

WATER AVAILABLE FOR ALLOCATION PER WATER MANAGEMENT AREA (WMA)

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GENERAL REMARKS

Information - the information given for the water balances of the 19 Water Management Areas (WMAs) are those contained in the recently published Internal Strategic perspective (ISP) reports for these areas, or information from studies conducted subsequent to the ISP studies. It is therefore the most recent available information. It reflects the yield from the current dams (from small farm dams to the large dams supplying big systems), as well as run-of-river use. In many areas there is the opportunity for increasing the yield by building more dams, but this is not given here.

Inputs from Regional Offices – Some of this information was checked with key staff members in the Regional Offices, but all could not be reached in the time available. This document will also be distributed to all Cluster Managers for their comments.

Groundwater – It is sometimes difficult to get reliable information on the current usage of groundwater in many of the WMAs. If the recently registered groundwater use (WARMS) is compared to the average annual recharge, it becomes evident that in general the groundwater potential in many of the WMAs is currently vastly under-utilized. There are many opportunities to establish small scale irrigation (i.e. community gardens) from groundwater sources and this aspect should be explored in all areas.

WATER MANAGEMENT AREA 1: LIMPOPO

The Mokolo catchment

The Mokolo catchment is in balance. **No surplus water is available for allocation.**

The Matlabas catchment

The Matlabas catchment is a dry catchment with non-perennial flow and hence no sustainable yield from surface water. **No surplus water is available for allocation.**

The Lephalala catchment

The Lephalala catchment has limited water resources and is stressed. **No surplus water is available for allocation.**

The Mogalakwena catchment

The Mogalakwena catchment is a catchment with limited surface water resources but large groundwater resources, which have already been over-exploited by the irrigation sector in certain areas. **No surplus water is available for allocation.**

The Sand catchment

The Sand catchment is a dry catchment with very limited surface water resources. However, it has exceptional groundwater resources, which have been fully and possibly over-exploited in certain areas. **No surplus water is available for allocation.**

The Nzhelele catchment

The catchment is clearly stressed and this is due to over-allocation and/or over-development of the irrigation sector. **No surplus water is available for allocation.**

The Nwanedi catchment

The water resources of the catchment are limited and are in deficit. This is due to over-allocation or over-development by the irrigation sector. **No surplus water is available for allocation.**

WATER MANAGEMENT AREA 2: LUVUVHU/LETABA

Luvuvhu catchment

In the Luvuvhu catchment water availability exceeds the water requirements by 37 million m³/a. This water is available from the Nandoni Dam, but this dam was built to supply the growth in urban and industrial demands in Thoyandou and Makhado. The quantity required for this was not accounted for during the ISP. There is furthermore some uncertainty as to the impact of the ecological Reserve on the yield of the Nandoni Dam and this could influence the water balance figures. The KNP is situated at the bottom of this catchment and they are very sensitive about the impacts of Nandoni Dam on the flow in the river. The ISP recommended therefore that a more detailed analysis be carried out as a priority to determine the available resource more accurately. As part of this exercise, a comprehensive Reserve needs to be determined. This work will have to be done before making allocations from the surplus yield.

Mutale catchment

The Mutale sub-catchment is in balance. No surplus water is available for allocation.

Groot Letaba catchment

The Groot Letaba catchment water balance indicates that there is a deficit in the catchment. **There is no surplus water available.**

Klein Letaba catchment

The Klein Letaba catchment water balance indicates that there is in deficit in the catchment. **There is no surplus water available.**

Lower Letaba catchment

The Klein Letaba catchment water balance indicates that there is a deficit in the catchment. **No surplus water is available for allocation.**

Shingwedzi catchment

The Shingwedzi sub-catchment is in balance. No surplus water is available for allocation.

WATER MANAGEMENT AREA 3: CROCODILE WEST/MARICO

Upper Crocodile River Sub-catchment Area

No surplus water is available for allocation. The surplus of 42 million m³/a that is given in the ISP report has either been allocated to Magalies Water in the mean time, or is being kept in Reserve for the possible transfer to the new Eskom power stations that are planned in the Mokolo catchment. This is also according to the NWRS.

Elands River Sub-catchment Area

Local water resources are over-utilised, while significant volumes of water are transferred to this area from the Vaal River System. Rustenburg has in the mean time implemented a project in order to utilise all their return flows which will effectively use the surplus of 20 million m³/a given in the ISP report. **No surplus water is thus available for allocation.**

Apies-Pienaars River Sub-catchment Area

An allocation has recently been made to Tshwane Metropolitan Municipality. **No surplus water is available for allocation.**

Lower Crocodile River Sub-catchment Area

The sub-catchment is in deficit. **No surplus water is available for allocation.**

Marico, Upper Molopo and Upper Ngotwane

The Marico, Upper Molopo & Upper Ngotwane area is currently under stress even without implementation of the reserve. **No surplus water is available for allocation.**

WATER MANAGEMENT AREA 4: OLIFANTS

The whole Olifants catchment is under severe stress. **No surplus water is available for allocation.**

WATER MANAGEMENT AREA 5: INKOMATI

Sand River

No allocable water – additional 17 million m³/a still to be transferred in from the Sabie.

Sabie River

21 million m³/a is available for allocation after the Sand River transfer is allowed for. The surplus water is made available by Inyaka Dam.

Crocodile River (East)

Severely over utilised, **no water is available for allocation.**

Komati River

Over utilised, **no water is available for allocation.**

WATER MANAGEMENT AREA 6: USUTU TO MHLATHUZE

Usutu River

Just in balance, **no water is available for allocation.**

Pongola River

102 million m³/a is available for allocation – 40 million m³/a of this is already committed to small cotton growers. This leaves a net of **62 million m³/a that is available for further allocation.** A process led by DWAF and KZN Agriculture to allocate this water to enterprises with the highest BEE participation is under way. The surplus water is made available by Pongolapoort Dam.

Mkuze River

Over utilised, **no water is available for allocation.**

Hluhluwe River

Water for 500ha is still available for allocation to resource poor farmers out of Hluhluwe Dam.

Mfolozi River

Over utilised, **no water is available for allocation.**

Mhlatuze River

Water for 1 100 ha is still available for resource poor farmers out of Goedertrouw Dam.

Mtunzini and Matikulu Rivers

An estimated 16 million m³/a water is available for allocation from run-of-river. Should only proceed with caution, our knowledge of the water resource here is poor. A water availability study is underway.

WATER MANAGEMENT AREA 7: THUKELA

Upper Thukela River

10 million m³/a is available for allocation from Spioenkop Dam.

Little Thukela River

Over utilised, no water is available for allocation.

Bushmans River

11 million m³/a is available for allocation from Wagendrift Dam.

Sundays River

Over utilised, no water is available for allocation.

Mooi River

Over utilised, no water is available for allocation.

Buffalo River

23 million m³/a is available for allocation from Ntshingwayo Dam. This water should only be allocated with consideration to future domestic and industrial requirements of the Newcastle area as well as some present irrigation water use that had been authorised under the previous Water Act Section 56(3).

Lower Thukela River

Over utilised, no water is available for allocation. However, if surpluses are not utilized upstream it can be utilized in the Lower Thukela.

WATER MANAGEMENT AREAS 8, 9 AND 10: UPPER VAAL WMA, MIDDLE VAAL WMA AND LOWER VAAL WMA

Due to the inter dependencies of the three Vaal WMAs, the Upper Vaal, Middle Vaal and Lower Vaal WMAs are linked and their water resources managed in an integrated fashion. A downstream WMA will thus rely on releases from the upstream WMA.

There is a **surplus of 339 million m³/a** presently in the Integrated Vaal River System. This surplus is the result of water resource infrastructure development such as the Lesotho Highlands Water Project, to transfer water from adjacent catchments to the Vaal River. The surplus water is intended for growth in requirement by the urban and industrial users mainly Gauteng (and who are paying for it). If the rapid economic growth that was experienced in recent years continues, the need for further augmentation to the Vaal can be earlier than the previously estimated 2025. Taken into consideration that the next augmentation project can most probably only be brought on line by 2018, it is argued that there is no surplus available for allocation for other purposes.

A surplus of 16 million m³/a is available in the Taung and Spitskop dams in the Harts sub-catchment of the Lower Vaal WMA. This water could be allocated for irrigation use by resource poor farmers.

WATER MANAGEMENT AREA 11: MVOTI TO MZIMKULU

Mvoti River

Over utilised, **no water is available for allocation.**

Mhloti River

The small surplus of 4 million m³/a is required to help offset additional domestic water needs of the huge North Coast expansion. **No scope for further allocation.**

Mgeni River

Over utilised, **no water is available for allocation.**

Mlazi River

Over utilised, **no water is available for allocation.**

Lovo River

6 million m³/a is available for allocation from run-of-river.

Mkomazi River

Over utilised, **no water is available for allocation.**

Mzimkulu River

Over utilised, **no water is available for allocation from run-of-river.**

Mtamvuna River

5 million m³/a is available for allocation from run-of-river.

WATER MANAGEMENT AREA 12: MZIMVUBU TO KEISKAMMA

Mzimvubu River

50 million m³/a surplus run-of-river yield is available for allocation in the Mzimvubu River catchment.

Pondoland area

No surplus water available for allocation.

Mtata River

89 million m³/a surplus is available from the Mtata Dam, which is actually used non-consumptively for hydropower generation. The surplus yield is therefore mostly only available downstream of the hydropower stations at First and Second Falls, and would be subject to the release patterns required for power generation.

Mbashe River

120 million m³/a surplus is available in the Mbashe area. Most of this water is transferred in from the Kei River catchment for hydro-power generation at Collywobbles.

Great Kei River

75 million m³/a surplus is available for allocation. This surplus is located mainly in the former Transkei area below the Xonxa and Lubisi Dams.

Amatole Region

No surplus water is available for allocation.

Keiskamma River

23 million m³/a surplus is available for allocation from Sandile Dam.

WATER MANAGEMENT AREA 13 AND 14: UPPER ORANGE WMA AND LOWER ORANGE WMA

Due to the inter dependencies of the two Orange WMAs, the Upper Orange and Lower Orange WMAs are linked and their water resources managed in an integrated fashion.

The latest water balance from the Orange River system indicated a surplus of 158 million m³/a. Water has been reserved/allocated for 12 000 ha new irrigation development (4 000 ha in the Upper Orange WMA, 4 000 ha for Lower Orange WMA and 4 000 ha for Fish-Tsitsikamma WMA, with net requirement of approximately 114 million m³/a) for resource poor farmers. **When the effect of the 12 000 ha earmarked for resource poor farmers is included, the surplus will reduce to only 44 million m³/a.**

This remaining surplus of 44 million m³/a is not sufficient to cover the expected growth in urban/industrial/mining requirement as a deficit of nearly 50 million m³/a is expected by 2025. **The remaining surplus of 44 million m³/a is therefore reserved for high priority users only. These users could be in the Bloemfontein metropolitan area or in the Nelson Mandela Metropolitan area in the Eastern Cape.**

WATER MANAGEMENT AREA 15: FISH-TSITSIKAMMA WMA

Fish to Sundays Rivers

No surplus water is available for allocation

Tsitsikamma to Coega coastal rivers

This catchment is effectively in balance. There is a small surplus of 2 million m³/a in the Tsitsikamma coastal rivers from run-of-river. There is, however, uncertainties on the requirements for the Reserve which will have to be sorted out before any allocations are made.

WATER MANAGEMENT AREA 16: GOURITZ WMA

The Gouritz WMA has a relatively large deficit, **no surplus water is available for allocation** in any of the sub-areas.

WATER MANAGEMENT AREA 17: OLIFANTS/DOORN WMA

The Olifants/Doorn WMA is in deficit, **no surplus water is available for allocation.**

WATER MANAGEMENT AREA 18: BREEDE WMA

Breede River Catchment

20 million m³/a is available from the following dams:

- **3 million m³/a surplus available out of Koekedouw Dam.** This dam is owned by Ceres Municipality who will use the water for future growth in domestic requirements.
- **14 million m³/a surplus available out of Stettynskloof Dam.** This dam is owned by the Worcester Municipality who will use the water by 2025 for domestic requirements.
- **3 million m³/a surplus available** out of Buffeljags Dam which could be allocated to resource poor farmers.

Overberg catchment

The catchment is in deficit, **no surplus water available for allocation.**

WATER MANAGEMENT AREA 19: BERG WMA

The Berg WMA is in deficit, **no surplus water available for allocation.**