remain the main components in the catches of line and net fisheries in the lagoon, and catch rates should remain stable or increase.
							Birds	Avifauna community composition, abundance and richness	Health avifauna community contributing to conservation of avifauna species in SA	Retain at least 90% of the baseline species richness, abundance and diversity of the bird community determined using regression slope based on a 3-year running average.

Table 13: Resource Quality Objectives for ESTUARIES in priority Resource Units in the Integrated Unit of Analysis D10 Diep

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric																													
D10 Diep	G21F	D10-E03	Rietvlei/Diep	Bviii5	D	Quantity	Surface flow	Flow	Freshwater inflow adequate to maintain water quality and habitat suitable for flora and fauna	Months	Oct	80 %	Nov	80 %	Dec	80 %	Jan	93 %	Feb	100 %	Mar	100 %	Apr	80 %	May	80 %	Jun	80 %	Jul	80 %	Aug	80 %	Sep	80 %	Annual				
										MMR/MAR (% Nat)																													
										River inflow: <800 µg.l ⁻¹																													
						Quality	Nutrients	DIN	Inorganic nutrient concentrations not to exceed TPCs for macrophytes and microalgae	Lower estuary (Milnerton lagoon): <1000 µg.l ⁻¹																													
										DIP	River inflow: <60 µg.l ⁻¹																												
								Lower estuary (Milnerton lagoon): <500 µg.l ⁻¹																															
						Quality	Salinity	Salinity	Salinity distribution not to exceed TPCs for fish, invertebrates, macrophytes and microalgae	Average salinity in lower estuary (Milnerton lagoon) = 20, maximum = 35																													
										System variables	Dissolved oxygen	System variables (temperature, pH, dissolved oxygen, suspended solids and turbidity) not to exceed TPCs for biota	>4 mg.l ⁻¹																										
													Pathogens	Enterococci	Concentrations of waterborne pathogens not to exceed limits considered suitable for recreational use	≤185 Enterococci/100 ml) (90th percentile, Hazen system)																							
						Habitat	Hydrodynamics	Mouth state	Habitat health adequate for microalgae, macrophytes, invertebrates, fish, birds and recreational use	≤500 E. coli/100 ml (90th percentile, Hazen system)																													
										Sediments	Sediment characteristics, Channel shape/size	Tidal variation	Permanently open	<10% change from present state																									
						Bathymetry and sediment Mdd change <10% from baseline																																	

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
						Biota	Microalgae	Biomass and community composition of phytoplankton and benthic microalgae community	Phytoplankton biomass and composition suitable for invertebrates, fish, birds and recreational use	Maintain low phytoplankton biomass (chlorophyll- <i>a</i> < 50 µg/L) and a diversity of phytoplankton groups.
							Macrophytes	Extent, distribution and richness of macrophytes	Macrophyte cover and composition suitable for invertebrates, fish, birds and recreational use	Maintain the distribution and area cover of macrophyte habitats particularly the salt marsh
							Invertebrates	Macrofauna community composition, abundance and richness	Abundance and community composition of invertebrates suitable for fish, birds	Restore and maintain species richness, distribution of species and mix (low species abundance, high dominance); Indicator species such as <i>Capitella capitata</i> , should not dominate benthic species at any site; <i>Callinassa kraussi</i> and <i>Upogebia africana</i> distribution patterns similar to reference state.
							Fish	Fish community composition, abundance and richness	Abundance and community composition of fish community suitable for birds	Restore and maintain the full complement of estuarine resident and estuary associated marine present in the estuary with population sizes sufficient to ensure their persistence in perpetuity; Ensure that exotic freshwater species do not increase to levels where they can exclude any more indigenous species through predation or competitive interactions; Maintain recruitment of adult and juvenile fish at present levels.
							Birds	Avifauna community composition, abundance and richness	Health avifauna community contributing to conservation of avifauna species in SA	Retain at least 90% of the baseline species richness, abundance and diversity of the bird community determined using regression slope based on a 3-year running average.

Table 14: Resource Quality Objectives for ESTUARIES in priority Resource Units in the Integrated Unit of Analysis E11 Peninsula

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric											
E11 Peninsula	G22A	E11-E04	Wildebeest	Bx14	D	Quantity	Surface flow	Flow	Freshwater inflow does not exceed requirements for maintaining water quality and habitat suitable for flora and fauna	Months	120 %	120 %	120 %	120 %	120 %	120 %	120 %	120 %	120 %	120 %	Annual

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
						Quality	Nutrients	DIN	Inorganic nutrient concentrations not to exceed TPCs for macrophytes and microalgae	River inflow: <1000 µg.l ⁻¹ Wildevleivlei: <1000 µg.l ⁻¹ ; Lower Estuary (backshore lagoon): <200 µg.l ⁻¹ Wastewater inflow: <500 µg.l ⁻¹ Wildevleivlei: <500 µg.l ⁻¹ ; Lower estuary (backshore lagoon): <50 µg.l ⁻¹
								DIP		
							Salinity	Salinity	Salinity distribution not to exceed TPCs for fish, invertebrates, macrophytes and microalgae	Average salinity in lower estuary (backshore lagoon) >10, maximum = 35, average salinity in Wildevleivlei > 2
							System variables	Dissolved oxygen	System variables not to exceed TPCs for biota	>4 mg.l ⁻¹
							Pathogens	Enterococci	Concentrations of waterborne pathogens not to exceed limits considered suitable for recreational use	≤185 Enterococci/100 ml) (90th percentile, Hazen system)
								Escherichia coli		≤500 E. coli/100 ml (90th percentile, Hazen system)
						Habitat	Hydrodynamics	Mouth state	Habitat health adequate for microalgae, macrophytes, invertebrates, fish, birds and recreational use	Mouth should remain open >70% of the time
							Sediments	Tidal variation		<10% change from present state
								Sediment characteristics, Channel shape/size		Bathymetry and sediment MdØ change <10% from baseline
						Biota	Microalgae	Biomass and community composition of phytoplankton and benthic microalgae recreational use		Improvement from current hypereutrophic state where toxic cyanobacteria are common and flow to the sea
							Macrophytes	Extent, distribution and richness of macrophytes	Macrophyte cover and composition suitable for invertebrates, fish, birds and recreational use	Retain present species richness, distribution of species and mix (low species abundance, high dominance); Maintain the fringing vegetation around the vleis as this is important for bank stabilisation and nutrient uptake; Improve connectivity between the sea, channel and lower vleis; Control the spread of invasive floating aquatic macrophyte species present in the vleis e.g. water fern.
							Invertebrates	Macrofauna community composition, abundance and richness	Abundance and community composition of invertebrates suitable for fish, birds	Move from a D category to a C category. The estuary should have a viable population of <i>Callichirus kraussi</i> in the backwater lagoon (10/m2). In addition, the invertebrate community should include 2 other estuarine species in the canal. At least three marine invertebrate species present near the mouth.

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
							Fish	Fish community composition, abundance and richness	Abundance and community composition of fish community suitable for birds	Maintain fish assemblage that includes at least two species of mullet, <i>Liza richardsonii</i> and either/both <i>Mugil cephalus</i> and <i>Pseudomyxus capensis</i> . Substantial seasonal fluctuations in abundance of these mullet species are expected to occur, but mullet should remain more abundant than the alien freshwater species currently inhabiting the vleis.
							Birds	Avifauna community composition, abundance and richness	Health avifauna community contributing to conservation of avifauna species in SA	Retain at least 90% of the baseline species richness, abundance and diversity of the bird community determined using regression slope based on a 3-year running average.

Table 15: Resource Quality Objectives for ESTUARIES in priority Resource Units in the Integrated Unit of Analysis E12 Cape Flats

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
E12 Cape Flats	G22K	E12-E05	Zandvlei	Bxi9	D	Quantity	Surface flow	Flow	Freshwater inflow adequate to maintain water quality and habitat suitable for flora and fauna.	Months
										Annual
										Oct
										Nov
										Dec
										Jan
										Feb
										Mar
										Apr
										May
										Jun
										Jul
										Aug
										Sep
										Annual
						Quality	Nutrients	DIN	Inorganic nutrient concentrations not to exceed TPCs for macrophytes and microalgae	River inflow: <1000 µg.l-1
										Estuary: <150 µg.l-1
								DIP	Salinity distribution not to exceed TPCs for fish, invertebrates, macrophytes and microalgae	River inflow: <300 µg.l-1
										Estuary: <100 µg.l-1
							Salinity	Salinity	System variables not to exceed TPCs for biota	15 < Average salinity <35
										>4 mg.l-1
						Pathogens	Dissolved oxygen	Enterococci	Concentrations of waterborne pathogens should be suitable for intermediate contact recreation.	≤185 Enterococci/100 ml (90th percentile, Hazen system)
										≤500 E. coli/100 ml (90th percentile, Hazen system)
						Hydrodynamics	Mouth state	Habitat health adequate for	Mouth should remain open >20% of the time	

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IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
								DIP	concentrations not to exceed TPCs for macrophytes and microalgae	Lower estuary: <1000 µg.l ⁻¹ River inflow: <500 µg.l ⁻¹ Lower estuary: <500 µg.l ⁻¹
							Salinity	Salinity	Salinity distribution not to exceed TPCs for fish, invertebrates, macrophytes and microalgae	Average salinity in lower >10, maximum = 35
							System variables	Dissolved oxygen	System variables (temperature, pH, turbidity, dissolved oxygen, suspended solids and turbidity) not to exceed TPCs for biota	>4 mg.l ⁻¹
							Pathogens	Enterococci	Concentrations of waterborne pathogens should be suitable for intermediate contact recreation	≤185 Enterococci/100 ml (90th percentile, Hazen system)
								Escherichia coli		≤500 E. coli/100 ml (90th percentile, Hazen system)
						Habitat	Hydrodynamics	Mouth state	Habitat health adequate for microalgae, macrophytes, invertebrates, fish, birds and recreational use	Mouth should remain open >30% of the time
							Microalgae	Biomass and community composition of phytoplankton and benthic microalgae community	Phytoplankton biomass and composition suitable for invertebrates, fish, birds and recreational use	Phytoplankton biomass (measured as chlorophyll-a) <100 µg/ℓ and a diversity of phytoplankton groups.
						Biota	Macrophytes	Extent, distribution and richness of macrophytes	Macrophyte cover and composition suitable for invertebrates, fish, birds and recreational use	Maintain and/or restore distribution and area cover of macrophyte habitats particularly salt marsh
							Invertebrates	Macrofauna community composition, abundance and richness	Abundance and community composition of invertebrates suitable for fish, birds	Restore and maintain species richness, distribution of species and mix (low species abundance, high dominance); Indicator species such as <i>Capitella capitata</i> , should not dominate benthic species at any site; <i>Callianassa kraussi</i> and <i>Upogebia africana</i> distribution patterns similar to reference state.

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
								Tidal variation	microalgae, macrophytes, invertebrates, fish, birds and recreational use	<10% change from present state
							Microalgae	Biomass and community composition of phytoplankton and benthic microalgae community	Phytoplankton biomass and composition suitable for invertebrates, fish, birds and recreational use	Maintain low phytoplankton biomass (chlorophyll- a < 20 µg/l) and a diversity of phytoplankton groups.
							Macrophytes	Extent, distribution and richness of macrophytes	Macrophyte cover and composition suitable for invertebrates, fish, birds and recreational use	Restore and maintain the distribution and area cover of macrophyte habitats particularly salt marsh
							Invertebrates	Macrofauna community composition, abundance and richness	Abundance and community composition of Invertebrates suitable for fish, birds	Restore and maintain species richness, distribution of species and mix (low species abundance, high dominance); Indicator species such as Capitella capitata, should not dominate benthic species at any site; Callianassa kraussi and Upogebia africana distribution patterns similar to reference state.
						Biota	Fish	Fish community composition, abundance and richness	Abundance and community composition of fish community suitable for birds	Restore and maintain the full complement of estuarine resident and estuary associated marine present in the estuary with population sizes sufficient to ensure their persistence in perpetuity; Ensure that exotic freshwater species do not increase to levels where they can exclude any more indigenous species through predation or competitive interactions; Maintain recruitment of adult and juvenile fish at present levels.
							Birds	Avifauna community composition, abundance and richness	Health avifauna community contributing to conservation of avifauna species in SA	Retain at least 90% of the baseline species richness, abundance and diversity of the bird community determined using regression slope based on a 3-year running average.

IUA Class	Quaternary Catchment	RU	Resource Name	Biophysical Node Name	TEC	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
							Invertebrates	Macrofauna community composition, abundance and richness	Abundance and community composition of invertebrates suitable for fish, birds	Restore and maintain species richness, distribution of species and mix (low species abundance, high dominance); Indicator species such as <i>Capitella capitata</i> , should not dominate benthic species at any site; <i>Callinassa kraussi</i> and <i>Upogebia africana</i> distribution patterns similar to reference state.
							Fish	Fish community composition, abundance and richness	Abundance and community composition of fish community suitable for birds	Restore and maintain the full complement of estuarine resident and estuary associated marine present in the estuary with population sizes sufficient to ensure their persistence in perpetuity; Ensure that exotic freshwater species do not increase to levels where they can exclude any more indigenous species through predation or competitive interactions; Maintain recruitment of adult and juvenile fish at present levels.
							Birds	Avifauna community composition, abundance and richness	Health avifauna community contributing to conservation of avifauna species in SA	Retain at least 90% of the baseline species richness, abundance and diversity of the bird community determined using regression slope based on a 3-year running average.

Table 18: Resource Quality Objectives for DAMS in priority Resource Units in the Berg Catchment

UA Class	Quaternary Catchment	RU	Resource Name	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric														
D8 Upper Berg	G10A	D8-D01	Berg Dam	Quantity	Low flows	Dam level Flow releases: Berg EWR1 in G10A nMAR = 141.68 million m3/a pMAR: 126.00 million m3/a REC = C category	During the dry season dam levels must be sufficient for releases for irrigation and human use and protection of ecosystem function downstream. Water intake temperature to be managed.	Months	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual	
								Maintenance low flows (million cubic metres)	2.143	1.293	1.071	0.803	0.726	0.803	1.296	2.679	4.147	4.285	4.285	3.888	29.177	
				Quality	High flows		During the wet season high flow ecological releases are made according to the decision-support system.	Maintenance high flows (million cubic metres)	0.000	0.544	0.544	0.000	0.000	0.000	0.000	0.778	0.000	4.666	10.109	0.000	0.000	11.839
								≤ 0.015 milligrams/litre (50 th percentile)														
				Quality	Nutrients	Ortho-phosphate (PO ₄ P) Total inorganic nitrogen (TIN)	The system must be maintained in a mesotrophic (moderately enriched) state or better to protect against nuisance algal blooms and excessive water treatment costs.	≤ 0.07 milligrams/litre (50 th percentile)														

IUA Class	Quaternary Catchment	RU	Resource Name	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
D8 Upper Berg	G10B	D8-D02	Wemmershoek Dam	Quantity	Salts	Electrical conductivity	Salt levels must be maintained at concentrations where they do not impact negatively on the ecosystem, are maintained in an Ideal category for domestic and irrigation water supply.	≤ 30 milliSiemens/metre (95 th percentile)
					System variables	pH	The water in the dam is naturally acidic and it should be maintained within the historical range.	5.5 ≥ pH ≤ 7.5 (5 th and 95 th percentiles)
					Pathogens	Escherichia coli	The dam must be maintained in a state that is in an Ideal category for full contact recreation to protect its domestic water supply purpose.	≤ 130 counts/100ml (95 th percentile)
				Low flows	Dam levels		Dam levels must be sufficient for urban and industrial use water supply, and to supply some irrigators.	% of dam volume. No EWR site
B4 Lower Berg	G10F	B4-D03	Voelvlei Dam	Quality	Nutrients	Ortho-phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	The reservoir is currently in a Natural state and should be kept in an oligotrophic state. For supply to the City of Cape Town and Paarl. As a key domestic water supply reservoir this status should be maintained and protected.	≤ 0.005 milligrams/litre (50 th percentile)
						Ortho-phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)		≤ 0.50 milligrams/litre (50 th percentile)
					Low flows	Dam levels	Dam levels must be sufficient for urban and industrial use water supply via the two WTWs, and releases to Berg River for human and irrigation use.	% of dam volume. No EWR site
				Quality	Nutrients	Ortho-phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	The reservoir is currently in a Eutrophic state and should be improved to a mesotrophic state or better to protect the water supply to the City of Cape Town and Swartland towns against harmful algal blooms and taste & odour problems in treated domestic water.	≤ 0.025 milligrams/litre (50 th percentile) ≤ 0.70 milligrams/litre (50 th percentile)

IUA Class	Quaternary Catchment	RU	Resource Name	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
B4 Lower Berg	G10K	B4-D04	Misverstand Weir	Quantity	Salts	Electrical conductivity	Salt levels must be maintained at concentrations where they do not impact negatively on the ecosystem, and are in an Ideal category for domestic water use and for irrigation water use.	≤ 30 millSiemens/metre (95 th percentile)
					Pathogens	Escherichia coli, Faecal coliforms	The system must be maintained in a state that is in an Acceptable category for intermediate contact recreation	≤ 2000 counts/100ml (95 th percentile)
					Low flows	Dam levels	Water levels in the weir must be sufficient for supply for human use via the Withoogte WTW.	% of dam volume
					Nutrients	Ortho-phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	The reservoir is currently in a Eutrophic state and should be in the short term be maintained in its current state or better. The long-term objective should be to improve the nutrient status to a mesotrophic state or better to protect the water supply to the West Coast towns.	≤ 0.025 milligrams/litre (50 th percentile)
						Ortho-phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)		≤ 2.5 milligrams/litre (50 th percentile)
				Quality	Salts	Electrical conductivity	Salt levels must be maintained at concentrations where they do not impact negatively on the ecosystem, and are in an Ideal category for domestic and industrial water use, and for irrigation water use.	≤ 70 millSiemens/metre (95 th percentile)
					Pathogens	Escherichia coli	The reservoir must be maintained in a state that is safe for domestic water use (with treatment) and for intermediate contact recreation as the dam is a popular recreation venue.	≤ 1000 counts/100 ml (95 th percentile)
						Faecal coliforms		≤ 1000 counts/100 ml (95 th percentile)

IUA Class	Quaternary Catchment	RU	Resource Name	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric
D7 Sir Lowry's	G40A	D7-D05	Upper Steenbras Dam	Quantity	Low flows	Dam levels	Dam levels must be sufficient for releases to the Lower Steenbras Dam for urban and industrial use and protection of ecosystem functioning downstream of the Lower Steenbras Dam, hydropower energy generation via the Steenbras Pumped Storage Scheme as well as for water supply to the Western Cape Water Supply System (City of Cape Town) via the Faure WTW.	% of dam volume
				Quality	Nutrients	Ortho-phosphate (PO ₄ -P)	The system must be maintained in a mesotrophic state or better.	≤ 0.015 milligrams/litre (50 th percentile)
						Total inorganic nitrogen (TIN)		
						Ortho-phosphate (PO ₄ -P)		
						Total inorganic nitrogen (TIN)		≤ 0.07 milligrams/litre (50 th percentile)
					Salts	Electrical conductivity	Salt levels must be maintained at concentrations where they do not impact negatively on the ecosystem, and are in an Ideal category for domestic and industrial water use, and for hydropower generation.	≤ 30 milliSiemens/metre (95 th percentile)
					Pathogens	Escherichia coli	The system must be maintained in a state that is safe for municipal use (with treatment).	≤ 130 counts/100 ml (95 th percentile)
						Faecal coliforms		≤ 130 counts/100 ml (95 th percentile)
D7 Sir Lowry's	G40A	D7-D06	Lower Steenbras Dam	Quantity	Low flows	Dam level Spills from dam. Flow releases: Berg EWP8 in G40A below Lower Steenbras Dam nMAR = 54.88 million m3/a	Dam levels must remain sufficient to provide for supply to the Western Cape Water Supply System (City of Cape Town) via the Steenbras WTW, and low flows to the lower Steenbras River and estuary for the protection of ecosystem functioning downstream.	Months
								Oct
								Nov
								Dec
								Jan
								Feb
								Mar
								Apr
								May
								Jun
								Jul
								Aug
								Sep
								Annual
								3.852
								0.502
								0.582
								0.506
								0.384
								0.247
								0.173
								0.144
								0.149
								0.180
								0.235
								0.323
								0.427
								Maintenance low flows (million cubic metres)

IUA Class	Quaternary Catchment	RU	Resource Name	Component	Sub-component	Indicator	RQO Narrative	RQO Numeric												
					High flows		High flow ecological releases should be made during the wet season to meet flood requirements, but within the constraints of the existing outlet structure, and utilising spills where possible.	Maintenance high flows (million cubic metres)	0.000	0.000	0.000	0.000	0.077	0.077	0.307	0.307	0.077	0.077	0.845	
							The reservoir must be maintained in a mesotrophic state or better.	≤ 0.015 milligrams/litre (50 th percentile)												
					Nutrients	Ortho-phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	Salt levels must be maintained at concentrations where they do not impact negatively on the ecosystem, and are in an Ideal category for domestic and industrial water use.	≤ 0.07 milligrams/litre (50 th percentile)												
				Quality	Salts	Electrical conductivity		≤ 30 milliSiemens/metre (95 th percentile)												
					Pathogens	Escherichia coli Faecal coliforms	The reservoir must be maintained in a state that is safe for contact recreation.	≤ 130 counts/100 ml (95 th percentile) ≤ 130 counts/100 ml (95 th percentile)												

Table 19: Resource Quality Objectives for GROUNDWATER in priority Resource Units in the Berg Catchment

IUA	Class	Quaternary Catchment	RU	Resource Name	Component	Sub Component	Indicator/ Measure	RQO Narrative	RQO Numeric
D8 Upper Berg	II	G10A	4-Paarl-Upper Berg	Groundwater (all)	Quantity	Abstraction	Seasonal abstraction: water level recovers from abstraction impact during wet season, under consideration of climate change and drought cycles. Permanent abstraction: water level decline stabilises under consideration of aquifer response time.	Groundwater use should be sustainable for all users and the environment	n/a
						Low flow in river	Compliance with the low flow requirements in the river (as per riverine RQO)	Maintain (groundwater component of) the low flow requirements in the river	Maintenance low flow requirements: 29.177 Mm ³ /a (34.39 %MAR) at G1H076 (Bvii13); 27.421 Mm ³ /a (19.35 %MAR) at G1H077 (Bviii1)
					Quality	Nutrients	NO ₃ (as N)	Groundwater should be fit for domestic use after treatment;	< 3.3 mg/l
						Salts	Electrical conductivity	and groundwater quality shall	< 70 mS/m
						System variable	pH	not show a deteriorating trend from natural background	5.2 – 8.4
						Pathogens	Escherichia coli		0 counts / 100 ml
						Pathogens	Total Coliform		<10 counts / 100ml
					Quantity	Discharge	Relative water levels between groundwater and surface water (in mamsl)	The natural gradient between groundwater and surface water should be maintained	n/a
					Quantity	Discharge	Buffer zones	No groundwater abstraction around wetland and river FEPAs in accordance with the implementation manual for FEPAs.	250m
					Quality	Nutrients	NO ₃ (as N)	Groundwater should be fit for domestic use after treatment;	< 3.3 mg/l
						Salts	Electrical conductivity	and groundwater quality shall	< 70 mS/m
						System variable	pH		5.2 – 8.4
						Pathogens	Escherichia coli		0 counts / 100 ml
						Pathogens	Total Coliform		<10 counts / 100ml
C5 Berg Tributaries	II	G10E	5-Tulbagh Valley	Groundwater (all)	Quantity	Abstraction	Seasonal abstraction: water level recovers from abstraction impact during wet season, under consideration of climate change and drought cycles. Permanent abstraction: water level decline stabilises under consideration of aquifer response time.	Groundwater use should be sustainable for all users and the environment	n/a

IUA	Class	Quaternary Catchment	RU	Resource Name	Component	Sub Component	Indicator/ Measure	RQO Narrative	RQO Numeric	
B4 Lower Berg	III	G10	6-24 Rivers	Groundwater (all)	Quantity	Discharge	Buffer zones	No groundwater abstraction around wetland and river FEPAs in accordance with the implementation manual for FEPAs.	250m	
						Quality	Pathogens	Escherichia coli	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	0 counts / 100 ml
							Pathogens	Total Coliform		<10 counts / 100ml
					Quality	Nutrients	NO ₃ (as N)	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	n/a	
						System variable	pH		n/a	
						Salts	Electrical conductivity		n/a	
					Quantity	Discharge	Relative water levels between groundwater and surface water (in mams)	The natural gradient between groundwater and surface water should be maintained	n/a	
								Buffer zones	No groundwater abstraction around wetland and river FEPAs in accordance with the implementation manual for FEPAs.	250m
						Low flow in river	Compliance with the low flow requirements in the river (as per riverine RQO)	Maintain (groundwater component of) the low flow requirements in the river	Maintenance low flow requirements: 114.338 Mm3/a (13.28 %MAR) at G1H013 (Bvii6)	
				Quality		System variable	pH		5.2 – 8.1	
					Pathogens	Escherichia coli	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	0 counts / 100 ml		
						Total Coliform		<10 counts / 100ml		
					Nutrients	NO ₃ (as N)		< 6.9 mg/l		
Salts	Electrical conductivity	< 942 mS/m								
Nutrients	NO ₃ (as N)	<11.0 mg/l								
Salts	Electrical conductivity	< 875 mS/m								

IUA	Class	Quaternary Catchment	RU	Resource Name	Component	Sub Component	Indicator/ Measure	RQO Narrative	RQO Numeric
A1 Berg Estuary and A2 Langebaan	II	G10M	8-West Coast		Quantity	Abstraction	Seasonal abstraction: water level recovers from abstraction impact during wet season, under consideration of climate change and drought cycles.	Groundwater use should be sustainable for all users and the environment	n/a
							Permanent abstraction: water level decline stabilises under consideration of aquifer response time.		
						Groundwater level	Water level	Minimum water level in abstraction boreholes within 2.5km from the ocean to avoid saline intrusion	>1 mamsl
						Discharge	Relative water levels between groundwater and surface water (in mamsl)	The natural gradient between groundwater and surface water should be maintained	n/a
							Buffer zones	No groundwater abstraction around wetland and river FEPAs in accordance with the implementation manual for FEPAs.	250m
							Compliance with the groundwater flow requirements to the Langebaan Lagoon	Compliance to the groundwater flow requirements to the Langebaan Lagoon, as per estuary RQO requirement	Groundwater inflow not <10% of present day (2017) rate
							Compliance with the groundwater flow requirements to the Langebaan Lagoon	Compliance to the groundwater flow requirements to the Langebaan Lagoon, as per estuary RQO requirement	Ground water level not <10% below present day (2017) level
						Nutrients	NO ₃ (as N)	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 11.0 mg/l
							pH		7.1 - 8.4
							Electrical conductivity		< 520 mS/m
					Quality	Nutrients	NO ₃ (as N)	Groundwater should be fit for	< 11.0 mg/l

IUA	Class	Quaternary Catchment	RU	Resource Name	Component	Sub Component	Indicator/ Measure	RQO Narrative	RQO Numeric
				(Basement)		Salts	Electrical conductivity	domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 1571 mS/m
				Groundwater (all)		Salts	PO ₄	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 0.3 mg/l
						Pathogens	Escherichia coli		0 counts / 100 ml
						Pathogens	Total Coliform		<10 counts / 100ml
							Seasonal abstraction: water level recovers from abstraction impact during wet season, under consideration of climate change and drought cycles. Permanent abstraction: water level decline stabilises under consideration of aquifer response time.	Groundwater use should be sustainable for all users and the environment	n/a
				Groundwater (all)	Quantity		Relative water levels between groundwater and surface water (in mams)	The natural gradient between groundwater and surface water should be maintained	n/a
						Discharge	Buffer zones	No groundwater abstraction around wetland and river FEPAs in accordance with the implementation manual for FEPAs.	250m
				Groundwater (Cenozoic coastal sand)		Nutrients	NO ₃ (as N)	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 8.2 mg/l
						Salts	Electrical conductivity		< 520 mS/m
				Groundwater (Basement)	Quality	Nutrients	NO ₃ (as N)	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 11.0 mg/l
						Salts	Electrical conductivity		< 899 mS/m
				Groundwater (all)		Salts	PO ₄		< 0.3 mg/l
						System variable	pH		6.7 - 8.3
						Pathogens	Escherichia coli		0 counts / 100 ml
							Total Coliform		<10 counts / 100ml

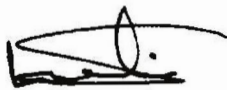
IUA	Class	Quaternary Catchment	RU	Resource Name	Component	Sub Component	Indicator/ Measure	RQO Narrative	RQO Numeric
A3 West Coast	III	G21B	9-Atlantis	Groundwater (all)	Quantity	Abstraction	Seasonal abstraction: water level recovers from abstraction impact during wet season, under consideration of climate change and drought cycles. Permanent abstraction: water level decline stabilises under consideration of aquifer response time.	Groundwater use should be sustainable for all users and the environment	n/a
						Groundwater level	Water level	Minimum water level in abstraction boreholes within 2.5km from the ocean to avoid saline intrusion	>1 mamsl
						Discharge	Relative water levels between groundwater and surface water (in mamsl)	The natural gradient between groundwater and surface water should be maintained	n/a
							Buffer zones	No groundwater abstraction around wetland and river FEPAs in accordance with the implementation manual for FEPAs.	250m
						Nutrients	NO ₃ (as N)	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 2.3 mg/l
				Groundwater (Basement) Groundwater (all)	Quality	Salts	Electrical conductivity	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 287 mS/m
						Nutrients	NO ₃ (as N)	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 10.4 mg/l
						Salts	Electrical conductivity	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 1052 mS/m
						System variable	pH	Groundwater quality shall not show a deteriorating trend from natural background	6.7 – 8.3
						Pathogens	Escherichia coli	Groundwater quality shall not show a deteriorating trend from natural background	0 counts / 100 ml
						Pathogens	Total Coliform	Groundwater quality shall not show a deteriorating trend from natural background	<10 counts / 100ml
D10 Diep	III	G21D	10-Malmesbury	Groundwater (all)	Quantity	Abstraction	Seasonal abstraction: water level recovers from abstraction impact during wet season, under consideration of climate change and drought cycles. Permanent abstraction: water level decline stabilises under consideration of aquifer response time.	Groundwater use should be sustainable for all users and the environment	n/a

IUA	Class	Quaternary Catchment	RU	Resource Name	Component	Sub Component	Indicator/ Measure	RQO Narrative	RQO Numeric
						Discharge	Buffer zones	No groundwater abstraction around wetland and river FEPAS in accordance with the implementation manual for FEPAS.	250m
						Low flow in river	Compliance with the low flow requirements in the river (as per riverine RQO)	Maintain (groundwater component of) the low flow requirements in the river	Maintenance low flow requirements: 0.578 (6.22 %MAR) at node Biv6 (no gauge)
				Superficial aquifers	Quantity	Discharge	Relative water levels between groundwater and surface water (in mamsl)	The natural gradient between groundwater and surface water should be maintained	n/a
				Groundwater (Cenozoic coastal sand)	Quality	Nutrients	NO ₃ (as N)	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 7.1 mg/l
				Groundwater (Basement)		Salts	Electrical conductivity		< 358 mS/m
						Nutrients	NO ₃ (as N)		< 6.4 mg/l
						Salts	Electrical conductivity		< 617 mS/m
						System variable	pH		6.3 – 8.6
				Groundwater (all)		Pathogens	Escherichia coli		0 counts / 100 ml
						Pathogens	Total Coliform		<10 counts / 100ml
						Groundwater level	Water level	Minimum water level in abstraction boreholes within 2.5km from the ocean to avoid saline intrusion	>1 mamsl
						Discharge	Buffer zones	No groundwater abstraction around wetland and river FEPAS in accordance with the implementation manual for FEPAS.	250m
E12 Cape Flats	III	G22C, G22D, G22E	2-Cape Flats	Groundwater (all)	Quantity	Low flow in river	Compliance with the low flow requirements in the river	Maintain (groundwater component of) the low flow requirements in the river, as per surface water RQO requirement	Maintenance low flow: 0.348 Mm3/a (7.74 %MAR) at Bvii7 (no gauge)

IUA	Class	Quaternary Catchment	RU	Resource Name	Component	Sub Component	Indicator/ Measure	RQO Narrative	RQO Numeric
				Superficial aquifers	Quantity	Discharge	Relative water levels between groundwater and surface water (in mams)	The natural gradient between groundwater and surface water should be maintained	n/a
				Groundwater (Cenozoic coastal sand)		Nutrients	NO ₃ (as N)		< 9.2 mg/l
						System variable	pH		6.6 – 8.4
						Salts	Electrical conductivity		< 180 mS/m
				Groundwater (Basement)	Quality	Nutrients	NO ₃ (as N)	Groundwater should be fit for domestic use after treatment; and groundwater quality shall not show a deteriorating trend from natural background	< 11.0 mg/l
						Salts	Electrical conductivity		< 953 mS/m
				Groundwater (all)		Pathogens	Escherichia coli		0 counts / 100 ml
							Total Coliform		<10 counts / 100ml

NASIONALE WATERWET, 1998**(WETNR. 36 VAN 1998)****VOORGESTELDE KLASSE VAN WATERHULPBRON EN HULPBRONGEHALTEDOELWITTE VIR DIE BERGOPVANGGEBIED**

Ek, Lindiwe Sisulu, Minister van Menslike Nedersettings, Water en Sanitasie, bepaal hierby ingevolge die bepalings van artikel 13 (1) van die Nasionale Waterwet, 1998 (Wetnr.36 van 1998), die waterhulpbronne klasse en die hulpbrongehalte doelwitte, soos uiteengesit in die Bylae.:

**L N SISULU****MINISTER VAN MENSLIKE NEDERSETTINGS, WATER EN SANITASIE**

BYLAE**BESKRYWING VAN WATERHULPBRON**

Die voorgestelde waterhulpbronklase- en hulpbrongehaltesdoelwitte word bepaal vir die hele of deel van elke beduidende waterhulpbron soos hieronder uiteengesit:

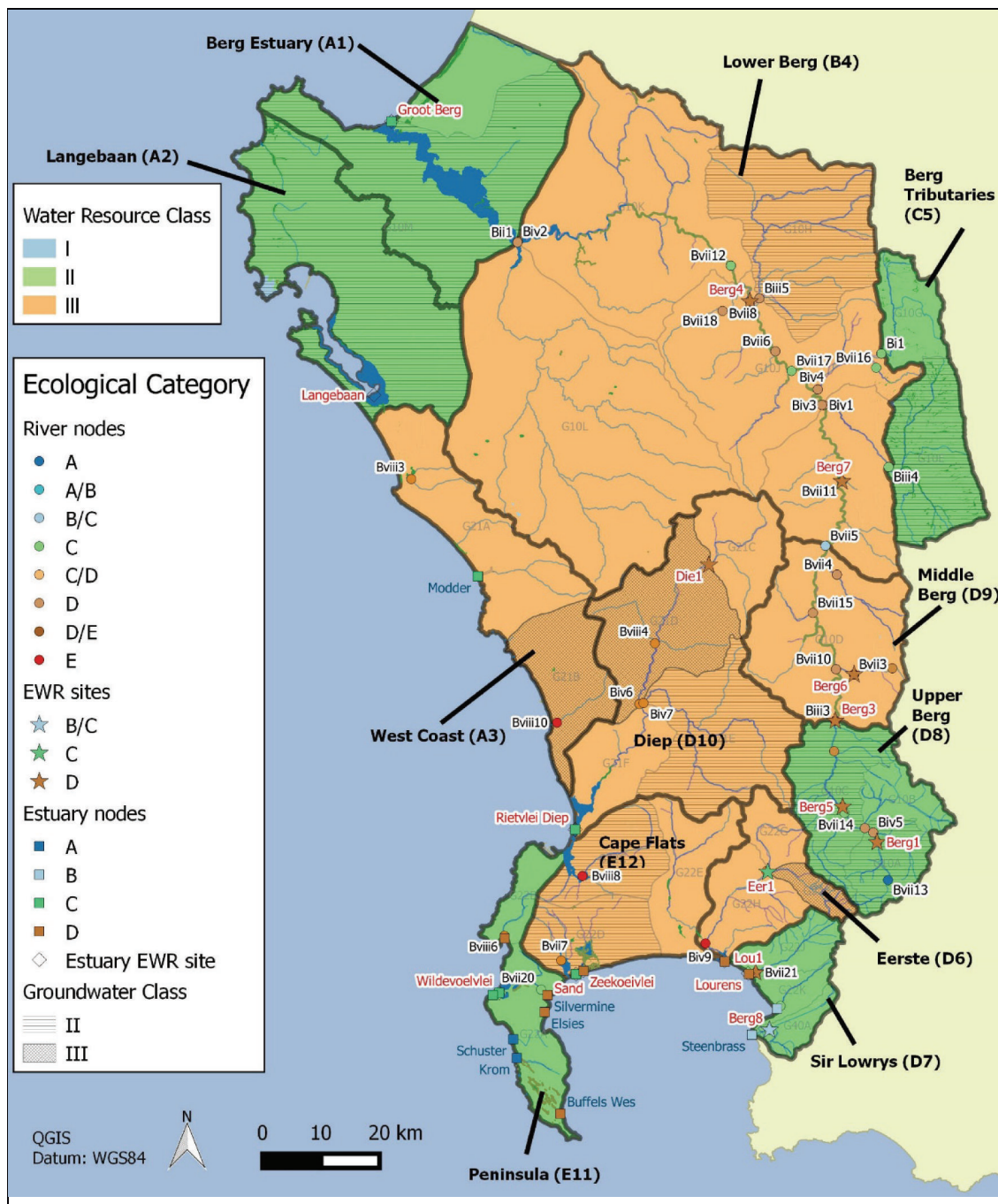
Waterestuursgebied:	Berg-Olifants Waterbestuursgebied
Dreinerings Streek:	G1, G2 Sekondêre Dreinerings Streek en G40A Kwaternêre
Dreinerings Streek	
Rivier(e):	Die Bergrivier is die grootste rivier in die studie area, wat ook 'n aantal kleiner opvanggebiede binne die Stad Kaapstad metropolitaanse gebied soos die Diep, Kuilsrivier, Eersterivier, Lourens, Sir Lowry's, Steenbras, asook verskeie klein opvanggebiede op die Kaapse Skiereiland en langs die Weskus

A. VOORGESTELDE WATERHULPBRONKLASSE SOOS VEREIS INGEVOLGE ARTIKEL 13 (1) VAN DIE NASIONALE WATERWET, 1998

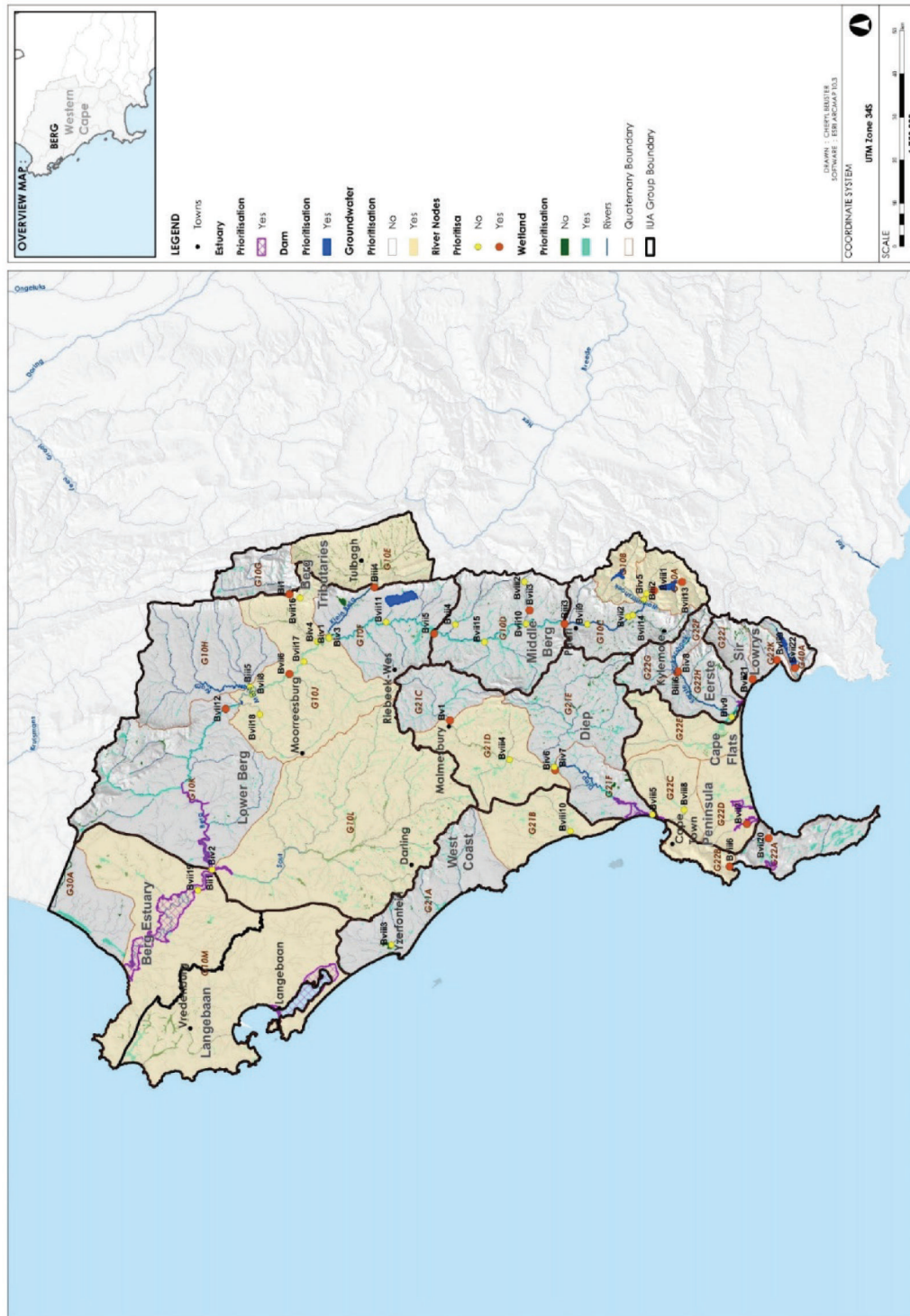
- i. Die voorgestelde waterbron klasse vir die Bergopvanggebied gelys in Tabel 1 volgens die algehele klas per geïntegreerde eenheid van analise (IUA), aangedui in Figuur 1.
- ii. IUAs word geklassifiseer as óf Klas I: aandui hoë beskerming van die omgewing en minimale gebruik; Klas II aandui matige beskerming en matige benutting; en Klas III dui volhoubare minimale beskerming en hoe benutting.
- iii. Tafel 1 gee die IUA, die aanbevole waterbronklas en sy onderskeie opvanggebiede opset. Die opvanggebied opset bestaan uit 'n aantal van biofisiese nodes verteenwoordig rivier lope of rivier hulpbroneenhede (Ru's). Die teiken ekologiese Kategorie (TEC) wat bereik moet word of in stand gehou word vir elke RU in die IUA word.
- iv. Dit is belangrik om daarop te let dat bykomende bestaande geografies gedefinieer areas van spesifieke ekologiese belang vir waterbronne soos beskermde gebiede (bv Tafelberg Nasionale Park), kritiese biodiversiteit areas (CBA's), gebiede nasionale varswater beskerming van die omgewing (NFEPAs) en die strategiese waterbron gebiede (SWSA) moet ook in terme van die aanbevole hulpbron klasse in ag geneem word as hierdie gebiede van spesifieke belang dat in 'n Hoër hulpbron klas (bv klas I) bestuur moet word as sou die saak vir die gemiddeld van al hulpbron eenhede regoor wees sou aandui die IUA (bv in 'n Klas II).

B. HULPBRONGEHALTESDOELWITTE VAN WATERHULPBRONNE SOOS VEREIS INGEVOLGE ARTIKEL 13 (1) VAN DIE NASIONALE WATERWET, 1998

- i Hulpbrongehaltesdoelwitte (RQOs) is gedefinieer vir geprioritiseerde RUs vir elke IUA in terme van water hoeveelheid, habitat en biota, en watergehalte. Geprioritiseer Rus aangedui in Figuur 1.
- ii Tafel 2 tot Tafel 10 verskaf die RQO's vir RIVIERE in prioriteit-RU's.
- iii Tafel 11 tot Tafel 17 verskaf die RQOs vir RIVIERMONDINGS in prioriteit RU's.
- iv Tafel 18 verskaf die RQO's vir DAMME in prioriteit-RU's.
- v Tafel 19 verskaf die RQO's vir GRONDWATER in prioriteit-RU's.
- vi RQO's sal van toepassing wees vanaf die datum wat onderteken is ingevolge artikel 13 (1) van die Nasionale Waterwet, 1998, tensy anders bepaal deur die Minister.



Figuur Error! No sequence specified.: Voorgestelde Waterhulpbronklasse vir die Bergopvanggebied



Figuur 2: Voorgestelde prioriteit hulpbroneenheid vir die Bergopvanggebied

Tafel 1: Opsomming van aanbevole Waterhulpbronstrategieklasse vir elke IUA en die teiken Ekologiese Kategorie (TEC) vir prioriteit biofisiese rivier en Riviermondingnodus.

Geïntegreerde Eenheid van Analise (IUA)	Waterhulpbronklas vir IUA	Kwartêre opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	% nMAR*
A1 Berg Riviermonding	II	G10M	A1-E01	Berg (Groot)	Bxi1	C	52
A2 Langebaan	II	G10M	A2-E04	Langebaan	Bxi3	A	N/A
A3 West Coast	III	G21A	A3-R01	Sout	Bviii3	D	14.6
		G21B	A3-R02		Bviii10	D	16.4
D8 Boonste Berg	II	G10A	D8-R01	Berg	Bviii13	A	98
		G10A	D8-R02	Berg	Bviii1	C	27
		G10C	D8-R03	Berg	Blii3	D	53
		G10C	D9-R04	Pombers	Bviii11	C	366
D9 Middelberg	III	G10D	D9-R05	Kromme	Bviii3	D	89
		G10D	D9-R06	Berg	Bviii5	D	49
		G10E	C5-R07	Klein Berg	Blii4	C	82
		G10G	C5-R08	Vier-en-Twintig	Bi1	B/C	23
B4 Laer Berg	III	G10J	B4-R09	Berg	Bviii6	D	52
		G10K	B4-R10	Berg	Bviii12	D	51
		G21D	D10-R11	Diep	Bv1	D	66
D10 Diep	III	G21D	D10-R12	Diep	Biv6	D	68
		G21F	D10-E03	Rietvlei/Diep	Bxi7	C	78
		G22B	E11-R13	Houtbaai	Bviii6	D	97
E11 Skiereiland	II	G22A	E11-R14	Silwermyl	Bvii20	C	98
		G22A	E11-E04	Wildevallei	Bxi14	D	107
		G22D	E12-R15	Keyers	Bvii7	D	93
E12 Kaapse Vlakte	III	G22K	E12-E05	Zandvlei	Bxi9	C	93
		G22K	E12-E05	Zeekoevlei	Bxi9	D	N/A
		G22F	D6-R16	Eerste (Jonkershoek)	Blii6	C	93
		G22G	D6-R17	Klipies	Biv8	D	77
D6 Eerste	III	G22H	D6-E06	Eerste	Bxi3	D	90
		G22J	D7-R18	Lourens	Bvii21	D	114
		G22K	D7-R19	Sir Lowry's Pas*	Bviii9	C	84
		G40A	D7-R20	Steenbras	Bvii22	B/C	81
D7 Sir Lowry's	II	G22J	D7-E07	Lourens	Bxi4	C	85

IUA	Klas	Kwar-têre Op-vang Ge-bied	Hulp bron- naam	Biofisie-se Nodus- naam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
							Geomorfolo-gie	D50	Sanddeeltjie grootte	0.860 > D50 > 0.275
								VEGRAI vlak 3 telling.	Plantegroei toestand	> 62% = C kategorie
								Eksotiese spesies		Geen eksotiese plantspesies.
								Terrestrïële houtagtige spesies		Geen Terrestrïële houtagtige spesies.
								Inheemse oewer houtagtige spesies	Marginale sone dekking oorvloed	Dekking 5-25%.
								Geen-houtagtige inheemse spesies		Dekking 25-50%.
								Riete		Geen riete
								Eksotiese spesies		Dekking < 5%.
						Habitat		Terrestrïële houtagtige spesies		Dekking < 10%.
								Inheemse oewer houtagtige spesies	Laer sone dekking oorvloed	Dekking 25-60%
								Geen-houtagtige inheemse spesies		Dekking 25-50%
								Riete		Geen riete
								Eksotiese spesies		Dekking < 10%.
								Terrestrïële houtagtige spesies		Dekking < 15%.
								Inheemse oewer houtagtige spesies	Boonste sone dekking oorvloed	Dekking 25-50%
								Geen-houtagtige inheemse spesies		Dekking 40-70%.
							Vis	FRAI telling	Vissoestand	> 80% = B kategorie
						Biota		Aantal inheemse visspesies.	Inheemse spesiesryk- heid	Drie spesies teenwoordig: <i>Sandelia capensis</i> , <i>Galaxia zebratum</i> en <i>Pseudobarbus burgi</i>

IUA	Klas	Kwar-têre Op-vang Ge-bied	RU	Hulp bron-naam	Biofisie-se Nodus-naam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries	
D8 Boonste Berg	II	G10A	D8-R02	Bergrivier	Bviii1	C	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding lae vloei Instandhouding hoë vloei	Vloei sal voldoende genoeg om die rivier in 'n C-kategorie te handhaaf.	Maande Instandhouding (miljoen kubieke meter) Hoog 0.000 2.143 Okt 0.544 1.293 Nov 0.544 1.071 Des 0.000 0.803 Jan 0.000 0.726 Feb 0.000 0.803 Mrt 0.000 2.679 Mei 4.666 4.147 Jun 4.285 4.285 Jul 0.000 4.285 Aug 3.888 Sept	≤ 0.025 milligram per liter (50ste persentiel) ≤ 0.70 milligram per liter (50ste persentiel) ≤ 30 millSiemens/meter (95ste persentiel) 4.5 ≥ pH ≤ 7.5 (5ste en 95ste persentiele) 2 ° C verskil van omliggende watertemperatuur DO ≥ 8 milligram per liter (5ste persentiel)
											FROC = 5	
											FROC = 5	
											FROC = 5	
											Geen toename in die aantal eksotiese vis teenwoordig: <i>Onchorhynchus mykiss</i> (FROC = 5)	
											> 78 % = B/C kategorie	
											Makro ongewerwelde diere toestand	
											SASS tellings	
											SASS5 en ASPT telling	
											Aantal families	
											Diversiteit van ongewerwelde diere gemeenskap	
											> /= 23 families, by 'n oorvloed van A tot C.	
D8 Boonste Berg	II	G10A	D8-R02	Bergrivier	Bviii1	C	Gehalte	Voeding stowwe	Fosfaat (PO ₄ -P) Totaal anorganiese stikstof (TIN)	Voedingsvlakke moet in die rivier op 'n oligotrope toestand gehandhaaf word.	≤ 0.025 milligram per liter (50ste persentiel) ≤ 0.70 milligram per liter (50ste persentiel) ≤ 30 millSiemens/meter (95ste persentiel) 4.5 ≥ pH ≤ 7.5 (5ste en 95ste persentiele) 2 ° C verskil van omliggende watertemperatuur DO ≥ 8 milligram per liter (5ste persentiel)	
											Soutkonsentrasies moet gehandhaaf word op vlakke wat nie water-ekosisteme nadelig beïnvloed nie.	
											pH, temperatuur en opgeloste suurstof is belangrik vir die instandhouding van die gesondheid van die ekosisteme.	
											Opgeloste suurstof	
											Water temperatuur	
											Stelselveranderlikes	
											Elektiese geleidingsvermoë (EC)	
											pH-reeks	
											Opgeloste suurstof	
											Water temperatuur	
											Opgeloste suurstof	
											Opgeloste suurstof	

IUA	Klas	Kwar-têre Op-vang Ge-bied	Hulp bron- naam	Biofisie-se Nodus- naam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
						Patogene		Escherichia coli	Konsentrasies van waterdrywe-nde patogene moet in 'n ideale kategorie gehandhaaf word vir volle kontakvermaak	≤ 130 tellings/100ml (95ste persentiel)
						Geomorfolo-gie		D50	Sandeeltjie grootte.	0.521 > D50 > 0.319
								VEGRAI vlak 3 telling.	Plantegroei toestand	> 62% = C kategorie
								Eksotiese spesies		Geen eksotiese plantspesies nie.
								Terrestrïële houtagtige spesies		Geen terrestrïële houtagtige spesies.
								Inheemse oewer houtagtige spesies	Marginale sone dekking oorvloed	Dekking < 10%.
								Geen-houtagtige inheemse spesies		Dekking 50-75%.
								Riete		Geen riete
								Eksotiese spesies		Dekking < 5%.
								Terrestrïële houtagtige spesies		Dekking < 10%.
								Inheemse oewer houtagtige spesies	Laer sone dekking oorvloed	Dekking 50-75%.
								Geen-houtagtige inheemse spesies		Dekking 25-50%.
								Riete		Geen riete
								FRAI telling	Vistoestand	> 62% = C kategorie
								Aantal inheemse visspesies.		Een spesie teenwoordig: Sandelia capensis
								Sandelia capensis	Inheemse spesiesryk- heid	FROC = 5
								Eksotiese		Geen toename in die aantal eksotiese vis teenwoordig nie: Micropterus

IUA	Klas	Kwar-têre Op-vang Ge-bied	RU	Hulp bron- naam	Biofisie-se Nodus- naam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
D8 Boonste Berg	II	G10C	D8-R03	Bergivier	Biii3	D	Hoeveelheid	Lae vloei Hoë vloei	vispesies	dolomieu (FROC = 5)	Aug 10.102 0.000 Jul 10.525 10.525 Jun 9.776 8.382 Mei 4.368 Apr 1.612 0.000 Feb 1.456 1.721 Jan 1.612 0.000 Des 1.612 0.000 Nov 2.080 Okt 5.803 Laag 0.000 Hoog 0.000
									MIRAI telling	Makro-ongewerweldede diere toestand	0.000
									SASS5 en ASPT telling	SASS5 tellings	1.721
									Aantal families	Diversiteit van ongewerweldede diere gemeenskap	1.612
									Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende genoeg wees om die rivier in 'n D-kategorie te behou.	0.000
									Fosfaat (PO ₄ -P)	Voedingsvlak-ke moet in die rivier op 'n oligotrope toestand gehandhaaf word.	0.000
									Totaal anorganiese stikstof (TIN)	Voedingsvlak-ke moet in die rivier op 'n oligotrope toestand gehandhaaf word.	0.000
									Elektriese geleidingsvermoë (EC)	Soutkonsentrasies moet op vlakke gehandhaaf word wat nie water-ekosisteme nadelig beïnvloed nie.	0.000
									pH-reeks	pH, temperatuur en opgeloste suurstof is belangrik vir die instandhouding van die gesondheid van die ekosisteem.	0.000
									Water temperatuur	2 ° C verskil van omliggende watertemperatuur	0.000
									Opgeloste suurstof	DO ≥ 6 milligram per liter (5ste persentiel)	0.000
									Ammoniak	Toksiseitsvlakke	0.000
									Atrasien	moet nie 'n bedreiging vir water-ekosisteme inhou nie.	0.000
									Endusulfan	≤ 0.0013 milligram per liter (95ste persentiel)	0.000

IUA	Klas	Kwar-têre Op-vang Ge-bied	RU	Hulp bron- naam	Biofisie-se Nodus- naam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
								Patogene	Escherichia coli	Konsentrasies van waterdrywende patogene moet in 'n Aanvaarbare kategorie vir intermediêre kontakvermaak gehandhaaf word.	≤ 2500 tellings/100ml (95ste persentiel)
							Habitat	Geomorfo- logie	D16, D50, D84	Sedimentkor-rel grootte	
								Oewer plantegroei	VEGRAI vlak 3 telling.	Plantegroei toestand	> 38% = D/E-kategorie
							Biota	Vis	FRAI telling	Vistoestand	> 58% C/D-kategorie

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Bio-fisiese Nodusnam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries																								
D9 Middel berg	III	G10C	D9-R04	Pomberrivier	Bviii11	C	Gehalte	Lae vloei Hoë vloei	Instandhouding In standhouding hoë vloei	Vloei sal voldoende wees om die rivier in 'n C-kategorie te handhaaf.	<table border="1"><thead><tr><th>Maande</th><th></th></tr></thead><tbody><tr><td>Nov</td><td>0.000</td></tr><tr><td>Des</td><td>0.000</td></tr><tr><td>Jan</td><td>0.000</td></tr><tr><td>Feb</td><td>0.000</td></tr><tr><td>Mrt</td><td>0.000</td></tr><tr><td>Apr</td><td>1.615</td></tr><tr><td>Mei</td><td>4.153</td></tr><tr><td>Jun</td><td>7.862</td></tr><tr><td>Jul</td><td>21.484</td></tr><tr><td>Aug</td><td>8.076</td></tr><tr><td>Sept</td><td>11.405</td></tr></tbody></table>	Maande		Nov	0.000	Des	0.000	Jan	0.000	Feb	0.000	Mrt	0.000	Apr	1.615	Mei	4.153	Jun	7.862	Jul	21.484	Aug	8.076	Sept	11.405
Maande																																			
Nov	0.000																																		
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Jun	7.862																																		
Jul	21.484																																		
Aug	8.076																																		
Sept	11.405																																		
								Fosfaat ($\text{PO}_4\text{-P}$)		Rivervoedingsvlakke moet in 'n oligotrople se toestand gehandhaaf word.	≤ 0.025 milligram/liter (50ste persentiel)																								
								Totaal anorganiese stikstof (TIN)			≤ 0.70 milligram/liter (50ste persentiel)																								
							Soute	Elektrese geleidingsvermoë (EC)		Soutkonsentrasies moet op vlakke gehandhaaf word wat nie water-ekostieme nadelig beïnvloed nie.	≤ 30 milliSiemens/meter (95ste persentiel)																								
							pH-reeks			pH, temperatuur en opgeloste suurstof is belangrik vir die instandhouding van die gesondheid van die ekosisteem.	$6.5 \leq \text{pH} \leq 8.5$ (5ste en 95ste persentiele)																								
							Water temperatuur			2°C verskil van omliggende wattertemperatuur																									
							Opgeloste suurstof			DO ≥ 8 milligram liter (5ste persentiel)																									
							Ammoniak			Toksiseits-vlakke moet nie 'n bedreiging vir water-ekostieme inhou nie.	≤ 0.073 milligram per liter (95ste persentiel)																								
							Atrasien				≤ 0.079 milligram per liter (95ste persentiel)																								
							Endusulfan				≤ 0.0013 milligram per liter (95ste persentiel)																								
							patogene			Konsentrasies van waterdrywen-de patogene moet in 'n Aanvaarbare kategorie vir intermediêre kontakvermaak gehandhaaf word.	≤ 1065 tellings/100ml (95ste persentiel)																								
							Geomorfologie			Geomorfologiese toestand	> 38% D/E kategorie																								
						Habitat	Oewer plante groei			Plantegroei toestand	> 22% = E kategorie																								

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Bio-fisiese nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
D9 Middel berg	III	G10D	D9-R06	Bergrivier	Bvli5	D	Gehalte	groeï			
									FRAI telling	Vistoestand	> 22% = E kategorie
								Vis			
								Ongewerwelde diere	MIRAI telling	Makro-ongewerwelde diere toestand	> 78% = B/C kategorie
								Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende genoeg wees om die rivier in 'n D- kategorie te handhaaf	Maande oëiling (miljoen kubiek meter) Laag Hoog 0.000 14.246 0.000 5.200 0.000 2.648 2.621 2.342 0.000 2.585 5.692 0.000 20.701 24.388 25.280 25.299 20.262
								Voeding-stowwe	Fosfaat (PO ₄ -P) Totaal anorganiese stikstof (TIN)	Voedingsvlakke moet in esotrofiese of beter toestand in die rivier gehandhaaf word.	≤ 0.125 milligram/liter (50ste persentiel)
								Soute	Elektriese geleidingsvermoë (EC)	Soutkonsentrasies moet op huidige toestandvlakke gehandhaaf word.	95%teël ≤ 55 milliSiemens/meter EC
								Stelselveranderlikes	pH-reeks Water temperatuur	pH, temperatuur en opgeloste suurstof is belangrik vir die instandhouding van die gesondheid van die ekosisteem.	6.5 ≤ pH ≤ 8.5 (5ste en 95ste persentiele) 2°C verskil van omliggende watertemperatuur
								Opgeloste suurstof	Ammoniak Atrasien Endosulfan	Toksisiteits vlakke moet nie 'n bedreiging vir water-ekosisteme inhou nie.	≥ 6 milligram per liter (5ste persentiel) ≤ 0.073 milligram per liter (95ste persentiel) ≤ 0.079 milligram per liter (95ste persentiel) ≤ 0.0013 milligram per liter (95ste persentiel)
								Patogene	Escherichia coli	Konsentrasies van waterdrywende patogene moet	95%teël ≤ 2500 cfu/100ml Escherichia coli

IUA	Klas	Kwartêre Opvanggebied	Hulpbronnas	Bio-fisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
									in 'n Aanvaarbare kategorie vir intermedieë kontakvermaak gehandhaaf word.	
							Geomorfologie	D50	Sanddeeltjie grootte	0.714 > D50 > 0.251
								VEGRAI vlak 3 telling.	Plantegroei toestand	> 52% = D-kategorie
								Eksotiese spesies		Geen eksotiese plantspesies.
								Terretriële houtagtige spesies		Geen Terretriële houtagtige spesies.
								Inheemse oewer houtagtige spesies	Marginale sone dekking oorvloed	Dekking 50-75%.
								Geen-houtagtige inheemse spesies		Dekking 15-25%.
								Riete		Geen riete
								Eksotiese spesies		Dekking < 5%.
								Terretriële houtagtige spesies		Dekking < 10%.
								Inheemse oewer houtagtige spesies	Laer sone dekking oorvloed	Dekking 50-75%.
								Geen-houtagtige inheemse spesies		Dekking 15-25%.
								Riete		Geen riete
								Ekso-tiese spe-sies		Dekking < 10%.
								Terretriële houtagtige spe-sies	Boonste sone dekking oorvloed	Dekking < 15%.
								Inheemse oewer houtagtige spe-sies		Dekking 50-75%.
								Geen-houtagtige in-		Dekking 10-20%

IUA	Klas	Kwartêre Opvanggebied	Hulpbr onnaam	Bio-fisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
								heemse spesies		
							Vis	FRAI telling	Vistoestand	> 52% = D-kategorie
								Ekso-tiese Vis spesies	Inheemse spesies rykheid	Geen toename in aantal van eksotiese vis teenwoordig: <i>Cyprinus carpio</i> (FROC = 5), <i>Tilapia sparrmanii</i> , <i>Clarias gariepinus</i> , <i>Gambusia affinis</i>
						Biota		MIRAI telling	Makro-ongewerwelde diere toestand	> 62% = C kategorie
							Ongewerwelde diere	SASS5 en ASPT telling	SASS tellings	SASS5 telling >90, ASPT ≥ 4.6.
								Aantal familie-s	Diversiteit van ongewerwelde diere gemeenskap	>/= .48 families by 'n oorslog van A tot C

Tafel 4: Hulpbrongehaltesoelwite vir RIVIERE in prioriteiteenhede in die Geïntegreerde eenheid van Analise C5 Berg Sytakke

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries																										
C5 Berg Sytakke	II	G10E	C5-R07	Klein Bergrivier	Bili4	C	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal genoeg- saam voldoende wees n C- kategorie te handhaaf	Maande	Laag	1.422	1.110	0.754	0.398	0.305	0.291	0.338	0.618	1.002	1.391	1.744	1.619													
												Hoog	0.638	0.141	0.000	0.000	0.000	0.000	0.000	0.802	1.516	0.831	2.913	0.831													
												Instandhoudingvloeiing (miljoen kubieke meter)																									

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
							Soute	Elektriese geleidingsvermoë (EC)	Soutkonsentrasies moet op vlakke gehandhaaf word wat nie die water ekosisteme benadeel nie.	≤ 55 milliSiemens/meter (95ste persentiel)
								pH-reeks	pH, temperatuur en opgeloste suurstof is belangrik vir die instandhouding van die gesondheid van die ekosisteem.	$6.5 \leq \text{pH} \leq 8.5$ (5ste en 95ste persentiele)
							Stelselveranderlikes	Water temperatuur		2°C verskil van omliggende watertemperatuur
								Opgeloste suurstof		≥ 6 milligram per liter (5ste persentiel)
							Gifstowwe	Ammoniak	Toksiseitsvlakke moet nie 'n bedreiging vir water-ekosisteme inhou nie.	≤ 0.073 milligram per liter (95ste persentiel)
								Atrasien		≤ 0.079 milligram per liter (95ste persentiel)
								Endusulfan		≤ 0.0013 milligram per liter (95ste persentiel)
							Patogene	Escherichia coli	Konsentra-sies van waterdrywende patogene moet in 'n Aanvaarbare kategorie vir intermediere kontakvermaak gehandhaaf word.	≤ 2500 tellings/100ml (95ste persentiel)
						Habitat	Oewer plantegroei	VEGRAI vlak 3 telling.	Plantegroei toestand	$> 62\%$ = C-kategorie
						Biota	Vis	FRAI telling	Vistoestand	$> 58\%$ = C/D-kategorie

UJA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries															
C5 Berg Sylakke	II	G10G	C5-R08	Vier-en-Twintig	B1	B/C	Gehalte	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal genoegsaam voldoende wees om die rivier in 'n B/ C-kategorie te handhaaf.	Maande	Laag	2 050	1 631	1 115	0 731	0 563	0 573	0 674	1 128	1 811	2 358	2 620	Aug	Sept
												Instandhoudingvloeiing (miljoen kubieke meter)	Hoog	0 646	0 217	0 000	0 000	0 000	0 000	0 000	0 748	1 497				
													≤ 0.025 milligram per liter PO4-P													
									Voedingstowwe	Totaal anorganiese stikstof (TIN)	Fosfaat (PO ₄ -P)	Soutkonsentrasie s moet in 'n ideale kategorie gehandhaaf word vir water-ekosisteme.	pH, temperatuur en opgeloste suurstof is belangrik vir die instandhou-ding van die gesondheid van die ekosisteem.	Konsentrasies van waterdrywende patogene moet in 'n Ideale kategorie gehandhaaf word vir volle kontakre-aksie	≤ 130 tellings/100ml (95ste persentiel)	≤ 0.70 milligram per liter TIN										
									Soute	Elektriese geleidingsvermoë (EC)	pH-reeks	Water temperatuur	Opgeloste suurstof	Konsentrasies van waterdrywende patogene moet in 'n Ideale kategorie gehandhaaf word vir volle kontakre-aksie	≤ 130 tellings/100ml (95ste persentiel)	4.5 ≤ pH ≤ 7.0 (5ste en 95ste persentiele)										
																2°C verskil van omliggende watertemperatuur										
									Stelselveranderlikes	Opgeloste suurstof	Konsentrasies van waterdrywende patogene moet in 'n Ideale kategorie gehandhaaf word vir volle kontakre-aksie	≤ 130 tellings/100ml (95ste persentiel)	≥ 8 milligram per liter (5ste persentiel)													
									Patogene	Escherichia coli	Konsentrasies van waterdrywende patogene moet in 'n Ideale kategorie gehandhaaf word vir volle kontakre-aksie	≤ 130 tellings/100ml (95ste persentiel)														

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
						Habitat	Oewer plantegroei	VEGRAI vlak 3 telling.	Plante groei toestand	> 88% = A/B-kategorie
						Biota	Vis	FRAI telling	Vistoestand	> 88% = A/B-kategorie
							Ongewerwde diere	MIRAI telling	Makro-ongewerwde diere toestand	> 82% = B-kategorie

Tafel 5: Hulpbrongehaltesdoelwitte vir RIVIERE in prioriteiteneenhede in die Geïntegreerde eenheid van Analise B4 Laer Berg

IUA Klas	Kwartêre Opvanggebied	RU	Hulp bron Naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
B4 Laer Berg	G101	B4-R09	Bergrivier	Bvii6	D	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende wees om die rivier in 'n D-kategorie te handhaaf.	Maande Hoog Laag 2.496 26.184 0.000 15.280 0.000 0.000 8.272 7.947 0.000 2.496 6.418 14.684 24.346 31.158 37.184 1.619

IUA Klas	Kwartêre Opvanggebied	RU	Hulp bron Naam	Biofisiese Nodusnaam	TEC Komponent	Sub-kompo-nent	Aanwyser	Verhalende RQO	RQO Numeries
							Opgeloste suurstof	die gesondheid van die ekosisteem.	≥ 6 milligram per liter (5ste persentiel)
						Gifstowwe	Atrasien	Toksitsiteitsvlakke moet nie 'n bedreiging vir water-ekosisteme inhou nie.	≤ 0.079 milligram per liter (95ste persentiel)
						Patogene	Endusul-fan		≤ 0.0013 milligram per liter (95ste persentiel)
							Escheri-chia coli	Konsentra-sies van waterdrywende patogene moet in 'n Aanvaar-bare kategorie vir intermediere kontakvermaak gehandhaaf word.	≤ 1065 tellings/100ml (95ste persentiel)
						Geomorfologie	GAI telling -	Geomorfologiese toestand	> 68% = B/C-kategorie
							D50	Sanddeeltjie grootte	0.576 > D50 > 0.349
							VEGRAI vlak 3 telling.	Plantegroei toestand	> 42% = D-kategorie
							Eksotiese spesies		Geen eksotiese plantspesies.
							Terrestriele houtagtige spesies		Geen Terrestriele houtagtige spesies.
						Oewer plante-groei	Inheemse oewer houtagtige spesies	Marginale sone dekking oorvloed	Dekking 30-50%.
							Geen-houtagtige inheemse spesies		Dekking 30-50%.
							Riete		Dekking 30-50%.
							Eksotiese	Laer sone dekking	Dekking < 5%.

IUA Klas	Kwartêre Opvanggebied	RU	Hulp bron Naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
								spesies	oorvloed	
								Terrestriële houtagtige spesies		Dekking < 10%.
								Inheemse oewer houtagtige spesies		Dekking 50-75%.
								Geen-houtagtige inheemse spesies		Dekking 5-10%.
								Riete		Geen riete
								Eksotiese spesies		Dekking < 10%.
								Terre-striële houtagtige spesies		Dekking < /= 15%.
								Inheemse oewer houtagtige spesies	Boonste sone dekking oorvloed	Dekking 30-50%.
								Geen-houtagtige inheemse spesies		Dekking 30-50%.
								FRAI telling	Vistoestand	> 18% = F-kategorie
							Vis	Eksotiese Vis spesies	Inheemse spesies rykheid	Geen toename in die aantal eksotiese visse teenwoordig nie: <i>Cyprinus carpio</i> , <i>Oreochromis mossambicus</i> , <i>Tilapia sparrmanii</i> , <i>Micropterus punctulatus</i> , <i>Clarias gariepinus</i> en <i>Gambusia affinis</i> .
						Biota	Ongewer-welde diere	MIRAI telling	Makro-ongewerwilde diere toestand	> 42% = D-kategorie
								SASS5 and ASPT telling	SASS tellings	SASS5 telling >80, ASPT ≥ 5.0

IUA	Klas	Kwartêre Opvanggebied	RU	Hulp bron Naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-kompo-nent	Aanwyser	Verhalende RQO	RQO Numeries																																																																											
									Aantal families	Diversiteit van ongewerwelde diere gemeen-skap	>/= 15 families, met 'n oorsvloed van A tot C.																																																																											
							Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende wees om die rivier in 'n D-kategorie te handhaaf.	<table><tr><td>Maande</td><td>Hoog</td><td>Laag</td></tr><tr><td>Sept</td><td>23.014</td><td></td></tr><tr><td>Aug</td><td>37.175</td><td></td></tr><tr><td>Jul</td><td>6.480</td><td></td></tr><tr><td>Jun</td><td>16.380</td><td></td></tr><tr><td>Mei</td><td>0.000</td><td></td></tr><tr><td>Apr</td><td>2.760</td><td></td></tr><tr><td>Mrt</td><td>0.000</td><td></td></tr><tr><td>Feb</td><td>0.000</td><td></td></tr><tr><td>Jan</td><td>0.000</td><td></td></tr><tr><td>Des</td><td>0.000</td><td></td></tr><tr><td>Nov</td><td>0.000</td><td></td></tr><tr><td>Okt</td><td>2.760</td><td></td></tr><tr><td></td><td>10.132</td><td></td></tr><tr><td></td><td>6.563</td><td></td></tr><tr><td></td><td>5.580</td><td></td></tr><tr><td></td><td>5.736</td><td></td></tr><tr><td></td><td>5.553</td><td></td></tr><tr><td></td><td>7.431</td><td></td></tr><tr><td></td><td>9.885</td><td></td></tr><tr><td></td><td>15.994</td><td></td></tr><tr><td></td><td>20.407</td><td></td></tr><tr><td></td><td>24.499</td><td></td></tr><tr><td></td><td>37.175</td><td></td></tr><tr><td></td><td>23.014</td><td></td></tr></table>	Maande	Hoog	Laag	Sept	23.014		Aug	37.175		Jul	6.480		Jun	16.380		Mei	0.000		Apr	2.760		Mrt	0.000		Feb	0.000		Jan	0.000		Des	0.000		Nov	0.000		Okt	2.760			10.132			6.563			5.580			5.736			5.553			7.431			9.885			15.994			20.407			24.499			37.175			23.014	
Maande	Hoog	Laag																																																																																				
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Des	0.000																																																																																					
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	24.499																																																																																					
	37.175																																																																																					
	23.014																																																																																					
								Voedingstowwe	Fosfaat (PO ₄ -P)	Voedingsvlakke moet in 'n mesotrofiese toestand in die rivier gehandhaaf word.	≤ 0.075 milligram/liter (50ste persentiel)																																																																											
								Soute	Totaal anorganiese stikstof (TIN)	Soutkonsentrasies moet op vlakke gehandhaaf word wat nie die water ekosisteme benadeel nie.	≤ 55 milliSiemens/meter (95ste persentiel)																																																																											
							Gehalte	Stelselveranderlikes	pH-reeks	pH, temperatuur en opgeloste suurstof is	6.5 ≤ pH ≤ 8.5 (5ste en 95ste persentiele)																																																																											
									Water temperatuur	belangrik vir die instandhouding van die gesondheid van die ekosisteem.	2°C verskil van omgewing																																																																											
									Opgeloste suurstof	≥ 6 milligram per liter (95ste persentiel)																																																																												
									Atrasien	Toksiseitsvlakke moet nie 'n bedreiging vir water-ekosisteme inhou nie..	≤ 0.079 milligram per liter (95ste persentiel)																																																																											
								Gifstowwe	Endusul-fan		≤ 0.0013 milligram per liter (95ste persentiel)																																																																											
								Patogene	Escheri-chia coli	Konsentrasies van waterdruwende patogene moet in 'n	≤ 2500 tellings/100ml (95ste persentiel)																																																																											

IUA Klas	Kwartêre Opvanggebied	RU	Hulp bron Naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
									Aanvaar-bare kategorie vir intermediêre kontakvermaak gehandhaaf word.	
							Geomorfologie	GAI telling -	Geomorfologiese toestand	> 68% = B/C-kategorie
								D50	Sand deeltjies grootte	0.860 > D50 > 0.275
								VEGRAI vlak 3 telling.	Plantegroei toestand	> 42% = D-kategorie
								Ekstotiese spesies		Geen ekstotiese plantspesies nie.
						Habitat	Oewer plante-groei	Terre		
						Habitat	Geomorfologie	striële houtagtige spesies		GeenTerretriële houtagtige spesies.
							Oewer plante-groei	Inheemse oewer houtagtige spesies	Marginale sone dekking oorvloed	
										Dekking 30-50%
								Geen-houtagtige inheemse spesies		Dekking 50-75%.
								Riete		Dekking 15-25%.
							Vis	FRAI telling	Vistoestand	85% (B kategorie)
							Ongewer-welde diere	Ekstotiese Vis spesies	Inheemse spesies rykheid	Geen toename in die aantal ekstotiese visse teenwoordig niet: <i>Cyprinus carpio</i> , <i>Oreochromis mossambicus</i> , <i>Tilapia sparrmanii</i> , <i>Micropterus punctulatus</i> , <i>Clarias gariepinus</i> en <i>Gambusia affinis</i> .
							Vis	MIRAI telling	Makro-ongewerwelde diere toestand	81.4% (B/C-kategorie)
								SASS5 en ASPT	SASS tellings	SASS5 telling >85, ASPT ≥ 4.2.

IUA Klas	Kwartêre Opvanggebied	RU	Hulp bron Naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-kompo-nent	Aanwyser	Verhalende RQO	RQO Numeries
								telling		
								Aantal families	Diversiteit van ongewerwelde diere gemeen-skap	>/= 19 families, met 'n oorsvloed van A tot C.

Tafel 6: Hulpbrongehaltesdoelwitte vir RIVIERE in prioriteiteenhede in die Geïntegreerde eenheid van Analise 10 Diep

IUA	Klas	Kwartêre Opvanggebied	RU	Hulp-bron Naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-kompo-nent	Aanwyser	Verhalende RQO	RQO Numeries																							
D10 Diep	III	G21D	D10-R11	Diep River	Bv1	D	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende wees om die rivier in 'n D-kategorie te handhaaf	Instandhoudingvloei in g (miljoen kubieke Hoër Laag	Maande	Okt	0.079	0.053	0.029	Des	Jan	Feb	Mrt	Apr	Mei	Jun	Jul	Aug	Sept								
												0.120	0.473	0.120	0.294	0.116	0.000	0.000	0.000	0.000	0.015	0.021	0.043	0.090	0.130	0.157								
											≤ 0.075 milligram/liter (50ste persentiel)																							
											≤ 1.75 milligram/liter (50ste persentiel)																							
							≤ 450 milliSiemens/meter (95ste persentiel)																											
							6.5 ≥ pH ≤ 8.5 (5ste en 95ste persentiele)																											
							2°C verskil van omliggende watertemperatuur																											
							≥ 6 milligram per liter (5ste persentiel)																											

IUA Klas	Kwartêre Opvanggebied	RU	Hulp-bron Naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-kompo-nent	Aanwyser	Verhalende RQO	RQO Numeries
D10 Diep	G21D	D10-R12	Diep River	Biv6	D	Hoeveelheid	Lae vloei Hoë vloei	Atrasien	Toksiseitsvlakke moet nie 'n bedreiging vir water-ekosisteme inhou nie.	≤ 0.079 milligram per liter (95ste persentiel)
								Endusulfan		≤ 0.0013 milligram per liter (95ste persentiel)
								Escherichia coli	Konsentrasies van waterdrywende patogene moet in 'n Aanvaarbare kategorie vir intermediêre kontakvermaak gehandhaaf word.	≤ 2500 tellings/100ml (95ste persentiel)
								Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende wees om die rivier in 'n D-kategorie te handhaaf	Maande Okt 0.176 Nov 0.118 Des 0.062 Jan 0.043 Feb 0.037 Mrt 0.033 Apr 0.043 Mei 0.083 Jun 0.171 Jul 0.237 Aug 0.280 Sept 0.226
								Fosfaat (PO ₄ -P)	Riviervoedingsvlakke moet in 'n eusotrofiese toestand in die rivier gehandhaaf word.	≤ 0.125 milligram/liter (50ste persentiel)
								Totaal anorganiese stikstof (TIN)		≤ 2.5 milligram/liter (50ste persentiel)
								Elektriese geleidings vermoë (EC)	Die rivier is natuurlike sout en moet in sy huidige toestand gehandhaaf word.	≤ 350 millisiemens/meter (95ste persentiel)
								pH-reëks	pH, temperatuur en opgeloste suurstof	6.5 ≤ pH ≤ 8.5 (5ste en 95ste persentiele)
								Water temperatuur	2°C verskil van omliggende watertemperatuur	
								Opgeloste suurstof	die gesondheid van die ekosisteem.	≥ 6 milligram per liter (5ste persentiel)

IUA Klas	Kwartêre Opvanggebied	RU	Hulp-bron Naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-kompo-nent	Aanwyser	Verhalende RQO	RQO Numeries
							Gifstowwe	Atrasien	Toksiseitsvlakke moet nie 'n bedreiging vir water-ekosisteme inhou nie.	≤ 0.079 milligram per liter (95ste persentiel)
							Patogene	Endusulfan	Konsentrasies van waterdrywende patogene moet in 'n Aanvaarbare kategorie vir intermedieë kontakvermaak gehandhaaf word.	≤ 0.0013 milligram per liter (95ste persentiel)
								Escherichia coli		≤ 2500 tellings/100ml (95ste persentiel)
						Habitat	Geomorfo-logie	GAI telling	Geomorfologiese toestand	> 22% = E-kategorie
							Oewer plante-groei	VEGRAI vlak 3 telling.	Plantegroei toestand	> 18% = F-kategorie
						Biota	Vis	FRAI telling	Vistoestand	> 22% = E-kategorie
							Ongewerwelde diere	MIRAI telling	Makro-ongewerwelde diere toestand	> 22% = E-kategorie

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-kompo-nent	Aanwy-ser	RQO Verhalende	RQO Numeries																	
E11 Skiereiland	II	G22A	E11-R14	Silvermine Rivier	Bvii20	C	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende wees om die rivier in 'n C-kategorie te handhaaf	Maande	0.017	0.167	0.002	0.105	0.000	0.053	0.035	0.000	0.029	0.027	0.000	0.036	0.069	0.138	0.235	0.287	0.233
											Instandhoudingvloei (miljoen kubieke meter)	≤ 0.075 milligram/liter (50ste persentiel)																
											≤ 1.75 milligram/liter (50ste persentiel)																	
											≤ 350 milliSiemens/meter (95ste persentiel)																	
											6.5 ≤ pH ≤ 8.5 (5ste en 95ste persentiele)																	
											2°C verskil van omliggende watertemperatuur.																	
							Gehalte	Soute	Elektriese geleidings vermoë (EC)	Soutkonsentrasies moet gehandhaaf word op vlakke wat nie water-ekosisteme nadelig beïnvloed nie.																		
							Stelselveranderlikes	pH-reeks		pH, temperatuur en																		
								Water																				

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	RQO Verhalende	RQO Numeries
								temperatuur	opgeloste suurstof is belangrik vir die instandhouding van die gesondheid van die ekosisteem.	
								Opgeloste suurstof		≥ 6 milligram per liter (5ste persentiel)
							Patogene	Esche-richia coli	Oewer plantegroei	≤ 1000 tellings/100ml (95ste persentiel)
					Habitat		Oewer plante-groei	VEGRAI vlak 3 telling.	Plantegroei toestand	> 62% = C-kategorie
					Biota		Vis	FRAI-telling	Vistoestand	>82% = B-kategorie
							Ongeperwerelde diere	MIRAI-telling	Makro-ongeperwerelde diere toestand	> 62% = C-kategorie

Tafel 8: Hulpbrongehalteswitte vir RIVIERE in prioriteiteenhede in die Geïntegreerde eenheid van Analise E12 Kaapse Vlakte

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	RQO Verhalende	RQO Numeries
E12 Kaapse Vlakte	G22D	E12-R15	Keyersrivier	Bvii7	D	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende wees om die rivier in 'n D-kategorie te handhaaf.	Maande 0.038 0.024 0.014 0.011 0.009 0.009 0.012 0.019 0.035 0.056 0.066 0.054 0.012 0.001 0.000 0.000 0.000 0.000 0.000 0.027 0.068 0.139 0.026 0.051
								Fosfaat (PO ₄ -P)	Voedingsvlakke moet in	≤ 0.125 milligram/liter (50ste persentiel)
					Gehalte		Voedingstowwe	Totaal anorganiese stikstof (TIN)	esotrofiess of beter toestand in die rivier gehandhaaf	≤ 3.0 milligram/liter (50ste persentiel)

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	RQO Verhalende	RQO Numeries
									word.	
							Soute	Elektriese geleidingsvermoë (EC)	Soutkonsentrasies moet op huidige vlakke gehandhaaf word.	≤ 85 milliSiemens/meter (95ste persentiel)
								pH-reeks	pH,	$6.5 \leq \text{pH} \leq 8.5$ (5ste en 95ste persentiele)
								Water temperatuur	temperatuur en opgeloste suurstof is	2°C verskil van omliggende watertemperatuur
							Stelselveranderlikes	Opgeloste suurstof	belangrik vir die instandhouding van die gesondheid van die ekosi- steem.	≥ 6 milligram per liter (5ste persentiel)
									Konsentrasies van waterdrys- wende	
									Patogene moet in 'n Aanvaar- bare kategorie gehand-haaf word vir intermediêre kontakvermaak.	
							Patogene	Escherichia coli	Op die lang termyn moet die doel wees om die rivier te verbeter tot 'n Aanvaarbare, en dan ideale kategorie vir intermediêre kontakvermaak.	≤ 4000 tellings/100ml (95ste persentiel)
						Habitat	Oewer plante-groei	VEGRAI vlak 3 telling.	Plantegroei toestand	$> 38\% = \text{D/E-kategorie}$

UA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	RQO Verhalende	RQO Numeries
						Biota	Vis	FRAI telling	Vistoestand	> 62% = C-kategorie

Tafel 9: Hulpbrongehalteswitte vir RIVIERE in prioriteiteenhede in die Geïntegreerde eenheid van Analise D6 Eerste

UA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-kompo-nent	Aanwyser	Verhalende RQO	RQO Numeries																															
D6 Eerste	III	G2ZF	D6-R16	Jonkershoek River	Biii6	C	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende wees om die rivier in 'n C- kategorie te handhaaf.	Maande	0.639	Okt	0.067	Nov	0.349	Des	0.000	Jan	0.142	Feb	0.000	Mrt	0.186	Apr	0.335	Mei	0.522	Jun	0.645	Jul	0.714	Aug	0.693	Sept							
												Instandhoudingvloei (miljoen kubieke meter)	Hoog	0.245	0.543	0.000	0.000	0.000	0.000	0.000	0.000	0.454	0.747	1.052	0.206	0.412																
											Voedingsvlakke moet in mesotrofiese of beter toestand in die rivier gehandhaaf word.												≤ 0.075 milligram/liter (50ste persentiel)																			
											Voedingstowwe												≤ 1.75 milligram/liter (50ste persentiel)																			
							Totaal anorganiese stikstof (TIN)																																			
							Gehalte	Soute	Elektriese geleidingsvermoë (EC)	Soutkonsentrasie moet op huidige vlakke gehandhaaf word.												≥ 55 milliSiemens/meter (95ste persentiel)																				
										pH-reeks	pH, temperatuur en opgeloste suurstof is belangrik vir die instandhouding van die gesondheid van die ekosisteem.												6.5 ≤ pH ≤ 8.5 (5ste en 95ste persentiele)																			
											Water temperatuur													2°C verskil van omliggende watertemperatuur.																		
											Stelselveranderlikes												Opgeloste suurstof												≥ 6 milligram per liter (5ste persentiel)							

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
								Ammoniak	Toksiseitsvlakke	≤ 0.073 milligram per liter (95ste persentiel)
								Atrasien	e moet nie 'n bedreiging vir	≤ 0.079 milligram per liter (95ste persentiel)
							Gifstowwe	Endusulfan	water-ekosisteme inhou nie.	≤ 0.0013 milligram per liter (95ste persentiel)
									Konsentrasies van waterdrywende Patogene moet in 'n Aanvaarbare kategorie gehandhaaf word vir intermedêre kontakvermaak.	
							Patogene	Escherichia coli	Op die lang termyn moet die doel wees om die rivier te verbeter tot 'n Aanvaarbare, en dan ideale kategorie vir intermedêre kontakvermaak.	≤ 2500 tellings/100ml (95ste persentiel)
						Habitat	Geomorfologie	GAI telling	Geomorfologiese toestand	> 62% = C-kategorie
							Oewer plantegroei	VEGRAI vlak 3 telling.	Plantegroei toestand	> 62% = C-kategorie
							Vis	FRAI telling	Vistoestand	> 42% = D-kategorie
						Biota	Ongewerfelde diere	MIRAI telling	Makro-ongewerfelde diere toestand	> 62% = C-kategorie

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-kompo-nent	Aanwyser	Verhalende RQO	RQO Numeries														
D6 Eerste	III	G22G	D6-R17	Klippiesrivier	Biv8	D	Gehalte	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei	Vloei sal voldoende wees om die rivier in 'n D- kategorie te handhaaf.	Maande	0.164	0.156	0.135	0.091	0.064	0.054	0.000	0.077	0.111	0.133	0.153	0.163	Sept Aug
										loëiing (miljoen kubieke meter)		Hoog	0.146	0.066	0.000	0.000	0.000	0.000	0.081	0.182	0.100	0.291	0.100		
										≤ 0.125 milligram/liter (50ste persentiel)															
									Voeding-stowwe	Fosfaat (PO ₄ -P)	moet in 'n esotrofiese beter toestand in die rivier gehandhaaf word.	≤ 3.0 milligram/liter (50ste persentiel)													
										Totaal anorganiese stikstof (TIN)															
										Soute		Elektriese geleidingsvermoë (EC)	Soutkonsentrasie moet op huidige vlakke gehandhaaf word.	≤ 55 milliSiemens/meter (95ste persentiel)											
									Stelselveranderlikes	pH-reeks	pH, temperatuur en opgeloste suurstof is belangrik vir die instandhouding van die	6.5 ≤ pH ≤ 8.5 (5ste en 95ste persentiele)													
										Water temperatuur		2°C verskil van omliggende watertemperatuur													
										Opgeloste suurstof		≥ 6 milligram per liter (5ste persentiel)													
									Gifstowwe	Ammoniak	Toksiseiteitsvlakke moet nie 'n bedreiging vir water- ekosisteme inhou nie.	≤ 0.073 milligram per liter (95ste persentiel)													
Atrasien	≤ 0.079 milligram per liter (95ste persentiel)																								
Endusulfan	≤ 0.0013 milligram per liter (95ste persentiel)																								
Patogene	Escherichia coli	Konsentrasies van waterdrywende Patogene moet	≤ 4000 tellings/100ml (95ste persentiel)																						

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
									in 'n Aanvaarbare kategorie gehandhaaf word vir interme-diëre kontakvermaak Op die lang termyn moet die doel wees om die rivier te verbeter tot 'n Aanvaar-bare, en dan ideale kategorie vir intermediëre kontakvermaak	
						Habitat	Oewer plantegroei	VEGRAI vlak 3 telling.	Plantegroei toestand	> 22% = E-kategorie
						Biota	Vis	FRAI telling	Vistoestand	> 18% = D/E-kategorie
							Ongewerwelde diere	MIRAI telling	Makro-ongewerwelde diere toestand	> 62% = C-kategorie

Tafel 10: Hulpbrongehalteswitte vir RIVIERE in prioriteiteenhede in die Geïntegreerde eenheid van Analise D7 Sir Lowrys

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries											
D7 Sir Lowrys	II	D7-R18	Lourens River	Bvii21	D	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende wees om die rivier in 'n D-kategorie te handhaaf.	Maande	Instandhoudingvloeiing (miljoen kubieke meter)										
											Hoog	0.355	0.523	0.448	0.277	0.151	0.108	0.000	0.000	0.000	0.593
											Laag	0.568	0.592	0.520	0.410	0.254	0.141	0.100	0.000	0.563	0.297
																					0.568

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
						Voedingstowwe	Fosfaat (PO ₄ -P)	Voedingsvlakke moet in mesotro-fiese of beter toestand in die rivier gehandhaaf word.	≤ 0.075 milligram/liter (50ste persentiel)
							Totaal anorganiese stikstof (TIN)		≤ 1.75 milligram/liter (50ste persentiel)
						Soute	Elektriese geleidingsvermoë (EC)	Soutkonsentrasies moet op huidige vlakke ≤ 55 milliSiemens/meter (95ste persentiel) gehandhaaf word.	
							pH-reeks	pH, temperatuur en opgeloste suurstof is belangrik vir die instandhouding van die gesondheid van die ekosisteem.	6.5 ≤ pH ≤ 8.5 (5ste en 95ste persentiele)
						Stelselveranderlikes	Water temperatuur		2°C verskil van omliggende watertemperatuur
							Opgeloste suurstof		≥ 6 milligram per liter (5ste persentiel)
							Ammoniak	Toksiseitsvlakke moet ≤ 0.073 milligram per liter (95ste persentiel)	
						Gifstowwe	Atrasien	nie 'n bedreiging vir water-ekosisteme inhou nie.	≤ 0.079 milligram per liter (95ste persentiel)
							Endosulfan		≤ 0.0013 milligram per liter (95ste persentiel)
								Konsentrasies van waterdrywende Patogene moet in 'n Aanvaarbare kategorie gehandhaaf word vir interme-diëre kontakvermaakOp die lang termyn moet die doel wees om die rivier te verbeter tot 'n Aanvaarbare, en dan ideale kategorie vir intermediêre kontakvermaak..	≤ 2500 tellings/100ml (95ste persentiel)
						Patogene	Escherichia coli		
								Geomorfologiese toestand	> 42% = D-kategorie
					Habitat	Geomorfologie	GAI telling		
						Oewer plantegroei	VEGRAI vlak 3 telling.	Plantegroei toestand	> 42% = D-kategorie
					Biota	Vis	FRAI telling	Vistoestand	> 22 % = E-kategorie

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LUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries																											
D7 Sir Lowry's	II	G40A	D7-R20	Steenbras River	Bvii22	B/C	Hoeveelheid	Lae vloei Hoë vloei	Instandhouding Lae vloei Instandhouding hoë vloei	Vloei sal voldoende wees om die rivier in 'n B/C-kategorie te handhaaf.	Instandhoudingvloei (miljoen kubieke meter)	Maande	Ok	0.427	0.000	0.323	Nov	0.235	Des	0.180	Jan	0.149	Feb	0.000	0.000	0.000	0.173	Apr	0.247	Mei	0.384	Jun	0.307	Jul	0.582	Aug	0.502	Sept
											Voedingsvlakke moet ≤ 0.025 milligram/liter (50ste persentiel)																											
											Totaal anorganiese stikstof (TIN)											≤ 0.70 milligram/liter (50ste persentiel)																
											Elektriese geleidingsvermoë (EC)											Soutkonsentrasies moet op huidige vlakke ≤ 55 milliSiemens/meter (95ste persentiel)																
											pH-reeks											5.0 ≤ pH ≤ 7.5 (5ste en 95ste persentiele)																
											Water temperatuur											2°C verskil van omliggende watertemperatuur																
							Gehalte	Stelselveranderlikes	Opgeloste suurstof											≥ 6 milligram per liter (5ste persentiel)																		
									Yster											≤ 0.1 milligram per liter (95ste persentiel)																		
									Mangaan											≤ 0.18 milligram per liter (95ste persentiel)																		
									Patogene											≤ 1065 tellings/100ml (95ste persentiel)																		

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbron naam	Biofisiese Nodusnaam	Biofisiese Nodusnaam	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
									gehandhaaf word vir volledige kontakvermaak	
						Habitat	Geomorfologie	GAI telling	Geomorfologiese toestand	> 82% = B-kategorie
							Oewer plantegroei	VEGRAI vlak 3 telling.	Plantegroei toestand	> 78% = B/C-kategorie
						Biota	Vis	FRAI telling	Vistoestand	> 52% = D-kategorie
							Ongewerweldede diere	MIRAI telling	Makro-ongewerweldede diere toestand	> 92% = A-kategorie

Tafel 11: Hulpbrongehaltesdoelwitte vir RIVIERMONDINGS in prioriteiteenhede in die Geïntegreerde eenheid van Analise A1 Berg Riviermonding

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbron naam	Biofisiese Nodusnaam	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
A1 Berg Riviermonding	G10M	A1-E01	Berg (Groot) Riviermonding	Bx11	C	Hoe-veelheid	Vloei	Rivierinvloei moet nooit onder $0.6 \text{ m}^3 \cdot \text{s}^{-1}$ daal nie en moet nie onder $1 \text{ m}^3 \cdot \text{s}^{-1}$ vir langer as 4 maande wees nie; MMR/Vloedfrekwensie moet nie MMR/vermeerder/ verminder met (% meer as 10% van 2004 basislyn Natuurlik)	Maand Jaarlikse 486.86 (52%) 78.34 (63%) 137.15 (68%) 123.35 (61%) 64.25 (42%) 22.18 (26%) 9.13 (36%) 1.66 (20%) 1.50 (23%) 1.61 (19%) 3.92 (25%) 12.55 (36%) 31.21 (46%)
							DIN	Anorganiese nutriënt konsentrasies moet nie TPCs oorskry vir makrofiete en mikroalge.	Riviermonding (Lae vloei < $1 \text{ m}^3 \cdot \text{s}^{-1}$, sommer): DIN <300 $\mu\text{g/l}$; DRP <100 $\mu\text{g/l}$ in Sones A en B, DIN <80 $\mu\text{g/l}$; DRP <30 $\mu\text{g/l}$ in Sones C en D
							DIP		Riviermonding (hoë vloei > $5 \text{ m}^3 \cdot \text{s}^{-1}$, winter): DIN <800 $\mu\text{g/l}$; DRP <60 $\mu\text{g/l}$ in Sones A-D
							Saliniteit	Saliniteits verspreiding moet nie TPCs vir vis, ongewerweldes,	Rivierinvloei (< $1 \text{ m}^3 \cdot \text{s}^{-1}$, sommer): DIN <80 $\mu\text{g/l}$; DRP <20 $\mu\text{g/l}$ Rivierinvloei (> $5 \text{ m}^3 \cdot \text{s}^{-1}$, winter): DIN <800 $\mu\text{g/l}$; DRP <60 $\mu\text{g/l}$ Saliniteit <20 vir langer as 3 maande op 20 km stroomop vanaf die mond; Saliniteit <1 ppt bo 40 km stroomop van die mond; Saliniteit van Saliniteit oral in Riviermonding <35; Grondwater

IUA Klas	Kwartêre Opvanggebied	Hulpbron naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
								makrofiete en mikroalge oorsky nie.	saliniteit op vloedvlakte <45; TDS van rivierinvloei <3500 mg /
							Temperatuur		"Rivierinvloei: 7 < pH < 8.5
							pH		Riviermonding: 7 < pH < 8.5 "
							Opgeloste suurstof	Stelselveranderlikes moet nie TPC's vir biota oorskry nie.	"Rivierinvloei: DO >4 mg/l
							Secchi depth		Riviermonding DO >4 mg/l"
							Enterococci	Konsentrasies van water	Sones A en B <1.0 m tydens lae vloei (< 1m ³ .s ⁻¹)
							Escherichia coli	drywende Patogene moet in 'n Aanvaarbare kategorie vir kontaktrekre-asië gehandhaaf word.	≤185 Enterococci/100 ml) (90ste persentiel, hazenstelsel)
							Mondingtoestand		Permanent oop
							Gety verandering	Habitatgesondheid toereikend vir mikroalge, makrofiete, ongewerwelde diere, vis, voëls en ontspanningsgebruik.	<10% verander van huidige toestand
							Sedi-ment eienskappe, Kanaal vorm / grootte		Badmeting en sediment M ₀ verander <10% vanaf basislyn
								Fitoplankton biomassa en samestelling geskik vir ongewerwelde diere, vis, voëls en ontspanningsgebruik.	Blou-groen alge <10% van fitoplankton sel tellings, Benthiese microphytobenthic <40 mg / m ² chlorofil a, Die frekwensie van dinoflagellate <5% van die totaal fitoplankton tellings.
							Biomassa en gemeenskaps samestelling van fitoplankton en benthiese mikroalgaë gemeenskap		
								Makrofiet dekking en samestelling geskik vir ongewerwelde diere, Vis, voëls en ontspanningsgebruik	Handhaaf die huidige verspreiding (2003-2005) en die oornloed van die verskillende plant Gemeenskap FAQ tipes en getyriwvler habitatte (intergety wad met Zostera capensis 206 ha, tussengety soutmoeras 499 ha, oop pan 1159 ha,halofatiese vloedvlakte 1521 ha, xeric vloedvlakte 919,1 ha, riete en biesies 586,6 ha en riete pan 292,5 ha), verhoed dat 'n toename in matie van makroalgaë in die Laer intergety bereik, Verminder

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbron naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-kompo-nent	Aanwyser	Verhalende RQO	RQO Numeries
										die gebied dekking deur waterhassinte (<i>Eichornia crassipes</i>) in die Boonste bereik met 50% in vergelyking met die huidige stand (2003-2005), verhoed dat 'n toename in grootte van die oop pan droë gebiede (1159 ha in 2003-2005), Voorkom 'n Afname in grootte van die riete pan gebiede (293 ha in 2003-2005). <i>Juncus Mrtitinus</i> , en waterblommietjies <i>Aponogeton distachyos</i> teenwoordig is, om die verspreiding van indringerplante in die oewer sone (bv <i>Acacia mearnsii</i> en <i>Eucalyptus camaldulensis</i>), in stand te hou ongeskonde riet en riete staan langs die oewers van die Riviermonding deur te verseker dat Saliniteit is nie groter as 20 ppt vir 3 maande by 20 km van die maand in die somer, verhoed dat 'n toename in kaalgrond in die halofatiese en xeriese vloedvlakte habitatte deur die handhawing van die hedendaagse oorstroomingspatrone
							Ongewerweldde diere	Makro-fauna gemeenskap samestelling, oorvloed en rykheid.	Oorvloed en gemeenskapsamestelling van Ongewerweldde diere wat geskik is vir Vis, voëls.	Handhaaf huidige spesies rykheid, verspreiding van spesies en meng (lae spesies oorvloed, hoe oorheersing) in Sones A tot die middel bereik van Sone C. Een of twee spesies sal altyd teenwoordig wees by hoe digtheid in vergelyking met ander (bv <i>Pseudodiaptomus hessei</i> , <i>Grandidierella sp.</i>) in hierdie Sones (A tot C), aanwyser spesies soos <i>Capitella capitata</i> , moet nie bontiese spesies op enige terrein oorheers; <i>Callinassa kraussi</i> en <i>Upogebia africana</i> verspreidingspatrone bly soortgelyk aan die huidige toestand.
							Vis	Vis gemeenskap samestelling, oorvloed en rykdom	Oorvloed en gemeenskaps samestelling van Vis gemeenskap geskik vir voëls	Handhaaf die volle komplement van die riviermondingsbewoner (7 spesies) en Riviermonding-geassosieerde seine (5 spesies) teenwoordig in die Riviermonding met bevolkingsgroottes wat voldoende is om hul volharding te verseker. Maak seker dat eksotiese varswater spesies nie toeneem tot vlakke waar hulle meer kan uitsluit nie. inheemse spesies deur predasie of mededingende interaksies. Behou werwing van volwasse en jeugvis op huidige vlakke. Dit vereis die behoud van voldoende vloei vir varswaterpruim (temperatuur, saliniteit en olfaktiewe gradiënt) wat die see binnedring. Dit impliseer dat daar 'n beduidende aantal 0 -1 jaar oue Vis en geen ontbrekende jaarklasse moet wees nie.
							Voëls	Avifauna gemeenskap samestelling, oorvloed en rykheid.	Gesondheids avifauna-gemeenskap wat bydra tot die diversiteit van die Voëlgemeenskap wat bepaal word deur gebruik te maak van die regressie helling gebaseer op 'n 3-jaar-gemiddelde.	Behou ten minste 90% van die basislyn spesies rykdom, oorvloed en diversiteit van die Voëlgemeenskap wat bepaal word deur gebruik te maak van die regressie helling gebaseer op 'n 3-jaar-gemiddelde.

Tafel 12: Hulpbrongehaltesdoelwitte vir RIVIERMONDINGS in prioriteiteenhede in die Geïntegreerde eenheid van Analise A2 Langebaan

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Kompo-nent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
A2 Langebaan	II	G10M	A2-E02	Langebaan	Bx13	A	Gehalte	Voedingstowwe	NO ₃	Anorganiese nutriëntkonsentrasies moet nie TPC's oorskry vir makrofiete en mikroalge nie.	NO ₃ <1.3 mg.l ⁻¹
								Saliniteit	Saliniteit	Saliniteit verspreiding moet nie TPC's oorskry vir vis, ongewerweldes, makrofiete en mikroalge	Saliniteit by die hoof van die strandmeer <40; Res van die strandmeer 34 < Saliniteit < 36
								Stelselveranderlikes	Opgeloste suurstof	Stelselveranderlikes moet nie TPC's vir biota oorskry nie.	>4 mg.l ⁻¹
									Secchi diepte		Secchi diepte >1 m
								Enterococci		Konsentrasies van watergedraagde Patogene moet in 'n Aanvaarbare kategorie vir intermediere kontakrekreasie gehandhaaf word	≤185 Enterococci/100 ml) (90ste persentiel, hazenstelsel)
							Patogene		Escherichia coli		≤500 E. coli/100 ml (90ste persentiel, hazenstelsel)
							Habitat	Hidrodinamika	Gety veandering	Habitatgesondheid toereikend vir mikroalge, makrofiete, ongewerwelde diere, vis, voëls en ontspannings-gebruik	Gety verandering moet nie meer as 10% vanaf die huidige toestand verander nie. (2017)
								Sedimente	Sediment eienskappe, kanaal vorm / grootte		Badmeting en sediment MqØ verander <10% vanaf basislyn
							Biota		Biomassa en gemeenskaps samestelling van fitoplankton en bentiese mikroalge gemeenskap.	Fitoplankton biomassa en samestelling geskik vir ongewerwelde diere, vis, voëls en ontspannings-gebruik	Handhaaf lae fitoplanktonbiomassa (chlorofila <20 µg / l) en 'n diversiteit van fitoplanktongroepe.
								Makrofiete	Omvang.	Makrofiet dekking en	Handhaaf die verspreiding en area-dekking

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Kompo-nent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
									verspreiding en rykheid van makrofiete	samestelling geskik vir ongewerwede diere, Vis, voëls en ontspannings- gebruik.	van makrofiet habitate veral die soutmoeras. Handhaaf die groot grondwater gevoed stormloop habitat
								Ongewerwede diere	Makrofauna gemeenskap samestelling, oorvloed en rykheid	Oorvloed gemeenskap samestelling van ongewerwede diere wat geskik is vir Vis, voëls.	In terme van Ongewerwede Diere Langebaan strandmeer is tans in 'n A- Kategorie. Die ongewerwede Diere gemeenskappe is in goeie gesondheid met spesies rykheid, verspreidings en samestelling telling grootliks.
								Vis	Visgemeen- skap samestelling, oorvloed en rykheid.	Oorvloed en gemeenskaps samestelling van Vis gemeenskap geskik vir voëls.	Die Vis Gemeenskap FAQ behoort gesonde bevolkings van uitgebuut vis spesies, spesifiek die harders, wit stompneus, swartstert, elf en 'n gladde sloothaa jeugdige moet almal teenwoordig in die see se netto monsterneming opnames (ten minste 10 opbrengste in 3 verskillende plekke) van die kuslyn wees gebiede. Volwassenes van hierdie spesies moet die belangrikste komponente bly in die vangste van lyn en netto Vissery in die strandmeer, en vangste behoort stabiel te bly of toeneem.
								Voëls	Avifauna gemeen- skap samestel- ling, oorvloed en rykheid.	Gesondheids avifauna- gemeenskap wat bydra tot die bewaring van die Avifauna-spesies in SA.	Behou ten minste 90% van die basislyn spesies rykheid, oorvloed en diversiteit van die voëlgemeenskap bepaal met behulp van regressie helling gebaseer op 'n 3-jaar loop gemiddeld.

IUA	Klas	Kwartêre Opvanggebied	Hulpbron naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
							Mikroalge	Biomassa en gemeenskaps samestelling van fitoplankton en bentiese mikroalgae gemeenskap.	Fitoplankton biomassa en samestelling geskik vir ongewerwelde diere, vis, voëls en ontspannings-gebruik.	Handhaaf lae fytoplanktonbiomassa (chlorofyl-a <50 µg / l) en 'n diversiteit van fitoplanktongroepe.
							Makrofiete	Omvang, verspreiding en rykheid van makrofiete.	Makrofiet dekking en samestelling geskik vir ongewerwelde diere, Vis, voëls en ontspanningsgebruik.	Handhaaf die verspreiding en area-dekking van makrofiethabitate veral die soutmoeras.
						Biota	Ongewerwelde diere	Makrofauna gemeenskap samestelling, oorvloed en rykheid.	Oorvloed en gemeenskapsamestelling van ongewerwelde diere wat geskik is vir Vis, voëls.	Herstel en handhaaf spesies rykheid, verspreiding van spesies en meng (lae spesies oorvloed, hoë oorheersing); Aanwyser spesies soos <i>Capitella capitata</i> , behoort nie boonste spesies op enige terrein te oorheers nie; <i>Callianassa kraussi</i> en <i>Upogebia africana</i> verspreidingspatrone soortgelyk aan verwysingstoestand.
							Vis	Vis gemeenskap samestelling, oorvloed en rykheid.	Oorvloed en gemeenskaps samestelling van visgemeenskap geskik vir voëls.	Herstel en handhaaf die volledige komplement van riviermondings inwoner en Riviermonding-geassosieerde mariene teenwoordig in die Riviermonding met bevolkingsgroottes wat voldoende is om hul volharding in ewigheid te verseker; Verseker dat eksotiese varswaterspesies nie toeneem tot vlakke waar hulle meer inheemse spesies kan uitsluit deur predasie of mededingende interaksies nie; Behou werwing van volwasse en jeugvis op huidige vlakke.
							Voëls	Avifauna gemeenskapsa mestelling, oorvloed en rykheid.	Gesondheids avifauna-gemeenskap wat bydra tot die bewaring van die Avifauna-spesies in SA.	Behou ten minste 90% van die grond- spesie rykdom, oorvloed en diversiteit van die voëlgemeenskap wat bepaal word deur gebruik te maak van die regressie styging gebaseer op 'n 3-jaar-gemiddelde.

IUA Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
								fitoplank-ton en bentiese mikro-algae gemeenskap.	voëls en ontspannings gebruik.	
							Makrofiete	Omvang, versprei-ding en rykheid van makr-ofiete.	Makrofiet dekking en samestelling geskik vir ongewerwelde diere, Vis, voëls en ontspanningsgebruik.	Behou huidige spesies rykheid, verspreiding van spesies en meng (lae spesies oorvloed, hoe oorheersing); Handhaaf die randplantegroei rondom die vleie, want dit is belangrik vir oewer- stabilisering en voedingsopname; Verbeter konneksie tussen die see, kanaal en Laer vleie; Beheer oor die verspreiding van uitheemse drywende water mmakrofiete spesies teenwoordig in die vleie bv. Watervaring.
							Ongewerwelde diere	Makrofauna gemeenskap samestel-ling, oorvloed en rykheid.	Oorvloed en gemeenskapsamestelling van Ongewerwelde diere wat geskik is vir Vis, voëls.	Beweeg van 'n D-kategorie 'n C Kategorie. Die Riviermonding moet 'n lewensvatbare bevolking van Callichirus kraussi het in die dood water strandmeer (10 / m2). Daarbenewens moet die ongewerwelde Diere gemeenskap sluit 2 ander riviermondings spesies in die kanaal. Ten minste drie mariene ongewerwelde diere spesies teenwoordig naby die mond.
							Vis	Visgemeenskap samestel-ling, oorvloed en rykheid.	Oorvloed en gemeenskapsamestelling van visgemeenskap geskik vir voëls.	Handhaaf Vissamestelling dat ten minste twee spesies van harder, <i>Liza richardsonii</i> en óf/beide <i>Mugil cephalus</i> en <i>Pseudomyxus capensis</i> insluit. Aansienlike seisoenale skommeling in oorvloed van hierdie harderspesies verwag om plaas te vind, maar harders moet meer volop as die vreemdeling varswater spesies tans in die vleie bewoon.
							Voëls	Avifauna gemeenskap Samestel-ling, oorvloed en rykheid.	Gesondheids avifauna-gemeenskap wat bydra tot die bewaring van die Avifauna-spesies in SA.	Behou ten minste 90% van die basislyn spesies rykheid, oorvloed en diversiteit van die voëlgemeenskap wat bepaal word deur gebruik te maak van die regressiestyging gebaseer op 'n 3-jaar-gemiddelde.

Tafel 15: Hulpbrongehaltesdoelwitte vir RIVIERMONDINGS in prioriteiteenhede in die Geïntegreerde eenheid van Analise E12 Kaapse Vlakte

IUA	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries																
E12 Kaapse Vlak	G22K	E12-E05	Zandvlei	Bxi9	D	Hoeveelheid	Oppervlak vloei	Vloei	Varswaterinvloei voldoende om watergehalte en habitat geskik vir fauna en flora te handhaaf.	Maande	74 %	64 %	69 %	68 %	61 %	66 %	68 %	76 %	81 %	87 %	88 %	85 %	84 %			
										MMR/MRT (% Nat)																
							Voedingstowwe	DIN	Anorganiese nutriëntkonsentrasies moet nie TPC's oorskry vir makrofiete en mikroalge nie.	Rivierinvloei: <1000 µg.l-1																
										Riviermonding: <150 µg.l-1																
								DIP	Rivierinvloei: <300 µg.l-1																	
									Riviermonding: <100 µg.l-1																	
						Gehalte	Saliniteit	Saliniteit	Saliniteitsverspreiding moet nie TPC's oorskry vir Vis, ongewerwelde diere, makrofiete en mikroalge nie.	15 < Gemiddelde saliniteit <35																
							Stelselveranderlikes	Opgeloste suurstof	>4 mg.l-1																	
						Patogene	Enterococci	Konsentrasies van watergedraagde Patogene moet in 'n Aanvaarbare kategorie vir intermediêre kontakreksie gehandhaaf word.																		
								≤185 Enterococci/100 ml (90ste persentiel, hazenstelsel)																		
						Habitat	Sedimente	Hidrodinamika	Mondingtoestand	Habitatgesondheid toereikend vir mikroalge, makrofiete, onwerwelde diere, vis, voëls en ontspanningsgebruik.																
										Mond moet >20% van die tyd oop bly.																
						Biota	Mikroalge	Biomassa en gemeenskap samestelling van fitoplankton en bentiese mikroalge gemeenskap.	Badmeting en sediment MdØ verander <10% vanaf basislyn.																	
									Handhaaf lae fytoplanktonbiomassa (chlorofil-a <20 µg / l) en 'n diversiteit van fitoplanktongroepe.																	

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
E12 Kaapse Vlak	III	G22K	E12-E05	Zeekoevlei	Bxi20	D	Hoeveelheid	Oppervlak vloei	Vloei	Varswater-invloei voldoende om watergehalte en habitat geskik vir fauna en flora te handhaaf.	Maande MMR/MRT (% Nat) 120 % Okt 120 % Nov 120 % Des 120 % Jan 120 % Feb 120 % Mrt 120 % Apr 120 % Mei 120 % Jun 120 % Jul 120 % Aug 120 % Sept 120 % Jaarli
								Voedingstowwe	DIN	Anorganiese nutriëntkonsentrasies moet nie meer as TPC's vir makrofiete en mikroalge oorskry nie.	Rivierinvloei: <1000 µg.l-1 Laer Riviermonding: <1000 µg.l-1 Rivierinvloei: <500 µg.l-1 Laer Riviermonding: <500 µg.l-1
									DIP		
								Saliniteit	Saliniteit	Saliniteitsverspreiding moet	Gemiddelde saliniteit in Laer >10, maksimum = 35
								Voëls	Avifauna	Gesondheids avifauna-gemeenskapsamstelling wat bydra tot die bewaring van die Avifauna-spesies in SA.	Behou ten minste 90% van die basislyn spesies rykheid, oorvloed en diversiteit van die voëlgemeenskap wat bepaal word deur gebruik te maak van die regressie slope/helling gebaseer op 'n 3-jaar-gemiddelde.
									Visgemeenskap	Visgemeenskapsamstelling van samestelling, oorvloed en rykheid.	Herstel en handhaaf die volledige komplement van riviermondings inwoner en Riviermonding-geassosieerde mariene teenwoordig in die Riviermonding met bevolkingsgroottes wat voldoende is om hul volharding in ewigheid te verseker; Verseker dat eksotiese varswaterspesies nie toeneem tot vlakke waar hulle meer inheemse spesies kan uitsluit deur predasie of mededingende interaksies nie; Behou werwing van volwasse en jeugvis op huidige vlakke.
									Ongewerwelde diere	Makrofauna gemeenskapsamstelling, oorvloed en rykheid.	Herstel en handhaaf spesies rykheid, verspreiding van spesies en meng (lae spesies oorvloed, hoë oorheersing); Aanwyser spesies soos <i>Capitella capitata</i> , behoort nie boonste spesies op enige terrein te oorheers nie; <i>Callinassa kraussi</i> en <i>Upogebia africana</i> verspreidingspatrone soortgelyk aan verwysingstoestand.
									Makrofiete	Omvang, verspreiding en rykheid van makrofiete.	Handhaaf en/ of herstel die verspreiding en area-dekking van makrofiet habitatte veral die soutmoeras.
										Makrofiet dekking en samestelling geskik vir ongewerwelde diere, vis, voëls en ontspannings gebruik.	

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbron naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
										nie TPCs vir vis, ongewerweldes, makrofiete en mikroalge oorskry nie.	
								Stelselveranderlikes	Opgeloste suurstof	Stelselveranderlikes (temperatuur, pH, troebelheid, Opgeloste suurstof, opgeskorte vastestowwe en troebelheid) moet nie TPC's oorskry vir biota nie.	>4 mg.l ⁻¹
								Patogene	Enterococci	Konsentrasies van waterdrywende patogene moet in 'n Aanvaarbare kategorie vir interne-diëre kontakreërasie gehandhaaf word.	≤185 Enterococci/100 ml (90ste persentiel, hazenstelsel)
									Escherichia coli		≤500 E. coli/100 ml (90ste persentiel, hazenstelsel)
							Habitat	Hidroinamika	Mondingtoestand	Habitatgesondheid toereikend vir mikroalge, makrofiete, ongewerwelde diere, vis, voëls en ontspanningsgebruik.	Mond moet >30% van die tyd oop bly.
								Mikroalge	Biomassa en gemeenskap samestelling van fitoplankton en bentiese mikroalge gemeenskap.	Fitoplankton biomassa en samestelling geskik vir ongewerwelde diere, vis, voëls en ontspanningsgebruik.	Fitoplankton biomassa (gemeet as chlorofil-a) <100 mg / l) en 'n diversiteit van fitoplankton groepe.
							Biota	Makrofiete	Omvang, verspreiding en rykheid van makrofiete	Makrofiet dekking en samestelling geskik vir ongewerwelde diere, vis, voëls en ontspanningsgebruik.	Handhaaf en/of herstel verspreiding en area dekking van makrofiete habitate veral die soutmoeras.
								Ongewerwelde diere	Makrofauna gemeenskapsamestelling, oorvloed en rykheid.	Oorvloed en gemeenskapsamestelling van ongewerwelde diere wat geskik is vir vis, voëls.	Herstel en handhaaf spesies rykheid, verspreiding van spesies en meng (lae spesies oorvloed, hoë oorheersing); Aanwyser spesies soos <i>Capitella capitata</i> , behoort nie boonste spesies op enige terrein te oorheers nie; <i>Callinassa kraussi</i> en <i>Upogebia africana</i> verspreidingspatrone soortgelyk aan verwysingstoestand.

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronnaam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
							Vis		Visgemeenskap samestelling, oorvloed en rykheid.	Oorvloed en gemeenskapsamstel-ling van visgemeenskap geskik vir voëls.	Herstel en handhaaf die volledige komplement van riviermondings inwoner en Riviermonding-geassosieerde mariene teenwoordig in die Riviermonding met bevolkingsgroottes wat voldoende is om hul volharding in ewigheid te verseker; Verseker dat eksotiese varswaterspesies nie toeneem tot vlakke waar hulle meer inheemse spesies kan uitsluit deur predasie of mededingende interaksies nie; Handhaaf werwing van volwasse en jeugvis op huidige vlakke.
								Voëls	Avifauna gemeenskapsamstellings, oorvloed en rykheid.	Gesondheids avifauna-gemeenskap wat bydra tot die bewaring van die Avifauna-spesies in SA.	Behou ten minste 90% van die basislyn spesies rykheid, oorvloed en diversiteit van die voëlgemeenskap wat bepaal word deur gebruik te maak van die regressie slope/helling gebaseer op 'n 3-jaar-gemiddelde.

Tafel 16: Hulpbrongehalteswitte vir RIVERMONDINGS in prioriteiteenhede in die Geïntegreerde eenheid van Analise D6 Eerste

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronn naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries																										
D6 Eerste	III	G22H	D6-E06	Eersterriviermonding	Bxi3	D	Hoeveelheid	Oppervlak vloei	Vloei	Varswater invloei voldoende om watergehalte en habitat geskik vir fauna en flora te handhaaf.	Maand	120 %	Okt	120 %	Nov	120 %	Des	120 %	Jan	120 %	Feb	120 %	Mrt	120 %	Apr	120 %	Mei	120 %	Jun	120 %	Jul	120 %	Aug	120 %	Sept	120 %	Jaarlikse
											MRT/ (% Nat)																										
							Gehalte	Voedingstowwe	DIN	Anorganiese nutriëntkonsentrasies moet nie TPC's oorskry vir makrofiete en mikroalge nie.	Rivierinvloei: <1000 µg.l ⁻¹																										
									DIP	Laer Riviermonding: <1000 µg.l ⁻¹																											
								Saliniteit	Saliniteit	Saliniteitsverspreiding moet nie TPC's oorskry vir Vis, ongewerwelde diere, makrofiete en mikroalge nie.	Gemiddelde saliniteit in Laer >10, maksimum = 35																										
Stelselveranderlikes	Opgeloste suurstof	Stelselveranderlikes moet nie TPC's vir biota oorskry nie.	>4 mg.l ⁻¹																																		

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronn aam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
								Patogene	Enterococci	Konsentrasies van waterdrywende patogene moet in 'n Aanvaarbare kategorie gehou word vir volle kontakreksie.	≤185 Enterococci/100 ml (90ste persentiel, hazenstelsel)
									Escherichia coli		≤500 E. coli/100 ml (90ste persentiel, hazenstelsel)
							Habitat	Hidrodinamika	Mondingtoestand	Habitatgesondheid toereikend vir mikroalge, makrofiete, ongewerwelde diere, vis, voëls, en ontspanningsgebruik.	Permanent oop
								Mikroalge	Biomassa en gemeenskaps samestelling van fytoplankton- en bentiese mikroalge-gemeenskap.	Fytoplankton biomassa en samestelling geskik vir ongewerwelde diere, vis, voëls en ontspanningsgebruik.	Handhaaf lae fytoplanktonbiomassa (chlorofil-a <20 µg / l) en 'n diversiteit van fytoplanktongroepe.
								Makrofiete	Omvang, verspreiding en rykheid van makrofiete	Makrofiet dekking en samestelling geskik vir ongewerwelde diere, Vis, voëls en ontspanningsgebruik.	Handhaaf en/of herstel verspreiding en area dekking van makrofiete habitatte veral die soutmoeras.
							Biota	Ongewerwelde diere	Makrofauna	Oorvloed en gemeenskapsamestelling van ongewerwelde diere wat geskik is vir Vis, voëls.	Herstel en handhaaf spesies rykheid, verspreiding van spesies en meng (lae spesies oorvloed, hoë oorheersing); Aanwyser spesies soos <i>Capitella capitata</i> , behoort nie boonste spesies op enige terrein te oorheers nie; <i>Callinassa kraussi</i> en <i>Upogebia africana</i> verspreidingspatrone soortgelyk aan verwysingstoestand.
								Vis	Visgemeenskap samestelling, oorvloed en rykheid.	Oorvloed en gemeenskapsamestelling van visgemeenskap geskik vir voëls.	Herstel en handhaaf die volledige komplement van riviermondings inwoner en Riviermonding-geassosieerde mariene teenwoordig in die Riviermonding met bevolkingsgroottes wat voldoende is om hul volharding in ewigheid te verseker; Verseker dat eksotiese varswaterspesies nie toeneem tot vlakke waar hulle meer inheemse spesies kan uitsluit deur predasie of mededingende interaksies nie; Handhaaf werwing van volwasse en jeugvis op huidige vlakke.
								Voëls	Avifauna	Gesondheids avifauna-gemeenskap wat bydra tot die bewaring van die Avifauna-spesies in SA.	Behou ten minste 90% van die basislyn spesies rykheid, oorvloed en diversiteit van die voëlgemeenskap wat bepaal word deur gebruik te maak van die regressiestyging gebaseer op 'n 3-jaar gemiddelde.

Tafel 17: Hulpbrongehaltesdoelwitte vir RIVIERMONDINGS in prioriteiteenhede in die Geïntegreerde eenheid van Analise D7 Sir Lowry's

IUA	Klas	Kwartêre Opvanggebied	RU	Hulpbronn aam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries													
							Hoeveelheid	Oppervlak vloei	Vloei	Varswater voldoende watergehalte en habitat geskik vir fauna en flora te handhaaf.	Maande	83 %	56 %	27 %	16 %	10 %	18 %	35 %	49 %	78 %	89 %	90 %	88 %	76 %
										Anorganiese nutriëntkonsentrasies moet nie TPC's oorskry vir makrofiete en mikroalge nie.	Rivierinvloei: <350 µg.l ⁻¹													
								Voedingstowwe	DIN		Laer Riviermonding: <300 µg.l ⁻¹													
									DIP		Rivierinvloei: <80 µg.l ⁻¹													
										Laer Riviermonding: <80 µg.l ⁻¹														
								Saliniteit	Saliniteit	Saliniteitsverspreiding moet nie TPC's oorskry vir Vis, ongewerwelde diere, makrofiete en mikroalge nie.	Gemiddelde saliniteit in laer Riviermonding >15, maksimum = 35													
							Gehalte			Stelselveranderlikes moet nie TPC's vir biota oorskry nie.														
					Bxi4	C		Stelselveranderlikes	Opgeloste suurstof	Konsentrasies van watergedraagde Patogene moet in 'n Aanvaarbare kategorie vir intermediêre kontakreërasie gehandhaaf word.	≤185 Enterococci/100 ml) (90ste persentiel, hazenstelsel)													
								Patogene	Enterococci															
									Escherichia coli		≤500 E. coli/100 ml (90ste persentiel, hazenstelsel)													
								Hidrodinamika	Mondingtoestand	Habitatgesondheid toereikend vir mikroalge, makrofiete, ongewerwelde diere, vis, voëls en ontspanningsgebruik.	Permanent oop													
							Habitat	Sedimente	Gety verandering	<10% verander van huidige toestand														
									eienskappe, kanaal vorm / grootte.	Badmeting en sediment MdØ verander <10% vanaf basislyn.														
							Biota	Microalgae	Biomassa en gemeenskap samestelling van fitoplankton en bentiese	Fitoplankton biomassa en samestelling geskik vir ongewerwelde diere, vis, voëls en ontspanningsgebruik.	Handhaaf lae fitoplanktonbiomassa (chlorofil-a <20 µg / l) en 'n diversiteit van fitoplanktongroepe.													

IUA	Klas	Kwartêre Opvanggebied	Hulpbronn naam	Biofisiese Nodusnaam	TEC	Komponent	Sub-komponent	Aanwyser	Verhalende RQO	RQO Numeries
								mikroalgae gemeenskap.		
							Makrofiete	Omvang, verspreiding en rykheid van makrofiete	Makrofiet dekking en samestelling geskik vir ongewerwelde diere, Vis, voëls en ontspanningsgebruik.	Handhaaf en/of herstel verspreiding en area dekking van makrofiete habitatte veral die soutmoeras.
							Ongewerwelde diere	Makrofauna gemeenskapsames telling, oorvloed en rykheid.	Oorvloed en gemeenskapsamestelling van ongewerwelde diere wat geskik is vir Vis, voëls.	Herstel en handhaaf spesies rykheid, verspreiding van spesies en meng (lae spesies oorvloed, hoë oorheersing); Aanwyser spesies soos <i>Capitella capitata</i> , behoort nie boonste spesies op enige terrein te oorheers nie; <i>Callianassa kraussi</i> en <i>Upogebia africana</i> verspreidingspatrone soortgelyk aan verwysingstoestand.
							Vis	Visgemeenskap samestelling, oorvloed en rykheid.	Oorvloed en gemeenskapsamestelling van visgemeenskap geskik vir voëls.	Herstel en handhaaf die volledige komplement van riviermondings inwoner en Riviermonding-geassosieerde mariene teenwoordig in die Riviermonding met bevolkingsgroottes wat voldoende is om hul volharding in ewigheid te verseker; Verseker dat eksotiese varswaterspesies nie toeneem tot vlakke waar hulle meer inheemse spesies kan uitsluit deur predasie of mededingende interaksies nie; Handhaaf werwing van volwasse en jeugvis op huidige vlakke.
							Voëls	Avifauna gemeenskapsames telling, oorvloed en rykheid.	Gesondheids avifauna- gemeenskap wat bydra tot die bewaring van die Avifauna-spesies in SA.	Behou ten minste 90% van die basislyn spesies rykheid, oorvloed en diversiteit van die voëlgemeenskap wat bepaal word deur gebruik te maak van die regressiestyging gebaseer op 'n 3-jaar- gemiddelde.

Tafel 18: Hulpbrongehaltesdoelwitte vir DAMME in prioriteits-eenhede in die Bergopvanggebied

IUA	Klas	Kwartêre Opvang gebied	Hulpbronn aam	Komponent	Sub-komponent	Aanwyser	RQO Verhalend	RQO Numeries																						
D8 Boonste Berg	II	G10A	Berg Dam	D8-D01	Gehalte		Hoeveelheid	Lae vloei	Damvlak vloeyvry-steling: Berg EWR1 in G10A nMRT = 141.68 miljoen m3/a pMRT: 126.00 miljoen m3/a REC = C kategorie	Gedurende die droë seisoen damvlakke moet voldoende wees vir vrystellings vir besproeiing en menslike gebruik en beskerming van ekostelselfunksie stroomaf. Waterinname temperatuur te bestuur.	Maande	Okt	Nov	Des	Jan	Feb	Mrt	Apr	Mei	Jun	Jul	Aug	Sept	Jaarliks						
											Instand-houding Lae vloei (miljoen kubieke meter)	2.143	1.293	1.071	0.803	0.726	0.803	1.296	2.679	4.147	4.285	4.285	3.888	29.177						
								Hoë vloei		Tydens die nat seisoen word hōe vloei-ouding ekologiese ontladings volgens die hōe vloei Besluitondersteuningstelsel gemaak	Instandh	0.000	0.544	0.544	0.000	0.000	0.000	0.778	0.000	4.666	10.109	0.000	0.000	11.839						
											(miljoen kubieke meter)																			
								Voedingstowwe		Orthofosfaat (PO ₄ -P)	Die stelsel moet in 'n mesotrofiese (matige verrykte) toestand gehandhaaf word, of beter om te beskerm teen alge bloei en oormaat waterbehandelingskoste.	≤ 0.015	milligram/liter (50 th persentiel)																	
												≤ 0.07	milligram/liter (50 th persentiel)																	
													Soute	Elektriese geleidingsvermoë	Soutvlakke moet by konsentrasies gehandhaaf word waar hulle nie 'n negatiewe impak op die ekosisteem hê, in 'n ideale kategorie vir huishoudelike en besproeiing watervoorsiening.	≤ 30 milliSiemens /meter (95 th persentiel)														
																Stelselveranderlikes	pH	Die water in die dam is natuurlik suur en dit moet binne die historiese reeks gehandhaaf word.	5.5 ≥ pH ≤ 7.5 (5 ^{ste} and 95 th persentiele)											
																			Patogene	Ecoli	Die dam moet in 'n toestand gehandhaaf word wat in 'n ideale kategorie vir volledige kontakvermaak ontspanning om sy huishoudelike watervoorsiening doel te beskerm.	≤ 130 tellings/100ml (95 th persentiel)								

IUA	Klas	Kwartêre Opvang gebied	Hulpbronn RU aam	Komponent	Sub-komponent	Aanwyser	RQO Verhalend	RQO Numeries
D8 Boonste Berg	II	G10B	Wemmershoek Dam	Hoeveelheid	Lae vloei	Damvlakke	Dam vlakke moet voldoende wwees vir stedelike en industriële gebruik, watervoorsiening en sommige besproeiings	% van damvolume. Geen EWR-terrein
							Die reservoir is tans in 'n natuurlike toestand en moet in 'n oligotropiese toestand gehou word vir die verskaffing aan die Stad Kaapstad en die Paarl. As 'n belangrike huishoudelike watervoorsiening reservoir hierdie status moet in stand gehou en beskerm word.	≤ 0.005 milligram/liter (50 th persentiel)
				Gehalte	Voedingstowwe	Ortho-fosfaat (PO ₄ -P) Totaal anorganiese stikstof (TIN)	Die reservoir is tans in 'n natuurlike toestand en moet in 'n oligotropiese toestand gehou word vir verskaffing aan die Stad Kaapstad en die Paarl. As 'n belangrike huishoudelike watervoorsiening reservoir hierdie status moet in stand gehou en beskerm word.	≤ 0.50 milligram/liter (50 th persentiel)
							Die reservoir is tans in 'n natuurlike toestand en moet in 'n oligotropiese toestand gehou word vir verskaffing aan die Stad Kaapstad en die Paarl. As 'n belangrike huishoudelike watervoorsiening reservoir hierdie status moet in stand gehou en beskerm word.	≤ 0.50 milligram/liter (50 th persentiel)
B4 Laer Berg	II	G10F	Voelvlei Dam	Hoeveelheid	Lae vloei	Damvlakke	Dam vlakke moet voldoende vir stedelike en industriële gebruik watervoorsiening via die twee WTWs, en vrystellings te Bergvlei vir menslike en besproeiing gebruik.	% van damvolume. Geen EWR-terrein
							Die reservoir is tans in 'n eutrofies toestand en moet verbeter word om 'n mesotropiese of beter toestand om die watervoorsiening aan die Stad Kaapstad en Swartland dorpe teen skadelike alge bloeie, smaak en reukprobleme in behandelde huishoudelike water te beskerm.	≤ 0.025 milligram/liter (50 th persentiel)
				Gehalte	Voedingstowwe	Ortho-fosfaat (PO ₄ -P) Totaal anorganiese stikstof (TIN)	Die reservoir is tans in 'n eutrofies toestand en moet verbeter word om 'n mesotropiese of beter toestand om die watervoorsiening aan die Stad Kaapstad en Swartland dorpe teen skadelike alge bloeie, smaak en reukprobleme in behandelde huishoudelike water te beskerm.	≤ 0.70 milligram/liter (50 th persentiel)
							Soutvlakke moet by konsentrasies ≤ 30 millSiemens/meter (95 ^{ste} persentiel) gehandhaaf word waar hulle nie 'n negatiewe impak op die ekosisteem	≤ 30 millSiemens/meter (95 ^{ste} persentiel)

IUA	Klas	Kwartêre Opvang gebied	RU	Hulpbronn aam	Komponent	Sub-komponent	Aanwyser	RQO Verhalend	RQO Numeries
								hê, en in 'n ideale kategorie vir huishoudelike waterverbruik en vir besproeiing watergebruik is.	
					Patogene		Ecoli, Fekale kolivorme	Die stelsel moet gehandhaaf word in 'n toestand wat 'n aanvaarbare kategorie vir intermediêre kontak ontspanning is.	≤ 2000 tellings/100ml (95 th persentiel)
					Lae vloei		Damvlakke	Watervlakke in die keerwal moet voldoende vir aanbod van menslike verbruik via die Wthoogte WTW wees.	% van damvolume
							Ortho-fosfaat (PO ₄ -P) Totaal anorganiese stikstof (TIN)	Die langtermyn doelwit moet wees om die voedingstatus te verbeter om 'n mesotrofiese toestand of beter om die watervoorvoorsiening aan die Weskus dorpe te beskerm.	≤ 0.025 milligram/liter (50 ^{ste} persentiel)
							Ortho-fosfaat (PO ₄ -P) Totaal anorganiese stikstof (TIN)		≤ 2.5 milligram/liter (50 th persentiel)
							Elektriese geleidingsvermoë	Soutvlakke moet by konsentrasies gehandhaaf word waar hulle nie 'n negatiewe impak op die ekosisteem hê, in 'n ideale kategorie vir huishoudelike en besproeiing watervoorvoorsiening.	≤ 70 milliSiemens/meter (95 ^{ste} persentiel)
							E.coli	Die reservoïr moet gehandhaaf word in 'n toestand wat veilig is vir huishoudelike watergebruik (met behandeling) en vir intermediêre kontakreërasie aangesien die dam 'n gewilde reërasie-plek is.	≤ 1000 tellings/100 ml (95 th persentiel)
							Fekale kolivorme		≤ 1000 tellings/100 ml (95 ^{ste} persentiel)

IUA	Klas	Kwartêre Opvang gebied	RU	Hulpbronn aam	Komponent	Sub-komponent	Aanwyser	RQO Verhandel	RQO Numeries
D7 Sir Lowry's	II	G40A	D7-D05	Boonste Steenbr as Dam					
					Hoeveelheid	Lae vloei	Damvlakke	Damvlakke moet genoeg wees vir vrystellings na die Laer Steenbrasdam wees vir stedelike en industriële verbruik en beskerming van ekosisteenfunksionering stroomaf van die Laer Steenbrasdam, hidrokrag-energie-opwekking via die Steenbras pompbergingskema asook vir watervoorsiening aan die Wes- Kaap.	% of dam volume
							Ortho-fosfaat (PO ₄ -P) Totaal anorganiese stikstof (TIN)	Die stelsel moet in 'n mesotrofiëse toestand of beter gehandhaaf word.	≤ 0.015 milligram/liter (50ste persentiel)
							Ortho-fosfaat (PO ₄ -P) Totaal anorganiese stikstof (TIN)	.	≤ 0.07 milligram/liter (50 th persentiel)
							Elektriese geleidingsvermo ë	Soutvlakke moet by konsentrasies waar hulle nie negatiewe impak op die ekosisteen hê nie, en is in 'n ideale kategorie vir huishoudelike en industriële waterverbruik, en hidro- opwekking.	≤ 30 milliSiemens/meter (95ste persentiel)
							E. coli	Die stelsel moet in 'n toestand gehandhaaf word wat veilig is vir munisipale gebruik (met behandeling).	≤ 130 tellings /100 ml (95ste persentiel)

IUA	Klas	Kwartêre Opvang gebied	Hulpbronn aam	Komponent	Sub-komponent	Aanwyser	RQO Verhalend	RQO Numeries												
D7 Sir Lowry's	II	G40A	Laer Steenbras Dam	Hoeveelheid	Lae vloei	Damvlak Spoel uit die dam.	Damvlakke moet voldoende bly om te voorsien in die Wes-Kaapse Watervoorsieningstelsel (StadKaapstad) via die Steenbrasinstandh WTW, en Lae vloei na die Laerouding Steenbrasrivier en Tiviermondong vir Lae vloei (miljoen kubieke meter)	0.427	0.323	0.235	0.180	0.149	0.144	0.173	0.247	0.384	0.506	0.582	0.502	3.852
						Vloei vrystellings: Berg EWR8 in G40A onder Laer Steenbras Dam nMRT = 54.88 miljoen m3/a	Hoe vloei ekologiese vrystellings moet vrygestel word tydens die natseisoen om aan vloei vereistes te voldoen, maar binne die beperkings van die bestaande uitlaat struktuur, en gebruik te maak van stortings waar moontlik.	0.000	0.000	0.000	0.000	0.000	0.077	0.077	0.307	0.307	0.077	0.077		
					Gehalte	Voedingstowwe	Ortho-fosfaat (PO ₄ -P)	Die reservoir moet in 'n mesotrofiese toestand of beter gehandhaaf word.	≤ 0.015 milligram/liter (50ste persentiel)											
							Totaal anorganiese stikstof (TIN)	Soutvlakke moet by konsentrasies waar hulle nie negatiewe impak op die ekosisteem hê nie, en is in 'n ideale kategorie vir huishoudelike en industriële waterverbruik.	≤ 0.07 milligram/liter (50 th persentiel)											
						Soute	Elektriese geleidings vermoë	≤ 30 milliSiemens/meter (95ste persentiel)												
						Patogene	E. coli	Die reservoir moet in 'n toestand gehandhaaf word wat veilig is vir kontak ontspanning.	≤ 130 tellings/100 ml (95ste persentiel)											
						Fekale kolivorme	≤ 130 tellings/100 ml(95ste persentiel)													

Tafel 19: Hulpbrongehaltesdoelwitte vir GRONDWATER in prioriteits-eenhede in die Bergopvanggebied

IUA	Klase	Kwaternêre Opvanggebied	RU	Hulpbronnaam	Komponent	Sub-Komponent	Aanwyser/ Maatstaaf	Verhalende RQO	RQO Numeries
D8 Boonste Berg	II	G10A	4-Paarl- Boonste Berg	Grond water (alle)	Hoeveelheid	Onttrekking	Seisoenale onttrekking: watervlak herstel van onttrekking impak gedurende die natseisoen, met inagneming van klimaatverandering en droogte siklusse. Permanente onttrekking: Daling van watervlak stabiliseer onder oorweging van waterdraer reaksietyd.	Grondwaterverbruik moet volhoubaar wees vir alle verbruikers en die omgewing.	Nie van toepassing
							Voldoening aan die lae vloei vereistes in die rivier (soos per rivier RQO) vloei vereistes in die rivier (as per rivier RQO)	Handhaaf (grondwater komponent van) die lae vloei vereistes in die rivier.	Instand houding lae vloei vereistes: 29.177 Mm3/a (34.39 %MRT) at G1H076 (Bviii13); 27.421 Mm3/a (19.35 %MRT) at G1H077 (Bviii1)
						Voeding-stowwe	NO ₃ (as N)	Grondwater moet geskik wees vir huishoudelike	< 3.3 mg/l
						Soute	EC		< 70 mS/m
						System variable	pH	verbruik na	5.2 – 8.4
						Patogene	E-coli	behandeling; en grondwatergehalte sal	0 tellings / 100 ml
						Patogene	Totaal Kolvorm	nie 'n verswakende tendens van natuurlike agtergrond wys	<10 tellings / 100ml
						Ontlading	Relatiewe watervlakke tussen grondwater en oppervlaktwater (in mams)	Die natuurlike gradiënt tussen grondwater en oppervlaktwater moet gehandhaaf word.	nie van toepassing
						Ontlading	Buffersones	Geen grondwater- onttrekking rondom vleiland en rivier-FEPA's in ooreenstemming met die implementerings handleiding vir FEPA's nie	250m
						Voeding-stowwe	NO ₃ (as N)	Grondwater moet geskik	< 3.3 mg/l

IUA Klas	Kwaternêre Opvanggebied	RU	Hulpbronnaam	Komponent	Sub-Komponent	Aanwyser/ Maatstaaf	Verhalende RQO	RQO Numeries
CS Berg Sytakke	G10E	5-Tulbagh Vallei	Grond water (all)		Soute	EC	wees vir huishoudelike gebruik na	< 70 mS/m
					System variable	pH	behandeling; en	5.2 – 8.4
					Patogene	E-coli	grondwatergehalte sal nie 'n verswakende neiging vanaf natuurlike agtergrond toon nie.	0 tellings/ 100 ml
					Patogene	Totaal Kolivorm	nie 'n verswakende neiging vanaf natuurlike agtergrond toon nie.	<10 tellings / 100ml
				Hoeveelheid	Onttrekking	Seisoenale onttrekking: watervlak herstel van onttrekking impak gedurende die natseisoen, met inagneming van klimaatsverandering en droogte siklusse.	Grondwaterverbruik moet volhoubaar wees vir alle verbruikers en die omgewing.	nie van toepassing
						Permanente onttrekking: Daling van watervlak stabiliseer onder oorweging van waterdraer reaksietyd.		
				Hoeveelheid	Ontlading	Buffersones	Geen grondwater-onttrekking rondom veld en rivier-FEPA's in ooreenstemming met die implementerings handleiding vir FEPA's nie.	250m
						E-coli	Grondwater moet geskik wees vir huishoudelike gebruik na	0 tellings / 100 ml
				Gehalte	Patogene	Totaal Kolivorm	behandeling; en grondwatergehalte sal nie 'n verswakende neiging vanaf natuurlike agtergrond toon nie.	<10 tellings / 100ml
						NO3 (as N)	Grondwater moet geskik wees vir huishoudelike	nie van toepassing
				Gehalte	Voeding-stowwe Stelselveranderlikes	pH	wees vir huishoudelike	nie van toepassing

IUA	Klas	Kwaternêre Opvanggebied	RU	Hulpbronnaam	Komponent	Sub-Komponent	Aanwyser/ Maatstaaf	Verhalende RQO	RQO Numeries
						Soute	EC	verbruik na behandeling; en grondwatergehalte sal nie 'n verswakkende neiging vanaf natuurlike agtergrond toon nie.	nie van toepassing
							Relatiewe watervlakke tussen grondwater en oppervlaktwater (in mams)	Die natuurlike gradiënt tussen grondwater en oppervlaktwater moet gehandhaaf word.	nie van toepassing
						Ontlading	Buffersones	Geen grondwater- onttrekking rondom vleiland en rivier-FEPA's in ooreenstemming met die implementeringshandlei- ding vir FEPA's nie.	250m
							Voldoening aan die lae vloei vereistes in die rivier (soos per rivier RQO) vloei vereistes in die rivier (as per rivier RQO)	Handhaaf (grondwater komponent van) die lae vloei vereistes in die rivier	Instandhouding lae vloei vereistes: 114.338 Mm ³ /a (13.28 %MRT) at G1H013 (Bvi16)
						Stelselveranderlikes	pH	Grondwater moet geskik	5.2 – 8.1
						Patogene	E-coli	wees vir huishoudelike	0 tellings / 100 ml
						Patogene	Totaal Kolivorm	verbruik na	<10 tellings / 100ml
						Voeding-stowwe	NO ₃ (as N)	behandeling; en	< 6.9 mg/l
						Soute	EC	grondwatergehalte sal	< 942 mS/m
						Voeding-stowwe	NO ₃ (as N)	nie 'n verswakkende neiging vanaf natuurlike agtergrond toon nie.	<11.0 mg/l
						Soute	EC		< 875 mS/m

IUA Klas	Kwaternêre Opvanggebied	RU	Hulpbronnaam	Komponent	Sub-Komponent	Aanwyser/ Maatstaaf	Verhalende RQO	RQO Numeries
A1 Berg Riviermonding en A2 Langebaan	G10M	8-Wes-kus		Hoeveelheid	Ontrekking	Seisoenale onttrekking: watervlak herstel van onttrekking impak gedurende die natseisoen, met inagneming van klimaatsverandering en droogte siklusse.	Grondwaterverbruik moet volhoubaar wees vir alle verbruikers en die omgewing.	nie van toepassing
						Permanente onttrekking: Daling van watervlak stabiliseer onder oorweging van waterdraer reaksietyd.		
					Grondwatervlak	Watervlak	Minimum watervlak in onttrekking boorgate binne 2.5km vanaf die oseaan om sout inbraak te voorkom	>1 mamsl
					Ontlading	Relatiewe watervlakke tussen grondwater en oppervlakwater (in mamsl)	Die natuurlike gradiënt tussen grondwater en oppervlakwater moet gehandhaaf word.	nie van toepassing
						Buffersones	Geen grondwater-onttrekking rondom vleiland en rivier-FEPA's in ooreenstemming met 250m die implementeringshandlei ding vir FEPA's nie.	
						Voldoening met die grondwater vloei vereistes na die Langebaan Strandmeer	Voldoening aan die grondwater vloei na die Langebaan Strandmeer vereistes in die rivier (soos per rivier RQO)	Grondwater vlak nie <10% onder huidige dag (2017) koers

IJA Klas	Kwaternêre Opvanggebied	RU	Hulpbronnaam	Komponent	Sub-Komponent	Aanwyser/ Maatstaaf	Verhalende RQO	RQO Numeries
						Voldoening met die grondwater vloei na die Langebaan Strandmeer vereistes in die rivier (soos per rivier RQO)	Voldoening aan die grondwater vloei na die Langebaan Strandmeer vereistes in die rivier (soos per rivier RQO)	Grondwater vlak nie <10% onder huidige dag (2017) vlak
			Grondwater (Cenozoïk kuslyn sand)		Voeding-stowwe	NO ₃ (as N)	Grondwater moet geskik wees vir huishoudelike gebruik na behandeling; en grondwatergehalte sal nie 'n verswakkende neiging vanaf natuurlike agtergrond toon nie.	< 11.0 mg/l
					Stelselveranderlikes	pH		7.1 - 8.4
				Gehalte	Soute	EC		< 520 mS/m
			Grondwaterkelder/ondergrond		Voedingstowwe	NO ₃ (as N)	Grondwater moet geskik wees vir huishoudelike gebruik na behandeling; en grondwatergehalte sal nie 'n verswakkende neiging vanaf natuurlike agtergrond toon nie.	< 11.0 mg/l
				Gehalte	Soute	EC		< 1571 mS/m
		8-Weskus			Soute	PO ₄	Grondwater moet geskik wees vir huishoudelike gebruik na behandeling; en grondwatergehalte sal nie 'n verswakkende neiging vanaf natuurlike agtergrond toon nie.	< 0.3 mg/l
			Grondwater (all)		Patogene	E-coli	Grondwater moet geskik wees vir huishoudelike gebruik na behandeling; en grondwatergehalte sal nie 'n verswakkende neiging vanaf natuurlike agtergrond toon nie.	0 tellings / 100 ml
				Gehalte	Patogene	Totaal Kolivorm		<10 tellings / 100ml

IUA Klas	Kwaternêre Opvanggebied	RU	Hulpbronnaam	Komponent	Sub-Komponent	Aanwyser/ Maatstaaf	Verhalende RQO	RQO Numeries
NIE VAN TOEPASSING	G10L	8-Weskus	Grondwater (all)	Hoeveelheid	Ontrekking	Seisoenale onttrekking: watervlak herstel van onttrekking inpak gedurende die natseisoen, met inagneming van klimaatsverandering en droogte siklusse.	Grondwaterverbruik moet volhoubaar wees vir alle verbruikers en dienie van toepassing omgewing	
						Permanente onttrekking: Daling van watervlak stabiliseer onder oorweging van waterdraer reaksietyd.		
					Ontlading			nie van toepassing
					Voeding stowwe			250m
					Soute	EC		< 8.2 mg/l
					Voeding stowwe			< 520 mS/m
					Soute	EC		< 11.0 mg/l
					Soute	PO ₄		< 899 mS/m
					Stelsel Verander-likes	pH		< 0.3 mg/l
					Patogene	E-coli		6.7 - 8.3
A3 Weskus	G21B	9-Atlan-tis	Grond water (alle)	Hoeveelheid	Totaal Koliivorm			0 tellings / 100 ml
					Onttrekking			<10 tellings / 100ml
					Grondwater vlak			nie van toepassing
					Ontlading			>1 mamsl
					Voeding stowwe			nie van toepassing
					Soute			250m
					Voeding stowwe			< 2.3 mg/l
					Soute	EC		< 287 mS/m
					Voeding stowwe	NO ₃ (as N)		< 10.4 mg/l

IJA Klas	Kwaternêre Opvanggebied	RU	Hulpbronnaam	Komponent	Sub-Komponent	Aanwyser/ Maatstaaf	Verhalende RQO	RQO Numeries
			Grond water (alle)		Soute	EC		< 1052 mS/m
					Stelsel Verander likes	pH		6.7 – 8.3
					Patogene	E-coli		0 tellings / 100 ml
					Patogene	Totaal Koliivorm		<10 tellings / 100ml
						Seisoenale onttrekking: watervlak herstel van onttrekking impak gedurende die natseisoen, met inagneming van klimaatsverandering en droogte siklusse.		
					Onttrekking	Permanente onttrekking: Daling van watervlak stabiliseer onder oorweging van waterdraer reaksietyd.	Grondwaterverbruik moet volhoubaar wees vir alle verbruikers en die nie van toepassing omgewing	
			Grond water (alle)	Hoeveelheid				
					Ontlading	Buffersones	Geen grondwater-onttrekking rondom veld en rivier-FEPA's in ooreenstemming met 250m die implementeringshandleiding vir FEPA's nie.	
					Lae vloei in rivier	Voldoening aan die lae vloei vereistes in die rivier (soos per rivier RQO)	Handhaaf (grondwater komponent van) die lae vloei vereistes in die rivier.	Instandhouding lae vloei vereistes: 0.578 (6.22 %MRT) by nodus Biv6 (geen meting)
			Oppervlakkige waterdraer	Hoeveelheid	Ontlading	Relatiewe watervlakte tussen grondwater en oppervlakkige water (in mams)	Die natuurlike gradiënt tussen grondwater en oppervlakkige water moet gehandhaaf word.	nie van toepassing
			Grondwater (Cenozoic kus sand)		Voedingstowwe	NO3 (as N)	Grondwater moet geskik wees vir huishoudelike gebruik na behandeling; en grondwatergehalte sal	< 7.1 mg/l
			Grond Water	Gehalte	Voedingstowwe	EC		< 358 mS/m
			Kelder/ondergronds		Voedingstowwe	NO3 (as N)		< 6.4 mg/l
					Soute	EC		< 617 mS/m

IUA Klas	Kwaternêre Opvanggebied	RU	Hulpbronnaam	Komponent	Sub-Komponent	Aanwyser/ Maatstaaf	Verhalende RQO	RQO Numeries
E12 Kaapse Viak	G22C, G22D, G22E	2-Kaapse Viak	Grondwater (alle)		Stelsel Veranderlikes	pH	nie 'n verswakkende	6.3 – 8.6
					Patogene	E-coli	neiging vanaf natuurlike agtergrond toon nie	0 tellings / 100 ml
					Patogene	Totaal Kolivorm		<10 tellings / 100ml
			Grondwater (alle)	Hoeveelheid	Grondwater vlak	Watervlak	Minimum watervlak in onttrekkings boorgate binne 2.5km vanaf die oseaan om soutinbraak te voorkom.	>1 mamsl
					Ontlading	Buffersones	Geen grondwater-onttrekking rondom vleiand en rivier-FEPA's in ooreenstemming met 250m die implementeringshandlei ding vir FEPA's nie.	
					Lae vloei in rivier	Voldoening aan die lae vloei vereistes in die rivier	Handhaaf (grondwater komponent van) die lae vloei vereistes in die rivier soos per oppervlakwater RQO vereiste.	Instandhouding lae vloei: 0.348 Mm3/a (7.74 %MRT) by Bvii7 (geen meting)
			Opper vlakkige waterdraers	Hoeveelheid	Ontlading	Relatiewe watervlakke tussen grondwater en oppervlakwater (in mamsl)	Die natuurlike gradiënt tussen grondwater en oppervlakwater moet gehandhaaf word.	nie van toepassing
					Voedingstowwe	NO3 (as N)	Grondwater moet geskik wees vir huishoudelike gebruik na	< 9.2 mg/l
					Stelselveranderlikes	pH		6.6 – 8.4
					Soute	EC		< 180 mS/m
			Grondwaterkelder/onder gronds	Gehalte	Voeding-stowwe	NO3 (as N)	behandeling; en grondwatergehalte sal	< 11.0 mg/l
					Soute	EC		< 953 mS/m
			Grondwater (alle)		E-coli		nie 'n verswakkende	0 tellings / 100 ml
					Totaal Kolivorm		neiging vanaf natuurlike agtergrond toon nie	<10 tellings / 100ml

UMTHETHO WAMANZI WESIZWE, KA1998**(UMTHETHO NO. 36 KA1998)****UQINGQO LWAMAHLELO EMIJELO YAMANZI NEENJONGO NGEKWALITI YEMIJELO
KUMMANDLA WOBONISELO I- BERG**

Mna, Lindiwe Sisulu, uMphathiswa weSebe lokuhlaliswa kwabantu aManzi noGutyulo, ngokwemiqathango yesiqendu 13(1) soMthetho waManzi weSizwe, ka1998 (uMthetho No.36 ka1998), ndiqingqa amahlelo emijelo yamanzi neenjongo ngekwaliti yemijelo, njengoko kuxeliwe kule Shedyuli.


L N SISULU**UMPHATHISWA WESEBE LOKUHLALISWA KWABANTU, AMANZI NOGUTYULO**

ISHEDYULI**INKCAZO YOMJELO WAMANZI**

La mahlelo emijelo yamanzi siwaphakamisayo nezi njongo ngekwali yemijelo ziqingqelwa yonke imijelo yamanzi okanye loo ndawo ithile ebalulekileyo njengoko kubonisiwe apha ezantsi:

UMmandla woLawulo lwaManzi: UMmandla woLawulo lwaManzi iBerg-Olifants

Ingingqi yoFunxo: INgingqi yoFunxo ephakathi uG1, noG2 ndawonye noG40A
ingingqi yoFunxo Quaternary

IMilambo: umlambo iBerg ngowona mlambo mkhulu kummandla ophandwayo, oko kuquka neendawana ezincini zoboniselo kummandla kamasipala omkhulu iSixeko saseKapa; njengeDiep, iKuil, i-Eerste, iLourens, iSir Lowry's, iSteenbras, kunye neendawo zoboniselo ezininzi kwiNcam yePhondo iKapa ukunxusa unxweme lwaseNtshona.

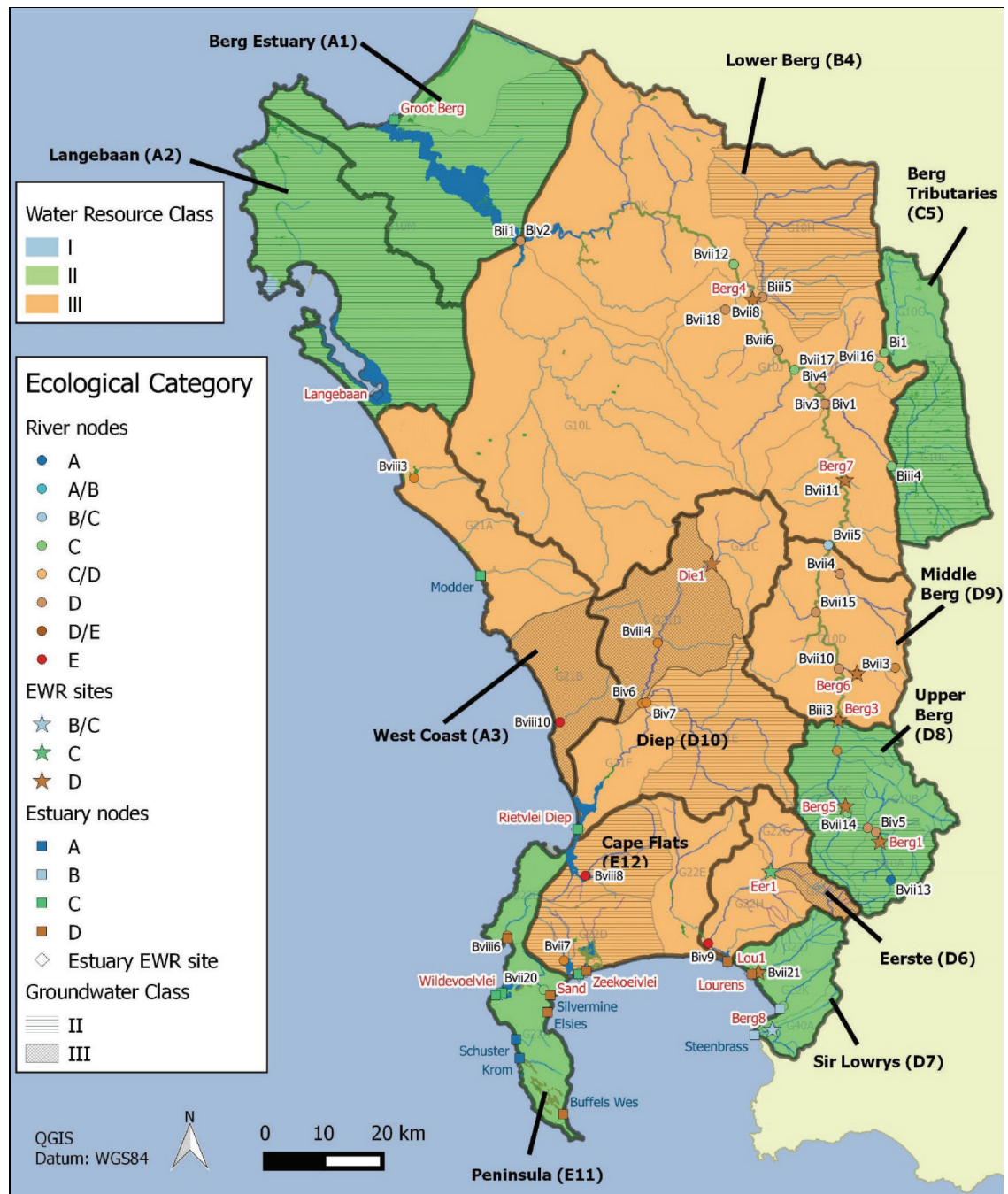
A. AMAHLELO EMIJELO YAMANZI APHAKANYISIWEYO NGOKWEEMFUNO ZEMIQATHANGO YESIQENDU 13(1) SOMTHETHO WAMANZI WESIZWE, KA1998

- i. La mahlelo emijelo yamanzi aphakanyiselwe indawo yoboniselo iBerg adwelisiwe kuTafile 1 ngokwehlelo lilonke lweyunithi nganye yohlalutyo (IUA), ebonisiweyo kuMzobo 1.
- ii. Ii-IUAs zihlelwa: ngokweHlelo I, elibonisa ukhuselo oluphezulu lokusingqongileyo nosetyenziso oluncinci; indicating high environmental protection and minimal utilisation; NgokweHlelo II elibonisa ukhuselo oluphakathi nosetyenziso oluphakathi; NangokweHlelo III elibonisa ukhuselo oluncinci nosetyenziso oluphezulu ngokuzinzileyo.
- iii. UTafile 1 ubonisa i-IUA, ihlelo lomjelo wamanzi elindululwayo nolungiso lwendawo yalo oluya kulandela. Ulungiso lwendawo yoboniselo luthwala iindibano-malungu ezibonakalayo zendalo eziliqela ezimele iincam zomlambo okanye iiyunithi zomjelo womlambo (iiRUs). IBakala lokuphilisana elingqaliweyo (i-TEC) ekumele liphunyezwe okanye ligcinwe ngeRU ekwi-IUA ibonisiwe.
- iv. Kubalulekile uqaphele ukuba imimandla eyongezelelweyo nechaziweyo ekhoyo ngokweendawo ngeendawo nekhethekileyo ngokwebakala lokuphilisana kwimijelo yamanzi enjengemimandla ekhuselweyo (uzekelo iNtaba yeTafile), imimandla yokwahluka okubalulekiyo kwendalo (iiCBAs), imimandla yokhuselo lwendalo enamanzi ahlaziyekileyo (iiNFEPAs) nemimandla yemvelaphi yamanzi ebalulekileyo (iSWSA) imele ze ithathelwe ingqalelo ngokwemiqathango yemimandla yamanzi enululiweyo njengoko le mimandla iya kubonisa imimandla ebaluleke ngokukhethekileyo nemele ze ilawulwe kwihlelo lomjelo ophezulwana (umzekelo iHlelo I) kunokuba ibiza kuba njalo ngokwe-avareji lwazo zonke iiyunithi zemijelo kwi -IUA iphela (umzekelo kwihlelo II).

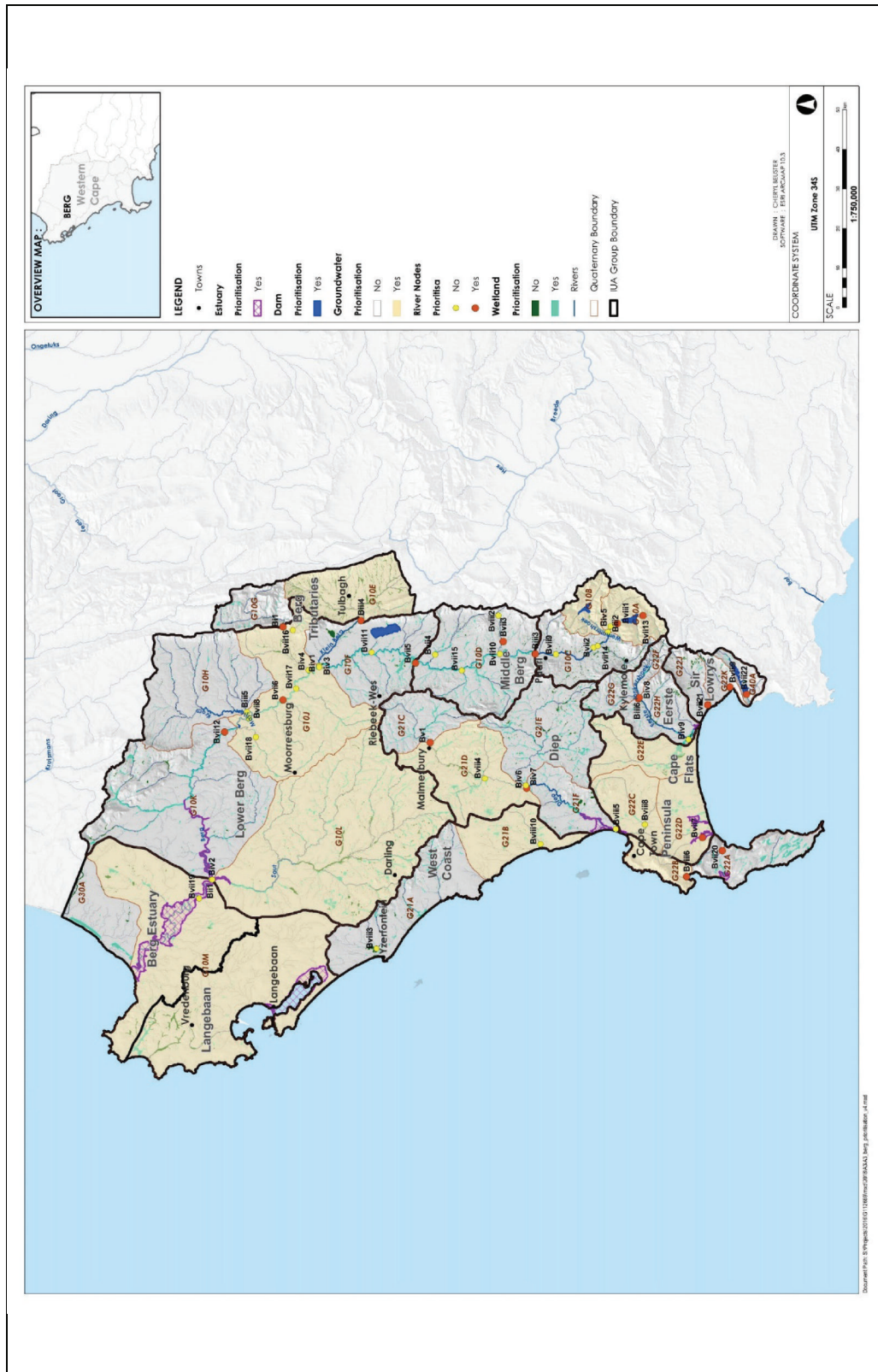
B. IINJONGO NGEKWALITI YEMIJELO YAMANZI NGOKWEEMFUNO ZESIQENDU 13(1) SOMTHETHO WAMANZI WESIZWE. OF THE NATIONAL WATER ACT, 1998

- i. Iinjongo ngekwali yemijelo yamanzi (iiRQOs) zichazelwa iiRUs zongxamiseko nge-IUA nganye, ngokwemiqathango yomthamo, yendawo yokuphila ne-biota, ndawonye nekwali yamanzi. Ii-RUs zongxamiseko zibonisiwe kuMzobo 1.
- ii. UTafile 2 ukuya kutsho kuTafile 10 babonisa ii-RQOs ZOMLAMBO kwii RUs zongxamiseko.
- iii. UTafile 11 ukuya kuTafile 17 babonisa iiRQOs ZAMACHWEBA OMLAMBO kwii-RUs zongxamiseko.

- iv. UTafle 18 ubonisa ii- RQOs ZAMADAMA kwii-RUs zongxamiseko.
- v. UTafle 19 ubonisa iiRQOs ZAMANZI APHEZU KOMHLABA kwii-RUs zongxamiseko.
- vi. Ii-RQOs ziza kuqala ukusebenza ngaloo mhla ziya kutyikitywa ngawo njengoko kuxeliwe ngokwemiqathango yeSiqendu 13(1) soMthetho waManzi weSizwe, ka 1998, ngaphandle kokuba uMphathiswa ugqibe ngenye indlela.



UMzobo 1: Amahlelo aphakanyisiweyo emijelo yamanzi kummandla woboniselo iBerg



UMzobo 2: Iiyunithi zongxamiseko eziphakanyisiweyo kummandla woboniso iBerg.

UTafle 1: Ushwankathelo lwamaHleo aphakanyisiweyo emijelo yamanzi nge-IUA nganye, kunye neBakala lokuphilisana elingqaliweyo (iTEC) lemilambo yongxamiseko ephilileyo ngokwenkangeleko nasekudibaneni kwamachweme

Iiyunithi zoHlalutyo ezihlangeneyo (IiIUA)	Ihloko lomjelo wamanzi kwi-IUA	Umandla woboniseliso	I-RU	Igama lomjelo	Igama lendibano yendalo Biophysical Node Name	I-TEC	% I-MAR %*
A1 Berg Estuary	II	G10M	A1-E01	Berg (Groot)	Bx11	C	52
A2 Langebaan	II	G10M	A2-E04	Langebaan	Bx13	A	N/A
A3 West Coast	III	G21A	A3-R01	-	Bvii13	D	14.6
		G21B	A3-R02	Sout	Bvii10	D	16.4
		G10A	D8-R01	Berg	Bvii13	A	98
D8 Upper Berg	II	G10A	D8-R02	Berg	Bvii11	C	27
		G10C	D8-R03	Berg	Bvii13	D	53
D9 Middle Berg	III	G10C	D9-R04	Pombers	Bvii11	C	366
		G10D	D9-R05	Kromme	Bvii13	D	89
		G10D	D9-R06	Berg	Bvii15	D	49
C5 Berg Tributaries	II	G10E	C5-R07	Klein Berg	Bvii14	C	82
		G10G	C5-R08	Vier-en-Twintig	Bvii1	B/C	23
B4 Lower Berg	III	G10J	B4-R09	Berg	Bvii16	D	52
		G10K	B4-R10	Berg	Bvii12	D	51
D10 Diep	III	G21D	D10-R11	Diep	Bvii1	D	66
		G21D	D10-R12	Diep	Bvii6	D	68
		G21F	D10-E03	Rietvlei/ Diep	Bx17	C	78
E11 Peninsula	II	G22B	E11-R13	Hout Bay	Bvii16	D	97
		G22A	E11-R14	Silvermine	Bvii20	C	98
		G22A	E11-E04	Wildevœllei	Bx14	D	107
E12 Cape Flats	III	G22D	E12-R15	Keyzers	Bvii7	D	93
		G22K	E12-E05	Zandvlei	Bx19	C	93
		G22K	E12-E05	Zeekoevlei	Bx19	D	N/A
D6 Eerste	III	G22F	D6-R16	Eerste (Jonkershoek)	Bvii6	C	93
		G22G	D6-R17	Klippies	Bvii8	D	77
		G22H	D6-E06	Eerste	Bx13	D	90
		G22J	D7-R18	Lourens	Bvii21	D	114
D7 Sir Lowry's	II	G22K	D7-R19	Sir Lowry's Pass*	Bvii19	C	84
		G40A	D7-R20	Steenbras	Bvii22	B/C	81
		G22J	D7-E07	Lourens	Bx14	C	85

UTafle 2: Iinjongo ngekwali yemijelo KWIMILAMBO ekwiinyunithi zomjelo zongxamiseko kwiYunithi yoHlalutyo eHlangeneyo u-D8 Upper Berg

I-UA	I-Hlelo	Umandla woboniselo	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	I- RQO yobaliso	I-RQO yobalo
D8 Upper Berg	II	G10A	D8-R01	Umlambo iBerg	Bvii13	A	Umtshamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala A	linyanga Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Ezantsi 0.440 2.041 1.149 0.000 0.000 0.640 0.000 0.000 1.107 2.328 3.706 4.569 4.707 4.255
							Izondlo	Amanzana	I-Phosphate (PO ₄ -P) I-inorganic nitrogen iyonke (TIN)	Amaqondo ezondlo zomlambo makagcinwe ekwimeko ye-oligotrophic.	Amanzi izondlo 0.025 milligrams per litre (50th percentile) 0.70 milligrams per litre (50th percentile)
							Iityuwa		Ukutsala umbane (EC)	Ubukho beetyuwa mabugcinwe bukuumanqanaba angenabungozi emilweni yasemanzini	≤ 30 millisiemens/metre EC (95th percentile)
							Uthshintshatshintsho lwamanzi		Iqondo le-pH I-oksijini enyibilikisiweyo	i-pH, ubushushu, ne-oksijini enyibilikisiweyo zibalulekile ukugcina ubomi basemanzini busempilweni	5.0 ≤ pH ≤ 7.0 (5th and 95th percentiles) DO ≥ 8 milligrams per litre (5th percentile)
							Iityhefu		N/A	Iindawo zoboniselelo ezingachatzazelwanga, akukho zingxaki zabukho beetyhefu	N/A
							Iipathojini		I-E coli	Ubukho beepathojini mabugcinwe bukwibakala elinqwenelekayo ngamaxesha olonwabo	95% iitayiles 130 cfu/100ml ze-E coli / zobukho betuwa
							Ubume bomhlaba		D50	Ubukhulu besiqephu sesanti	0.860 > D50 > 0.275
									Inqaku eVEGRAI kwiqondo 3	Imeko yotyani	> 62% = ibakala C
									Iindidi ezibhanyabhanya	Akukho zindidi zazityalo zibhanyabhanya	
									Iindidi zommandla wamahlathana	Akukho zindidi zammandla wamahlathana	
							Utyani lwaselunxwemeni		Iindidi zomthonyama kumahlathana aselunxwemeni	Umda omncinci ugqume ubuninzi	Gquma 5-25%.
									Iindidi zomthonyama ezingafumanekiyo kumahlathana		Gquma 25-50%.

I-IUA	I-Ilelo	Umandla woboniso	I-RU	Igama lomjelo	Igama lendibano ebonakala isemphaweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
									lingcongolo		Aziko lingcongolo
									lindidi ezibhanyabhanya		Gquma < 5%.
									lindidi ezibhanyabhanya		Gquma < 10%.
									lindidi zommandla wamahlathana		Gquma 25-60%
									lindidi zomthonyama kumahlathana	Umda osezantsi	Gquma 25-50%
									aselunxwemeni		
									lindidi zomthonyama ezingafumanekiyo kumahlathana		Aziko lingcongolo
									lingcongolo		Gquma < 10%.
									lindidi ezibhanyabhanya		Gquma < 15%.
									lindidi zommandla wamahlathana	Umda ophezulu ugqume ubuninzi	Gquma 25-50%
									lindidi zomthonyama kumahlathana		Gquma 40-70%.
									aselunxwemeni		
									lindidi zomthonyama ezingafumanekiyo kumahlathana	Imeko yeentlanzi	> 80% = ibakala B
									Inani leendidi zeentlanzi zomthonyama		Zintathu iindidi ezikhoyo: ii-Sandelia capensis, ii-Galaxia zebratus nee-Pseudobarbus burgi
									I-Sandelia capensis	Ukuchuma kweendidi zomthonyama	FROC = 5
									I-Galaxias zebratus		FROC = 5
									I-Pseudobarbus burgi		FROC = 5
									lindidi ezibhanyabhanya		Alinyukanga inani leentlanzi ezikhoyo: Oncharhynchus mykiss (FROC = 5)
									Inqaku le-MIRAI	Imeko yezilwanyana ezingenamathambo ubukhulu becala	> 78 % = ibakala B/C
									Inqaku le-SASS5 ne-ASPT	Inqaku le-SASS	Inqaku i-SASS5 >180, ASPT ≥ 7.2.
									Inani leentsapho	Ukwahluka kwemigqeku yasekuhlaleni	> /= iintsapho ezingama-23, kubuninzi buka- A ukuya ku- C.

I-IUA	I-Ilelo	Umandla woboniso	I-RU	Igama lomjelo	Igama lendibano ebonakala isemphaweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
D8 Upper Berg	II	G10A	D8-R02	Berg	Bviii1	C	Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala C	linyanga Amanzi ogcino (million cubic metres) Zantsi 0.000 2.143 0.544 1.293 Nov 0.544 1.071 Dec 0.000 0.803 Jan 0.000 0.726 Feb 0.000 0.803 Mar 0.778 1.296 Apr 0.000 2.679 May 4.666 4.147 Jun 4.285 4.285 Jul 0.000 4.285 Aug 3.888 Sep
								Izondlo	I-Phosphate (PO ₄ -P) I-inorganic nitrogen iyonke (TIN)	Amaqondo ezondlo zomlambo makagcinwe ekwimeko ye-oligotrophic.	≤ 0.025 milligrams per litre (50th percentile) ≤ 0.70 milligrams per litre (50th percentile)
								Iityuwa	Ukutsala umbane (EC)	Ubukho beetyuwa mabugcinwe bukumanqanaba angenabungozi emilweni yasemanzini	≤ 30 millisiemens/metre (95th percentile)
								Utsshintshatshintsho lwamanzi lityhefu	Iqondo le-pH I-oksijini enyibilikisiweyo	i-pH, ubushushu, ne-oksijini enyibilikisiweyo zibalulekile ukugcina ubomi basemanzini busempilweni	4.5 ≥ pH ≤ 7.5 (5th and 95th percentiles) 2°C difference from ambient water temperature DO ≥ 8 milligrams per litre (5th percentile)
								Iipathojini	I-Escherichia coli	Ubukho beepathojini zamanzi mabugcinwe bukwinqanaba elingwenelekayo ukulungiselela amaxesha olonwabo	≤ 130 izihlandlo /100ml (95th percentile)
								Ubume bomhlaba	D50	Ubukhulu besiqephu sesanti Imeko yotyani	0.521 > D50 > 0.319 > 62% = C category
									Inqaku eVEGRAI kwiqondo 3		
									Iindidi ezibhanyabhanya Iindidi zommandla wamahlathana	Akukho zindidi zazityalo zibhanyabhanya Akukho zindidi zammandla wamahlathana	
								Utyani lwaselunxwemeni	Iindidi zomthonyama kumahlathana aselunxwemeni	Ubuncikane bomda bugqume ubuninzi	Gquma < 10%.
									Iindidi zomthonyama ezingafumanekiyo kumahlathana		Gquma 50-75%.
									Iingcongolo		Akukho zingcongolo
									Iindidi ezibhanyabhanya	Umda osezantsi ugqume ubuninzi	Gquma < 5%.

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I-IUA	I-Ihlelo	Umandla woboniseliso	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
									i-oksijini enyibilikisiweyo	busempilweni	DO ≥ 6 milligrams per litre (5th percentile)
									I-Ammonia	Amanqanaba obukho	≤ 0.073 milligrams per litre (95th percentile)
								Iityhefu	I-Atrazine	beetyhefu makangadali	≤ 0.079 milligrams per litre (95th percentile)
									I-Endosulfan	ubungozi empilweni yasemanzini.	≤ 0.0013 milligrams per litre (95th percentile)
								Iipathojini	I-Escherichia coli	Ubukho beepathojini mabugcinwe bukwinqanaba elivumelekileyo ukulungiselela amaxesha olonwabo	≤ 2500 izihlandlo /100ml (95th percentile)
								Ubume bomhlaba	D16, D50, D84	Ubukhulu besiqephu sengqumba	
							Indawo yokuphila	Utyani lwaselunxwemeni	Inqaku leVEGRAI kwinqanaba 3	Imeko yotyani	> 38% = ibakala D/E
							I-Biota	Iintlanzi	Inqaku leFRAI	Imeko yeentlanzi	> 58% ibakala C/D

UTafle 3: iinjongo ngekwilithi yemijelo KWIMILAMIBO ekwiYunithi zomjelo zongxamiseko kwiYunithi yoHlalutyo eHlangeneyo u-D9 kumbindi weBerg

I-IUA	I-Ihlelo	Umandla woboniseliso	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
D9 Middle Berg	III	G10C	D9-R04	Pombers River	Bviii11	C	Umthamo	Amanzana Amanzi amaninzi	Amanzana Amanzi amaninzi	Amanzi anele ukuze agcine umlambo ukwiBakala C	linyanga Amanzi ogcino (million cubic metres) 1.615 8.464 1.615 8.464 0.000 4.928 0.000 3.100 0.000 2.589 0.000 2.677 0.000 2.572 4.153 3.544 4.153 4.752 4.153 7.862 21.48 10.08 8.076 12.02 0.000 11.40
							Izondlo		I-Phosphate (PO ₄ -P)	Amaqondo ezondlo zomlambo makagcinwe ekwimeko ye-oligotrophic.	≤ 0.025 milligrams/litre (50th percentile)
							Ikwilithi		i-inorganic nitrogen iyonke (TIN)	Ubukho beetyuwa mabugcinwe bukwinqanaba angenabungozi emilweni yasemanzini	≤ 0.70 milligrams/litre (50th percentile)
									Ukutsala umbane (i-EC)		≤ 30 millisiemens/metre (95th percentile)
							Utshintshatshintsho lwamanzi		Iqondo le-pH	i-pH, ubushushu, ne-oksijini	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles)
									Ubushushu bamanzi	enyibilikisiweyo zibalulekile	2°C difference from ambient water temperature

-IUA	Ihlelo	Umandla wobonisele	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo		
D9 Middle Berg	III	G10D	D9-R05	Kromme River	Bvii3	D	Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala A	Amanzi ogcino (million cubic metres) Zantsi linyanga Oct 0.086 Nov 0.016 Dec 0.000 Jan 0.000 Feb 0.000 Mar 0.000 Apr 0.004 May 0.068 Jun 0.110 Jul 0.156 Aug 0.187 Sep 0.163	DO ≥ 8 milligrams per litre (5th percentile)	
												≤ 0.073 milligrams per litre (95th percentile)	
												≤ 0.079 milligrams per litre (95th percentile)	
												≤ 0.0013 milligrams per litre (95th percentile)	
							Ikwali	Izondlo	Iityuwa	Utshintshatshintsho lwamanzi	Iqondo le-pH Ubushushu bamanzi i-oksijini enyibilikisiweyo I-Ammonia I-Atrazine I-Endusulfan	i-oksijini enyibilikisiweyo I-Ammonia I-Atrazine I-Endusulfan	Ubugcina ubomi basemanzini busempilweni
													Ubugcina ubomi basemanzini busempilweni
													Ubugcina ubomi basemanzini busempilweni
													Ubugcina ubomi basemanzini busempilweni
													Ubugcina ubomi basemanzini busempilweni
													Ubugcina ubomi basemanzini busempilweni

I-HUA	I-Hlelo	Umandla woboniseliso	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
D9 Middle Berg	III	G10D	D9-R06	Berg River	Bvii5	D	Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala D	Ubukho beepathojini zamanzi mabuginwe bukwibakala elamkelekileyo ukulungiselela amaxesha olonwabo. Imeko yoburne bomhlaba Imeko yotyani Imeko yeentlanzi Imeko yobukhulu bezo zingenamathambo Amanzi ogcino (million cubic metres) Amanzi ogcino Phezulu Zantsi Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep 0.000 0.000 25.299 20.262 37.63 25.280 13.45 24.388 20.701 0.000 5.692 10.152 0.000 2.585 0.000 2.342 0.000 2.621 2.199 0.000 2.648 5.200 0.000 14.246 0.000 20.262 0.000
											≤ 2500 izihlandlo /100ml (95th percentile) > 38% = ibakala D/E > 18% = ibakala F > 22% = ibakala > 78% = ibakala B/C category linyanga ≤ 0.125 milligrams/litre (50th percentile) ≤ 3.00 milligrams/litre (50th percentile) 95%tile ≤ 55 millisiemens/metre EC 6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature ≥ 6 milligrams per litre (5th percentile) ≤ 0.073 milligrams per litre (95th percentile) ≤ 0.079 milligrams per litre (95th percentile) ≤ 0.0013 milligrams per litre (95th percentile)
											Ubukho beepathojini zamanzi mabuginwe bukwibakala elamkelekileyo ukulungiselela amaxesha olonwabo. Imeko yoburne bomhlaba Imeko yotyani Imeko yeentlanzi Imeko yobukhulu bezo zingenamathambo Amanzi ogcino (million cubic metres) Amanzi ogcino Phezulu Zantsi Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep 0.000 0.000 25.299 20.262 37.63 25.280 13.45 24.388 20.701 0.000 5.692 10.152 0.000 2.585 0.000 2.342 0.000 2.621 2.199 0.000 2.648 5.200 0.000 14.246 0.000 20.262 0.000
											Ubukho beepathojini zamanzi mabuginwe bukwibakala elamkelekileyo ukulungiselela amaxesha olonwabo. Imeko yoburne bomhlaba Imeko yotyani Imeko yeentlanzi Imeko yobukhulu bezo zingenamathambo Amanzi ogcino (million cubic metres) Amanzi ogcino Phezulu Zantsi Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep 0.000 0.000 25.299 20.262 37.63 25.280 13.45 24.388 20.701 0.000 5.692 10.152 0.000 2.585 0.000 2.342 0.000 2.621 2.199 0.000 2.648 5.200 0.000 14.246 0.000 20.262 0.000

I-HUA	I-Hlelo	Umandla wobonisele	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
							yokuphila		Inqaku leVEGRAI inqanaba 3.	Imeko yotyani	> 52% = ibakala D
									lindidi ezibhanyabhanya		Akukho zindidi zazityalo zibhanyabhanya
									lindidi zommandla wamahlathana		Akukho zindidi zammandla wamahlathi
									lindidi zomthonyama kumahlathana aselunxwemeni	Ubuncikane bomda bugqume ubuninzi	Gquma 50-75%.
									lindidi zomthonyama ezingafumanekiyo kumahlathana		Gquma 15-25%.
									lingcongolo		Akukho zingcongolo
									lindidi ezibhanyabhanya		Gquma < 5%.
									lindidi zommandla wamahlathana		Gquma < 10%.
								Utyani lwaselunxwemeni	lindidi zomthonyama kumahlathana aselunxwemeni	Umda osezantsi ugqume ubuninzi	Gquma 50-75%.
									lindidi zomthonyama ezingafumanekiyo kumahlathana		Gquma 15-25%.
									lingcongolo		Akukho zingcongolo
									lindidi ezibhanyabhanya		Gquma < 10%.
									lindidi zommandla wamahlathi		Gquma < /= 15%.
									lindidi zomthonyama zamahlathi aselunxweni	Umda ophezulu ugqume ubuninzi	Gquma 50-75%.
									lindidi ezingezizo zamahlathi omthonyama		Gquma 10-20%
								lintonzi	Inqaku leFRAI	Imeko yeentlanzi	> 52% = ibakala D
							IBiota	Ezingenamathamb o	lindidi zeentlanzi ezibhanyabhanya	Ukuchuma kweendidi zomthonyama	Inani leendidi zeentlanzi ezibhanyabhanya ezikhoyo alenyukanga : <i>Cyprinus carpio</i> (FROC = 5), <i>Tilapia sparrmanii</i> , <i>Clarias gariepinus</i> , <i>Gambusia affinis</i>

I-IUA	I-Hlelo	Umandla wobonisele	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
									Inqaku leMIRAI	Imeko yobukhulu bezo zingenamathambo	> 62% = ibakala C
									Inqaku leSASS5 neASPT	Amanqaku eSASS	SASS5 score >90, ASPT ≥ 4.6.
									Inani leentsapho	Ukwahluka komgqeku wezo zingenamathambo	>/= iintsapho ezili-18, kubuninzi buka- A ukuya ku C.

UTafale 4: linjongo ngekwaliiti yemijelo KWIMILAMBO ekwiyyunithi zomjelo zongxamiseko kwiYunithi yoHlalutyo eHlangeneyo UC5 kumaSebe eBerg

-IUA	Ihlelo	Umandla woboniselw	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
	II	G10E	CS-R07	Klein Berg River			Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala C	linyanga Amanzi ogcino (million cubic metres) Phenzul Zantsi 0.638 1.422 Oct 0.141 1.110 Nov 0.000 0.754 Dec 0.000 0.398 Jan 0.000 0.305 Feb 0.000 0.291 Mar 0.000 0.338 Apr 0.802 0.618 May 1.516 1.002 Jun 0.831 1.391 Jul 2.913 1.744 Aug 0.831 1.619 Sep
									I-Phosphate (PO ₄ -P) i-inorganic nitrogen iyonke (TIN)	Amaqondo ezondlo zomlambo makagcinwe ekwimeko ye-mesotrophic.	≤ 0.075 milligrams/litre (50th percentile)
									Ukutsala umbane (i-EC)	Ubukho beetyuwa mabugcinwe bukumanqanaba angenabungozi emilweni yasemanzini	≤ 1.75 milligrams/litre (50th percentile)
									Iqondo le-pH Ubushushu bamanzi i-oksijini enyibilikisiweyo	i-pH, ubushushu, ne-oksijini enyibilikisiweyo zibalulekile ukugcina ubomi basemanzini busempilweni	≤ 55 milliSiemens/metre (95th percentile)
							Ikwaliti	Utsshintshatshintsho lwamanzi			6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature
											≥ 6 milligrams per litre (5th percentile)
											≤ 0.073 milligrams per litre (95th percentile)
											≤ 0.079 milligrams per litre (95th percentile)
											≤ 0.0013 milligrams per litre (95th percentile)

I-UA	I-Ihlelo	Umandla woboniselw	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo																		
B4 Lower Berg	III	G101	B4-R09	Berg River	Bvi16	D	Ikwality	Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala D	Iinyanga Zantsi Amanzi ogcino (million cubic metres)	Oct	2.496	0.000	0.000	0.000	8.272	7.947	10.951	2.496	6.418	6.418	33.196	12.479	0.831			
													Nov	15.280	0.000	0.000	0.000	8.000	0.000	0.000	0.000	1.464	24.346	31.158	37.184	1.619			
													Dec	9.579	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Jan	8.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.947	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Feb	8.272	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Mar	7.947	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Apr	10.951	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													May	24.346	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Jun	31.158	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Jul	37.184	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
B4 Lower Berg	III	G101	B4-R09	Berg River	Bvi16	D	Ikwality	Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala D	Iinyanga Zantsi Amanzi ogcino (million cubic metres)	Aug	37.184	0.000	0.000	0.000	8.272	7.947	10.951	2.496	6.418	6.418	33.196	12.479	0.831			
													Sep	1.619	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Oct	2.496	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Nov	15.280	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Dec	9.579	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Jan	8.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Feb	8.272	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Mar	7.947	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													Apr	10.951	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
													May	24.346	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.951	10.951	2.496	6.418	6.418	33.196	12.479	0.831
B4 Lower Berg	III	G101	B4-R09	Berg River	Bvi16	D	Ikwality	Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala D</																		

I-IUA	Ihlelo	Umandla woboniselwelo	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
									lindidi zomthonyama ezikumahlathi wonxweme lindid ezingezizo zamahlathi omthonyama iingcongolo lindidi ezibhanyabhanya lindidi zomandla wamahlathi lindidi zomthonyama ezikumahlathi wonxweme lindid ezingezizo zamahlathi omthonyama iingcongolo lindidi ezibhanyabhanya lindidi zomandla wamahlathi lindidi zomthonyama ezikumahlathi wonxweme lindid ezingezizo zamahlathi omthonyama iingcongolo		Gquma 30-50%. Gquma 30-50%. Gquma 30-50%. Gquma < 5%. Gquma < 10%. Gquma 50-75%. Gquma 5-10%. Akukho zingcongolo Gquma < 10%. Gquma < /= 15%. Gquma 30-50%. Gquma 30-50%.
									lindidi zomthonyama ezikumahlathi wonxweme lindid ezingezizo zamahlathi omthonyama iingcongolo lindidi ezibhanyabhanya lindidi zomandla wamahlathi lindidi zomthonyama ezikumahlathi wonxweme lindid ezingezizo zamahlathi omthonyama iingcongolo lindidi ezibhanyabhanya lindidi zomandla wamahlathi lindidi zomthonyama ezikumahlathi wonxweme lindid ezingezizo zamahlathi omthonyama iingcongolo	Umda osemazantsi ugqume ubuninzi	
									lindidi zomthonyama ezikumahlathi wonxweme lindid ezingezizo zamahlathi omthonyama iingcongolo lindidi ezibhanyabhanya lindidi zomandla wamahlathi lindidi zomthonyama ezikumahlathi wonxweme lindid ezingezizo zamahlathi omthonyama iingcongolo	umda osemantla ugqume ubuninzi	
									lindidi zomthonyama ezikumahlathi wonxweme lindid ezingezizo zamahlathi omthonyama iingcongolo	Imeko yeentlanzi	> 18% = ibakala F
									lindidi zeentlanzi ezibhanyabhanya	Ukuchuma kweendidi zomthonyama	Inani leendidi zeentlanzi ezibhanyabhanya ezikhoyo alinyukanga : <i>Cyprinus carpio</i> , <i>Oreochromis mossambicus</i> , <i>Tilapia sparrmanii</i> , <i>Micropterus punctulatus</i> , <i>Clarias gariepinus</i> and <i>Gambusia affinis</i> .
									lindidi zeentlanzi ezibhanyabhanya	Imeko yobukhulu bezo zingenamathambo	> 42% = ibakala D
									lindidi zeentlanzi ezibhanyabhanya	Imeko yobukhulu bezo zingenamathambo	Inqaku iSASS5 >80, ASPT ≥ 5.0

I-UA	I-Hlelo	Umandla woboniselolo	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
B4 Lower Berg	III	G10K	B4-R10	Berg River	Bvii12	D	Ikwilithi	Utshintshatshintsho lwamanzi	Iqondo le-pH Ubushushu bamanzi i-oksijini enyibilikisiweyo	Amanqanaba eetyhefu makangadali ubungozi kwimpilo yasemanzini Ubukho beepathojini zamanzi mabugcinwe bukwibakala elamkelekileyo ukulungiselela amaxesha olonwabo.	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) ngu2°C obonisa ukwahluka kobushushu bamanzi kummandla wenzolo ≥ 6 milligrams per litre (5th percentile) ≤ 0.079 milligrams per litre (95th percentile) ≤ 0.0013 milligrams per litre (95th percentile) ≤ 2500 izihlandlo /100ml (95th percentile) > 68% = ibakala B/C 0.860 > D50 > 0.275 > 42% = ibakala D
							Indawo yokuphila	Utyani lwaselunxwemeni	Inqaku leVEGRAI inqanaba 3. Iindidi ezibhanyabhanya Iindidi zommandla wamahlathana	Imeko yotyani Ubuncikane bomda bugqume ubuninzi	Akukho zindidi zibhanyabhanya. Akukho zindidi zamahlathana kummandla wenzolo.
							Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala D	Amanzi ogcino (million cubic metres) phezulu Zantsi
									I-Phosphate (PO ₄ -P) i-inorganic nitrogen iyonke (TIN)	Amaqondo ezondlo zomlambo makagcinwe ekwimeko ye-mesotrophic.	2.760 0.000 0.

-IUA	Ihlelo	Umandla wobonisele	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
									lindidi zomthonyama kumahlathana aselunxwemeni		Gquma 30-50%
									lindidi zomthonyama ezingafumanekiyo kumahlathana		Gquma 50-75%.
									lingcongolo		Gquma 15-25%.
								lintonzi	Inqaku leFRAI	Umda osemazantsi ugqume ubuninzi	85% (ibakala B)
								lintonzi ezingenamathambo	lindidi zeentlanzi ezibhanyabhanya	Ukuchuma kweendidi zomthonyama	Inani leentlanzi ezibhanyabhanya ezikhoyo alenyukanga: <i>Cyprinus carpio</i> , <i>Oreochromis mossambicus</i> , <i>Tilapia sparrmanii</i> , <i>Micropterus punctulatus</i> , <i>Clarias gariepinus</i> and <i>Gambusia affinis</i> .
						I-Biota			Inqaku le-MIRAI	Imeko yezilwanyana ezingenamathambo ubukhulu becala	81.4% (ibakala B/C)
									Inqaku le-SASS5 ne-ASPT	Inqaku le-SASS	Inqaku leSASS5 >85, ASPT ≥ 4.2.
									Inani leentsapho	Ukwahluka kwemigqeku yasekuhlaleni	> / = iintsapho ezili-19, kubuninzi buka- A ukuya ku C.

UTafile 6 : iinjongo ngekwali yemijelo KWIMILAMBO ekwiyunithi zomjelo zongxamiseko kwiYunithi yoHlalutyo eHlangeneyo U- D10 weDiep

-IUA	Ihlelo	Umandla woboniseliso	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
D10 Diep	III	G21D	D10-R11	Diep River	Bv1	D	Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala D	Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
											Amanzi ogcino (million cubic metres) Zantsi Phezulu
											0.079 0.053 0.000 0.029 0.020 0.017 0.015 0.021 0.043 0.090 0.130 0.157 0.120
											≤ 0.075 milligrams/litre (50th percentile)
											Amagondo ezondlo zomlambo i-Phosphate ($\text{PO}_4\text{-P}$) izondlo ikwaliti

-IUA	Ihlelo	Umandla woboniselw	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I- RQO yobalo
									i-inorganic nitrogen iyonke (TIN)	makagcinwe ekwimeko ye-mesotrophic okanye engcono	≤ 1.75 milligrams/litre (50th percentile)
								lityuwa	Ukutsala umbane (i-EC)	Ubukho beetyuwa mabugcinwe bukumanqanaba angenabungozi emilweni yasemanzini	≤ 450 milliSiemens/metre (95th percentile)
								Utshintshatshintsho lwamanzi	Iqondo le-pH	i-pH, ubushushu, ne-oksijini enyibilikisiweyo zibalulekile ukugcina ubomi basemanzini busempilweni	6.5 ≥ pH ≤ 8.5 (5th and 95th percentiles)
									Ubushushu bamanzi	ngu2°C obonisa ukwahluka kubushushu bamanzi kummandla wenzolo	
									i-oksijini enyibilikisiweyo	≥ 6 milligrams per litre (5th percentile)	
								lityhefu	I-Atrazine	Amanqanaba obukho beetyefu	≤ 0.079 milligrams per litre (95th percentile)
									I-Endosulfan	makangadali ubungozi kwimpilo yasemanzini.	≤ 0.0013 milligrams per litre (95th percentile)
								lipathojini	I-Escherichia coli	Ubukho beepathojini zamanzi mabugcinwe bukwibakala elamkelekileyo ukulungiselela amaxesha olonwabo.	≤ 2500 izihlandlo /100ml (95th percentile)
							Umthamo	Amanzana	Amanzana ogcino Amanzi amaninzi ogcino	Amanqanaba amanzi anele ukugcina umlambo ukwibakala D	linyanga Phazi (million cubic metres) Amanzi ogcino 0.077 0.176 0.006 0.118 0.000 0.062 0.000 0.043 0.000 0.037 0.000 0.043 0.000 0.033 0.000 0.043 0.083 0.171 0.535 0.809 0.237 0.280 0.226 0.293 Sep Aug
									I-Phosphate (PO ₄ -P)	Amanqanaba ezondlo	≤ 0.125 milligrams/litre (50th percentile)
								Izondlo	i-inorganic nitrogen iyonke (TIN)	zomlambo makaphuculwe abekwiimeko ze- eutrophic.	≤ 3.0 milligrams/litre (50th percentile)
								lityuwa	Ukutsala umbane (i-EC)	Umlambo I-Diep unamanzi anetyuwa indalo futhi mawugcinwe ukule mo yangoku.	≤ 350 milliSiemens/metre (95th percentile)
							Ikwaliti	Utshintshatshintsho lwamanzi	Iqondo le-pH	i-pH, ubushushu, ne-oksijini enyibilikisiweyo zibalulekile ukugcina intloko yasemanzini isempilweni..	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles)
									Ubushushu bamanzi	2°C difference from ambient water temperature	
									i-oksijini enyibilikisiweyo	≥ 6 milligrams litre (5th percentile)	
								lityhefu	I-Atrazine	Amanqanaba obukho beetyefu makangadali	≤ 0.079 milligrams per litre (95th percentile)

I-IUA	I-Ihlelo	Umandla woboniseliso	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
									I-Endusulfan	ubungozi kwimpilo yase manzini.	≤ 0.0013 milligrams per litre (95th percentile)
									I-Escherichia coli	Ubukho beepathojini zamanzi mabugcinwe bukwibakala rlankelekileyo ukulungiselela amaxesha olonwabo.	≤ 2500 izihlandlo/100ml (95th percentile)
								Ubume bomhlaba	Inqaku leGAI	Imeko yobume bomhlaba	> 22% = ibakala E
							Indawo yokuphilisana	Utyani lwaselunxwemeni	Inqaku leVEGRAI inqanaba 3	Imeko yotyani	> 18% = ibakala F
							i-Biota	Ilintlanzi	Inqaku leFRAI	Imeko yeentlanzi	> 22% = ibakala E
								Ezingenamathamb o	Inqaku leMIRAI	Imeko yobukhulu bezo zingenamathambo	> 22% = ibakala E

UTafle 7: iinjongo ngekwilithi yemijelo KWIMILAMBO ekwiyunithi zomjelo zongxamiseko kwiYunithi yoHlalutyo eHlangeneyo Engu -E11 Kwincam

-IUA	Ihlelo	Umandla woboniseliso	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
E11 Peninsula	II	G22B	E11-R13	Hout Bay	Bviii6	D	Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala D	linyanga
											flows (million cubic metres)
											Phezulu zantsi
											Oct
											Nov
											Dec
											Jan
											Feb
											Mar
											Apr
											May
											Jun
											Jul
											Aug
											Sep

I-UA	Ihlelo	Umandla woboniseliso	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
E11 Peninsula	II	G22A	E11-R14	Silvermine River	Bvii20	C	Umthamo	Amanzana Amanzi amaninzi	Maintenance low flows Maintenance high flows	Amanzi anele ukuze agcine umlambo ukwiBakala C	lyanga lityanga ogcino (million cubic metres) Phenzulu zantsi Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
											≤ 1065 izihlandlo/100ml (95th percentile)
											Ubukho beepathojini zamanzi mabugcinwe bukwibakala elamkelekileyo ukulungiselela amaxesha olonwabo.
											Imeko yotyani
											> 22% = ibakala E
											Imeko yeentlanzi
											> 18% = E/F ibakala
											Imeko yobukhulu bezo zingenamathambo
											> 42% = D ibakala
											Imeko yeentlanzi
							Izondlo	I-Phosphate (PO ₄ -P) i-inorganic nitrogen iyonke (TIN)	Amaqondo ezondlo zomlambo makagcinwe ekwimeko yemesotrophic.	≤ 0.075 milligrams/litre (50th percentile)	lyanga lityanga ogcino (million cubic metres) Phenzulu zantsi Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
											≤ 1.75 milligrams/litre (50th percentile)
											Ubukho beetyuwa mabugcinwe bukwibakala angenabungozi emilweni yasemanzini
											≤ 350 milliSiemens/metre (95th percentile)
											Ubukho beetyuwa mabugcinwe bukwibakala angenabungozi emilweni yasemanzini
											6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles)
											2°C difference from ambient water temperature
											≥ 6 milligrams per litre (5th percentile)
											Ubukho beepathojini zamanzi mabugcinwe bukwibakala elamkelekileyo ukulungiselela amaxesha olonwabo.
											≤ 1000 izihlandlo/100ml (95th percentile)
							Iqondo le-pH Ubushushu bamanzi i-oksijini enyibilikisiweyo	Iqondo le-pH Ubushushu bamanzi i-oksijini enyibilikisiweyo	Imeko yotyani	> 62% = C ibakala	Imeko yeentlanzi
											> 82% = B ibakala
											> 62% = C ibakala
											Imeko yobukhulu bezo zingenamathambo

UTafle 8: iinjongo ngekwalityi yemijelo KWIMILAMBO ekwiYunitithi zomjelo zongxamiseko kwiYunitithi yoHlalutyo eHlangeneyo Engu- E12 kwimimandla yeKapa

I-IUA	I-Ihlelo	Umandla woboniseliso	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	I- RQO yobaliso	I- RQO yobalo
E12 Cape Flats	III	G22D	E12-R15	Keyser's River	Bvii7	D	Ikwalityi	Iipathojini	I-Escherichia coli	Ubukho bepathojini zamanzi mabugcinwe bukwbakala elinyamezelekayo ukulungiselela amaxesha olonwano. Ebudeni bexesha injongo mayibe kukuphucula umlambo ukuze ube kwibakala elamkelekileyo, ze kube libakala elinqwenekayo ukulungiselela amaxesha olonwabo	≤ 4000 izihlandlo /100ml (95th percentile)
								Izondlo	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwibakala D	lityanga ogcino (million cubic metres) zantsi
								Iityuwa	Ukutsala umbane (i-EC)	Ubukho beetyuwa mabugcinwe bukumanqanaba angenabungozi emlweni yasemanzini	≤ 85 millisiemens/metre (95th percentile)
								Utshintshatshintsho lwamanzi	Iqondo le-pH Ubushushu bamanzi i-oksijini enyibilikisiweyo	i-pH, ubushushu, ne-oksijini enyibilikisiweyo zibalulekile ukugcina ubomi basemanzini busempilweni	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) ngu2°C ukwahluka kubushushu umahluko difference from ambient water temperature ≥ 6 milligrams litre (5th percentile)
								Indawo yokuphila I-Biota	Utyani lwaselunxwemeni Iintlanzi	Inqaku leVEGRAI Inqanaba 3 Inqaku leFRAI	Imeko yotyani > 38% = D/E ibakala Imeko yeentlanzi > 62% = C ibakala

UTafle 9: iinjongo ngekwali yemijelo KWIMILAMBO ekwiYunithi zomjelo zongxamiseko kwiYunithi yoHlatutyo ehlangeneyo Engu -D6 e-Eerste

I-IUA	I-Ihlelo	Umandla woboniso	I-RU	Igama lomjelo	Igama lendlabano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
D6 Eerste	III	G2ZF	D6-R16	Jonkershoek River			Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala C	Months High Low Maintenance flows (million cubic metres) 0.245 0.639 0.543 0.349 0.200 0.142 0.126 0.000 0.000 0.000 0.454 0.335 0.522 0.645 0.714 0.693
							Izondlo		I-Phosphate (PO ₄ -P) I- inorganic nitrogen iyonke (TIN)	Amaqondo ezondlo zomlambo makagcinwe ekwimeko ye- mesotrophic.	≤ 0.075 milligrams/litre (50th percentile) ≤ 1.75 milligrams/litre (50th percentile)
							iityuwa		Ukutsala umbane (EC)	Ubukho beetyuwa mabugcinwe bukumanganaba angenabungozi emilweni yasemanzini	≤ 55 milliSiemens/metre (95th percentile)
							Utsshintshatshintsho lwamanzi		Iqondo le-pH Ubushushu bamanzi i-oksijini enyibilikisiweyo	i-pH, ubushushu, ne-oksijini enyibilikisiweyo zibalulekile ukugcina ubomi basemanzini busempilweni	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) 2°C difference from ambient water temperature ≥ 6 milligrams per litre (5th percentile)
							Iityhefu		I-Ammonia I-Atrazine I-Endosulfan	Amanqanaba eetyhefu makangadali ingozi kwimpilo yasemanzini .	≤ 0.073 milligrams per litre (95th percentile) ≤ 0.079 milligrams per litre (95th percentile) ≤ 0.0013 milligrams per litre (95th percentile)
									I-Escherichia coli	Ubukho beepathojini zamanzi mabube kwinqanaba elamkelekileyo ukulungiselela amaxesha olonwabo. Ebudeni bethuba injongo mayibe kukuphucula umlambo ukuze ube kwimeko enqwenekayo ngamaxesha olonwabo.	≤ 2500 izihlandlo /100ml (95th percentile)
							Indawo yokuphila	Ubume bomhlaba Utyani lwaselunxwemeni	Inqaku leGai Inqaku leVEGRAI inqanaba 3.	Imeko yobume bomhlaba Imeko yotyani	> 62% = C ibakala > 62% = C ibakala
							Ibiota	Iintlanzi	Inqaku leFRAI	Imeko yeentlanzi	> 42% = D ibakala

I-UIA	I-Hlelo	Umandla woboniselw	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
								Ezingenamathamb	Inqaku leMIRAI	Imeko yezo zingenamathambo	> 62% = C ibakala
							Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala D	linyanga Amanzi ogcini (million cubic metres) Zantsi Phezu
								Izondlo	I-Phosphate (PO ₄ -P) I-inorganic nitrogen iyonke (TIN)	Amaqondo ezondlo zomlambo makagcinwe ekwimeko ye-eutrophic.	≤ 0.125 milligrams/litre (50th percentile) ≤ 3.0 milligrams/litre (50th percentile)
								lityuwa	Ukutsala umbane (EC)	Ubukho beetyuwa mabugcinwe bukumanqanaba angenabungozi emilweni yasemanzini	≤ 55 milliSiemens/metre (95th percentile)
								Utshintshatshintsho lwamanzi	Iqondo lepH Ubushushu bamanzi i-oksijini enyibilikisiweyo	i-pH, ubushushu, ne-oksijini enyibilikisiweyo zibalulekile ukugcina ubomi basemanzini busempilweni	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) Ngu- 2°C ukwahluka kubushushu bamanzi enzolo ≥ 6 milligrams litre (5th percentile)
								lityhefu	I-Ammonia I-Atrazine I-Endosulfan	Amanqanaba eetyhefu makangadali ingozi kwimpilo yasemanzini .	≤ 0.073 milligrams per litre (95th percentile) ≤ 0.079 milligrams per litre (95th percentile) ≤ 0.0013 milligrams per litre (95th percentile)
								lipathojini	I-Escherichia coli	Ubukho beepathojini zamanzi mabube kwinqanaba elamkelekileyo ukulungiselela amaxesha olonwabo. Ebudeni bethuba injongo mayibe kukuphucula umlambo ukuze ube kwiimeko enqwenelekayo ngamaxesha olonwabo.	≤ 4000 izihlandlo /100ml (95th percentile)
							Indawo yokuphila	Utyani lwaselunxwemeni Riparian vegetation	Inqaku leVEGRAI inqanaba 3.	Imeko yotyani	> 22% = E ibakala
							IBiota	iintlanzi	Inqaku le-FRAI	Imeko yeentlanzi	> 18% = D/E ibakala
								Ezingenamathamb	Inqaku leMIRAI	Imeko yezo zingenamathambo	> 62% = C ibakala

UTafle 10: iinjongo ngekwali i yemijelo KWIMILAMBO ekwiYunithi zomjelo zongxamiseko kwiYunithi yoHlalutyo eHlangeneyo Engu-D7 Sir Lowry

I-UA	Ihlelo	Umandla wobonisel	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	I- RQO yobaliso	I- RQO yobalo
D7 Sir Lowry	II	G22J	D7-R18	Laurens River	Bvii21	D	Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino Amanzi amaninzi ogcino	Amanqanaba amanzi anele ukugcina umlambo ukwibakala D	linyanga Amanzi ogcino (million cubic metres) Zanti 0.353 0.523 0.083 0.448 0.277 0.000 0.151 0.000 0.108 0.000 0.100 0.141 0.000 0.254 0.410 0.520 0.592 0.568
							Izondlo		I-Phosphate (PO ₄ -P) I-inorganic nitrogen iyonke (TIN)	Amanqanaba ezondlo zomlambo makaphuculwe abekwiimeko ze- mesotrophic.	≤ 0.075 milligrams/litre (50th percentile) ≤ 1.75 milligrams/litre (50th percentile)
							Iityuwa		Ukutsala umbane (EC)	Umlambo i-Diep unamanzi anetyuwa indalo futhi mawugcinwe ukule mo yangoku.	≤ 55 millisiemens/metre (95th percentile)
							Uthshintshatshintsho lwamanzi		Iqondo lepH Ubushushu bamanzi i-oksijini enyibilikileyo	i-pH, ubushushu, ne-oksijini enyibilikileyo zibalulekile ukugcina intloko yasemanzini isempilweni..	6.5 ≤ pH ≤ 8.5 (5th and 95th percentiles) Ngu-2°C ukwahluka kubushushu bamanzi benzolo ≥ 6 milligrams litre (5th percentile)
									I-Ammonia I-Atrazine	Amanqanaba obukho beetyhefu makangadali ubungozi kwimpilo yase manzini.	≤ 0.073 milligrams per litre (95th percentile) ≤ 0.079 milligrams per litre (95th percentile)
							Iityhefu		I-Endosulfan	Ubukho beepathojini zamanzi mabugcinwe bukwibakala elamkelekileyo ukulungiselela amaxesha olonwabo.	≤ 0.0013 milligrams per litre (95th percentile)
							Iipathojini Ubume bomhlaba		I-Escherichia coli Inqaku leGAI	Imeko yobume bomhlaba Imeko yotyani	≤ 2500 izihandlo 100ml (95th percentile) > 42% = D ibakala
							Indawo yokuphila		Inqaku leVEGRAI Inqanaba 3.	Imeko yeentlanzi	> 42% = D ibakala
							Iintlanzi		Inqaku leFRAI	Imeko yobukhulu bezo zingenamathambo	> 22 % = E ibakala
							Ibiota		Inqaku leMIRAI	Macroinvertebrate condition	> 42% = D ibakala

I-IUA	I-Ilelo	Umandla wobonisele	I-RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
D7 Sir Lowry's	II	G221	D7-R19	Sir Lowry's Pass River	Bviti9	C	Umthamo	Amanzana Amanzi amaninzi	Amanzana ogcino amanzi amaninzi ogcino	Amanzi anele ukuze agcine umlambo ukwiBakala C	linyanga (million cubic metres) zantsi 0.380 1.077 0.959 0.599 0.301 0.204 0.186 0.000 0.000 0.000 0.420 0.459 0.755 0.787 1.211 0.984 1.141 1.145

≤ 0.075 milligrams/litre (50th percentile)

≤ 1.75 milligrams/litre (50th percentile)

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UTafle 11: iinjongo ngekwali yemijelo KWIMILAMBO ekwiyunithi zomjelo zongxamiseko kwiYunithi yoHlalutyo eHlangeneyo Engu- A1 kwichweba lomlambo iBerg

I- IUA	I- Ihlelo	Umandla woboniselo	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
A1 Berg Estuary	II	G10M	A1-E01	Berg (Groot) Estuary	Bx1	C	Umkhatho	Amanzi aphezu komhlaba	Amanzi	Ukungena kwamanzi emlanjeni makungaze kuhle de kubethe ngaphantsi kwe- 0.6 m ³ .s ⁻¹ futhi kungabethi ngaphantsi kwe- 1 m ³ .s ⁻¹ de kudlule ixesha elingaphaya kweenyanga ezi-4; ukuxhaphaka kweempuphuma (% makungandi/makungehli ngaphaya kwe- 10% ukusukela kwiimeko zomgangatho ka-2004	linyanga MMR/MAR yendalol 31.21 (46%) 12.55 (36%) 3.92 (25%) 1.61 (19%) 1.50 (23%) 1.66 (20%) 9.13 (36%) 22.18 (26%) 64.25 (42%) 123.35 (61%) 137.15 (68%) 78.34 (63%) 486.86 (52%) Annual Sep Aug Jul Jun May Apr Mar Feb Jan Dec Nov Oct
				Izondlo	DIN	Ubukho bezondlo ezingezizo zendalo mabungayidluli iTPCs yee macrophytes neemicroalgae					
					DIP						
				Ubukho beetyuwa	Ubukho beetyuwa	Ukusazeka kobukho beetyuwa mabungayidluli iTPCs yeentlanzi, yezilwanyanaezingenamathambo, yeemacrophytes neemicroalgae					
				Ikwaliti	Ubukho beetyuwa						Ubukho beetyuwa <20 ubude bungaphezulu kweenyanga ezi- 3 kwi-20 km ukuya emantla onxweme ukusuka emlonyeni; ubukho beetyuwa <1 ppt ngaphezulu kwe- 40 km ukuya kumantla onxweme ukusuka emlonyeni; ubukho beetyuwa bobukho beetyuwa kuyo yonke indawo echwebeni <35; amanzi angaphantsi komhlaba aneetyuwa kwithafa leempuphuma <45; TDS yamanzi angena emlanjeni <3500 mg/l "Amanzi angena emlanjeni : 7 < pH < 8.5 Ichweba : 7 < pH < 8.5 " "Amanzi angena emlanjeni : DO >4 mg/l Ubunzulu beSecchi >1 m Imida-A noB <1.0 m ngethuba lamanzana (< 1m ³ .s ⁻¹)

I- IUA	I- Ihelo	Umandla woboniso	I- RU	Igama lomjelo	Igama londibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
									I-Escherichia coli	Ubukho ezibangelwa mabugcinwe elivumelekileyo olonwabo.	≤185 Enterococci/100 ml) (90th percentile, inkqubo yemisi) bepathojini ngamanzi bukwibakala ngamaxa olonwabo.
								Utshintshatshintsho emanzini	Ubume bomlomo Utshintshatshintsho lwamaza	Impilo yendawo yokuphila mayaneze ii-microalgae, ii-macrophytes, ezingenamathambo, iintlanzi iintaka nokusetyenziswa ngamaxesha olonwabo	Ivuleke umphelelo <yi-10% utshintsho ukusukela kwisimo sangoku
							Indawo yokuphila	Iintlenge	Iimpawu zeentlenge, inkangeleko/ubukhulu bejelo		I-Bathymetry nentlenge MdØ utshintsho <yi-10% ukusukela kumgangatho wangoku
							Ibiota	Ii-Microalgae	Ubunzima bendalo nokwakheka kongqeku wee phytoplankton neebenthic microalgae	Ubunzulu bendalo bePhytoplankton nokwakheka makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	I-algae eluhlaza-hlaza <yi-10% yezihlandlo zeeseli ze- phytoplankton, I-Benthic microphytobenthic < 40 mg/m² chlorophyll a, ukuxhaphaka kwee-dinoflagellates < 5% yezihlandlo zeephytoplankton iyonke

I- IUA	I- IHlelo	Umandla wobonisele	I- RU	Igama lomjelo	Igama londibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
										Umandla nokwakheka kweeMacrophyte makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Gcina usasazeko lwangoku (2003-2005) nobuninzi beendidi zemigqeku yezityalo ezahlukeyo neendawo zokuphila zechweba (iziduli zokudlanyaza kwamaza ezine- <i>Zostera capensis</i> 206 ha, umgxobhozeli esivulekileyo 1159 ha, kwamaza 499 ha, isikhongozeli esivulekileyo 1159 ha, ithafa leempuphuma le-halophytic 1521 ha, ithafa leempuphuma le-xeric 919.1 ha, ingcongolo neenqoboka 586.6 ha nokuvuleka kweenqoboka 292.5 ha), thintela ukwanda kwemigangatho yee-macroalgae kwiindawo zokudlanyaza kwamaza ezisemazantsi, nciphisa ummandla ogqunywe zii-hyacinth zamanzi (<i>Eichhornia crassipes</i>) kwiincam eziphezulu nge-50% xa uthelekisa nesimo sangoku (2003-2005), thintela ukwanda ngobukhulu kwemimandla eyomileyo ekuvulekeni kweenqoboka (1159 ha ngo-2003-2005), thintela ukuncipha ngobukhulu kwemimandla yokuvuleka kweenqoboka (293 ha ngo-2003-2005). ii- <i>Juncus maritimus</i> , neentyatyambo zasemanzini ii- <i>Aponogeton distachyos</i> zikho, thintela ukwanda kwezityalo zangaphandle ezitshabalalisayo kumda wonxweme (umzekelo umnga i- <i>meansii</i> ne <i>Eucalyptus camaldulensis</i>), Gcina iindawo zeengcongolo neenqoboka zisemgqeni kumanxweme echweba ngokuqinisekisa ukuba ubukho beetyuwa abukho ngaphezu kwe-20 ppt kwiisithuba seenyanga ezi- 3 kwi- 20 km ukusuka emlonyeni ehlotyeni, thintela ukwanda komhlaba ongenanto kwiindawo zokuphila zethafa leempuphuma i- halophytic nexeric ngokugcina iipethini zangoku zokubetha kweempuphuma
								li-Macrophytes	ubungakanani, ukusasazeka nokuchuma kwemigqeku yeemacrophyte	Ubuninzi nokwakheka kwemigqeku yezilwanyana ezingenamathambo ezilungele iintlanzi neentaka	Gcina ukuchuma kwangoku kweendidi, ukusasazeka kweendidi nokuxuba kwazo (ukuchuma kweendidi ezinani lisezantsi, nezo zongameleyo) kumda A ukuya kutsho kwiincam ezisembinini zomda u- C. udiri olunye okanye ezimbini ziya kusoloko zikho ngokushinyeneyo xa uzithelekisa nezinye (umzekelo ii- <i>Pseudodiaptomus hessei</i> , nee <i>Grandierella</i> sp.) kule mida (A- C), iindidi ezibonakalayo ezinjenge- <i>Capitella capitata</i> , mazingazongameli iindidi ze- benthic kuzo zonke izikhundla, iipethini zokusasazeka kwee- <i>Callinassa kraussi</i> nee- <i>Upogebia africana</i> zisala zifana nesimo sangoku.

I- IUA	Ihlelo	Umandla woboniso	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
								lintlazi	Ukwakheka, ubuninzi nokuchuma komgqeku weentlanzi	Ubuninzi nokwakheka kwemigqeku yeentlanzi makulungele iintaka	Gcina inani eligcweleyo lemigqeku yechweba (iindidi ezisi-7) naleyo yasemanzini enxulanyiswa neyechweba (iindidi ezi-5) ekhoyo echwebeni nobukhulu bemigqeku eyaneleyo ukuze kuqinisekiswa ukuba isoloko ikho umphelo, qinisekisa ukuba iindidi ezibhanyabhanya zasemanzini azandi de zifikelele kumanqanaba apho zinokuchunuba ukwanda kwemigqeku yomthonyama ngokuba ityiwe okanye kukhutshiswane ngokukhulala, Gcina ukumenywa kweentlanzi ezinkulu nezincinci kumanqanaba angoku. Oku kwenzelwa ukuba iintlanzi zamanzi ahlaziyekileyo ezingenayo elwandle zibe nendawo eyanelisayo yokudada (ngokobushushu, ubukho beetyuwa nangokobunzulu bokudada). Oku kuthetha ukuba makubekho inani elivisayo leentlanzi ezibudala bazo bungu 0-1 kungabikho mahlelo alahlekelwa yiminyaka.
								lintaka	Ukwakheka, ubuninzi nokuchuma komgqeku we-avifauna	Imigqeku esempilweni yeeavifauna enegalelo kulondolozo lweendidi ze-avifauna eSA	Gcina i-90% ubuncane bokuchuma kweendidi kumgangatho wangoku, ubuninzi nokwahluka kwemigqeku yeentaka okuqingqiweyo usebenzisa ukuthambeka bokujika ungqiyame nge-avareji esebezayo yeminyaka emi- 3-

UTafle 12: iinjongo ngekwali yemijelo KWIMILAMBO ekwiinyunithi zomjelo zongxamiseko kwiYunithi yoHlalutyo eHlangeneyo Engu- A2 Langebaan

I- IUA	Ihlelo	Umandla woboniso	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
A2 Langebaan	II	G10M	A2-E02	Langebaan	Bxi3	A	Ikwali	Izondlo	NO ₃	Ubukho bezondlo ezingezizo zendalo mabungayidluli iTPCs yee macrophytes neemicroalgae	NO ₃ <1.3 mg.l ⁻¹
								Ubukho beetyuwa	Ukusazeka kobukho beetyuwa mabungayidluli iTPCs yeentlanzi, yezilwanyanaezingenamathamb o, yeemacrophytes neemicroalgae	Ubukho beetyuwa kwintloko yedike <40; Idike xa Ilonke 34 < ubukho beetyuwa < 36	
								Utshintshatshintsho lwamanzi ho lwamanzi	i-oksijini enyibilikisiweyo	Utshintshatshintsho lwamanzi mabungayidluli iTPCs yebiota	>4 mg.l ⁻¹

I- IUA	Umandla wobonisele	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
								Ubunzulu beSecchi		Ubunzulu beSecchi >1. m
								I-Enterococci	Ubukho bepathojini ezibangelwa ngamanzi	≤185 Enterococci/100 ml) (90th percentile, ubugcisa bobunkungu
							Iipathojini	I-Escherichia coli	mabugcinwe bukwibakala elivumelekileyo ngamaxesha olonwabo	≤500 E. coli/100 ml (90th percentile, ubugcisa bobunkungu)
							Utshintshatshintsho emanzini	Ukulwatyuza kwamaza	Impilo yendawo yokuphila mayaneze ii-microalgae, ii-macrophytes, ezingenamathambo, iintlanzi	Ukulwatyuza kwamaza makungatshintshi ngaphezu kwe-10% ukusuka kwimo yangoku (2017)
						Indawo yokuphila	Iintlenge	Iimpawu zeentlenge, ubume/ubukhulu bejelo	iintaka nokusetyenziswa ngamaxesha olonwabo	iBathymetry neentlenge MdØ utshintsho <10% ukusukela kweyesiqhelo
								Ubunzima bendalo nokwakheka komgquku wee phytoplankton neebenthic microalgae	Ubunzulu bendalo bePhytoplankton nokwakheka makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Gcina ubunzulu bendalo bephytoplankton busezantsi (chlorophyll- a < 20 µg/l) nokwahluka kwamaqela e phytoplankton.
								ubungakanani, ukusasazeka nokuchuma kwemigquku yeemacrophyte,	Ummandia nokwakheka kweeMacrophyte makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Gcina ukusasazeka nokwegqumeka kweendawo zokuphila zemacrophyte, ngakumbi umgobhozo weetyuwa nengca yolwandle .
								ukwakheka, ukuchuma nobuninzi beentlidi ngeentlidi ze-benthic macrofauna nezooplankton	Ubuninzi nokwakheka kwemigquku yezilwanyana ezingenamathambo ezilungele iintlanzi neentaka	Ngokubhekiselele kwezingenamathambo idike ilangebaan likwibakala A okwangoku. imigquku yezingenamathambo isempilweni futhi nokuchuma, ubuninzi nokwakheka kweentlidi bufumana amanqaku aphezulu.

I- IUA	Ihlelo	Umandla woboniso	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
								Iintlanzi	Ukwakheka, ubuninzi nokuchuma kongqeku weentlanzi	Ubuninzi nokwakheka kwemigqeku yeentlanzi makulungele iintaka	Umigqeku weentlanzi mawuquke iintlobo ezisempilweni zeendidi zeentlanzi ezixhatshazwayo, ngakumbi ezilukhuni, ezimhlophe ezinempumlo emfutshane, ezinomsila omnyama, ezinentloni nookrebe abancinci amangamangesi wawubekho xa uwonke xa kusenziwa isampulu yophando kumnatha wonxweme (i-10 hauls ubuncikana kwizikhundla ezintathu ezahlukeneyo kwimimandla ekufuphi nonxweme. Ezindala kule migqeku mazihlale ziyinxalenye ekufikeleleni nakumnatha weentlanzi wedike, futhi amaqondo okubanjiswa kwazo makahlale kwimeko yesiqhelo okanye enyuke. Gcina i-90% ubuncikane bokuchuma kweendidi kumgangatho wangoku, ubuninzi nokwahluka kwemigqeku yeentaka okuqinisekileyo usebenzisa ukuthambeka bokujika unqiyame nge-avareji esebenzayo yeminyaka emi- 3-
								Iintaka	Ukwakheka, ubuninzi nokuchuma kongqeku we-avifauna	Imigqeku esempilweni yeeavifauna enegalelo kulondolozo lweendidi ze-avifauna eSA	

UTaflele 13: iinjongo ngekwali yemijelo KWIMILAMBO ekwiyunithi zomjelo zongxamiseko kwYunithi yoHlalutyo eHlangeneyo Engu-D10 Diep

I- IUA	Ihlelo	Umandla woboniso	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo					
D10 Diep	III	G21F	D10-E03	Rietvlei/Diep	Bviii5	D	Umthamo	Amanzi angaphezu komhlaba	Amanzi	Amanzi angenayo ahlaziyekileyo anele ukugcina ikwaliti yamanzi nendawo yokuphila elungele utyani neentyatyambo ezikhulayo	linyanga Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Annual					
							80 %	80 %	80 %	80 %	80 %	80 %	80 %	80 %	80 %	80 %
							MMR/MAR (% Nat)	80 %	80 %	93 %	100 %	100 %	80 %	80 %	80 %	80 %
							Amanzi angena emlanjeni : <800 µg.l ⁻¹									
							Ubukho bezondlo ezingezizo zendalo mabungayidluli iTPCs yee macrophytes neemicroalgae									
							Ikwalti	Izondlo	DIN		Ichweba elisemazantsi (idike laseMilnerton): <1000 µg.l ⁻¹					
									DIP		Amanzi angenayo : <60 µg.l ⁻¹					
											Ichweba elisemazantsi (idike laseMilnerton): <500 µg.l ⁻¹					

I- IUA	I- IHlelo	Umandla wobonisele	I- RU	Igama lomjelo	Igama lendlabano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I- RQO yobalo
								Ubukho beetyuwa	Ubukho beetyuwa	Ukusazeka kobukho beetyuwa mabungayidiluli iTPCs yeentlanzi, yezilwanyanaezingenamathambo, yeemacrophytes o, yeemicroalgae	i-avareji yobukho beetyuwa kwichweba elisemazantsi (idike laseMilnerton) = 20, ubukhulu = 35
								Utshintshatshintsho lwamanzi	i-oksijini enyibilikisiweyo	Utshintshatshintsho lwamanzi (ngokobushushu, i- pH, i-oksijini enyibilikisiweyo, eziqinileyo ezirhoxisiweyo nobukho bodaka) malungadluli kwiTPCs zebiota	>4 mg.l ⁻¹
								iipathojini	Ubunzulu beSecchi	Ubukho bepathojini ezibangelwa ngamanzi mabugcinwe bukwibakala elivumelekileyo ngamaxesha olonwabo	≤185 Enterococci/100 ml) (90th percentile, ubugcisa bobunkungu
									I-Enterococci		≤500 E. coli/100 ml (90th percentile, ubugcisa bobunkungu
								Utshintshatshintsho ho emanzini	I-Escherichia coli	Impilo yendawo yokuphila mayaneze ii-microalgae, ii-macrophytes, ezingenamathambo, iintlanzi iintaka nokusetyenziswa ngamaxesha olonwabo	Ivuleke umphelo
								Intlengo	Utshintshatshintsho lwamazazi		<10% utshintsho kwimo yangoku
									Intlengo, ubume/ubukhulu bejelo		iBathymetry nmentlengo MdØ utshintsho <10% ukusukela kwimo yesiqhelo
								ii-Microalgae	Ubunzima bendalo nokwakheka komgqeku wee phytoplankton neebenthic microalgae	Ubunzulu bendalo bePhytoplankton nokwakheka makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Gcina ubukhulu bendalo obusezantsi bephytoplankton (iklorofili - a < 50 µg/l) kunye nokwahluka kwamaqela e-.
								ii-Macrophytes	Ubungakanani, ukusasazeka nokuchuma kwemigqeku yeemacrophyte,	Ummandla nokwakheka kweeMacrophyte makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Gcina ukusasazeka nommandla wokugqama weendawo zokuphila zemacrophyte, ngakumbi umgobhozo weetyuwa

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I- IUA	I- IHlelo	Umandla woboniso	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
								ii-Microalgae	Ubunzima bendalo nokwakheka komgqeku wee phytoplankton neebenthic microalgae	Ubunzulu bendalo bePhytoplankton nokwakheka makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Inkqubela kwimo yangoku ye- hyperutrophic apho ii cyanobacteria ezineetyefu zikhaphake khona futhi zingena nasekwandle
								ii-Macrophytes	ubungakanani, ukusasazeka nokuchuma kwemigqeku yeemacrophyte,	Umandla nokwakheka kweMacrophyte makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Gcina ukuchuma kwangoku kweendidi, ukusasazeka kweendidi nokuxuba kwazo (ukuchuma kweendidi ezininzi lisezantsi, nezo zongamelevo) gcina utyani oluwayo luguguthene ne- vleis kuba oku kubalulekile ekuthomalalisweni konxweme nasekunyusweni kwezondo; gcina uqhagamshelwano phakathi kolwandle, ijelo nevele esemazantsi; lawulo ukusasazeka kweendidi ezitshabalalisayo nezidadayo ze- macrophyte ezikhoyo kwi vleis, umzekelo ifeni yamanzi .
						iBiot		Ezingenamathambo bo	ukwakheka, ukuchuma nobuninzi beendidi ngeendidi ze- benthic macrofauna nezooplankton	Ubuninzi nokwakheka kwemigqeku yezilwanyana ezingenamathambo ezilungele iintlanzi neentaka	Suka kwibakala D uye kwibakala C. ichweba malibe nomgqeku odlamileyo we Callichirus kraussi kwidike lamanzi angasemva (10/m2). Ukongeza apho, umgqeku wezingenamathambo mawuquke iindidi ezimbini zamanye amachweba alapho embobheni wamanzi. Malunga nezo zasemanzini ezintathu ubuncikane ezikhoyo ngoku kufuphi nomlomo .
								ilintlanzi	Ukwakheka, ubuninzi nokuchuma komgqeku weentlanzi	Ubuninzi nokwakheka kwemigqeku yeentlanzi makulungele iintaka	Gcina umgqeku weentlanzi oquka iindidi ezimbini ubuncikane ze mullet, <i>Liza richardsonii</i> futhi ne/ zombini na <i>Mugil cephalus</i> ne <i>Pseudomyxus capensis</i> . Oko kutshintshatshintsha ngokwamaxesha omnyaka kwezindidi ze-mullet ngokobuninzi bazo mawuhale umninzi njalo kunazo ndidi zihlalisana emanzini ngoku eziguguthe ivleis.
								ilintaka	Ukwakheka, ubuninzi nokuchuma komgqeku wee- Avifauna	Imigqeku esempilweni yeeavifauna enegalelo kulondolozo lweendidi ze- avifauna eSA	Gcina i-90% ubuncikane bokuchuma kweendidi kumgangatho wangoku, ubuninzi nokwahluka kwemigqeku yeentaka okuqingqiweyo usebenzisa ukuthambeka bokujika ungqiyame nge-avareji esebenzayo yeminyaka emi- 3-

UTafile 15: iinjongo ngekwali yemijelo KWIMILAMBO ekwiYunithi zomjelo zongxamiseko kwiYunithi yoHlalutyo eHlangeneyo Engu-E12 kwimimandla yeKapa

I- IUA	I- IHlelo	Umandla woboniso	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
E12 Cape Flats	III	G22K	E12-E05	Zandvlei			Umthamo	Amanzi angaphezu komhlaba	Amanzi	Amanzi angenayo ahlaziyekileyo anele ukugcina ikwaliti yamanzi nendawo yokuphila elungele utyani neentyatyambo ezikhulayo	linyanga Annual 84 % 85 % 88 % 87 % 81 % 76 % 68 % 66 % 61 % 68 % 69 % 64 % 74 % Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
								Amanzi angaphezu komhlaba	Amanzi	Amanzi angenayo ahlaziyekileyo anele ukugcina ikwaliti yamanzi nendawo yokuphila elungele utyani neentyatyambo ezikhulayo	linyanga Annual 84 % 85 % 88 % 87 % 81 % 76 % 68 % 66 % 61 % 68 % 69 % 64 % 74 % Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep
							Izondlo	Izondlo	DIN	Ubukho bezondlo ezingezizo zendalo mabungayidluli ITPCs yee macrophytes neemicroalgae	Amanzi angena emlanjeni: <1000 µg.l-1 Ichweba : <150 µg.l-1 Amanzi angena emlanjeni : <300 µg.l-1 Estuary: <100 µg.l-1
							Ubukho beetyuwa	Ubukho beetyuwa	DIP	Ukusazeka kobukho beetyuwa mabungayidluli ITPCs yeentlanzi, yezilwanyanaezingenamathamb o, yeemacrophytes neemicroalgae	15 < ubukho beetyuwa obu-avareji <35
							Ikwali	Ubukho beetyuwa	Ubukho beetyuwa	Ubukho bezondlo ezingezizo zendalo mabungayidluli ITPCs yee macrophytes neemicroalgae	Amanzi angena emlanjeni: <1000 µg.l-1 Ichweba : <150 µg.l-1 Amanzi angena emlanjeni : <300 µg.l-1 Estuary: <100 µg.l-1
							Utshintshatshintsho lwamanzi	Utshintshatshintsho lwamanzi	I-oksijini enyibilikisiweyo	Utshintshatshintsho lwamanzi mabungayidluli ITPCs yebiota	>4 mg.l-1
							Iipathojini	Iipathojini	I-Enterococci	Ubukho bepathojini ezibangelwa ngamanzi mabuginwe bukwibakala elivumelekileyo ngamaxesha olonwabo	≤185 Enterococci/100 ml (90th percentile, ubugcisa bobunkungu) ≤500 E. coli/100 ml (90th percentile, ubugcisa bobunkungu)
							Utshintshatshintsho emanzini	Utshintshatshintsho emanzini	Ubume bomlomo	Impilo yendawo yokuphila mayaneze ii-microalgae, ii-macrophytes, ezingenamathambo, iintlanzi iintaka nokusetyenziswa ngamaxesha olonwabo	Umlomo mawuhlale uvuliwe >20% yexesha
							Iindawo yokuphila	Iintenge	Iimpawu zeentenge, ubukhulu/ ubume bejelo	Iibathymetry neentenge kwimeko yesiqhelo	Ibathymetry neentenge MdØ change <10% ukusuka kwimeko yesiqhelo
							Iibiota	Ii-Microalgae	Ubunzima bendalo nokwakheka komgeku wee phytoplankton neebenthic microalgae	Ubunzulu bendalo bePhytoplankton nokwakheka makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Gcina ubukhulu bendalo obusezantsi bephytoplankton (iklorofili - a < 20 µg/ℓ) kunye nokwahluka kwamaqela e phytoplankton .

I- IUA	I- IHlelo	Umandla woboniselwelo	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
E12 Cape Flats	III	G22K	E12-E05	Zeekeovelei	Bxi20	D	Umthamo	Amanzi angaphezu komhlaba	Amanzi anele ukugcina nendawo utyani ezikhulayo	Umandla nokwakheka kweeMacrophyte izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxeshasha olonwabobo	Gcina okanye uvuselele ukusasazeka nommandla wogqumo wendawo yokuphilisana ye macrophyte, ngakumbi umgxobhozo weentyuwa.
								Ii-Macrophytes	ubungakanani, ukusasazeka nokuchuma kwemigqeku yeemacrophyte,	Ubuninzi nokwakheka kwemigqeku yezilwanyana ezingenamathambo ezilungele iintlanzi neentaka	Gcina ukuchuma kwangoku kweendidi, ukusasazeka kweendi nokuxuba kwazo (ukuchuma kweendidi ezininzi lisezantsi, nezongameleyo) kumda u- C. udidi olunye okanye kwiincam ezisembinini zomda u- C. udidi olunye okanye ezimbini ziya kusoloko zikho ngokushinyeneyo xa uzithelekisa nezinye (umzekelo ii- <i>Pseudodiaptomus hessei</i> , nee <i>Grandierella sp.</i>) kule mida (A- C), iindidi ezibonakalayo ezinjengee- <i>Capitella capitata</i> , mazingazongameli iindidi ze- benthic kuzo zonke izikhundla, iipethini zokusasazeka kwee- <i>Callianassa kraussi</i> nee- <i>Upogebia africana</i> zisala zifana nesimo sangoku.
								Iintlanzi	Ukwakhela, ubuninzi nokuchuma komgqeku wentlanzi	Ubuninzi nokwakheka kwemigqeku yeentlanzi makulungele iintaka	Gcina inani eligcwelayo lemigqeku yechweba (iindidi ezisi-7) naleyo yasemanzini enxulunyaniswa neyechweba (iindidi ezi-5) ekhoyo echwebeni nobukhulu bemigqeku eyaneleyo ukuze kuqinisekise ukuba isoloko ikho umphelelo, qinisekisa ukuba iindidi ezibhanayabhanya zasemanzini azandi de zifikelele kumanqanaba apho zinokuchuthaba ukwanda kwemigqeku yomthonnyama ngokuba ityiwe okanye kukhutshwane ngokokuhlala, Gcina ukumenywa kweentlanzi ezinkulu nezincinci kumanqanaba angoku.
								Iintaka	Ukwakhela, ubuninzi nokuchuma komgqeku wee-Avifauna	Imigqeku esempilweni yeeavifauna enegalelo kulondolozo lweendidi ze-avifauna eSA	Gcina i-90% ubuncikane bokuchuma kweendidi kumgangatho wangoku, ubuninzi nokwahluka kwemigqeku yeentaka okuqingqiweyo usebenzisa ukuthambeka bokujika ungqiyame nge-avareji esebenzayo yeminyaka emi- 3-
									Amanzi angaphezu komhlaba	Amanzi angenayo ahlaziyekileyo anele ukugcina nendawo yokuphila elungele utyani neentyatyambo ezikhulayo	Annual Sep Aug Jul Jun May Apr Mar Feb Jan Dec Nov Oct

I- IUA	IHlelo	Umandla wobonisele	I- RU	Igama lomjelo	Igama lendlabano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I- RQO yobalo
									I-Escherichia coli	Ubukho bezondlo ezingezizo zendalo mabungayidluli iTPCs yee macrophytes neemicroalgae	River inflow: <1000 µg.l-1 Lower estuary: <1000 µg.l-1 River inflow: <500 µg.l-1 Lower estuary: <500 µg.l-1
								Izondlo	DIN		
									DIP		
								Ubukho beetyuwa		Ukusazeka kobukho beetyuwa mabungayidluli iTPCs yeentlanzi, yezilwanyanaezingenamathambo, yeemacrophytes neemicroalgae	Average salinity in lower >10, maximum = 35
								Ubukho beetyuwa	Ubukho beetyuwa		
								Utshintshatshintsho ho lwamanzi	i-oksijini enyibilikisiweyo	Utshintshatshintsho lwamanzi (ngokobushushu, i- pH, i-oksijini enyibilikisiweyo, ezinqinileyo ezirhoxisiweyo nobukho bodaka) malungadluli kwiTPCs zebiota	>4 mg.l ⁻¹
								lipathojini	I-Enterococci	Ubukho bepathojini ezibangelwa ngamanzi mabugcinwe bukwi bakala elivumelekileyo ngamaxa olonwabo	≤185 Enterococci/100 ml) (90th percentile, hazen system)
									I-Escherichia coli		≤500 E. coli/100 ml (90th percentile, hazen system)
								Utshintshatshintsho ho emanzini	Ubume bomlomo	Impilo yendawo yokuphila mayaneze ii-microalgae, ii- macrophytes, ezingenamathambo, iintlanzi iintaka nokusetyenziswa ngamaxesha olonwabo	Umlomo mawuhlale uvuliwe >120% yexesha
								Indawo yokuphila			
								Ii-Microalgae	Ubunzima bendalo nokwakheka komgquku wee phytoplankton neebenthic microalgae	Ubunzulu bendalo bePhytoplankton nokwakheka makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	iBathymetry neentlengo MdØ change <100ukusuka kwimeko yesiqhelo

I- IUA	I- IHlelo	Umandla woboniso	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
								li-Macrophytes	ubungakanani, ukusasazeka nokuchuma kwemigqeka yeemacrophyte,	Umandla nokwakheka kweMacrophyte makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Gcina ubukhulu bendalo obusezantsi bephytoplankton (iklorofili - a < 20 µg/l) kunye nokwahluka kwamaqela e phytoplankton .
								Ezingenamathambo	Ukwakheka komgqeka weMacrofauna, ubuninzi nokuchuma	Ubuninzi nokwakheka kwemigqeka yezilwanyana ezingenamathambo ezilungele iintlanzi neentaka	Gcina ukuchuma kwangoku kweendidi, ukusasazeka kweendidi nokubona kwazo (ukuchuma kweendidi ezinani lisezantsi, nezongameleyo) kumda A ukuya kutsho kwiincam ezisembinini zomda u- C. udi olunye okanye ezimbini ziya kusoloko zikho ngokushinyeneyo xa uzithelekisa nezinye (umzekelo ii- <i>Pseudodiaptomus hessei</i> , nee <i>Grandidierella sp.</i>) kule mida (A- C), iindidi ezibonakalayo ezinjengee- <i>Capitella capitata</i> , mazingazongameli iindidi ze- benthic kuzo zonke izikhundla, ipethini zokusasazeka kwee- <i>Callianassa kraussi</i> nee- <i>Upogebia africana</i> zisala zifana nesimo sangoku.
								liintlanzi	Ukwakheka komgqeka weentlanzi, ubuninzi nokuchuma	Ubuninzi nokwakheka kwemigqeka yeentlanzi makulungele iintaka	Gcina inani eligcweleyo lemigqeka yechweba (iindidi ezisi- 7) naleyo yasemanzini enxulunyaniswa neyechweba (iindidi ezi-5) ekhoyo echwebeni nobukhulu bemigqeka eyaneleyo ukuze kuqinisekise ukuba isoloko ikho umphelo, qinisekisa ukuba iindidi ezibhanyabhanya zasemanzini azandi de zifikelele kumanqanaba apho zinokuchunuba ukwanda kwemigqeka yomthonyama ngokuba ityiwe okanye kukhutshiswane ngokokuhlala, Gcina ukumenywa kweentlanzi ezinkulu nezincinci kumanqanaba angoku.
								iintaka	Ukwakheka komgqeka wee- Avifauna, ubuninzi nokuchuma	Imigqeka esempilweni yeeavifauna enegalelo kulondolozo lweendidi ze- avifauna eSA	Gcina i-90% ubuncikane bokuchuma kweendidi kumgangatho wangoku, ubuninzi nokwahluka kwemigqeka yeentaka okuqinqiweyo usebenzisa ukuthambeka bokujika ungiyame nge-avareji esebenzayo yeminyaka emi- 3-

I- IUA	I- IHlelo	Umandla woboniso	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo	
D6 Ferste	III	G22H	D6-E06	Ferste Estuary	Bxi3	D	Umthamo	Amanzi angaphezu komhlaba	Amanzi	Amanzi angenayo ahlaziyekileyo anele ukugcina ikwaliti yamanzi nendawo yokuphila elungele utyani neentyatyambo ezikhulayo	linyanga 120 % Annual 120 % Sep 120 % Aug 120 % Jul 120 % Jun 120 % May 120 % Apr 120 % Mar 120 % Feb 120 % Jan 120 % Dec 120 % Nov 120 % Oct	
								Izondlo	DIN	Ubukho bezondlo ezingezizo zendalo mabungayidluli iTPCs yee macrophytes neemicroalgae	Ubukho bezondlo ezingezizo zendalo mabungayidluli iTPCs yee macrophytes neemicroalgae	Amanzi angena emlajeni : <1000 µg.l ⁻¹ Ichweba elisemazantsi : <1000 µg.l ⁻¹
									DIP			Amanzi angena emlajeni : <500 µg.l ⁻¹ Ichweba elisemazantsi: <500 µg.l ⁻¹
								Ubukho beetyuwa		Ubukho beetyuwa	Ubukho beetyuwa	Ubukho beetyuwa obu-avareji busezantsi >10, ubukhulu = 35
							Ikwality	Utshintshatshints ho lwamanzi	i-oksijini	Utshintshatshintsho lwamanzi enyibilikisiweyo	>4 mg.l ⁻¹	
								lipathojini	I-Enterococci	I-Escherichia coli	≤185 Enterococci/100 ml (90th percentile, ubugcisa bobunkungu)	
							Indawo yokuphila		Ubume bomlomo		Uhlala uvulekile	
								Utshintshatshints ho emanzini		Utshintshatshintsho lwamaza	<10% utshintsho kwimo yangoku	
								Ibiota	Il-Microalgae	Ubunzima bendalo nokwakheka kongqeku wee phytoplankton neebenthic microalgae	Gcina ubukhulu bendalo obusezantsi be -phytoplankton (Iklorofil- a < 20 µg/ℓ) kunye nomgqeku wamaqela ephytoplankton.	

I- IUA	Ihlelo	Umandla woboniso	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I- RQO yobalo
								Ii-Macrophytes	ubungakanani, ukusasazeka nokuchuma kwemigqeku yeemacrophyte,	Umandla nokwakheka kweMacrophyte makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesho olonwabo	Vuselela ugcine ukusasazeka nommandla wogqomo weendawo zokuphilisana ze -macrophyte ngakumbi umgxobhozo weetyuwa.
								Ezingenamathambo	Ukwakheka komgqeku weMacrofauna, ubuninzi nokuchuma	Ubuninzi nokwakheka kwemigqeku yezilwanyana ezingenamathambo ezilungele iintlanzi neentaka	Gcina ukuchuma kwangoku kweendidi, ukusasazeka kweendidi nokuxuba kwazo (ukuchuma kweendidi ezinani lisezantsi, nezo zongameleyo) kumda A ukuya kutsho kwiincam ezisembinini zomda u- C. udi olunye okanye ezimbini ziya kusoloko zikho ngokushinyeneyo xa uzithelekisa nezinye (umzekelo ii- <i>Pseudodiaptomus hessei</i> , nee <i>Grandidierella sp.</i>) kule mida (A- C), iindidi ezibonakalayo ezinjenge- <i>Capitella capitata</i> , mazingazongameli iindidi ze- benthic kuzo zonke izikhundla, iipethini zokusasazeka kwee- <i>Callinassa kraussi</i> nee- <i>Upogebia africana</i> zisala zifana nesimo sangoku.
								Iintlanzi	Ukwakheka komgqeku weentlanzi, ubuninzi nokuchuma	Ubuninzi nokwakheka kwemigqeku yeentlanzi makulungele iintaka	Gcina inani eligcweleleyo lemigqeku yechweba (iindidi ezisi- 7) naleyo yasemanzini enxulunyaniswa neyechweba (iindidi ezi-5) ekhoyo echwebeni nobukhulu bemigqeku eyaneleyo ukuze kuqinisekise ukuba isoloko ikho umphelo, qinisekisa ukuba iindidi ezibhanyabhanya zasemanzini azandi de zifikelele kumanqanaba apho zino kuchunuba ukwanda kwemigqeku yomthonyama ngokuba ityiwe okanye kukhutshwane ngokokuhlala, Gcina ukumenywa kweentlanzi ezinkulu nezincinci kumanqanaba angoku.
								Iintaka	Ukwakheka komgqeku wee- Avifauna, ubuninzi nokuchuma	Imigqeku esempilweni yeeavifauna enegalelo kulondolozo lweendidi ze- avifauna eSA	Gcina i-90% ubuncikane bokuchuma kweendidi kumgangatho wangoku, ubuninzi nokwahluka kwemigqeku yeentaka okuqingqiweyo usebenzisa ukuthambeka bokujika ungiyame nge-avareji esebenzayo yeminyaka emi- 3-

I- IUA	I- IHlelo	Umandla woboniso	I- RU	Igama lomjelo	Igama lendibano ebonakala isempilweni	I-TEC	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
								ii-Microalgae	Ubunzima bendalo nokwakheka komgqeku wee phytoplankton neebenthic microalgae	Ubunzulu bendalo bePhytoplankton nokwakheka makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Gcina ubukhulu bendalo obusezantsi be phytoplankton (chlorophyll- a < 20 µg/ℓ) nokwahluka kwamaqela e- phytoplankton.
								iiMacrophytes	ubungakanani, ukusasazeka nokuchuma kwemigqeku yeemacrophyte,	Umandla nokwakheka kweeMacrophyte makulungele izilwanyana ezingenamathambo, iintlanzi, iintaka nosetyenziso ngamaxesha olonwabo	Vuselela ugcine ukusasazeka nommandla wogqumo weendawo zokuphilisa ze -macrophyte ngakumbi umgxobhozo weetyuwa
								Ezingenamathambo bo	Ukwakheka komgqeku weMacrofauna, ubuninzi nokuchuma	Ubuninzi nokwakheka kwemigqeku yezilwanyana ezingenamathambo ezilungele iintlanzi neentaka	Gcina ukuchuma kwangoku kweendidi, ukusasazeka kweendidi nokuxuba kwazo (ukuchuma kweendidi ezinani lisezantsi, nezo zongameleyo) kumda A ukuya kutsho kwiincam ezisembinini zomda u- C. uidi olunye okanye ezimbini ziya kusoloko zikho ngokushinyeneyo xa uzithelekisa nezinye (umzekelo ii- <i>Pseudodaptomus hessei</i> , nee <i>Grandidierella sp.</i>) kule mida (A- C), iindidi ezibonakalayo ezinjengee- <i>Capitella capitata</i> , mazingazongameli iindidi ze- benthic kuzo zonke izikhundla, iipethini zokusasazeka kwee- <i>Callinassa kraussi</i> nee- <i>Upogebia africana</i> zisala zifana nesimo sangoku.
								iintlanzi	Ukwakheka komgqeku weentlanzi, ubuninzi nokuchuma	Ubuninzi nokwakheka kwemigqeku yeentlanzi makulungele iintaka	Gcina inani eligcwelevo lemigqeku yechweba (iindidi ezisi- 7) naleyo yasemanzini enxulunyaniswa neyechweba (iindidi ezi- 5) ekhoyo echwebeni nobukhulu bemigqeku eyaneleyo ukuze kuqinisekise ukuba isoloko ikho umphelelo, qinisekisa ukuba iindidi ezibhanyabhanya zasemanzini azandi de zifikelele kumanqanaba apho zinokuchunuba ukwanda kwemigqeku yomthonyama ngokuba ityiwe okanye kukhutshwane ngokokuhlala, Gcina ukumenywa kweentlanzi ezinkulu nezincinci kumanqanaba angoku.
								iintaka	Ukwakheka komgqeku wee- Avifauna, ubuninzi nokuchuma	Imigqeku esempilweni yeeavifauna enegalelo kulondolozo lweendidi ze- avifauna eSA	Gcina i-90% ubuncikane bokuchuma kweendidi kumgangatho wangoku, ubuninzi nokwahluka kwemigqeku yeentaka okuqingqiweyo usebenzisa ukuthambeka bokujika ungiyame nge-avareji esebenzayo yeminyaka emi- 3-

UTafle 18: iinjongo ngekwali i yemijelo KWIMILAMBO ekwiinyithi zomijelo zongxamiseko kwindawo yoboniselo i- Berg

I- IUA	Ihlelo	Umandla woboniselo	I- RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo													
D8 Upper Berg	II	G10A	D8-D01	Berg	Ikwalityi	Amanzana	Inqanaba ledama lamanzi ahambayo: Berg EWR1 in G10A nMAR = 141.68 million m3/a pMAR: 126.00 million m3/a REC = C ibakala	Ngexesha lomnyaka elomileyo amanqanaba amadama makanele ukukhutshwa ngeenjongo zonkenkeshelo nokusetyenziswa ngabantu nokukhuselwa kwezinto eziphilisana elunxwemeni. Ubushushu bamanzi angenayo mabube phantsi kolawulo	linyanga	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
									Amanzana ogcino (million cubic metres)	2.143	1.293	1.071	0.803	0.726	0.803	1.296	2.679	4.147	4.285	4.285	3.888	29.177
									Amanzi amaninzi ogcino (million cubic metres)	0.000	0.544	0.544	0.000	0.000	0.000	0.778	0.000	4.666	10.109	0.000	0.000	11.839
									≤ 0.015 milligrams/litre (50 th percentile)													
						Izondlo	I-nitrogen engeyiyo yendalo iyonke (TIN)1	Amanqanaba eetyuwa makagcinwe ekwimo eyamkelekileyo khonukuze angabinabungozi empilweni yoomandla futhi agcinwe ekwibakala elinqwenelekayo khonukuze alungeke ukusetyenziswa emakhayeni nakunkcenkeshelo.	≤ 0.07 milligrams/litre (50 th percentile)													
						lityuwa	Ukutsala umbane	Amandla kweli dama ane-asidi ngendalo ngoko ke makagcinwe ekwiqondo elaziwayo ngokwemveli.	5.5 ≥ pH ≤ 7.5 (5 th and 95 th percentiles)													
lipathojini	I-E coli	Idama maligcinwe kwimo ekwibakala elinqwenelekayo ukulungiselela amaxesha olonwabo khonukuze kukhuselwe ikwaliti yamanzi aya kusetyeniswa emakhaya.	≤ 130 izihlandlo/100ml (95 th percentile)																			

I- IUA	Ihlelo	Umandla woboniseliso	I- RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
D8 Upper Berg	II	G10B	D8-D02	Wemmershoek Dam	Umthamo	Amanzana	Amanqanaba edama	Amanqanaba amadama makanele khonkuze abe nakho ukusetyenziswa nasemakhaya nakunkcencshelo.	% zobukhulu bedama . asikho isikhundla seEWR
					Ikwilithi	Izondlo	Ortho-phosphate (PO ₄ -P) Total inorganic nitrogen (TIN)	Idama likwimo yendalo futhi maligcinwe likwimo e- oligotrophic khonkuze abe nokusetyenziswa siSixeko saseKapa nasePaarl.	≤ 0.005 milligrams/litre (50 th percentile)
							I-Ortho-phosphate (PO ₄ -P) Initrogen engeyivo yendalo iyonke (TIN)	Nanjengedama eliphezulu elihambisa amanzi maligcinwe likule mo futhi likhuselewe.	≤ 0.50 milligrams/litre (50 th percentile)
					Umthamo	Amanzana	Amanqanaba amadama	Amanqanaba amadama makanele khonkuze abe nakho ukusetyenziswa ezidolophini nayimizimveliso kusetyenziswa ezi- WTWs zimbini, abuye akhutshelwe kumlambo ito Berg ukuze asetyenziswe emakhayeni nakunkcencshelo.	% yobukhulu bedama. No EWR site
B4 Lower Berg	II	G10F	B4-D03	Voelvlei Dam	Ikwilithi	Izondlo	I-Ortho-phosphate (PO ₄ -P)	Idama likwimo e- Eutrophic futhi maliphuculwe ukuze libe kwimo e- mesotrophic okanye engcono	≤ 0.025 milligrams/litre (50 th percentile)
							Initrogen engeyivo yendalo iyonke (TIN)	khonkuze kukhuselewe amanzi ahanjiswa siSixeko saseKapa needolophu zaseSwartland angatyhefeki ngenxa yezityalo ezinobungozi ezidubulayo nakwiingxaki zencasa nevumba kumanzi acocwayo eza kusetyenziswa emakhaya..	≤ 0.70 milligrams/litre (50 th percentile)
					Ikwilithi	Iityuwa	Ukutsala umbane	Amanqanaba eetyuwa makagcinwe ekwimo eyamkelekileyo khonkuze angabinabungozi empilweni yoomandla futhi agcinwe ekwibakala elinqwenelekayo khonkuze alungeke ukusetyenziswa emakhayeni nakunkcencshelo.	≤ 30 millSiemens/metre (95 th percentile)

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I- IUA	Ihlelo	Umandla woboniso	I- RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
D7 Sir Lowry's	II	G40A	D7-D05	Upper Steenbras Dam	Umthamo	Amanzana	Amanqanaba amadama	Amanqanaba amadama makanelele khonkuzwe alungele ukuthuthwa kwamanzi esisiwa kwidama elikumazantsi i- Steenbras, ukwenziwa kombane wamanzi kusetyenziswa idama lokugcina amanzi ampontshwayo i- Steenbras elihambisa manzi kummandla weNtshona-koloni (kwiSixeko saseKapa) kusetyenziswa WTW i-Faure.	% yobukhulu bedama
							I-Ortho-phosphate (PO ₄ -P) Initrogen engeyiyo yendalo yonke (TIN)	Inkqubo mayigcinwe ikwimo e-mesotrophic okanye ibengcono.	≤ 0.015 milligrams/litre (50 th percentile)
					Izondlo		I-Ortho-phosphate (PO ₄ -P) Initrogen engeyiyo yendalo yonke (TIN)		≤ 0.07 milligrams/litre (50 th percentile)
					Ikwaliti	iityuwa	Ukutsala umbane	Amanqanaba eetyuwa makagcinwe ekwimo eyamikelekileyo khonkuzwe angabinabungozi empilweni yoomandla futhi agcinwe ekwibakala elinqwenelekayo khonkuzwe alungele ukusetyenziswa emakhayeni nakwimizimveliso, nasekuvuliseni kombane wamanzi.	≤ 30 milliSiemens/metre (95 th percentile)
							I-E. coli	Inkqubo mayigcinwe kwimo elungele ukusetyenziswa ngoomasipala (xa kucocwa amanzi).	≤ 130 izihlandlo /100 ml (95 th percentile) ≤ 130 izihlandlo /100 ml (95 th percentile)
						Iipathojini	Ubukho beendidi zekaka		

I- UA	Ihlelo	Umandla woboniselelo	I- RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo													
D7 Sir Lowry's	II	G40A	D7-D06	Lower Steenbras Dam	Umthamo	Amanzana	Inqanaba ledama ngokwamanzi achithekayo edamini. Amanzi aphumayo : Berg EWR8 in G40A ngaphantsi kwamazantsi edama iSteenbras nMAR = 54.88 million m3/a	Amanqanaba amadama makanele khonukuze alungele ukuthuthwa kwamanzi esisiwa kummandla weNtshona-koloni (kwiSixeko saseKapa) kusetyenziswa WTW i- Steenbras, nakumazantsi omlambo i- Steenbras nasechwebeni ukuze kukhuselwe impilo ekhoyo phaya kumazantsi onxweme. Amanzi amaninzi makahanjiswe ngexesha lomnyaka elimanzi ukulungiselela iimfuno zeempuphuma, kodwa ke makagcinwe ngokwemfuno zokwakhekha komjelo okhoyo, kusetyenziswe nalawo achithekayo ukuba kunokwenzeka	linyanga	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Annual
									Amanzana ogcino (million cubic metres)	0.427	0.323	0.235	0.180	0.149	0.144	0.173	0.247	0.384	0.506	0.582	0.502	3.852
									Amanzi amaninzi ogcino (million cubic metres)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.077	0.077	0.307	0.307	0.077	0.845
									≤ 0.015 milligrams/litre (50 th percentile)													
									≤ 0.07 milligrams/litre (50 th percentile)													
									≤ 30 milliSiemens/metre (95 th percentile)													
									≤ 130 izihandlo /100 ml (95 th percentile)													
									≤ 130 izihandlo /100 ml (95 th percentile)													

U ttafile 19: iinjongo malunga nekwilithi zemijelo KUMANZI ANGAPHANTSI KOMHLABA kwiinyunithi zemijelo zongxamiseko kwindawo yoboniselo i-Berg

I-IUA	Ihlelo	Umandla woboniselo	I-RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
D8 Upper Berg	II	G10A	4-Paarl-Upper Berg	Amanzi angaphantsi (wonke)	Umthamo	Utsalo	Utsalo lwamaxesha omnyaka: amanqanaba amanzi abuyela kwimeko yesiqhelo emva kwifuthe lotsalo ngexesha elimanzi lomnyaka, phantsi kokuthathelwa ingqalelo kotsintsho lwemozulu nemijikelo yembelela. utsalo lwaphakade: ukuhla kwamanqanaba amanzi kuyaphucuka xa kuthathelwa ingqalelo yamaxesha okusetyenziswa kwe-akhwifa.	Usetyenziso lwamanzi angaphantsi komhlaba maluzinze ukuze bonke abasebenzisi, oko kuquka nendalo balungelwe	n/a
							Makuthotyvelwe iimfuno zamanzana akhoyo emlanjeni Compliance with the low flow requirements in the river (ngokwaloo-RQO yaloo mlambo)	Gcina (icandelo lamanzi angaphantsi komhlaba) iimfuno zamanzana akhoyo emlanjeni	iimfuno zamanzana ogcino: 29.177 Mm3/a (34.39 %MAR) at G1H076 (Bviii13); 27.421 Mm3/a (19.35 %MAR) at G1H077 (Bviii1)
						Izondlo	I-NO ₃ (as N)	Amanzi angaphantsi komhlaba amele ukulungela	< 3.3 mg/l
						Iityuwa	I-EC	amele ukulungela	< 70 mS/m
						Utsintshatshintsho lwamanzi	I-pH	emva kokuba ecociwe; futhi ikwalithi yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	5.2 – 8.4
						Iipathojini	I-E-coli		0 izihlandlo / 100 ml
						Iipathojini	Iindidi zeekaka zizonke		<10 izihlandlo / 100ml
						Ukulahlwa	Amanqanaba amanzi abalulekayo phakathi kwamanzi angaphantsi komhlaba nangaphezu komhlaba (ngokwee-mamsl)	Ukuthambeka kwendalo phakathi kwamanzi angaphantsi komhlaba nawangaphezu komhlaba makugcinwe	n/a
						Ukulahlwa	Imida yezidambisi	Makungatsalwa amanzi angaphantsi komhlaba kumda womwonyo nowee FEPAs zomhlambo ngokwemiqathango yecwecwe leengcebiso malunga ne- FEPAs.	250m
						Izondlo	I-NO ₃ (as N)	Amanzi angaphantsi komhlaba amele ukulungela	< 3.3 mg/l
G10B			4-Paarl-Upper Berg	Amanzi angaphantsi (wonke)	Umthamo	Izondlo	I-EC	amele ukulungela	< 70 mS/m
							I-pH	ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi	5.2 – 8.4
							I-E-coli	emva kokuba ecociwe; futhi	0 izihlandlo / 100 ml
							Utsintshatshintsho		

I-UA	IHlelo	Umandla woboniso	I-RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
						Iwamanzi		ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	<10 izihlandlo / 100ml
						Iipathojini	lindidi zeekaka zizonke		
					Umthamo		Utsalo lwamaxesha omnyaka: amanqanaba amanzi abuyela kwimeko yesiqhelo emva kwifuthe lotsalo ngexesha elimanzi lomnyaka, phantsi kokuthathelwa ingqalelo kotsintsho lwemozulu nemijikelo yembalela. utsalo lwamaxesha: ukuhla kwamandla amanzi kuyaphucuka xa kuthathelwa ingqalelo yamaxesha okusetyenziswa kwee-akhwifa.	Usetyenziso lwamanzi angaphantsi komhlaba malunze ukuze bonke abasebenzi, oko kuquka nendalo balungelwe	n/a
					Umthamo	Ukulahlwa	Imida yezidambisi	Makungatsalwa amanzi angaphantsi komhlaba kumda womwonyo nowee FEPAs zomhlambo ngokwemiqathango yecwecwe leengcebiso malunga ne- FEPAs.	250m
						Iipathojini	I-E-coli	Amanzi angaphantsi komhlaba amele ukulungela ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	0 izihlandlo / 100 ml
					Ikwaliti	Iipathojini	lindidi zeekaka zizonke		<10 izihlandlo / 100ml
						Izondlo	I-NO3 (as N)	Amanzi angaphantsi komhlaba amele ukulungela ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	n/a
						Utsintshatshintsho lwamanzi	I-pH		n/a
					Ikwaliti	Iityuwa	I-EC	ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	n/a

I-UA	Ihlelo	Umandla woboniselwelo	I-RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
B4 Lower Berg	III	G10	6-24 Rivers	Amanzi angaphantsi komhlaba (wonke)	Umthamo	ukuhlwa	Amanqanaba amanzi abalulekayo phakathi kwamanzi angaphantsi komhlaba nangaphezu komhlaba (ngokwee-mamsi)	Ukuthambeka kwendalo phakathi kwamanzi angaphantsi komhlaba nangaphezu komhlaba makugcinwe	n/a
							Imida yezidambisi	Makungatsalwa amanzi angaphantsi komhlaba kumda womwonyo nowee FEPAS zomhlambo ngokweniqathango yecwecwe leengcebiso malunga ne- FEPAS.	250m
						Amanzana angana emlanjeni	Makuthotyelwe iimfuno zamanzana akhoyo emlanjeni Compliance with the low flow requirements in the river (ngokwaloo-RQO yaloo mlambo)	Gcina (icandelo lamanzi angaphantsi komhlaba) iimfuno zamanzana akhoyo emlanjeni	limfuno zamanzana ogcino: 114.338 Mm3/a (13.28 %MAR) at G1H013 (Bvi6)
					Ikwality	Utshintshatshintsho lwamanzi	pH	Amanzi angaphantsi komhlaba amele ukulungela ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	5.2 – 8.1
						lipathojini	E-coli		0 izihlandlo / 100 ml
						iipathojini	Total Coliform		<10 izihlandlo / 100ml
						Izondlo	NO3 (as N)		< 6.9 mg/l
				Amanzi angaphantsi komhlaba (Isanti yonxweme iCenozoic)	Ikwality	iityuwa	EC		< 942 mS/m
						izondlo	NO3 (as N)		<11.0 mg/l
				Amanzi angaphantsi komhlaba (phantsi)	Ikwality	iityuwa	EC		< 875 mS/m

I-IUA	IHlelo	Umandla woboniseliso	I-RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
A1 Berg Estuary and A2 Langebaan	II	G10M	8-UNxweme lwaseNtshona	Umthamo	Icandelo	Icandelwana	Utsalo lwamaxesha omnyaka: amanqanaba amanzi abuyela kwimeko yesiqhelo emva kwifuthe lotsalo ngexesha elimanzi lomnyaka, phantsi kokuthathelwa ingqalelo kotsshintsho lwemozulu nemijikelo yembalela. utsalo lwanaphakade: ukuhla kwamanganqanaba amanzi kuyaphucuka xa kuthathelwa ingqalelo yamaxesha okusetyenziswa kwee-akhwifa.	Usetyenziso lwamanzi angaphantsi komhlaba maluzinze ukuze bonke abasebenzisi, oko kuquka nendalo balungelwe	n/a
							Water level	Ubuncinane benqanaba lamanzi kwimingxuma-zitsali-manzi ezikude kangange - 2.5km ukusuka elwandle ukuthintela ukungena ngebhaxa kweetyuwa	>1 mamsl
							Amanqanaba amanzi abalulekayo phakathi kwamanzi angaphantsi komhlaba nangaphezu komhlaba (ngokwee-mamsl)	Ukuthambeka kwendalo phakathi kwamanzi angaphantsi komhlaba nawangaphezu komhlaba makugcinwe	n/a
							Buffer zones	Makungatsalwa amanzi angaphantsi komhlaba kumda womwonyo nowee FEPAs zomhlambo ngokwemiqathango yecwecwe leengcebiso malunga ne- FEPAs.	250m
							Makuthotyelwe iimfuno zamanzi angaphantsi komhlaba kwiidike ilangebaan, ngokweemfuno zeRQO yechweba	Makuthotyelwe iimfuno zamanzi angaphantsi komhlaba kwiidike ilangebaan, ngokweemfuno zeRQO yechweba	Ukungena kwamanzi angaphantsi komhlaba akuyiyo i- <10% yeqondo lemhla yanamhlanje (2017)
							Makuthotyelwe iimfuno zamanzi angaphantsi komhlaba kwiidike ilangebaan	Makuthotyelwe iimfuno zamanzi angaphantsi komhlaba kwiidike ilangebaan, ngokweemfuno zeRQO yechweba	Inqanaba lamanzi angaphantsi komhlaba alikho ngaphantsi kwe- <10% yenqanaba lemhla yanamhlanje (2017)
							I-NO3 (as N)	Amanzi angaphantsi komhlaba amele ukulungela ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi	< 11.0 mg/l
							Izondlo		
							Ikwality		
							Amanzi angaphantsi komhlaba (Isanti)		
							8-West Coast		
							G10M		

I-IUA	Ihlelo	Umandla woboniselo	I-RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
				yonxweme iCenozoic)		Utshintshatshintsho lwamanzi	I-pH	ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	7.1 - 8.4
						iityuwa	I-EC		< 520 mS/m
				Amanzi angaphantsi komhlaba (phantsi		izondlo	I-NO3 (as N)	Amanzi angaphantsi komhlaba amele ukulungela ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	< 11.0 mg/l
					ikwaliti	iityuwa	I-EC		< 1571 mS/m
				Amanzi angaphantsi komhlaba (wonke)		iipathojini	I-PO ₄ I-E-coli	Amanzi angaphantsi komhlaba amele ukulungela ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	< 0.3 mg/l 0 izihlandlo / 100 ml
					ikwaliti	iipathojini	lindidi zekaka zizonke		<10 izihlandlo / 100ml
						Utsalo	Utsalo lwamaxesha omnyaka: amanqanaba amanzi abuyela kwimeko yesiqhelo emva kwfuthe lotsalo ngeshesha elimanzi lomnyaka, phantsi kokuthathelwa ingqalelo kotshintsho lwemozulu nemijikelo yembalela. utsalo lwanaphakade: ukuhla kwamanqanaba amanzi kuyaphucuka xa kuthathelwa ingqalelo yamaxesha okusetyenziswa kwee-akhwifa.	Usetyenziso lwamanzi angaphantsi komhlaba maluzinze ukuze bonke abasebenzi, oko kuquka nendalo balungelwe	n/a
			8-West Coast	Amanzi angaphantsi komhlaba (wonke)	Umntamo		Amanqanaba amanzi abalulekayo phakathi kwamanzi angaphantsi komhlaba nangaphezu komhlaba (ngokwee-mamsi)	Ukuthambeka kwendalo phakathi kwamanzi angaphantsi komhlaba nawangaphezu komhlaba makugcinwe	n/a
		G10L				ukulahlwa	Imida yezidambisi	Makungatsalwa amanzi angaphantsi komhlaba kumda womwonyo nowee FEPAS zomhlambo ngokwemiqathango yecwecwe leengcebiso malunga ne- FEPAS	250m

I-UA	IHlelo	Umandla woboniseliso	I-RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
A3 West Coast	III	G21B	9-Atlantis	Amanzi angaphantsi komhlaba (wonke)	Umthamo	izondlo	I-NO ₃ (as N)	Amanzi angaphantsi komhlaba amele ukulungela ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	< 8.2 mg/l
						iityuwa	I-EC		< 520 mS/m
						izondlo	I-NO ₃ (as N)	Amanzi angaphantsi komhlaba amele ukulungela ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	< 11.0 mg/l
						iityuwa	I-EC		< 899 mS/m
						iityuwa	I-PO ₄		< 0.3 mg/l
						Utshintshatshintsho lwamanzi	I-pH		6.7 - 8.3
						ipathojini	I-E-coli		0 izihlandlo / 100 ml
							Iindidi zeebaka zizonke		<10 izihlandlo / 100ml
						utsalo	Utsalo lwamaxesha omnyaka: amanqanaba amanzi abuyela kwimeko yesiqhelo emva kwifuthe lotsalo ngexesha elimanzi lomnyaka, phantsi kokuthathelwa ingqalelo kotsintsho lwemozulu nemijikelo yembalela. utsalo lwanaphakade: ukuhla kwamanqanaba amanzi kuyaphucuka xa kuthathelwa ingqalelo yamaxesha okusetyenziswa kwee-akhwifa.	Usetyenziso lwamanzi angaphantsi komhlaba maluzinze ukuze bonke abasebenzisi, oko kuquka nendalo balungelwe	n/a
						Inqanaba lamanzi angaphantsi komhlaba	Inqanaba lamanzi	Ubuncinane benqanaba lamanzi kwimixuma-zitsali-manzi ezikude kangange - 2.5km ukusuka elwandle ukuthintela ukungena ngebhaxa kweetyuwa Ukuthambeka kwendalo	>1 mamsl
						ukulahwa	Amanqanaba amanzi abalulekayo phakathi kwamanzi angaphantsi komhlaba nangaphezu komhlaba (ngokwee-mamsl)	phakathi kwamanzi angaphantsi komhlaba nawangaphezu komhlaba makugcinwe	n/a

I-IUA	Ihlelo	Umandla woboniselo	I-RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo																																																										
D10 Diep	III	G21D	10-Malmesbury	Amanzi angaphantsi komhlaba (wonke)	Umthamo	utshalo	Utsalo lwamaxesha omnyaka: amanqanaba amanzi abuyela kwimeko yesiqhelo emva kwifuthe lotsalo ngexesha elimanzi lomnyaka, phantsi kokuthathelwa ingqalelo kotshintsho lwemozulu nemijikelo yembalela. utsalo lwamaphakade: ukuhla kwamanqanaba amanzi kuyaphucuka xa kuthathelwa ingqalelo yamaxesha okusetyenziswa kwee-akhwifa.	Usetyenziso lwamanzi angaphantsi komhlaba malunze n/a ukuze bonke abasebenzisi, oko kuquka nendalo balungelwe	Makungatsalwa amanzi angaphantsi komhlaba kumda womwonyo nowee FEPAS zomhlambo ngokwemiqathango yecwecwe leengcebiso malunga ne- FEPAS. 250m																																																										
										Imida yezidambisi	Amanzi angaphantsi komhlaba (Isanti yonxweme iCenozoic)	I-NO3 (as N)	I-EC	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke																																																	
																			izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke																																										
																										izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke																																			
																																	izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke																												
																																								izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke																					
																																															izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke														
																																																						izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke							
																																																													izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke
D10 Diep	III	G21D	10-Malmesbury	Amanzi angaphantsi komhlaba (wonke)	Umthamo	utshalo	Utsalo lwamaxesha omnyaka: amanqanaba amanzi abuyela kwimeko yesiqhelo emva kwifuthe lotsalo ngexesha elimanzi lomnyaka, phantsi kokuthathelwa ingqalelo kotshintsho lwemozulu nemijikelo yembalela. utsalo lwamaphakade: ukuhla kwamanqanaba amanzi kuyaphucuka xa kuthathelwa ingqalelo yamaxesha okusetyenziswa kwee-akhwifa.	Usetyenziso lwamanzi angaphantsi komhlaba malunze n/a ukuze bonke abasebenzisi, oko kuquka nendalo balungelwe	Makungatsalwa amanzi angaphantsi komhlaba kumda womwonyo nowee FEPAS zomhlambo ngokwemiqathango yecwecwe leengcebiso malunga ne- FEPAS. 250m																																																										
										Imida yezidambisi	Amanzi angaphantsi komhlaba (Isanti yonxweme iCenozoic)	I-NO3 (as N)	I-EC	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke																																																	
																			izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke																																										
																										izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke																																			
																																	izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke																												
																																								izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke																					
																																															izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke														
																																																						izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke							
																																																													izondlo	iityuwa	I-NO3 (as N)	I-EC	I-pH	I-E-coli	Iindidi zeekaka zizonke

I-IUA	I-Ilelo	Umandla woboniseliso	I-RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I-RQO yobalo
						Amanzana angena emlanjeni	Makuthotyelwe iimfuno zamanzana akhoyo emlanjeni Compliance with the low flow requirements in the river (ngokwaloo-RQO yaloo mlambo)	Gcina (icandelo lamanzi angaphantsi komhlaba) iimfuno zamanzana akhoyo emlanjeni	Iimfuno zamanzana ogcino: 0.578 (6.22 %MAR) kwindibano Biv6 (akukho silinganisi)
				ii-akwifa ezingekho nzulu	Umthamo	Ukulahlwa	Amanqanaba amanzi abalulekayo phakathi kwamanzi angaphantsi komhlaba nangaphezu komhlaba (ngokwee-mamsl)	Ukuthambeka kwendalo phakathi kwamanzi angaphantsi komhlaba nawangaphezu komhlaba makugcinwe	n/a
				Amanzi angaphantsi komhlaba (Isanti yonxweme iCenozoic)		izondlo	I-NO3 (as N)		< 7.1 mg/l
				Amanzi angaphantsi komhlaba (phantsi)	Ikwaliti	iityuwa	I-EC	Amanzi angaphantsi komhlaba amele ukulungela	< 358 mS/m
						izondlo	I-NO3 (as N)	ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	< 6.4 mg/l
						Utshintshatshintsho lwamanzi	I-EC		< 617 mS/m
						Iipathojini	I-pH		6.3 – 8.6
						Iipathojini	I-E-coli		0 izihlandlo / 100 ml
						Iipathojini	Iindidi zeekaka zizonke		<10 izihlandlo / 100ml
						Inqanaba lamanzi angaphantsi komhlaba	Amanqanaba amanzi	Ubuncinane benqanaba lamanzi kwimixuma-zitsali-manzi ezikude kangange - 2.5km ukusuka elwandle ukuthintela ukungena ngebhaxa kweetyuwa	>1 mamsl
					Umthamo	Ukulahlwa	Imida yezidambisi	Makungatsalwa amanzi angaphantsi komhlaba kumda womwonyo nowee FEPAs zomhlambo ngokwemiqathango yecwecwe leengcebiso malunga ne- FEPAs.	250m
E12 Cape Flats	III	G22C, G22D, G22E	2-Cape Flats	Amanzi angaphantsi komhlaba (wonke)	Umthamo	Ukulahlwa	Imida yezidambisi		

I-IUA	I-Ilelo	Umandla woboniseliso	I-RU	Igama lomjelo	Icandelo	Icandelwana	Isalathisi	i- RQO yobaliso	I- RQO yobalo
						Amanzana angena emlanjeni	Makuthotyelwe iimfuno zamanzi akhoyo emlanjeni	Gcina (icandelo lamanzi angaphantsi komhlaba) iimfuno zamanzana akhoyo emlanjeni, ngokweemfuno zeRQO yamanzi angaphezulu komhlaba	limfuno zamanzana ogcino: 0.348 Mm ³ /a (7.74 %MAR) ku- Bvii7 (akukho silinganisi)
				ii-akwifa ezingekho nzulu	Umthamo	Ukulahlwa	Amanqanaba amanzi abalulekayo phakathi kwamanzi angaphantsi komhlaba nangaphezu komhlaba (ngokwee-mamsi)	Ukuthambeka kwendalo phakathi kwamanzi angaphantsi komhlaba nawangaphezu komhlaba makugcinwe	n/a
		Amanzi angaphantsi komhlaba (Isanti yonxweme iCenozoic)		Amanzi angaphantsi komhlaba (phantsi)		izondlo	I-NO3 (njengo- N)		< 9,2 mg/l
						Utshintshatshintsho lwamanzi	I-pH		6.6 – 8.4
						iityuwa	I-EC	Amanzi angaphantsi komhlaba amele ukulungela ukusetyenziswa emakhayeni emva kokuba ecociwe; futhi ikwaliti yamanzi angaphantsi komhlaba mayingabonisi umkhwa wokujikajika kulawo emveli	< 180 mS/m
						izondlo	I-NO3 (as N)		< 11.0 mg/l
						iityuwa	I-EC		< 953 mS/m
							I-E-coli		0 izihlandlo / 100 ml
						ipathojini	lindidi zeekaka zizonke		<10 izihlandlo / 100ml