water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

WATER RESOURCE INFORMATION MANAGEMENT
LIMPOPO PROVINCE

STATUS ON MONITORING &
SURFACE WATER LEVEL TRENDS
April 2015 to August 2015

D VILJOEN
31 August 2015

GH4324

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1. EXECUTIVE SUMMARY

This is an interim report to indicate the effect of the current drought situation on the major dams with special attention to the dams in the Limpopo and Luvuvhu / Letaba WMA's. The majority of dams used in this report have less water than the corresponding period last year.

In the Limpopo Water Management Area the following dam levels are of concern: the Luphephe **Dam is at approximately 26%, the Nwanedzi Dam is at 35.9%, the Glen Alpine dam is at 56.4% and the Nzhelele Dam at 62%.** In the Luvuvhu / Letaba Water Management Area the following dam levels are of concern: **the Middle Letaba Dam is at 34.3%, the Nsami Dam is at 41.3%, the Thabina Dam is at 58.8%, Tzaneen Dam at 59.3% and Modjadji Dam at 40.8%.**

The average storage volume for the Limpopo WMA is 229.9 million cubic meters (82%) and is 49.7 million cubic meters less than the corresponding period last year (99.7%).

The average storage volume for the Luvuvhu / Letaba WMA is 422 million cubic meters (64%) and is 134.5 million cubic meters less than the corresponding period last year (84.3%).

The average storage volume for the Olifants WMA is 1090.5 million cubic meters (76.7%) and is 142.89 million cubic meters less than the corresponding period last year (86.7%).
Take note that the storage volume of the Olifants WMA increased with 348.7 million cubic meters, as a result of the new De Hoop Dam Numerous smaller dams (0.7 – 3.5 million cubic meter capacity) exist in this WMA but only two are equipped with Data Loggers namely Piet Gouws and Molepo Dams. No Real Time data is available from these dams and the obtaining of updated dam status observations are hampered by the remoteness thereof. Although provision has been made at some dams for the installation of Data logging equipment, funds for the purchasing thereof are lacking. The following dams falls within the Olifants WMA, but no status information is available: 1. Piet Gouws (3.94 million Cubic meters), Lola Montes (1.2 million Cubic meters), Makotswane (3.48 million Cubic meters), Spitskop (0.54million Cubic meters), Vergelegen (1.34million Cubic meters) Dr. Esselen (0.73million Cubic meters), Chunnies Poort (2.47million Cubic meters meters), Der Broggen, Lepellane and Mahlangu dams.

The average storage volume for the Inkomati WMA is 832.4 million cubic meters (79.3%) and is 186.7 million cubic meters less than the corresponding period last year (97.1%).

The challenge in all the WMAs discussed in this report is the fact that there are smaller dams, which supply water to communities that still need to be monitored. Owing to the lack of data these dams could not be included. Infrastructure at these dams are also a major concern and will have to be put in place before any form of water level monitoring can be considered. The Thapane and Sheshego Dams are examples of this.

The information presented in this report is based on the status of all the major dams in the province up to the end of August 2015.

It is important to take note that the rainfall for the current hydrological year (01 October 2014 to 30 September 2015) is the lowest since the 2009/2010 hydrological year. See attached Provincial Rainfall map (Page 7)

Available water resources will have to be managed with great care and restrictions will have to be implemented as part of precaution measures**.** The SAWS predicts a mixture of above- and below normal rainfall conditions for the country. Of note there is an indication that well above normal rainfall conditions may occur over the eastern parts of the country in spring. The forecast for late spring indicates mostly below-normal rainfall for most of the country and some mixed conditions for early summer. The El Nino phenomenon is predicted to persist greatly increasing the chances of having dryer conditions.

2. MONITORING NETWORK

The hydrological monitoring network for the Limpopo Province consists of the following amount of gauging stations:
81 river flow gauging stations (excluding canals and pipelines)
21 dam gauging stations
16 evaporation stations

It is important to take cognizance of the fact that the hydrological gauging stations in the Crocodile-West and Olifants Water Management Areas (shared boundaries) are being managed by the hydrological offices of Gauteng and Mpumalanga respectively.
For the purpose of this report and owing to the strategic location and importance of certain dams in the Olifants and Nkomati Water Management Areas, information regarding their status is also attached.

3. OVERVIEW

For information purposes a graph depicting provincial rainfall for the current hydrological year is attached (page 12).

For information purposes a table indicating the comparison of water storage percentage for the different WMA's is attached on page 16.

The purpose for attaching graphs of individual dams is to give a broader picture of water storage and status in the sub drainage catchments.

4. LIMPOPO WATER MANAGEMENT AREA

The catchment consists of secondary drainage areas A4, A5, A6, A7 and A8.

4.1 A4 Drainage Area (Matlabas, Mokolo Rivers)

A graph of the Mokolo Dam (A4R001) is attached as no other dam exists in the A4 hydrological monitoring network.

4.2 A5 Drainage Area (Lephalala River)

Two small dams exists in the A5 hydrological network namely the Susandale Dam (A5R001) and the Vischgat Dam (A5R002). Owing to their relatively small storage volumes of approximately 0.6 million cubic meters in total, these dams have not been included in this report!

4.3 A6 Drainage Area (Nile, Sterk, Mogalakwena and Dorps Rivers)

Graphs of the Doorndraai Dam (A6R001) and Glen Alpine Dam (A6R002) are attached as no other dams exist in the A6 hydrological monitoring network.
It must be noted that the full capacity storage of Glen Alpine Dam is only 18.889 million cubic and therefore the dam fills and empties much faster than Doorndraai Dam! The graph of Glen Alpine clearly indicates this!

4.4 A7 Drainage Area (Sand, Blood, Diep, Hout, Dwars and Brak Rivers)

There are no existing dam monitoring stations in the hydrological network for this drainage area!
Hout River Dam is the only dam equipped with gauge plates. Data capturing and real-time equipment has been installed at Hout River Dam.

4.5 A8 Drainage Area (Nwanedzi and Nzhelele Rivers)

Graphs for the Nzhelele Dam (A8R001), Luphephe (A8R002), Nwanedzi (A8R003) and Mutshedzi (A8R004) Dams are attached.

5. LUVUVHU / LETABA WATER MANAGEMENT AREA

The catchment consists of secondary drainage areas A9, B8 and B9.

5.1 A9 Drainage Area (Mutale, Luvuvhu Rivers)

Graphs for the Albasini Dam (A9R001), Vondo Dam (A9R002) and Nandoni (A9R004) Dams are attached.

5.2 B8 Drainage Area (Groot, Middle and Klein Letaba Rivers)

Graphs for the Ebenezer Dam (B8R001), Magoebaskloof Dam (B8R003), Tzaneen Dam (B8R005), Middle-Letaba Dam (B8R007), Nsami Dam (B8R009) and Modjadji Dam (B8R011) are attached.

5.3 B9 Drainage Area (Shingwedzi, Phugwane and Mphongolo Rivers)

Only a limited part of this drainage area falls outside the Kruger National Park!
There are no existing dam monitoring stations in the hydrological network for this drainage area!

6. OLIFANTS WATER MANAGEMENT AREA

Monitoring points in the B3, B5, B6 and, B7 sub drainage areas were also included in this report owing to their strategic location and importance to operational matters in the Limpopo Province.

6.1 B3 Drainage Area (Olifants, Elands, Bloed and Selons Rivers)

For information as well as operational matters graphs of Rust de Winter Dam (B3R001) and Loskop Dam (B3R002) has been included in this report.

6.2 B5 Drainage Area (Olifants River)

For information as well as operational matters the graph of Flag Boshielo Dam (B5R002) has been included in this report.

6.3 B6 Drainage Area (Blyde and Ohrigstad Rivers)

For information as well as operational matters the graphs of Ohrigstad Dam (B6R001) and Blyde Rivierspoort Dam (B6R003) have been included in this report.

6.4 B7 Drainage Area (Klaserie and Olifants Rivers)

For information as well as operational matters the graphs of Klaserie Dam (B7R001) and Tours Dam (B7R003) have been included in this report.

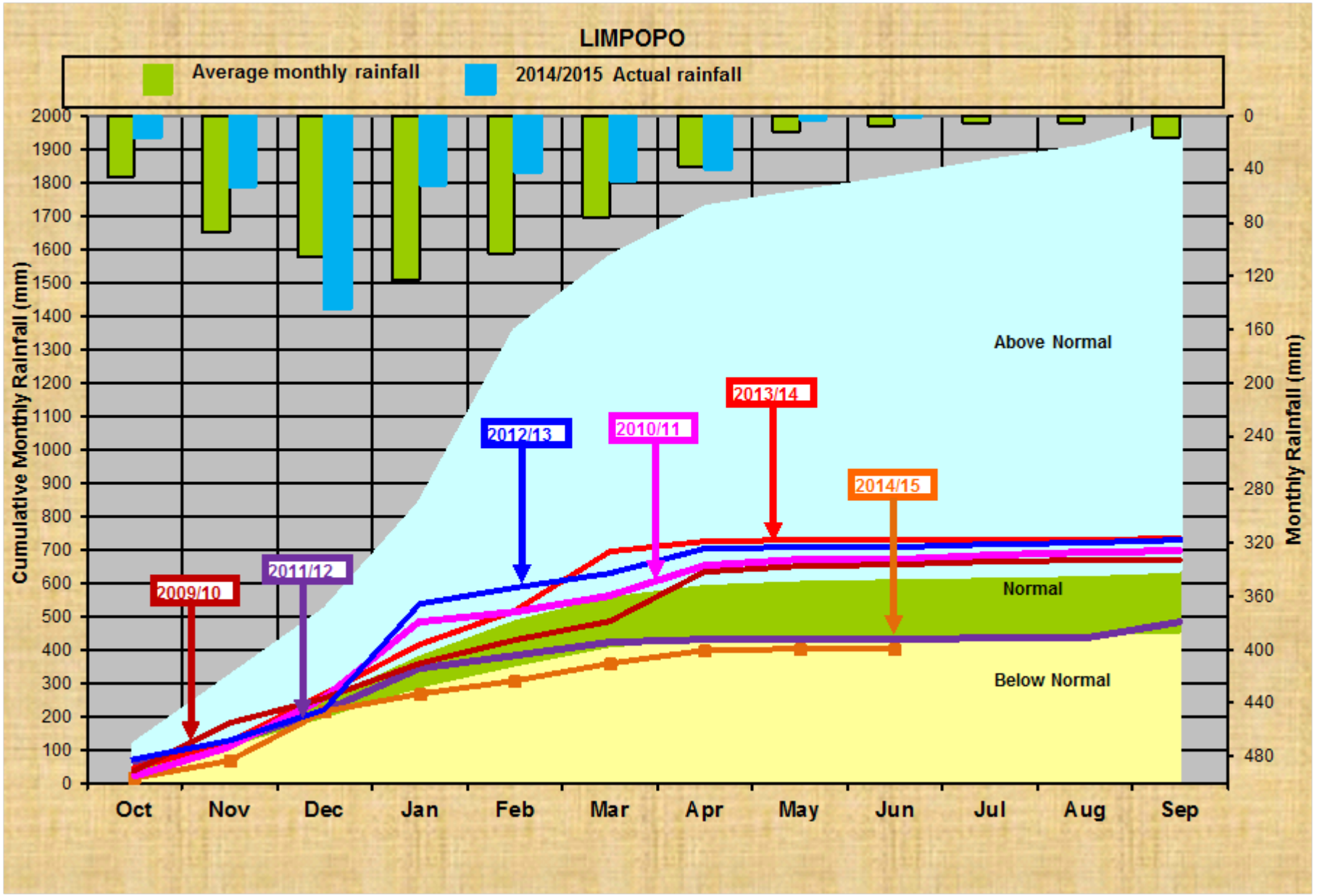
7. INKOMATI WATER MANAGEMENT AREA

7.1 X2 Drainage Area (Crocodile River)

For information as well as operational matters the graph of Kwena Dam (X2R005) has been included in this report.

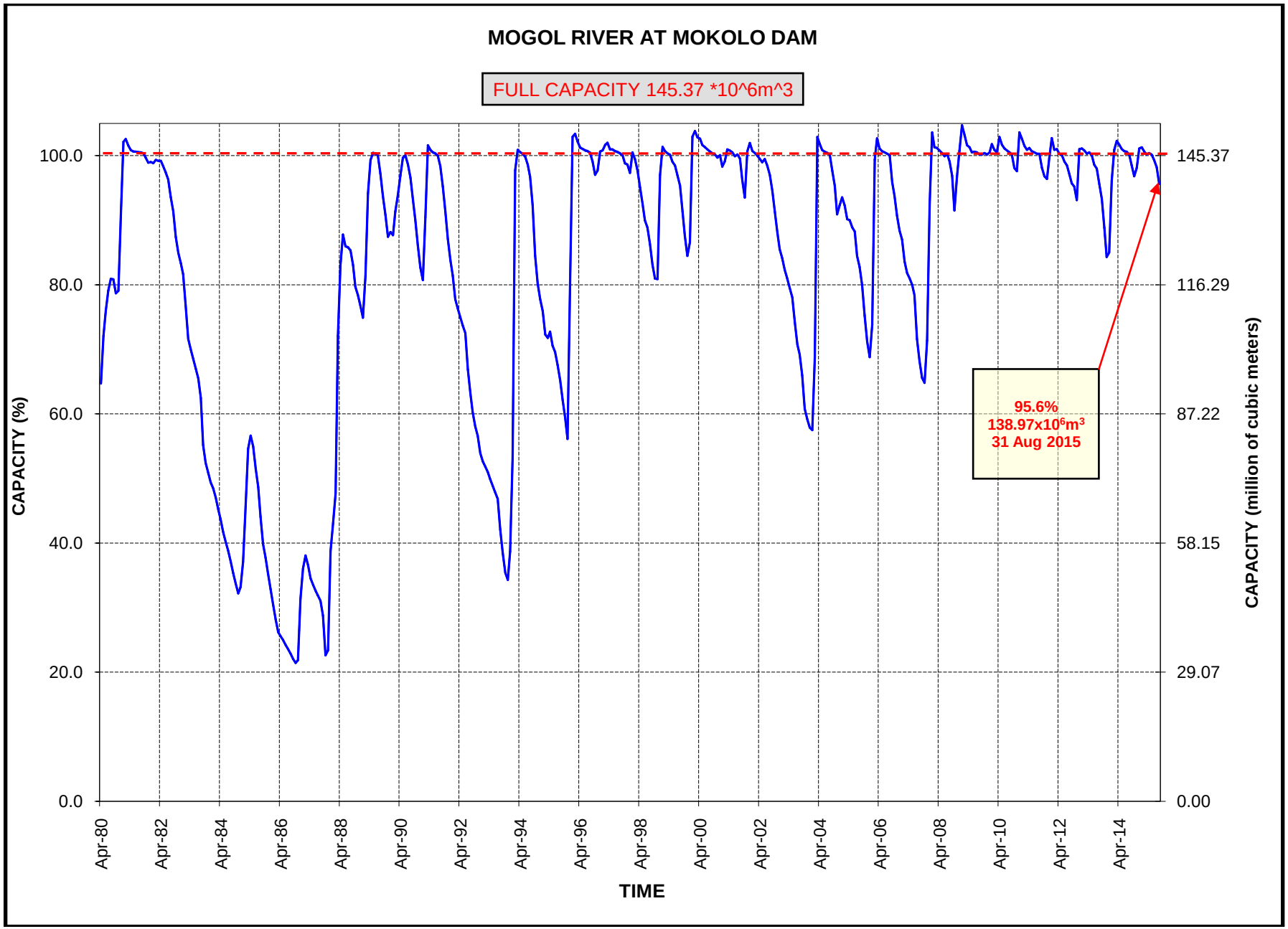
7.2 X3 Drainage Area (Mariti River)

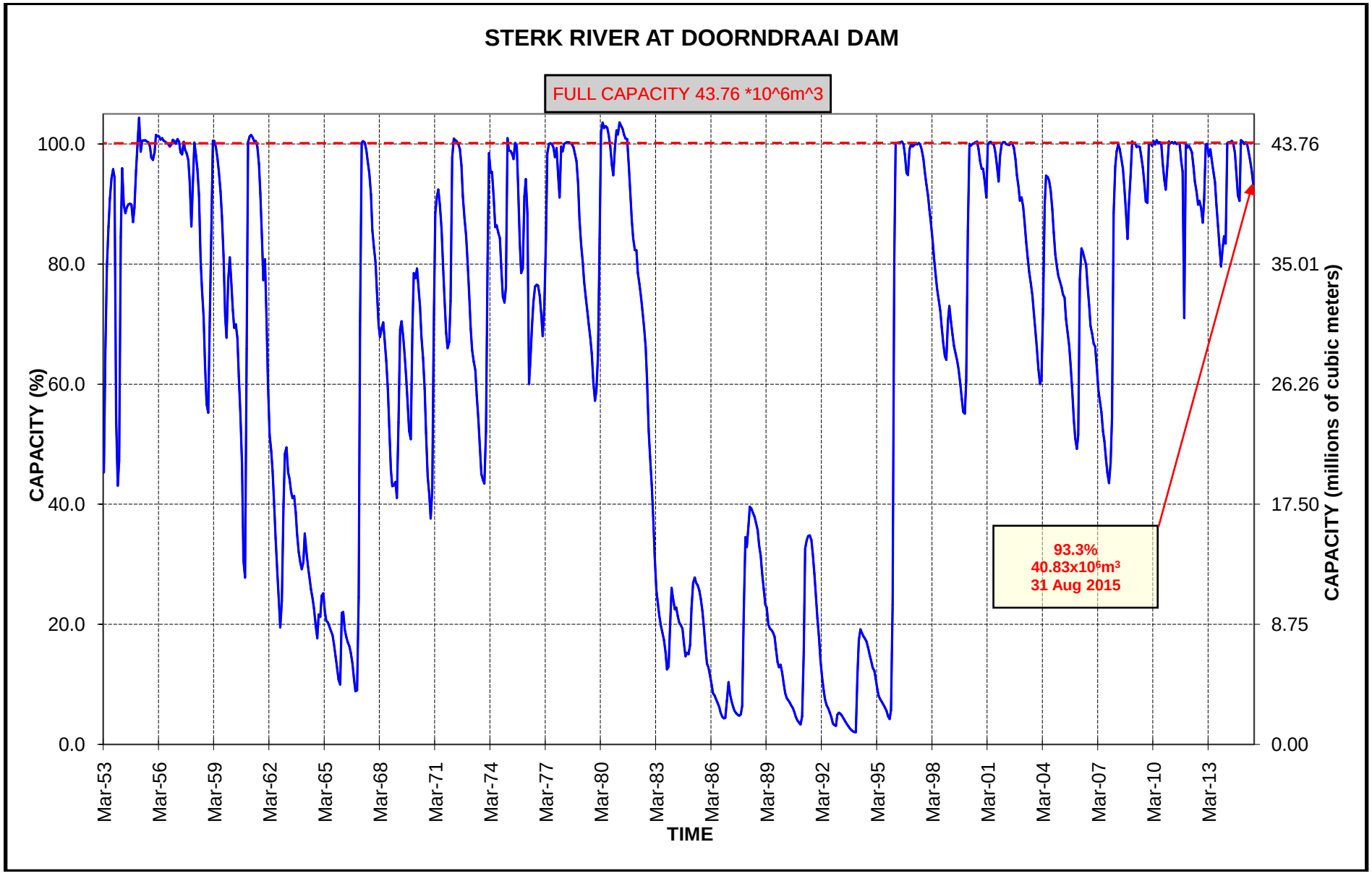
For information as well as operational matters the graph of Inyaka Dam (X3R002) has been included in this report.

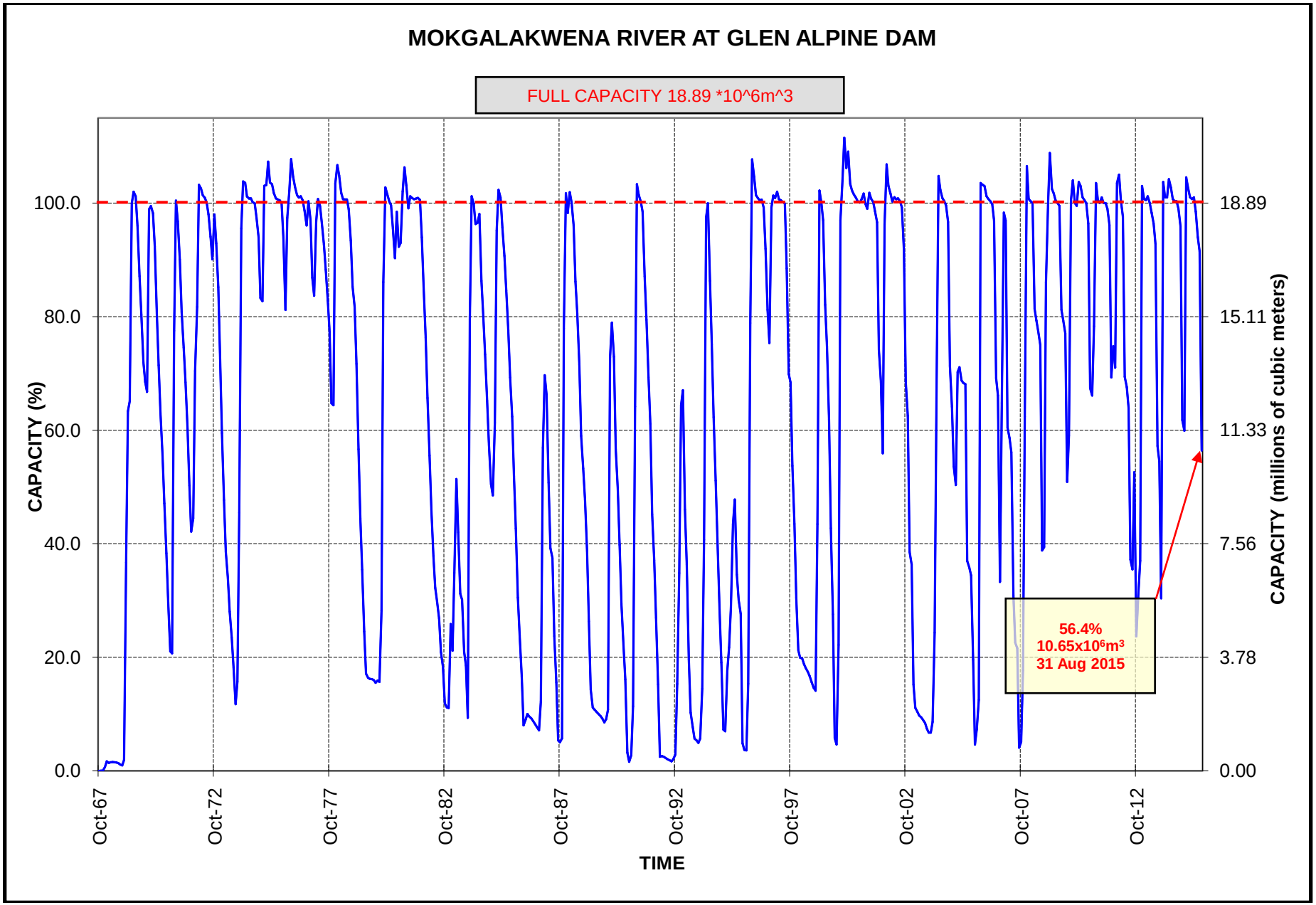

LIMPOPO
Average monthly rainfall
2014/2015 Actual rainfall
Cumulative Monthly Rainfall (mm)
Monthly Rainfall (mm)
Above Normal
Normal
Below Normal
2009/10
2011/12
2012/13
2010/11
2013/14
2014/15
Oct
Nov
Dec
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep

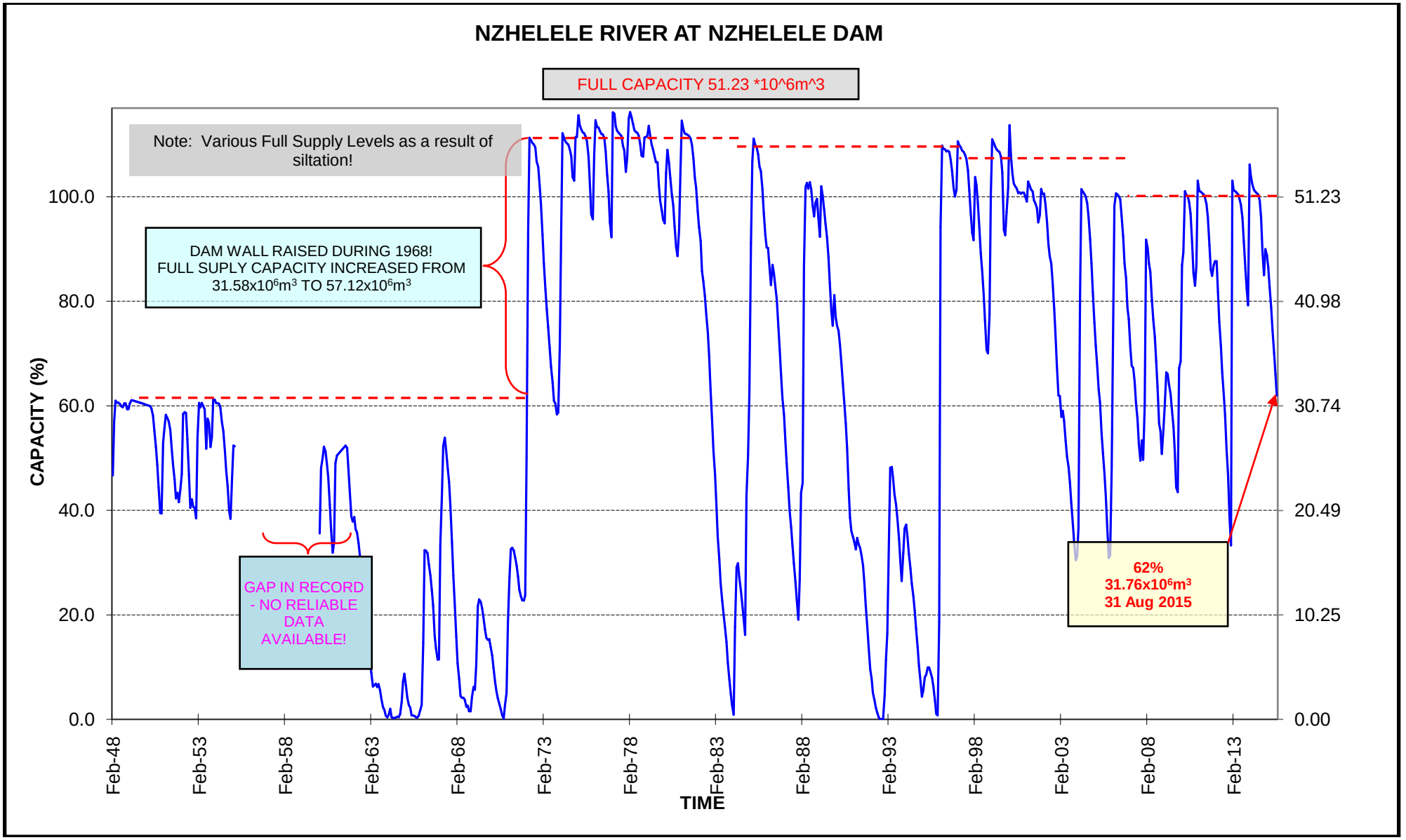
	Summary WMA	Full Supply Capacity 10^6M^3	Water in Storage 10^6M^3	Last Year %Full	Last Week %Full	This Week 31/08/2015 %Full
1	Limpopo	280.4	229.9	99.7	83.2	82.0
2	Luvubu/Letaba	652.5	419.1	84.3	64.8	64.2
3	Crocodile (West) Marico	807.3	500.2	76.6	62.6	62.0
4	Olifants	1422.6	1090.5	86.7	77.3	76.7
5	Inkomati	1049.5	832.4	97.1	79.8	79.3
6	Usutu/Mhlatuze	3276.2	1948.9	77.1	59.8	59.5
7	Thukela	1254.5	1026.3	88.3	82.5	81.8
8	Upper Vaal	5659.2	4561.8	92.0	81.1	80.6
9	Middle Vaal	1671.6	855.0	81.1	52.3	51.1
10	Lower Vaal	108.5	77.0	91.9	74.3	71.0
11	Mvoti/Umzimkulu	801.9	539.2	84.3	67.9	67.2
12	Mzimvubu/Keiskamma	1091.6	994.1	91.9	91.5	91.1
13	Upper Orange	11428.3	8318.9	81.4	73.5	72.8
14	Lower Orange	36.1	38.2	107.7	106.3	105.9
15	Fish/Tsitsikamma	725.2	435.3	53.9	59.3	60.0
16	Gouritz	268.3	144.4	79.3	53.7	53.8
17	Olifants/Doorn	128.2	112.5	95.9	85.1	87.8
18	Breede	1041.0	712.2	92.1	67.4	68.4
19	Berg	416.5	301.7	100.8	72.4	72.4
	GRAND TOTAL	32119.5	23137.7	84.5	72.5	72.0

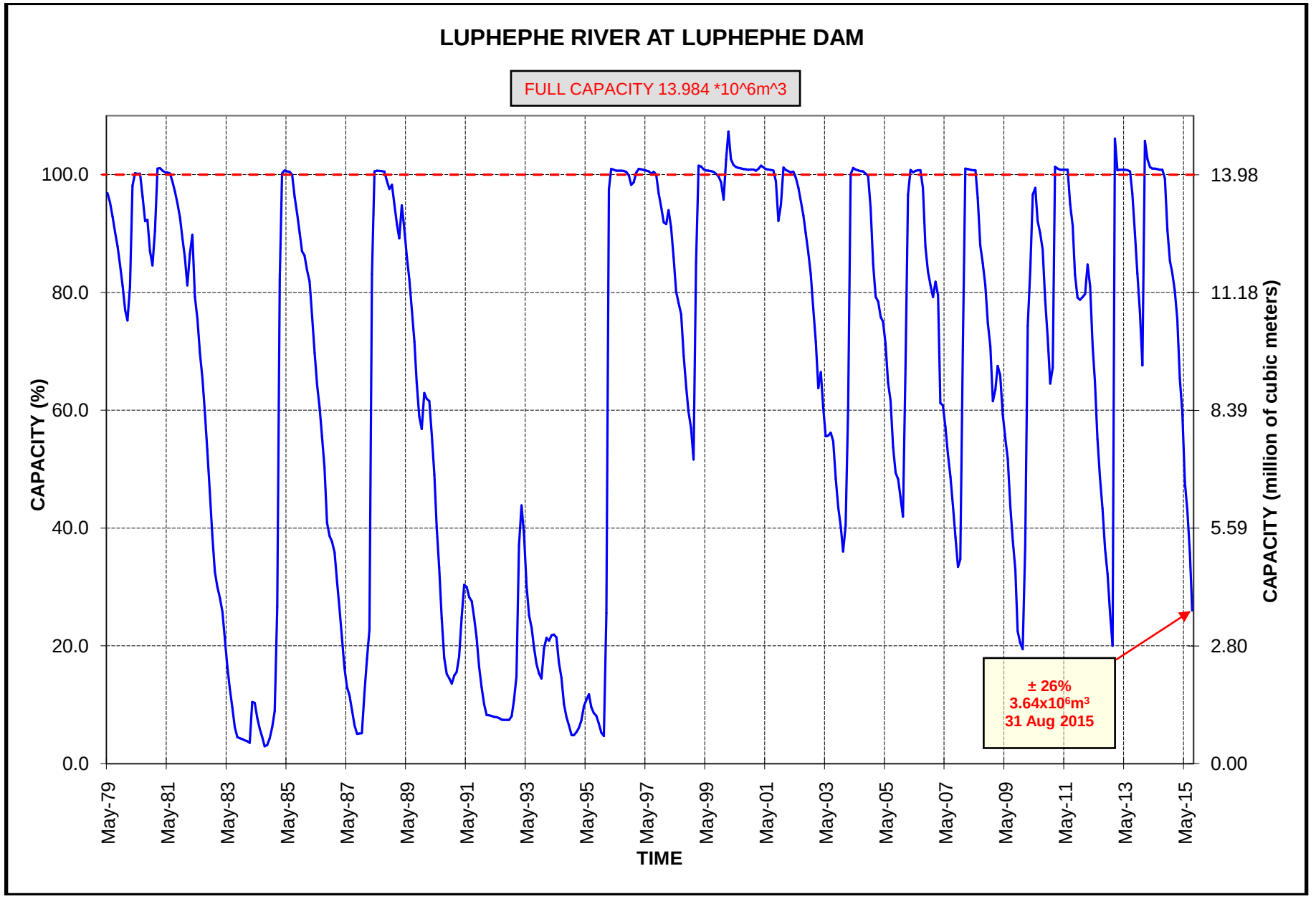
Please note that the above summaries are not representative of all dams within any of the Provinces or Water Management Areas.
The summaries only reflect the storages for those dams listed in the Weekly State of Reservoirs Report.

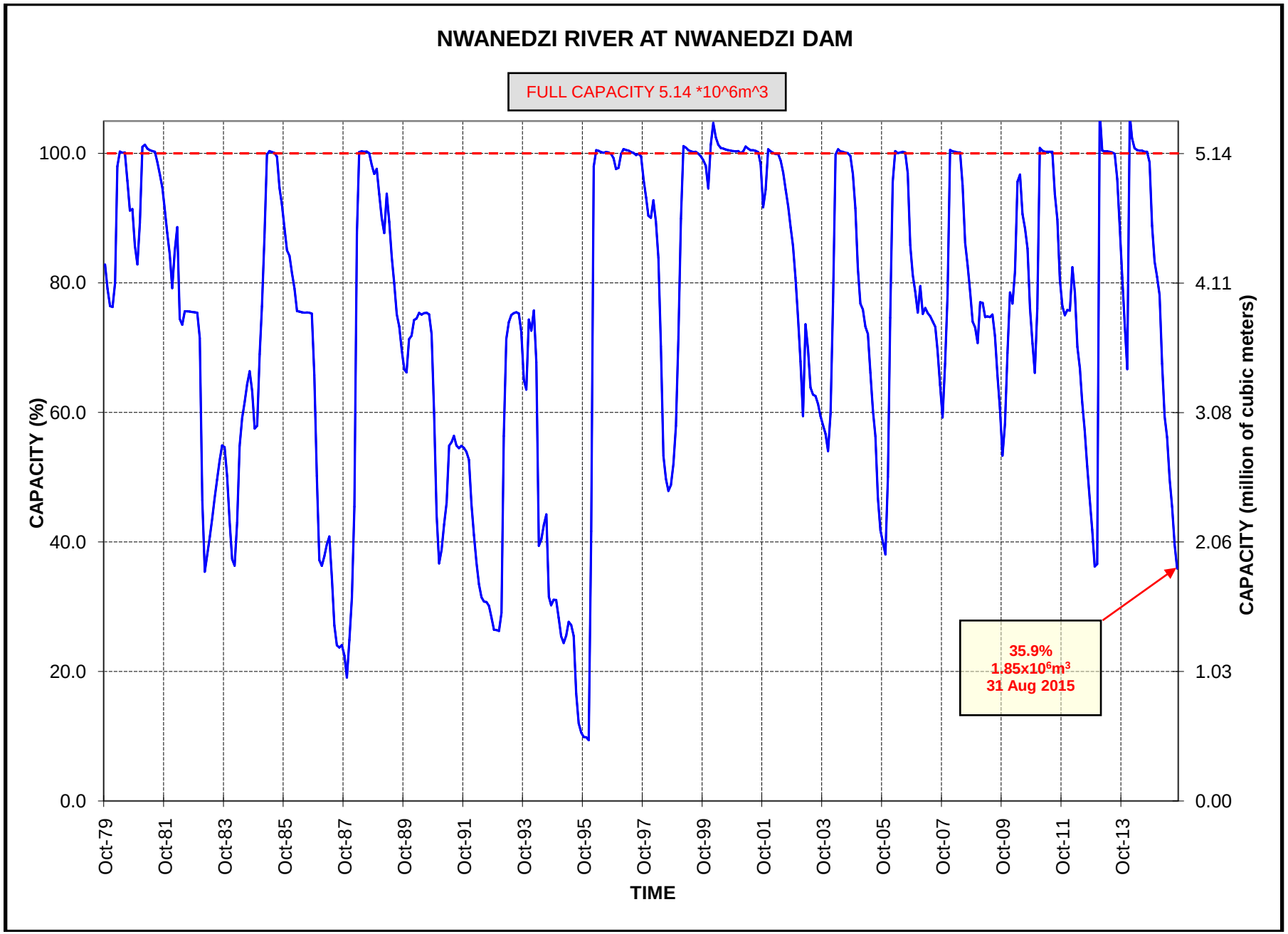

MOGOL RIVER AT MOKOLO DAM
FULL CAPACITY 145.37 *10^6m^3
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
145.37
116.29
87.22
58.15
29.07
0.00
CAPACITY (million of cubic meters)
95.6%
138.97x10^6m^3
31 Aug 2015
Apr-80
Apr-82
Apr-84
Apr-86
Apr-88
Apr-90
Apr-92
Apr-94
Apr-96
Apr-98
Apr-00
Apr-02
Apr-04
Apr-06
Apr-08
Apr-10
Apr-12
Apr-14
TIME

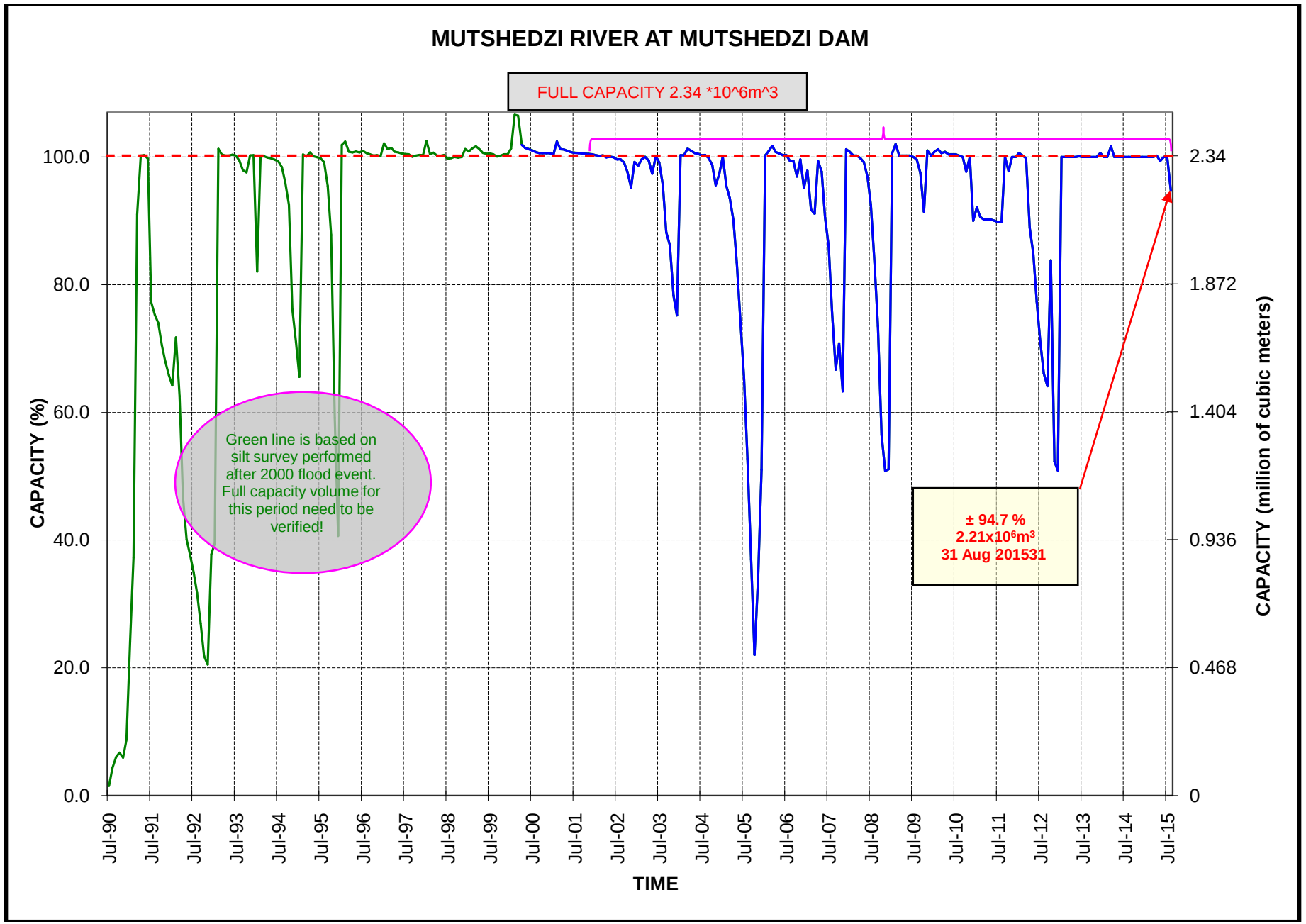

STERK RIVER AT DOORNDRAAI DAM
FULL CAPACITY 43.76 *10^6m^3
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
43.76
35.01
26.26
17.50
8.75
0.00
CAPACITY (millions of cubic meters)
93.3%
40.83x10^6m^3
31 Aug 2015
Mar-53
Mar-56
Mar-59
Mar-62
Mar-65
Mar-68
Mar-71
Mar-74
Mar-77
Mar-80
Mar-83
Mar-86
Mar-89
Mar-92
Mar-95
Mar-98
Mar-01
Mar-04
Mar-07
Mar-10
Mar-13
TIME

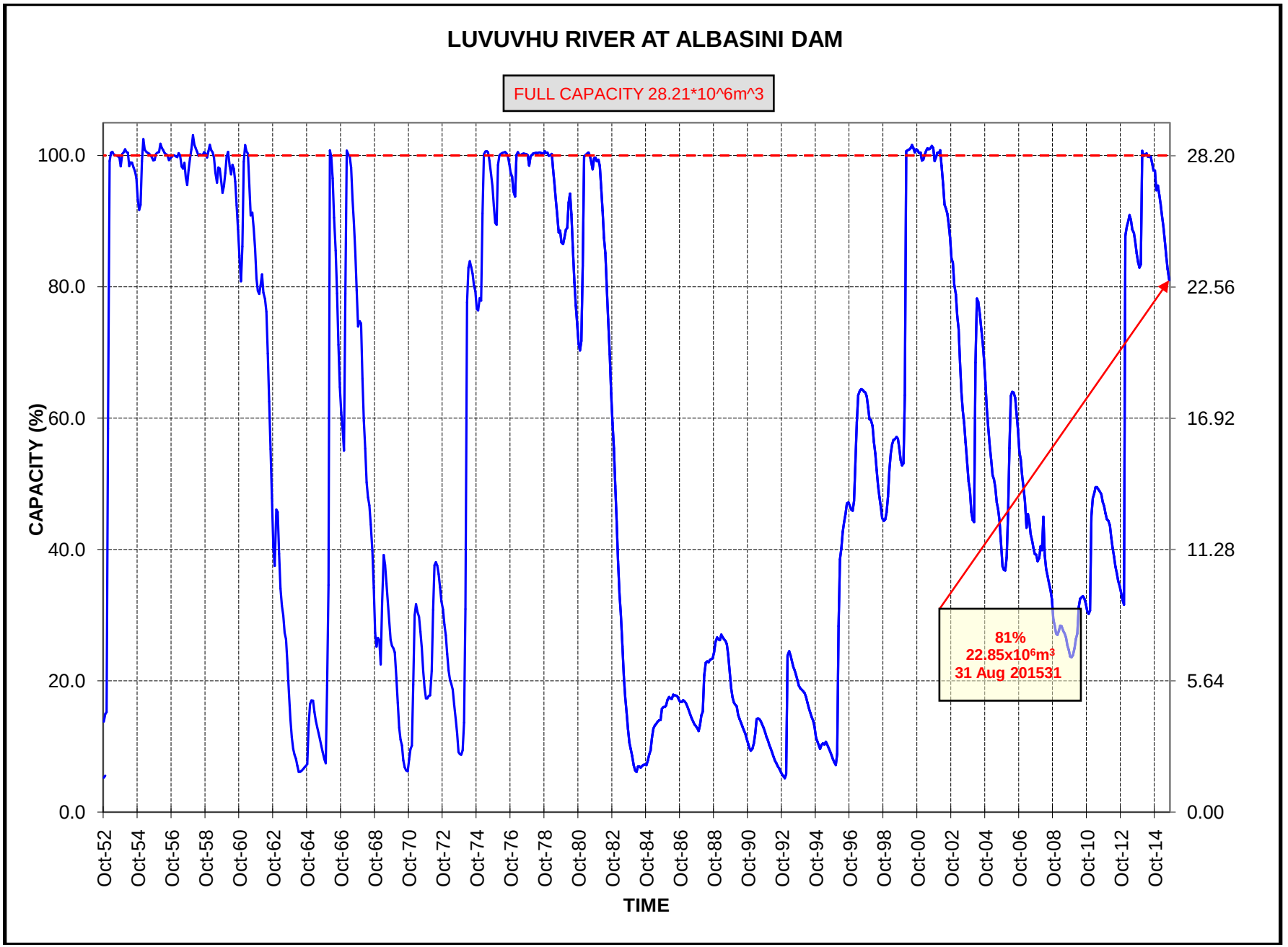

MOKGALAKWENA RIVER AT GLEN ALPINE DAM
FULL CAPACITY 18.89 *10^6m^3
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
18.89
15.11
11.33
7.56
3.78
0.00
CAPACITY (millions of cubic meters)
Oct-67
Oct-72
Oct-77
Oct-82
Oct-87
Oct-92
Oct-97
Oct-02
Oct-07
Oct-12
TIME
56.4%
10.65x10^6m^3
31 Aug 2015

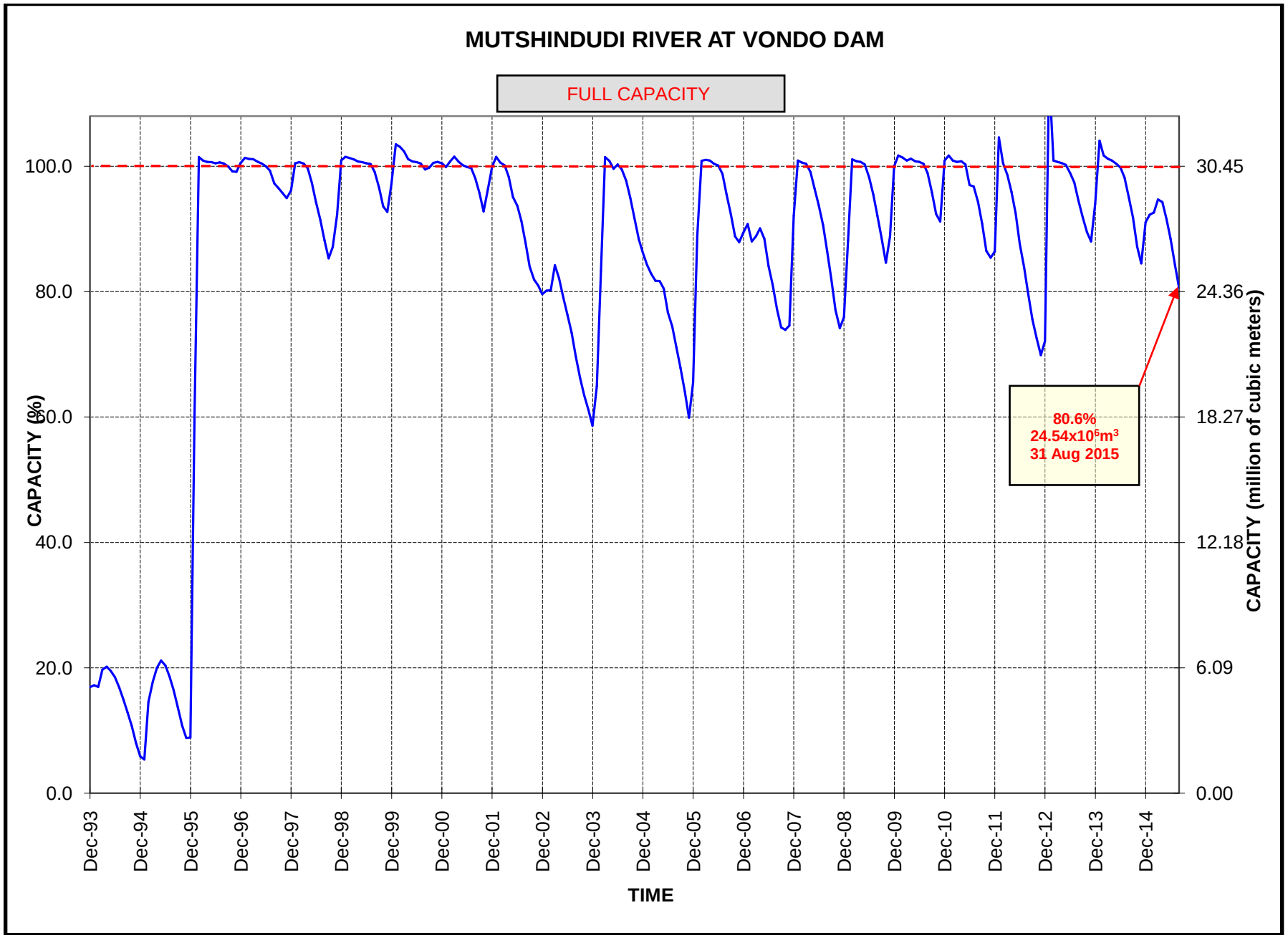

NZHELELE RIVER AT NZHELELE DAM
FULL CAPACITY 51.23 *10^6m^3
Note: Various Full Supply Levels as a result of siltation!
DAM WALL RAISED DURING 1968!
FULL SUPLY CAPACITY INCREASED FROM
31.58x10⁶m³ TO 57.12x10⁶m³
GAP IN RECORD - NO RELIABLE DATA AVAILABLE!
62%
31.76x10⁶m³
31 Aug 2015
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
51.23
40.98
30.74
20.49
10.25
0.00
Feb-48
Feb-53
Feb-58
Feb-63
Feb-68
Feb-73
Feb-78
Feb-83
Feb-88
Feb-93
Feb-98
Feb-03
Feb-08
Feb-13
TIME

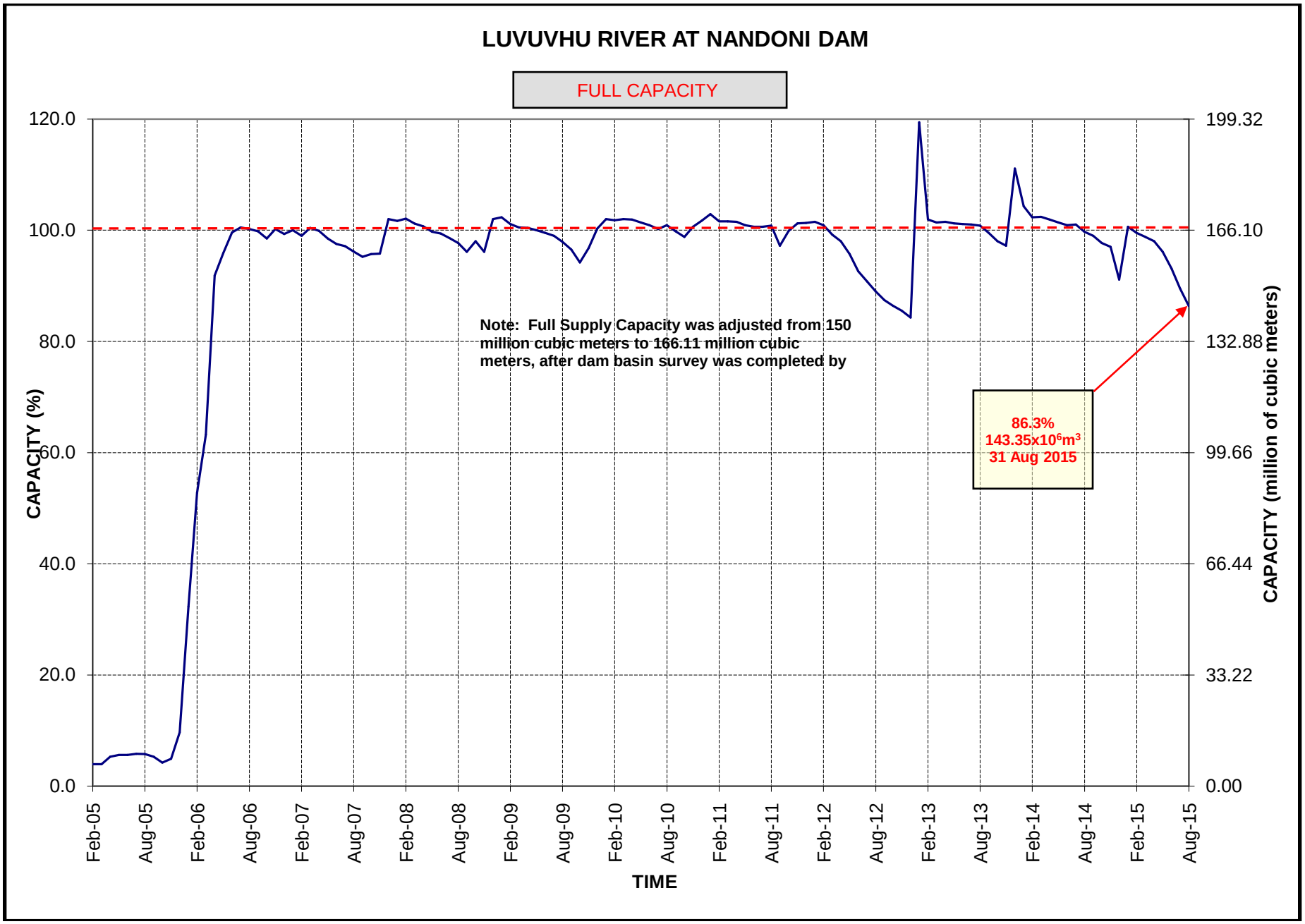

LUPHEPHE RIVER AT LUPHEPHE DAM
FULL CAPACITY 13.984 *10^6m^3
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
13.98
11.18
8.39
5.59
2.80
0.00
CAPACITY (million of cubic meters)
May-79
May-81
May-83
May-85
May-87
May-89
May-91
May-93
May-95
May-97
May-99
May-01
May-03
May-05
May-07
May-09
May-11
May-13
May-15
TIME
± 26%
3.64x10⁶m³
31 Aug 2015

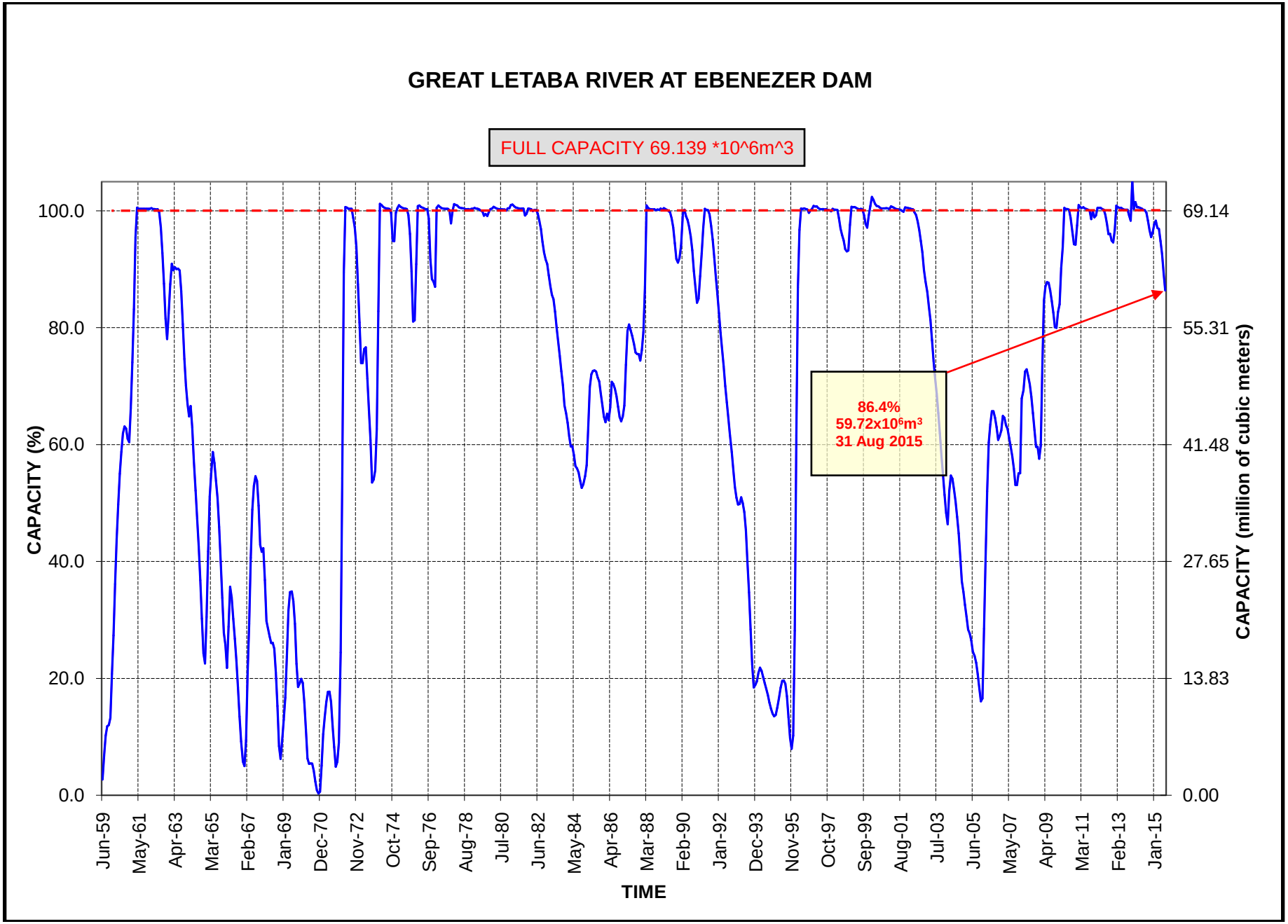

NWANEDZI RIVER AT NWANEDZI DAM
FULL CAPACITY 5.14 *10^6m^3
CAPACITY (%)
CAPACITY (million of cubic meters)
TIME
100.0
80.0
60.0
40.0
20.0
0.0
5.14
4.11
3.08
2.06
1.03
0.00
Oct-79
Oct-81
Oct-83
Oct-85
Oct-87
Oct-89
Oct-91
Oct-93
Oct-95
Oct-97
Oct-99
Oct-01
Oct-03
Oct-05
Oct-07
Oct-09
Oct-11
Oct-13
35.9%
1.85x10^6m^3
31 Aug 2015


MUTSHEDZI RIVER AT MUTSHEDZI DAM
FULL CAPACITY 2.34 *10^6m^3
Green line is based on silt survey performed after 2000 flood event. Full capacity volume for this period need to be verified!
± 94.7 %
2.21x10⁶m³
31 Aug 201531
CAPACITY (%)
CAPACITY (million of cubic meters)
TIME
100.0
80.0
60.0
40.0
20.0
0.0
2.34
1.872
1.404
0.936
0.468
0
Jul-90
Jul-91
Jul-92
Jul-93
Jul-94
Jul-95
Jul-96
Jul-97
Jul-98
Jul-99
Jul-00
Jul-01
Jul-02
Jul-03
Jul-04
Jul-05
Jul-06
Jul-07
Jul-08
Jul-09
Jul-10
Jul-11
Jul-12
Jul-13
Jul-14
Jul-15


LUVUVHU RIVER AT ALBASINI DAM
FULL CAPACITY 28.21*10^6m^3
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
28.20
22.56
16.92
11.28
5.64
0.00
Oct-52
Oct-54
Oct-56
Oct-58
Oct-60
Oct-62
Oct-64
Oct-66
Oct-68
Oct-70
Oct-72
Oct-74
Oct-76
Oct-78
Oct-80
Oct-82
Oct-84
Oct-86
Oct-88
Oct-90
Oct-92
Oct-94
Oct-96
Oct-98
Oct-00
Oct-02
Oct-04
Oct-06
Oct-08
Oct-10
Oct-12
Oct-14
TIME
81%
22.85x10⁶m³
31 Aug 201531


MUTSHINDUDI RIVER AT VONDO DAM
FULL CAPACITY
100.0
80.0
60.0
40.0
20.0
0.0
CAPACITY (%)
30.45
24.36
18.27
12.18
6.09
0.00
CAPACITY (million of cubic meters)
80.6%
24.54x10⁶m³
31 Aug 2015
Dec-93
Dec-94
Dec-95
Dec-96
Dec-97
Dec-98
Dec-99
Dec-00
Dec-01
Dec-02
Dec-03
Dec-04
Dec-05
Dec-06
Dec-07
Dec-08
Dec-09
Dec-10
Dec-11
Dec-12
Dec-13
Dec-14
TIME


LUVUVHU RIVER AT NANDONI DAM
FULL CAPACITY
120.0
100.0
80.0
60.0
40.0
20.0
0.0
199.32
166.10
132.88
99.66
66.44
33.22
0.00
CAPACITY (%)
CAPACITY (million of cubic meters)
Note: Full Supply Capacity was adjusted from 150 million cubic meters to 166.11 million cubic meters, after dam basin survey was completed by
86.3%
143.35x10⁶m³
31 Aug 2015
Feb-05
Aug-05
Feb-06
Aug-06
Feb-07
Aug-07
Feb-08
Aug-08
Feb-09
Aug-09
Feb-10
Aug-10
Feb-11
Aug-11
Feb-12
Aug-12
Feb-13
Aug-13
Feb-14
Aug-14
Feb-15
Aug-15
TIME


GREAT LETABA RIVER AT EBENEZER DAM
FULL CAPACITY 69.139 *10^6m^3
86.4%
59.72x10⁶m³
31 Aug 2015
CAPACITY (%)
CAPACITY (million of cubic meters)
TIME
100.0
80.0
60.0
40.0
20.0
0.0
69.14
55.31
41.48
27.65
13.83
0.00
Jun-59
May-61
Apr-63
Mar-65
Feb-67
Jan-69
Dec-70
Nov-72
Oct-74
Sep-76
Aug-78
Jul-80
Jun-82
May-84
Apr-86
Mar-88
Feb-90
Jan-92
Dec-93
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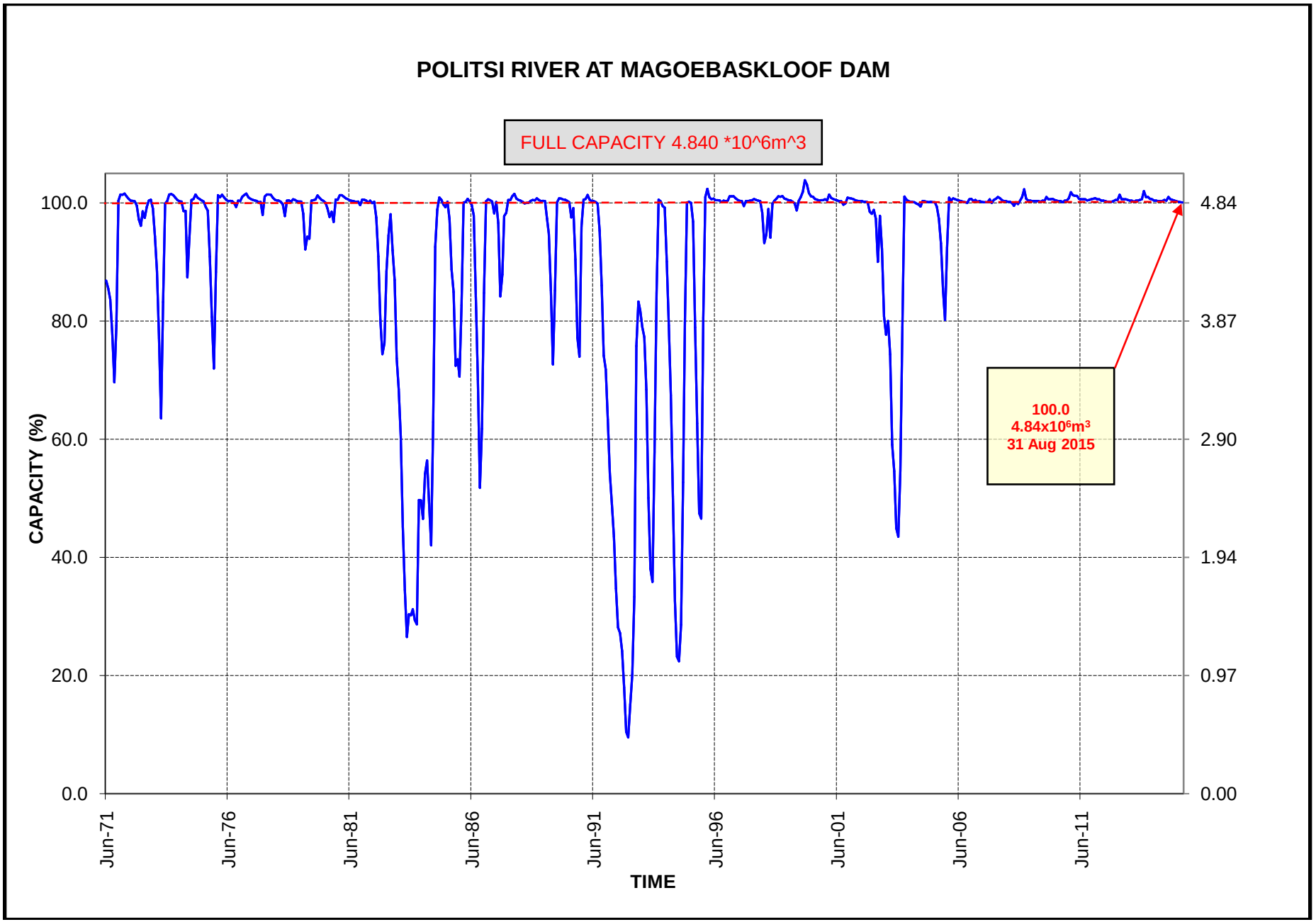
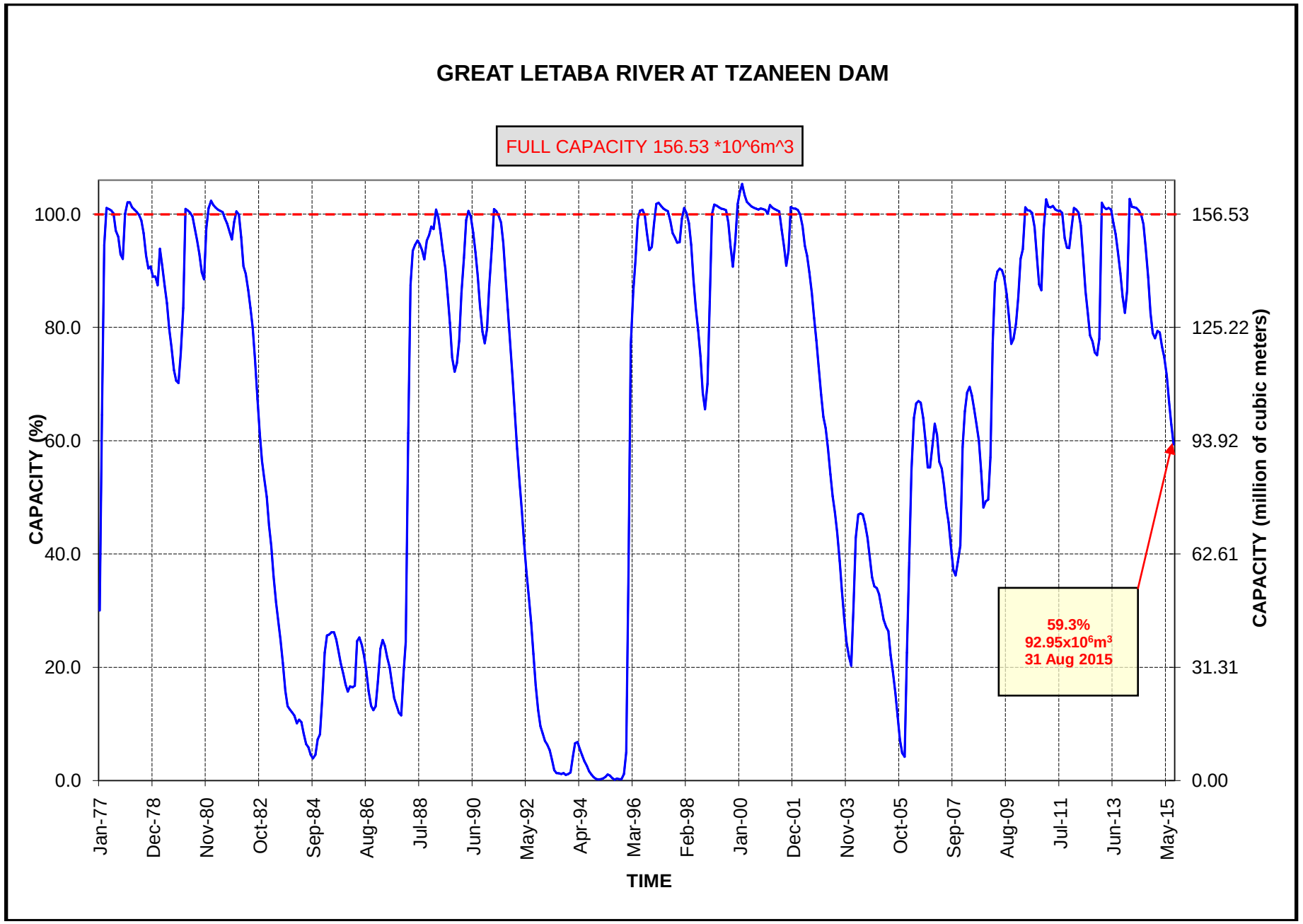
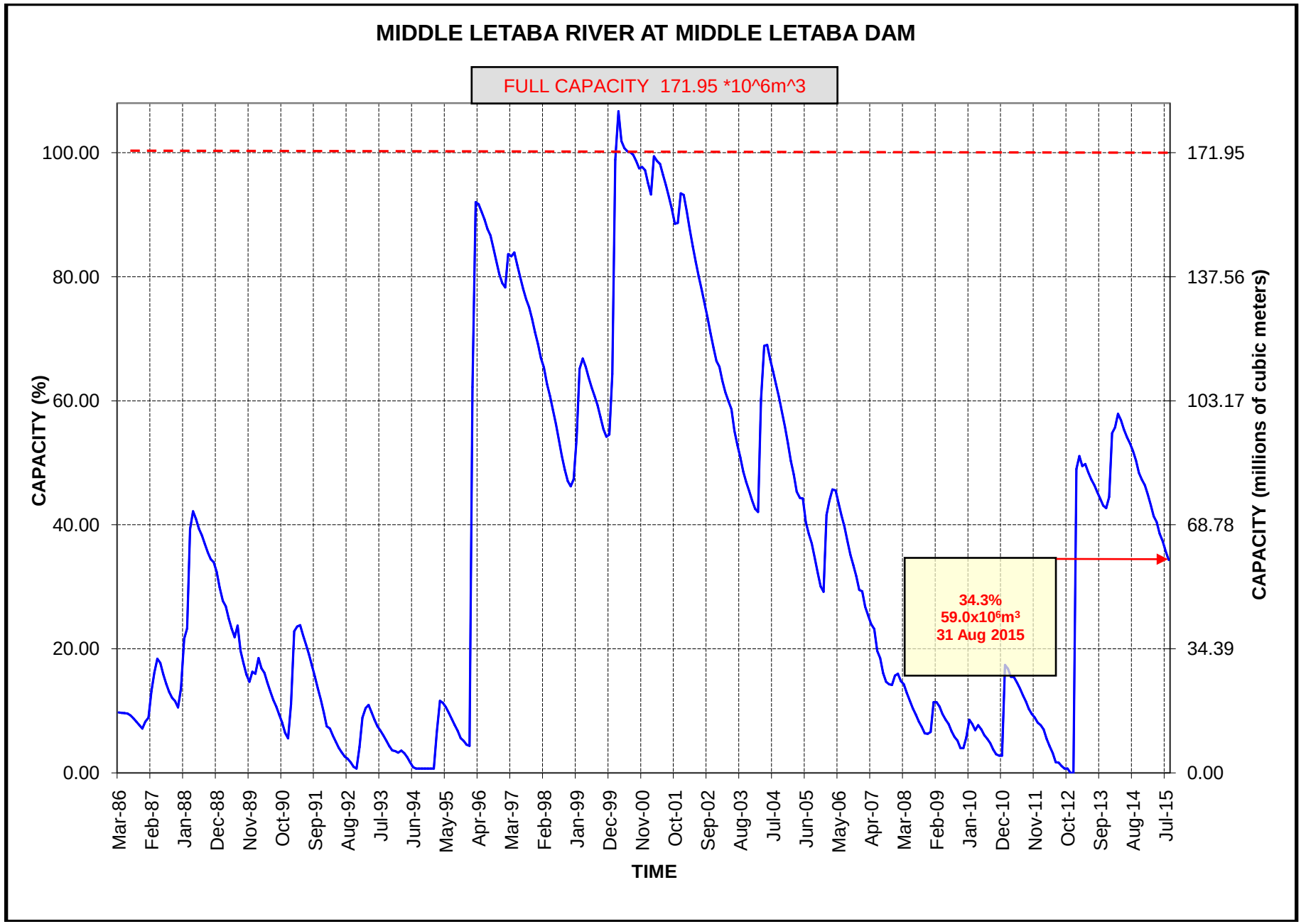
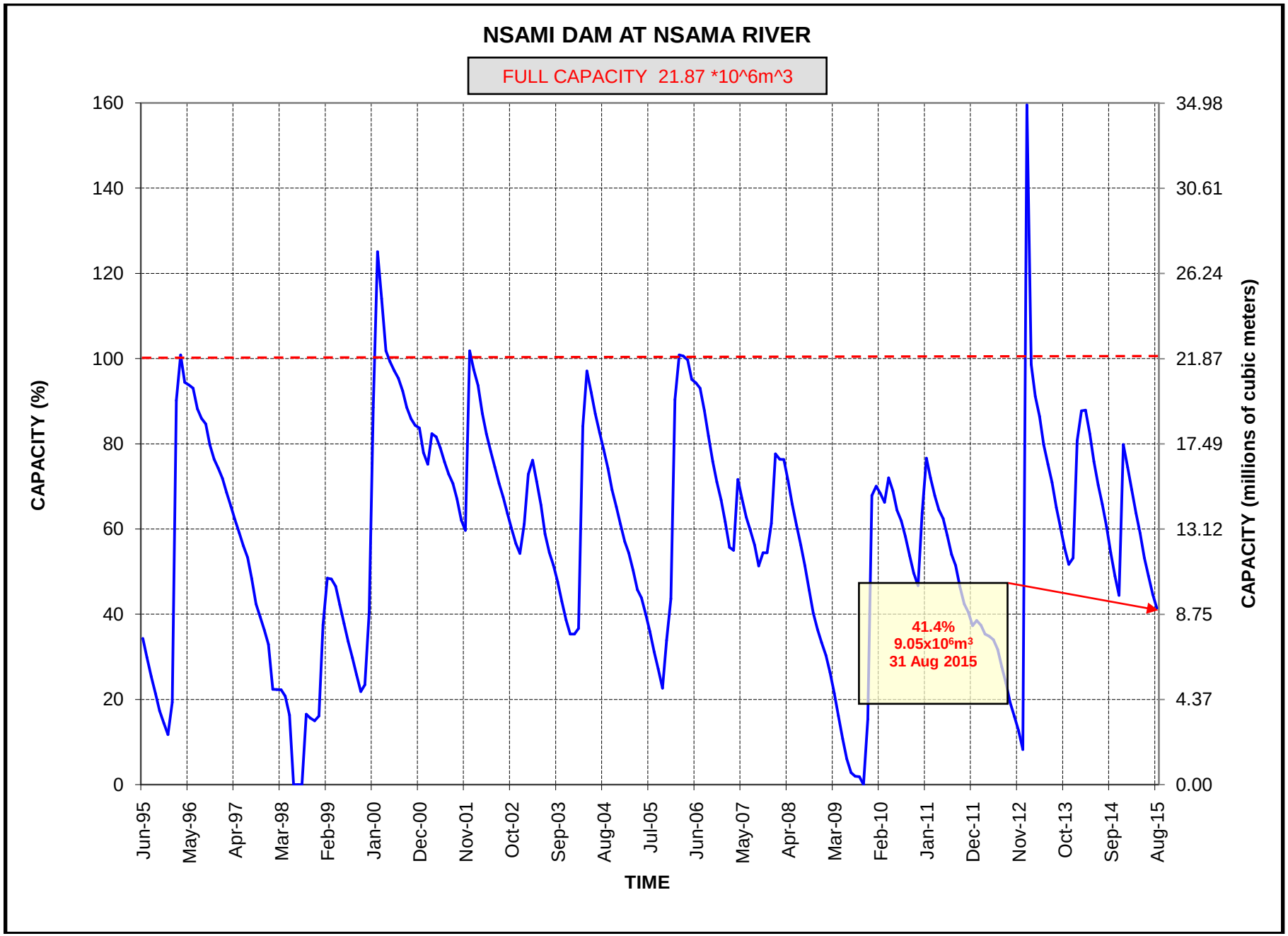
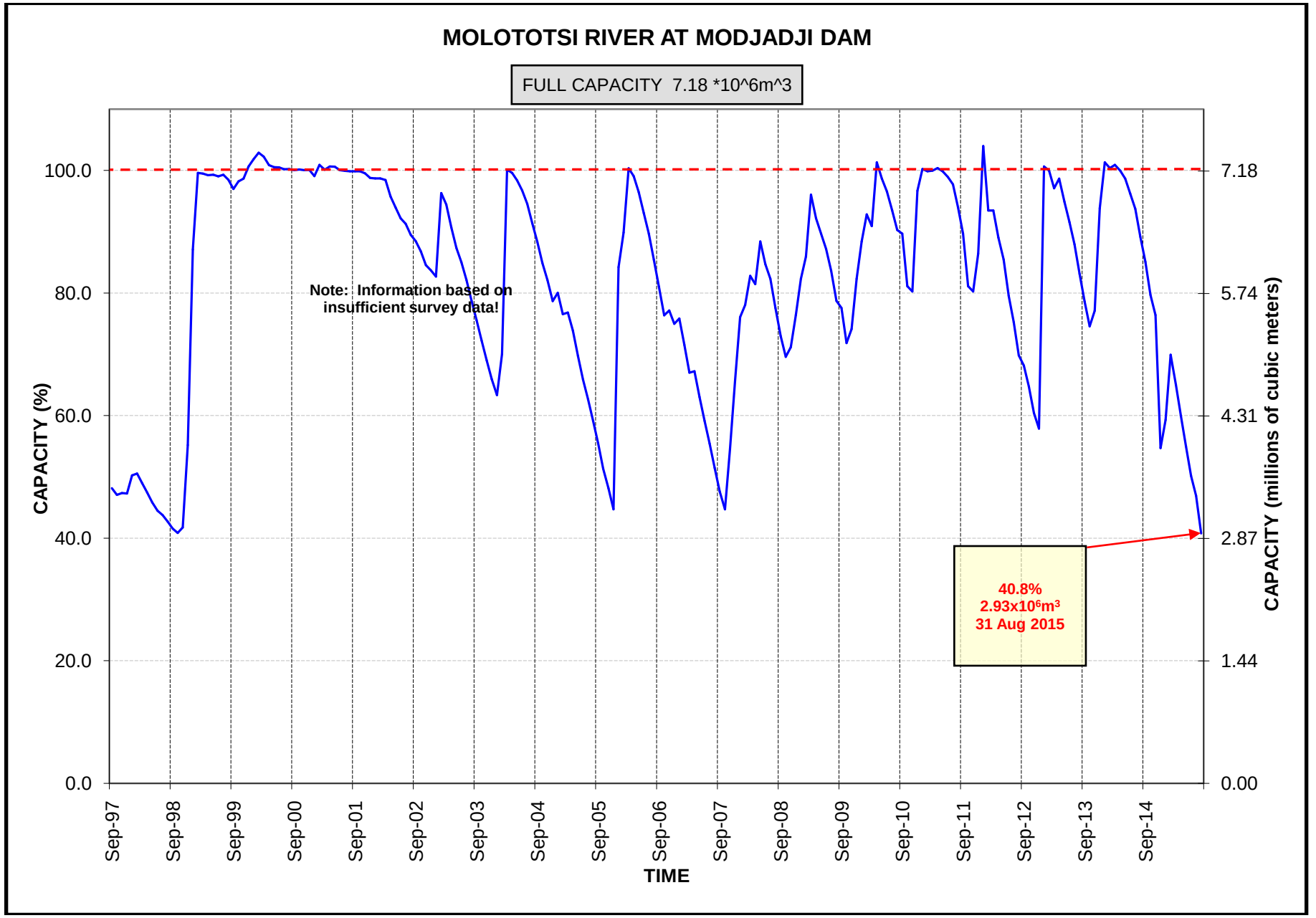
Jun-05
May-07
Apr-09
Mar-11
Feb-13
Jan-15

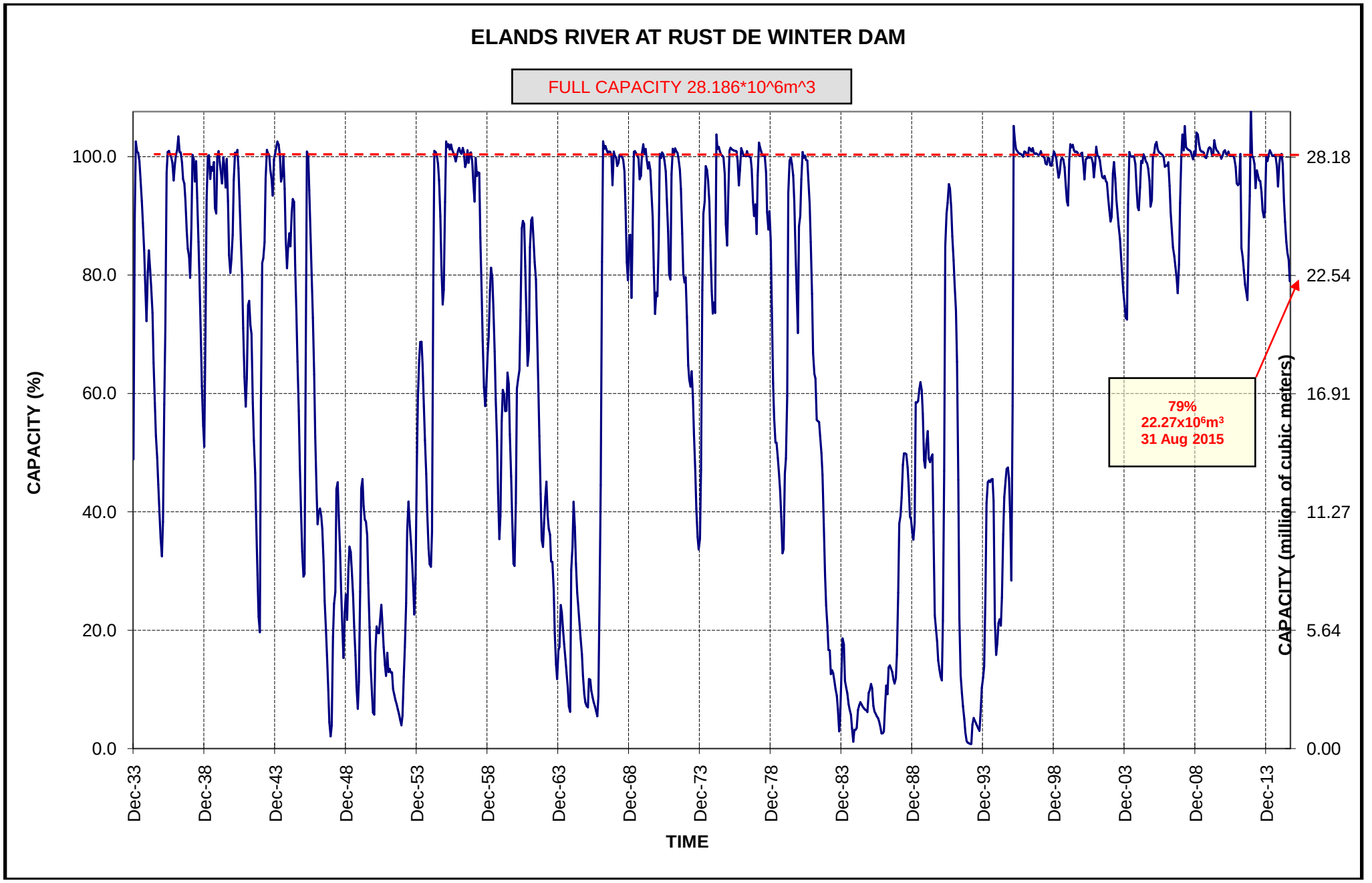

POLITSI RIVER AT MAGOEBASKLOOF DAM
FULL CAPACITY 4.840 *10^6m^3
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
4.84
3.87
2.90
1.94
0.97
0.00
100.0
4.84x10⁶m³
31 Aug 2015
Jun-71
Jun-76
Jun-81
Jun-86
Jun-91
Jun-96
Jun-01
Jun-06
Jun-11
TIME

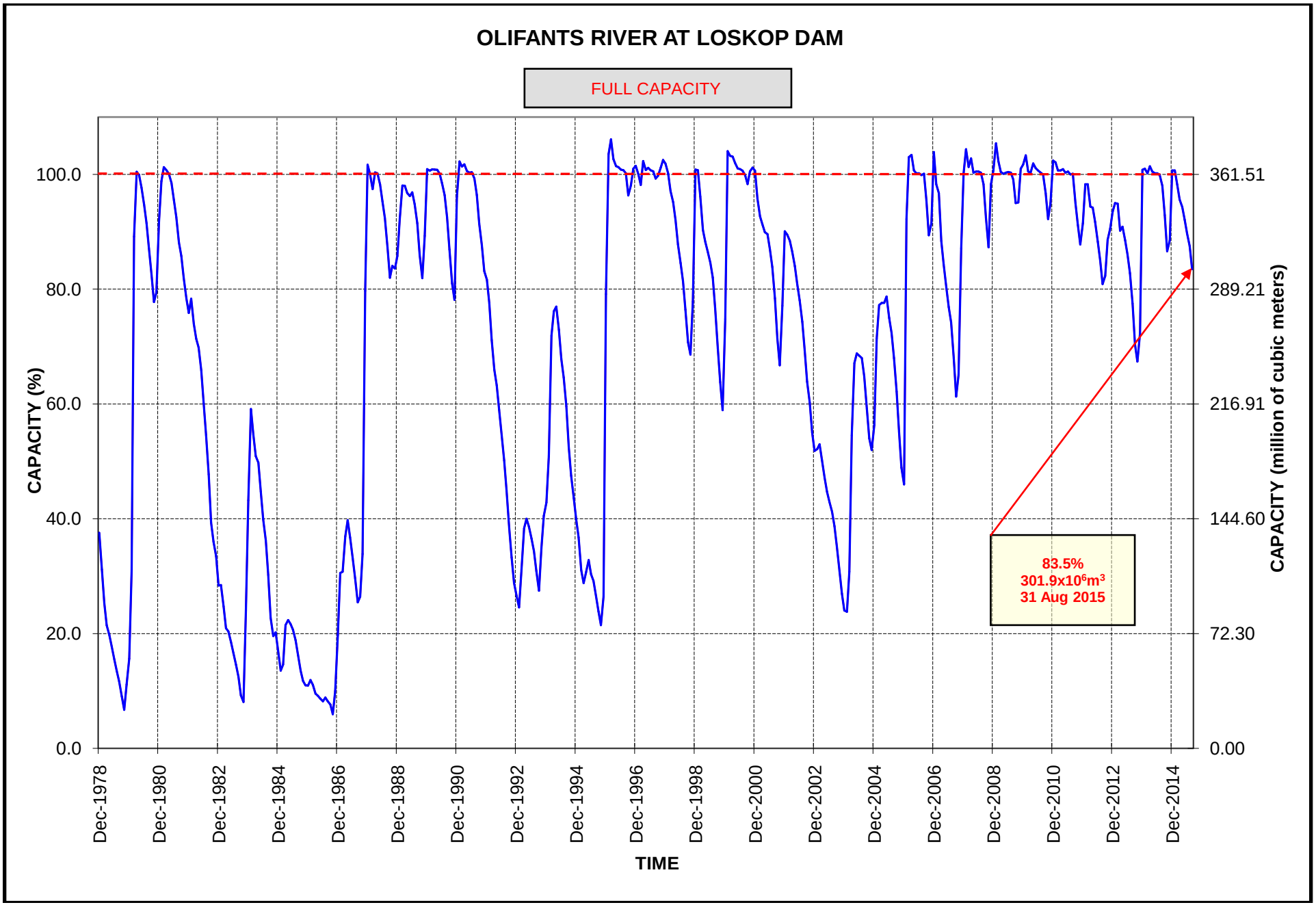

GREAT LETABA RIVER AT TZANEEN DAM
FULL CAPACITY 156.53 *10^6m^3
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
156.53
125.22
93.92
62.61
31.31
0.00
CAPACITY (million of cubic meters)
59.3%
92.95x10^6m^3
31 Aug 2015
Jan-77
Dec-78
Nov-80
Oct-82
Sep-84
Aug-86
Jul-88
Jun-90
May-92
Apr-94
Mar-96
Feb-98
Jan-00
Dec-01
Nov-03
Oct-05
Sep-07
Aug-09
Jul-11
Jun-13
May-15
TIME

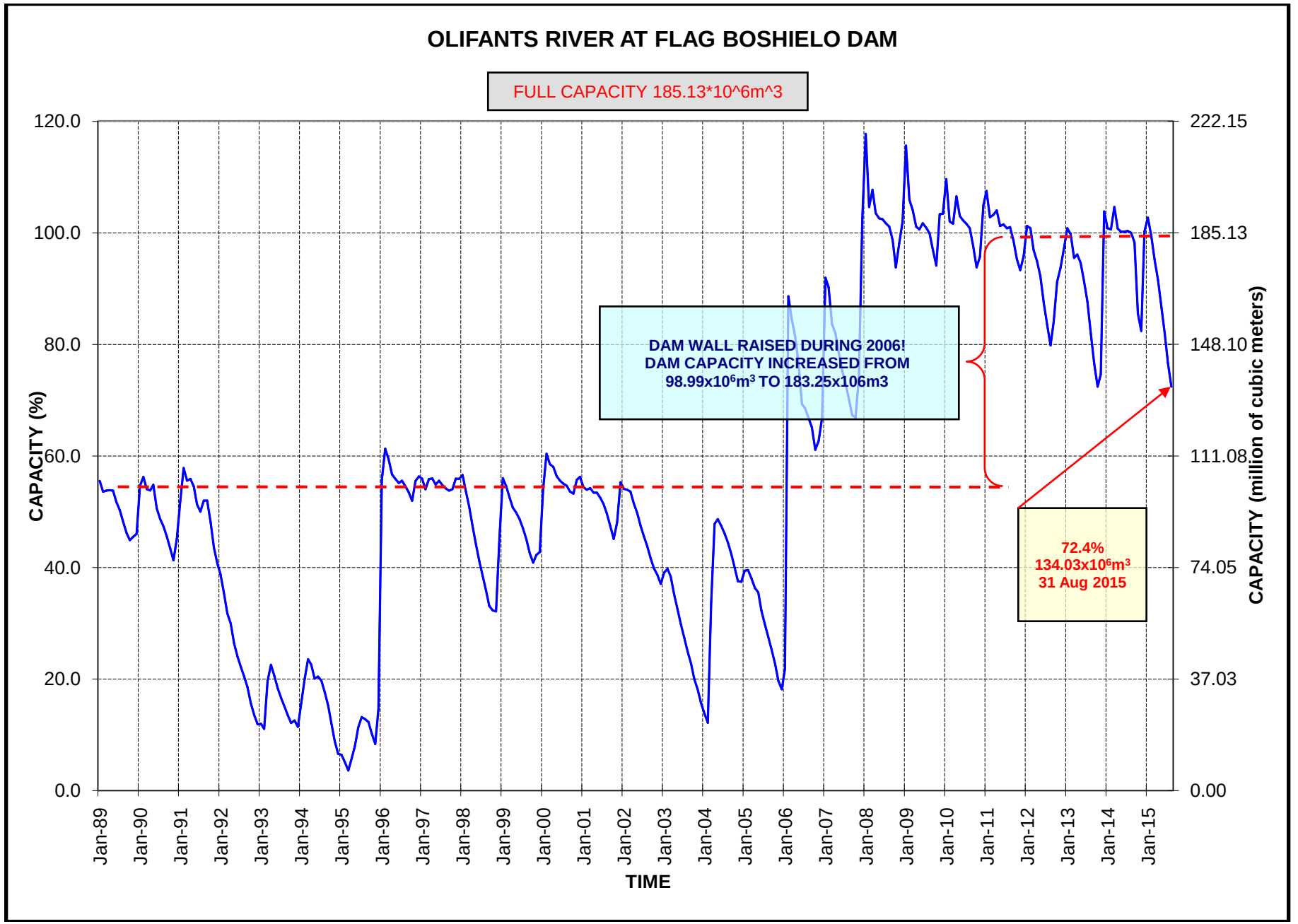

MIDDLE LETABA RIVER AT MIDDLE LETABA DAM
FULL CAPACITY 171.95 *10^6m^3
100.00
80.00
60.00
40.00
20.00
0.00
CAPACITY (%)
171.95
137.56
103.17
68.78
34.39
0.00
CAPACITY (millions of cubic meters)
34.3%
59.0x10⁶m³
31 Aug 2015
Mar-86
Feb-87
Jan-88
Dec-88
Nov-89
Oct-90
Sep-91
Aug-92
Jul-93
Jun-94
May-95
Apr-96
Mar-97
Feb-98
Jan-99
Dec-99
Nov-00
Oct-01
Sep-02
Aug-03
Jul-04
Jun-05
May-06
Apr-07
Mar-08
Feb-09
Jan-10
Dec-10
Nov-11
Oct-12
Sep-13
Aug-14
Jul-15
TIME

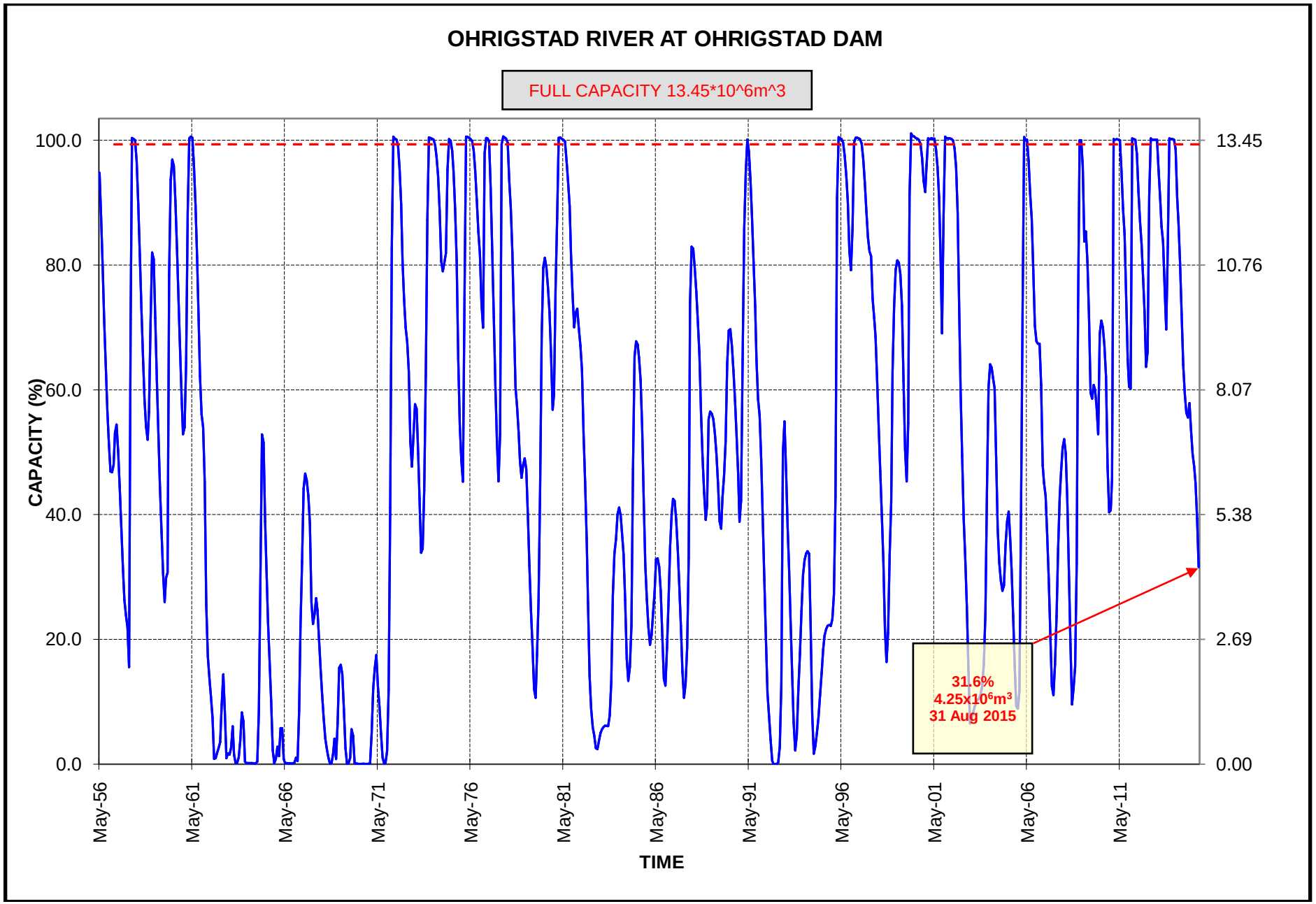

NSAMI DAM AT NSAMA RIVER
FULL CAPACITY 21.87 *10^6m^3
CAPACITY (%)
CAPACITY (millions of cubic meters)
TIME
160
140
120
100
80
60
40
20
0
34.98
30.61
26.24
21.87
17.49
13.12
8.75
4.37
0.00
Jun-95
May-96
Apr-97
Mar-98
Feb-99
Jan-00
Dec-00
Nov-01
Oct-02
Sep-03
Aug-04
Jul-05
Jun-06
May-07
Apr-08
Mar-09
Feb-10
Jan-11
Dec-11
Nov-12
Oct-13
Sep-14
Aug-15
41.4%
9.05x10⁶m³
31 Aug 2015

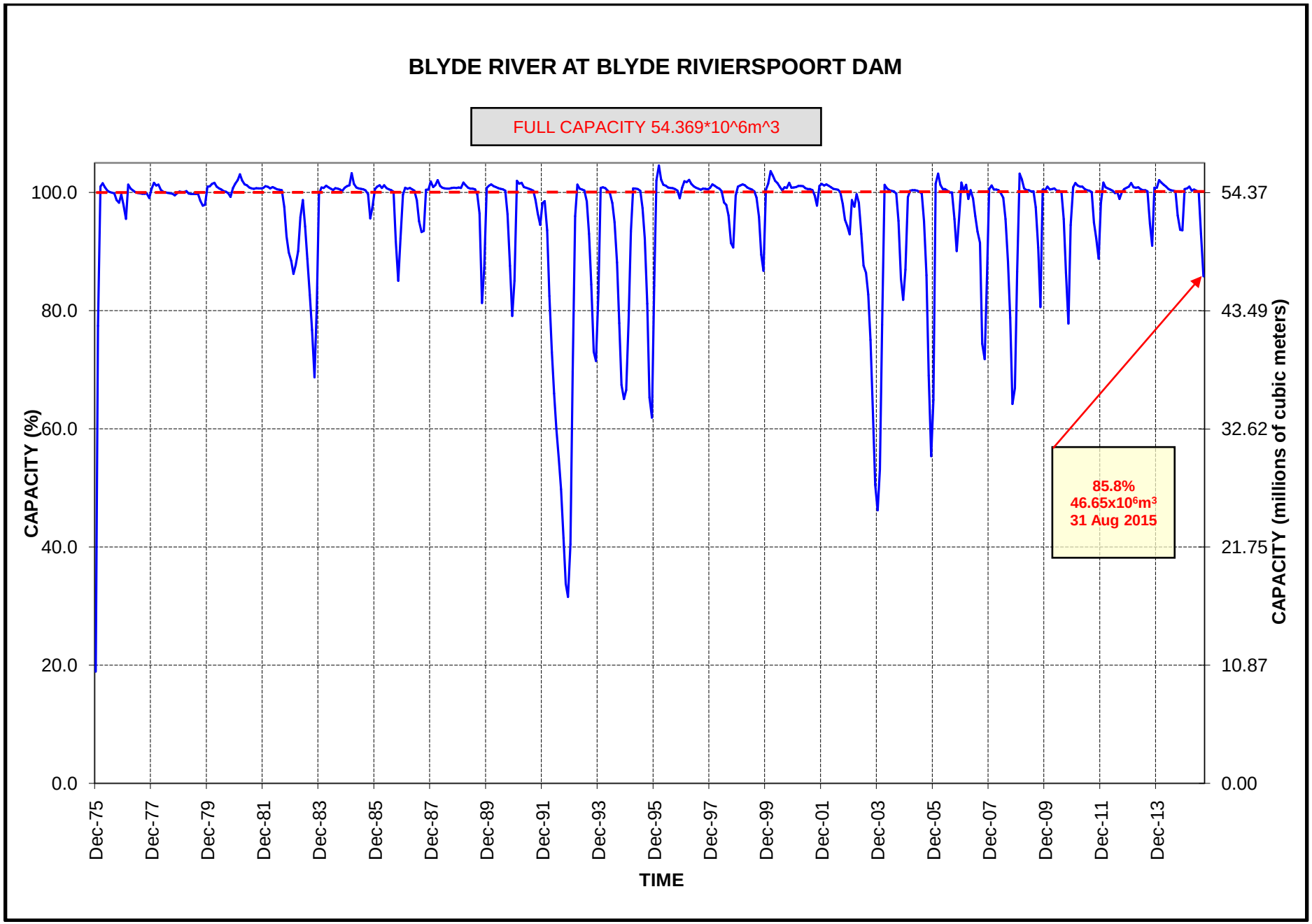

MOLOTOTSI RIVER AT MODJADJI DAM
FULL CAPACITY 7.18 *10^6m^3
Note: Information based on insufficient survey data!
40.8%
2.93x10⁶m³
31 Aug 2015
CAPACITY (%)
CAPACITY (millions of cubic meters)
TIME
100.0
80.0
60.0
40.0
20.0
0.0
7.18
5.74
4.31
2.87
1.44
0.00
Sep-97
Sep-98
Sep-99
Sep-00
Sep-01
Sep-02
Sep-03
Sep-04
Sep-05
Sep-06
Sep-07
Sep-08
Sep-09
Sep-10
Sep-11
Sep-12
Sep-13
Sep-14

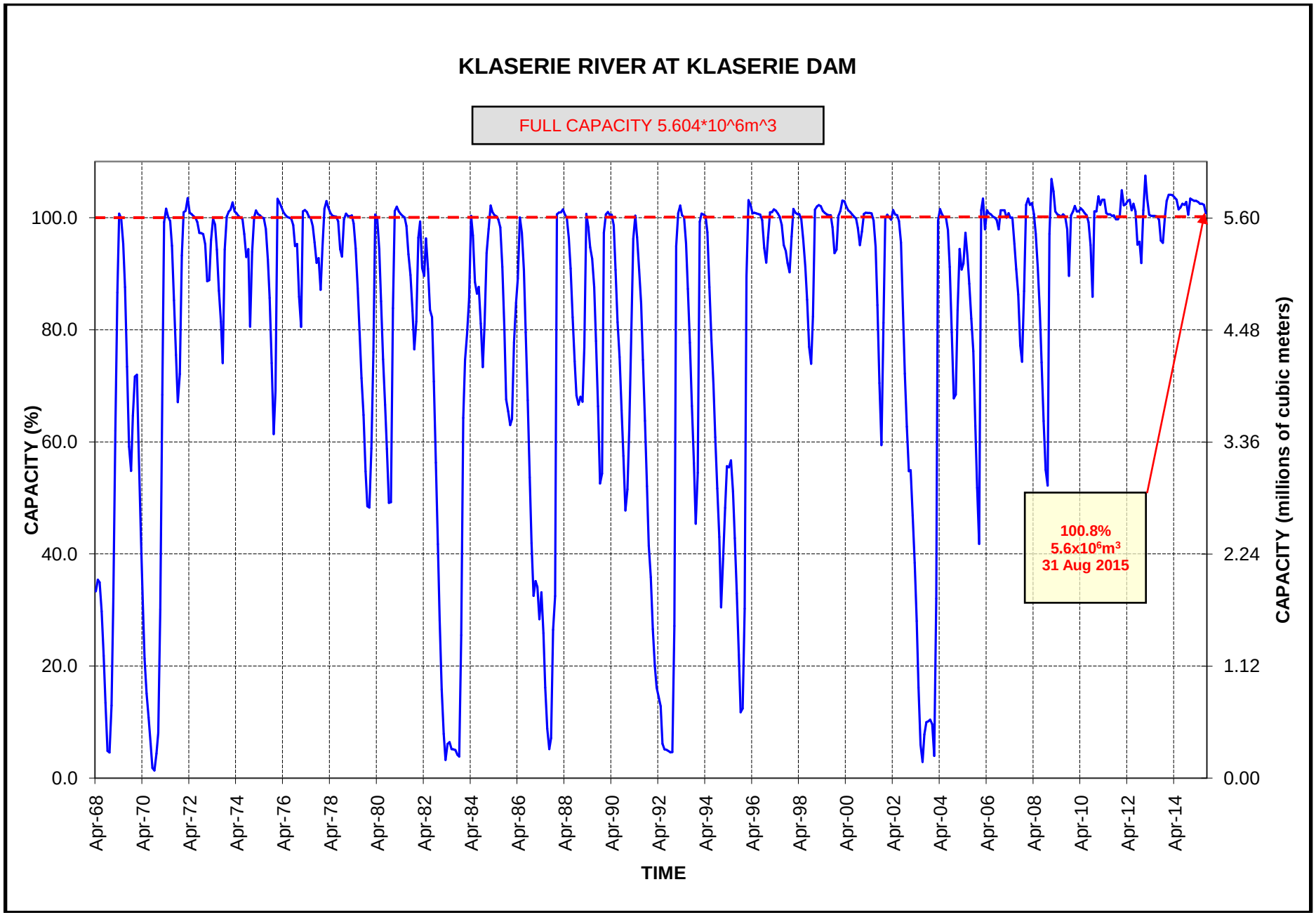

ELANDS RIVER AT RUST DE WINTER DAM
FULL CAPACITY 28.186*10^6m^3
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
28.18
22.54
16.91
11.27
5.64
0.00
CAPACITY (million of cubic meters)
79%
22.27x10^6m^3
31 Aug 2015
Dec-33
Dec-38
Dec-43
Dec-48
Dec-53
Dec-58
Dec-63
Dec-68
Dec-73
Dec-78
Dec-83
Dec-88
Dec-93
Dec-98
Dec-03
Dec-08
Dec-13
TIME

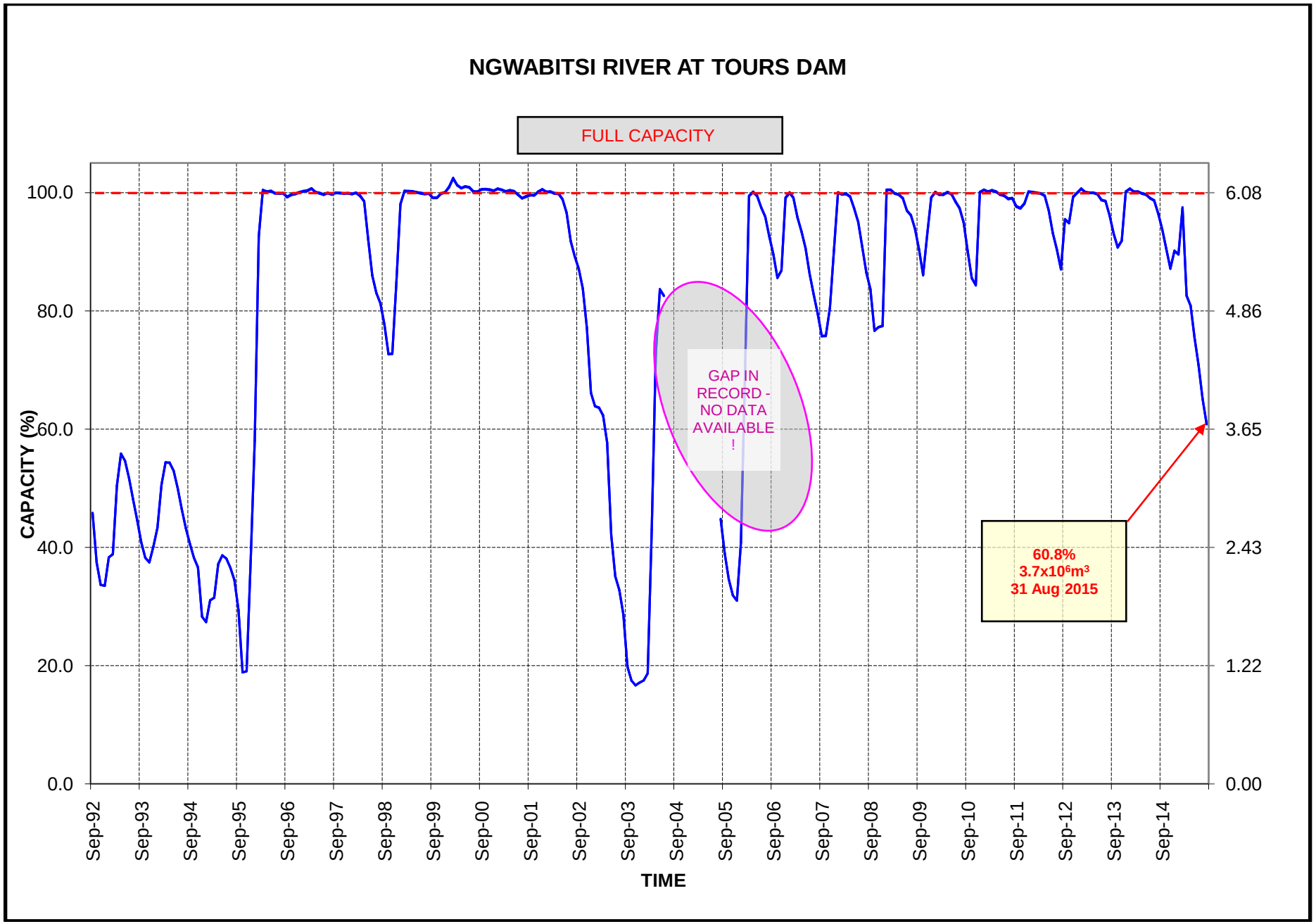

OLIFANTS RIVER AT LOSKOP DAM
FULL CAPACITY
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
361.51
289.21
216.91
144.60
72.30
0.00
CAPACITY (million of cubic meters)
83.5%
301.9x10⁶m³
31 Aug 2015
Dec-1978
Dec-1980
Dec-1982
Dec-1984
Dec-1986
Dec-1988
Dec-1990
Dec-1992
Dec-1994
Dec-1996
Dec-1998
Dec-2000
Dec-2002
Dec-2004
Dec-2006
Dec-2008
Dec-2010
Dec-2012
Dec-2014
TIME

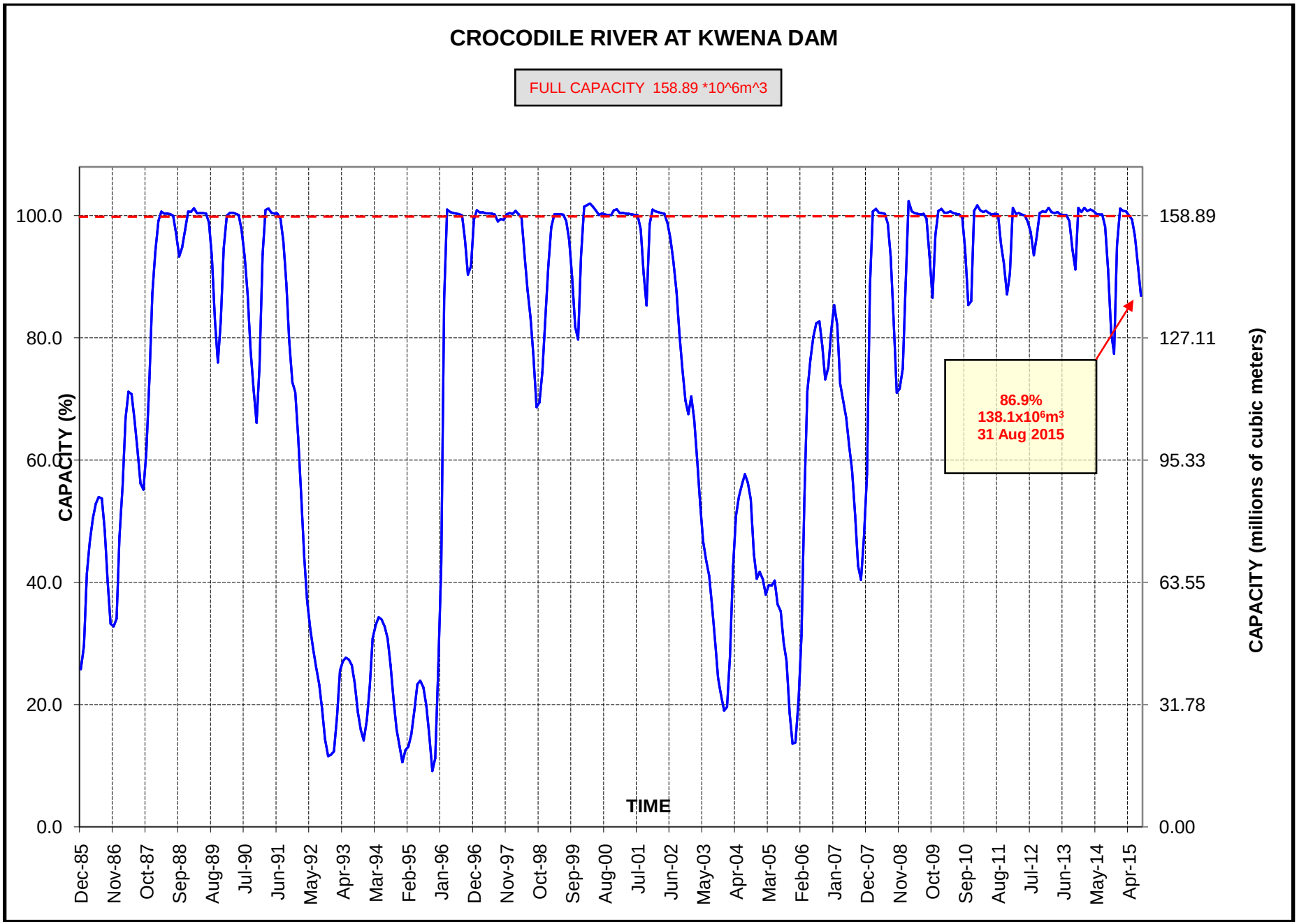

OLIFANTS RIVER AT FLAG BOSHIELO DAM
FULL CAPACITY 185.13*10^6m^3
DAM WALL RAISED DURING 2006!
DAM CAPACITY INCREASED FROM
98.99x10⁶m³ TO 183.25x106m3
72.4%
134.03x10⁶m³
31 Aug 2015
CAPACITY (%)
CAPACITY (million of cubic meters)
TIME
120.0
100.0
80.0
60.0
40.0
20.0
0.0
222.15
185.13
148.10
111.08
74.05
37.03
0.00
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02
Jan-03
Jan-04
Jan-05
Jan-06
Jan-07
Jan-08
Jan-09
Jan-10
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15

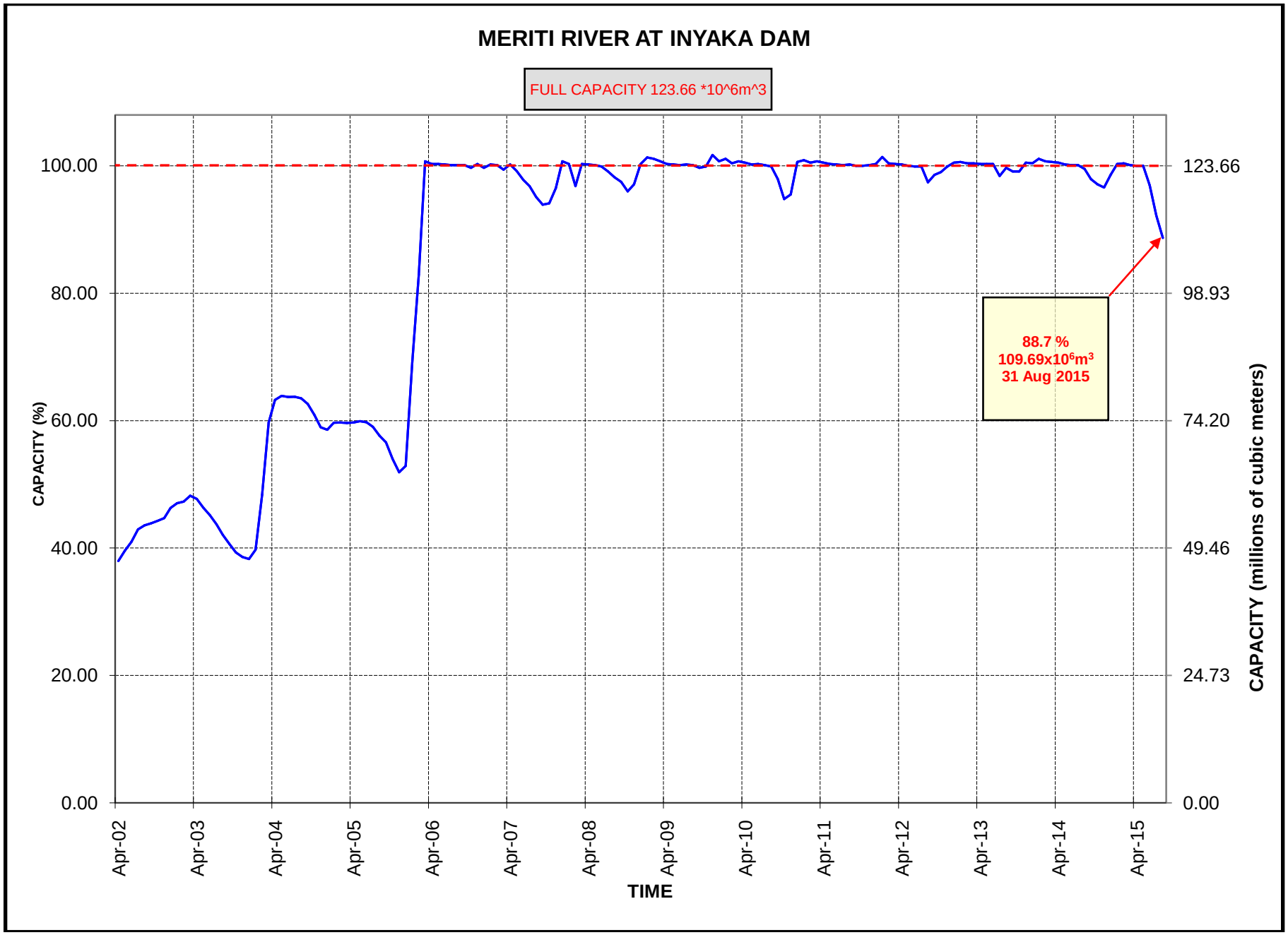

OHRIGSTAD RIVER AT OHRIGSTAD DAM
FULL CAPACITY 13.45*10^6m^3
100.0
80.0
60.0
40.0
20.0
0.0
13.45
10.76
8.07
5.38
2.69
0.00
CAPACITY (%)
May-56
May-61
May-66
May-71
May-76
May-81
May-86
May-91
May-96
May-01
May-06
May-11
TIME
31.6%
4.25x10^6m^3
31 Aug 2015


BLYDE RIVER AT BLYDE RIVIERSPOORT DAM
FULL CAPACITY 54.369*10^6m^3
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
54.37
43.49
32.62
21.75
10.87
0.00
CAPACITY (millions of cubic meters)
85.8%
46.65x10^6m^3
31 Aug 2015
Dec-75
Dec-77
Dec-79
Dec-81
Dec-83
Dec-85
Dec-87
Dec-89
Dec-91
Dec-93
Dec-95
Dec-97
Dec-99
Dec-01
Dec-03
Dec-05
Dec-07
Dec-09
Dec-11
Dec-13
TIME


KLASERIE RIVER AT KLASERIE DAM
FULL CAPACITY 5.604*10^6m^3
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
5.60
4.48
3.36
2.24
1.12
0.00
CAPACITY (millions of cubic meters)
100.8%
5.6x10^6m^3
31 Aug 2015
Apr-68
Apr-70
Apr-72
Apr-74
Apr-76
Apr-78
Apr-80
Apr-82
Apr-84
Apr-86
Apr-88
Apr-90
Apr-92
Apr-94
Apr-96
Apr-98
Apr-00
Apr-02
Apr-04
Apr-06
Apr-08
Apr-10
Apr-12
Apr-14
TIME


NGWABITSI RIVER AT TOURS DAM
FULL CAPACITY
CAPACITY (%)
100.0
80.0
60.0
40.0
20.0
0.0
6.08
4.86
3.65
2.43
1.22
0.00
GAP IN RECORD - NO DATA AVAILABLE !
60.8%
3.7x10⁶m³
31 Aug 2015
Sep-92
Sep-93
Sep-94
Sep-95
Sep-96
Sep-97
Sep-98
Sep-99
Sep-00
Sep-01
Sep-02
Sep-03
Sep-04
Sep-05
Sep-06
Sep-07
Sep-08
Sep-09
Sep-10
Sep-11
Sep-12
Sep-13
Sep-14
TIME


CROCODILE RIVER AT KWENA DAM
FULL CAPACITY 158.89 *10^6m^3
CAPACITY (%)
CAPACITY (millions of cubic meters)
TIME
100.0
80.0
60.0
40.0
20.0
0.0
158.89
127.11
95.33
63.55
31.78
0.00
86.9%
138.1x10⁶m³
31 Aug 2015
Dec-85
Nov-86
Oct-87
Sep-88
Aug-89
Jul-90
Jun-91
May-92
Apr-93
Mar-94
Feb-95
Jan-96
Dec-96
Nov-97
Oct-98
Sep-99
Aug-00
Jul-01
Jun-02
May-03
Apr-04
Mar-05
Feb-06
Jan-07
Dec-07
Nov-08
Oct-09
Sep-10
Aug-11
Jul-12
Jun-13
May-14
Apr-15


MERITI RIVER AT INYAKA DAM
FULL CAPACITY 123.66 *10^6m^3
100.00
80.00
60.00
40.00
20.00
0.00
CAPACITY (%)
123.66
98.93
74.20
49.46
24.73
0.00
CAPACITY (millions of cubic meters)
88.7 %
109.69x10^6m^3
31 Aug 2015
Apr-02
Apr-03
Apr-04
Apr-05
Apr-06
Apr-07
Apr-08
Apr-09
Apr-10
Apr-11
Apr-12
Apr-13
Apr-14
Apr-15
TIME