Murray Darling Basin Plan
Inquiry: Five-year assessment
Submission

Accounting of water

I believe that the accounting for water in the system is simply not through enough and with current technology it is possible to establish a central data base that can monitor the volume of water in the basin on a live basis.

All water should be accounted for that is present between the **ridge lines** of each valley.

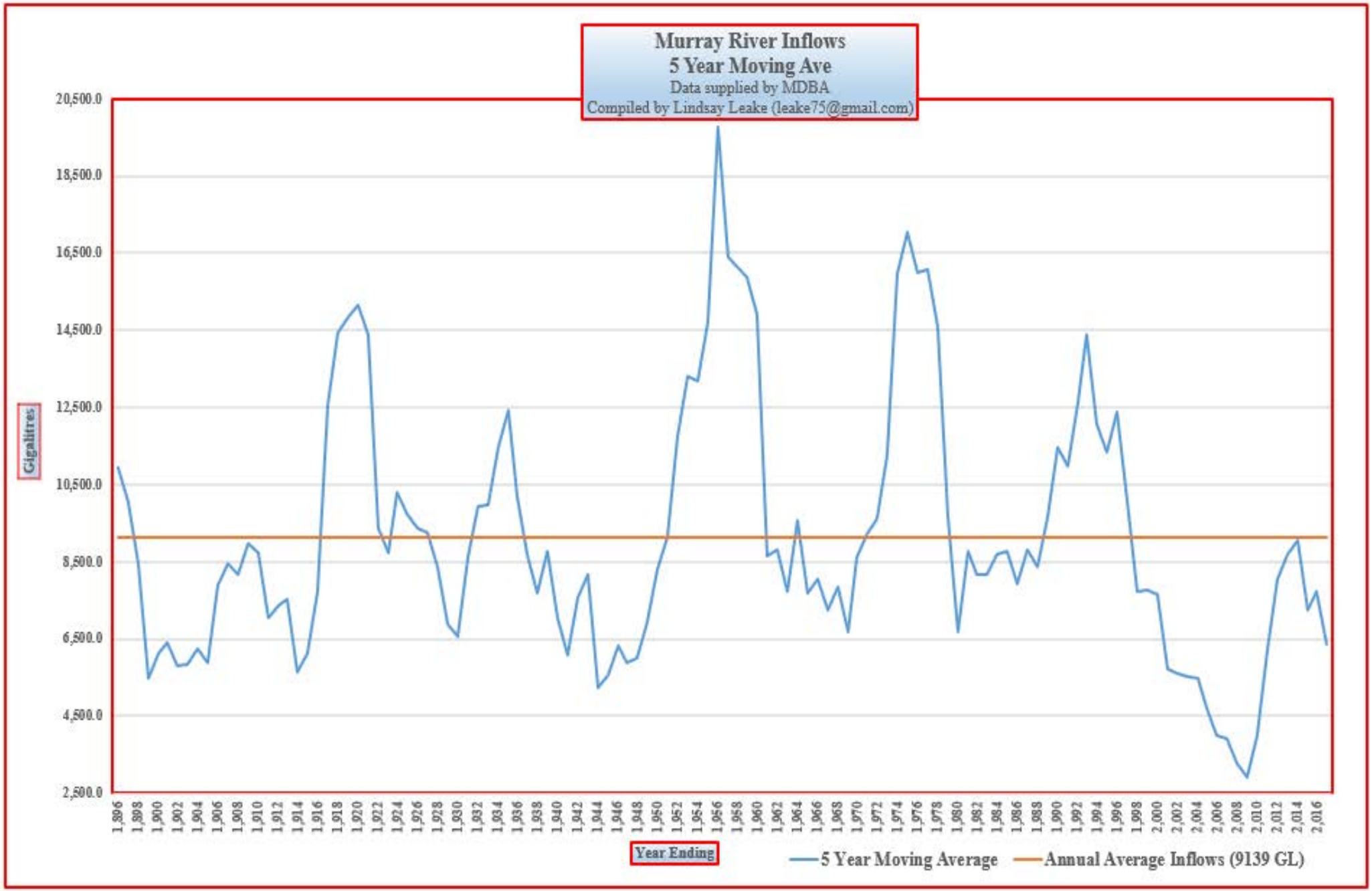
That water should include all flows including, overland flows, subsurface flows as well as main channel flows, as in the end they are all interconnected.

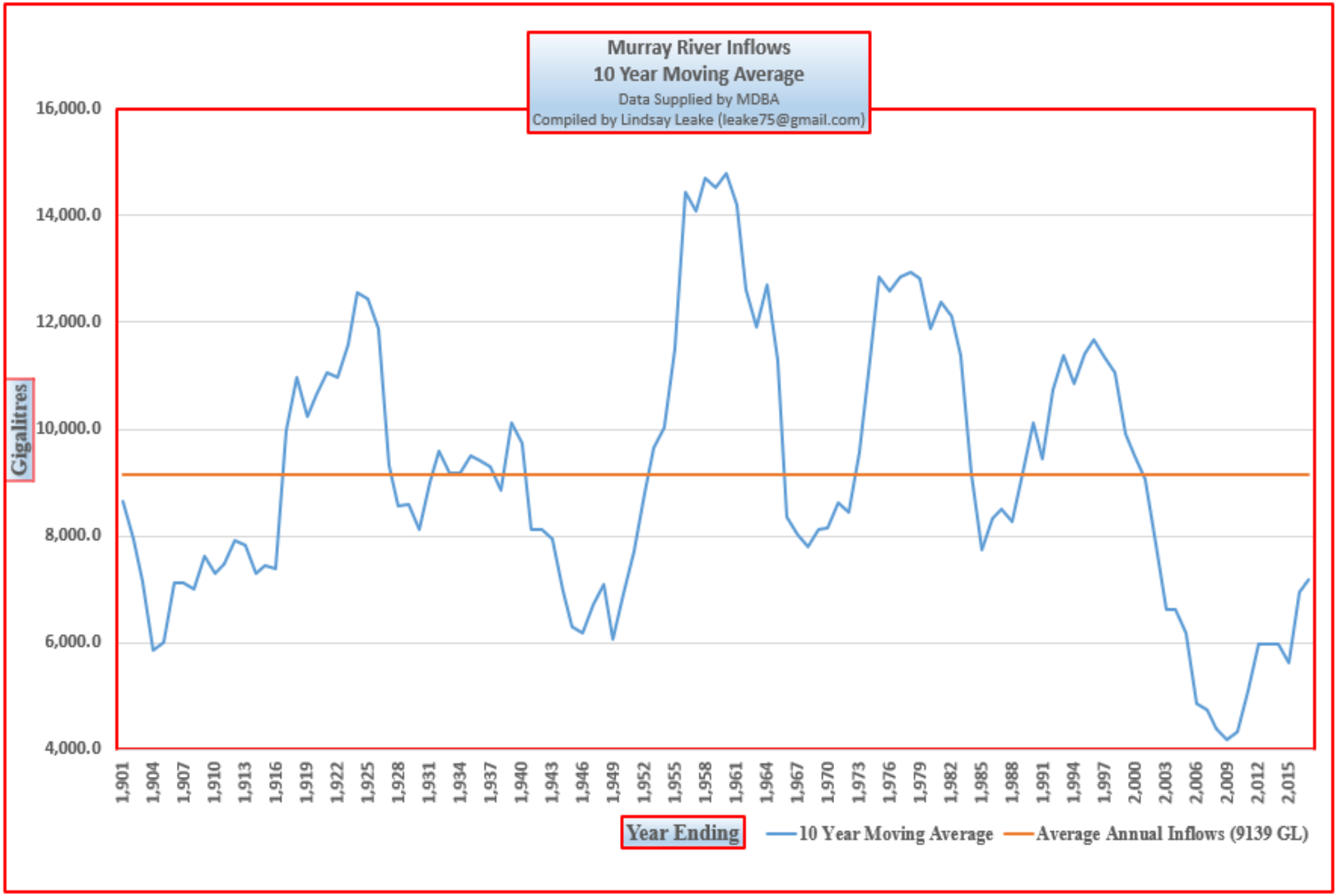
I therefore believe that;

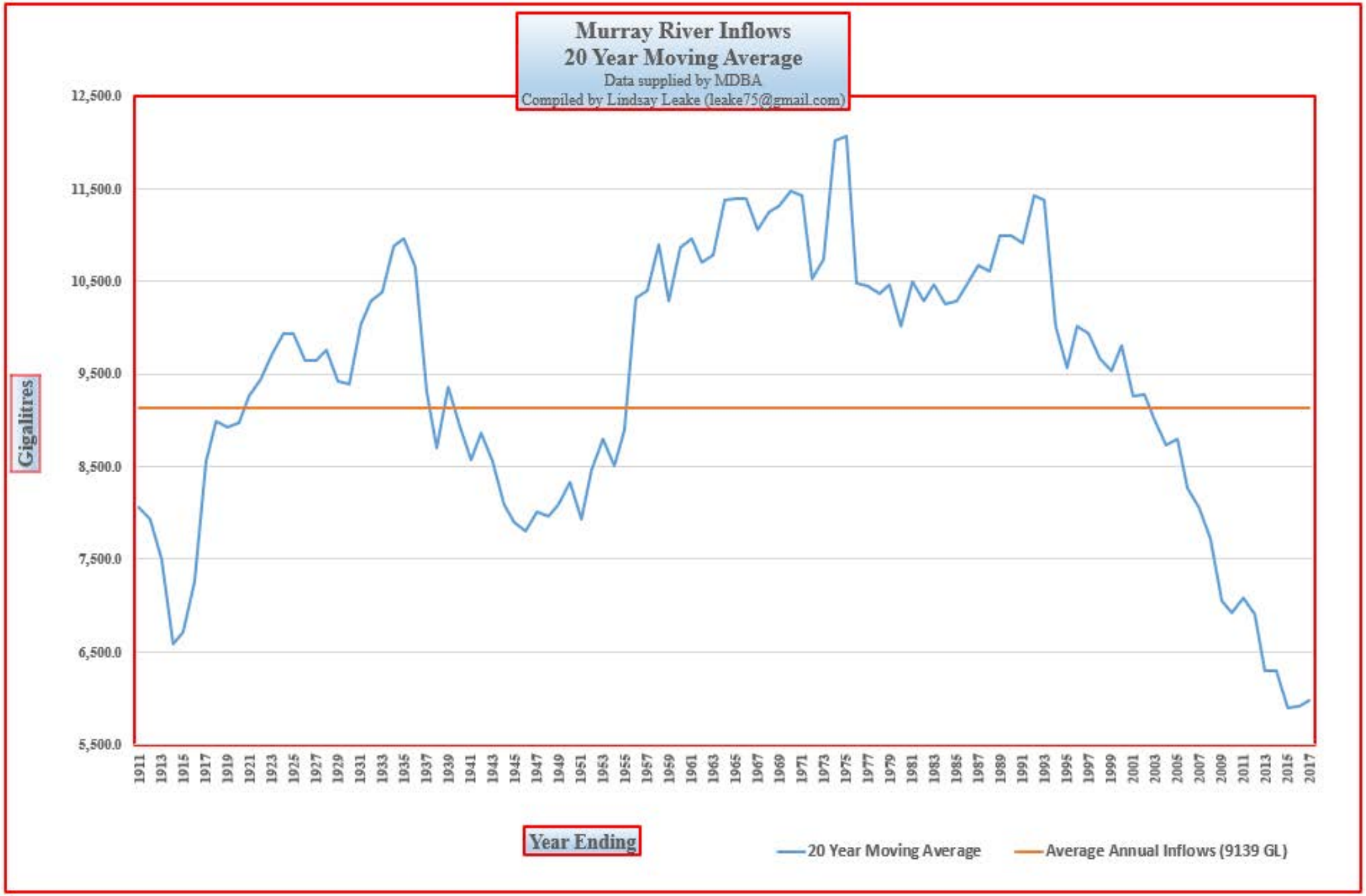
1. A central data base be established for all AUSTRALIAN rivers. (It would not be hard to set up a code to identify where the water originates and where it is extracted)
    a. That data base record
        i. All flows in those rivers
        ii. All extractions
        iii. All licences
        iv. Have trading facilities so that registered persons/entities are able to trade licences electronically (like share trading)
    b. All streams should have monitors at regular intervals
    c. All pumps should have meters and those meters should be at source of extraction; i.e. on the river.
    d. All sensors should take readings at 15-minute intervals
    e. All readings should be transmitted to the central data base.
    f. All interested parties to have access to **all** offers to buy and sell.
2. The data base to be monitored for;
    a. Actual Readings (when a reading is not received on time an immediate notice (electronically) be sent to the extractor and the local authority demanding that the problem be fixed immediately.
3. Local water authorities e.g. Lower Murray Water.
    a. Not be involved in recording,
    b. Their customers to be connected direct to central data base.
    c. Water authorities to have access to data for their districts.
    d. Water authorities and extractor to be advised (electronically) when an irrigator exceeds their licence volume.

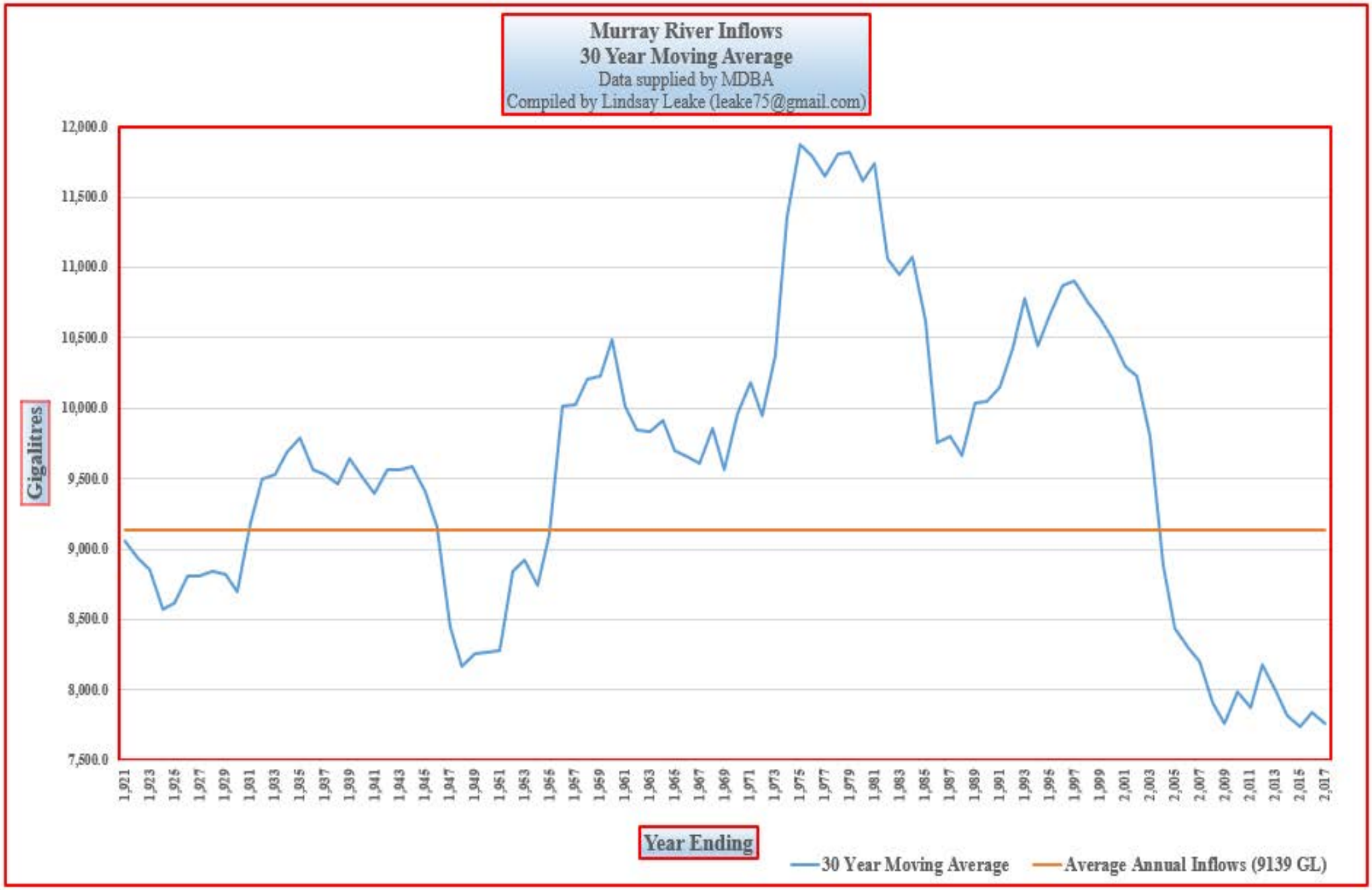
Inflows into the Murray-Graphs showing moving averages

The data used was supplied by MDBA, these graphs show a serious shortfall in recent years which should give people plenty of worry about the future and the ability of the river to provide all the water people are expecting under current plans.


Murray River Inflows
5 Year Moving Ave
Data supplied by MDBA
Compiled by Lindsay Leake (leake75@gmail.com)
Gigalitres
20,500.0
18,500.0
16,500.0
14,500.0
12,500.0
10,500.0
8,500.0
6,500.0
4,500.0
2,500.0
1,896 1,898 1,900 1,902 1,904 1,906 1,908 1,910 1,912 1,914 1,916 1,918 1,920 1,922 1,924 1,926 1,928 1,930 1,932 1,934 1,936 1,938 1,940 1,942 1,944 1,946 1,948 1,950 1,952 1,954 1,956 1,958 1,960 1,962 1,964 1,966 1,968 1,970 1,972 1,974 1,976 1,978 1,980 1,982 1,984 1,986 1,988 1,990 1,992 1,994 1,996 1,998 2,000 2,002 2,004 2,006 2,008 2,010 2,012 2,014 2,016
Year Ending
5 Year Moving Average
Annual Average Inflows (9139 GL)


Murray River Inflows
10 Year Moving Average
Data Supplied by MDBA
Compiled by Lindsay Leake (leake75@gmail.com)
Gigalitres
16,000.0
14,000.0
12,000.0
10,000.0
8,000.0
6,000.0
4,000.0
1,901
1,904
1,907
1,910
1,913
1,916
1,919
1,922
1,925
1,928
1,931
1,934
1,937
1,940
1,943
1,946
1,949
1,952
1,955
1,958
1,961
1,964
1,967
1,970
1,973
1,976
1,979
1,982
1,985
1,988
1,991
1,994
1,997
2,000
2,003
2,006
2,009
2,012
2,015
Year Ending
10 Year Moving Average
Average Annual Inflows (9139 GL)


Murray River Inflows
20 Year Moving Average
Data supplied by MDBA
Compiled by Lindsay Leake (leake75@gmail.com)
Gigalitres
12,500.0
11,500.0
10,500.0
9,500.0
8,500.0
7,500.0
6,500.0
5,500.0
1911 1913 1915 1917 1919 1921 1923 1925 1927 1929 1931 1933 1935 1937 1939 1941 1943 1945 1947 1949 1951 1953 1955 1957 1959 1961 1963 1965 1967 1969 1971 1973 1975 1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015 2017
Year Ending
20 Year Moving Average
Average Annual Inflows (9139 GL)


Murray River Inflows
30 Year Moving Average
Data supplied by MDBA
Compiled by Lindsay Leake (leake75@gmail.com)
Gigalitres
12,000.0
11,500.0
11,000.0
10,500.0
10,000.0
9,500.0
9,000.0
8,500.0
8,000.0
7,500.0
1,921
1,923
1,925
1,927
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1,937
1,939
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1,943
1,945
1,947
1,949
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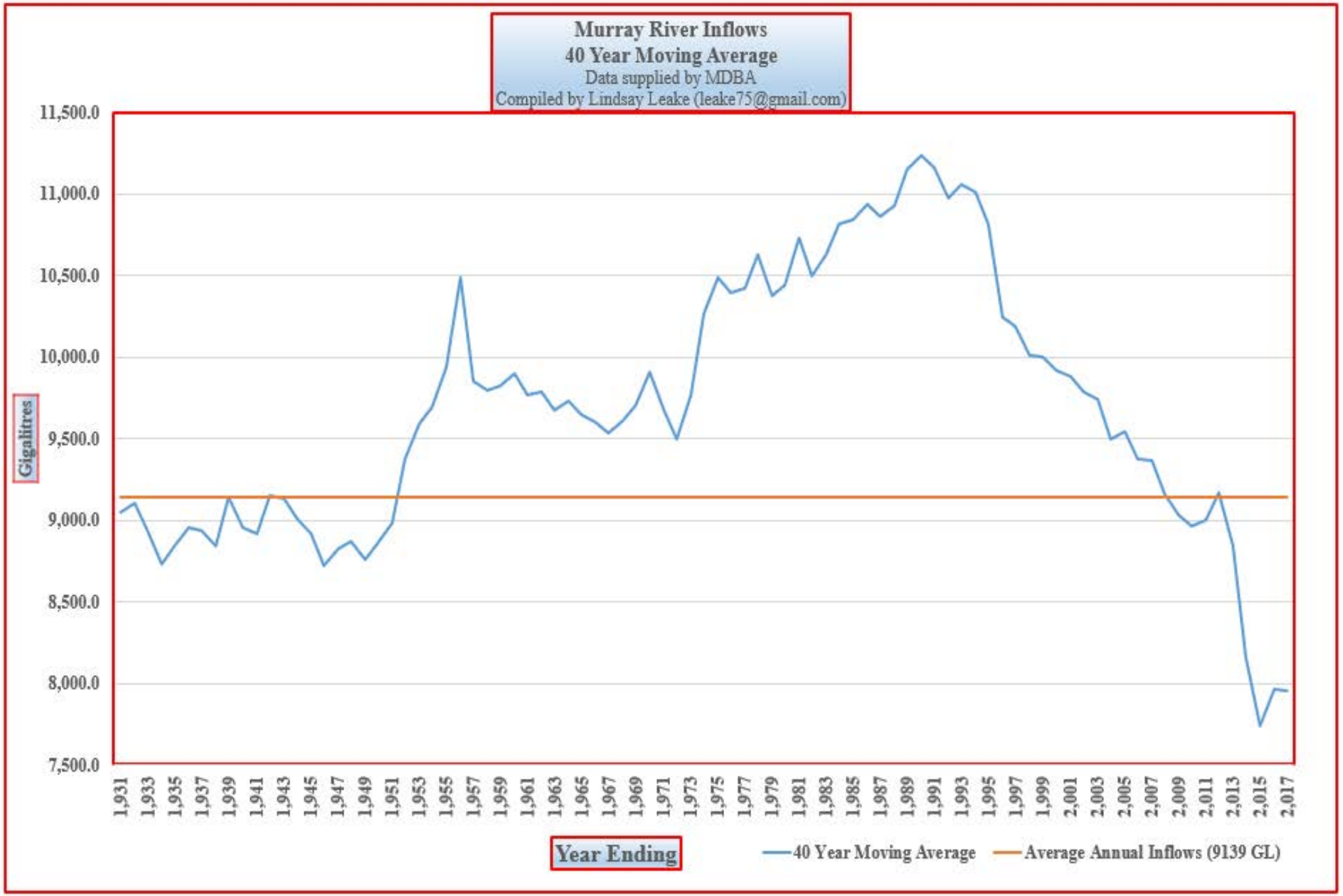
1,975
1,977
1,979
1,981
1,983
1,985
1,987
1,989
1,991
1,993
1,995
1,997
1,999
2,001
2,003
2,005
2,007
2,009
2,011
2,013
2,015
2,017
Year Ending
30 Year Moving Average
Average Annual Inflows (9139 GL)


Murray River Inflows
40 Year Moving Average
Data supplied by MDBA
Compiled by Lindsay Leake (leake75@gmail.com)
11,500.0
11,000.0
10,500.0
10,000.0
9,500.0
9,000.0
8,500.0
8,000.0
7,500.0
Gigalitres
1,931
1,933
1,935
1,937
1,939
1,941
1,943
1,945
1,947
1,949
1,951
1,953
1,955
1,957
1,959
1,961
1,963
1,965
1,967
1,969
1,971
1,973
1,975
1,977
1,979
1,981
1,983
1,985
1,987
1,989
1,991
1,993
1,995
1,997
1,999
2,001
2,003
2,005
2,007
2,009
2,011
2,013
2,015
2,017
Year Ending
40 Year Moving Average
Average Annual Inflows (9139 GL)

Long Term Average 1892-2017			
Gigalitres			
9139.4			
Average Inflow years ending 2017		Shortfall	
5 Years	6343.5	2795.9	30.6%
10 Years	7187.2	1952.2	21.4%
20 Years	5972.6	3166.8	34.6%
30 Years	7765.0	1374.4	15.0%
40 Years	7950.5	1188.9	13.0%

Lindsay Leake