

Status of water resource availability

- ▶ Drought impacts loom in three of five systems that supply Umgeni Water dams
- ▶ Water conservation measures are required in order to ensure adequacy of water supply in the months ahead

The storage levels of the dams managed by Umgeni Water, on 10 September 2014, are listed in Table below.

Site	10 Sep 2014	04 Sep 2014	11 Sep 2013
	%	%	%
Mearns Dam	94	95	99
Ixopo Dam	44	43	87
Midmar Dam	77	78	88
Nagle Dam	82	83	81
Albert Falls Dam	84	84	93
Inanda Dam	91	91	99
Hazelmere Dam	56	58	98
Nungwane Dam	32	35	92
Umzinto Dam	36	41	74
E.J. Smith Dam	11	13	66
Spring Grove Dam	76	76	10

Status of Individual systems

• Mzinto System (Umzinto + EJ Smith dams)

The system is currently in crisis, we are only drawing from Umzinto Dam, there is no water to draw in EJ Smith Dam. Umgeni Water and Ugu are continuously in dialogue about this situation. There has also been a recommendation to reduce draw-offs from Nungwane Dam to save the storage. The Mtwalume River is also running low, which has an impact on the capacity at well point abstraction system.

• Ixopo System

The system is being monitored closely at the moment as there could be potential drought impacts. Umgeni Water will set up a meeting with the Water Service Authority in the region to create awareness and recommend water savings initiatives.

• The Mgeni System System

The storage is at an acceptable level. There are no potential problems in the near future.

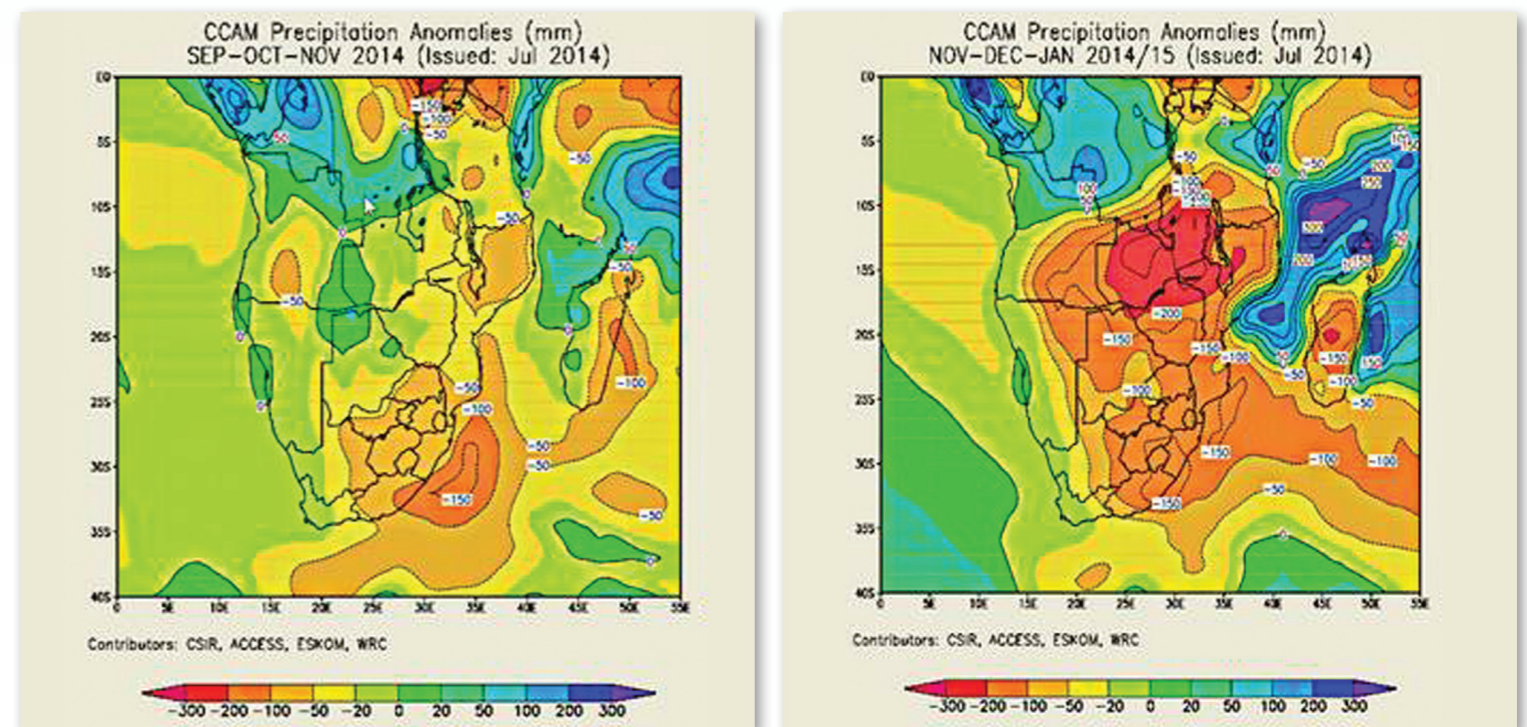
• The Hazelmere Dam system

The system is being monitored closely at the moment as there could be potential drought impacts. Umgeni Water will set up a meeting with the Water Service Authority in the North Coast to create awareness and recommend water savings initiatives. The Maphumulo Scheme (Imvutshane River Abstraction) is at crisis level and the river is almost totally dry. This has caused the Operations Division to reduce the total treatment volume to 2 MI/day as opposed to the 6MI/d required from the system.

• Mooi System

The system is an acceptable situation, the flow in the river is still good.

In terms of the future, Weather Forecasting systems are indicating strong probabilities for below-normal rainfall conditions for greater parts of South Africa over the September 2014 to January 2015 period (**Figure below**). This is very concerning, especially, the fact that it is supported by climate models predicting the El Niño weather phenomenon at the end of the year. The global El Niño weather phenomenon, whose impacts cause droughts in the Southern Africa region, has a very good chance of happening this year, according to Global Climate Models. El Niño commences when the atmosphere and the eastern tropical Pacific Ocean are connected by physical interactions that set off a chain reaction of weather events around the world, some devastating and some beneficial. Unfortunately in our part of the country including UW operational area this brings along impacts related to droughts which are as a result of low rainfall occurring.



Umgeni Water is currently monitoring the water resources closely in response to possible impacts of El Niño. This monitoring includes dam storages, abstractions and demand patterns. The inter-basin transfers from the Mooi River into the Mgeni System will be undertaken as soon as refurbishments are done on the Mearns Pump station (Mooi River) at the end of October 2014. Communication strategies are being developed to promote and improve water use, efficiency and security. Water Conservation and Demand Management initiatives are being closely monitored. Possible long-term strategies such as waste water treatment and recycling and desalination are also being investigated.

"This notification is issued in collaboration with Ethekwini Metro, Msunduzi Local Municipality, Umgungundlovu District Municipality, Ilembe District Municipality, Ugu District Municipality, Harry Gwala District Municipality and Siza Water."