DEPARTMENT OF WATER AND SANITATION

NO. 1617 **30 DECEMBER 2016**

NATIONAL WATER ACT, 1998
(ACT NO.36 OF 1998)

CLASSES OF WATER RESOURCES AND RESOURCE QUALITY OBJECTIVES FOR THE LETABA CATCHMENT

I, Sifiso Mkhize, in my capacity as Acting Director-General of the Department of Water and Sanitation, and duly authorised in terms of sections 13(1) and 63(1)(a) of the National Water Act, 1998 (Act No.36 of 1998), hereby publish the notice for the classes of water resources and the resource quality objectives for the Letaba Catchment.

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ACTING DIRECTOR-GENERAL OF THE DEPARTMENT OF WATER AND SANITATION
DATE: 24/11/2016

SCHEDULE

DESCRIPTION OF WATER RESOURCE

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

Water Management Area:	Limpopo North West
Drainage Region:	B8 Secondary Drainage Region
River(s):	Letaba River System

CLASSES OF WATER RESOURCES AS REQUIRED IN TERMS OF SECTION 13(1)(a) OF THE NATIONAL WATER ACT, 1998

1. A summary of the water resource classes for Integrated Units of Analysis (Figure 1) and ecological categories for the Letaba Catchment is set out in Table 1.

2. Integrated units of Analysis are classified in terms of their extent of permissible utilization and protection as either Class I: indicating high environmental protection and minimal utilization; or Class II indicating moderate protection and moderate utilization; and Class III indicating sustainable minimal protection and high utilization.

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

1. Resource Quality Objectives (RQO) are defined for each prioritised resource unit (RU) for every IUA in terms of water quantity, habitat and biota, and water quality, as shown in Table 2 – 6, respectively.

2. Where specified, the ecological category or Recommended Ecological Category (REC) means the assigned ecological condition by the Minister to a water resource that reflects the ecological condition of that water resource in terms of the deviation of its biophysical components from a predevelopment condition.

3. Resource quality objectives 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.

PROPOSED WATER RESOURCE CLASSES FOR THE LETABA CATCHMENT

Table 1: Summary of Water Resource Classes and Ecological Categories

Integrated Units of Analysis	Class for Integrated Units of Analysis	Biophysical node	River Name	Target Ecological Category
1. Letaba Upstream of Tzaneen Dam	II	B81A-00242	Broederstroom	C
		B81A-00256	Unnamed tributary	D
		B81A-00263	Unnamed tributary	D
		B81A-00270	Broederstroom	C
		B81B-00233	Mahitse	C
		B81B-00234	Mahitse	C
		B81B-00246	Politsi	C
		B81B-00251	Unnamed tributary	D
		B81B-00269	Morudi	B
		B81B-00227	Mahitse	D
		B81B-00240	Politsi	C
		B81B-00247	Groot Letaba	C
		EWR1	Groot Letaba	C
2. Letsitele and Thabina	III	B81D-00277	Thabina	D
		B81D-00280	Bobs	B
		B81D-00296	Mothlaka-Semeetse	B
		EWR2	Letsitele	D
		B81D-00272	Letsitele	C
3. Letaba Downstream of Tzaneen to Proposed Nwamitwa Dam	III	B81C-00245	Groot Letaba	C
		B81E-00213	Nwanedzi	D
		B81E-00244	Groot Letaba	D
4. Letaba from Proposed Nwamitwa Dam to Klein Letaba Confluence	II	EWR3	Groot Letaba	C
		B81F-00212	Groot Letaba	C
		B81F-00215	Groot Letaba	C
		B81F-00218	Groot Letaba	C
		B81F-00231	Groot Letaba	C
		B81J-00209	Groot Letaba	C
		EWR4	Groot Letaba	C
5. Southern Tributaries of Letaba in Integrated Units of Analysis 4 (from proposed Nwamitwa Dam to Klein Letaba Confluence)	I	B81F-00228	Reshwele	B
		B81F-00232	Makwena	B
6. Northern Tributaries to Letaba in Integrated Units of Analysis 4 (from proposed Nwamitwa Dam to Klein Letaba Confluence)	III	B81F-00189	Merekome	C
		B81F-00203	Lerwatlou	C
		B81G-00164	Molototsi	D
		B81H-00162	Metsemola	C
		B81H-00171	Molototsi	D
		B81J-00187	Mbhawula	C
7.	III	B82A-00168	Middle Letaba	C

Integrated Units of Analysis	Class for Integrated Units of Analysis	Biophysical node	River Name	Target Ecological Category
Upper Middle Letaba and Tributaries Upstream of Middle Letaba Dam		B82B-00173	Koedoes	D
		B82C-00175	Brandboontjies	E
		B82D-00163	Lebjelebore	C
		B82D-00154	Middle Letaba	D
		B82D-00166	Mosukodutsi	D
		B82D-00146	Middle Letaba	E
8. Klein Letaba Upstream of Middle Letaba Dam	**II**	B82E-00149	Khwali	B
		B82E-00150	Klein Letaba	C
		B82F-00141	Soeketse	C
		B82F-00128	Klein Letaba	C
		B82F-00137	Klein Letaba	D
9. Klein Letaba Downstream of Middle Letaba Dam	**III**	EWR5	Klein Letaba	C/D
		B82J-00165	Klein Letaba	C/D
		B82J-00178	Klein Letaba	C/D
		B82J-00201	Klein Letaba	C/D
		B82J-00207	Klein Letaba	C/D
10. Lower Klein Letaba Tributaries	**I**	B82H-00127	Nsama	C
		B82H-00139	Magobe	B
		B82H-00157	Nsama	B
		B82J-00153	Nalatsi	A
		B82J-00159	Byashishi	A
		B82J-00197	Ka-Malilibone	B
11. Letaba River (main stem) in the Kruger National Park	**II**	B83A-00220	Letaba	B
		B83A-00230	Letaba	C
		EWR6	Letaba	C
		B83A-00252	Letaba	C
		B83D-00250	Letaba	C
		EWR7	Letaba	C
		B83E-00265	Letaba	C
12. Letaba Tributaries in the Kruger National Park	**I**	B83A-00193	Shipikani	A
		B83A-00238	Nharhweni	A
		B83A-00254	Ngwenyeni	A
		B83B-00161	Tsende	A
		B83D-00204	Manyeleti	A
		B83D-00208	Makhadzi	A

Note (1): nMAR is the natural Mean Annual Runoff in million cubic meters per annum.

Note (2): The monthly flow requirements for EWR 3, 4, 5 and 7 represent the total flow defined by the recommended scenario where the Present Ecological State low flows and releases for water users defines the minimum requirements for the respective EWR sites.

Note (3): Ecological Water Requirements not specified as primary problems are related to water quality or rivers inundated by consecutive dams.

Note (4): Ecological Water Requirements not relevant as rivers situated in its totality within the Greater Kruger National Park and should stay natural.

RESOURCE QUALITY OBJECTIVES

Table 2 provides an indication of the hydrological RQOs for Rivers expressed in terms of flow at biophysical nodes and Ecological Water Requirement (EWR) sites. These summarised statistics are representative of the required flow regime in the river where the variability is dependent on the seasonal and temporal pattern of natural flow conditions. The mean monthly flows represent low flow requirements for all the months. Two alternative hydrological RQOs are defined for specific biophysical nodes affected by potential future water resource developments. These developments are Tzaneen Dam raising, construction of Nwamitwa Dam on the Groot Letaba River as well as a water resource development on the Klein Letaba River such as the potential Crystelfontein Dam.

Table 2: Summary of key hydrological RQOs for RIVERS for the Letaba River catchment

Biophysical node	River	Target EC	nMAR[1] (MCM)	Low flows (%nMAR)[2]	Total flows (%nMAR)	Months	RQO (m^3/s)	
							90%[4]	60%
IUA 1: LETABA RIVER UPSTREAM OF TZANEEN DAM								
B81B-00264 EWR1	Groot Letaba	C	99.84	11.8	21	Oct	0.13	0.20
						Nov	0.12	0.20
						Dec	0.13	0.23
						Jan	0.15	0.27
						Feb	0.15	0.33
						Mar	0.17	0.34
						Apr	0.16	0.35
						May	0.17	0.34
						Jun	0.15	0.33
						Jul	0.15	0.30
						Aug	0.15	0.27
						Sep	0.13	0.23
IUA 2: LETSITELE AND THABINA RIVERS								
B81D-00271 EWR2	Letsitele	D	116.55	14.1	21.2	Oct	0.04	0.10
						Nov	0.05	0.15
						Dec	0.08	0.25
						Jan	0.12	0.42
						Feb	0.15	0.45
						Mar	0.17	0.53
						Apr	0.13	0.45
						May	0.15	0.44
						Jun	0.12	0.32
						Jul	0.09	0.21
						Aug	0.07	0.16
						Sep	0.06	0.11
IUA 4: LETABA FROM PROPOSED NWAMITWA DAM TO KLEIN LETABA CONFLUENCE								
RQOs applicable before the implementation of Nwamitwa Dam.								
B81F-00200 EWR 3(3)	Groot Letaba	C	394.93	-	46.1	Oct	0.254	0.806
						Nov	0.259	0.738
						Dec	0.463	0.819
						Jan	0.532	1.087
						Feb	0.619	2.484
						Mar	0.744	1.400
						Apr	0.720	1.261
						May	0.343	0.800
						Jun	0.168	0.742
						Jul	0.139	0.632
						Aug	0.067	0.529
						Sep	0.221	0.698

Biophysical node	River	Target EC	nMAR[1] (MCM)	Low flows (%nMAR)[2]	Total flows (%nMAR)	Months	RQO (m^3/s)	
							90%[4]	60%
B81J-00219 EWR 4[(3)]	Groot Letaba	C	441.29	-	49.4	Oct	0.497	0.597
						Nov	0.082	0.583
						Dec	0.085	0.595
						Jan	0.277	0.828
						Feb	0.448	2.118
						Mar	0.571	1.094
						Apr	0.595	1.083
						May	0.597	0.597
						Jun	0.586	0.598
						Jul	0.530	0.597
						Aug	0.597	0.597
						Sep	0.594	0.598
RQOs applicable when Nwamitwa Dam is implemented with high flow releases in January, February and March.								
B81F-00200 EWR 3[(3)]	Groot Letaba	C	394.91	-	43.9	**Oct**	1.092	1.222
						Nov	0.994	1.253
						Dec	1.035	1.302
						Jan	1.248	3.983
						Feb	1.421	5.323
						Mar	1.461	4.474
						Apr	1.318	2.500
						May	1.338	2.195
						Jun	1.339	1.856
						Jul	1.274	1.626
						Aug	1.226	1.431
						Sep	1.160	1.306
B81J-00219 EWR 4[(3)]	Groot Letaba	C	441.29	-	42.4	**Oct**	0.523	0.554
						Nov	0.498	0.629
						Dec	0.497	0.773
						Jan	0.616	3.589
						Feb	0.733	5.264
						Mar	0.788	3.781
						Apr	0.679	1.517
						May	0.688	1.354
						Jun	0.669	1.129
						Jul	0.650	0.945
						Aug	0.605	0.778
						Sep	0.552	0.632
IUA 9: KLEIN LETABA FROM THE MIDDLE LETABA DAM								
RQOs applicable before the implementation of a water resource development in the Klein Letaba River.								
B82G-00135 EWR 5[(3)]	Klein Letaba	C	124.18	-	54	Oct	0.004	0.015
						Nov	0.004	0.027
						Dec	0.004	0.057
						Jan	0.019	0.223
						Feb	0.025	0.167
						Mar	0.019	0.074
						Apr	0.008	0.040
						May	0.011	0.030
						Jun	0.008	0.027
						Jul	0.007	0.026
						Aug	0.011	0.022
						Sep	0.008	0.015
RQOs applicable when a water resource development is implemented in the Klein Letaba River.								
B82G-00135 EWR 5[(3)]	Klein Letaba	C/D	124.18	-	45	Oct	0.015	0.030
						Nov	0.023	0.039
						Dec	0.026	0.045

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Biophysical node	River	Target EC	nMAR[1] (MCM)	Low flows (%nMAR)[2]	Total flows (%nMAR)	Months	RQO (m^3/s)	
							90%[4]	60%
						Jan	0.030	0.060
						Feb	0.033	0.074
						Mar	0.034	0.069
						Apr	0.031	0.065
						May	0.030	0.054
						Jun	0.031	0.052
						Jul	0.030	0.049
						Aug	0.030	0.045
						Sep	0.023	0.035
IUA 4: LETABA FROM PROPOSED NWAMITWA DAM TO KLEIN LETABA CONFLUENCE								
RQOs applicable before the implementation of Nwamitwa Dam.								
B83D-00255 EWR 7[(3)]	Letaba	C	646.29	-	55.8	Oct	0.579	0.579
						Nov	0.579	0.590
						Dec	0.590	0.664
						Jan	0.590	1.799
						Feb	0.590	2.879
						Mar	0.590	1.149
						Apr	0.590	1.155
						May	0.590	0.590
						Jun	0.590	0.590
						Jul	0.590	0.590
						Aug	0.590	0.590
						Sep	0.579	0.579
RQOs applicable when Nwamitwa Dam is implemented with high flow releases in January, February and March.								
B83D-00255 EWR 7[(3)]	Letaba	C	646.29	-	49.3	Oct	0.523	0.554
						Nov	0.537	0.660
						Dec	0.601	0.897
						Jan	0.688	5.349
						Feb	0.778	5.909
						Mar	0.871	3.935
						Apr	0.696	1.549
						May	0.691	1.396
						Jun	0.670	1.144
						Jul	0.651	0.951
						Aug	0.613	0.779
						Sep	0.548	0.633

Note (1): nMAR is the natural Mean Annual Runoff in million cubic meters per annum.
Note (2): %nMAR is flow required at the nodes expressed as a percentage of the natural Mean Annual Runoff, Low flows and Total flows.
Note (3): The monthly flow requirements for EWR 3, 4, 5 and 7 represent the total flow defined by the indicated scenario where the Present Ecological State low flows and releases for water users defines the minimum requirements for the respective EWR sites.
Note (4): Percentage points on the monthly low flow frequency distribution continuum at the nodes, expressed as the percentage of the months (90% and 60%) that the flow should equal or exceed the indicated minimum values. Note that for EWR 1 and 2, these only represent the base flows and flood requirements are available in technical documents.

Habitat and biota RQOs are provided as Ecological Categories. There are generic narrative and numerical RQOs associated with the Ecological Categories and Table 3 describes these for each Ecological Category.

Table 4 provides the habitat and biota RQOs for each IUA for HIGH priority Resource Units. RQOs and the target Ecological Category prior to the construction of the future dams are provided for each component and/or indicator. Expected changes after the construction of Nwamitwa and/or when a water resource development is implemented in the Klein Letaba River are indicated.

Table 5 provides the water quality RQOs for each IUA for priority Resource Units. RQOs prior to the construction of the future dams are provided for each component and/or indicator. Expected changes after the construction of Nwamitwa and/or when a water resource development is implemented in the Klein Letaba River are indicated where relevant. Note that water quality includes both the target ecological target (TEC) and the user targets as narrative RQOs.

Table 3: Generic numerical and narrative RQOs associated with Ecological Categories

ECOLOGICAL CATEGORY	GENERIC NARRATIVE RQO	INSTREAM AND RIPARIAN HABITAT NARRATIVE RQO	FISH, MACROINVERTEBRATE AND RIPARIAN VEGETATION NARRATIVE RQO	NUMERICAL RQO
A	Unmodified, near natural.	Very similar to natural reference conditions	Assemblage attributes as specified	≥ A (≥ 92%)
A/B				≥ A/B (≥ 88%)
B	Largely natural with few modifications.	Largely natural with few modifications. The flow regime has been only slightly modified and pollution is limited to sediment. A small change in natural habitats may have taken place. However, the ecosystem functions are essentially unchanged.	Assemblage attributes as specified	≥ B (≥ 82%)
B/C				≥ B/C (≥ 78%)
C	Moderately modified.	Moderately modified. Loss and change of natural habitat and biota have occurred, but the basic ecosystem functions are still predominantly unchanged.	Assemblage attributes as specified	≥ C (≥ 62%)
C/D				≥ C/D (≥58%)
D	Largely modified.	Largely modified. A large loss of natural habitat, biota and basic ecosystem functions has occurred.	Assemblage attributes as specified	≥ D (≥ 42%)
D/E				≥ D/E (≥ 38%)
E	Seriously modified.	Seriously modified. The loss of natural habitat, biota and basic ecosystem functions is extensive.	Assemblage attributes as specified	20-39%
F	Critically / Extremely modified.	Critically / Extremely modified. Modifications have reached a critical level and the system has been modified completely with an almost complete loss of natural habitat and biota. In the worst instances the basic ecosystem functions have been destroyed and the changes are irreversible.	Assemblage attributes as specified	0-19%

Table 4: Habitat and biota RQOs for RIVERS for geomorphology, riparian vegetation, macro-invertebrate and fish in priority Resource Units (RU) in the Letaba Catchment

IUA	RESOURCE UNIT (River, Desktop biophysical node)	Geo-morphology	Fish	Macro-invertebrate	Riparian vegetation
IUA 1	RU EWR 1 (Letaba River, B81B-00264, B81B-00247)	**C/D**	**C**	**C**	**C**
IUA 2	RU EWR 2 (Letsitele River, B81D-00271)	**D**	**C/D**	**C**	**D**
IUA 3 & 4	RU EWR 3 (Letaba River, B81F-00200; B81C-00245; B81E-00244; B81F-00212; B81F-00215; B81F-00218; B81F-00231)	**D**	**C**	**C**	**C/D→C**[*1]
IUA 3 & 4	RU EWR 4 (Letaba River, B81J-00219; B81J-00209)	**C/D →D**	**C**	**C→C/D**	**C**
IUA 9	RU EWR 5 (Klein Letaba River, B82G-00135; B82J-00165; B82J-00178; B82J-00201; B82J-00207)	**C/D →D**	**C**	**C/D→D**	**C→C/D**
IUA 11	RU EWR 7 (Letaba River, B83D-00255; B83A-00220; B83A-00230; B83A-00235 B83A-00252; B83D-00250; B83E-00265)	**C→C/D**	**C→ C/D**	**C→C/D**	**C**

*[1] Where two Ecological Categories are provided, the second category refers to expected change after the implementation of Nwamitwa Dam and when a water resource development is implemented in the Klein Letaba River.

Table 5: RQOs for RIVERS for water quality (ecological and user) in priority Resource Units (RU) in the Letaba Catchment

IUA	RU	Sub-Component	Target EC[*1]	Narrative RQO	Numerical RQO
IUA 1	RU EWR 1 (Letaba River, B81B-00264, B81B-00247)	Nutrients (phosphate)	**B**	Acceptable	50th percentile of the data must be less than 0.015 mg/L PO_4-P (Aquatic ecosystems: driver)
		Toxics		Ideal	95th percentile of the data must be within the Target Water Quality Range (TWQR) or A categories for toxics.
IUA 2	RU EWR 2 (Letsitele River, B81D-00271)	Nutrients (phosphate)	**C**	Tolerable	50th percentile of the data must be less than 0.025 mg/L PO_4 (Agriculture - irrigation: driver).
		Electrical Conductivity (salts)		Ideal	95th percentile of the data must be less than or equal to 30 mS/m (Aquatic ecosystems: driver).
		Toxics		Ideal	95th percentile of the data must be within the TWQR or A categories for toxics.
		Faecal coliforms and *E.coli*		Recreation (full contact)	Meet the TWQR of 0-130 counts per 100 ml (DWAF, 1996a[*2]).
IUA 3 & 4	RU EWR 3 (Letaba River, B81F-00200; B81C-00245; B81E-00244; B81F-00212; B81F-00215; B81F-00218; B81F-00231)	Nutrients (phosphate)	**B/C**	Acceptable	Immediately applicable: 50th percentile of the data must be less than 0.025 mg/L PO4-P. Post Nwamitwa Dam: 50th percentile of the data must be less than 0.015 mg/L PO4-P (Aquatic ecosystems: driver).
		Electrical Conductivity (salts)		Acceptable	Immediately applicable: 95th percentile of the data must be less than or equal to 55 mS/m.
				Ideal	Post Nwamitwa Dam: 95th percentile of the data must be less than or equal to 30 mS/m (Industry Cat 3: driver).
		pH		Ideal	5th and 95th percentiles of pH data must be between 6.5 and 8.0 (Aquatic ecosystems: driver).
		Toxics		Ideal	95th percentile of the data must be within

IUA	RU	Sub-Component	Target EC[*1]	Narrative RQO	Numerical RQO
					the TWQR or A categories for toxics.
IUA 3 & 4	RU EWR 4 (Letaba River, B81J-00219; B81J-00209)	Nutrients (phosphate)	B/C	Acceptable	50th percentile of the data must be less than 0.025 mg/L PO4-P (Aquatic ecosystems: driver).
		Electrical Conductivity (salts)		Ideal	95th percentile of the data must be less than or equal to 30 mS/m (Industry Cat 3: driver).
		pH		Acceptable	5th and 95th percentiles of pH data must be between 6.5 and 8.4 (Industry Cat 3: driver).
		Toxics		Ideal	95th percentile of the data must be within the TWQR or A categories for toxics.
		Turbidity		Acceptable	Not available (Aquatic ecosystems: driver)
IUA 9	RU EWR 5: B82G-00135, up to Giyani	Nutrients (phosphate)	B/C→C	Acceptable	Immediately applicable: 50th percentile of the data must be less than 0.025 mg/L PO4-P.
				Tolerable	Post Nwamitwa Dam: 50th percentile of the data must be less than 0.075 mg/L PO4-P (Aquatic ecosystems: driver).
		Faecal coliforms and *E. coli*		Recreation (full contact)	Meet the TWQR of 0-130 counts per 100 ml (DWAF, 1996a).
		Turbidity		Acceptable	Not available (Aquatic ecosystems: driver)
		Toxics		Ideal	95th percentile of the data must be within the TWQR or A categories for toxics.
IUA 9	RU EWR 5 (Klein Letaba River, B82G-00135 downstream from Giyani; B82J-00165; B82J-00178; B82J-00201; B82J-00207)	Nutrients (phosphate)	C	Tolerable	50th percentile of the data must be less than 0.125 mg/L PO4-P (Aquatic ecosystems: driver).
		Electrical Conductivity (salts)		Acceptable	95th percentile of the data must be less than or equal to 55 mS/m (Aquatic ecosystems: driver).
		Faecal coliforms and *E. coli*		Recreation (full contact)	Meet the TWQR of 0-130 counts per 100 ml (DWAF, 1996a).
		Turbidity		Acceptable	Not available (Aquatic ecosystems: driver)
		Toxics		Ideal	95th percentile of the data must be within the TWQR or A categories for toxics.
IUA 11	RU EWR 7 (Letaba River, B83D-00255; B83A-00220; B83A-00230; B83A-00235 B83A-00252; B83D-00250; B83E-00265)	Nutrients (phosphate)	B	Acceptable	50th percentile of the data must be less than 0.025 mg/L PO4-P (Aquatic ecosystems: driver).
		Electrical Conductivity (salts)		Acceptable	95th percentile of the data must be less than or equal to 55 mS/m (Aquatic ecosystems: driver).
		Toxics		Ideal	95th percentile of the data must be within the TWQR or A categories for toxics.
		Turbidity		Ideal	Not available (Aquatic ecosystems: driver)

[*1] Where two Ecological Categories are provided, the second category refers to expected change after the implementation of Nwamitwa Dam and when a water resource development is implemented in the Klein Letaba River.
[*2]DWAF, 1996a: Department of Water Affairs and Forestry, South Africa. 1996a. South African Water Quality Guidelines. Volume 2, Recreational Use.

Table 6 provides an indication of the narrative and numerical RQOs for groundwater expressed in terms of guidelines and limitations of groundwater abstractions. The groundwater assessment is undertaken on a quaternary catchment scale which has been grouped within the relevant IUAs.

Table 6: Summary of RQOs for GROUNDWATER in the Letaba Catchment

IUA 1: B81A; B81B	
Groundwater narrative RQO	
Abstraction	Significant ground water abstraction within 500m of a perennial channel should be restricted. All users to comply with existing allocation schedules and individual license conditions within the confirmed available yield.
Baseflow	Compliance to the low flow requirements for inflows to Tzaneen Dam.
Water Level	Water level in the aquifer must be higher than the water level in the surface water.
Water Quality	Shall not deteriorate from natural background.
Groundwater numerical RQO	
The total registered water use should remain below 7.52 Mm^3.	
IUA 2: B81D	
Groundwater narrative RQO	
Abstraction	Significant ground water abstraction within 500m of a perennial channel should be restricted. All users to comply with existing allocation schedules and individual licence conditions within the confirmed available yield.
Baseflow	Compliance to the low flow requirements at EWR 2. Impacts of baseflow reduction should be monitored at B1H010.
Water Level	Water level in the aquifer must be higher than the water level in the surface water.
Water Quality	Shall not deteriorate from natural background.
Groundwater numerical RQO	
The total registered water use should remain below 7.77 Mm^3.	
IUA 3: B81C	
Groundwater narrative RQO	
Abstraction	No further groundwater abstraction to take place. All users to comply with existing allocation schedules and individual license conditions within the confirmed available yield.
Baseflow	Compliance to the low flow requirements at EWR 3. Impacts of baseflow reduction should be monitored at B1H017.
Water Level	Water level in the aquifer must be higher than the water level in the surface water.
Water Quality	Shall not deteriorate from natural background.
IUA 3: B81E	
Groundwater narrative RQO	
Abstraction	No further groundwater abstraction to take place. All users to comply with existing allocation schedules and individual license conditions within the confirmed available yield.
Baseflow	Compliance to the low flow requirements at EWR 3. Impacts of baseflow reduction should be monitored at B1H017.
Water Level	No negative trend in water levels during annual during dry seasons. Water level monitoring network required near high abstraction zones.
Water Quality	Shall not deteriorate from natural background.
IUA 4 - 6: B81F	
Groundwater narrative RQO	
Abstraction	All users to comply with existing allocation schedules and individual license conditions within the confirmed available yield.
Water Level	No negative trend in water levels during annual during dry seasons. Water level

	monitoring network required near high abstraction zones.
Water Quality	Shall not deteriorate from present conditions. Monitoring of nitrates needs to be expanded.
Groundwater numerical RQO	
The total registered water use should remain below 14.40 Mm^3.	
IUA 4 - 6: B81J	
Groundwater narrative RQO	
Abstraction	All users to comply with existing allocation schedules and individual license conditions within the confirmed available yield.
Water Level	No negative trend in water levels during annual during dry seasons. Water level monitoring network required near high abstraction zones.
Water Quality	Shall not deteriorate from present conditions.
Groundwater numerical RQO	
The total registered water use should remain below 6.46 Mm^3/a.	
IUA 6: B81G	
Groundwater narrative RQO	
Abstraction	All users to comply with existing allocation schedules and individual licence conditions within the confirmed available yield.
Water Level	No negative trend in water levels during annual during dry seasons. Water level monitoring network required near high abstraction zones.
Water Quality	Shall not deteriorate from present conditions. Monitoring of nitrates needs to be expanded.
Groundwater numerical RQO	
The total registered water use should remain below 6.78 Mm^3.	
IUA 4 - 6: B81H	
Groundwater narrative RQO	
Abstraction	All users to comply with existing allocation schedules and individual license conditions within the confirmed available yield.
Water Level	No negative trend in water levels during annual during dry seasons.
Water Quality	Shall not deteriorate from present conditions. Monitoring of nitrates needs to be expanded.
Groundwater numerical RQO	
The total registered water use should remain below 7.97 Mm^3/a.	
IUA 7: B82A; B82D	
Groundwater narrative RQO	
Abstraction	Significant ground water abstraction within 500 m of a perennial channel should be restricted. All users to comply with existing allocation schedules and individual licence conditions within the confirmed available yield.
Baseflow	October inflows into the Middle Letaba Dam should be monitored.
Water Level	Water level in the aquifer must be higher than the water level in the surface water. No negative trend in water levels during annual during dry seasons.
Water Quality	Shall not deteriorate from present conditions.
Groundwater numerical RQO	
The total registered water use should remain below 17.47 Mm^3.	
IUA 7: B82B; B82C	
Groundwater narrative RQO	

Abstraction	All users to comply with existing allocation schedules and individual license conditions within the confirmed available yield. No further groundwater abstraction should be permitted as it will reduce the inflows into the Middle Letaba Dam.
Water Level	Water level in the aquifer must be higher than the water level in the surface water. No negative trend in water levels during annual during dry seasons.
Water Quality	Shall not deteriorate from present conditions.
IUA 8: B82E; B82F	
Groundwater narrative RQO	
Abstraction	All users to comply with existing allocation schedules and individual licence conditions within the confirmed available yield.
Water Level	No negative trend in water levels during annual during dry seasons.
Water Quality	Shall not deteriorate from present conditions. Monitoring of nitrates needs to be expanded.
Groundwater numerical RQO	
The total registered water use should remain below 18.46 Mm^3.	
IUA 9: B82G	
Groundwater narrative RQO	
Abstraction	All users to comply with existing allocation schedules and individual licence conditions within the confirmed available yield.
Water Level	No negative trend in water levels during annual during dry seasons.
Water Quality	Shall not deteriorate from present conditions. Monitoring of nitrates needs to be expanded.
Groundwater numerical RQO	
The total registered water use should remain below 11.02 Mm^3.	
IUA 9 - 10: B82H; B82J	
Groundwater narrative RQO	
Abstraction	All users to comply with existing allocation schedules and individual licence conditions within the confirmed available yield.
Water Level	No negative trend in water levels during annual during dry seasons.
Water Quality	Shall not deteriorate from present conditions. Monitoring of nitrates needs to be expanded.
Groundwater numerical RQO	
The total registered water use should remain below 14.89 Mm^3.	
IUA 12*: B83A; B83B; B83C; B83D; B83E	
Groundwater narrative RQO	
Abstraction	All users to comply with existing allocation schedules and individual licence conditions within the confirmed available yield.
Water Level	No negative trend in water levels during annual during dry seasons.
Water Quality	Shall not deteriorate from present conditions.
Groundwater numerical RQO	
The total registered water use should remain below 29.44 Mm^3.	

* It is acknowledged that IUA 12 falls in the KNP.

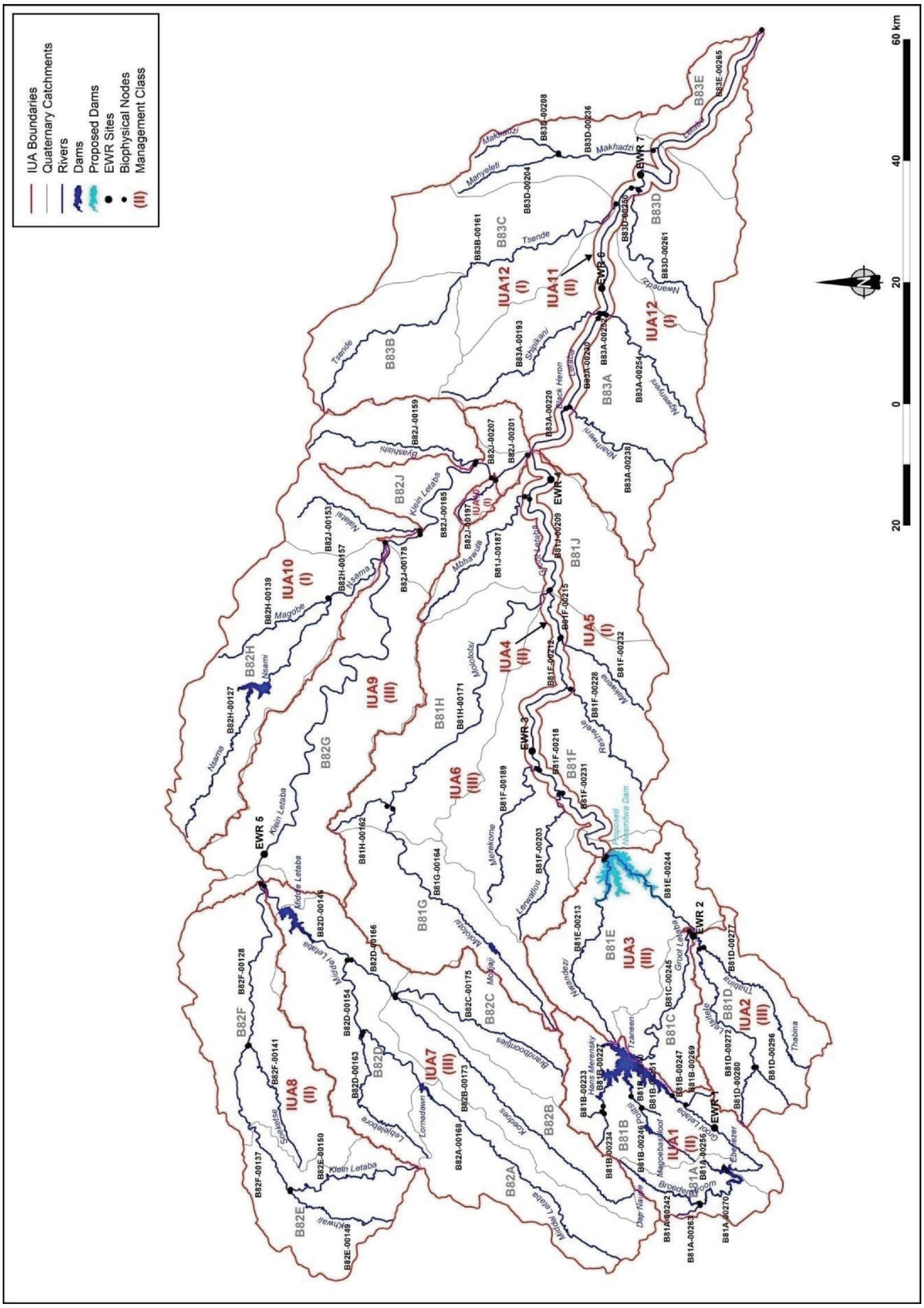


Figure 1: Integrated Units of Analysis of the Letaba Catchment

KGORO YA MEETSE LE KELELATŠHILA

MOLAO WA BOSETŠHABA WA MEETSE WA 1998
(MOLAO WA 36 WA 1998)

MEPHATO YA METHOPO YA MEETSE LE BOLENG BJA METHOPO YA KGOBOKETŠO YA MEETSE YA BOGARENG BJA NOKA YA LETABA

Nna, Sifiso Mkhize, ka maemo a ka bjalo ka Molaodi Pharephare wa motšwaoswere wa Kgoro ya Meetse le Kelelatšhila, gomme ke dumeletšwe ka maemo a a swanelago go ya ka dikgaolo 13(1) le 63(1)(a) tša Molao wa Bosetšhaba wa Meetse wa 1998 (Molao wa 36 wa 1998), ke phatlalatša mephato ya methopo ya meetse le boleng bja methopo ya kgoboketšo ya meetse ya bogareng bja noka ya Letaba.

Molaodi: Tlhopho ya Methopo ya Meetse
E lebišitšwe go: Ms Lebogang Matlala
Kgoro ya Meetse le Kelelatšhila
Ndinaye Building 5046
178 Mmila wa Francis Baard
Private Bag x 313
Pretoria
0001
Imeile: matlalal@dws.gov.za Fekese: 012 336 6712

MORENA SIFISO MKHIZE
MOLAODI PHAREPHARE WA MOTŠWAOSWERE WA KGORO YA MEETSE LE KELELATŠHILA
LETŠATŠIKGWEDI: 24/11/2016

ŠETULE

TLHALOŠO YA MOTHOPO WA MEETSE:

Maikemišetšo a mephato ye e šišintšwego le boleng bja methopo di laeditšwe bakeng sa ka moka goba karolo ya mothopo o mongwe le o mongwe wa meetse ka gare ga ye kgoboketšo ya meetse ya bogareng bja noka ya Letaba bjalo ka ge go beilwe ka fase

Lefelo la Taolo ya Meetse: Limpopo Leboa Bodikela
Selete sa Kaloboela: Selete sa bobedi sa Kaloboela sa B8
(Di)Noka: Tshepedišo ya Noka ya Letaba

MEPHATO YA METHOPO YA MEETSE BJALO KA GE GO HLOKWA KE KAROLO YA 13(1)(a) YA MOLAO WA BOSETŠHABA WA MEETSE WA 1998

1. Kakaretšo ya mephato ya methopo ya meetse a Dikarolo tše di kopantšwego tša tshekatsheko (Seswantšho sa 1) le magoro a tikologo bakeng sa kgoboketšo ya meetse ya bogareng bja noka ya Letaba bjalo ka ge e laeditšwe ka go Lenaneo la 1.

2. Diyuniti tše di kopantšwego tša Tlhophollo di arogantšwe go ya ka monabo wa tirišo ye e dumeletšwego le tšhireletšo ya Mphato wa I: o laetšago tšhireletšo ya godimo ya tikologo le tšhomišo ye nnyane; Mphato wa II o laetšago tšhireletšo ya magareng ya tikologo le tšhomišo ya magareng; lekanetšego goba tšhireletšo le tšhomišo ya lekanetšego; le Mphato wa III o laetšago tšhireletšo ye nnyane kudu ya tikologo le tšhomišo ya godimo.

MAIKEMIŠETŠO A BOLENG BJA METHOPO YA MEETSE BJALO KA GE GO HLOKWA KE KAROLO YA 13(1)(b) YA MOLAO WA BOSETŠHABA WA MEETSE WA 1998

1. Maikemišetšo a Boleng bja Methopo (RQO) a hlaloša go yuniti ye nngwe le ye nngwe ya mothopo yeo e tlago pele (RU) go IUA ye nngwe le ye nngwe go ya ka boleng bja meetse, bodulo le diphedi, gammogo le boleng bja meetse bjalo ka ge go laeditšwe Lenaneotlhophong la 2-6, ka tatelano.

2. Fao go laeditšwego, legoro la tikologo goba Legoro la Tikologo le le Šišintšwego (REC) le ra maemo a tikologo ao a laeditšwego ke Tona ya methopo ya meetse yeo e laetšago maemo a tikologo a methopo ya meetse go ya ka phapogo ya dikarolo tša yona tša thutamaphelo a tikologo go maemo a pele ga tlhabollo.

3. Maikemišetšo a boleng bja methopo a tla diragala go tloga ka letšatšikgwedi leo le saenwego bjalo ka ge go hlokwa ke Karolo ya 13(1)(a) ya Molao wa Bosetšhaba wa Meetse wa 1998, ntle le ge go laeditšwe ke Tona.

MEPHATO YA METHOPO YA MEETSE LE KGOBOKETŠO YA MEETSE YA BOGARENG BJA NOKA YA LETABA

Lenaneotlhopho la 1: Kakaretšo ya Mephato ya Methopo ya Meetse le Magoro a Tikologo

Diyuniti tše di Kopantšwego tša Tshekatsheko	Mphato wa Diyuniti tše di Kopantšwego tša Tshekatsheko	Lefelo la go potiela	Leina la Noka	Legoro la Tebanyo ya phedišano ya diphedi
1. Moela wa Noka ya Letaba go tšwa Letamong la Tzaneen	II	B81A-00242	Broederstroom	C
		B81A-00256	Nokakeledi ya hlokaina	D
		B81A-00263	Nokakeledi ya hlokaina	D
		B81A-00270	Broederstroom	C
		B81B-00233	Mahitse	C
		B81B-00234	Mahitse	C
		B81B-00246	Politsi	C
		B81B-00251	Nokakeledi ya hlokaina	D
		B81B-00269	Morudi	B
		B81B-00227	Mahitse	D
		B81B-00240	Politsi	C
		B81B-00247	Noka ye kgolo ya Letaba	C
		EWR1	Noka ye kgolo ya Letaba	C
2. Letsitele le Thabina	III	B81D-00277	Thabina	D
		B81D-00280	Bobs	B
		B81D-00296	Mothlaka-Semeetse	B
		EWR2	Letsitele	D
		B81D-00272	Letsitele	C
3. Moela wa Letaba wa Fasenyana wa Tzaneen go ya go Letamo le le šišintšwego la Nwamitwa	III	B81C-00245	Noka ye kgolo ya Letaba	C
		B81E-00213	Nwanedzi	D
		B81E-00244	Noka ye kgolo ya Letaba	D
4. Letaba go tšwa go Letamo le le Šišintšwego la Nwamitwa go ya Magahlanong a Letamo le lennyane la Letaba	II	EWR3	Noka ye kgolo ya Letaba	C
		B81F-00212	Noka ye kgolo ya Letaba	C
		B81F-00215	Noka ye kgolo ya Letaba	C
		B81F-00218	Noka ye kgolo ya Letaba	C
		B81F-00231	Noka ye kgolo ya Letaba	C
		B81J-00209	Noka ye kgolo ya Letaba	C
		EWR4	Noka ye kgolo ya Letaba	C

Diyuniti tše di Kopantšwego tša Tshekatsheko	Mphato wa Diyuniti tše di Kopantšwego tša Tshekatsheko	Lefelo la go potiela	Leina la Noka	Legoro la Tebanyo ya phedišano ya diphedi
5. Dinokakeledi tša Borwa bja Moka ya Letaba ka go Tlhophollo ya Diyuniti tše di Kopantšwego ya 4 (go tšwa go Letamo le le Šišintšwego la Nwamitwa go ya Magahlanong a Letamo le le nnyane la Letaba		B81F-00228	Reshwele	B
		B81F-00232	Makwena	B
6. Dinokakeledi tša Borwa bja Moka ya Letaba ka go Tlhophollo ya Diyuniti tše di Kopantšwego ya 4 (go tšwa go Letamo le le Šišintšwego la Nwamitwa go ya Magahlanong a Letamo le le nnyane la Letaba	**III**	B81F-00189	Merekome	C
		B81F-00203	Lerwatlou	C
		B81G-00164	Molototsi	D
		B81H-00162	Metsemola	C
		B81H-00171	Molototsi	D
		B81J-00187	Mbhawula	C
7. Moela wa Magareng wa Godingwana le Moaa wa Bogareng bja Letamo la Letaba	**III**	B82A-00168	Bogareng bja Letamo la Letaba	C
		B82B-00173	Koedoes	D
		B82C-00175	Brandboontjies	E
		B82D-00163	Lebjelebore	C
		B82D-00154	Bogareng bja Letamo la Letaba	D
		B82D-00166	Mosukodutsi	D
		B82D-00146	Bogareng bja Letamo la Letaba	E
8. Moela o Monnyane wa Godingwana wa Bogareng bja Letamo la Letaba	**II**	B82E-00149	Khwali	B
		B82E-00150	Nokana ye nnyane ya Letaba	C
		B82F-00141	Soeketse	C
		B82F-00128	Nokana ye nnyane ya Letaba	C
		B82F-00137	Nokana ye nnyane ya Letaba	D
9. Moela o Monnyane wa Fasenyana wa Bogareng bja Letamo la Letaba	**III**	EWR5	Nokana ye nnyane ya Letaba	C/D
		B82J-00165	Nokana ye nnyane ya Letaba	C/D
		B82J-00178	Nokana ye nnyane ya Letaba	C/D
		B82J-00201	Nokana ye nnyane ya Letaba	C/D
		B82J-00207	Nokana ye nnyane ya Letaba	C/D
10. Meelanoka ya Nokana ye nnyane ya Letaba	**Nna**	B82H-00127	Nsama	C
		B82H-00139	Magobe	B
		B82H-00157	Nsama	B

Diyuniti tše di Kopantšwego tša Tshekatsheko	Mphato wa Diyuniti tše di Kopantšwego tša Tshekatsheko	Lefelo la go potiela	Leina la Noka	Legoro la Tebanyo ya phedišano ya diphedi
		B82J-00153	Nalatsi	A
		B82J-00159	Byashishi	A
		B82J-00197	Ka-Malilibone	B
11. Noka ya Letaba (noka ye kgolo) ka Lešokeng la Diphoofolo la Kruger	**II**	B83A-00220	Letaba	B
		B83A-00230	Letaba	C
		EWR6	Letaba	C
		B83A-00252	Letaba	C
		B83D-00250	Letaba	C
		EWR7	Letaba	C
		B83E-00265	Letaba	C
12. Meelanoka wa Noka ya Letaba ka Lešokeng la Diphoofolo la Kruger	**Nna**	B83A-00193	Shipikani	A
		B83A-00238	Nharhweni	A
		B83A-00254	Ngwenyeni	A
		B83B-00161	Tsende	A
		B83D-00204	Manyeleti	A
		B83D-00208	Makhadzi	A

Ela hloko (1): nMAR ke palomoka ya boleng bja meetse ao a tšwago a tlago ka dikhupikimetara tše milione ka ngwaga.

Ela hloko (2): Dinyakwa tša kelelo ya kgwedi ka kgwedi ya EWR 3, 4, 5 le 7 di laetša palomoka ya kelelo ye e hlalošitšwego ke tiragalokakanywa ye e digetšwego fao Maemo a Bjale a Tikologo a dikelelo tša fase le ditokollo tša bašomiši ba meetse a hlalošago dinyakwa tša fasefase tša mafelo a a go fapana a EWR.

Ela hloko (3): Dinyakwa tša Meetse a Tikologo tšeo di sa laetšwago bjalo ka mathata a magolo di amana le go boleng bja meetse goba dinoka tšeo di tletšego ka matamo a go latelelana.

Ela hloko (4): Dinyakwa tša Meetse a Tikologo ga di maleba ka ge dinoka di le ka ntlentle ga Toropokgolo ya Lešoka la Diphoofolo la Krugaer gomme e swanetše go dula ka tlhago.

MAIKEMIŠETŠO A BOLENG BJA METHOPO

Lenaneo la 2 le fana ka taetšo ya meetse ya di-RQOs bakeng sa meetsefase ao a elelago mafelong a go potiela le mafelong a Dinyakwa tša Meetse a Tikologo. Dipalopalo tše di akareditšwego ke kemedi ya dikelelo tša seela sa ga seka nokeng fao go fetogafetoga go laolwago ke monabo wa sehla le wa lebakanyana wa maemo a kelelo a tlhago. Palogare ya dikelelo tša kgwedi ka kgwedi e laetša dinyakwa tša kelelo ya fase ya dikgwedi ka moka. Di-RQOs tše dingwe tše pedi di hlalošitšwe bakeng sa mafelo a itšego a go potiela ao a angwago ke ditlhabollo tša methopo ya meetse tšeo di ka bago gona ka moso. Ditlhabollo tše di tlhatlošo ya Letamo la Tzaneen, go agwa ga Letamo la Nwamitwa ka Nokeng ye Kgolo ya Letaba gammogo le tlhabollo ya methopo ya meetse ka nokaneng ye nnyane ya Letaba bjalo ka Letamo la Crystelfontein leo le nago le bokgoni.

Lenaneotlhopho la 2: Kakaretšo ya di-RQOs tše bohlokwa bakeng sa MEETSEFASE ka go Kgoboketšo ya meetse ya bogareng bja noka ya Letaba

Lefelo la go potiela	Noka	Tebanyo EC	nMAR[1] (MCM)	Dikelelotlase (%nMAR)2	Palomoka ya dikelelo (%nMAR)	Dikgwedi	RQO (m^3/s)	
							90%[4]	60%
MOELA WA GODINGWANA WA NOKA YA LETABA WA LETAMO LA TZANEEN								
B81B-00264 EWR1	Groot Letaba	C	99.84	11.8	21	Okt	0.13	0.20
						Nof	0.12	0.20
						Des	0.13	0.23
						Jan	0.15	0.27
						Feb	0.15	0.33
						Mat	0.17	0.34
						Apr	0.16	0.35
						Mei	0.17	0.34
						Jun	0.15	0.33
						Jul	0.15	0.30
						Agos	0.15	0.27
						Set	0.13	0.23
IUA 2: NOKA YA LETSITELE LE THABINA								
B81D-00271 EWR2	Letsitele	D	116.55	14.1	21.2	Okt	0.04	0.10
						Nof	0.05	0.15
						Des	0.08	0.25
						Jan	0.12	0.42
						Feb	0.15	0.45
						Mat	0.17	0.53
						Apr	0.13	0.45
						Mei	0.15	0.44
						Jun	0.12	0.32
						Jul	0.09	0.21
						Agos	0.07	0.16
						Set	0.06	0.11
IUA 4: LETABA GO TŠWA GO LETAMO LE LE ŠIŠINTŠWEGO LA NWAMITWA GO YA MAGAHLANONG A LETAMO LE LENNYANE LA LETABA								
Di-RQOs tšeo di dirišwago pele ga phethagatšo ya Letamo la Nwamitwa.								
B81F-00200 EWR 3(3)	Groot Letaba	C	394.93	-	46.1	Okt	0.254	0.806
						Nof	0.259	0.738
						Des	0.463	0.819
						Jan	0.532	1.087
						Feb	0.619	2.484
						Mat	0.744	1.400
						Apr	0.720	1.261
						Mei	0.343	0.800
						Jun	0.168	0.742
						Jul	0.139	0.632
						Agos	0.067	0.529
						Set	0.221	0.698
B81J-00219 EWR 4(3)	Groot Letaba	C	441.29	-	49.4	Okt	0.497	0.597
						Nof	0.082	0.583
						Des	0.085	0.595
						Jan	0.277	0.828
						Feb	0.448	2.118
						Mat	0.571	1.094
						Apr	0.595	1.083
						Mei	0.597	0.597
						Jun	0.586	0.598
						Jul	0.530	0.597
						Agos	0.597	0.597
						Set	0.594	0.598
di-RQOs di a nyakega ge go phethagatšwa Letamo la Nwamitwa ka tokollo ya kelelo ya godimo ka								

6

Lefelo la go potiela	Noka	Tebanyo EC	nMAR[1] (MCM)	Dikelelotlase (%nMAR)2	Palomoka ya dikelelo (%nMAR)	Dikgwedi	RQO (m^3/s)	
							90%[4]	60%
Janaware, Feberware le Matšhe.								
B81F-00200 EWR 3[(3)]	Groot Letaba	C	394.91	-	43.9	**Okt**	1.092	1.222
						Nof	0.994	1.253
						Des	1.035	1.302
						Jan	1.248	3.983
						Feb	1.421	5.323
						Mat	1.461	4.474
						Apr	1.318	2.500
						Mei	1.338	2.195
						Jun	1.339	1.856
						Jul	1.274	1.626
						Agos	1.226	1.431
						Set	1.160	1.306
B81J-00219 EWR 4[(3)]	Groot Letaba	C	441.29	-	42.4	**Okt**	0.523	0.554
						Nof	0.498	0.629
						Des	0.497	0.773
						Jan	0.616	3.589
						Feb	0.733	5.264
						Mat	0.788	3.781
						Apr	0.679	1.517
						Mei	0.688	1.354
						Jun	0.669	1.129
						Jul	0.650	0.945
						Agos	0.605	0.778
						Set	0.552	0.632
IUA 9:MOELA O MONNYANE WA FASENYANA GO TŠWA BOGARENG BJA LETAMO LA LETABA								
Di-RQOs tšeo di dirišwago pele ga phethagatšo ya tlhabollo ya methopo ya meetse ka go Nokana ye Nnyane Letaba.								
B82G-00135 EWR 5[(3)]	Nokana ye nnyane ya Letaba	C	124.18	-	54	Okt	0.004	0.015
						Nof	0.004	0.027
						Des	0.004	0.057
						Jan	0.019	0.223
						Feb	0.025	0.167
						Mat	0.019	0.074
						Apr	0.008	0.040
						Mei	0.011	0.030
						Jun	0.008	0.027
						Jul	0.007	0.026
						Agos	0.011	0.022
						Set	0.008	0.015
Di-RQOs tšeo di dirišwago ge tlhabollo ya methopo ya meetse e phethagatšwa ka go Nokana ye Nnyane Letaba.								
B82G-00135 EWR 5[(3)]	Nokana ye nnyane ya Letaba	C/D	124.18	-	45	Okt	0.015	0.030
						Nof	0.023	0.039
						Des	0.026	0.045
						Jan	0.030	0.060
						Feb	0.033	0.074
						Mat	0.034	0.069
						Apr	0.031	0.065
						Mei	0.030	0.054

Lefelo la go potiela	Noka	Tebanyo EC	nMAR[1] (MCM)	Dikelelotlase (%nMAR)2	Palomoka ya dikelelo (%nMAR)	Dikgwedi	RQO (m^3/s)	
							90%[4]	60%
						Jun	0.031	0.052
						Jul	0.030	0.049
						Agos	0.030	0.045
						Set	0.023	0.035
IUA 4: LETABA GO TŠWA GO LETAMO LE LE ŠIŠINTŠWEGO LA NWAMITWA GO YA MAGAHLANONG A LETAMO LE LENNYANE LA LETABA								
Di-RQOs tšeo di dirišwago pele ga phethagatšo ya Letamo la Nwamitwa.								
B83D-00255 EWR 7(3)	Letaba	C	646.29		-	55.8	Okt	0.579	0.579
							Nof	0.579	0.590
							Des	0.590	0.664
							Jan	0.590	1.799
							Feb	0.590	2.879
							Mat	0.590	1.149
							Apr	0.590	1.155
							Mei	0.590	0.590
							Jun	0.590	0.590
							Jul	0.590	0.590
							Agos	0.590	0.590
							Set	0.579	0.579
di-RQOs di a nyakega ge go phethagatšwa Letamo la Nwamitwa ka tokollo ya kelelo ya godimo ka Janaware, Feberware le Matšhe.								
B83D-00255 EWR 7(3)	Letaba	C	646.29		-	49.3	Okt	0.523	0.554
							Nof	0.537	0.660
							Des	0.601	0.897
							Jan	0.688	5.349
							Feb	0.778	5.909
							Mat	0.871	3.935
							Apr	0.696	1.549
							Mei	0.691	1.396
							Jun	0.670	1.144
							Jul	0.651	0.951
							Agos	0.613	0.779
							Set	0.548	0.633

Ela hloko (1): nMAR ke palomoka ya boleng bja meetse ao a tšwago a tlago ka dikhupikimetara tše milione ka ngwaga.

Ela hloko (2): % ya nMAR ke kelelo ye e nyakegago mafelong ao a hlagišitšwego bjalo ka phesente ya Palomoka ya Ngwaga ka ya Tselaboelelo ya tlhago, Kelelo ya Fase le Palomoka ya dikelelo

Ela hloko (3):Dinyakwa tša kelelo ya kgwedi ka kgwedi tša EWR 3, 4, 5 le 7 di hlagiša palomoka ya kelelo yeo e hlalošitšwego ka tiragalokakanywa fao Maemo a Bjale a Tikologo a dikelelo tša fase le ditokollo tša bašomiši ba meetse a hlalošago dinyakwa tša fasefase tša mafelo a a go fapana.

Ela hloko (4): Dintlha phesente tša kabo ya bokgafetšokgafetšo bja kelelo ya fase ya kgwedi ka kgwedi tša ka bogare ka, go bewa bjalo ka phesente ya dikgweding tše 90% le 60 (%) gore go swanetše go lekana goba go feta e laeditšwego ka fase.% ya nMAR ke kelelo ye e nyakegago mafelong ao a hlagišitšwego bjalo ka phesente ya Palomoka ya Ngwaga ka ya Tselaboelelo ya tlhago, Kelelo ya Fase le Palomoka ya dikelelo. Hlokomela gore go EWR 1 le 2, tšona di emela fela dikelelo tša motheo gomme dinyakwa tša meetsefula di hwetšagala ka ditokumenteng tša thekniki.

Di-RQOs tša bodulo le thutadiphedi di filwe bjalo ka Magoro a Tikologo. Go na le dikanegelo tša magoro le tatelano ya di-RQOs tšeo di amanago le Magoro a Tikologo gomme Lenaneotlhopho la 3 le di hlaloša go Legoro le lengwe le le lengwe la Tikologo.

Lenaneotlhopho la 4 le fa di-RQOs tša bodulo le thutadiphedi go IUA ye nngwe le ye nngwe ya Diyuniti tša Methopo ya maemo a GODIMO. Di-RQOs le tebanyo ya Legoro la Tikologo pele ga kago ya matamo a ka moso di fiwa bakeng sa karolo/taetšo ye nngwe le ye nngwe. Diphetogo tše di holofelwago ka morago ga kago ya Nwamitwa le/goba ge tlhabollo ya methopo ya meetse e phethagatšwa ka go Nokana ye Nnyane Letaba.

Lenaneotlhopho la 5 le fa di-RQOs go IUA ye nngwe le ye nngwe ya Diyuniti tša Methopo tša go tla pele. Di-RQOs pele ga kago ya matamo a ka moso di fiwa bakeng sa karolo/taetšo ye nngwe le ye nngwe. Diphetogo tše di holofelwago ka morago ga kago ya Nwamitwa le/goba ge

tlhabollo ya methopo ya meetse e phethagatšwa ka go Nokana ye Nnyane Letaba di a laetšwa fao go lego bohlokwa. Hlokomela gore boleng bja meetse bo akaretša tebanyo ya tikologo (TEC) le tebanyo ya mošomiši ka bobedi bjalo ka di-RQOs tša kanegelo.

Lenaneo 3: Dikanegelo tša magoro le tatelano ya di-RQOs tšeo di amanago le Magoro a Tikologo

LEGORO LA TIKOLOGO	KANEGELO YA RQO YA MAGORO	KANEGELO YA RQO YA MEETSE A GO ELA LE DIPHEDI TŠA LEBOPONG	KANEGELO YA RQO YA DIHLAPI, DIHLOKAMEKOTLO TŠE KGOLO LE DIMELA TŠEO DI MELAGOLEBOPONG	TATELANO YA RQO
A	Tša go se fetolwe, kgauswi le tlhago	Go swana kudu le maemo a taetšo a tlhago	Kgoboketšo e hlolwa bjalo ka ge e laeditšwe	≥ A (≥ 92%)
A/B				≥ A/B (≥ 88%)
B	Tša tlhago kudu ka diphetošo tše mmalwa.	Tša tlhago kudu ka diphetošo tše mmalwa. Boelelanoka bo na fetošwe fela gannyane gomme tšhilafatšo e kgaoleditšwe go mašaledi. Phetogo ye nnyane ya madulo a tlhago e ka ba e diragatše. Le ge go lebjalo, mešomo ya phedišanodiphedi ka kakaretšo ga e fetošwe	Kgoboketšo e hlolwa bjalo ka ge e laeditšwe	≥ B (≥ 82%)
B/C				≥ B/C (≥ 78%)
C	Fetolwa gosenyane.	Fetolwa gosenyane. Tahlegelo le phetošo ya bodulo bja tlhago le thutadiphedi e diragetše, eupša mešomo ya motheo ya phedišanodiphedi ga e fetoge legatee.	Kgoboketšo e hlolwa bjalo ka ge e laeditšwe	≥ C (≥ 62%)
C/D				≥ C/D (≥58%)
D	Fetolwa kudu.	Fetolwa kudu. Tahlegelo ye kgolo le phetošo ya bodulo bja tlhago, thutadiphedi le mešomo ya phedišanodiphedi e diragetše.	Kgoboketšo e hlolwa bjalo ka ge e laeditšwe	≥ D (≥ 42%)
D/E				≥ D/E (≥ 38%)
E	Fetolwa kudukudu.	Fetolwa kudukudu. Tahlegelo ye kgolo le phetošo ya bodulo bja tlhago, thutadiphedi le mešomo ya motheo ya phedišanodiphedi e diragetše.	Kgoboketšo e hlolwa bjalo ka ge e laeditšwe	20-39%
F	Fetolwa kudukudu ka maatla.	Fetolwa kudukudu ka maatla. Diphetošo di fihleletše maemo a godimodimo gomme tshepedišo e fetotšwe gohlegohle ka tahlegelo ye e feleletšego ya bodulo bja tlhago le thutadiphedi. Mabaka a mabe kudu ao thuthadiphedi e šomilego ka gona e sentšwe gomme diphetogo ga di fetolege.	Kgoboketšo e hlolwa bjalo ka ge e laeditšwe	0-19%

Lenaneotlhopho la 4: Bodulo le diphedi tša di-RQOs tša DINOKA tša tšeomofolotši, dimela tša lebopong, ditlhokamekokotlo tše kgolo le dihlapi ka go ditlapele tša Diyuniti tša Methopo (RU) ka Kgoboketšong ya meetse ya bogareng bja Noka ya Letaba

IUA	YUNITI YA METHOPO (Noka, Deskthopo ya lefelo la go potiela)	Tšeomofolotši	Dihlapi	Ditlhokamokokotlo tše kgolo	Dimela tša Lebopong
IUA 1	RU EWR 1 (Noka ya Letaba, B81B-00264, B81B-00247)	**C/D**	**C**	**C**	**C**
IUA 2	RU EWR 2 (Moka ya Letsitele, B81D-00271)	**D**	**C/D**	**C**	**D**
IUA 3 & 4	RU EWR 3 (Noka ya Letaba, B81F-00200; B81C-00245; B81E-00244; B81F-00212; B81F-00215; B81F-00218; B81F-00231)	**D**	**C**	**C**	**C/D→C*1**
IUA 3 & 4	RU EWR 4 (Noka ya Letaba, B81J-00219; B81J-00209)	**C/D →D**	**C**	**C→C/D**	**C**
IUA 9	RU EWR 5 (Noka ye nnyane ya Letaba, B82G-00135; B82J-00165; B82J-00178; B82J-00201; B82J-00207)	**C/D →D**	**C**	**C/D→D**	**C→C/D**
IUA 11	RU EWR 7 (Noka ya Letaba, B83D-00255; B83A-00220; B83A-00230; B83A-00235 B83A-00252; B83D-00250; B83E-00265)	**C→C/D**	**C→ C/D**	**C→C/D**	**C**

*1Moo Magoro a mabedi a Tikologo a filwego, legoro la bobedi le laetša phetogo ye e holofelwago ka morago ga phethagatšo ya Letamo la Nwamitwa le ge tlhabollo ya mothopo wa meetse e phethagatšwa ka Nokeng ye nnyane ya Letaba.

Lenaneotlhopho la 5: Di-RQOs tša DINOKA tša boleng bja meetse (tša tikologo le tša mošomiši) ka go ditlapele tša Diyuniti tša Methopo (RU) ka Kgoboketšong ya meetse ya bogareng bja Noka ya Letaba

IUA	RU	Karolo ya ka fasana	Tebanyo EC*1	Kanegelo ya RQO	Tatelano ya RQO
IUA 1	RU EWR 1 (Noka ya Letaba, B81B-00264, B81B-00247)	Diphepo (fosfeite)	**B**	Amogelega	phesenthaele ya bo 50 ya datha e swanetše go ba ka tlase ga 0.025 mg/L PO4-P (phedišano ya diphedi tša ka meetseng: mootledi).
		Dilo tša mpholo		Kgonthe	phesenthaele ya bo 95 ya datha e swanetše go ba ka gare ga Mohuta wa Bolenga bja Tebanyo ya Meetse (TWQR) goba magoro a A bakeng sa mpholo.
IUA 2	RU EWR 2 (Moka ya Letsitele, B81D-00271)	Diphepo (fosfeite)	**C**	Ya go kwagala	phesenthaele ya bo 50 ya datha e swanetše go ba ka tlase ga 0.025 mg/L PO4-P (Temo -nošetšo: mootledi).
		Tshepedišo ya Mohlagase (matswai)		Kgonthe	phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga goba e lakane le 30 mS/m (phedišano ya diphedi tša ka meetseng: mootledi).
		Dilo tša mpholo		Kgonthe	phesenthaele ya bo 95 ya datha e swanetše go ba ka gare ga TWQR goba magoro a A bakeng sa mpholo.
		Ditwatši tša ka maleng le ikholi		Boitapološo (kamano ka botlalo)	Fihlelela TWQR ya palo tše 0-130 go 100 ml (DWAF, 1996a*2).
IUA 3 & 4	RU EWR 3 (Noka ya Letaba, B81F-00200; B81C-00245; B81E-00244; B81F-00212; B81F-00215; B81F-00218; B81F-	Diphepo (fosfeite)	**B/C**	Amogelega	E diragala ka bjako: phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga 0.025 mg/L PO4-P. Letamo la ka morao ga Nwamitwa: phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga 0.025 mg/L PO4-P (phedišano ya diphedi tša ka meetseng: mootledi).
		Tshepedišo		Amogelega	E diragala ka bjako: phesenthaele ya bo

IUA	RU	Karolo ya ka fasana	Tebanyo EC*1	Kanegelo ya RQO	Tatelano ya RQO
	00231)	ya Mohlagase (matswai)			95 ya datha e swanetše go ba ka tlase ga goba e lakane le 55 mS/m.
				Kgonthe	Letamo la ka morago ga Nwamitwa: phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga goba e lakane le 30 mS/m (Legoro la Intasteri la 3: mootledi).
		pH		Kgonthe	diphesentaele ya bo 5 le ya bo 95 di swanetše go ba magareng ga 6.5 le 8.4 (phedišano ya diphedi tša ka meetseng: mootledi.
		Dilo tša mpholo		Kgonthe	phesenthaele ya bo 95 ya datha e swanetše go ba ka gare ga TWQR goba magoro a A bakeng sa mpholo.
IUA 3 & 4	RU EWR 4 (Noka ya Letaba, B81J-00219; B81J-00209)	Diphepo (fosfeite)	**B/C**	Amogelega	phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga 0.025 mg/L PO4-P (phedišano ya diphedi tša ka meetseng: mootledi).
		Tshepedišo ya Mohlagase (matswai)		Kgonthe	phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga goba e lakane le 30 mS/m (Legoro la Intasteri la 3: mootledi).
		pH		Amogelega	diphesentaele ya bo 5 le ya bo 95 di swanetše go ba magareng ga 6.5 le 8.4 (Legoro la Intasteri la 3: mootledi.
		Dilo tša mpholo		Kgonthe	phesenthaele ya bo 95 ya datha e swanetše go ba ka gare ga TWQR goba magoro a A bakeng sa mpholo.
		Go ba le maru		Amogelega	Ga e hwetšagale (Phedišano ya diphedi tša ka meetseng: mootledi)
IUA 9	RU EWR 5: B82G-00135, go fihla Giyani	Diphepo (fosfeite)	**B/C→C**	Amogelega	E diragala ka bjako: phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga 0.025 mg/L PO4-P.
				Ya go kwagala	phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga 0.025 mg/L PO4-P (phedišano ya diphedi tša ka meetseng: mootledi).
		Ditwatši tša ka maleng le ikholi		Boitapološo (kamano ka botlalo)	Fihlelela TWQR ya palo tše 0-130 go 100 ml (DWAF, 1996a).
		Go ba le maru		Amogelega	Ga e hwetšagale (Phedišano ya diphedi tša ka meetseng: mootledi)
		Dilo tša mpholo		Kgonthe	phesenthaele ya bo 95 ya datha e swanetše go ba ka gare ga TWQR goba magoro a A bakeng sa mpholo.
IUA 9	RU EWR 5 (Noka ye nnyane ya Letaba , B82G-00135 e elelago go tšwa ka Giyani; B82J-00165; B82J-00178; B82J-00201; B82J-00207)	Diphepo (fosfeite)	**C**	Ya go kwagala	phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga 0.125 mg/L PO4-P (phedišano ya diphedi tša ka meetseng: mootledi).
		Tshepedišo ya Mohlagase (matswai)		Amogelega	phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga goba e lakane le 55 mS/m (phedišano ya diphedi tša ka meetseng: mootledi).
		Ditwatši tša ka maleng le ikholi		Boitapološo (kamano ka botlalo)	Fihlelela TWQR ya palo tše 0-130 go 100 ml (DWAF, 1996a).
		Go ba le maru		Amogelega	Ga e hwetšagale (Phedišano ya diphedi tša ka meetseng: mootledi)
		Dilo tša mpholo		Kgonthe	phesenthaele ya bo 95 ya datha e swanetše go ba ka gare ga TWQR goba

IUA	RU	Karolo ya ka fasana	Tebanyo EC*1	Kanegelo ya RQO	Tatelano ya RQO
					magoro a A bakeng sa mpholo.
IUA 11	RU EWR 7 (Noka ya Letaba, B83D-00255; B83A-00220; B83A-00230; B83A-00235 B83A-00252; B83D-00250; B83E-00265)	Diphepo (fosfeite)	**B**	Amogelega	phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga 0.025 mg/L PO4-P (phedišano ya diphedi tša ka meetseng: mootledi).
		Tshepedišo ya Mohlagase (matswai)		Amogelega	phesenthaele ya bo 95 ya datha e swanetše go ba ka tlase ga goba e lakane le 55 mS/m (phedišano ya diphedi tša ka meetseng: mootledi).
		Dilo tša mpholo		Kgonthe	phesenthaele ya bo 95 ya datha e swanetše go ba ka gare ga TWQR goba magoro a A bakeng sa mpholo.
		Go ba le maru		Kgonthe	Ga e hwetšagale (Phedišano ya diphedi tša ka meetseng: mootledi)

*1Moo Magoro a mabedi a Tikologo a filwego, legoro la bobedi le laetša phetogo ye e holofelwago ka morago ga phethagatšo ya Letamo la Nwamitwa le ge tlhabollo ya mothopo wa meetse e phethagatšwa ka Nokeng ye nnyane ya Letaba.

*2DWAF, 1996a: Kgoro ya Meetse le Kelelatšhila, Afrika Borwa. 1996a. Ditlhahli tša Afrika Borwa tša Boleng bja Meetse. Bolumo ya 2, Tšhomišo ya Boitapološo.

Lenaneo la 6 le fana ka taetšo ya kanegelo le ka tatelelano ya di-RQOs bakeng sa meetsefase ao a hlagišwago go ya ka ditlhahli le dikgaoletšo tša kgogolego ya meetsefase. Tekolo ya meetse e dirwa gabjale ka kelo ya kgoboketšo ya meetse ya e lego ka gare ga di-IUAs tša maleba.

Table 6: Kakaretšo ya di-RQOs tša MEETSEFASE ka go Kgoboketšo ya meetse ya bogareng bja noka ya Letaba

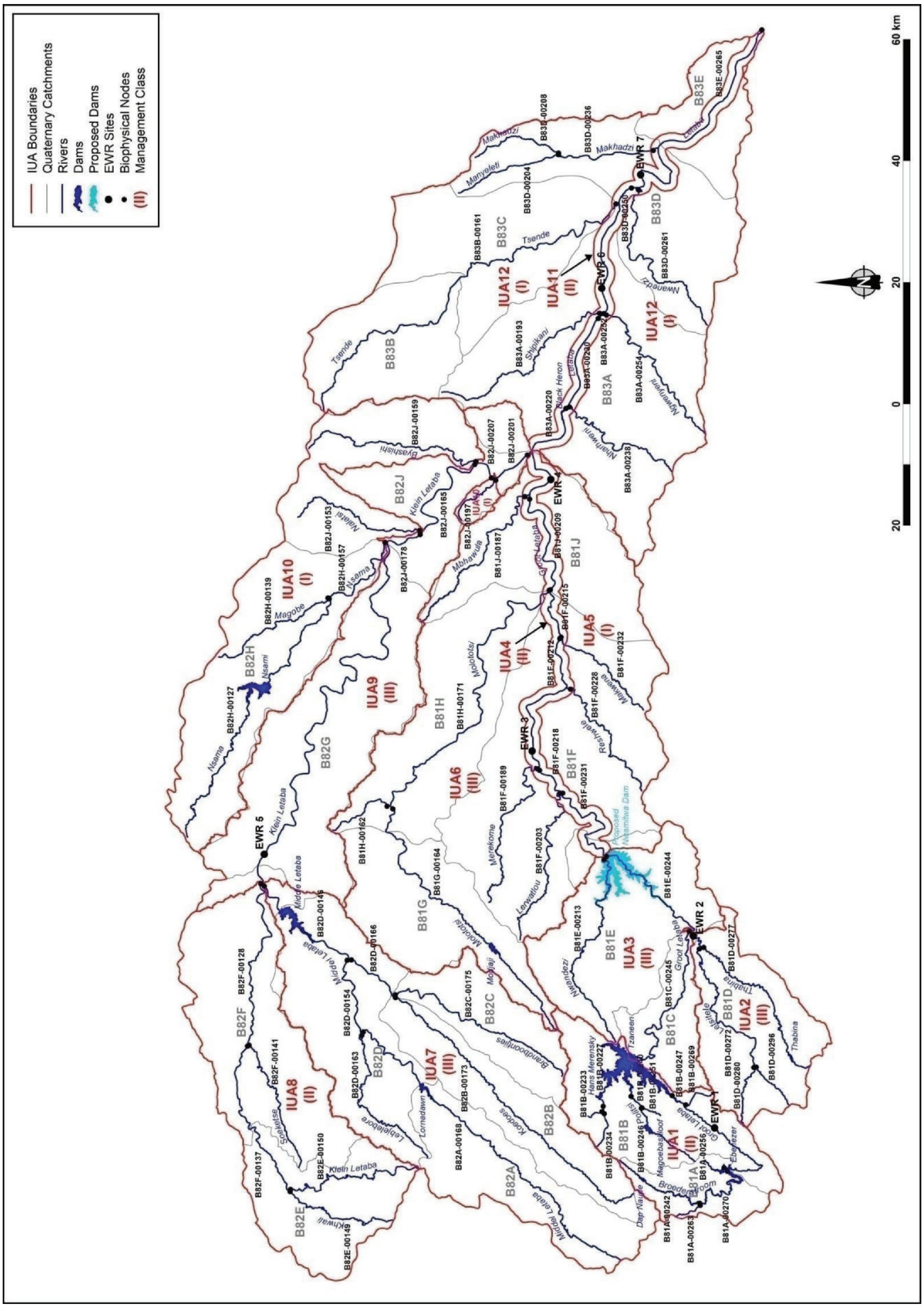
IUA 1: B81A; B81B	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Kgogolo ye bohlokwa ya meetsefase ka gare ga 500 m ya kanale ye e elago ka mehla e swanetše go thibelwa. Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Kelelotlase	Kobamelo go kelo ya dinyakwa tša tlase bakeng sa dinokana tšeo di elelago ka Letamong la Tzaneen.
Bogomo bja Meetse	Maemo a meetse ka go ekhwafaya a swanetše go ba godimo go feta maemo a meetse ka bogodimong bja meetse .
Boleng bja Meetse	Bo ka se senyege go tšwa go bokamorago bja tlhago.
Tatelano ya RQO ya meetsefase	
Palomoka ya tšhomišo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 7.52 Mm^3.	
IUA 2: B81D	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Kgogolo ye bohlokwa ya meetsefase ka gare ga 500 m ya kanale ye e elago ka mehla e swanetše go thibelwa. Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Kelelotlase	Kobamelo go kelo ya dinyakwa tša tlase go EWR 2. Diabe tša phokotšo ya kelelotlase e swanetše go hlokomelwa ka B1H010.
Bogomo bja Meetse	Maemo a meetse ka go ekhwafaya a swanetše go ba godimo go feta maemo a meetse ka bogodimong bja meetse .
Boleng bja Meetse	Bo ka se senyege go tšwa go bokamorago bja tlhago.
Tatelano ya RQO ya meetsefase	
Palomoka ya tšhomišo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 7.77 Mm^3.	

IUA 3: B81C	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Ga go kgogolo ya meetsefase yeo e tlago diragala. Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Kelelotlase	Kobamelo go kelo ya dinyakwa tša tlase go EWR 3. Diabe tša phokotšo ya kelelotlase e swanetše go hlokomelwa ka B1H017.
Bogomo bja Meetse	Maemo a meetse ka go ekhwafaya a swanetše go ba godimo go feta maemo a meetse ka bogodimong bja meetse .
Boleng bja Meetse	Bo ka se senyege go tšwa go bokamorago bja tlhago.
IUA 3: B81E	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Ga go kgogolo ya meetsefase yeo e tlago diragala. Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Kelelotlase	Kobamelo go kelo ya dinyakwa tša tlase go EWR 3. Diabe tša phokotšo ya kelelotlase e swanetše go hlokomelwa ka B1H017.
Bogomo bja Meetse	Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga. Netweke ya tlhokomelo ya maemo a meetse e nyakega kgauswi le mafelo a godimo a kgogolo.
Boleng bja Meetse	Bo ka se senyege go tšwa go bokamorago bja tlhago.
IUA 4 - 6: B81F	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Bogomo bja Meetse	Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga. Netweke ya tlhokomelo ya maemo a meetse e nyakega kgauswi le mafelo a godimo a kgogolo.
Boleng bja Meetse	Ka se senyege go tšwa go maemo a bjale. Tlhokomelo ya naethereite e swanetše go katološwa.
Tatelano ya RQO ya meetsefase	
Palomoka ya tšhomišo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 14.40 Mm^3.	
IUA 4 - 6: B81J	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Bogomo bja Meetse	Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga. Netweke ya tlhokomelo ya maemo a meetse e nyakega kgauswi le mafelo a godimo a kgogolo.
Boleng bja Meetse	Ka se senyege go tšwa go maemo a bjale.
Tatelano ya RQO ya meetsefase	
Palomoka ya tshedimošo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 6.46 Mm^3.	
IUA 6: B81G	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Bogomo bja Meetse	Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga. Netweke ya tlhokomelo ya maemo a meetse e nyakega kgauswi le mafelo a godimo a kgogolo.

Boleng bja Meetse	Ka se senyege go tšwa go maemo a bjale. Tlhokomelo ya naethereite e swanetše go katoloswa.
Tatelano ya RQO ya meetsefase	
Palomoka ya tshedimošo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 6.78 Mm^3.	
IUA 4 - 6: B81H	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Bogomo bja Meetse	Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga.
Boleng bja Meetse	Ka se senyege go tšwa go maemo a bjale. Tlhokomelo ya naethereite e swanetše go katoloswa.
Tatelano ya RQO ya meetsefase	
Palomoka ya tšhomišo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 7.97 Mm^3.	
IUA 7: B82A; B82D	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Kgogolo ye bohlokwa ya meetsefase ka gare ga 500 m ya kanale ye e elago ka mehla e swanetše go thibelwa. Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Kelelotlase	Kelelo-ka-gare ya Oktobere ka ga Bogareng bja Letamo la Letaba e swanetše go lekolwa.
Bogomo bja Meetse	Maemo a meetse ka go ekhwafaya a swanetše go ba godimo go feta maemo a meetse ka bogodimong bja meetse . Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga.
Boleng bja Meetse	Ka se senyege go tšwa go maemo a bjale.
Tatelano ya RQO ya meetsefase	
Palomoka ya tshedimošo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 17.47 Mm^3.	
IUA 7: B82B; B82C	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego. Ga go tšwelopele ya kgogolo ya metsefase yeo e tlago dumelelwa ka ge e tla fokotša dikelelo ka gare ga Letamo la Bogareng la Letaba .
Bogomo bja Meetse	Maemo a meetse ka go ekhwafaya a swanetše go ba godimo go feta maemo a meetse ka bogodimong bja meetse . Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga.
Boleng bja Meetse	Ka se senyege go tšwa go maemo a bjale.
IUA 8: B82E; B82F	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Bogomo bja Meetse	Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga.
Boleng bja Meetse	Ka se senyege go tšwa go maemo a bjale. Tlhokomelo ya naethereite e swanetše go katoloswa.
Tatelano ya RQO ya meetsefase	
Palomoka ya tshedimošo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 18.46 Mm^3.	
IUA 9: B82G	

Kanegelo ya RQO ya meetsefase	
Kgogolo	Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Bogomo bja Meetse	Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga.
Boleng bja Meetse	Ka se senyege go tšwa go maemo a bjale. Tlhokomelo ya naethereite e swanetše go katološwa.
Tatelano ya RQO ya meetsefase	
Palomoka ya tshedimošo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 11.02 Mm^3.	
IUA 9 - 10: B82H; B82J	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Bogomo bja Meetse	Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga.
Boleng bja Meetse	Ka se senyege go tšwa go maemo a bjale. Tlhokomelo ya naethereite e swanetše go katološwa.
Tatelano ya RQO ya meetsefase	
Palomoka ya tshedimošo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 14.89 Mm^3.	
IUA 12*: B83A; B83B; B83C; B83D; B83E	
Kanegelo ya RQO ya meetsefase	
Kgogolo	Bašomiši ka moka ba swanetše go obamela dipeakanyo tše di lego gona tša kabo le maemo a laesense ya motho ka tšweletšo ye e hwetšagalago ye e tiišeditšwego.
Bogomo bja Meetse	Ga go na mokgwa wo o sa lokago wa maemo a meetse ka nako ya dihla tše di omilego tša ngwaga ka ngwaga.
Boleng bja Meetse	Ka se senyege go tšwa go maemo a bjale.
Tatelano ya RQO ya meetsefase	
Palomoka ya tšhomišo ya meetse a a ngwadišitšwego e swanetše go dula e le ka tlase ga 29.44 Mm^3.	

* Go dumeletšwe gore UA 12 e wela ka tlase ga KNP.



Seswantšho sa 1: Diyuniti tše di Kopantšwego tša Tshekatsheko ya Kgoboketšo ya meetse ya bogareng bja noka ya Letaba

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