



water & sanitation

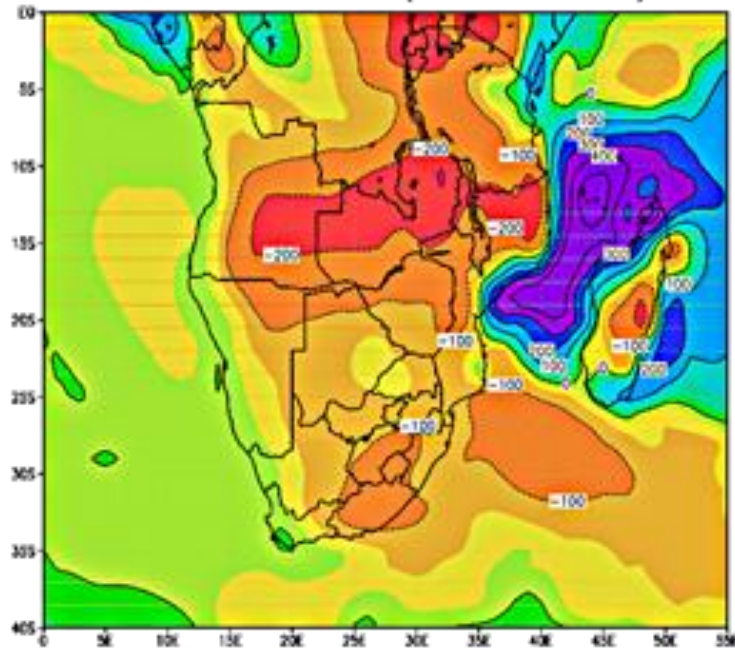
Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

2014 Drought status in KZN

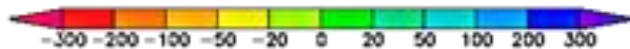
25 February 2015

Seasonal Weather Forecasting

CCAM Precipitation Anomalies (mm)
FEB-MAR-APR 2015 (Issued: Jan 2015)



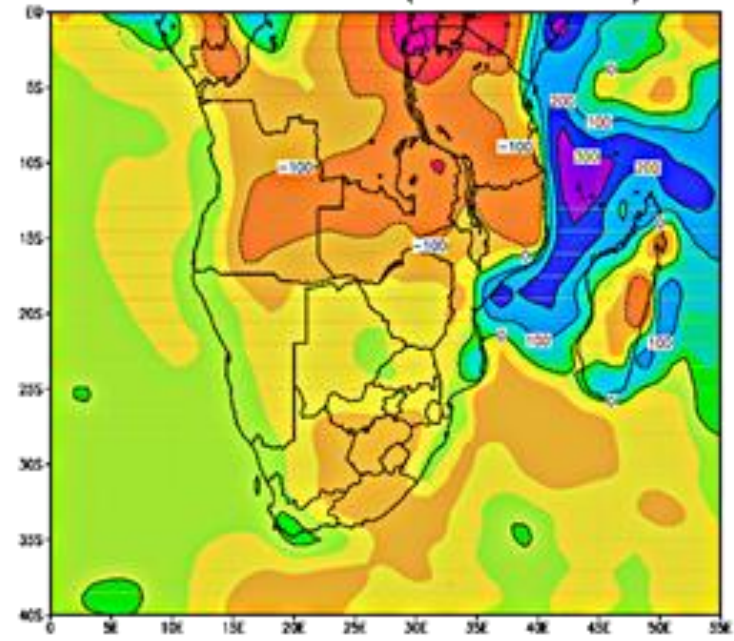
Contributors: CSIR, ACCESS, ESKOM, WRC



GADS: COLA/YES

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CCAM Precipitation Anomalies (mm)
MAR-APR-MAY 2015 (Issued: Jan 2015)



Contributors: CSIR, ACCESS, ESKOM, WRC



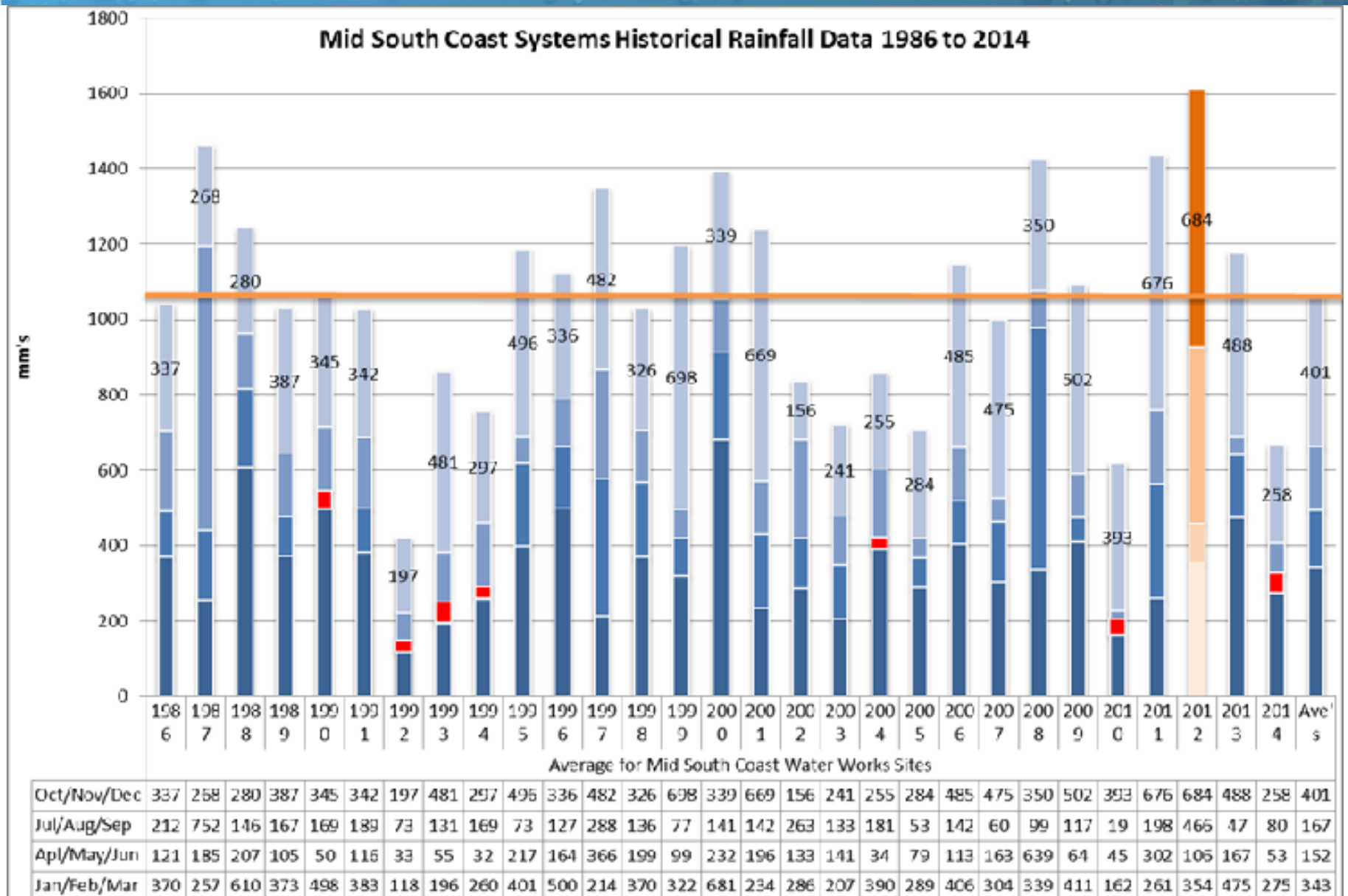
GADS: COLA/YES

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Dam storage levels

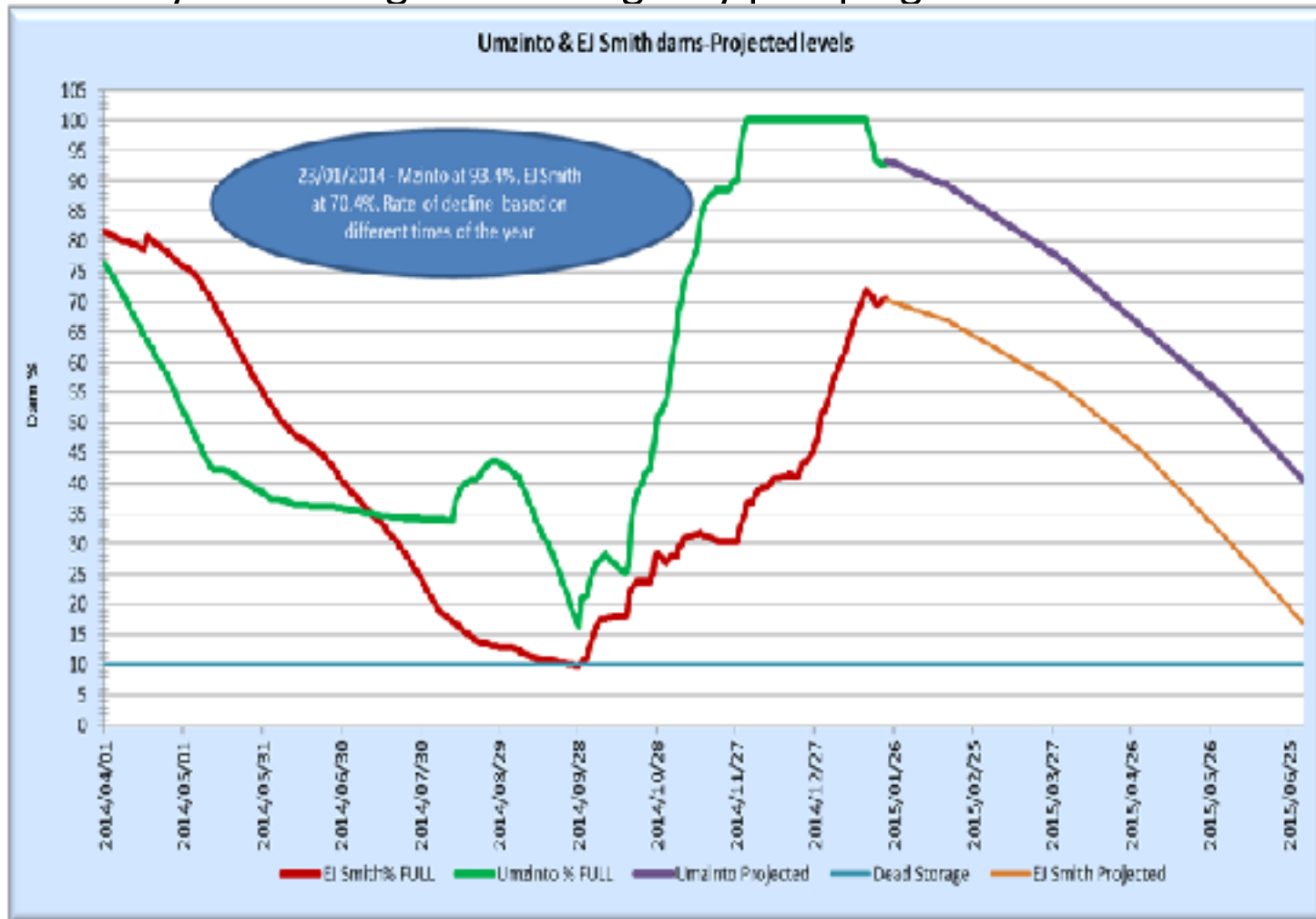
Dam	Full Capacity (x10 ⁶ m ³)	Previous Storage	Current Storage	Percentage %	Rainfall Past 24 Hours	Average Inflow m ³ /s	River Release m ³ /s	Total Release m ³ /s
CRAIGIEBURN	22.47	20.84	20.96	93.28%	6.8	1.35	0.00	0.000
NTSHINGWAYO	194.56	155.97	155.68	80.01%	0.0	0.00	0.37	1.333
SPIOENKOP	270.64	271.11	271.06	100.16%	4.5	6.38	6.65	6.91
WAGENDRIFT	55.90	56.21	56.21	100.55%	6.8	3.68	3.43	3.68
GOEDERTROUW	301.26	146.63	146.32	48.57%	0.0	6.16	8.23	9.71
HLUHLUWE	25.89	14.46	14.36	55.46%	0.0	0.00	0.37	0.38
PONGOLAPOORT	2267.07	1411.47	1409.40	62.17%	0.0	0.00	6.73	8.77
LAVUMISA	0.3837	0.1031	0.1031	26.88%	(RealTimeData: 4.81m - 40.10%)		G/plate =	1.01
KLIPFONTEIN	18.09	13.52	13.45	74.35%	0.0	0.92	0.73	0.77
ULUNDI WEIR	0.147	0.102	0.102	69.39%	0.0	3 Up	G/plate =	3.40
ALBERT FALLS	288.15	214.36	214.58	74.47%	0.0	3.61	1.06	1.06
HAZELMERE	17.86	8.57	8.58	48.05%	0.0	0.75	0.07	0.63
INANDA	241.69	226.74	227.17	93.99%	0.0	5.58	0.60	0.60
MIDMAR	235.42	176.94	176.94	75.16%	2.5	5.55	0.92	5.55
MEARNS WEIR	5.12	2.77	2.63	51.41%	15.1	2.05	2.08	3.67
NAGLE	23.24	18.34	18.05	77.68%	0.0	0.00	0.00	2.92
LUDEKE	14.95	8.01	8.01	53.60%	1.0	0.00	0.00	0.00
SPRING GROVE	139.46	134.65	134.65	96.55%	0.0	2.65	2.65	2.65
DRIEL	8.69	8.78	8.72	100.37%	4.6	15.73	16.40	16.40
STERKFONTein	2616.90	2574.62	2572.61	98.31%	19.0	0.00	0.21	0.21
WOODSTOCK	373.25	348.22	347.94	93.22%	4.2	4.74	No Down Stream Weir	8.00
BIVANE	115.22	78.65	78.15	67.83%	0.0	15.80	6.53	6.53
ZAAIHOEK	184.63	172.19	171.28	92.77%	0.0	0.00	3.24	4.25

Umzinto Rainfall – End December

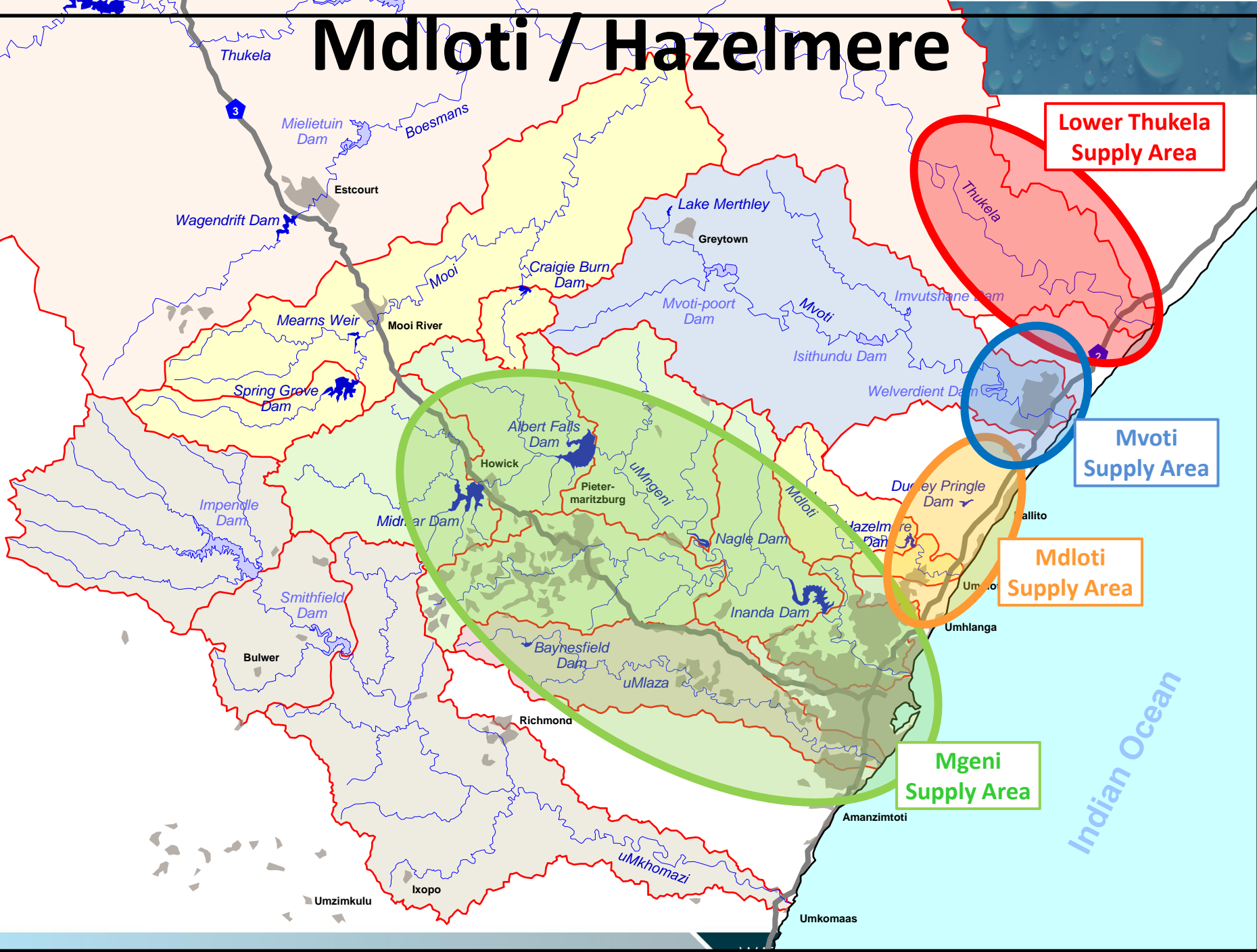


Drought – Stressed Systems

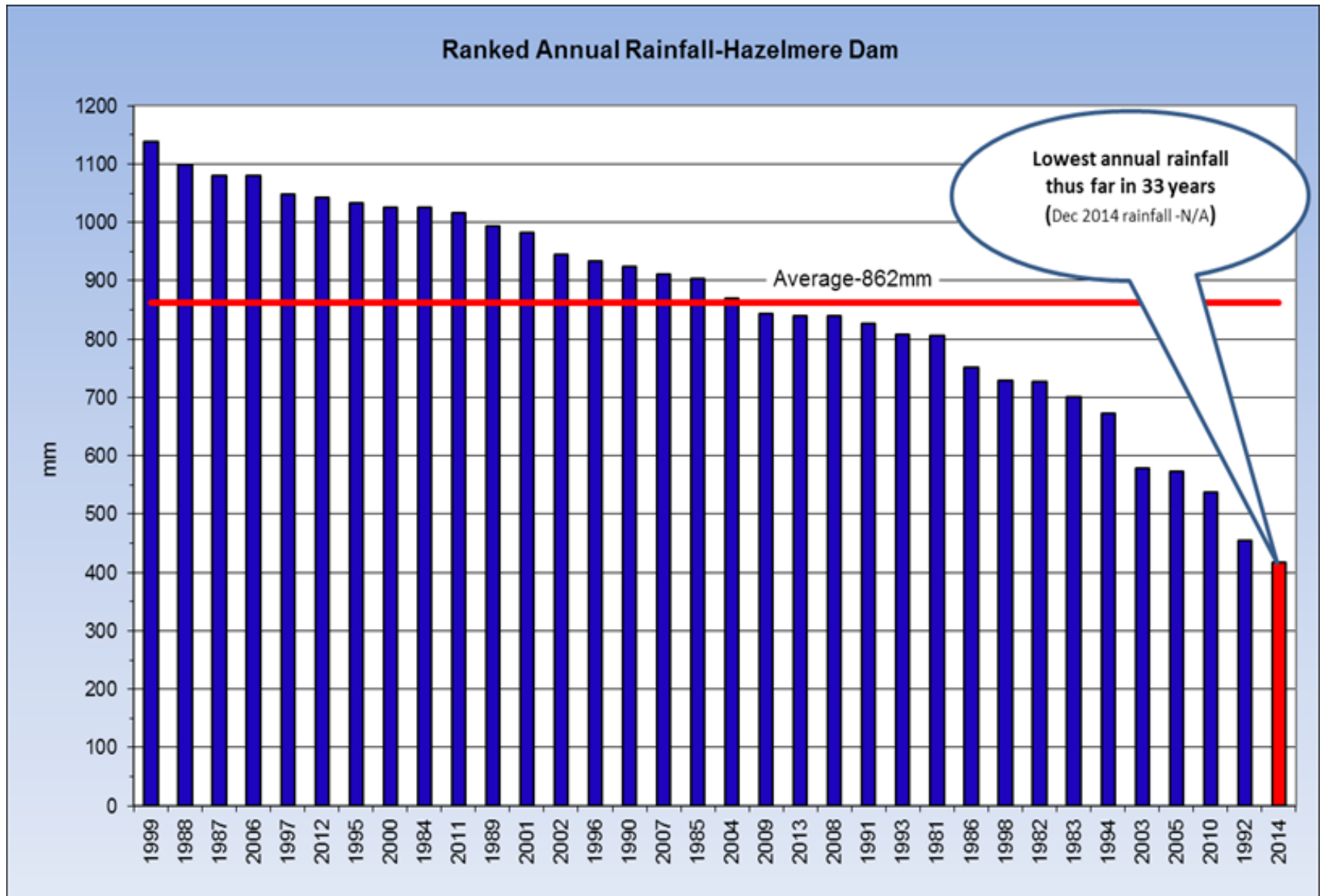
- Umzinto – EJ Smith dam failed
- Currently recovering with emergency pumping scheme and rain



Mdloti / Hazelmere

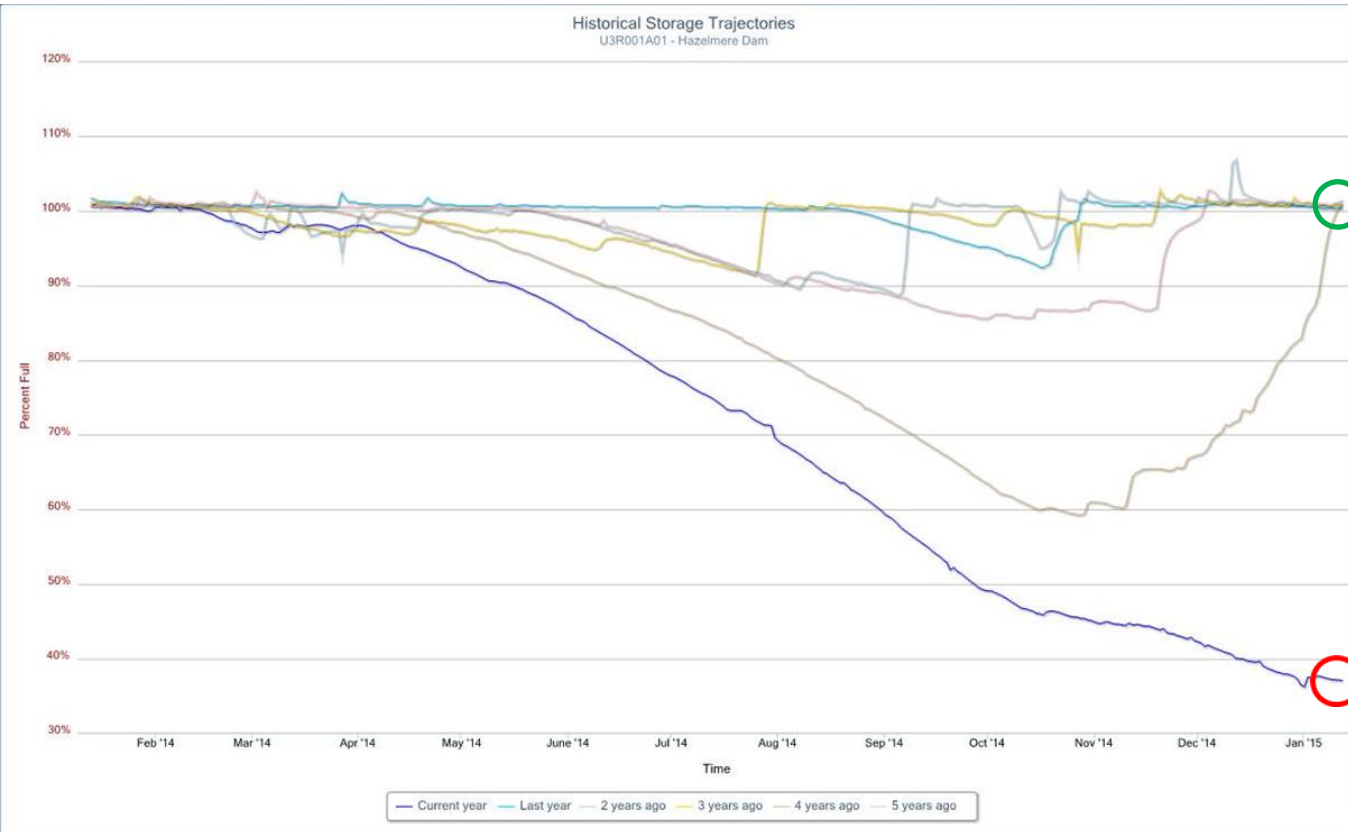


Rainfall at Hazelmere Dam



Drought – Hazelmere

- Level 3 (time of use curtailments) since December 2014
- Dam forecast to fail in September (45 ML/day dam at 48%)
- Emergency pumping scheme from oThongati River – R37m commissioned by mid April
- Require fast tracking of Northern Aqua duct by Ethekekwini



Drought

Ilembe

- Emergency pumping scheme implemented by Umgeni Water to augment the Maphumulo WSS
- Commissioned and supplying 3 to 6 Ml / day from the Hlimbitwa river
- Require Maphumulo RBIG funding to be brought forward

Umkhanyakude

- Run of river abstraction from the Mfolozi river is insufficient to meet the demands of the Mthubathuba supply system
- System augmented by drilling boreholes in the Mfolozi river
- Other supplies being augmented by drilling boreholes in various areas including KwaMsane, St Lucia and Ingwavuma
- Providing water utilising 20 tankers – placing strain on WTW

Zululand

- Dam levels in the area are not yet a concern, problems are experienced with stand alone schemes and borehole refurbishment and additional tankering required

Drought

Uthungulu

- Eshowe supplied from Goedertrouw and Ruthdale Park Dams. Old AC pipelines cause interruptions to Eshowe, King Dinizulu and Sunnydale, Nyanini. Pipe replacement project delayed due to contract cancellations
- Lack of water to Mbonambi area
- Interruptions in areas surrounding Richards Bay due to infrastructure constraints and ability to supply areas from City Of Mhlathuze

Ugu

- In October low river levels in the Umzinkhulu river at St Helens Rock abstraction resulted in salt water pushing back to upstream
- Ugu only able to pump for a few hours at low tide to prevent salt water in WTW
- Rains have alleviated the situation but problem likely to recur during winter
- Augmentation required – Ncwabeni Dam requires funding

Drought – Umzinyathi

- Greytown – Lake Merthley on 40% in January
- Emergency meeting and restrictions implemented 20 Jan 2015
- Dundee and Glencoe - Eskom outages and pipeline failure causing interruptions
- JOC formed and levels being monitored daily
- Require fast tracking of RBIG Greytown project



Drought - City Of Mhlathuze

- Water shortages in October due to operational problems – insufficient releases and pump failure
- Whole of City of Mhlathuze's demand (57 MI/day) now supplied by Nsezi WTW as lakes dry
- July 2014 operated the Thukela emergency transfer scheme for the first time – pumping water from Uthukela to Goedertrouw Dam
- Goedetrouw now at 50% restrictions recommended will need Gazetting
 - 10% domestic
 - 50% Irrigation
 - 10% Industrial
- JOC formed



Drought – Provincial Management

- 2010 development of drought operating rules for 10 schemes in KZN informing timing and level of restrictions
- In November KZN Premier declared a Provincial State of Disaster due to continuing drought
- DG and HOD CoGTA held meeting and R352m reprioritised to support effected municipalities
- Provincial CoGTA has received drought implementation plans
- Additional funding maybe required for emergency augmentation schemes such as Tongati

Drought – Provincial Management

No.	Project Description	Implementing Agent	Unit	Quantity	Unit Cost	Amount
1	Procurement of Water Tankers	DWS: NWRI	No.	96	R 1 286 979.17	R 123 550 000.00
2	Operational cost for water tankering per month	DWS: NWRI	Months	6	R 2 448 333.33	R 14 690 000.00
3	Supply and installation of storage water tanks complete with stands	WATER BOARD/S	No.	1905	R 10 320.21	R 19 660 000.00
4	Protection of Existing Springs	WSA	No.	119	R 92 974.79	R 11 064 000.00
5	Refurbish and upgrade water supply infrastructure	WSA	No.	50	R 1 663 294.16	R 83 164 707.95
6	Water tankering reduction programme		No.	1	R 8 000 000.00	R 8 000 000.00
7	Siting, drilling, testing, equipping of boreholes and construction of bulk infrastructure, reticulation and stand taps	DWS: RO	No.	116	R 807 146.55	R 93 629 000.00
TOTAL						R 353 757 707.95



Thank you